Universal Registration Document 2019

Including annual financial report

ENGIE

summary

Universal Registration Document 2019

Including annual financial report

This Universal Registration Document has been filed on March 18, 2020
with the AMF, as competent authority under Regulation (EU) 2017/1129,
without prior approval pursuant to Article 9 of the said regulation.

The Universal Registration Document may be used for the purposes of an offer to the public
of securities or admission of securities to trading on a regulated market
if completed by a securities note and, if applicable, a summary
and any amendments to the Universal Registration Document.
The whole is approved by the AMF in accordance with Regulation (EU) 2017/1129.

JEAN-PIERRE CLAMADIEU CHAIRMAN OF THE BOARD OF DIRECTORS

Dear Shareholders,

The beginning of 2020 was marked by an important decision for the governance of our Group. In order to engage a new stage at the company, the Board of Directors decided on February 6, 2020 not to propose the reappointment of Isabelle Kocher, whose term as director was coming to an end at the next General Shareholders' Meeting. Her duties as Chief Executive Officer and Director ended on February 24, 2020.

As CEO, Isabelle Kocher led the Group, our teams, and our stakeholders on a path of transformation. We are pursuing our goal to make ENGIE a leader in the energy and climate transition, with the aim of increasing its selectivity, simplifying its processes and accelerating its development. To lead us through this new path forward, we will conduct an extensive search to find the Group's next leader, with the support of the Appointments, Compensation and Governance Committee chaired by Françoise Malrieu. Our search process will meet the best standards of governance.

In order to ensure managerial continuity during this period, the Board of Directors decided that the operational management of the Group would be taken up by three experienced executive managers: Paulo Almirante, Chief Operating Officer, Judith Hartmann, Chief Financial Officer, and Claire Waysand, General Secretary, who was also appointed interim Chief Executive Officer. The Board of Directors asked me to support Paulo, Judith and Claire during these few months, within the boundaries of my non-executive role. I have been in favor of the separation of duties between Chairman and CEO for several years and it sounded better to us not to change it, even if only temporarily. The Board of Directors and myself are confident in their ability to manage the company and ensure this transition period is successful. I want to thank them, the other members of the Executive Committee and all Group employees for their unwavering commitment.

Maintaining this strong level of commitment within the Group's teams is the executive management team's top priority. Our teams' expertise and skills, as well as their ability to

> WE ARE PURSUING OUR GOAL TO MAKE ENGIE A LEADER IN THE ENERGY AND CLIMATE TRANSITION.

understand and respond to our customers' needs, are key to the future of our Group.

The second priority during this period is to meet the operational and financial performance objectives that we set as part of the three-year strategic plan presented in February 2019, in a much more difficult context created by the recent global health crisis. Two keywords will serve as guidance: first, the simplification of our organization and the way we work to increase agility and efficiency; second, the identification of clearly expressed priorities to ensure better allocation of our human and financial resources. In an increasingly complex world, this search for clarity and ease of understanding should be a constant drive.

The Group will have to clarify and strengthen its business model. To do so, we need to resolutely develop our customer solutions businesses to make them a more profitable and sustainable growth engine. We also need to develop our work in the field of renewable energies, which is experiencing very strong growth. We must also highlight our history and our know-how as an infrastructure operator, mainly for gas, and as a power producer using mainly nuclear and gas, and demonstrate how these activities are part of the fight against climate change. This is the roadmap that the executive management team will have to draw and implement.

To achieve this goal, the Group can leverage its good results from the 2019 fiscal year, which were driven by the return to normal operations of our Belgian nuclear power plants and the performance of our energy management activities. The Group reported revenues of €60.1 billion (+4.1%), current operating income of €5.7 billion (+14.4%), and net recurring income, Group share of €2.7 billion (+11.1%[1]).

Since these results were published, the coronavirus epidemic has been progressing at an unprecedented rate, and its effect is still uncertain at this stage. The Group is fully committed to managing this crisis; it is being monitored in real time, and detailed action plans are being updated continuously. Our absolute priority is the health of our employees, subcontractors and customers. We must also ensure the continuity of service for our operations, particularly our critical ones, and we are, of course, looking to anticipate and limit the financial impacts of this highly exceptional situation.

Looking forward, teams can use the Group's purpose statement to drive their actions. The Group's purpose statement will be proposed for inclusion in our bylaws at the next General Shareholders' Meeting. It reads: "*ENGIE's purpose is to act to accelerate the transition towards a carbon-neutral economy, through reduced energy consumption and more environmentally-friendly solutions. The purpose brings together the company, its employees, its clients and its shareholders, and reconciles economic performance with a positive impact on people and the planet. ENGIE's actions are assessed in their entirety and over time.*" ENGIE's purpose statement was created collaboratively through a robust consultative process with the Group's employees, our customers and partners, and more generally all our stakeholders, including you, dear Shareholders. This dialogue revealed a strong expectation that the purpose statement will be translated into concrete actions to lend it credibility. Our purpose statement must quickly be turned into action!

You can, dear Shareholders, count on the commitment of the Board of Directors and myself to give the Group the means to succeed. 2020 will be a productive year; it will anchor our goal to respond to energy and climate challenges, as well as our positioning as a key player in responsible capitalism.

1 *Organic growth*

Annual Financial Report, Management Report and Board of Directors' Report on corporate governance

This Universal Registration Document includes (i) all the items of the Annual Financial Report mentioned in section I of Article L. 451-1-2 of the French Monetary and Financial Code, and in Article 222-3 of the General Regulations of the Autorité des Marchés Financiers (AMF), the French Financial Markets Authority, (ii) all the mandatory information included in the Management Report of the Board of Directors to the Annual Shareholders' Meeting of May 14, 2020, as stipulated in Articles L. 225-100 of the French Commercial Code, and (iii) all the information included in the Board of Directors' Report on corporate governance as provided for in Article L. 225-37 of the French Commercial Code.

Appended to this document is a comparison table between the documents mentioned in these texts and the corresponding headings in this document.

Incorporation by reference

In accordance with Article 28 of European Regulation No. 809/2004 of April 29, 2004, this Universal Registration Document incorporates by reference the following information, to which the reader should refer:

- for the ENGIE fiscal year ended December 31, 2018: the management report, consolidated financial statements prepared according to IFRS and the related Statutory Auditors' report appearing on pages 186 to 204 and 205 to 344 of the Registration Document filed with the AMF on March 23, 2019 under number D. 19-0177;
- for the ENGIE fiscal year ended December 31, 2017: the management report, consolidated financial statements prepared according to IFRS and the related Statutory Auditors' report appearing on pages 186 to 202 and 203 to 340 of the Registration Document filed with the AMF on March 28, 2018 under number D.18-0207;

This information should be read in conjunction with the comparative information as of December 31, 2019.

The information included in these Registration Documents, along with the information mentioned above, is replaced or updated, as necessary, by the information included in this Universal Registration Document. These documents are available under the conditions described in Section 7.4 "Documents available to the public" of this Universal Registration Document.

Forward-looking information and market data

This Universal Registration Document contains forward-looking information, particularly in Section 1.1 "Profile, strategy and organization of the Group", Section 1.3 "Description of the Group's activities", and Section 6.1.1.1.2 "Financial targets". This information is not historical data and therefore should not be construed as a guarantee that the events and data mentioned will occur or that the objectives will be achieved, since these are by nature subject to unpredictable events and external factors, such especially as those described in Chapter 2 "Risk factors and control".

Unless otherwise stated, the market data appearing in this Universal Registration Document comes from internal estimates by ENGIE based on publicly available data.

Note

In this Universal Registration Document, the terms "ENGIE," the "Company," the "Issuer," and the "Enterprise" refer to ENGIE. The term "Group" refers to ENGIE and its subsidiaries.

A list of units of measurement, abbreviations and acronyms and a glossary of the most frequently used technical terms are featured in Chapter 7 of this Universal Registration Document.

Copies of this Universal Registration Document are available at no cost on the Company website (engie.com), on the website of the AMF (amf-france.org), as well as from ENGIE, 1 place Samuel de Champlain, 92400 Courbevoie (France).

1

Presentation of the Group

1.1 Profile, strategy and organization of the Group

1.1.1 General presentation

"*ENGIE's purpose ("raison d'être") is to act to accelerate the transition towards a carbon-neutral economy, through reduced energy consumption and more environmentally-friendly solutions. The purpose brings together the company, its employees, its clients and its shareholders, and reconciles economic performance with a positive impact on people and the planet. ENGIE's actions are assessed in their entirety and over time*".

ENGIE is a global leader in client S

colutions and complex, low-carbon infrastructure. To respond to the climate emergency, its ambition is to become the world leader in the carbon-neutral transition for businesses and local authorities.

The Group relies on its key businesses (Renewables, gas and Client Solutions) to offer competitive, high valued-added turnkey solutions as a service.

Decarbonization and digitization are continuing, while decentralization is accelerating: local authorities and companies must now respond to climate change and the carbon-neutral imperative. It is a complex challenge requiring cost-efficient investment to improve the performance and quality of life of these stakeholders.

Therefore, energy companies now face a new challenge to support the carbon-neutral transition of their clients without any impact on comfort, productivity and cost.

Electricity production and marketing, as well gas marketing, are business sectors that are largely open to competition in Europe. However, they are still regulated differently according to the country, particularly with regard to residential energy prices. Activities that constitute natural monopolies – such as the transmission and distribution of electricity and, to a large extent, of gas – are more tightly controlled by national regulators and European rules.

Elsewhere in the world, with few exceptions, private companies often operate under long-term contracts issued on a tender basis.

ENGIE is a European and global leader [1] in client solutions, low-carbon power generation and gas infrastructures.

- client solutions: ENGIE is the world's largest cooling network operator and fourth largest heating network operator (in TWh). Within Europe, it is the leading supplier of energy services and second largest supplier of installation services. ENGIE is also the world's second largest supplier of charging stations for electric vehicles.

  In terms of new activities, ENGIE has taken a leadership position in new distributed generation segments (second in microgrids and isolated microgrids) and in solar units for industrial and commercial customers.

  ENGIE provides gas and electricity to end customers worlwide wich represents around 21 million contracts. Nearly half of its customers are located outside France.

  In Europe, ENGIE is one of the top gas sellers and importers. In France, ENGIE is the historic leader of gas marketing and the second-largest producer and supplier of electricity. In Belgium, ENGIE, through its subsidiary Electrabel, is the leading producer and supplier of electricity and supplier of natural gas.
- gas networks: the Group is the leading gas infrastructure operator in Europe with a portfolio that includes transmission network, distribution networks, and LNG storage and terminals;
- low-carbon power generation and gas and electricity supply: ENGIE is the second-largest hydropower operator in France and the number one wind and solar energy company in France; one of the nuclear pioneers in Belgium. The Group is one of the leading power producers in Europe. ENGIE is a key player in international tenders, particularly in Latin America and the Middle East, with strong positions in Brazil, Peru, Mexico and Chile.

The Group's website is: www.engie.com. Not all the information available on this website is included in this Universal Registration Document.

(1) *These competitive positions are established on the basis of specialist work within the Group, carried out using available information published by stakeholders or entities providing external analysis (Bloomberg and Global Data).*

1.1.2 History and evolution of the Company

The Company is the result of the merger-absorption of SUEZ by Gaz de France (GdF), following the decisions of the Combined General Shareholders' Meetings of Gaz de France and SUEZ of July 16, 2008. The merger took effect on July 22, 2008.

Initially incorporated in 1946 as an EPIC (French public industrial and commercial enterprise), it became a limited liability company with a 99-year term under Law 2004-803 of August 9, 2004, on the public service of electricity and gas and electricity and gas companies (amending Law 46-628 of April 8, 1946) the provisions of which were aimed at organizing the change in the Company's legal status.

On July 7, 2005, the Company publicly floated its shares on the stock market. The Company's shares, under its former name, Gaz de France, were first listed on July 7, 2005.

Law 2004-803 of August 9, 2004, as amended by Law 2006-1537 of December 7, 2006, governing the energy sector and Decree 2007-1784 of December 19, 2007, authorized the transfer of the Company from the public to the private sector. On July 22, 2008, GdF absorbed SUEZ in a merger which entailed transferring the majority of the Company's share capital to the private sector. The new Company took the name "GDF SUEZ".

SUEZ itself was the result of the merger in 1997 of Compagnie de Suez and Lyonnaise des Eaux. At the time, Compagnie de Suez – which had built and operated the Suez Canal until its nationalization by the Egyptian government in 1956 – was a holding company with diversified investments in Belgium and France, particularly in the finance and energy sectors. Lyonnaise des Eaux was a diversified company specializing in the management and treatment of water, waste, construction, communications and plant and equipment management. SUEZ became an international industrial and services group whose objective was to meet essential requirements in electricity, gas, energy and industry services, water and waste management.

The deregulation of European energy markets in the early 1990s accelerated the international development of both Gaz de France and SUEZ, which progressively expanded their activities beyond their respective traditional markets, both in Europe and internationally.

On February 3, 2011, the Company completed a merger with International Power. In 2012, it reaffirmed its strategy to become a leading player on the global energy market, finalizing the purchase of shares held by the minority shareholders of International Power on June 29, 2012.

The SUEZ Environnement Company shareholders' agreement expired on July 22, 2013, and was not renewed. The cooperation and shared functions agreement and the financing agreement between the Company and SUEZ Environnement Company have also come to an end. The Company now uses the equity method to consolidate SUEZ Environnement Company's activities in its financial statements, rather than full consolidation.

The Company intends to maintain its role as a long-term strategic partner of SUEZ and as its majority shareholder. The guiding principles of the industrial and commercial agreements between the Company and SUEZ Environnement Company were confirmed in January 2013, and formed the basis of a framework agreement between the two companies, similar to an agreement that would have been concluded with a third party outside the Group. These principles relate to reciprocal preference, under market conditions, in purchasing/sales, continuing cooperation in certain industrial activities, development of potential joint commercial offerings and cooperation in sustainable development, innovation and research and development.

In early March 2016, the two companies signed an agreement providing for the contribution by ENGIE to SUEZ of all of the share capital of SUEZ IP, which owns all intellectual property rights related to the SUEZ brand.

On July 29, 2015, the Extraordinary General Shareholders' Meeting approved a change in the Company name, and adopted "ENGIE" as its new legal name.

1.1.3 Strategic priorities

Transformations faced by markets in which the Group is expanding are becoming more and more concrete as the second wave of energy transition is on-going:

- decarbonization and digitization are continuing;
- a second wave in the energy transition is emerging: local authorities and companies must now respond to climate change and the carbon-neutral imperative. In particular, the world's 500 largest corporations are increasingly seeking to design and implement a neutral-carbon strategy requiring sophisticated solutions integrating a variety of services (strategy, design, engineering, energy-efficient asset construction, digital platforms, operations management, financing syndication and outcome assurance).

Over the past three years, the ENGIE Group has undergone a deep transformation, by focusing its development on three core activities: gas, renewable energies and energy efficiency, while firmly positioning itself in innovative activities (green mobility and smart grids in particular). This transformation has allowed ENGIE to return to organic growth and establish itself as a leader in the competitive energy transition.

ENGIE's ambition is to be the world leader in the growing market for integrated carbon-neutral solutions.

During the Capital Markets Day, which took place on February 28, 2019, the Group presented its ambition and strategic objectives for 2019-2021 which are based on three priorities:

- to be the world leader in the growing market for integrated carbon-neutral solutions targeting local authorities and companies.

ENGIE's unique capability to integrate all these solution elements (strategy, design, etc.) to its customers affords the Group a distinctive leadership position in the industry. Especially among Fortune 500 companies, ENGIE is seizing industry leadership with comprehensive 360° programs that cater to these companies with an approach that is strategically focused, cost-efficient and subject to robust performance management;

- to adopt an aligned approach to higher value activity across business lines:
  - in client solutions, accelerating growth across a broadening array of services including on-site co-generation, heating and cooling networks, public lighting, rooftop solar and EV charging stations. In concrete terms, these solutions will include financing the equipment that will be used by companies and local authorities,
  - in renewables, the Group has set a number of goals to achieve by 2021: 50% of new renewable projects will be dedicated to specific customers; the Group will be a leading corporate PPA supplier, especially regarding contracts assuring 24/7 supply; and it will add 9 GW of additional renewable capacities to its portfolio,
  - in infrastructures, the Group will continue to generate attractive returns and substantial cash flow. In France, the next regulatory return review will take effect in 2020, and ENGIE will continue to invest in the sustainability of its gas networks, adapting to future green gas requirements. ENGIE will also actively seek attractive opportunities to invest in the growth and energy transition management of networks in dynamic developing markets,
  - in its other generation businesses, ENGIE will continue to optimize operations, reducing its CO_2 footprint. ENGIE will further narrow its thermal capacity, reducing coal generation and selectively honing gas-fired capacity to customer requirements, including combined technologies such as desalination and co-generation. Nuclear activities in Belgium reached a better of availability. The Group expects this high-level of availability to be confirmed after the 2020 planned outages to finalize works for the long term operation of part of the nuclear power plants until 2025,
  - in Supply, ENGIE is continuing to increase its consumer and business contract base, driven by innovative offers and improving service quality. The profitability of this growing customer base is forecast to be limited by industry margin pressure in the consumer segment, and in this context ENGIE's strategic ambitions in this segment remain limited to the geographic footprint of the Group;
- to leverage key digital technology and financing syndication capabilities:
  - the Group has deployed global digital platforms that strengthen our competitiveness, and will continue to scale up software content in ENGIE's solutions to differentiate us as the leading energy software provider,
  - with an industry-leading flow of customer projects, a strong infrastructure investor relationship network and systematic, proprietary structuring capabilities, ENGIE designs financing syndication as an integrated part of our solutions, optimizing customers' cost of capital and ENGIE's ability to accelerate its growth with lower individual project capital intensity. This model has been utilized over time in ENGIE's thermal and renewables portfolios, and is now be implemented across the Client Solutions and other innovation project pipelines.

The Group adopts selective offer and investment criteria and prioritizes 20 countries, 30 urban areas, in addition to simplifying its financial reporting.

ENGIE applies rigorous strategic and financial investment criteria, and has a clear perspective on attractive investment characteristics. Complex, innovative, integrated, longer-term, outcome-based customer programs are preferred to simple, commoditized, standard fee-for-service business. Investment will be differentiated over distinct time horizons, with consistent hurdles of 200 bps over ENGIE's WACC, and 400 bps over cost of equity.

In a move to sharpen geographic focus and capital allocation, 20 countries and 30 major developing market urban areas have been identified as ENGIE's top investment-led growth priorities, with an objective to build scale, top-3 positions and higher density of operations. ENGIE is also exit approximately 20 countries over the next years in a move to enhance focus and economic returns.

When presenting its 2019 annual results ENGIE updated its financial objectives for the period 2020-2022:

ENGIE expects to invest[1] approximately €10 billion in growth over the 2020-2022 period.

ENGIE intends to invest approximately €10 billion over the 2020-2022 period in growth capital expenditures and tuck-in acquisitions mainly in Client Solutions, Infrastructures and Renewables, while €4 billion of asset disposals are expected over the period.

ENGIE will drive continuing internal cost reduction and improved profitability.

2019-2021 performance program targets are confirmed. This program consists of cost reduction initiatives (spanning procurement, digitalization and shared service centers) and revenue and margin enhancement opportunities stemming from optimization of ENGIE's assets and customer offers. The aggregate operating profit impact of the program is currently targeted at €800 million, with delivery weighted slightly towards 2020 and 2021.

ENGIE's indicative profit growth expectations point to sustained acceleration.

Based on a set of key assumptions (see Section 6.2.2 "Consolidated financial statements – Note 6.1.1.1.2"), the average annual growth rate of net recurring income (Group share) is expected to increase by 6% to 8% and Group EBITDA by an average of 2% to 4% every year between 2019 and 2022. Group current operating income (COI) is expected to increase annually by an average of 4% to 6% over the same period. Indicative business line COI growth expectations for 2020 are as follows:

	12/31/2019 (in EUR million)	COI 2019-2020*	Key drivers
Client solutions	1,090	+	Organic revenues and margin growth, new acquisitions
Networks	2,327	-	Increase from TAG offset by decreases in new remuneration rates
Renewables	1,190	+ +	Hydro volume and prices in France and decision in Brazil on compensation for past losses due to low hydro dispatch. Wind & Solar increase due to DBSO[6] and COD of assets
Thermal	1,260	- -	Scope impact and decreasing spreads
Nuclear	(314)	+	Higher achieved prices, lower volumes
Supply	345	+ +	Positive effect from negative 2019 one-offs and normalized temperatures in 2020

**A single + or - sign accounts for a single digit growth or decrease; double ++ or -- signs account for a double-digit growth or decrease*

ENGIE's financial objective is to offer its shareholders attractive returns while maintaining a solid financial structure and robust cash flow generation (see Section 6.1.1.1.2 "Financial targets").

Group net debt: On 2020 and long-term period, ENGIE forecasts a leverage ratio of below 4.0x economic net debt to EBITDA and targets a "strong investment grade" credit rating.

To become more agile and adapt to the changes in its environment, the Group began implementing an ambitious human resources action plan in 2014.

This involves creating conditions that enable it to deliver its strategy while making individual and collective concerns a central part of its transformation. The action plan was implemented in three strategic areas:

- culture and leadership: decentralized responsibility, innovation and performance;
- the adaptation of skills and Métiers to customer and digital solutions;
- agile organization, project mode and continuous improvement.

Within ENGIE, environmental and societal responsibility plays an integral part in the business strategy, through the development of:

- sustainable business, which involves identifying environmental and societal issues and transforming them into opportunities for the Group's businesses;
- the management of ESG risks, which involves managing the risks associated with the Group's activities and facilities that relate to the environment, local and international acceptability, health and safety, human resources management, ethics and governance.

ENGIE has formalized its commitments primarily through the publication of its environmental and societal responsibility policy in 2014, and in May 2016 announced six new non-financial targets for 2020.

At the beginning of 2020, the Group published new CSR targets that have been included in the Group's new strategy and complement the CSR targets for 2020 (see Section 1.2.2. "CSR indicators").

Against this background of transformation, ethics and the safety of people are core elements of any Group's activity.

Following six months of collaborative work, ENGIE's Board of Directors has approved its purpose statement ("raison d'être") for inclusion in its bylaws at the General Shareholders' Meeting of May (see Section 4.1.2.3 "work of the Board of Directors").

(1) *Net proceeds from partial disposals in DBSO activities, without Synatom financial Capex*

1.1.4 Organization

In response to the challenge of the global energy revolution and in order to get closer to its customers, on January 1, 2016, ENGIE put in place a simplified structure based on a regional and decentralized approach. In 2019, ENGIE was made up of 23 operating entities (Business Units or BUs) [(1)], four Global Business Lines [(2)] and various support and operating functions (see Section 1.1.3 "Description of the Group's activities").

Most of the BUs are constituted to manage operations for a country or group of countries, depending on the density of the activities carried out in the geographical areas concerned. They bring together the Group's activities to meet the expectations of their customers and stakeholders in a given area.

The following were therefore created:

- 11 geographical BUs, in Europe and worldwide (Africa; North America; Latin America; Asia Pacific; Benelux; Brazil; China; North, South and Eastern Europe; Middle East, South and Central Asia, and Turkey; UK and Generation Europe) responsible for the central management of all Group activities within their region;
- France has a special structure, given its size and the presence of regulated entities. It has eight BUs, four that specialize in gas infrastructure (transmission, distribution, terminals and storage) and four related to the BtoB, BtoC, networks and renewable energy businesses;
- lastly, in addition to the operating entities, there are four global BUs with worldwide scope: Hydrogen; Global Energy Management; Gaztransport & Technigaz (GTT); and Tractebel.

Each of these BUs is represented on the Group Executive Committee by an Executive Vice President, who oversees it.

In addition to this geographical structure, four Global Business Lines were created in April 2019 to support local teams at the BU level and improve cross-functional performance: Client Solutions, Infrastructures, Renewables, and Thermal (see Section 1.3.7 "Description of the Global Business Lines" and 6.2.2 "Consolidated financial statements – Note 6")

The support functions and the operational functions complete the organization. They aim to reinforce the action of the Global Business Lines to develop synergies within the Group and support the BUs.

- the support functions are as follows: General Secretariat; Finance Department; Group Human Resources Department; Group Brand and Communication Department; Global Care Department; Group Digital and IT Department; Corporate Social Responsibility Department; Group Real Estate Department; Risk Management Department; and functional departments reporting directly to the Executive management (Internal Audit Department, France Institutions and Territories Department, and International Department).
- a Global Industrial Hub was created in mid-2019 for maximum interaction between Corporate and the new Global Business Lines. Specifically, four business areas, Strategy, Research and Innovation, Industrial Development, and Purchasing, now fall under the responsibility of an Executive Vice-President. The Global Business Lines, Global Industrial Hub and support functions fall within the scope of Corporate.

In addition, the Global Business Support entity groups together the Group's Shared Service Centers in France and Belgium. It covers seven functional areas: general procurement, IT, finance, human resources, real estate and logistics, information systems, and internal consulting and legal affairs.

In January 2020, the Group amended its operational organization with the creation of four new BUs:

- a Nuclear BU in Belgium created from the unbundling of the Benelux BU;
- three BUs linked to Client Solutions (Cities & Communities, Properties & Proximity, and Industries) in France. These three BUs were created from the reorganization of the France BtoB and France Networks BUs.

The Group now comprises 25 operating entities or BUs (see the Group organizational chart below).

The Company operates its own business. At the end of 2018, the number of subsidiaries directly or indirectly controlled by the Company was 3,120. In addition to the lists provided in Section 6.2.2 "Consolidated financial statements – Note 2, Main subsidiaries at December 31, 2019" and Section 6.4.2 "Parent company financial statements – Note 4.4, Subsidiaries and affiliates," a list of subsidiaries can be found on the Group's website (www.engie.com, "Investors" section).

The presentation of the Company's activities and the strategic economic assets of its main subsidiaries as well as their geographical location are presented in Section 1.3 "Description of the Group's activities."

(1) *There is also a twenty-fourth entity comprising the holding and corporate activities, including the entities responsible for the Group's centralized financing, ENGIE SA's Businesses and Local Authorities business activity, and the contribution of the associate company SUEZ.*

(2) *See Section 6.2.2 "Consolidated financial statements – Note 6."*

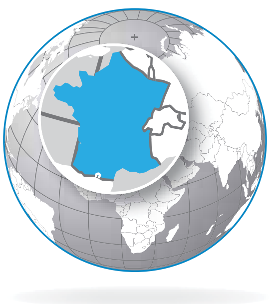
An organization serving its customers and geographical markets

25 Business Units

12 BUs in Europe and worldwide

- Africa
- North America
- Latin America
- Asia Pacific
- Brazil
- Benelux
- China
- North, South and Eastern Europe
- Generation Europe
- Middle East, South and Central Asia, and Turkey
- United Kingdom
- Nuclear [1]

9 BUs in France



- GRDF
- GRTgaz
- Storengy
- Elengy
- Cities and Local Authorities[2]
- Properties and Proximity[2]
- Industry [2]
- France BtoC
- France Renewable

4 global BUs

- Global Energy Management
- Hydrogen
- GTT
- Tractebel

Corporate

4 Global Business Lines

- Client solutions
- Infrastructures
- Renewables
- Thermal Contract Power

Support functions

- General Secretariat
- Finance Department
- Group Human Resources Department
- Corporate Department
- Group Brand and Communication Department
- Global Care Department
- Group Digital and IT Department
- Corporate Social Responsibility Department
- Group Real Estate Department
- Departments reporting to the Chief Executive Officer
  - Internal Audit Department
  - France Institutions and Territories Department
  - International Department

Global Industrial Hub

- Group Strategy Department
- Strategic Innovation and Disruption Department
- ENGIE Research
- ENGIE Fab
- Risk Management Department
- Integration and Knowledge Management Department
- External Relations Department
- Projects Operational Department
- Business Development Oversight
- Taskforce Acceleration Department
- Group Operational Performance Department
- Group Purchasing Department
- Industrial Hub Cockpit

Global Business Support

(1) *Created in early 2020 from the unbundling of the Benelux BU.*

(2) *These three BUs were created in early 2020 from the reorganization of the France BtoB and France Networks BUs.*

1.1.5 Innovation and Research & Technologies

1.1.5.1 Innovation

The Groupe relies on innovation to achieve its ambition of becoming the leader of the carbon-neutral transition and meet its customers' new requirements.

ENGIE Fab is the starting point for innovation, nurturing new business from idea to implementation. ENGIE Fab is organized around three segments: Innovation & Sourcing, ENGIE New Ventures, and ENGIE New Business Factory.

The goal of the Innovation segment is to coordinate the Group's internal and external innovation ecosystems to facilitate collaboration between our entities, customers, partners and communities. A number of tools and processes have been deployed to foster entrepreneurial creativity and ensure that innovation promotes the Group's long-term commercial development.

The Innovation Awards, held annually, recognize innovative projects put forward by the Group's employees. The 2019 edition of the Innovation Awards received 520 submissions from 48 countries.

To strengthen its links with the innovation ecosystem of its host regions, the Group partners with major innovation-themed events. In 2019, ENGIE participated in the Consumer Electronics Show (CES) in Las Vegas and the Viva Technology trade show in Paris.

Since 2014, ENGIE has launched more than 105 calls for projects aimed at startups. More than 3,000 proposals were received in response to the technological or commercial needs of the Group's operating entities.

The ENGIE New Ventures investment fund has been helping innovative startups since 2014 in order to create strategic opportunities for ENGIE. Valued at €182 million, the fund takes minority stakes in innovative and developing startups related to the Group's future activities and offers them a dual benefit: financial support on the one hand, and strategic assistance (strategic partnerships, access to markets, etc.) on the other. It also invests in other funds (e.g. in the Paris Fonds Vert fund in 2018).

As of December 31, 2019, the ENGIE New Ventures portfolio had 20 direct investments in startups, the most recent of which are in French startup Lancey Energy Storage (smart connected electric heaters) and UK startup VYN (a support platform for facilities maintenance).

ENGIE New Business Factory was created in mid-2018 with the aim of incubating and accelerating new businesses every year, in order to produce solutions with the potential to become major new income streams for ENGIE ("scalutions", or scalable solutions). The first three projects, primarily deployed across the Group's markets, are DERMS (Decentralized Energy Management Systems), TEO (blockchain solution for authenticating energy from renewable sources), and Clean Cooking (sale of the first 600 units of LPG pay-as-you-go cookers in Africa, providing individuals with a clean, affordable cooking option).

These projects are on track to achieve their goals, and ENGIE New Business Factory is preparing to submit three further projects which will be commissioned by the end of 2020.

1.1.5.2 Research & Technologies

In a time of energy transition, research and technological development activities lay the groundwork for the Group's future by strengthening its ability to identify, evaluate and test new technologies and business models to validate safe and efficient solutions that will be integrated into the offerings of tomorrow. R&D also helps the continuous improvement of operational performance.

These activities, which rely on partnerships with globally recognized organizations (e.g., laboratories, universities, manufacturers and startups), help to integrate the Group within a powerful R&D and innovation ecosystem. This raises its profile in the industry and boosts its growth in the markets.

In 2019, Group expenditures on research and technological development amounted to €189 million.

The Research & Technologies network, which is led and managed ENGIE Research, comprises 900 employees. It includes all Group entities conducting research specific to their fields of activity:

- Research centers:
  - the ENGIE CRIGEN Lab (specializing in research and innovation in natural gas and new energies),
  - the ENGIE Laborelec Lab (center of excellence specializing in electric power technology research),
  - the ENGIE Cylergie Lab (energy efficiency services and smart energy management).

  These Labs are supplemented by international satellites connecting the Group to highly active local research ecosystems. They include Labs in Singapore (Asia Pacific), Abu Dhabi (Middle East), Santiago (Latin America), Shanghai (China), and Florianópolis (Brazil);
- Centers of expertise and engineering: the ENGIE EPS R&D Center, and ENGIE Tractebel;
- BUs and subsidiaries that conduct additional research to support their activities, such as the France BtoB BU, GRTgaz, GRDF, Storengy (GeoEnergy Lab), Compagnie Nationale du Rhône (CNR), and Gaz Transport & Technigaz (GTT).

Cross-disciplinary expertise spread across various research and technological development entities around the world is grouped into 22 thematic Labs corresponding to the Group's major research areas related to its business challenges: new energy sources, new energy uses, digital and support technologies.

Below is a list of some of the most notable research work carried out in 2019 by these Labs:

- New energy sources:
  - new technologies for biogas production: finalization and testing of digital optimization tools that will be strengthened and scaled up in 2020 (MAPPED, to increase the production of biogas to increase the production of biogas from methanization from 5% to 15%, and WEBio to locate and characterize a region's biomass); launch of the engineering phase of the PICACHAUX project, an innovative technology for reducing biomethane purification costs by 30%; successful testing on the GAYA platform of gasification for 2G biogas production in preparation for the Industrialization of this technology-based segment,
  - hydrogen energy sector: continued assessment of high-temperature electrolyzer technologies, primarily with the award of the FCH-JU project for the installation/operation of a SUNFIRE electrolyzer in a refinery, the launch and coordination of the H2020 C2FUEL project aimed at exploring the potential of using green hydrogen for industrial CO_2 recovery in Dunkirk (France), the HYCAUNAIS (Power-to-Gas) project in France for combining CO_2 from waste recovery and green hydrogen in a biological digester to produce synthetic methane for injection into the distribution network. For its part, the GHRYD demonstrator has reached up to 20% of green hydrogen

injection levels in the gas distribution network in Dunkirk (France),

- liquefaction: start of the scaling-up and commercial deployment phase of a biogas liquefaction technology ("Azola," awarded the innovation prize by L'Industrie magazine and the Expo Biogaz 2019 exhibition) and finalization of the development of the smart gauge digital solution (algorithm including LNG thermodynamic models) to assess the composition, HHV and methane index of LNG of LNG-powered vessels in real time,
- solar energy: official opening and commissioning in El Aguila (Chile) of second-generation bifacial photovoltaic panels; continuation of trials and comparisons of different technologies at the Laborelec site; establishment of an industrial partnership with ATAMOSTEC aimed at developing PV technology and certification in desert conditions,
- wind and marine energy: continued research into "Airborne Wind" technology; implementation of a pilot program in Belgium for testing various technologies for bats detection and deterring; identification of potential recycling options for wind turbine blades,
- geothermal energy: approval phase of an innovative method of detecting geothermal steam for power generation, successfully tested in Muara Laboh (Indonesia); continuation of a zero-emission geothermal plant pilot project in Castel Nuovo (Italy) that includes the reinjection of non-condensable gases;

- New energy uses:
  - energy management in homes of the future: opening in June 2019 of the "Home Lab" at the Linkebeek site (Belgium) to test new installations for residential energy management solutions and functionalities for real-life testing via the Home Living Lab,
  - energy efficiency of sustainable buildings and cities: development in partnership with commercial real estate company UNIBAIL-RODAMCO of a carbon-neutral offer for the retail sector; deployment of a test bed for characterizing heating and cooling production unique in Europe; development of the BUTTERFLY tool for visualization and smart use of a building's energy data,
  - green mobility: continued development of smart charging and integration of new technologies for smart parking (stationary battery, PV forecasting, etc.) and launch of a European FCH-JU project, PHRYDE, on hydrogen-based mobility for the purpose of developing, testing, and improving fast hydrogen fill-ups for mobility,
  - future industry: development and support for the development of GREENWAY, a methodological tool for providing support services to ENGIE customers as they transition to carbon-neutral; acceleration of technical and digital developments such as digital twins applied to the high-temperature process segment (optimized real-time management of direct-flame industrial furnaces) and low-temperature process segment (applied to predictive maintenance of industrial boilers), mixed reality applied to the 3D simulation process; active participation in the European DESTINY collaborative project involving microwave heating systems in the ceramic and metallurgical industries,
  - energy storage: installation and commissioning – a world first – of a Redox-Flow UET Reflex™ module at Laborelec; installation of an EOS zinc-bromine hybrid battery at the Tubarao site (Brazil),
  - microgrids: continued development of simulators with a focus this year on "on-grid" microgrids with islanding mode; production of a reliable, structured database of electrical charge profiles that will measure technical solutions for smart grids and microgrids,
  - indoor air quality: development and deployment of a technology for continuously measuring trichloramine (world's first patented technology for measuring air quality at swimming pool facilities and winner of the Swimming Pool of Tomorrow Innovation Award); testing of a pilot system for treating discharged trichloramine; creation of an air filtration guide for purchasing departments; testing of new connected air quality sensors,
  - lighting: the continued development of a solution to assess public lighting infrastructure including the monitoring of lighting levels; the identification of the number of lighting points; the locating of defective lighting points,
  - CO_2 emissions and use: participation in the SUNRISE collaborative project for the transition to a circular economy based on solar energy and raw materials available in the atmosphere such as carbon dioxide, oxygen or nitrogen; technical evaluation of the capture of atmospheric CO_2 and CO_2 recovery technologies (CO_2 to methane, CO_2 to methanol, CO_2 to liquid fuel, etc.); participation in the collaborative BioConCO$_2$ project (biological processes for converting CO_2 into chemicals and plastics with high added value),
  - environmental and societal impacts: continued development of methodologies for assessing the environmental and social performance of new energy technologies; development of tools and services for regional modeling (synergies for industrial ecology projects or energy and environmental assessment at the regional level);

- Digital, cross-functional and disruptive technologies:
  - artificial Intelligence (AI): continued research into the field of computer-assisted vision; development of algorithms and support services for detecting anomalies in renewable energy production assets; development of algorithms for detecting underperforming wind (DARWIN, ENGIE Digital) and solar (ENGIE Solar) facilities; application of blockchain technologies for new BtoC business models; development of a methodology for urban area digital interoperability (DATAU),
  - cybersecurity: contribution to the development of an EU-IACS Cybersecurity Certification Framework; study of innovative methods for detecting hacks as quickly as possible and thus reduce risks; continuation of Group developments for an integrated approach to safeguarding community energy systems and microgrids,
  - communicating sensors and nanotechnologies: continued development of new miniaturized connected sensors such as micro-analyzers for measuring the calorific value of gas; prototyping of autonomous, blockchain-ready counting sensors for Guarantee of Origin certificates; production launch of connected ATEX sensors to monitor biogas facilities; or the development of a fall-detection service for the elderly that can be integrated into an e-health offering,
  - robots and drones: development of smart navigation modules with multi-sensor fusion (GPS, stereo cameras and LIDAR); development of indoor inspection (Building Information Modeling or BIM), facilities management or underwater inspection offers,
  - energy system modeling: continued research into energy system optimization (energy-mobility, multi-fluid energy systems, energy-water-resources nexus, complex electrical grids and access to energy); research into synergies with other tools within the Group; development of simulation and optimization tools for integrating available flexibility into a building's electrical systems,
  - 3D printing: ENGIE's powder laboratory awarded Lloyd's Register certification for the 316L stainless steel manufacturing process in the machine installed in Zwijndrecht (Netherlands).

The expertise developed by these thematic Labs in close collaboration with the BUs and leading external partners allows new technologies to be brought to maturity and the integration of the best of them into new high value-added offerings for our customers.

1.1.6 Highlights of 2019

ENGIE continued to pursue its strategic focus on the energy transition in 2019.

In Client Solutions, ENGIE and its partners won commercial contracts for the University of Iowa (United States), government buildings in Ottawa (Canada), a "smart region" around Angers (France) and industrial buildings in Singapore. In addition, ENGIE made several acquisitions including Conti in North America, Otto Industries in Germany and Powerlines in Austria. ENGIE Impact was created to bring large customers with solutions to build their sustainability roadmap and accelerate their energy transition.

In Networks, ENGIE announced on June 13, 2019 that the consortium in which it holds a majority stake completed the acquisition of a 90% shareholding in TAG, the largest gas transmission network owner in Brazil. TAG has a portfolio of long-term contracts providing an attractive earnings stream and improves diversification of ENGIE's geographic footprint in Networks activities. In January 2020, ENGIE also further strengthened its position in Brazil by announcing the acquisition of a project of a 1,800 km power transmission line. Finally, ENGIE gained visibility on the financial outlook of its French gas networks activities with the conclusion of the regulatory reviews between the end of 2019 and the beginning of 2020.

In Renewables, 3.0 GW of renewable capacity was commissioned and the 9 GW commissioning target over 2019-21 is now fully secured. The new joint-venture in Mexico with Tokyo Gas and the strategic partnership signed with Edelweiss Infrastructures Yield in India at the beginning of 2020 demonstrate ENGIE's ability to deploy the DBSO model and attract partners for the development of its portfolio. In addition, ENGIE, along with financial partners, won a bid to acquire a 1.7 GW hydroelectric portfolio from EDP in Portugal. Finally, in January 2020, ENGIE reached an agreement with EDPR for the 50/50 joint-venture in offshore wind to create a global offshore wind player.

In Thermal, ENGIE continued to execute its carbon footprint reduction strategy. Coal now represents approximately 4% of global power generation capacity, following the disposal of its 69.1% stake in Glow in Thailand and Laos (3.2 GW of generation capacity, of which 1.0 GW is coal), that put an end to its participation in coal in the Asia-Pacific region, and the disposal of its German and Dutch coal assets (capacity of 2.3 GW).

In Nuclear, an arrangement on Belgian nuclear provisions was reached reducing uncertainty for all parties regarding the level of provisions and their funding.

1.2 Key figures

1.2.1 Group financial data

In millions of euros	2015	2016	2016 restated (c)	2017	2017 restated (d)	2018	2018 restated (d)	2019
1. Revenues	**69,883**	**66,639**	**64,840**	**65,029**	**59,576**	**60,596**	**56,967**	**60,058**
of which generated outside France	*44,817*	*41,693*	*39,942*	*39,307*	*34,325*	*35,612*	*33,306*	*35,835*
2. Income								
• EBITDA	11,262	10,689	9,491	9,316	9,199	9,236	9,236	10,366
• Current operating income (e)	6,326	6,172	5,636	5,273	5,172	5,126	5,126	5,726
• Net income, Group share	(4,617)	(415)	(415)	1,423	1,320	1,033	1,033	984
• Net recurring income, Group share	2,588	2,477	2,477	2,662	2,518	2,425	2,425	2,683
Net recurring income from continuing operations, Group share	2,588	2,477	2,430	2,372	2,233	2,458	2,458	2,683
3. Cash flow								
Cash flow from operating activities	10,383	10,174	10,174	9,309	9,335	7,873	7,873	8,178
of which cash generated from operations before financial income and income tax	10,942	10,263	9,117	8,305	8,150	8,464	8,464	9,863
Cash flow from investment	(6,230)	(3,655)	(3,655)	(5,157)	(5,171)	(6,095)	(6,095)	(7,193)
Cash flow from (used in) financing activities	(3,295)	(6,034)	(6,034)	(4,725)	(4,734)	(1,928)	(1,928)	212
4. Balance sheet								
Shareholders' equity	**43,078**	**39,578**	**39,578**	**36,639**	**36,282**	**35,551**	**35,551**	**33,087**
Total equity	48,750	45,447	45,447	42,577	42,122	40,941	40,941	38,037
Net debt	27,727	24,807	24,807	22,548	22,520	21,102	21,102	25,919
Net debt excl. internal debt E&P/EBITDA	2.46	2.32	2.43	2.25	2.26	2.28	2.28	2.50
Total assets	160,658	158,499	158,499	150,332	150,141	153,702	153,702	159,793
5. Per-share data (in euros)								
• Average outstanding shares (a)	2,392,150,727	2,396,131,620	2,396,131,620	2,395,732,581	2,395,732,581	2,396,308,756	2,396,308,756	2,412,518,837
• Number of shares at period-end	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011
• Earnings per share (a)	(1.99)	(0.23)	(0.23)	0.53	0.49	0.37	0.37	0.34
• Net recurring income, Group share, per share (a)	1.02	0.97	0.97	1.05	0.99	0.95	0.95	1.04
• Dividend paid (b)	1.00	1.00	1.00	0.70	0.70	0.75		0.80
6. Total average workforce	**241,913**	**241,509**	**239,710**	**238,216**	**238,029**	**249,795**		**222,268**
• Fully consolidated entities	155,494	153,950	152,175	151,667	151,480	158,505		170,475
• Proportionately consolidated entities	777	764	764	685	685	780		756
• Entities consolidated using the equity method	85,642	86,795	86,771	85,864	85,864	90,510		90,998

(a) Earnings per share calculated on the basis of the average number of shares outstanding, net of treasury shares.
(b) 2019: proposed to the OGM.
(c) Some of the December 31, 2016 data have been restated due to the classification of E&P as discontinued operations (see Note 30 of Section 6 "Consolidated financial statements" of the 2017 Registration Document).
(d) Some of the December 31, 2017 data have been restated due to the retrospective application of IFRS 9 and 15 and the classification of LNG as discontinued operations (see Note 2 of Section 6 "Consolidated financial statements" of the 2018 Registration Document).
(e) Excluding MtM of operating derivatives but including share in net income of equity method entities
(f) Some of the December 31, 2018 data have been restated due to the retrospective application of the new presentation of operational derivatives (with impact on Revenues) but not IFRS 16 due to the transition method applied (see Note 1 of Section 6 "Consolidated financial statements" of the 2019 Universal Registration Document).

1.2.2 CSR indicators

The Group's Corporate Social Responsibility performance is based on quantified, time-specific targets and an overall assessment organized around different monitoring methods (indicators, reporting, performance reviews and CSR rating indices).

The Board of Directors' Ethics, Environment and Sustainable Development Committee ("EESDC") defines the scope of the policies undertaken, the outlooks and the action plans in the area of Corporate Social Responsibility. The Executive Committee makes key decisions in this area (see Section 4 "Board of Directors' report on corporate governance").

A CSR report is submitted every year to the Executive Committee for approval and future direction, then to the EESDC to provide a progress report on the policy's implementation and the achievement of Group CSR objectives. In response to changes in the energy sector and to the gradual integration of environmental and societal aspects into stakeholder requirements, ENGIE set itself six new CSR goals in 2016 to be achieved by 2020:

- an 85% satisfaction rate among its BtoC customers;
- a 25% share of renewable energy in the Group's electricity production capacity portfolio;
- a 20% reduction in the CO_2 emissions ratio for energy production compared to 2012;
- 100% of the Group's industrial activities to be covered by an appropriate stakeholder dialogue and consultation mechanism, based on regular meetings with the relevant NGOs and non-profits, and on the development of long-term partnerships related to the Group's activities;
- 25% of the Group's workforce to be made up of women;
- an internal workplace accident frequency rate of below 3.

The 2019 results for the CSR indicators are presented in the following table:

Theme	Indicators	2020 objective	2017 results	2018 results	2019 results
Customer satisfaction	Satisfaction rate of BtoC customers	≥ 85%	83%	81%	72%
Renewables	Share of renewable energy in the electricity production capacity mix (1)	≥ 25%	23.1%	23.7%	27.8%
GHG emissions	% reduction of the CO_2 equivalent emissions ratio for energy production compared to 2012 (2)	-20% (354.4 (3))	-18.1% (363.0 (3))	-28.7% (315.8 (3))	-43.7% (248.7 (3))
Stakeholder dialogue	% of industrial activities covered by an appropriate mechanism for dialogue and consultation	100%	48%	53%	74%
Gender diversity	% of women in Group workforce	≥ 25%	22.2%	21.1%	20.9%
Health and safety	Internal workplace accident frequency rate	≤ 3	3.3	3.4	3.7

(1) Consolidated at 100%.
(2) Scope 1 specific CO_2 eq. emissions of entities controlled and operated by the Group (environmental reporting).
(3) kg CO_2 eq./MWh

The satisfaction rate of BtoC customers at end-2019 was 72% (versus 83% in 2017 and 81% in 2018). The decrease in this indicator over the last two years is due to a change in the survey methodology (the more marked difference in 2019 being due to the impact of the largest BtoC portfolios in France and Belgium) in that the survey is gradually being conducted by e-mail rather than telephone (which is a more expensive survey channel). These differences reflect the fact that customers express their dissatisfaction more readily by e-mail than over the telephone.

With renewable energies making up 27.8% of the power generation mix at end-2019, the Group met and exceeded its 25% target. The Group's renewable business activity enjoyed strong momentum in 2019 with the development of new projects bringing to Europe, Africa, and North and South America, underscoring the Group's goal to increase renewable energy capacity by 9 GW by 2021.

Specific emissions were down by 43.7% in 2019 compared to 2012. This result was well above the 20% reduction target set in 2015 and illustrates the Group's commitment to reducing its carbon footprint. The year's improvement was mainly due to the acceleration of the Group's plan to transform and rotate its portfolio following the effective disposal in 2019 of the Glow thermal power plants (2 GW of gas and 1 GW of coal).

In recent years, the share of industrial activities covered by structured dialogue with communities and stakeholders has been steadily increasing and reached 74% in 2019. Action plans drawn up in the various geographical locations give every reason to expect that the target of 100% will be met by the end of 2020.

The gender diversity rate in 2019 was 20.9%, down slightly from 2018. This was due not only to the impact of the latest acquisitions (which had a low proportion of women) but also to a higher turnover among women than among men. As part of its renewed commitment in September 2019 to the Women's Empowerment Principles defined by the United Nations, the Group introduced a series of measures aimed at boosting equal pay, combating sexism and harassment, educating young women about technical professions, and increasing the percentage of women in managerial positions. These measures should create environments that make women want to join the Group and stay within it.

The Group's employee accident frequency rate was 3.7 at the end of 2019. This figure should be assessed in light of the current shift in the Group's activities toward more service activities, which are more exposed to risks to individuals and tend to be less mature in terms of safety culture than industrial activities (at constant 2018 perimeter, the frequency rate would have been 3.4 in 2019).

The Group has been collaborating with its various stakeholders to define its post-2020 CSR targets which were made public at the end of 2019 (see Section 3.1.2 "2030 CSR targets").

With regard to its investment plans, the Group uses a number of criteria, including ethics, CO_2 emissions, social impact, human resources, environmental management of ecosystems, cooperation with stakeholders, local procurement, and health and safety. The Group also takes into account an internal carbon price when deciding on new projects.

The Group's social reporting (see Section 3.4), environmental reporting (see Section 3.5), and societal reporting (see Section 3.6) are used to publish a set of indicators that are verified by an independent third party (see Section 3.10).

In terms of ESG ratings, ENGIE's CSR performance was once again recognized by ESG agency RobecoSAM, which confirmed the Group's membership of the Dow Jones Sustainability Index (DJSI) World and Europe in 2019. The 2019 assessment positions the Group as industry leader in its sector (Multi and Water Utilities) with a score of 82 out of 100.

The Group continues to be listed in four indices, Euronext Vigeo Eiris World 120, Europe 120, Eurozone 120 and France 20, and in 2019 was rated A1+ by the non-financial rating agency Vigeo Eiris with a score of 66/100. In 2019, the Group was assessed by rating agency Sustainalytics. It obtained a score of 73/100, an improvement of 3 points from 2018. The Group was rated A in 2019 by the non-financial rating agency MSCI.

Lastly, as it does every year, ENGIE also completed the CDP (formerly Carbon Disclosure Project) questionnaire. In 2019, the Group maintained its position in the "A-list" of companies recognized for their leadership in terms of strategies and initiatives to combat climate change.

In conclusion, the Group has posted very good CSR ratings, with industry-leading performance recognized by RobecoSAM, MSCI, CDP Climat, CDP Water and Ecovadis.

1.3 Description of the Group's activities

Under the Group's organizational structure at December 31, 2019, ENGIE comprised 23 Bus [(1)], primarily geographical. For financial reporting purposes, the Group has grouped operating segments in accordance with IFRS 8 and presents sector information organized around nine reportable segments (see Section 6.2.2 "Consolidated financial statements" – Note 6 "Segment information").

In this section, the description of the Group's businesses and strategic economic assets is primarily structured around financial reporting requirements. The first six sub-sections correspond to the reportable sectors (made up of one or more BUs), the seventh sub-section describes the Global Business Lines, and the eighth sub-section presents the Global Industrial Hub.

1.3.1 France

1.3.1.1 France (excluding Infrastructures)

The France reporting sector combines the activities of four BUs: the France BtoB BU (energy sales and services for buildings and industry, cities and regions and major infrastructure), the France BtoC BU (sales of energy and related services to residential and small business customers), the France Networks BU (which designs, finances, builds and operates decentralized energy production and distribution facilities - power, heating and cooling networks), and the France Renewable Energy BU (development, construction, financing, operation and maintenance of all renewable power generation assets in France).

The France France BtoB, France BtoC, France Networks and France Renewable Energy operating segments include all French downstream energy business lines and renewable energy production, which is becoming increasingly decentralized. These are complementary businesses that are supported by a strong regional network and primarily aim to develop a combined offering for local customers consisting of energy services, decentralized production resources, and combined gas and electricity supply contracts.

In January 2020, the Group modified its operational organization in France by creating three new BUs linked to Client Solutions (Cities & Communities, Properties & Proximity, and Industries). These three BUs were created from the reorganization of the France BtoB and France Networks BUs.

(1) *There is also a twenty-fourth entity comprising the holding and corporate activities, including the entities responsible for the Group's centralized financing, ENGIE SA's Businesses and Local Authorities business activity, and the contribution of the associate company SUEZ.*

KEY FIGURES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Total change (in%)
Revenues	15,854	14,998	-5.7
EBITDA	1,672	1,775	-5.8

1.3.1.1.1 France BtoB

1.3.1.1.1.1 Role & Strategy

In a national context where there is a strong focus on energy and environmental efficiency, the France BtoB BU designs, builds and operates high-performance facilities, buildings and infrastructure to help businesses and local authorities in their transition to a low-carbon economy.

The solutions deployed by the BU rely on the strong expertise of its four entities, a dense national presence, solid customer relationships, and a drive for innovation. As a result, the BU is able to anticipate and support new needs by combining digital innovations (Building Information Modeling, hypervision, data analysis, etc.), technological innovations (hydrogen, biogas and biomass, mini-cogeneration, micro-grids, etc.) and behavioral innovations (usage performance, self-consumption, short circuits, shared use, etc.).

To consolidate its position as France's leading integrator of energy and environmental efficiency solutions, the France BtoB BU is continuing its organic growth and targeted acquisitions strategy along three lines:

- expansion of its generic business lines in France (see ENGIE Cofely's acquisition of SAEM, Axone and Coriance's services-related activities);
- reinforcement of its specialist business lines, so they become the global leaders with the ability to be deployed in various international regions in support of the Group's other BUs (see ENDEL ENGIE's acquisition of SRA-SAVAC in nuclear engineering and Pierre Guerin in food and pharmaceuticals, and ENGIE Indeo's acquisition of PowerLines, a European specialist in grid electrification);
- development of innovative offers, combining new and digital technologies (see ENGIE Ineo's acquisition of DG8, a developer of telecommunications solutions for the transport sector, or ENGIE Axima's acquisition of Eurosia, a BIM specialist).

1.3.1.1.1.2 Description of activities

Leveraging its new brand, ENGIE Solutions, which groups together its four historic entities, the France BtoB BU is active throughout the entire energy services value chain, from design, build (with or without financing) and maintenance, to full operation with useful energy and performance commitments.

These energy and environmental efficiency solutions are aimed at manufacturers, the tertiary sector (public or private), infrastructure managers, municipalities and local authorities, and multi-dwelling unit managers.

- ENGIE Axima specializes in HVAC engineering (heating, ventilation, air-conditioning, cooling and air treatment). It designs, builds or renovates decentralized power-generation and distribution facilities in commercial or industrial buildings. ENGIE Axima is also a major player in fire prevention.
- ENGIE Ineo specializes in electrical engineering and works with municipal, national and international customers to deploy or modernize their infrastructure networks (railroad tracks, power grids, video-surveillance systems, public lighting, telecommunications networks, solutions for eco-responsible urban transport, renewable energy, etc.).
- ENDEL ENGIE specializes in mechanical engineering and provides industrial customers with engineering, management and maintenance services for their production facilities or processes. The company is also a leading player in nuclear maintenance.
- ENGIE Cofely specializes in power engineering. It offers a range of solutions to optimize the energy and environmental performance of industrial, commercial or multi-dwelling buildings. Through its energy savings performance contracts and usage performance contracts, the company ensures that the facilities it operates are optimally efficient while having a minimal environmental footprint. Lastly, ENGIE Cofely provides comprehensive integrated service solutions (such as facility management) to large corporations or government agencies.

In January 2020, the Group modified its operational organization in France by creating three new BUs linked to Client Solutions (Cities & Communities, Properties & Proximity, and Industries). These three BUs were created from the reorganization of the France BtoB and France Networks BUs.

Regulatory changes: in line with international and European commitments to reduce greenhouse gas (GHG) emissions, the French government continues to translate these commitments into national regulations that carry incentives and/or are binding: (i) drafting of the national low carbon strategy (SNBC) aimed at achieving carbon neutrality by 2050 and focused on low-carbon buildings and industries, carbon-free power generation, and optimized waste treatment; (ii) drafting of the multi-year energy program (PPE) prioritizing the development of renewable electrical energy, carbon-free transport, and increased use of green gas; and (iii) application of the law on climate and energy (LEC) adopted in September 2019, aimed at reducing final energy consumption, in particular by eliminating "thermal sieves".

To deliver on these 2050 obligations, the legislation has four targets to be achieved by 2030 (10 years): (i) 40% reduction in GHG emissions (compared to 1990); (ii) 40% reduction in primary fossil fuel consumption (compared to 2012); (iii) 20% reduction in final energy consumption (compared to 2012); and (iv) minimum 33% share of renewable energy sources in final consumption.

1.3.1.1.2 France BtoC

1.3.1.1.2.1 Role & Strategy

The France BtoC teams handle energy sales and related services for residential and small business customers.

The goal of the France BtoC BU is to become the leading player in the transition to a carbon-neutral economy and home comfort.

The four strategic priorities are: (i) increased sales of electricity and services; (ii) customer satisfaction; (iii) operational excellence; and (iv) innovation.

1.3.1.1.2.2 Description of activities

In an environment where competition in the energy market is becoming ever more intense, the BU is still the leader in natural gas sales in France and is continuing to expand in electricity. The BU confirmed its lead over other alternative power suppliers with a portfolio of 5 million customers at the end of 2019, including almost 3 million in green electricity. The successful launch of its green offers in 2016 has continued in the years since, positioning ENGIE as France's leading supplier of green energy.

In Services, the France BtoC BU is active in (i) the deployment of decentralized power or heat generation solutions based on renewable energy (photovoltaic, heat pumps), (ii) energy efficiency services (energy diagnostics, energy consulting and coaching, and facilities design, work, financing and maintenance), and (iii) home services (insurance, equipment maintenance, repairs). Among other things, the Group is a leader in domestic boiler maintenance through its ENGIE Home Services subsidiary.

New offers were introduced in 2019 offering ENGIE customers turnkey solutions to reduce their carbon emissions:

- home comfort services: launch of ENGIE's Energy Purchasing Power Plan, which, among other things, allows French households to replace their old boilers at costs starting from €1.00, in line with the heating efficiency plan implemented by the government. The Energy Purchasing Power Plan was extremely successful, with several thousand low-income households updating their heating equipment;
- promotion of local renewable energies: addition of a solution to the My Power (solar-panel installation) range for energy communities and rollout of the Tiko offer to manage consumption and improve load shedding;
- energy offers: (i) "Mon gaz vert", an offer whereby individuals can opt to have 10% of their gas consumption made up of green gas, and (ii) "Ma Conso", the online service to assist in controlling consumption, which has been expanded to include new functionalities, such as consumption projections, alerts in case of consumption anomalies, compatibility with Google voice assistance, comparisons with similar homes, and the impact of outside temperature on consumption levels.

Regulatory changes: France's Energy and Climate Act, which passed into law on November 9, 2019, set deadlines for the end of regulated tariffs for natural gas sales. Regulated tariffs will end for individual customers (and apartment buildings and condominiums consuming less than 15,000 kWh/year) on July 1, 2023, and on December 1, 2020 for non-residential customers (professionals consuming less than 30 MWh/year). Under the act, new contracts on regulated tariffs can no longer be marketed from December 8, 2019.

1.3.1.1.3 France Networks

1.3.1.1.3.1 Role & Strategy

In the public sphere and regardless of geography, it is now islands and cities that are pursuing crucial initiatives to combat climate change. This is not only in response to pressure from citizens and an increased awareness about the effects of climate change, but also because action taken at the local level has a clearer impact. Consequently they are partnering with private-sector participants to limit their investment and risk and stay at the forefront of innovation.

Against this backdrop, the historical perspective of the France Networks BU is more relevant than ever. The France Networks BU partners with local authorities in cities and island territories to help accelerate their energy transition by providing innovative, integrated solutions in renewable energy and energy efficiency.

The France Networks BU has leadership positions in the design and management of large heating and cooling networks as well as in power generation and distribution. It builds and operates high-performance facilities and infrastructures designed for both public and private players.

It is backed by an ambitious policy of innovation and development, focused both internally and externally, to meet the needs of its customers and stakeholders and thus contribute to creating value for the regions in which it operates.

Thanks to their local roots, its employees work alongside their customers, whether public, private or retail, to achieve a greener energy mix.

The France Networks BU's strategic priorities are to: (i) grow its business portfolio by preserving and expanding its existing contracts, capturing new networks and diversifying its activities to facilitate the green transition in the regions its services; (ii) strengthen its renewable energy production resources (solar, wind, hydropower, geothermal, biomass, biofuel, waste-to-energy, etc.); and (iii) achieve the highest customer relationship standards.

In mainland France, the France Networks BU uses diversified, local and renewable energy sources to make accessible, to the greatest number of customers possible, an efficient, virtuous and sustainable method of heating and cooling in urban areas.

In the island territories, the France Networks BU is developing a comprehensive range of industrial and energy services to support the territories' sustainable development, along with a renewable electricity generation system.

1.3.1.1.3.2 Description of activities

The France Networks BU provides integrated, customized solutions tailored to the geographical characteristics, economic constraints, and local climate and ecological challenges in its host territories through six operating entities and their subsidiaries:

- CPCU, Paris heating network (France's leading district heating network);
- Climespace, Paris's cooling network (Europe's leading district cooling network);
- ENGIE Réseaux, responsible for France's large heating and cooling networks with recognized expertise in biomass and geothermal energy (with CPCU and Climespace, ENGIE Réseaux makes the France Networks BU the leader in heating and cooling networks in France;
- SMEG and SMA in Monaco, active in gas and electricity distribution and supply, public lighting, heating and cooling production and distribution, waste cleaning and collection services, and waste-to-energy production;
- EEC, Alizés Énergies, Pacific Airport, Socometra, Somainko and Endel NC in New Caledonia, EEWF in Wallis and Futuna, Unelco and Vanuatu Services in Vanuatu: active in power production and distribution, energy services, installation and multi-technical management, and airport facilities management;
- EDT, Marama Nui, ENGIE Services Polynésie, and Poly-Diesel in French Polynesia: active in power production and distribution, installation and technical maintenance, facility management and energy services.

In January 2020, the Group modified its operational organization in France by creating three new BUs linked to Client Solutions (Cities & Communities, Properties & Proximity, and Industries). These three BUs were created from the reorganization of the France Networks and France BtoB BUs.

Regulatory changes: In October 2019, the "renewable heating and cooling" government working group drew up 25 action points to boost the development of heating and cooling networks in mainland France, particularly the roll-out of a joint awareness campaign aimed at communities with more than 10,000 inhabitants, the possibility of setting up a "Heating Fund bonus" for local citizen-driven projects, the introduction of a support system to revitalize 10 to 20 networks in difficulty, a revision to the incremental increases planned for the Heating Fund, the possibility of allocating energy saving certificates for connections to networks receiving Heating Fund grants, the obligation to include a connection obligation in urban planning documents that will apply to all new builds, and incentive measures to convince network operators and delegates to give up coal-fired power within 10 years.

1.3.1.1.4 France Renewable

1.3.1.1.4.1 Role & Strategy

The role of the France Renewable BU is to develop, build, finance, operate and maintain ENGIE's biomethane and power production in France. The BU offers energy production capacity that is exclusively green and diversified as part of a more local and secure approach spanning six sectors: solar power, onshore wind power, fixed offshore wind power, floating offshore wind power, hydroelectric energy and biogas.

The BU also provides technical expertise and industrial support, including procurement, to the Group and in particular its European subsidiaries, through pooled teams of experts.

It performs its missions through the ENGIE subsidiaries that report to and the BU and are described in the following section.

Whether in the most mature existing technologies (hydro, wind, solar, etc.) or in the new technologies (fixed and floating offshore wind, biogas, etc.), the BU is active in all activities that are driving and will drive the green growth in the French energy mix. The BU aims to substantially boost its development in wind and solar while bolstering its positions in hydroelectricity and investing in the offshore wind and biogas markets:

- onshore wind: strengthen the Group's leadership in a market that is expected to more than double by 2023. The objective is to reach nearly 3 GW installed capacity in this technology in 2021 and 8 GW in 2030. The BU positions itself competitively, whether it is responding to calls for tender or developing direct guaranteed contracts ("guichet ouvert");
- solar power: significantly accelerate growth in a market expected to more than triple by 2023. The objective is to reach nearly 2.2 GW installed capacity in this technology in 2021 and nearly 9 GW in 2030, primarily by participating in specific calls for tender;
- hydroelectricity: maintain a leadership role by seizing opportunities that will arise on hydraulic concessions while continuing to protect the positions of the Group, which is the leading alternative operator in France;
- offshore wind: capitalize on the early projects (both fixed and floating) in order to continue or accelerate their development, and contribute to the continued deployment of fixed offshore wind power and to the launch of the commercial phase for floating offshore wind power;
- biogas: build on the initial projects developed in order to accelerate significantly and make ENGIE a "market maker" in this high-potential market. ENGIE has set itself the target of connecting 1.3 TWh to the gas networks by 2023.

1.3.1.1.4.2 Description of activities

The France Renewable Energy BU comprises a set of subsidiaries owned by ENGIE, either alone or in partnership:

- ENGIE Green (resulting from the merger of Futures Energies and Maia Eolis in 2016 and LCV – La Compagnie du Vent – in 2017 and the progressive integration of the development, operational and maintenance activities of Solairedirect (now ENGIE Solar) in France as of January 1, 2018): onshore wind, solar, offshore wind and biogas;
- SHEM (Société Hydro-Électrique du Midi): hydroelectricity;
- CNR (Compagnie Nationale du Rhône), and its subsidiary CN'Air: hydroelectricity, onshore wind, solar power;
- Dieppe/Le Tréport, and l'Île d'Yeu/Noirmoutier projects: offshore wind power (2 x 500 MW in potential installed capacity currently being developed);
- "Les Eoliennes flottantes du Golfe du Lion" pilot project: a 30-MW floating offshore wind power pilot project currently being developed in the Mediterranean;
- Langa: a company acquired in 2018 that specializes in the development and operation of roof and ground wind and solar farms. Langa has held a portfolio in operation since 2019 with installed capacity of 215 MW, including 165 MW of solar energy and 39 MW of wind power;
- Saméole: a company acquired in January 2019, specializing in the construction and development of wind farms;
- ENGIE Biogaz and Vol-V Biomasse, which specialize in biomethane construction were merged on January 1, 2020 to become ENGIE Bioz.
- ENGIE Bioz, a subsidiary jointly owned by ENGIE Green and Storengy SAS, is responsible for developing regional methane conversion projects and operates across the entire biomethane value chain, from prospecting and development to financing and the monitoring of the construction of methane conversion projects and their operation.

In January 2020, ENGIE has announced the creation of a joint offshore-wind venture with its historical partner EDPR. This new structure will bring together the two companies' industrial expertise and development capability and should be operational by mid-2020.

In 2019 the France Renewable BU shifted its focus back to renewable energy by selling its 80% stake in Altiservice, a company that manages the Saint Lary and Font Romeu ski resorts in the Pyrenees, to BTWP Impact Local, a fund managed by Natixis.

Regulatory changes: the draft revision of the Multi-Year Energy Program (PPE), published in early 2019, is now being finalized.

ENGIE is satisfied with the objectives stated for offshore wind power and welcomes the inclusion in the PPE of the increased volume announced by the government in late 2019.

Lastly, ENGIE remains vigilant regarding the planned trajectories for biomethane, the volume targets for which are 6 TWh in 2023 and 14 TWh in 2028.

The adoption of France's Energy and Climate Act in November 2019 has introduced an "energy programming law" which is expected to come into effect in 2023 before each PPE revision. There are a number of other provisions related to renewable energy, particularly the inclusion in future calls for tender of a reference to facilities' carbon footprint.

Following the conclusions of the national onshore wind working group in 2018, substantial procedural advances were agreed on at the end of 2018, most notably the abolition of first-degree jurisdiction. Also ratified was a reform of the flat-rate tax on network businesses ("IFER") ensuring fairer distribution for a company's host municipality.

1.3.1.2 France Infrastructures

The France Infrastructures reportable segment groups together the activities of four BUs: GRDF, GRTgaz, Elengy, and Storengy. These BUs develop, operate and maintain – primarily in France and Germany – natural gas transmission, storage, and distribution networks and facilities, along with LNG terminals. They also sell access rights to these infrastructures to third parties.

The GRDF, GRTgaz, Elengy and Storengy operating segments, which comprise the gas infrastructure businesses in Europe (distribution, transport, storage, and LNG terminals), have been grouped together within the Infrastructures Europe reportable segment as they are all regulated businesses (or businesses likely to be regulated) with similar risk profiles and margins.

KEY FIGURES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Total change (in%)
Revenues		5,694	
EBITDA		3,499	

1.3.1.2.1 GRDF

1.3.1.2.1.1 Role & Strategy

In France, GRDF, independent subsidiary of ENGIE, develops, operates and maintains the distribution networks, delivers gas for suppliers and consumers, and connects biomethane producers to the network. GRDF is tasked with giving all natural gas suppliers equal access to its network.

Its strategy is revised every four years. In 2019, GRDF developed its activities according to the three objectives stated in its enterprise project: (i) strive for operational excellence in the performance of its business lines to be recognized as a committed professional; (ii) make gas an energy of the future by demonstrating its relevance in the energy mix; and (iii) build a responsible, more open and collaborative business model with all the business lines.

1.3.1.2.1.2 Description of activities

The distribution activity has specific features related to its classification as a local utility. Each municipality where natural gas supply is available grants a concession to an authorized distributor to operate the natural gas utility in its territory. Concessions are entered into or renewed based on standard specifications established jointly by the French national federation of concession-granting and state-controlled municipalities (FNCCR) and GRDF. Concession-granting bodies exercise control to ensure the proper execution of the obligations resulting from these specifications.

Distribution structures belong to the municipalities even when they are built and financed by the concession operator, who has an exclusive right to use them. The Energy Code recognizes the entitlement of exclusive concession rights to historical concession operators, i.e., GRDF and 22 local distribution companies (ELD), to exclusive service areas. As holders of a "distribution monopoly," they are the sole operators with whom municipalities may renew the concession. The grounds for terminating a concession contract early are strictly controlled (listed exhaustively) as is the date the concession can be terminated (cannot be in the first half of the contracted term). Termination also requires two years' notice and the concession-granting authority must pay compensation to the concession operator for early termination.

Apart from the exclusive service areas of GRDF and the local distribution companies, the Energy Code allows all municipalities not supplied with natural gas to entrust their public gas distribution to the authorized operator of their choice.

In addition to the special case of public service delegations recently acquired after a competitive bidding process, GRDF's activity is remunerated by a tariff set by the CRE. Following the CRE's decision of March 10, 2016, the new GRDF natural gas distribution tariff, "ATRD5," entered into force on July 1, 2016 for a period of four years. It applies to the GRDF exclusive service area. The structure of this tariff is consistent with the previous tariff. The CRE took into account all major projects that GRDF will take on during the period, allowing the company to continue its industrial safety and development initiatives while at the same time requiring it to increase its productivity.

This new tariff framework led to an increase of 2.76% effective July 1, 2016. The transmission rate remains stable, as the decrease in the rate by -2.05% on July 1, 2017 was followed by an increase of 2.01% on July 1, 2018. The rate hike on July 1, 2018 primarily covers the increase in unpaid charges repaid to the gas suppliers and the expenses related to the pilot phase of the gas changeover project (conversion from B gas to H gas for the customers in northern France). The ATRD5 tariff increased slightly by 0.51% on July 1, 2019.

Regulatory changes: 2019 saw the launch of discussions and a public consultation with the CRE aimed at setting a tariff period of four years starting in July 2020.

The new ATRD6 tariff will lead to more or less stable tariffs (average change of -0.3% per year) while giving GRDF the leeway it needs to maintain a high level of security and play an active role in the energy transition.

Also in 2019, a "Right of Injection" decree was adopted, legalizing the right to connect biomethane installations to the distribution network and specifying the framework for implementing the corresponding investments.

1.3.1.2.2 GRTgaz

1.3.1.2.2.1 Role & Strategy

GRTgaz is an independent subsidiary of ENGIE. In addition to GRTgaz employees who own 0.35% of the capital of their company, GRTgaz shareholders are ENGIE and Société d'Infrastructures Gazières (SIG), a consortium composed of CNP Assurances, CDC Infrastructures and Caisse des Dépôts. ENGIE and the SIG respectively own 75% and 25% of the remaining share of the capital.

GRTgaz develops, operates and maintains the main gas transmission network in France, manages the natural gas flows that flow through it, and markets network access services to gas suppliers. It manages gas transmission operations in Germany through its GRTgaz Deutschland subsidiary. In 2017, GRTgaz acquired ENGIE subsidiary Elengy, which operates LNG terminals in France.

GRTgaz's strategy is to ensure the company's development in the long term both in France and internationally. GRTgaz is intent on:

- being a leader in gas infrastructure in Europe, in particular by contributing to better integration of the European markets;
- being a driving force in the energy transition, particularly by promoting new uses of natural gas (industry/mobility), developing renewable natural gas by injecting biomethane into the transmission network, and conducting research on monetizing surplus renewable energy (power-to-gas);
- continuing to expand internationally in countries where natural gas consumption is growing fast, in close collaboration with other Group entities.

1.3.1.2.2.2 Description of activities

In France, it owns and operates more than 32,000 km of buried pipeline and 26 compression stations to take gas from suppliers to consumers (distributors or manufacturers directly connected to the transmission network). GRTgaz has a public service mandate to guarantee the continuous supply of gas to consumers. It also sells transmission services to network users. GRTgaz plays an active role in the energy transition, investing in innovative solutions to adapt its network accordingly and combine competitiveness and security of supply with environmental protection.

GRTgaz's business is conducted within a general framework designed to guarantee the independence of the grid manager.

Regulatory changes: France's Energy Code stipulates that the construction and operation of natural gas transmission pipelines are subject to a specific and non-transferable authorization issued by the competent administrative body. Pursuant to its ruling of December 15, 2016, the French Energy Regulation Commission (CRE) defined the methodology and set the tariffs for the use of transmission networks in France known as "ATRT6," which entered into force in April 2017, for a period initially intended to be four years but will end up being three years. Against this backdrop and in application of the methodology, the updating of the tariffs led to an increase in the average tariff of 4.6% at April 1, 2019 (CRE Decision of December 13, 2018), largely related to higher-than-forecast inflation, a revision of the operating rules of the network's zone B, and lastly higher energy charges and congestion removal costs.

The new tariff set by the CRE provides GRTgaz with all the resources needed to respond to the challenges of energy transition and takes account of the changes in the gas market. The CRE is also strengthening the GRTgaz performance incentives and the incentive scheme for the creation of more selective interconnection capacity.

This new framework was supposed to result in a 0.4% reduction in the average unit tariff over the ATRT6 period, as a result of various factors: first, the erosion of the subscriptions anticipated over the period and the commissioning of significant investment projects; and second, a drop in energy prices, a decrease in the weighted average cost of capital from 6.5% to 5.25% (actual before taxes), and efficiency targets set for GRTgaz.

The gas transmission tariff applicable at April 1, 2020 (ATRT7) will increase by 1.4% on average per year for the period 2020-2023 (CRE Decision of January 20, 2020). The Energy Regulation Commission changed the remuneration rate of the regulated asset base of operators of natural gas infrastructure to 4.25% (real before tax) for 2020-2023, and introduced an incentive regulation for their operating costs.

1.3.1.2.3 Elengy

1.3.1.2.3.1 Role & Strategy

LNG terminals are port facilities that allow liquefied natural gas (LNG) to be received and regasified. New services have been developed since 2012, such the reloading of LNG tankers, transshipment between vessels, and LNG tank truck loading.

Elengy is the second-largest European LNG terminal operator (source: GIIGNL), with three LNG terminals in France. The facilities operated by Elengy had a total regasification capacity of 21.25 billion m^3 (Gm^3) of gas per annum as of December 31, 2019.

Elengy's strategy is defined around on the following key points: (i) optimize the operating methods of each of the three sites in order to make them as efficient as possible, regardless of their utilization rate; (ii) design and offer new LNG storage and transfer services at Elengy terminals or other infrastructures; (iii) import or find a new use for LNG, particularly as an onshore or marine fuel; and (iv) find opportunities for international growth by highlighting Elengy's asset management and operations expertise developed over the past 50 years.

In 2017, GRTgaz, ENGIE's independent subsidiary, acquired Elengy.

1.3.1.2.3.2 Description of activities

Brought into service in 1972, the Fos Tonkin terminal is located on the Mediterranean coast and receives LNG primarily from Algeria. Its regasification capacity stands at 3 billion Gm^3 of gas per year. Its dock can accommodate vessels carrying up to 75,000 m^3 of LNG while its tank has a total capacity of 80,000 m^3.

The Montoir-de-Bretagne terminal, commissioned in 1980, is located on the Atlantic coast and receives LNG from various sources. It has a regasification capacity of 10 Gm^3 of gas per year, two docks that can accept tankers transporting up to 260,000 m^3 of LNG (Qmax) and three storage tanks with a total capacity of 360,000 m^3 of LNG. The work completed in 2017 allowed the start-up of a new, sustainable transshipment activity.

The Fos Cavaou terminal, brought into commercial service in 2010, has a regasification capacity of 8.25 billion Gm^3 of gas per year, a dock that can accommodate Qmax-size tankers, and three tanks with a total capacity of 330,000 m^3 of LNG. It belongs to Fosmax LNG a separate subsidiary. In late 2019, TOTAL put its 27.5% equity investment in the FOS Cavaou Terminal up for sale.

In early February, ENGIE strengthened its positioning in downstream LNG in France. After acquiring TOTAL's stake in Fosmax LNG, ENGIE is now the sole owner of its three French methane terminals.

Regulatory changes: the LNG terminals are accessible to all LNG suppliers. The tariffs for access to regasification are regulated. The current tariffs were set by the CRE resolution of January 18, 2017 and have been in force since April 1, 2017. They were revised by the resolution of November 15, 2018 for application from April 1, 2019.

- The tariffs were revised downwards by 3.5% (Fos Cavaou, 4% (Montoir) and 5% (Fos Tonkin) compared with the tariffs applied since 2017, which themselves were substantially lower than the previous tariffs.
- The current tariffs apply to a basic service, i.e., the main offer of the LNG terminal operators, which can be supplemented by subscription to an option that guarantees uniform supply for 20 to 40 days.

The LNG tanker transshipment and loading services are not regulated.

1.3.1.2.4 Storengy

1.3.1.2.4.1 Role & Strategy

With Storengy, the Group is the leader in underground natural gas storage in Europe, with net storage capacity of 12.2 billion m^3. Against a backdrop of long-term adverse market conditions and major shakeups in the energy sector, Storengy adapts to handle the risks weighing on its core business and develop new ambitions made possible by the energy transition, particularly in the following areas:

- promoting underground storage as a key part of developing intermittent renewable energy. Storengy's annual storage capacity (138 TWh) corresponds to the energy generation of 9,200 offshore wind turbines or the energy needed to power 20 million electric vehicles;
- renewable gases, with production and storage of biomethane, hydrogen and synthetic methane, the combination of which is expected to result in a 100% carbon-neutral energy mix by 2050 in Europe, while generating positive external factors for the regions (decentralized systems, local jobs, waste processing, etc.);
- renewable heating and cooling, with the use of the sub-soil to produce and store heat and cold, providing a comfort service to users on the scale of a building, a district or a town, while reducing their environmental footprint;
- renewable electricity, by managing high-temperature geothermal energy and decarbonized and non-intermittent energy.

1.3.1.2.4.2 Description of activities

Gas storage and conversion to renewable gas

In France, Storengy SA operates 14 underground storage facilities. Nine of these are in aquifers (total useful storage volume of 9 billion m^3), four are in salt caverns (1 billion m^3) and one is in a depleted field (80 million m^3). Three of these sites are in reduced operation according to precise regulatory procedures (880 million m^3).

Regulatory changes: the storage reform introduced in 2018 enabled regulation of this activity in France under an offset auction scheme, ensuring maximized fill levels for the facilities and visibility on revenues. The second year of sales (2019-2020 capacity) was thus a success: 95.5 TWh were sold (100% of supply). In the context of this reform, 2019 was also marked by the renegotiation of regulated revenue for the next period, ATS2 2020-2023. In its Resolution No. 2020-272, the CRE changed the remuneration rate of the regulated asset base of operators of natural gas underground storage infrastructure to 4.75% (real before tax) for 2020-2023, and introduced an incentive regulation for their operating costs.

On February 29, 2020, the European Commission announced the launch of an investigation relating to state aid into the gas storage regulation mechanism established on January 1, 2018 to ensure the security of France's gas supply. The decision to launch the procedure is not yet available. Both the French government and Storengy are contesting this decision and will engage in dialogue with the Commission to put forward their arguments, as part of the in-depth investigation that it is conducting in order to formulate a final decision.

The ATS2 tariff will increase by 1.4% a year on average, compared with 2018, in the period 2002-2023 (CRE Resolution of December 12, 2019).

In Germany, Storengy Deutschland GmbH, a wholly owned subsidiary of Storengy, holds and operates six storage sites (1.7 billion m^3; three salt sites and three depleted sites), and operates a seventh storage facility for a third party.

In the United Kingdom, Storengy UK Ltd, a wholly owned subsidiary of Storengy, operates the storage site in saline cavities in Stublach (400 million m^3). The recent closure of the storage facility in Rough, the biggest in the country, leaves the UK with a few days of coverage of the winter consumption peak. Operation of all 20 cavities at Stublach from 2019 makes this site the biggest in terms of access of third parties, giving it a strong position on the flexibility market.

Furthermore, thanks to the expertise it has acquired in Europe, Storengy is positioned on projects to develop new storage sites in countries where natural gas is a major driver for the energy transition (e.g. Brazil and Mexico).

In Europe, Storengy is also preparing to convert storage assets to renewable gas in order to add value to gas storage in a decarbonized market. Since June 2017, Storengy France has approved unlimited injection of biomethane into French underground storage facilities. In hydrogen, Storengy is working closely with the other gas operators to assess the tolerance of its equipment to hydrogen and to prepare as far as possible for the integration of this hydrogen into its gas infrastructure (HyGreen and STOPIL H2 projects in France, Centurion in the UK).

In France, the Energy and Climate Act extends the right of access to the natural gas networks, to all types of renewable gas or gas deriving from energy recovery intended for injection, as long as this does not disrupt the operation and security of the networks.

Production and storage of renewable gas

Storengy is now a key player in biomethane production in France through its shareholding in ENGIE Biogaz and acquisition of Vol-V Biomasse (12 units in production). The development of this business (production of 1.25 TWh by 2023, in line with the Group's targets) will take place in accordance with the new strategies set out in the Multi-Year Energy Program and the evolution of systems to guarantee the origin of the biomethane injected into the natural gas network, which will come into force in 2020.

Storengy has also undertaken as of now to develop projects for the production and use of renewable hydrogen at the regional level. Thus, in partnership with Cofely in France, Storengy has unveiled several projects this year in response to the calls for tender for the hydrogen roll-out plan (industrial and mobility uses). The definition of a support framework for hydrogen in 2020 should step up Storengy's expansion on these markets.

Lastly, Storengy is positioned on synthetic methane production via methanization, through pilot projects currently being developed (Hycaunais, Méthycentre), in addition to commercial projects.

Heating, cooling and power generation from geothermal energy

In 2019, the development of geothermal energy was accompanied by several regulatory changes, particularly in France. The lifting of certain legal restrictions, a reform of the Mining Code undertaken by the French government, and geothermal energy's place in the Multi-Year Energy Program are factors that have strengthened Storengy's positioning on these markets.

Storengy is currently working on several heating and cooling network projects at city and regional level in the Netherlands and in France, in partnership with other Group entities. In particular, the aim of the Plaine Garonne Energie Project, with ENGIE Solutions, is to design, build and operate a new heating network in the center of Bordeaux, with a 30-year public service delegation, enabling 19,000 tons of CO_2 emissions to be avoided each year.

Meanwhile, Storengy has developed an offer called G-STORE for eco-districts and sustainable buildings, completing its first project in 2019: the construction of the geothermal heating and cooling network of the new Issy Cœur de Ville eco-district. Storengy will also provide the geothermal solution for the future Campus of the ENGIE Group at La Garenne-Colombes.

Lastly, Storengy is working to develop new power generation capacity based on high-temperature geothermal energy. The company took over management of the power generation project of Vieux Habitants in Guadeloupe (20-30 MW) in the autumn of 2019, and is working to develop several other projects worldwide.

1.3.2 Rest of Europe

The Rest of Europe reporting segment comprises the activities of four BUs: Benelux, United Kingdom, North, South and Eastern Europe, and Generation Europe, which represent the Group's thermal power generation activities in Europe.

The Benelux, United Kingdom and North, South and Eastern Europe operating segments have been grouped together within the Rest of Europe reporting segment as all three BUs have a similar business mix (energy services, production and sales of renewable energy) and operate in mature energy markets that are undergoing a process of transformation as part of the energy transition.

KEY FIGURES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Total change (in%)
Revenues	17,270	16,946	+1.9
EBITDA	1,750	1,081	+61.9

1.3.2.1 Benelux

The Benelux reporting segment corresponds to the Benelux BU which, in 2019, included the Group's activities in Belgium, the Netherlands and Luxembourg, in the following areas: power generation from the Group's nuclear power plants and renewable sources, electricity and natural gas sales activities, and energy installation and services activities.

As mentioned in Section 1.1.4, as of January 1, 2020, a new "Nuclear" BU, dedicated to power generation from nuclear plants, is being created in Belgium.

1.3.2.1.1 Role & Strategy

The Benelux BU is the historical leader in low-carbon power generation and the supply of electricity and natural gas in the Belgian market, and the leader in the services segment in the Benelux countries. The BU's mission is: "leading in global and sustainable solutions, which make the difference for our customers, in energy, services and technical installations" and its vision is "to be at the heart of the carbon-neutral transition by making its countries the champions of this challenge.

In line with the Group's strategy, the Benelux BU is particularly well-positioned to provide carbon-neutral transition solutions to its various customers. The BU has a unique presence on the ground, with more than 15,000 employees working daily on "Client Solutions", and also has prime positions in both renewable power generation (onshore wind and photovoltaic solar) and green mobility solutions. Lastly, it is working on previews of hydrogen projects (Benelux), Local Energy Communities (Belgium) and geothermal energy (the Netherlands

1.3.2.1.2 Description of activities

The Benelux BU operates and maintains, in compliance with the strictest nuclear safety standards, the Doel and the Tihange nuclear power plants in Belgium, representing a total installed capacity of 5,930 MWe (with total drawing rights of 897 MWe held by third parties). Moreover, the Benelux BU owns drawing rights of 1,118 MW with EDF in France. A stable legal and fiscal framework has been set for the nuclear power plants until 2025 defining, amongst other things, the economic parameters governing the lifetime extension of Tihange 1, Doel 1 and Doel 2 and the mechanism to calculate the nuclear contribution to be paid by ENGIE Electrabel.

The Group assumes obligations resulting from the April 11, 2003 Belgian Law relating to the management of spent nuclear fuel and the decommissioning of nuclear power plants. As of December 31, 2018, the nuclear provisions in the Group's consolidated financial statements amounted to €11.6 billion (of which €5.3 billion related to the dismantling of facilities and €6.2 billion to downstream management of the fuel cycle). Following the three-year review carried out in 2019 under the authority of the Commission for Nuclear Provisions, the technical scenarios for downstream management of the nuclear fuel cycle were substantially revised, based on the most recent requirements of the relevant Belgian federal authorities. Discount rates were adjusted from 3.50% at the end of 2018 to 3.25% for provisions for the downstream nuclear fuel cycle, and from 3.50% to 2.50% for provisions for dismantling nuclear power plants, with inflation unchanged at 2.0%. Overall, taking into account the opinion of the Commission for Nuclear Provisions and the obligations relating to plans for nuclear waste repositories, nuclear provisions in the consolidated financial statements of the ENGIE Group will be increased by €2.1 billion. This is in addition to the recurring annual accretion expense and the provision for additional fuel consumption during the year, making a total at end-2019 of €14.2 billion (including €6.8 billion relating to the dismantling of facilities and €7.4 billion to the downstream management of the fuel cycle).

The BU also develops, builds and operates renewable energy production assets, including onshore wind capacity of 430 MWe (+43 MWe in 2019) in Belgium and in the Netherlands. Within the framework of the ENGIE Offshore Wind strategy, the BU is involved since 2011 in the development of the offshore wind project MERMAID. In 2018, the project was merged with the offshore wind project Seastar to create SEAMADE (487 MWe), of which ENGIE Electrabel owns 17.5%. As regards Offshore High Voltage Substations (OHVS), the BU – through ENGIE Fabricom – is also a market leader (22 substations constructed and 8 substations under construction or ordered). In photovoltaic power generation, the BU, which is the leader in Belgium and the challenger in the Netherlands, has continued to develop turnkey solutions for its business customers and facilities on the Group's sites in Benelux. This cumulative capacity reached 90.5 MWc at the end of 2019. Lastly, in biogas, the BU acquired the biogas development, engineering and service company BIOGASPLUS in 2018 to boost its expansion in the Netherlands. In Belgium, 2019 saw the development of its first biomethane project.

Through ENGIE Axima, ENGIE Cofely, ENGIE Fabricom and ENGIE Services NL, the Benelux BU operates in the tertiary, industrial, energy and transport sectors and provides public and private customers with various multi-technical services and solutions, such as:

- greater energy efficiency and limited environmental impact of buildings (energy efficiency audits and contracts, HVAC systems, multi-technical management and maintenance, etc.);
- production, operation and distribution of local and renewable energy sources (cogeneration plants, industrial utilities, etc.);
- integrated services (facility management, multi-site management, public-private partnerships, etc.);
- maintenance of networks (low & medium voltage power, low pressure gas, telecoms, water, public lighting, etc.);
- installation & industrial maintenance activities (3D printing, electricity & instrumentation, process solutions, automation, etc.);
- construction and maintenance activities to mobility infrastructures in the field of roads (lighting, traffic management, etc), waterways, airport, ports and rail & metro (stations, catenaries, signalization, passenger information systems, etc.).

In the market for residential customers and small businesses, the Benelux BU manages 2.49 million electricity supply contracts (~8.5 TWh) and 1.35 million natural gas contracts (~19.6 TWh) in Belgium, and approximately 360,293 electricity contracts (~1.5 TWh) and 343,894 natural gas contracts (~5.1 TWh) in the Netherlands. In 2019, the BU continued to roll out its innovative offer, aiming to help customer manage their consumption using tools and solutions to improve their energy efficiency. It also has a portfolio of business customers (industry and tertiary) in electricity (~14 TWh in Belgium, ~9.9 TWh in the Netherlands) and natural gas (~17 TWh in Belgium, ~9.9 TWH in the Netherlands), as well as energy services offers.

Regulatory changes: in Belgium, the main changes concerning security of supply are the passing in April 2019 of a framework law introducing a capacity remuneration mechanism (CRM) based on the reliability options model (as recently implemented in Ireland and in Italy). The aim of this mechanism is to attract 4 GWe of new capacity (mainly gas) by the end of 2025, replacing nuclear. There are two main risks: very tight scheduling for implementation (in view of the fact that the implementation methods are still under discussion and that approval has to be obtained from the European competition authorities); and diverging views among the authorities on the need for a CRM (insurance against the risk of supply insecurity). Moreover, the question of the funding and division of the cost of the CRM between the various categories of network users has not yet been decided.

1.3.2.2 United Kingdom

1.3.2.2.1 Role & Strategy

The United Kingdom (UK) BU has the defined mission of improving lives through better living and working environments. The BU combines its capabilities in energy and services to enable customers to embrace a lower carbon, more efficient and increasingly digital world. It does this through the supply of reliable, flexible and renewable energy, energy efficient and smart building solutions, provision of effective and innovative services and the transformation of neighborhoods through regeneration.

1.3.2.2.2 Description of activities

There are four divisions in the UK BU:

- Energy infrastructure (power generation, renewables development and trading and portfolio management): the BU has over 2 GW of generation assets, including the UK's foremost pumped storage facility (First Hydro) and an established renewables development business (on & offshore wind and solar). The business has a pipeline of renewable projects in development, including a 23.3% stake in the 950 MW Moray East offshore wind farm in Scotland;
- Business Energy & Services (energy efficiency, energy supply & power purchase, facilities management, technical services): the BU focuses on integrated offers. Its extensive capabilities are designed to serve both public and private organizations. ENGIE has signed an agreement with Bombardier Transportation, for a five-year contract to deliver integrated FM, production maintenance and project services to 33 sites across 12 countries, including the UK;
- Places & Communities (design & refurbishment of homes, buildings and places, facilities management, decentralized production, district energy): The UK BU is a strategic partner in placemaking to create and regenerate communities as well as maintain and support them. Activities also include provision of energy efficiency measures and renewable technologies. On the Kingston University site in London, ENGIE is delivering a major regeneration project across two student accommodation sites with an additional FM contract to maintain the sites over 50-year period;

- Homes & Enterprises (energy supply, smart home technology, EV charging and infrastructure): ENGIE is a supplier of energy and related services to homes and SME's across the country. The BU also provides EV charging points, connected and smart technologies for consumers. ENGIE UK currently has around 70,000 customers. ENGIE has been awarded a 10-year contract to install and manage EV infrastructure across the West Yorkshire region, including supply of 100% renewable electricity.

Regulatory changes: UK Capacity Market auctions and payments were suspended on State Aid grounds following a ruling by the European Court of Justice. The Capacity Market Supplier Charge was therefore not collected during the standstill period impacting the majority of UK power generators, including ENGIE. EU Commission ruling was made in October 2019 which enabled reinstatement of UK Capacity market resulting in back payments.

1.3.2.3 North, South and Eastern Europe (NECST)

1.3.2.3.1 Role & Strategy

The North, South & Eastern Europe BU is currently present in Austria, the Czech Republic, Germany, Greece, Italy, Norway, Poland, Portugal, Romania, Slovakia, Spain and Switzerland.

Our geographical areas offer strong market potential, particularly due to the size of their industries, the awareness of sustainable development in their cities and the presence of many international companies engaged in reducing their carbon footprints. The BU's mission is thus to co-develop, with its customers, reliable, carbon-neutral solutions for a new energy world.

The BU's business encompasses Client Solutions (BtoB, BtoT), Renewable (hydropower, wind, solar), gas Networks (distribution, storage) and energy Supply (BtoC, BtoB). The BU implements its strategy through a country-by-country organization, enabling it to accelerate its expansion to the benefit of its customers.

1.3.2.3.2 Description of activities

In Romania, the main activity is natural gas distribution via subsidiary Distrigaz Sud Retele, which operates a distribution network of 20,299 km, including the 313-km WIROM network acquired in February 2019. The BU is engaged in natural gas storage through its subsidiary Depomures. ENGIE Romania supplies natural gas and electricity to 1.9 million customers (BtoC and BtoB), and energy services, particularly to 70,000 BtoC customers through ENGIE Servicii. ENGIE Romania operates two wind farms in Gemenele and Baleni with installed capacity of 98 MW. It also has a presence in smart public lighting and connected objects with Flashnet, which develops smart energy management systems for cities.

Regulatory changes: In January 2020, the new government approved an ordinance that brought in substantial changes to the deregulation of the energy market. The residential and non-residential segments of the gas market will be fully deregulated from June 30, 2020 and the electricity market will be deregulated from December 31, 2020. Meanwhile, the 2% tax applied to the turnover of gas and electricity production, transmission and distribution companies has been abolished, and the level of profitability for distribution (6.9% until April 30, 2020) will be set by ANRE during 2020.

In Italy, the BU is active in natural gas and electricity sales, with more than 820,000 consumers (BtoC and BtoB). The BU is a main player in public lighting and has recently strengthened its positioning in district heating networks by making several acquisitions. In its position as market leader, the BU also provides energy efficiency and decentralized solutions to residential customers, businesses and public authorities, and has taken part in several calls for tenders launched by Consip. ENGIE Italy operates 158 MW of roof- and ground-mounted wind and solar assets, and biomass plants. In December 2019, the BU also embarked on the acquisition of Renvico Holding, which has a portfolio of 142 MW of wind power, also taking over a number of wind and solar projects.

In Germany, through its investments in four municipal services, the BU supplies electricity and gas and operates heating, energy distribution and decentralized solutions networks. Its cooperation with the city of Sarrebruck was extended by 10 years in May 2019. The BU actively participates in the installation, operation and maintenance of energy efficiency solutions and strengthened its leading position in technical building services with the acquisition of Otto Luft- und Klimatechnik in February 2019. It also operates 339 MW of renewable energy (wind, hydraulic pumping station) and battery storage sites.

In Spain, the entities operate 112 MW of solar and hydro power, with more than 500 MW of wind and solar capacity under construction. The BU also operates cogeneration units in Barcelona and the Netherlands and cooling and heating networks in Barcelona and Saragossa. ENGIE Spain is also active in installation and maintenance services and energy efficiency solutions. It supplies natural gas and electricity to BtoB customers.

In Portugal, the BU is mainly engaged in power generation from renewable energy, via TrustWind (a 50/50 joint venture with Marubeni), including operation of 489 MW of wind power. In December 2019, ENGIE agreed to acquire a portfolio of 1.7 GW of hydropower generation capacity with Crédit Agricole Assurances and Mirova, which is expected to come into effect in 2020. It also distributes heating and air conditioning to the city of Lisbon through its Climaespaço subsidiary, and provides O&M services and energy efficiency solutions.

In Austria and Switzerland, the BU is mainly active in energy efficiency, installation and maintenance services. ENGIE Switzerland manages facilities at Geneva and Zurich airports and, in September, launched the Sisslerfeld cogeneration plant, which supplies heat to three industrial operators.

In Poland, the BU is active in installation and integrated services and has a BtoB customer portfolio in the electricity sector. It is also active in renewable energy generation, with installed capacity of 138 MW in wind and 6 MW in solar, as well as in heating networks.

In Norway, the BU teamed up with Susi Partners to develop a 208 MW wind farm in Tonstad, where the power is sold under a 25-year sale agreement with aluminum producer Hydro. The first turbines were commissioned in September 2019.

In the Czech Republic and Slovakia, the BU provides installation and O&M solutions. The BU is a major private heating network operator in Slovakia, and operates distribution board manufacturing sites in the Czech Republic.

1

In **Greece,** ENGIE's subsidiary, Hellas, is active in energy efficiency solutions and technical services for buildings and supplies electricity and gas to retail, industrial and commercial customers.

1.3.2.4 Generation Europe

1.3.2.4.1 Role & Strategy

The market environment of BU Generation Europe is impacted by a transition towards a less carbon intensive economy. The energy market, reoriented by European and domestic regulatory developments, is characterized by a strong expansion of intermittent renewable energy sources (RES), plans to phase out coal-based generation in a growing number of countries and an industrial sector that is facing rising CO_2 prices.

The emergence of intermittent RES has resulted in greater volatility in the production profile, and the phasing out of coal production, coupled with the phasing out of nuclear in Germany, will create a problem of matching electricity supply and demand in the medium term if it is not compensated.

In this context, natural gas power plants now have a key role to play by offering the necessary flexibility in the energy markets, alongside emerging solutions. To enable existing capacity to remain operational, the European bodies are allowing governments to gradually introduce remuneration mechanisms for power generators (reserve capacity mechanisms, strategic reserves, etc.).

In this context, BU Generation Europe wants to play that role of perfect complement to renewables and to help large industrial customers to face the challenges of the energy transition. The BU offers competitive energy services in the European markets and innovative solutions to its industrial customers.

To achieve this, it markets energy by:

- operating and developing low CO_2 emitting power generation activities;
- operating a pumped-storage facility and developing battery storage, either in combination with its own power plants or at customer sites;
- offering solutions to major industrial customers, so that they can tackle the new challenges associated with the energy transition, i.e. security of supply and reducing CO_2 emissions;
- supporting the development of a sustainable value chain around green hydrogen.

1.3.2.4.2 Description of activities

The Generation Europe BU manages a portfolio of thermal generation assets with installed capacity of 20.3 GW in six European countries (France, Belgium, Italy, Portugal, Spain, and Greece), including its own power plants and assets decentralized with customers. Installed capacity broken down by technology is as follows: gas (15.6 GW), hydropower and pump storage (1.3 GW), biomass & other (0.5 GW). In 2019, the BU completed the sale of its coal-based generation capacity (2.9 GW) in Germany and the Netherlands.

Next to its power generation business, BU Generation Europe offers services to large industrial customers around energy and O&M solutions, to help them face the challenges in the energy transition, based on our strengths, proximity and our strong references.

One major challenge for the Generation BU in 2020 will be preparing its assets and establishing projects in line with the Green Deal targets set by the COP25 in Madrid. In order to achieve this, the BU is working to improve the efficiency of its assets and is also taking initiatives to test the use of lower-carbon fuels such as hydrogen in energy generation. It is important for the legislation relating to these fuels to be incorporated in the new directives to be announced in 2021, including RED II. 2020 will be a year of discussions and consultation, to fine-tune the 2030 targets and to establish the legislative platform for carbon neutral in 2050, which is Europe's final and non-negotiable target.

Regulatory changes: Under the Green Deal agreed at the Madrid COP 25, laws on the use of lower-carbon fuels such as hydrogen to generate energy will be announced in 2021 (new RED II Directive). Meanwhile, discussions and consultations to fine-tune the targets for 2030 and establish the legislative platform for carbon-neutral by 2050 will be launched in 2020.

1.3.3 Latin America

The Latin America reporting segment includes the activities of two BUs: the Latin America BU (Argentina, Chile, Mexico, Colombia, and Peru) and the Brazil BU.

KEY FIGURES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Total change (in%)
Revenues	5,341	4,639	+15.1
EBITDA	2,221	1,789	+24.2

1.3.3.1 Latin America (excluding Brazil)

1.3.3.1.1 Role & Strategy

The Latin America BU aims to be the preferred partner providing sustainable solutions for a carbon-neutral world in the five countries where ENGIE is present (Argentina, Chile, Colombia, Mexico, and Peru).

The BU's targets, which are fully aligned with its mission, are to (i) supply cleaner energy to its customers, (ii) help its customers to improve their consumption, (iii) extend the activities of its networks as key "regional anchors" to roll out its solutions, (iv) support growth in our countries by developing social infrastructure (universities, hospitals, airports, etc.), and (v) ensuring the health and safety of its employees and subcontractors.

1.3.3.1.2 Description of activities

Client Solutions

In December 2018, ENGIE Latin America acquired CAM, a services company active in Chile, Colombia and Peru, specializing in the supply of solutions in the area of installation, operation and maintenance for the electricity and telecommunications sectors.

In 2019, an integration process took place between CAM and ENGIE's services companies in Latin America, resulting in the creation of a regional services platform comprising ENGIE's wholly owned Client Solutions subsidiaries in Chile, Colombia, Mexico, and Peru. These companies provide a complete portfolio of solutions, mainly for the mining industries, city authorities and social infrastructures, including: maintenance of industrial and electrical works, traffic control systems, facility management and energy efficiency, sustainable mobility, LED technology, district heating and cooling, HVAC and auxiliary services, and technological solutions.

Energy and infrastructure

In Peru, ENGIE owns a 61.77% stake in ENGIE Energia Peru, a leading power generation company with installed capacity of approximately 2,500 MW (50% renewables and 50% gas). ENGIE Energia Peru's shares are traded on the Lima stock exchange.

In Chile, ENGIE holds a 52.76% stake in ENGIE Energia Chile. This company has installed capacity of around 2,065 MW and manages 2,293 km of transmission lines. Its shares are traded on the Santiago stock exchange. ENGIE Energia Chile also owns 50% of TEN (Transmisora Eléctrica del Norte), which operates a 600-km transmission line connecting the power grids of northern and central Chile.

In the gas sector, ENGIE holds an equity investment of 63% in GNL Mejillones, an LNG regasification terminal with capacity of 5.5 mm^3/day located in northern Chile, and 100% in ENGIE Gas Chile and ENGIE Stream Solutions Chile, which sell natural gas through distribution pipelines and LNG by truck.

Regulatory changes: in april 2018, the chilean government announced the coal farmer in 2040, starting with the most polluting.

In Mexico, ENGIE operates eight local distribution companies providing natural gas to close to 600,000 customers through a 11,500 km network, and three gas transmission companies operating around 1,300 km of pipelines.

In Argentina, ENGIE holds a 64.2% stake in Litoral Gas, a gas distribution company with more than 740,000 customers. It also holds an equity investment of 46.7% in Energy Consulting Services (ECS), a company that sells electricity and gas and provides energy advisory services. ENGIE also has a stake in Gasoducto NorAndino, a pipeline of around 1,000 km between Argentina and Chile, wholly owned by ENGIE Energia Chile.

In renewable energy generation, ENGIE was awarded six projects in national calls for tender in 2016 and 2017, totaling 908 MW (five solar parks and two wind farms). On October 2018, ENGIE Mexico also signed a 15-year power purchase agreement (PPA) to supply renewable energy to steel producer, Gerdau. For this purpose, the Group is developing a 100 MW photovoltaic plant in the state of Sonora. In 2019, the first wind farm, Tres Mesas 3 (50 MW) successfully launched its commercial activities.

1.3.3.2 Brazil

1.3.3.2.1 Role & Strategy

Brazil is a rapid growth economy with a population of approximately 200 million. Electricity demand has been steadily growing over the last decade. Electricity supply in the country still relies heavily on hydroelectric power (64% of total installed capacity).

Centralized power generation will continue to play an important role, although the system is clearly evolving towards a more diversified energy mix (comprising hydro, thermal and non-conventional renewable energy (NCRE)). The growing contribution of NCRE to the country's energy mix, added to new hydroelectric power projects, have increased the thermal generation requirement (the system has become more vulnerable due to unfavorable hydrological scenarios). Growing environmental issues and difficulties with obtaining licenses represent further challenges in the creation of new hydroelectric power plants.

In this context, gas will play a key role in the energy mix in the medium term, reinforced by recent discoveries in the pre-salt region (which have practically doubled potential domestic production) and the need to deal with increasingly volatile components.

Its mission is to provide innovative and sustainable solutions in energy and services to people, companies and territories.

More specifically, the BU Brazil's strategic directions are focused on:

- centralized power generation - be at the forefront of the transition towards an increasingly renewable world of energy, investing in wind, leveraging sites to invest in centralized solar PV while maintaining core competencies in hydropower;
- gas - be in the forefront of the re-structuring of the gas market in Brazil resulting in a more competitive market and benefit from new opportunities to come;
- services - become relevant in energy-related Services in Brazil with a focus on large commercials and industrial sites and territories;
- decentralized power generation – support development of "prosumer" in Brazil setting up a BtoC decentralized generation.

1.3.3.2.2 Description of activities

- Centralized energy generation:

ENGIE Brasil Participacoes Ltda (EBP), a subsidiary of the Group, owns power generation assets of 10,211 MW in operation and 680 MW under construction, representing around 6% of Brazil's total capacity. 83% of installed capacity comprises hydroelectric power plants, 11% thermoelectric plants and 6% complementary plants (biomass, wind, small hydroelectric power plants and solar).

EBP holds 68.71% of the share capital of ENGIE Brasil Energia (EBE), which is responsible for the centralized generation business. The company is listed on the Brazilian stock exchange. EBP has an equity investment of 40% in Energia Sustentavel do Brasil Participações S.A. ESBR wholly owns the Jirau hydroelectric power plant (3,750 MW).

- Energy transmission:

in December 2017, ENGIE entered the transmission lines market in Brazil: EBE won an auction for a project involving around 1,000 km of transmission lines and five substations in the southern state of Paraná.

In January 2020, ENGIE won a call for tenders for the acquisition of a 30-year concession project that includes the building, operation and maintenance of a 1,800-km transmission line in the north of Brazil.

ENGIE has thus become the biggest power infrastructure player in Latin America, with close to 3,000 km of lines rolling out in Brazil by 2022 and 2,200 km already in operation in Chile.

In natural gas pipeline infrastructures, ENGIE has acquired, through the consortium comprising ENGIE S.A., ENGIE Brasil Energia and Caisse de dépôt et placement du Québec (CDPQ), 49.3% of TAG's assets. TAG is one of the biggest natural gas transmission companies on the regulated market in Brazil, with a network of pipelines of approximately 4,500 km, representing 47% of the country's total gas infrastructure. TAG has 11 gas compression facilities, 14 gas reception points (including two LNG terminals) and 90 gas distribution points.

- Client Solutions: ENGIE Brasil Soluções develops and implements integrated solutions focused on reducing costs and improving infrastructure for businesses and cities, such as energy efficiency, energy management, and management of energy supply contracts, as well as public lighting, HVAC systems, telecommunications, security, and urban mobility systems for cities. The company is a subsidiary of EBP. The company currently has more than 5,000 energy monitoring contracts in place and is the leader in energy management, managing and monitoring more than 25,000 points. It is also one of Brazil's leading public lighting network managers, with 300,000 points.
- Decentralized solar power generation: ENGIE is expanding its decentralized solar power generation business in Brazil through ENGIE Brasil Soluções, which has more than 2,300 solar panels. In addition, ENGIE Solar PV Utility-Scale, an entity reporting to the Group's Corporate function, provides large-scale PV solutions, mainly involving development and EPC services. The company operates photovoltaic power plants with installed capacity of 260 MW.

Regulatory changes: On the gas market, a new law, which is in the process of being approved, aims to open up the market and create opportunities in areas such as gas distribution, gas storage and biogas. In the electricity sector, after a public consultation organized in 2018, numerous measures have been implemented or are planned with the aim of modernizing the sector in the light of the energy transition, with a gradual reduction in subsidies, the extension of concessions, the gradual widening of eligibility criteria on the free market, electricity prices on an hourly basis, a mechanism for remuneration of capacity, auxiliary markets for characteristics such as operational flexibility and environmental characteristics (creation of markets that value low carbon emissions), sophisticated two-way communication and measurement technologies for retail consumers, and a solution for hydrological risk (known as Generating Scaling Factor, or GSF, which is the difference between the guarantee of physical operation and the energy actually produced by the generators), and others.

1.3.4 United States & Canada

The United States & Canada reporting segment corresponds to the North America BU. The BU entities provide renewable power generation, district energy services, retail electricity sales, natural gas, the United States, Canada and Puerto Rico.

KEY FIGURES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Total change (in%)
Revenues	4,545	3,355	+35.5
EBITDA	291	252	+15.6

1.3.4.1 Role & Strategy

The United States registered significant growth in total renewable energy capacity of 7.6 GW in wind in 2018 (nearly 100 GW installed) and 10.6 GW in solar (62.4 GWc installed). More and more of these assets are connected to end-customers (13.4 GW of CAE signed in 2018). Furthermore, after Europe, the US energy efficiency market is one of the biggest (with turnover of around $7 billion) and most mature. The municipalities, universities, schools and hospitals sectors (MUSH) represents around 70% of its total North American revenues. Campuses, hospitals and universities require integrated, complete solutions to manage their facilities and improve their efficiency. The energy efficiency market is being driven by companies, governments and now cities (New York) seeking to decarbonize their consumption.

Lastly, distributed production and storage have accelerated, with community projects being increasingly encouraged in the States (particularly in Massachusetts and California).

The aim of the North America BU is to help to build a sustainable future and to provide local authorities and businesses with clean, affordable, and resilient energy and supporting infrastructure.

The BU is thus developing in two key growth areas: (i) centralized renewable energy generation (wind and solar), to meet growing demand for clean energy from customers, and (ii) client solutions to help customers modernize their facilities, reduce their costs, preserve their resources and optimize the environment for their users in terms of comfort, security and productivity. It aims to help customers achieve their transition to carbon-neutral by adopting a partnership approach.

The North America BU has clear opportunities and ambitions for the future: (i) to accelerate the development of renewable energy, achieving at least 2.5 GW of new projects in 2021 (compared with the end of 2018) and to support its customers in the greening of their energy supply under Power Purchase Agreements (PPAs); (ii) to be recognized as a leader in integrated carbon-neutral solutions by combining the technical capabilities and internal technologies of the BU in order to offer sophisticated and financed solutions to its customers, and (iii) to industrialize the development of asset- based solutions, starting with district heating and cooling, distributed solar, and batteries.

1.3.4.2 Description of activities

The BU's three main business segments are:

- asset optimization, covering power generation assets in operation, and management of district energy customers OSU and LMEC and ENGIE Storage;
- energy management is focused on energy supply and also includes the Think Energy subsidiary, active in the BtoC market;
- the energy services division consolidates the growing range of services activities, positioning the BU in order to generate operational synergies while it continues to acquire services companies and to share best practices in the supply of services to customers.

The BU has pursued external growth with the acquisition of:

- Conti, which has extended ENGIE's capacity considerably in the provision of solutions (works and operation) to commercial and industrial customers and increased the BU's geographical portfolio in North America (particularly in the Great Lakes region);
- Systecon, a leading manufacturer of customized modular utilities solutions (refrigeration systems, boilers, steam equipment, etc. for data processing centers, industrial processes, etc.). This acquisition has enabled ENGIE to expand its client solutions portfolio (energy efficiency, renewable energy and data management);

In December 2019, ENGIE and Meridiam were awarded a 50-year concession with the University of Iowa (UI) relating to energy efficiency, water management and, more generally, sustainability. ENGIE will be responsible for the operation, maintenance, optimization, and improvement of public service systems on the university campus. The project includes the provision of heating, cooling and power to the campus through a dedicated network, and the management of sanitary water and high-quality storm sewer services.

Regulatory changes: The number of US States pledging to produce 100% renewable or clean energy by 2050, through targets or mandatory requirements, continued to increase in 2019. Last year, the States of Maine, Nevada, New Jersey, New Mexico, New York and Washington, as well as Puerto Rico and Washington DC, joined California and Hawaii, which had previously announced programs and targets to reach 100% carbon-neutral energy in 2045 and 2050 respectively. Massachusetts, meanwhile, continued to advance the Solar Massachusetts Renewable Target (SMART) program, proposing to extend the development of new solar facilities under the program from 1600 MW to 2400 MW and allowing developers of solar and energy storage projects, in addition to distribution services, to receive revenues for capacity rights on the wholesale electricity market.

New York City Council voted in favor of the Climate Mobilization Act, a plan that would require thousands of tall and medium-sized buildings to reduce their greenhouse gas emissions. The legislation sets an overall emission reduction target of 40% in 2030, compared with emissions for the 2005 calendar year.

1.3.5 Middle East, Asia & Africa

The Middle East, Africa & Asia reporting segment comprises the activities of four BUs: the Asia Pacific BU (Australia, New Zealand, Thailand, Singapore, Indonesia, and Laos), the China BU, the Africa BU, and the Middle East, South and Central Asia, and Turkey BU (including India and Pakistan). In all of these regions, the Group is active in electricity generation and sales, gas distribution and sales, energy services, and seawater desalination in the Arabian Peninsula.

KEY FIGURES

In millions of euros	**Dec. 31, 2019**	**Dec. 31, 2018**	**Total change (in%)**
Revenues	2,914	4,014	-27.4
EBITDA	727	1,133	-35.9

1.3.5.1 Asia Pacific

1.3.5.1.1 Role & Strategy

At December 31, 2019, the Asia Pacific BU held strong positions in Singapore and Australia, with business activities in the Philippines, Malaysia, Indonesia, Mongolia, and Thailand, and development offices in Japan and South Korea. In 2019, the Asia Pacific BU achieved decarbonization of its large-scale business with the sale of its last coal-fired plants, and embarked on an ambitious growth plan, mainly based on renewable energy generation and client solutions, including the development of new activities around rural electrification and smart cities.

With regard to the transformation plan, the Asia Pacific BU completed the sale of Glow in March 2019, ending a three-year period of asset rotation marked by the sale and/or closure of mainly coal-based power generation assets totaling close to 8,000 MW. The Asia Pacific BU therefore no longer has any coal-based generation activities.

The BU also decided to transfer its Bangkok regional office to Singapore, a strategic initiative aimed at taking advantage of Singapore's location and ecosystem to achieve the BU's growth objectives, particularly in renewable energy and client solutions.

1.3.5.1.2 Description of activities

In Australia, ENGIE operates more than 1,100 MW (gross) of renewable (wind turbine) and gas-fired plants. In 2019, ENGIE commissioned the Willogoleche wind park in south Australia, which has installed capacity of 119 MW and can supply renewable energy to more than 80,000 households. Australia has a pipeline of over 1,000 MW of solar and wind projects under development and is actively engaged with customers seeking energy purchase agreements through companies that help them achieve their sustainable development goals:

- in September 2019, ENGIE signed a ten-year corporate PPA with Lion, one of Australia's largest food and beverage companies, for annual consumption of 17.5 GWh;
- in October 2019, ENGIE signed a five-year agreement with L'Oréal Australia, helping the company to achieve its local sustainable development goals through a corporate PPA (for annual consumption of 1.5 GWh/year), using renewable energy certificates from the Willogoleche wind farm.

The portfolio also includes services activities in Australia and New Zealand, providing services and facilities for multi-technical buildings, and an energy supply business in Australia called "Simply Energy", intended for the BtoB and BtoC segments (around 730,000 contracts) and including a suite of energy solutions (roof-mounted PV, batteries, etc.) to help customers reduce their energy costs and their environmental footprint.

In 2019, the political context had a major impact on energy supply prices. The outlook for 2020 is similar.

In Indonesia, ENGIE is focused on renewable energy development, with construction under way on two geothermal power plants on the island of Sumatra: Muara Laboh (85 MW) and Rantu Dedap (90 MW).

In Singapore, ENGIE holds an equity investment of 30% in Senoko Energy, which operates a portfolio of energy generation assets with combined capacity of 3,300 MW. Senoko is present in retail electricity sales to the BtoB and BtoC segments: this market was opened on May 1, 2019.

The BU continued to grow in 2019, particularly in client solutions:

- ENGIE won a call for tenders to design, build, own and operate the district cooling system (DCS) of the Punggol digital district, thus becoming the first foreign company to win such a contract in the country;
- ENGIE acquired RCS Engineering, which contributes local expertise in data center installation and design, enabling ENGIE Singapore to offer client solutions for the digital economy and digital infrastructure, which are growing rapidly in the region;
- ENGIE also has a partnership in place with Unabiz and KK Women's and Children's Hospital (KKH), with energy efficiency sensors for temperature and humidity control in the hospital buildings;
- meanwhile, ENGIE and JTC, Singapore's leading industrial developer, announced the signature of a memorandum of understanding for joint research and development (R&D), testing and piloting of advanced clean energy solutions in JTC's industrial buildings.

The Client Solutions offer also extends to South-East Asia, Thailand, Malaysia, and the Philippines. ENGIE is one of the main suppliers of district cooling networks in the Philippines and Malaysia, and also provides a wide range of client solutions services in all three countries (energy efficiency, installation, facility management, etc.).

In Thailand, ENGIE also owns a 40% stake in PTT NGD, a distributor of natural gas to industrial customers in the Bangkok region.

In North Asia, the Asia Pacific BU created a subsidiary in South Korea (ENGIE South Korea Limited) in September 2019, and, at the same time, actively pursued opportunities for the commercial development of Renewable energy and Client Solutions in Japan.

Lastly, in Myanmar, Mandalay Yoma Energy, a joint venture with Sol Partners Pte. ("Sol Partners"), provides access to energy by rolling out micro-grids supplying electricity to Myanmar's population, which does not have access to modern forms of power.

Regulatory changes:

Some countries in South-East and North Asia are taking measures to increase the proportion of electricity from renewable sources and to improve energy efficiency. In particular:

Australia, despite having a target for renewable energy of 23.5% of electricity consumed on the National Electricity Market in 2020, and being apparently well on the way to meeting its commitments under the Paris Agreement (a reduction in greenhouse gas emissions of 26% to 28% compared with 2005 levels by 2030), has no clear policy in place for the country on greenhouse gas emissions (the emissions rate per head in Australia is the 14th highest worldwide, and the third highest among the G20 countries). Instead, the debate is focused more on electricity regulation in order to keep prices affordable for the most vulnerable customers.

In Indonesia, President Jokowi has announced plans to relocate the country's capital to the province of East Kalimantan. Construction is scheduled to start by the end of 2020. The transfer of government offices will begin in 2024. The Ministry of Energy and Mineral Resources and PLN are currently drawing up a Presidential Regulation on Renewables with the aim of achieving a target of 23% by 2025.

The government of Singapore has set a new solar energy target. It plans to produce enough energy by 2030 to meet the annual needs of around 350,000 households, representing 4% of Singapore's total current electricity demand.

In Malaysia, the government aims to increase the country's target for power generation from renewable sources to 20% in the next six years, according to Yeo Bee Yin, Minister of Energy, Science, Technology, the Environment and Climate Change. She adds that this target will be achieved under the Malaysia Energy Supply Industry 2.0 plan (MESI 2.0).

In the Philippines, President Rodrigo Duterte has signed a bill that institutionalizes energy efficiency and energy saving, encourages more efficient energy use and grants subsidies to energy efficiency and energy saving projects in the country.

South Korea plans to increase the proportion of energy it generates from renewable sources to 35% by 2040, as indicated in a plan to revise government policy unveiled in early May 2019. This is more than four times the percentage of renewables in its energy production in 2019.

In Japan, the government has published a new white paper on energy, asserting that Japan is facing an "urgent mission" to reduce its carbon emissions from public services, which rely heavily on fossil fuels to make up for shortages in nuclear. The call comes as Fukushima's nuclear reactors are being gradually restarted, in an anti-nuclear climate that has persisted since the crisis of 2011. Japan wants to continue to develop renewable energy, and has set a target of 22% to 24%, while maintaining nuclear at an equivalent level. It has also committed to reducing its carbon emissions by 26% by 2030 compared with 2013 levels (an actual reduction of 7%).

Lastly, the new regulations of the International Maritime Organization (IMO2020) restricting the use of High Sulfur Fuel Oil (HSFO) in the maritime sector came into force on January 1, 2020. The regulations adversely affected prices of HSFO and gas related to HSFO, resulting in a shift towards LNG and fuels emitting fewer GHGs for this mode of transport.

1.3.5.2 China

1.3.5.2.1 Role & Strategy

China is pursuing its policy of combating air pollution, with progress made towards a cleaner energy mix and more stringent environmental requirements, particularly with regard to carbon emissions and the main energy consumers.

Green corporate PPAs have been established by local authorities in 36 cities, in preparation for the next electricity market reform, scheduled for 2020. Moreover, China's strong economic growth and accelerating urbanization in the coastal provinces provide favorable conditions for the development of ENGIE's strategy on the carbon-neutral transition in the country.

In this context, the China BU continues to focus on its development activities in the two main areas of clean energy and client solutions for local authorities and industry. With regard to energy services opportunities, ENGIE is focusing on four regions along the coastline.

1.3.5.2.2 Description of activities

The China BU is presenting this strategy on the Chinese market around the following activities: (i) renewable energy (PV solar, wind power, and energy storage); (ii) solutions for regions and industry (district heating and cooling, electric vehicle charging, services relating to smart buildings, and energy efficiency services).

The China BU also supports the Group in developing joint projects with its Chinese partners in third countries (in line with the Chinese government's "Belt and Road" (New Silk Road) initiative) and by optimizing the Group's acquisitions through the purchasing of equipment and services from China.

ENGIE now has a presence in Beijing, Shanghai, and Chongqing, and in the Sichuan Province, thanks to the development of several joint ventures in district heating and cooling networks (SFES, a joint venture that is 40% owned by ENGIE and 60% owned by Chongqing Gas Group in the Chongqing region, energy efficiency services through ETS, a services company that is 50% owned by ENGIE and 50% owned by SCE, based in the city of Chengdu, services related to EV or battery charging points through EV Chong, a joint venture that is 23% owned by ENGIE, co-generation of photovoltaic energy through Unisun (a joint venture that is 30% owned by ENGIE), the biggest developer of distributed photovoltaic solar energy in Chine and the biggest supplier of photovoltaic O&M for third parties in China, through Uper, with around 1.4 GW of PV assets, both based in Ningbo in Zheijang province (a joint venture that is 24% owned by ENGIE), and engineering services through Tractebel and Beiran Enterprise Company, located in Beijing).

As well as the above activities, ENGIE, through Tractebel, holds 49% of engineering joint venture BUGET (51% owned by Beiran Enterprise Company), based in Beijing.

Regulatory changes:

China is showing an increasingly keen interest in energy efficiency solutions in order to reduce consumption by 100 TWh by 2022 and 400 TWh by 2030. It also wants to shift towards a market economy, for example by replacing regulated tariffs for grid power production (based on coal prices) with market prices.

1.3.5.3 Africa

1.3.5.3.1 Role & Strategy

There is a growing need for energy in Africa, to sustain the economic growth that is forecast for the coming years. In response to the challenge of access to energy in Africa, ENGIE has the unique capability of implementing integrated solutions throughout the energy value chain, from centralized power generation to off-grid solutions (domestic solar systems, micro-grids) and energy services.

The Africa BU is in charge of developing ENGIE activities in African countries where it already operates and of entering a selection of new countries, which offer a promising balance between rewards and risks for the core activities of ENGIE. More specifically, the BU develops:

- Network and centralized power generation: renewable energy (wind, solar, etc.), transmission, distribution and centralized storage. As natural complement to renewables, gas fired power is developed in several African countries and also gas infrastructure (regasification terminals, storage, transport);
- Client Solutions (mainly BtoB): installation, maintenance, integrated services and energy sales for C&I sector and off-grid solutions for customers in remote areas;
- Client Solutions for cities and regions, specifically public lighting, electric mobility, public safety, regional planning, and airports;
- Client Solutions for Access to Energy: deployment of pay as you go Solar Home System, innovative mini-grids solutions and also develop solutions for reliable electricity in urban areas & clean cooking fuels.

1.3.5.3.2 Description of activities

In Morocco, the Tarfaya wind farm (301 MW) is operated by a 50/50 joint venture (TAREC) between ENGIE and Nareva Holding. The farm represents 40% of Morocco total wind capacity. The Safi power plant, operational since December 2018, comprises two peaking thermal power generation units (2x693 MW). ENGIE holds 35% in the project company SAFIEC.

In Egypt, ENGIE launched the commercial operation of 262.5 MW of wind power at Ras Ghareb in late October 2019, 45 days ahead of schedule. ENGIE holds 40% in the project company. The same consortium is preparing its next wind power project for 500 MW.

In Senegal, in July 2019, ENGIE obtained the project signature and financial documentation for two PV solar power plants totaling 60 MW under the IFC Scaling Solar program.

In South Africa, ENGIE owns several energy generation assets: Aurora Wind Power is a wind farm of 94 MW that is 43% owned by ENGIE. The Dedisa and Avon peaking power plants are two open-cycle gas turbine plants (335 MW and 670 MW). ENGIE holds 38% of the two companies that own the plants. Kathu is a 100 MW concentrated solar power (CSP) plant in the Northern Cape province. The plant began commercial operations in February 2019. The shareholders of Kathu Solar Park include a group of investors, one of which is ENGIE (48.5%).

Alongside its grid-connected centralized energy generation activities, ENGIE also has a presence on the off-grid solutions market. In April 2018, ENGIE completed the acquisition of Fenix International, the provider of solar home systems.

In October 2019, the BU expanded its decentralized energy activities with the acquisition of Mobisol, a pioneer in off-grid solar solutions more powerful. Mobisol operates in Tanzania, Rwanda and Kenya. ENGIE has installed more than 150 000 home solar systems in Africa. Furthermore, with PowerCorner (smart electricity micro-grids), ENGIE now supplies affordable power to more than three million people in sub-Saharan Africa.

ENGIE's energy services business has also expanded into North Africa: in Morocco, the BU encompasses the various subsidiaries providing Client Solutions (BtoC): Cofely Marc, Cofely Tangier, Cofely Contracting, ENGIE Contracting Al Maghrib, and ENGIE Finatech Services.

In February 2018, ENGIE acquired 100% of Thermaire Investments (Pty) Ltd. and Ampair (Pty) Ltd. shares. The two companies operate in South Africa, Mozambique and Botswana and are the leaders in the HVAC installation and maintenance segment in the South African market.

In West Africa, ENGIE acquired two companies specializing in energy services: Afric Power and Tieri specialized in the design, installation and maintenance of electrical systems and automated control mechanisms.

1.3.5.4 Middle East, South and Central Asia, and Turkey (MESCAT)

1.3.5.4.1 Role & Strategy

The Middle East, South and Central Asia, and Turkey region includes a population of over two billion in more than 30 countries. The target countries are showing signs of resilience, with robust and sustainable economic growth, and thus offer a favorable business environment. Although their economic circumstances differ, all the countries are experiencing rapid growth, and have a sizable renewable energy pipeline and a high rate of urbanization.

The MESCAT BU aims to continue to develop strong positions in low-carbon centralized energy generation (natural and renewable gas) and new activities: independent desalinated water production, and integrated client solutions, which continue to be a key contributor to the Group's results.

The BU's strategy is based on the following two key pillars: (i) preserving and increasing the value of the portfolio of existing assets, and (ii) generating growth through new business lines and services in the countries of the MESCAT BU via acquisitions and increasing equity investments.

1.3.5.4.2 Description of activities

Thermal generation

In the Gulf Cooperation Council (GCC) Countries, the ENGIE acts as an asset developer, owner and operator, selling the electricity and water it produces under long-term power and water PPAs. ENGIE is the leading private power and water developer and/or operator in the region, with a total generation capacity of 30 GW and nearly 6 million m^3 of water/day produced from desalination facilities in operation or under construction.

In Pakistan, ENGIE owns 100% of two combined cycle gas turbine (CCGT) plants with total capacity of 932 MW. The electricity produced is sold under long-term PPAs to the distribution companies.

In Turkey, ENGIE holds a majority stake in the Baymina CCGT plant, with total production capacity of 763 MW.

Renewable energy

In India, ENGIE now holds a portfolio of nearly 1.5 GW in renewable energy capacity (1,020 MW of solar and 480 MW of wind), installed or under construction.

Client solutions

In April 2019, ENGIE acquired all of the Cofely-Besix joint venture, which became ENGIE Solutions Middle-East. In the GCC countries, ENGIE is a major facility manager in the region and provides its customers with energy performance services and a range of services in the areas of facility management, decentralized energy generation, public lighting and airport services.

ENGIE holds a 40% stake in Tabreed (National Central Cooling Company PJSC), the leader in urban cooling networks in the GCC. The company distributes the equivalent of one million tons of cooling produced by its 71 urban cooling plants located in the Gulf countries, and is expanding in India.

ENGIE provides operating and maintenance (O&M) services to industrial companies, in both power generation and distribution, in Turkey and in the GCC countries.

In the GCC countries (particularly Saudi Arabia), ENGIE has begun to develop corporate PPAs with industrial customers.

Energy supply

In India, ENGIE has acquired a majority stake in Simpa Networks, which markets individual solar electrification solutions in the rural areas of northern India.

Gas Value Chain

In Turkey, ENGIE owns 90% of IZGAZ, the country's fifth-largest natural gas distributor, which distributed and marketed natural gas to 360,000 residential, commercial and industrial customers in the Kocaeli region in 2019.

1.3.6 Other

The "Other" reporting segment encompasses the following activities:

- the Global Energy Management (GEM) BU manages and optimizes the Group's portfolios of physical and contractual assets (excluding gas transmission, distribution and storage infrastructures), particularly in the European market, on behalf of the BUs that hold power generation assets and of customer portfolios. It is also responsible for selling energy to national and pan-European key industrial accounts and for supplying energy to the BUs which sell it on to their customers. Lastly, it leverages its expertise in the energy-related financial markets to provide solutions to third parties.
- The GEM segment is now included in "Other", pursuant to paragraph 16 of IFRS 8, as it no longer exceeds the quantitative thresholds listed in paragraph 13 of IFRS 8;
- the Tractebel BU (engineering companies specializing in energy, hydropower and infrastructure);
- the GTT BU (specializing in the design of cryogenic membrane confinement systems for maritime transport and onshore and offshore storage of LNG);
- and the contribution of the Hydrogen BU, the "Entreprises & Collectivités" activities of ENGIE SA, and the holding and Corporate activities, which include the entities responsible for the Group's centralized financing and the contribution of the associate company SUEZ.

KEY FIGURES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Total change (in%)
Revenues	8,565	7,565	+13.2
EBITDA	166	119	+39.7

1.3.6.1 Global Energy Management

1.3.6.1.1 Role & Strategy

Operating in the Group's major businesses - the decarbonization of customer offers and the digitization and decentralization of energy production - the Global Energy Management (GEM) BU is at the core of the energy value chain and manages the Group's portfolio of assets in electricity, renewable technologies, natural gas, environmental products and other raw materials such as biomass. The BU is also expanding its customer base at the international level, relying on its four key areas of expertise to provide innovative and competitive bespoke solutions: energy supply; services related to the energy transition; risk management and access to markets; and management of assets. The GEM BU has offices and five trading platforms in 16 countries in Europe, the United States and the Asia Pacific region, and is expanding its commercial activities in more than 50 countries.

As a driving force in the energy transition, the GEM BU implements solutions to reduce greenhouse gas emissions in order to support the Group's decarbonization goals. In this context, in 2019, the GEM BU began developing a tool to measure its carbon footprint pursuant to the Group's CSR policy and an action plan to reduce its "scope 1" (direct) and "scope 3" (indirect) emissions.

Influenced by ENGIE's objectives in the generation and sale of green electricity, the GEM BU is also building its expertise in the management of long-term supply agreements (green PPAs). Several purchase transactions (upstream PPAs) and sale transactions (corporate PPAs) have therefore recently been concluded (1 GW over 10 years), and a further 5 GW is expected to be contractualized in the next three years, either as part of internal partnerships with the Group's BUs, or with external investors and/or suppliers.

As well as long-term power agreements, the GEM BU has drawn up an ambitious plan to expand its green energy management portfolio (hydropower, guarantee of origin and green certificate, biogas, responsible biomass). The BU also plans to increase the proportion of green energy in its gross margin by 36% by 2021.

Lastly, in the belief that the energy transition also requires it to support its employees, the GEM BU has established an innovative training program to develop skills that are essential for ENGIE's transformation.

1.3.6.1.2 Description of activities

The GEM BU's activities are as follows:

- supply and management of gas assets: management and structuring of gas supplies and related logistical support, optimization and enhancement of asset flexibilities in the market, management of capacity contracts (transmission and storage) and gas regulation;
- management and development of electricity assets: optimization and balancing of positions, enhancement of ancillary products, access to markets and proactive monitoring of regulations, management of electricity assets and development of asset management activities for third parties;
- energy supply and risk management: marketing of gas, electricity and energy services to major pan-European or national industrial accounts, internal sourcing for sales entities within the Group in the northwest Europe region;
- market access services: marketing of standard products organized around risk management and access to the energy markets in Europe, Asia Pacific and America;
- services to manage and create value for renewable assets: development of market solutions to accelerate the energy transition, decentralized production aggregator (wind/solar) and flexibility services (Demand Side Management).

Regulatory changes: in July 2019, the GEM BU's activity was influenced, in particular, by the entry into force of the EU climate and energy package, which is affecting the electricity markets, particularly in terms of stronger regional coordination, making cross-border transmission capacity available to the market (introduction of a minimum capacity threshold), and the encouragement of participation in demand.

1.3.6.2 Tractebel

1.3.6.2.1 Role & Strategy

For more than 150 years, Tractebel has been known as an engineering company of prime standing in the areas of energy, water and urban infrastructure worldwide. Tractebel is now focused on designing, engineering and building integrated solutions to support its customers all over the world as they make the carbon-neutral transition, aiming to be the leader in engineering for a carbon-neutral future. Tractebel offers an integrated range of engineering, project management and advisory services throughout the entire life cycle of its customers' projects.

1.3.6.2.2 Description of activities

In the energy sector, Tractebel's main focus is on providing solutions for energy decarbonization through complex renewable energy sources such as offshore wind, floating PV solar, hydrogen, biogas, and hybrid systems. As well as its expertise in complex renewables, Tractebel has maintained a solid foundation in its historic activities, i.e. thermal power, transmission and distribution, and gas/LNG. Tractebel is providing technical and general assistance in the due diligence process for Windfloat Atlantic, a floating offshore wind farm off the coast of Portugal, heads a consortium in the area of innovative floating solar technologies, and is taking part in Dolphyn, a UK pilot project that aims to produce green hydrogen by combining offshore wind power with sea water. Tractebel is focused on the design of the floating platform, the wind turbine, and the integration of the desalination and electrolysis units into the floating platform.

With 60 years of experience, Tractebel has developed cutting-edge knowledge in the field of nuclear power. Operators, constructors and investors have confidence in its services, which include designing new facilities, supporting safe, profitable operations, preparing decommissioning plans and developing research reactors. Tractebel is designing buildings and facilities for MYRRHA, a "first of its kind" high-powered research reactor driven by a particle accelerator, working on the design of Cigéo, a geological disposal facility for safe storage of nuclear waste in France, and performing a study on modular reactors that will help Estonia to optimize its energy mix.

In water, Tractebel aims to help prepare the adaptation and resilience of the water-food-energy chain to the impacts of climate change. Tractebel is now recognized as a world expert in hydroelectric power. It also specializes in all types of hydro infrastructures, including dams, ports, waterways, water exchanges, pumping stations, and underground works. Tractebel also helps cities and regions with coastal protection, flood management, desalination, and irrigation projects. Tractebel is also providing engineering services to the owner of the Grand Ethiopian Renaissance Dam, carrying out flood risk mapping for the Nepalese government, and taking part in the construction of the Medellin plant for the treatment of the waste water of around three million Colombians, and the use of biogas generated as a by-product in electrical and thermal energy.

Lastly, Tractebel is committed to making urban environments more livable, environmentally friendly and sustainable. More than 1,000 urban planners, engineers and environmental specialists at Tractebel create design solutions for the best cities and regions in the world, with the help of BIM, simulation tools, and complex modeling packages. Tractebel's activities encompass urban design and planning, green transport and mobility, sustainable buildings, studies on the environment and climate change, and district heating and cooling solutions. Tractebel is participating in Greater Springfield, the zero-energy Australian city, providing technical assistance for the high-speed rail line between Delhi and Meerut, and providing healthy environmental management of the Jequitai dam in northern Brazil.

1.3.6.3 Gaztransport & Technigaz (GTT)

1.3.6.3.1 Role & Strategy

The company specializes in systems of cryogenic, or very low temperature, membrane containment used for sea transport and onshore and offshore storage of LNG and other liquefied gases.

The GTT BU's missions are to (i) provide the various players in the LNG chain (shipyards, shipping companies, gas companies) with containment systems designed by the company, which make it possible to transport and store liquefied gas in bulk, reliably and safely; (ii) provide engineering, advisory, training, maintenance assistance and technical study services at all stages of the liquefied gas chain, and (iii) promote new LNG outlets, by contributing in particular to the development of LNG as a fuel for the propulsion of ships (LNG as fuel), and of LNG transportation by sea or inland waterways in small or medium-sized ships.

1.3.6.3.2 Description of activities

Over the past 50 years, GTT has developed tried and tested technologies for sea transportation and onshore and offshore storage of LNG and other liquefied gases.

The confinement systems designed by GTT are based on its Mark and NO membrane technologies for LNG tankers and other floating units and GST for LNG onshore storage tanks. These systems make it possible to transport and store liquefied gas in bulk, safely and reliably.

GTT also provides solutions for the use of LNG as a fuel for shipping as well as a broad range of services in engineering, assistance in emergency situations, consulting, training, maintenance assistance and the performance of technical studies. In 2019, the trend in orders for LNG tankers, ethane tankers, and GBS terminals (gravity based structures) continued, with new achievements in the field of LNG fuel.

Traded in Compartment A of the Euronext Paris market, GTT is 40.41% held by ENGIE.

1.3.6.4 ENGIE SA "Entreprises & Collectivités" activities

1.3.6.4.1 Role & Strategy

Entreprises & Collectivités (E&C) aims to be the preferred energy supplier for businesses, local authorities and condominiums (BtoB segment) in France, except for the so-called "Giants" customers, which are within the scope of the GEM BU, and for customers at the low end of the small business customer portfolio, which are within the scope of the France BtoC BU.

E&C and its 700 employees support around 45,000 customers and supply gas and electricity (approximately 37 TWh of natural gas and 29 TWh of electricity sold in 2019) for around 400,000 delivery points.

E&C supports its customers as they make their zero-carbon transition, responding to their need to be competitive and anticipating changes in their expectations.

1.3.6.4.2 Description of activities

Between 2016 and 2018, E&C conducted a transformation plan organized around three key projects: an ambitious performance plan, a strong refocus on the core business of energy supply, and closer ties with the GEM BU teams responsible for wholesale supply on the markets. In 2019 E&C continued its recovery by prioritizing the development of new customers, the customer experience and operational excellence.

After turning round its supply business and winning back customers in the last two years, E&C has recently developed new activities to meet its customers' needs more effectively, particularly with regard to energy efficiency and energy saving certificates (CEE), through the acquisition of Certinergy and CN Solutions in January 2019, which produce around 12 TWhc/year of CEE (the acquisition was also motivated by the need to meet the CEE obligations of around 15 TWhc/year of the supply business), and with regard to on-site solar generation (roofs, canopies, etc.) for auto-consumption by its customers, through the joint venture Reservoir Sun, created with Green Yellow (Casino Group) in October 2018.

It has also accelerated the decarbonization of its electricity and gas supply activities (it is a leading purchaser and seller of biomethane, with a 50% market share, representing around 650 GWh/year).

E&C is structured into two major commercial segments (Key Accounts, covering the top end of the public and private portfolios, and Enterprises, covering diffuse and single-site customers such as condominiums and small- and medium-sized industries) and has three key differentiators: expertise (to guide its customers in a complex energy world), green energies (to help its customers move toward a low-carbon world) and customer satisfaction (to facilitate the management of its customers' energy needs on a daily basis).

1.3.6.5 BU Hydrogen

1.3.6.5.1 Role & Strategy

ENGIE's Hydrogen Business Unit (H2 BU) was launched in 2018 in order to devise carbon-free energy solutions based on renewable hydrogen, produced from the electrolysis of renewable electricity, to make a 100% renewable world a reality for territories.

Renewable hydrogen is the missing link in the energy transition. It frees up the potential for developing renewable energy by storing energy generated intermittently, and enables the Group to support its customers as they make their carbon-neutral transition in industrial processes that are hard to decarbonize (fertilizer, mining, refineries, etc.). Lastly, the development of technologies such as fuel cells makes it possible to envisage the development of new uses and markets where renewable hydrogen would be the "green fuel" of the future (heavy mobility: trucks, trains, ships, etc.), a generator of hydrogen-based electricity, heating and cooling.

The BU has adopted a comprehensive and phased approach, developing large-scale projects with its industrial customers in the most favorable geographical areas, designing models for replicable offers for targeted segments such as fertilizer production, refineries, or the development of ecosystems such as mines, and activating new markets such as heavy mobility (shipping, trains, haul trucks) and power generation via fuel cells.

1.3.6.5.2 Description of activities

Progressing Large Scale Projects

The BU is developing hydrogen production hubs in stages, starting with the local development of industrial applications.

Two projects are currently under construction: the Zero Emission Valley project near Lyon, in France, involving the construction of 20 hydrogen fueling stations, in partnership with the Auvergne-Rhône-Alpes regional authorities and Michelin; and a project at the Mogalakwena mine in South Africa, in partnership with Anglo American. The aim of this project is to jointly develop the first hydrogen-fueled haul truck.

Several large-scale projects are being developed with key players, including Yara in Australia, Enaex in Chile, and Gasunie in the Netherlands. Each of these projects could eventually result in the implementation of large-scale (GW level) projects.

At the same time, prospection is progressing in areas most favorable to the development of projects, such as Australia, Chile, the Netherlands, the south of France and the MESCAT zone.

Regulatory changes: the combined representations of industrial companies, including ENGIE, to public authorities has led many countries to adopt national hydrogen roll-out plans, providing for financial and regulatory support for the development of an industrial supply chain, including: South Korea, Germany, France, Chile, Australia, and Japan. Public funding has already been obtained for some of our projects, while ambitious regional financing mechanisms, such as the European Innovation Fund, with a budget of €10 billion, are currently being created. They will provide support for major decarbonization projects, including hydrogen projects, which is recognized as a strategic value chain by the European Commission. Advances in the area of traceability and guarantees of origin are also enabling recovery of hydrogen from renewable sources.

1.3.7 Description of the Global Business Lines

In April 2019, the Group has strengthened its organizational structure by establishing four Global Business Lines (GBLs) to support local teams at the BU level and transversal performance. Each GBL is managed by an Executive Vice President who is an Executive Committee member, assisted by a Director. The aim of these GBLs is to:

- put forward an inter-BU strategy for the activity;
- prioritize the allocation of resources between the various BUs;
- identify and oversee the main digital and excellence transversal programs;
- identify and establish global partnerships, and (v) support, measure and present the overall performance of the activities.
- support, measure and present the overall performance activities.

The four Global Business Lines are: Client Solutions, Networks, Renewables and Thermal.

1.4 Real estate, plant and equipment

The Group owns or leases a significant amount of industrial real estate around the world. Many Group activities involve operating very large plants that the Group only partially owns.

As of December 31, 2019, the Group operated electricity power plants, natural gas terminals and storage facilities in over 40 countries.

The tables below show the main facilities currently in operation, either wholly or partially owned by the Group. Leased properties are discussed in Section 6.2.2 "Notes of the consolidated financial statements".

POWER PLANTS (CAPACITY > 400 MW EXCLUDING UNITS UNDER CONSTRUCTION)

Country	Site/plant	Total capacity (1) (in MW)	Type of plant
South Africa	Avon	669	Fuel-oil fired
Saudi Arabia	Marafiq	2,744	Natural gas
	Ju'aymah	484	Natural gas
	Shedgum	484	Natural gas
	Uthmaniyah	484	Natural gas
	Riyadh PP11	1,729	Natural gas
Australia	Pelican Point	500	Natural gas
Bahrain	Al Dur	1,234	Natural gas
	Al Ezzel	954	Natural gas
	Al Hidd	929	Natural gas
Belgium	Amercœur	451	Natural gas
	Coo	1,164	Hydraulic pumping
	Doel	2,922	Nuclear
	Drogenbos	460	Natural gas
	Herdersbrug	480	Natural gas
	Tihange	3,008	Nuclear
Brazil	Cana Brava	450	Hydroelectric
	Estreito	1,087	Hydroelectric
	Jaguara	424	Hydroelectric
	Jirau	3,750	Hydroelectric
	Miranda	408	Hydroelectric
	Ita	1,450	Hydroelectric
	Jorge Lacerda	773	Coal
	Machadinho	1,140	Hydroelectric
	Salto Osòrio	1,078	Hydroelectric
	Salto Santiago	1,420	Hydroelectric
Chile	Mejillones	1,222	Coal-fired and natural gas
	Tocopilla	731	Natural gas, coal- and fuel oil-fired
United Arab Emirates	Fujairah F2	2,000	Natural gas
	Mirfa	1,599	Natural gas
	Shuweihat 1	1,500	Natural gas
	Shuweihat 2	1,510	Natural gas
	Taweelah	1,592	Natural gas
	Umm Al Nar	1,532	Natural gas
Spain	Cartagena	1,199	Natural gas
	Castelnou	791	Natural gas
USA	Astoria 1	575	Natural gas
	Astoria 2	575	Natural gas

Country	Site/plant	Total capacity [(1)] (in MW)	Type of plant
France	CombiGolfe	435	Natural gas
	CyCoFos	490	Natural gas and steelworks gas-fired plant
	DK6 (Dunkirk)	788	Natural gas and steelworks gas-fired plant
	Génissiat	423	Hydroelectric
	Montoir-de-Bretagne	435	Natural gas
Greece	Viotia	570	Natural gas
Italy	Torre Valdaliga	1,134	Natural gas
	Vado Ligure	782	Natural gas
Kuwait	Az Zour North	1,539	Natural gas
Morocco	Safi	1,250	Coal
Oman	Al-Rusail	665	Natural gas
	Barka 2	678	Natural gas
	Barka 3	744	Natural gas
	Sohar	585	Natural gas
	Sohar 2	744	Natural gas
Pakistan	Uch 1	551	Natural gas
Netherlands	Eems	1,919	Natural gas
	Flevo	841	Natural gas
Peru	Chilca	917	Natural gas
	ILO Nodo	600	Fuel-oil fired
	ILO 31	564	Fuel-oil fired
Puerto Rico	Ecoelectrica	507	Natural gas
Portugal	Elecgas	830	Natural gas
	Pego	576	Coal
	Turbogas	990	Natural gas
Qatar	Ras Laffan B	1,025	Natural gas
	Ras Laffan C	2,730	Natural gas
United Kingdom	First Hydro	2,088	Hydraulic pumping
Singapore	Senoko	2,311	Natural gas
Turkey	Ankara Boo	763	Natural gas

(1) Capacity of assets in which ENGIE holds a stake, all of which are taken into account irrespective of the real ownership percentage.

UNDERGROUND NATURAL GAS STORAGE (> 550 MM3 OF TOTAL USEFUL STORAGE VOLUME [(1)])

Country	Location	Gross useful volume (Mm^3) [(1)]
France	Gournay-sur-Aronde (Oise)	1,310
France	Germigny-sous-Coulombs (Seine-et-Marne)	820
France	Saint-Illiers-la-Ville (Yvelines)	680
France	Chémery (Loir-et-Cher)	3,600
France	Céré-la-Ronde (Indre-et-Loire)	570
France	Étrez (Ain)	690
France	Cerville (Meurthe-et-Moselle)	650
Germany	Uelsen	840

(1) Useful storage volume held by ENGIE, all of which is taken into account irrespective of the real ownership percentage.

LNG TERMINALS

Country	Location	Total regasification capacity (Gm^3(n) per annum) (1)
France	Montoir-de-Bretagne	10
France	Tonkin (Fos-sur-Mer)	3
France	Cavaou (Fos-sur-Mer)	8.25
Chile	Mejillones	2.0
Puerto Rico	Penuelas	0.8

(1) Capacity of assets held by ENGIE, all of which are taken into account irrespective of the real ownership percentage.

2

Risk factors and control

The material, specific risks to which the Group is exposed, based on its own assessment, are described below. They are divided into seven categories of risks:

- political and regulatory risks;
- risks deriving from climate and environmental issues;
- economic and competitive risks;
- financial risks;
- industrial risks;
- other operational risks;
- social and societal risks.

The risks presented have been assessed and prioritized on the basis of "net risk", taking into account the means of management established. The summary table below covers the most important risks in each category, classified in decreasing order of criticality (potential medium-term impact (6 years) x probability of occurrence).

Other, less significant risks or risks unknown to date could also affect the Group. If these risks were to materialize, they could have a negative impact on the Group's operations, financial position and earnings, image and outlook, and/or on the ENGIE share price.

Category		Risk	Level of criticality
Political and regulatory risks	1	Risk of non-extension of the Doel 4 and Tihange 3 second-generation Belgian nuclear power plants beyond 2025, the date set in the Law of June 18, 2015	Medium (**)
	2	Risk of change in regulatory requirements in Belgium relating to nuclear waste management and decommissioning and/or change in the discount rate resulting in an increase in nuclear provisions	Medium (**)
	3	Risk of a posteriori invalidation of the decision already granted to extend the operating life of the Doel 1 and 2 and Tihange 1 nuclear units in Belgium	Medium (**)
	4	Risk of a downward trend in the return on gas distribution, transmission, storage and regasification assets in France	Medium (**)
	5	Risk associated with renewal of hydraulic concessions in France	Medium (**)
	6	Risk of disagreement with the Australian regulator over the conditions for rehabilitating the Hazelwood coal mine	Medium (**)
	7	Risk associated with retail electricity sales in France due to an unfavorable market design	Low (*)
	8	Risk of unfavorable changes in regulation in Brazil in regulated business sectors (gas and electricity transmission, electricity generation)	Low (*)
	9	Country risk (changes in regulation, sovereign default, convertibility, expropriation, acts of war or terrorism, etc.)	Low (*)
Risks deriving from climate and environmental issues	1	Position of gas in the French energy mix	Medium (**)
	2	Risk of climate change affecting energy demand and generation	Medium (**)
Economic and competitive risks	1	Increased competition risk in energy sales and services, with an effect on margins	Medium (**)
	2	Risk of decrease in revenues from power plants in the Gulf when long-term contracts expire	Medium (**)
Financial risks	1	Commodities market risk	High (***)
	2	Foreign exchange risk (translational, transactional, conversion)	Medium (**)
	3	Tax risk (instability of the standard (e.g. reform projects initiated by the OECD/EU), tax insecurity (e.g. transfer pricing), etc.)	Medium (**)
	4	Pension funding risk	Medium (**)
	5	Counterparty risk	Medium (**)
	6	Risk of increase in costs of obtaining energy saving certificates in France	Low (*)

Category		Risk	Level of criticality
Industrial risks	1	Processing and storage of nuclear waste and spent fuel	Medium (**)
	2	Risk of industrial accident	Medium (**)
	3	Unavailability of one or more nuclear units for technical or security reasons	Medium (**)
	4	Nuclear safety and security	Low (*)
Other operational risks	1	Risk relating to major projects	Medium (**)
	2	Acquisition and integration	Medium (**)
	3	Cybersecurity	Medium (**)
	4	Decorrelation of long-term gas supply contracts and selling prices	Low (*)
	5	Risk of malicious acts on tangible and intangible assets	Low (*)
Social and societal risks	1	Risks related to human resources: - skills - employee engagement - risks of social movements	Medium (**)
	2	Ethical risks	Medium (**)
	3	Reputational risks	Medium (**)
	4	Risks associated with health and safety at work (including psychosocial risks/wellbeing at work)	Low (*)
	5	Security of people	Low (*)

2.1 Risk management process

2.1.1 Enterprise risk management policy

The Group has adopted an Enterprise Risk Management (ERM) policy, the principles of which are consistent with professional standards (including ISO 31000 and the Federation of European Risk Management Associations). The policy sets out ENGIE's ambition to "manage its risks in order to ensure its performance".

The Group's Enterprise Risk Management Policy applies to the Group's businesses and controlled entities, while observing the rules of governance that apply to each entity.

This policy promotes risk-taking at a reasonable level from a legal perspective, acceptable to generally held opinion and economically viable. It stipulates that all managers are risk managers. Generally, the Management Committees of the Group's entities are the main bodies that determine the actions to be taken to manage risks, except when a specific risk committee is created, such as for market risk.

To achieve this aim, the Group has appointed the Risk Management Director as Chief Risk Officer. His objective is to ensure the effectiveness of the risk management system. He coordinates the designated Chief Risk Officers of each of the BUs and Corporate Functions. These Chief Risk Officers assess the BU's or Function's overall risk exposure and ensure that risk mitigation plans are implemented.

Risk analysis and coordination of action plans are performed in collaboration with all the Group's functional lines.

Each year, the Group's ERM process begins with a risk review by the Executive Committee. An ERM campaign is then launched across the Group, setting out guidelines for risk management throughout the year. It highlights priority risks, each of which is coordinated by an Executive Committee member and will be monitored specifically by one of the Board's standing committees (see Section 4.1.2.4 "Standing committees"). It results in a new Group risk review that is presented to the Executive Committee, then to the Audit Committee. After examining the review, the Audit Committee gives its opinion on the effectiveness of the risk management system to the Board of Directors.

Knowledge of risks resulting from the reporting of operating entities and functional departments is supplemented by interviews with directors, an analysis of publications by external analysts and a review of major events.

2.1.2 Crisis management

In order to deal effectively with the occurrence of all types of crises and minimize their impacts, the Group has established an overall crisis management system based on a specific structure. The Group is thus equipped with a system for warning and reporting major incidents (CrisisApp), analysis (with the formalization at local level of a crisis unit and the appointment of its members) and decision-making to manage crises at the relevant organizational level, according to the principle of subsidiarity.

Each BU has to carry out one exercise a year to test the resilience of the structure and to ensure continuous improvement. Similarly, all the Group's permanent crisis management staff is trained and takes part in regular exercises.

To ensure the rapid, efficient and standardized transmission of alerts between the BUs and the Group, a new crisis management digital tool has been developed and provided to the BUs. It manages scheduling and on-call contacts, and formalizes alerts.

However, the existence of this system does not eliminate the risk that the Group's activities and operations might be disrupted in crisis situations, or the risk of impacts on third parties or on the environment.

2.1.3 Risk and insurance cover

ENGIE's Insurance Department is responsible for preparing, establishing and managing insurance programs in the areas of Group asset protection (against property damage and loss of earnings), personal protection, third-party claims (civil liability) and automobile insurance, and for prevention.

For each of these areas:

- the amounts insured depend on the financial risks resulting from potential claim scenarios and coverage conditions offered by the market (available capacities and tariff conditions);
- financing is optimized: low or moderate hazard risks are covered by self-insurance plans, through deductibles and retentions or through the use of the Group's reinsurance company whose commitments on a cumulative basis represent a maximum estimated loss of approximately 0.17% of the Group's 2019 revenues.

However, the Group could, in certain cases, be required to pay out sizable compensation not covered by the current insurance program or could incur very high costs that its insurance policies do not reimburse or reimburse inadequately. Although the Group has excellent insurance coverage, specifically with regard to civil liability and environmental risks, it could be liable beyond the maximum insured amount or for events not covered (primarily due to the common insurance exclusions).

2.1.3.1 Civil liability

A civil liability program for corporate officers and managers covers the representatives of ENGIE, its subsidiaries and Group representatives within its equity holdings.

A general civil liability program (including for environmental damage) has been taken out for all the entities for a total amount of €800 million. This program predominantly provides first-euro coverage or coverage for amounts in excess of the underlying coverage taken out by some entities (usually up to USD 50 million).

2.1.3.2 Nuclear civil liability

As an operator of nuclear power plants in Doel and Tihange (Belgium), Electrabel's civil liability is governed by the Paris and Brussels Conventions, which aim to ensure that victims receive compensation and to encourage solidarity among signatory countries, and by the Belgian Law of July 22, 1985, (amended by the Laws of June 29, 2014 and December 7, 2016) and a Royal Decree dated November 29, 2019.

This liability falls exclusively on the operator of the facility where the nuclear accident occurs. In return for this strictly objective liability, the amount of the compensation is capped per accident and limited in time to a period of 10 years. This period was increased to 30 years by the amended Law of June 29, 2014, and reduced again to 10 years by the Law of December 7, 2016. The signatory countries to the conventions also created a mechanism that provides additional compensation beyond the maximum amount.

The nuclear civil liability insurance program taken out by Electrabel complies with the Belgian national law requiring the operator to provide financial guarantees or to take out civil liability insurance up to €1.2 billion. Insufficient capacity in the insurance markets, however, resulted in a shortfall of up to €891 million. This only affected the liability extended by the Law of June 29, 2014, and only for nuclear accidents that allegedly occurred between January 1, 2016, and December 24, 2016, when the Law of December 7, 2016 came into force.

2.1.3.3 Property damage

The Group's entities have property insurance covering the facilities that they own, lease or manage on behalf of third parties, with the exception of gas transmission and distribution network pipelines and heat networks in France. The main programs provide cover based either on replacement value or on contractual limits per loss event. In the latter case, the limits are set on the basis of major scenarios estimated in accordance with insurance market rules and available offers (cost and capacity).

Insurance covering business interruption and additional operating costs is taken out based on each risk analysis and in consideration of existing assistance plans.

Construction projects are covered by "Erection All Risks" programs taken out by the owner or operator, project manager or prime contractor.

2.1.3.4 Employee protection programs

The operating entities develop programs covering employees against the risk of accidents and for medical expenses, in accordance with legislation in effect and pursuant to company agreements.

2.2 Risk factors

2.2.1 Political and regulatory risks

The Group is sensitive to the structural and economic risk factors that affect the energy sector. These risks are all analyzed and assessed as part of strategic planning processes that allow the Group to anticipate certain changes in the external environment and prepare for them. The Group's research and innovation policy also helps to deal with strategic developments (see Section 1.1.5 "Innovation nand Research & Technologies").

In Europe and in some other regions including the United States, Asia Pacific and Brazil, public authorities intervene in the energy sector through regulation and the extension of regulatory powers in the competitive field. These measures can take the form of increased taxation on energy company profits, changes to the rules governing the markets and the security of supply, interventions by regulators in the deregulated sector to encourage the development of competition, and the move towards the remunicipalization of certain utilities.

Through its presence in the EU and Member State institutions, the Group tries to anticipate any legislation likely to affect its activities and the associated revenues, and formulates proposals for decision-makers. The Group also partially diversifies regulatory and legislative risks by conducting its business in a number of different countries. However, some regulatory developments offer new opportunities for the Group's activities.

Some regulatory changes may alter the risk profile of the Group and impact its earnings and its business model: The most significant of these for the Group are mentioned below.

1 Risk of non-extension of the Doel 4 and Tihange 3 second-generation Belgian nuclear power plants beyond 2025, the date set in the Law of June 18, 2015 (**)

The principle and the schedule for the progressive exit from nuclear energy of the second-generation units, with the closure of Doel 3 in 2022, Tihange 2 in 2023, and Tihange 3 and Doel 4 in 2025, at the end of their fortieth year of operation, were confirmed by the Law of June 18, 2015, and by the energy pact approved by the Belgian government on March 30, 2018.

However, in view of (i) the extension of the Tihange 1, Doel 1 and Doel 2 units beyond 40 years, (ii) the significant contribution of nuclear generation to the Belgian energy mix, (iii) the lack of a sufficiently detailed and attractive plan to encourage energy players to invest in replacement of thermal capacity, and (iv) the CO_2 emissions reduction targets, the Group considers that nuclear-based generation will continue to be necessary to ensure Belgium's energy balance beyond 2025. As a result, the Group has assumed in its calculation of value in use that two second-generation units will be extended by 20 years.

If the circumstances described above should change, the Group may have to adjust its industrial scenarios accordingly and refrain from extending the useful life of second-generation reactors Tihange 3 and Doel 4, which will stop operating in 2025. The definitive discontinuation in 2025 of all nuclear-based electricity generation in Electrabel's Belgian portfolio would result in a risk of impairment (approximately €1.5 billion) of the current book value (see point 13.3.1.1 in Section 6.2.2 "Notes to the consolidated financial statements").

Risk management measures

The Group provides the Belgian government with all the information in its possession to help clarify its decision (including, in particular, CO_2 emissions in the event of replacement of nuclear units with thermal power plants and the country's level of energy independence).

2 Risk of change in regulatory requirements in Belgium relating to nuclear waste management and decommissioning and/or change in the discount rate resulting in an increase in nuclear provisions (**)

The operation of nuclear power plants is regulated in part by radioactive waste authorizations. The Group therefore reduces its radioactive liquid and gaseous effluent waste as much as possible, while controlling the volume of low and medium level radioactive waste. In Belgium, all nuclear waste management is the responsibility of ONDRAF, the Belgian National Agency for Radioactive Waste and Enriched Fissile Material. ONDRAF proposes, as a national policy, that high level radioactive waste and/or long-lived waste be stored in deep geological repositories and not in long-term storage facilities.

Spent nuclear fuel is currently stored at generation sites. At present there are two possible scenarios for its management: either a portion of spent fuel is reprocessed and the rest is discharged directly into deep geological repositories; or all of the spent fuel is discharged into deep geological repositories. It is up to Synatom to propose a solution that is likely to be approved by the Belgian government.

Costs associated with the management of spent fuel and the dismantling of plant and equipment are included in the costs of nuclear power production and are the subject of provisions. The assumptions and sensitivities regarding the assessment of these amounts are detailed in Note 19.2 of Section 6.2.2 "Notes to the consolidated financial statements".

In accordance with the law, a process of reviewing the nuclear provisions is led every three years. The Nuclear Provisions Commission (CPN) communicated its decision to Synatom in December 2019 on the re-evaluation of the provisions of the Belgian nuclear power plants for decommissioning and management of spent fuel (based on a scenario combining reprocessing of a portion of the spent fuel and direct discharge of the remaining waste – which is more costly than a scenario with no reprocessing), resulting in an increase in provisions of €2.1 billion.

The CPN also called for a revision of the law of 11 April 2003 on the provisions made for the decommissioning of nuclear power plants and for the management of fissile material irradiated in these power plants.

In the coming years, provisions could increase again as part of the next three-year review, scheduled for 2022, unless the situation changes in the meantime (for example, a modification of the 2003 law). An increase in provisions could result from a further drop in discount rates or from a higher estimate of the costs of decommissioning and spent fuel management (for example, due to new technological choices for the long-term management of category B and C waste (long-lived waste)).

Disposal of category A waste (short-lived waste of low or medium activity) could also entail higher costs. The risk is that ONDRAF could require the application of stricter acceptance criteria to past and future category A waste.

Risk management measures

Regular exchanges with CPN and ONDRAF on the best waste treatment and landfill technologies.

3 Risk of a posteriori invalidation of the decision already granted to extend the operating life of the Doel 1 and 2 and Tihange 1 nuclear units in Belgium (**)

The decision to extend the operating life of the nuclear power unit Tihange 1 to 50 years took effect on October 1, 2015, with a program of associated works that will continue until mid-2020. The Belgian government's decision to extend the date of shutdown of the Doel 1 and 2 nuclear power units after 50 years, which was confirmed by parliamentary vote at the end of June 2015, was approved by the Belgian Federal Agency for Nuclear Control (FANC) as part of its fourth ten-year review, on the basis of a committed modernization program that will last until mid-2020. Legal proceedings were brought by environmental organizations before the Constitutional Court against the Belgian state regarding the lack of any environmental impact analysis or public consultation in connection with the adoption of the law passed in June 2015 (See Note 25.3.1 of Section 6.2.2 "Notes to the consolidated financial statements").

The Constitutional Court delivered its judgment on March 5, 2020, by which it annuls the Belgian law extending the lifespan of the Doel 1 and Doel 2 nuclear power stations in that it was adopted without carrying out the required prior environmental assessments. The Court accepts, however, that the effects of the law will be maintained until the end of 2022 in order to guarantee the country's security of supply. The Doel 1 and Doel 2 power stations can therefore continue to be operated during the adjustment period. It is now up to the Belgian State to regularize the situation within this period. The invalidation of the decision to extend the operating life of the Doel 1 and 2 and Tihange 1 nuclear units could have a significant unfavorable effect on the group's revenues and on the value of the nuclear assets concerned.

Risk management measures

The Belgian State confirms that it has already started the preparatory work for incidence studies

4 Risk of a downward trend in the return on gas distribution, transmission, storage and regasification assets in France (**)

Tariffs for access to gas infrastructures (distribution, transmission, storage, regasification terminals) in France are regulated. The tariffs are fixed by the French Energy Regulation Commission (CRE), which may change their level and structure if it deems this justified, particularly in view of the analysis of the accounting of the operators and foreseeable changes in operating and investment costs. These tariffs also include performance incentives. Except for exception, they are reviewed every four years, following a public consultation process.

On January 24, 2020, the CRE published the resolutions fixing the gas infrastructure tariffs, applicable for a period of approximately four years, of:

- the gas distribution networks of GRDF, tariff ATRD6, which will come into force on July 1, 2020;
- the gas transmission networks of GRTgaz, tariff ATRT7, which will come into force on April 1, 2020;
- the natural gas underground storage infrastructures, tariff ATS2, for implementation in 2020.

These new tariffs include a lower rate of return on assets than that applied in the previous period, mainly to include the fall in long-term interest rates and the anticipated drop in the corporation tax rate.

The return on transmission and storage assets decreased by 100bps, and the return on distribution assets by 90bps.

With regard to regasification tariffs, discussions between terminal operators and the CRE and public consultations for new ATTM 6 tariffs will take place in 2020, for application from April 1, 2021 for a period of four years in principle.

The next review of transmission, distribution and storage tariffs should be launched in 2023 for implementation in 2024 (another review will also be added in 2024 or 2025 for the ATTM 7 tariffs). If interest rates decrease further, if operational and strategic risks associated with the business are not sufficiently taken into account in the return on assets, if certain charges are not covered, or in the case of a particularly strict incentive regulation, the contributions of the gas infrastructure assets to the Group's results could decline further.

Risk management measures

The Group is in discussions with the CRE in the context of the tariff review system, which places great emphasis on dialog with all stakeholders. It is defending positions that aim to ensure fair returns on assets, and adequate coverage of its costs in order to maintain a high standard of service and to enable the necessary investments for the energy transition, while enhancing its performance in order to establish a competitive tariff trajectory.

5 Risks associated with renewal of hydraulic concessions in France (**)

Hydropower makes up a substantial proportion of French electricity generation. The State has granted concessions which are gradually expiring and have to be put up for tender when they expire, according to the European directive relating to the assignment of concession contracts (directive of February 11, 2014). However, no tender procedures have yet been launched in France. Expiring concessions are placed on "rolling deadlines", as permitted by the Energy Code. Law No. 2015-992 of August 17, 2015 on the energy transition for green growth also introduced the notion of connected hydroelectric chains (or barycenters), involving the bundling of several concessions assigned to the same operator, on the same water course, but with different expiry dates, and setting a single expiration date. The implementation of the concessions directive in France and the associated uncertainties, particularly concerning the timetable for the launch of calls for tenders or the possibility of creating a public hydropower cluster, has led to uncertainty regarding the future of SHEM's concessions.

Uncertainties also concern the extension of the CNR concession, which must comply with the State Aid scheme. The modified texts of the concession will also have to be approved by a Council of State decree, after an environmental assessment procedure.

These incertitudes could impact revenues and values of concessions (see Note 13.3.1.3 in Section 6.2.2 "Notes to the consolidated financial statements").

Risk management measures

A dossier for the extension of the CNR's concession was presented to the French State, which accepted it and submitted it to the European Commission.

The Group is also defending its interests in the context of EDF's Hercule project to ensure that the opening of the market to competition will not be limited to SHEM's concessions alone.

6 Risk of disagreement with the Australian regulator over the conditions for rehabilitating the Hazelwood coal mine (*)

As part of its strategy to gradually withdraw from the coal business, in 2017 the Group closed the Hazelwood plant in Australia, which generated electricity from coal from the adjacent mine. The Group is now engaged in decommissioning the plant and rehabilitating the site, aiming to ensure the long-term stability of the ground and walls. The rehabilitation project is based on the creation of a lake in the space left by the open cast mine. Several technical options were studied regarding the size of the mine lake (full or partial) and the origin of the water to be used to fill it. In the event of regulatory non-approval of the options recommended by the Group, it would have to face higher than expected rehabilitation costs, which would have an impact on the level of provisions.

Risk management measures

The Group is continuing its studies and discussions with the regulator and the various stakeholders in order to implement the best solution in terms of safety and costs.

7 Risk associated with retail electricity sales in France due to an unfavorable market design (*)

The opening of the electricity market in France to suppliers other than the incumbent operator, apart from the opening for very large customers, is still weak due to the maintenance of regulated sales tariffs for individuals, which are decorrelated from wholesale electricity prices, which are rising. The situation leads alternative suppliers to fall back on the ARENH system, which is currently under volume constraints. The ARENH system is contested by EDF, not only in terms of volume, but also price and procedures. The government is considering making changes to the system.

In the absence of favorable developments in the structure of the electricity market, the Group's development in the sale of electricity to individuals could be compromised.

Risk management measures

The Group manages this risk through ongoing measures to create synergies and optimization with the Group's electricity generation activities and the continuation of work to optimize its sourcing conditions.

Discussions are also continuing with the regulatory authorities to favor faster integration of market price variations into the electricity regulated sale price and, more generally, to improve the formula for calculating the regulated sale price.

8 Risk of unfavorable changes in regulation in Brazil in regulated business sectors (gas and electricity transmission, electricity generation) (*)

The Group is exposed to changes in the regulation of Brazil's electricity markets, such as the reduction of subsidies or the introduction of new taxes for producers. The last significant tax dates from 2013 and was annulled by the courts following a sectoral action. The administration may announce new initiatives in line with a modernization of the electricity market design, to open the market to competition, improve its functioning and ensure the necessary investments in modular production capacities.

Brazil now represents 4% of Groupe revenues. ENGIE Brazil Energia invests in transportation of gas (acquisition of TAG) and electricity (Gralha Azul project – construction of high voltage line). The Gralha Azul activities are regulated, while those of TAG are covered by long-term contracts. The institutions have launched a process to review and modernize the design of the gas market. The probable evolution of the regulatory framework for the gas transmission activity should be monitored closely, to ensure that it has a neutral effect on TAG's risk profile and return.

Risk management measures

Thanks to its international presence, the Group has extensive experience in market design. This experience is made available to the Brazilian institutions, including through participation in the formal process of revising the market design in Brazil. Changes in the design of the electricity and gas markets will affect all companies active in these sectors. Other companies present in electricity generation or gas transmission in Brazil share the Group's opinion and have taken action to ensure the neutrality, and even positivity, of developments in market design. Politically speaking, Brazil's need to continue to attract foreign investment mitigates the risks.

9 Country risk (*)

The Group is present, operates or procures natural gas and a variety of industrial components in a large number of countries. The Group is, therefore, exposed to a variety of risks, including changes in regulation, sovereign default, convertibility, expropriation, corruption, acts of war, riots or terrorism, extra-territorial effects of some legislation and sanction mechanisms and tariff escalation. Moreover, in the event of a dispute with national governments or other local public entities, the Group might be unable to defend its rights in certain countries due to a lack of independence of local courts.

For example, in the United States, the CAATSA (Countering America's Adversaries Through Sanctions Act) of August 2, 2017 allows (on a discretionary basis) the US President to impose secondary sanctions on any entity that participates, in particular through investment, in the construction and/or maintenance of Russian gas export pipelines (Section 232). On October 31, 2018, the State Department published public guidance on the way in which it intends to implement the Act in practice. In this guidance, the State Department indicated that projects that had been initiated before August 2, 2017 would not be subject to potential sanctions under this Section 232. It is specified that "projects initiated before August 2, 2017" must be understood as any project contracted before said date, which is the case for project Nord Stream II. On these grounds, ENGIE's contractual financing commitments, signed before August 2, 2017, have been fulfilled. On December 20, 2019, new provisions (Article 7503 of the National Defense Security Act of 2020) were passed by the United States Congress, with the aim of sanctioning, at the end of a period of 30 days, after publication of a report by Congress, the companies supplying pipe-laying vessels for the Nord Stream 2 project. In fact, the works were immediately suspended by Allseas, which is in charge of them. These measures do not concern any of the financial backers of the project, including ENGIE. The Group is paying close attention to the effects of all sanctions concerning Nord Stream 2. If they were to affect ENGIE's future payments according to its contractual commitments, all useful measures would be taken to avoid sanctions and Gazprom would continue to finance the project alone. If they were to affect the investments already made, ENGIE would have to withdraw from its financing contracts (see Note 16.1.1.3 in Section 6.2.2 "Notes to consolidated financial statements). This last scenario seems unlikely. The Group is mobilizing all its resources to reduce this risk.

Risk management measures

The diversity of the Group's locations mitigates country risk to some extent. Attention thresholds by country or group of countries enable the Group's exposure to be monitored. The Group also manages these risks within partnerships or contractual negotiations adapted to each location. It chooses its locations by applying a formal investment procedure that appraises risk. The inclusion of international arbitration clauses in major contracts is applied as widely as possible.

The Group's decentralized organization means that the Business Units are responsible for their own income statements and investments. Each Business Unit is overseen by a Group Executive Vice President who is a member of the Executive Committee. This organization enables the Group to closely manage political and regulatory changes in each country in which it operates, while ensuring that country risk and risk management measures are taken into account at the appropriate level.

2.2.2 Risks deriving from climate and environmental issues

The Group's businesses are exposed to numerous rules and regulations (relating to respecting and protecting the environment and persons or to the energy transition). Its strategy and results could be impacted by the above laws, or others yet to come.

Internationally

The Group is actively preparing for the implementation of national CO_2 reduction policies in the wake of the commitments made by the states that signed up to the Paris Agreement (2015), during COP21 and subsequently. It immediately sharply reduced the proportion of coal in its energy mix (electricity generation at the end of 2019 was divided as follows: 61% natural gas, 23% renewable energy (hydropower, wind and solar, biomass and biogas), 10% nuclear, and 6% coal).

In Europe

Europe's climate and energy policy promotes energy efficiency, CO_2 emission reductions, and an increase in the percentage of renewable energies in the energy mix. The new European Commission is expected to increase ambition in these sectors within the framework of the European Green New Deal and measures associated with the target of climate neutrality by 2050. In principle, these developments constitute growth accelerators for the Group if they are accompanied by a regulatory and financial framework adapted to these ambitions.

Certain sectoral initiatives, such as the new energy lending policy of the European Investment Bank or the European "Taxonomy" project, which is intended to encourage sustainable investment, constitute risks since they would limit access to financing for activities that the Group considers essential to achieve the European objectives of the energy transition, particularly the development of renewable gases.

1 Position of gas in the French energy mix (**)

The provisions of the Law of November 8, 2019 on energy and climate, which are part of the Multi-Year Energy Program for the new period 2019-2023 (and the period 2024-2028) and reflect some of its guidelines, could have a major influence on the natural gas market share, as the prevailing vision of energy policy presented therein is the strengthened and rapid electrification of all uses. This vision entails a number of risks that have not yet been properly assessed, in particular concerning the increase in peak electricity needs and the additional cost necessary to meet them, for which the gas vector (natural and renewable gas), given its cost and its flexibility, could provide more appropriate solutions.

Moreover, the future thermal regulation, depending on how it addresses the CO_2 footprint of new buildings, could give a boost to electric heating, to the detriment of gas.

In addition, the European "Taxonomy" project mentioned above has created uncertainty about the financing of certain Group activities related to renewable gases (biomethane and hydrogen produced from renewable electricity) if they were not labeled "green" according to the criteria defined by the future European Regulation.

Risk management measures

The Group has strengthened, with French public bodies and the European authorities, its promotion of the gas sector as indispensable to the acceleration and achievement of the energy transition, particularly in the full decarbonization of the energy systems (generation mix and final demand for energy).

The Group has defined a strategy for the development of green gases, with the launch of an industrial and commercial plan to expand production of biomethane of agricultural origin (effluent and crop growing residues) and the transition to industrial scale of this production line in France. Downstream of the production chain, the Group's transmission and distribution networks are adapting their infrastructures to enable the transmission of biomethane to customers as inexpensively as possible. The Group is also developing second- and third-generation biomethane production lines, using biomass pyrogasification. It is also working to develop green hydrogen production projects based on renewable electricity electrolysis and to improve the technical conditions of their injection into the gas networks.

2 Risk of climate change affecting energy demand and generation (**)

Information presented here and in Section 3.5.4.1 "Climate change" reflects the financial risks associated with the effects of climate change and the measures taken by the company to mitigate them by implementing a low carbon strategy in all the components of its activity.

In the short term, climate phenomena (e.g. temperature variation, flooding, wind, drought) affect energy generation (in the case of lack of water in dams in particular) and energy demand (e.g. gas supply during a warm winter). They have a direct effect on the Group's results.

In the longer term, climate change could have a bigger impact on the Group's activities, for example through changes in regional or seasonal energy demand, the obligation to reduce CO_2 equivalent emissions, conflicts over water use, and the preservation of natural carbon sinks, etc.

Risk management measures

To adapt its offering to fluctuations in annual demand, ENGIE optimizes its portfolio of assets, its gas resources (by modulating its supplies and managing its underground storage), and its power generation fleet.

To manage this risk in the longer term, ENGIE acts on different levels:

- The Group is firmly committed to combating climate change by investing in low-carbon technologies, reducing its greenhouse gas emissions and adapting its operations accordingly. The Group promotes international carbon pricing in order to accelerate the transition to a low-carbon society, while guaranteeing a level playing field for all players;
- The Group has set 2020 targets for greenhouse gas emissions and renewable energy (see Section 3.5 "Environmental information"). The expansion of its renewable energy fleet and the development of service offerings are the main drivers of ENGIE's energy transition strategy. For the longer term, ENGIE made the decision at the end of 2017 to pursue a trajectory compatible with the goal of limiting the global temperature increase to 2°C, by reducing its direct emissions by 85% by 2050 and developing the substitution of natural gas by renewable gas;
- The Group is gradually developing adaptation plans to prepare for an increase in extreme weather events (see Section 3.6 "Environmental information");
- Since anticipating the implementation of Article 173 of the French Energy Transition Law regarding greater transparency on climate risks, the Group has followed the work of the TCFD (Task Force on Climate-related Financial Disclosures) and is now reviewing the implementation of its recommendations.

2.2.3 Economic and competitive risks

The Group's activity is impacted by the level of energy demand and commodity prices, as well as by far-reaching changes in the energy sector (e.g. the decentralization and decarbonization of generation, renewable energy, new technologies, digitization, new competitor profiles, etc. (see Section 1.1.1 "General presentation" and Section 1.1.3 "Strategic orientations").

1 Increased competition risk in energy sales and services, with an effect on margins (**)

In its different businesses, the Group competes with players with increasingly diverse profiles, both in terms of size – with major international players and local emerging players – and sectors. The decentralization of energy generation systems due to energy transition has allowed smaller players to compete with the Group in some activities (photovoltaic power, services).

The emergence of digital and smart energy technologies has impacted the gas and electricity value chain, as well as services in general, with new competitors from the information technology and equipment manufacturer sectors. More generally, competition is intensifying on energy markets, with key players (oil companies, etc.) becoming more and more active throughout the entire value chain.

In this very competitive context, the Group faces several challenges:

- maintaining its market share in energy sales and services in countries where it has a long-term presence without eroding its margins, particularly in countries where it has a leading position on these markets;
- renewing heating and cooling concessions under economically profitable conditions;
- developing its customer portfolio in target countries.

Risk management measures

The Group continually monitors its competitive position using specific watch systems.

It regularly develops new offers to meet changing customer demand: digitization, green offers, and development of carbon-neutral solutions.

It continually improves the operating performance of the networks it operates and is progressively greening their energy mix.

2 Risk of decrease in revenues from power plants in the Gulf when long-term contracts expire (**)

In the Gulf countries, the MESCAT BU acts as an asset developer, owner and operator (mainly of combined cycle gas turbine plants), selling the electricity and water it produces under long-term public contracts (Power Purchase Agreements or PPAs). On expiry of these agreements, in the event of non-renewal, production would be sold onto the markets and exposed to fluctuating market prices. In the event of insufficient returns or market overcapacity, the Group might have to mothball the assets.

Risk management measures

The Group is carrying out an in-depth study of the markets and is taking proactive measures to extend or replace these agreements.

2.2.4 Financial risks

1 Commodities market risk (***)

The Group is chiefly exposed to two kinds of commodity market risk: price risk directly related to fluctuating market prices, and volume risk (weather risk and/or risk depending on economic activity). The Group is exposed to these risks, particularly with regard to gas, electricity, CO_2 and other green or white products related to the energy transition (Guarantees of Origin, energy savings certificates and the Capacity Remuneration Mechanism (CRM) (Note 17.1.1 of Section 6.2.2 "Notes to the consolidated financial statements").

The Group has substantially reduced its exposure to market risks in recent years, after the sale of its thermal power plants in the US, its exploration & production and LNG activities, and its European coal-fired power plants. However, its exposure linked to its nuclear, hydropower and gas thermal plants in Europe remains sizable.

With the exception of trading activities, market risks are assessed by means of their impact on EBITDA. Accordingly, the main risk indicators for managing the energy portfolios include sensitivity to unit price changes, EBITDA at Risk, portfolio hedging ratios and stress tests based on predefined unfavorable scenarios. For trading activities, and in accordance with market standards, risk indicators include sensitivities, Value at Risk (VaR) and stress tests (see Note 17.1.1 of Section 6.2.2 "Notes to the consolidated financial statements").

Risk management measures

The Group has implemented a specific governance process to manage market and counterparty risks based on (i) the general principle of separation of risk management and risk control, (ii) a Group-level Energy Market Risks Committee that is responsible for validating risk policies and monitoring consolidated exposure, (iii) following the market and counterparty risk mandates, and (iv) a specific risk control function coordinated by the Finance Department.

Part of its electricity generation activity outside Europe is secured by long-term Power Purchase Agreements (PPA) in which variations in operating expenses, in particular for fuels, are transferred as "pass-throughs" into electricity sale prices. This substantially limits exposure to fuel price fluctuation risks, even if the transfer is not perfect in some contracts.

The Group also uses derivatives to offer hedging instruments to its clients and to hedge its own positions.

It is also developing products designed to cover risks related to the intermittent nature of renewable generation.

2 Foreign exchange risk (**)

The Group is exposed to foreign exchange risk, defined as the impact on the financial position and income statement of exchange rate fluctuations, in the performance of its operational and financial activities. These are broken down into (i) a transactional risk related to current operations, (ii) a specific transactional risk related to investment, merger-acquisition or disposal projects, and (iii) a translational risk which arises from conversion when consolidating the elements of the statement of financial position and the income statement of entities whose functional currency is not the euro. The main exposures to translational risk correspond, in order of importance, to assets in US dollars, Brazilian real and British pounds.

For an analysis of foreign exchange risk sensitivity, see Note 17.1.3.2 of Section 6.2.2 "Notes to the consolidated financial statements".

Risk management measures

As part of the Group's foreign exchange risk policy, recurring transactional risk is subject to systematic hedging as soon as this risk is material and almost certain to arise. During the examination of investment projects, the specific transactional risk is subject to a case-by-case hedging strategy. Finally, translational risk is covered by partial hedging strategies subject to a reasonable hedging cost and sufficient market liquidity in relation to the risk of currency depreciation.

3 Tax risk (**)

Given their tightening budget constraints and pressure from the media, national governments are increasingly introducing anti-abuse measures, both general and special, with a broad and subjective scope, and are giving their supervisory authorities increased powers of investigation. This has created a climate of tax insecurity that may have an impact on the Group's results. Similarly, the European Commission's interventions in both state aid (especially the querying of prior agreements issued by authorities that were designed to confirm the complex tax treatment of certain transactions and consequently give companies legal security) and directives in the area of combating tax avoidance (cf. ATAD1 and 2[1], DAC6[2]) and the European harmonization project (see CCCTB[3]) have created uncertainty and may impact the Group's results over various time periods (see Note 25 of Section 6.2.2 "Notes to the consolidated financial statements").

(1) *ATAD: Anti-Tax Avoidance Directive.*

(2) *Directive relating to administrative cooperation.*

(3) *CCTB: Common Consolidated Tax Base.*

Risk management measures

The ENGIE group has established and published a tax policy since 2015. It has recently been updated and validated by the Board on January 29, 2020. It's available on ENGIE website.

The policy highlights the importance of taxation for ENGIE and its commitment to a sustainable, stable and clear tax system, administered in a fair and transparent manner. The tax function and risk management are entrusted to the Group Chief Financial Officer and more particularly to the Group Tax Department, which informs the Audit Committee of the implementation of the tax policy and the internal control system. Internal procedures, including regular control mechanisms, have been put in place to ensure compliance with tax obligations in the concerned countries. Procedures also cover the choice of location for the Group's structures. The ENGIE group does not take speculative tax positions which create a tax risk or which do not reflect their economic reality. The ENGIE group maintains official, open and constructive relations with governments and tax authorities. Furthermore, tax practices within the Group comply with its Code of Ethics and its environmental, social and societal principles. The Group therefore considers that it is compliant with the requirements of the new Article L225-102-1 of the French Commercial Code relating to combating tax fraud.

4 Pension funding risk (**)

A significant portion of the Group pensions commitments and the assets associated with these plans are concentrated in France and in Belgium. Other defined-benefit pension plans are mainly located in Europe and Brazil.

In recent years, the Group has terminated a number of defined-benefit plans and replaced them with defined-contribution plans.

Note 20 of Section 6.2.2 "Notes to the consolidated financial statements" details the items measured and recognized.

The calculation of commitments is estimated via actuarial methods using methodologies, assumptions and models to assess liabilities or determine asset allocations and associated risks that could have a significant impact on hedging levels and financing requirements.

In France, the special Electric and Gas Industries (EGI) regime is a legal regime and the related commitments are estimated using actuarial assumptions and rules governing, respectively, benefits paid out by statutory plans and amounts that remain the Group's responsibility. These assumptions and rules may be subject to changes that increase the Group's commitments and therefore require an increase in the relative relevant provisions.

Substantial commitments exist in the form of other post-employment benefits and other long-term employee benefits, in addition to pension liabilities. These mainly comprise energy-related benefits provided to retired employees within the scope of the EGI.

Hedging levels and financing requirements for the Group's pension plans vary according to the performance of financial markets and asset allocations, as well as interest and inflation rates and changes in the applicable legal and regulatory framework.

For some plans outside the scope of the EGI, ENGIE may be required to fully or partly finance any difference between the market value of these assets and the hedging levels projected for these plans, or any insufficiency in the return on the assets in respect of the guaranteed minimum average rates.

For information, on December 31, 2019, the "pension" actuarial debt is €7.5 billion. According to the Group's estimates, an increase (decrease) of 100bps in the discount rate would result in a decrease (increase) of approximately 17% in the actuarial debt.

Risk management measures

The Group has implemented a policy to cover pension commitments specific to each of the countries and legislation concerned.

Within the scope of the EGI, the scheme is financed through the outsourcing of assets within the framework of life insurance contracts. For the majority of international schemes, liabilities are covered through the funding of pension funds in which the Group strives to be present in governance, as far as legislation allows.

It should be noted that the energy benefit in kind granted to the personnel within the scope of the EGI during the retirement period is not covered.

5 Counterparty risk (**)

Due to its financial and operational activities, the Group is exposed to the risk of default by its counterparties (customers, suppliers, partners, intermediaries, and banks) – see Note 17.2 of Section 6.2.2 "Notes to the consolidated financial statements".

The impact of this may be felt in terms of payment (non-payment for services or deliveries made), delivery (non-delivery of supplies or services that have been paid for), assets (loss of financial investments), or loss of earnings in the event of customer bankruptcy or additional costs in the event of supplier default.

This risk increases with the development of long-term green offers through Corporate PPAs.

Risk management measures

The financial soundness of customers is assessed before contracts are signed, using the same methods and tools across the entire Group.

These risks are managed via framework agreements that use standard mechanisms such as third-party guarantees, netting agreements and margin calls, or dedicated hedging instruments. Operational activities may also involve prepayments or suitable recovery procedures (especially for retail customers).

6 Risk of increase in costs of obtaining energy saving certificates in France (*)

The fourth obligation period under France's energy saving certificates scheme (Certificats d'Économie d'Énergie or CEEs), which runs from January 1, 2018, to December 31, 2020, and has been extended until the end of 2021, will significantly increase ENGIE's obligations compared with the previous period. The scarcity of CEEs, lower flat rates and more stringent requirements have resulted in an increase in CEE prices since 2018. This increase could have a negative impact on the margins of the Group's marketers in the event of difficulty in passing on the associated costs to energy selling prices.

Risk management measures

The Group is implementing both measures to strengthen collection (increase in internal Group buyouts, diversification of collection channels, the takeover in 2018 of the company Certinergy, specialized in assembling CEE generation files, and work on energy efficiency) and an appropriate hedging policy (see market risks).

The evolution of the situation linked to the Coronavirus epidemic is monitored by the Group, which implements appropriate measures to prevent contamination of its employees, subcontractors and customers (see Section 3.4.6.2 "The health and safety management system") and to reduce the possible consequences of the epidemic on activity and results.

2.2.5 Industrial risks

The areas of activity in which the Group operates entail major industrial risks capable of causing harm to individuals, property or the environment, and exposing it to claims for civil, criminal and environmental liability. These risks may concern facilities that belong to the Group or are managed by the Group on behalf of third parties (manufacturers or local authorities), or facilities where the Group's employees work. The industrial safety of the facilities that the Group operates is one of its major concerns. The handling of these risks is subject to in-depth monitoring and specific targeted investments, and audits of the facilities in question are performed regularly.

Nuclear activities

The Group has established governance principles for the operation, maintenance and decommissioning of nuclear power plants based on its experience as an operator and service provider. It is also active in employee recruitment, training and retention, both for facilities in operation and nuclear services entities, and is involved in developing new services.

In Belgium, Electrabel, a Group subsidiary, owns and operates seven pressurized water reactors at two nuclear power stations at Doel and Tihange.

1 Processing and storage of nuclear waste and spent fuel (**)

a) Following the discovery in 2013 of a gel-like substance on the surface of barrels of medium level radioactive waste (originating in the Doel plant and stored at Belgoprocess), waste conditioning processes at the Doel and Tihange sites were subject to additional checks by ONDRAF, the Belgian National Agency for Radioactive Waste and Enriched Fissile Material. As a result, the accreditations for a number of processes were either not renewed or were withdrawn.

b) The waste and spent fuel management chain within the nuclear sites includes transportation by shuttle and storage in special containers or buildings. Temporary unavailability or saturation of one of these systems could lead to a temporary interruption of production.

c) Electrabel is developing a plan to construct a new building for temporary storage of spent fuel at the Tihange power plant. The construction of this building is required for the temporary storage of spent fuel on the site, to continue activities there and prepare the site for decommissioning. The project obtained the operating permit on January 26, 2020 and the town planning permit on February 21, 2020. Appeals against these permits are still possible.

Risk management measures

- In relation to point a) above, several performance tests have been established to meet all the ONDRAF requirements and regain the accreditations. The accreditations have since been regained, except those concerning resins and concentrates. For the latter, the validation program for a process is ongoing and a solution is expected at the end of 2020 for resins and mid-2021 for concentrates. In the meantime, this waste is stored in tanks on the sites. The situation regarding the storage capacity and availability of waste treatment facilities remains complex. Temporary solutions have had to be developed to increase storage capacity at the two generation sites;
- With regard to point b) above, several procedures for the accreditation of new suppliers or additional equipment are under way with the authorities. A first accreditation has been obtained for a new container supplier;
- With regard to point c) above, the risk of lodging an appeal against permits is monitored by ELECTRABEL.

2 Unavailability of one or more nuclear units (**)

The risk of one or more nuclear units not being available for technical or safety reasons is one of Electrabel's major risks, and could have an impact on its performance objectives.

However, Electrabel's industrial performance and the safety of its nuclear facilities has improved substantially since early 2019.

The availability of the nuclear generation fleet at the end of December 2019 was 79.44%, corresponding to a production of 41.3 TWh, up significantly (52%) compared with 2018.

The reliability of the facilities has also improved significantly. The implementation of a reliability plan helped to achieve, on July 23, 2019, the important step of one year without an automatic shutdown for Doel and Tihange. An automatic shutdown took place at Tihange 1 on December 4 (following an interruption in the pump control system of the secondary circuit), which was resolved quickly, enabling the plant to restart on December 5, 2019.

a) With regard to the issue of the deterioration in the concrete observed in the ceilings of the bunkers of the Doel 3, Tihange 3, Doel 4 and Tihange 2 reactors, major repairs are under way.

b) In April 2018, Electrabel found a minor leak in the emergency water cooling circuit of the Doel 1 reactor. The Doel 2 reactor contains the same type of pipe as that involved in the Doel 1 leak. On expert advice and under the supervision of the Belgian Federal Agency for Nuclear Control (FANC), the reactors can continue to produce, subject to additional inspections and regular checks.

c) In October 2019, the Tihange 2 unit was shut down after a rise in temperature in the motor of a primary pump in the reactor building. The stator was damaged due to limited water leakage from the control instruments. A valve in the same system also appeared to be faulty.

Risk management measures

- a) With regard to point a) above, at Doel 3, a new roofing slab was built on the bunker and the unit restarted in early August 2018 with the agreement of the FANC. On expert advice, the construction of a new slab was not necessary for Doel 4. The repair works on the bunker of Tihange 2 were completed. With the agreement of the FANC, Tihange 3 restarted for winter 2019-2020 and the construction of a new slab was postponed until 2020.
- b) With regard to point b) above, under the control of the FANC, Electrabel is required to carry out regular inspections, which may take place during LTO works on Doel 1 and Doel 2. These inspections will be repeated during subsequent reviews.
- c) With regard to point c) above, the Tihange 2 unit restarted on November 16, after repairs and requalification.

3 Nuclear safety and security (*)

Since the commissioning of the first reactor in 1974, the Doel and Tihange sites in Belgium have not experienced any major nuclear safety incidents that could have resulted in danger to employees, subcontractors, the general population or the environment. However, they could present civil liability risks for Electrabel, specifically in the event of a nuclear accident or the discharging of large quantities of radioactive material into the environment.

Risk management measures

Electrabel has implemented an internal and industrial control system for nuclear safety and the security of facilities in accordance with the extremely high standards of the profession, which operates on several levels:

- the Safety Report establishes the design control structures, operating procedures and behaviors;
- safety principles are integrated into the operational management of the power plants;
- compliance with the principles is subject to managerial supervision at several levels;
- compliance with the principles is subject to controls independent of the operational organizations;
- it can be based on numerous, documented and quantified control points, as well as audits.

All individuals working at Group nuclear power plants have the appropriate qualifications and are aware of their personal responsibility with regard to nuclear safety, in particular control room operators. During operations, compliance with safety and security rules and conditions at the facilities are subject to inspection by the Belgian Federal Agency for Nuclear Control (FANC), assisted by Bel-V, its technical support subsidiary. Independent checks are also carried out by Electrabel's nuclear safety department, which reports directly to its Chief Executive Officer, independently of the line management of the nuclear power sites. In addition, both nuclear sites have OHSAS 18001, ISO 14001 and EMAS certification.

Electrabel takes into account feedback and peer reviews in order to continue to improve the safety and security of its facilities (the most severe natural disasters, risks of cyber-attack and sabotage). The terrorist risk is addressed with the competent authorities of the Belgian State.

In order to strengthen the safety culture at Doel and Tihange, Electrabel, in agreement with the FANC, has set up the CORE (COmmon REsponsibility) plan, which concerns the central functions and the two nuclear sites. The plan was successfully completed and was closed by the FANC in August 2019. The measures taken form an integral part of the management system and are monitored during management system inspections.

Industrial facilities and Seveso sites

The Group operates and builds systems for gas transmission, distribution and storage, regasification and gas liquefaction facilities, bio-methanization plants, power plants, and hydro facilities, and provides services in an industrial environment. Some of these facilities are classified as "upper tier" Seveso sites.

Industrial accident riks (**)

Risks of industrial accident can stem, for example, from operating incidents or design flaws or from external events beyond the Group's control (including third-party actions and natural disasters). Industrial accidents can cause injuries, loss of life or major property and/or environmental damage, as well as activity interruptions and operating losses.

Risk management measures

The Group carries out its industrial activities in compliance with a framework of safety regulations, including the "Seveso III" European directive[(1)]. These industrial risks are controlled by implementing a safety management system at these sites based on the principle of continuous improvement, which is intended to reduce the level of residual risk by responding to the highest risks as a priority. Moreover, industrial safety is part of the Group's internal control program. The Group conducts periodic audit and control missions to ensure that these measures are effectively implemented.

Concerning the protection of industrial control systems, the BUs continue to secure newly identified critical and sensitive sites and update the protection of already secured sites as much as necessary.

For the greatest part, these risks are covered by insurance policies. In the event of a major claim, these policies could prove insufficient (see Section 2.1.3 "Risk and insurance coverage").

(1) Directive 96/82/EC (Seveso II), amended and superseded by Directive 2012/18/EU (Seveso III).

A Group Industrial Safety Committee meets twice a year, and more often if there is a specific issue that needs to be addressed, mainly to encourage the inter-BU and inter-Métier exchange of information on risks and accidents and the sharing of best practices in the Group's various activities.

2.2.6 Other operational risks

1 Risk relating to major projects (**)

The Group bases its growth on various industrial construction projects, such as gas or electricity infrastructure for production or transportation, of which it is the owner. Among these projects are thermal power plants (Fadhili in Saudi Arabia, Pampa Sul in Brazil), offshore wind farms (Le Tréport and Noirmoutier in France, Moray East in the United Kingdom) and electrical infrastructure (Gralha Azul high-voltage line in Brazil) and a majority of medium to small projects: wind projects in Brazil, Egypt and Australia, solar projects in Mexico and India in particular, local heating or cooling networks, and urban infrastructure. The profitability of these assets depends greatly on cost control and construction deadlines, the operational performance of the industrial asset, external phenomena (e.g. natural disasters and strike actions), regulatory and fiscal changes and changes in the competitive environment and energy markets over the medium and long term, which could reduce the profitability of certain assets and result in lost revenues or asset impairment.

The Group is also designing and building large-scale facilities for third-party customers. Although these projects are always subject to in-depth studies and the Group has acknowledged expertise, construction deadlines may not always be met, resulting in penalties, construction costs may be higher than anticipated, the facilities' performance may not comply with the specifications or subsequent accidents may trigger the Group's civil, professional or criminal liability. This could have a negative impact on the Group's image, financial position, or earnings.

Risk management measures

The Group implements operational support for projects and their supervision and has implemented management of the portfolio of projects over €30 million - whether investment or installation type - to provide the alerts necessary to implement corrective measures. A policy on supervision of project construction and common methods on project management have reinforced existing mechanisms within the entities executing industrial projects. As for investment projects, a project management reference system for installation projects was produced in 2019 and is gradually being rolled out. In addition, ENGIE continues to roll out training courses focusing on risk and contract management in projects for project managers and developers. With the same objective of professionalizing these latter, a planning training course was launched at the end of the year.

Lastly, ENGIE implements contract management systems to proactively manage contractual relationships with its customers, partners and suppliers. In its capacity as client, the contracts entered into by ENGIE with builders include guarantee and compensation clauses covering construction defaults and manufacturer's failures relating to deadlines and the performance of the industrial assets delivered. Moreover, insurance subscription allows for insured losses to be indemnified and also improves prevention.

2 Acquisition and integration (**)

For the purposes of external expansion, especially by means of acquisitions, the Group may issue equity securities or have recourse to borrowing. Acquisitions present risks related to integration difficulties and failure to achieve expected benefits and synergies. Risks related to the valuation of assets or liabilities or non-achievement of expected results could arise at the end of the acquisition process, resulting in provisions for asset impairment.

Partnerships and acquisitions of equity stakes are one of the ways in which the Group can share the economic and financial risks inherent to some projects, by limiting its capital employed and allowing it to adapt more appropriately to the specific context of local markets. The Group strives as much as possible to protect its interests as a partner, including through the signing of shareholders' agreements, possible representation in governance (Board of Directors, management positions) and reporting. However, changes to the project, the economic situation, the partner's or the Group's strategy, and even the local political environment may, in some cases, lead to changes in the control or governance of a partnership or to disinvestment.

Risk management measures

The processes implemented by the Group for analyzing, auditing (due diligence) and structuring risks during a planned acquisition are designed to provide a more accurate assessment of the uncertainties that arise in such cases and to propose mechanisms to protect against the risks identified. The resulting risk allocation depends on the quality of the information transmitted to the Group (especially given the legal and regulatory constraints), and the outcome of the negotiation process.

With regard to integration, the Group has set up a dedicated team (Integration Management Office or IMO) to develop a suitable methodology and to support BUs through the process from the development phase (before signing). In 2019, the IMO team supported approximately 10 acquisition projects, including TAG in Brazil, Powerlines in Austria and Conti in the US, these being only the biggest in terms of capex.

In the context of its partnerships, the Group may establish contractual provisions to resolve impasses within partnerships (deadlock resolutions), exit clauses and, in the event of disputes with the partner(s), litigation resolution clauses.

3 Cybersecurity (**)

The Group is continually exposed to new threats due to the use of new technologies, particularly the multiplication of connected objects, the development of industrial control systems, the spread of mobility tools, cloud computing, and the development of new uses, including social networks or data sciences. Cyber incidents such as crypto-viruses (ransomware), theft of personal or sensitive information, corruption of industrial control systems or compromised connections with our customers or suppliers could lead to blockages, delays and/or additional costs in the management of our services or our production infrastructure, which could harm the Group's activities or reputation. The risk may increase as digitization expands.

Risk management measures

In response, the Group continually adjusts its prevention, detection and protection measures for all of its information systems and critical data. The Group therefore has a Global Security Operation Center (SOC) in place that is operated worldwide with the assistance of Thales, strengthened controls for access to its internal and cloud platforms, devices to prevent network intrusion, data encryption, and cyber-insurance cover. To comply with the regulations (European Regulation 2016/679 on personal data protection, European Directive 2016/1148 on the security of networks and information systems), assessments are organized for the sites or applications concerned and some Group entities have taken steps to obtain ISO 27001 certification of the security of their information systems. Major attacks are managed by a specific cyber-incident response system and a cyber-crisis management system that relates to Group crisis management. In connection with its internal control policy and security policy, the organizational, functional, technical and legal security measures are subject to continuous controls that include testing (intrusion, social engineering, phishing, cyber crisis management, etc.) and campaigns to raise awareness.

4 Decorrelation of long-term gas supply contracts and selling prices (*)

Prices of long-term purchase contracts may be decorrelated from selling prices or prices in the gas markets (mainly due to transmission costs). This spread might have a significant impact on the Group's results. Long-term contracts include price adjustment clauses, so that the economic balance between producer and buyer can be adjusted. The Group's buy/sell margin may therefore change according to price adjustments in gas contracts and the state of the gas market in general.

Risk management measures

Negotiations in recent years have led to the integration of market indices in long-term contracts and/or to the reduction of the difference between contract prices and market prices. They have also led to increased frequency of price revisions.

5 Risk of malicious acts on tangible and intangible assets (*)

The Group's sites and industrial or tertiary facilities, which make up its tangible assets, may be exposed to malicious acts. Information, whether digital, physical or even communicated verbally, constitutes the Group's intangible assets and may also be exposed to malicious acts.

Risk management measures

To fight against this type of risk, the Group implements a policy for the protection of tangible and intangible assets, covering technical (including IT), legal, managerial and organizational areas. Sensitive sites where tangible corporate assets are located are subject to protective measures tailored to the local situation and revised according to the current threat status.

Regarding the anticipation of threats to tangible assets, the Group provides the following for the BUs:

- permanent and comprehensive monitoring of all threats to the Group's facilities. The information collected is forwarded to the BU security officer or interested entities, responsible for taking urgent and long-term protective measures to ensure the protection of the facilities concerned;
- permanent and comprehensive "country risk" monitoring in order to anticipate the threat and adjust the level of protection measures.

The Group continually acts to protect its intangible assets in order to deal with any reported incidents and to prevent any internal or external action aimed at capturing and using sensitive information.

The security department has set up a process for reporting security incidents, involving the production of a quarterly report, the analysis of which makes it possible to implement strategic but also operational measures.

2.2.7 Social and societal risks

The Group is also exposed to risks the direct financial impact of which is difficult to assess, but the non-financial impact of which is considered significant. These risks are developed in more detail in Chapter 3 “Statement on non-financial performance and CSR information”.

1 Risks related to human resources (**)

In the context of its ambitious transformation plan (new businesses, digitization, etc.) the Group could encounter difficulties in ensuring that it has the right skills to support its development and to unite employees around its business plan.

The transformation plan could also undermine employee engagement, resulting in individual or collective attitudes that are not aligned with the behaviors required for the transformation or to at-risk situations regarding occupational well-being.

Lastly, in France, government projects to reform special pension plans increase the risk of social movements in entities governed by the Electric and Gas Industries (EGI) regime (around 22,000 employees).

Skills

The skill risk relates as much to quality (adaptation of skills to new activities) as to skills volumes (shortage in the labor market).

Issues have been identified on nuclear activity in Belgium in view of the planned shutdown of some reactors in 2025 (technicians could leave in advance), in the BtoC BU (related to the end of gas sales at regulated tariffs in 2023) and on service activities, which are subject to a labor shortage.

Engagement of employees

Given the scale and speed of the Group’s transformation, it needs to support managers and employees to give meaning to the changes and promote buy-in.

Risk of social movements

The major organizational changes that the Group and its entities must undergo in the context of the transformation may be misunderstood or anxiety-provoking and may result in rejection or blockages.

In France, the context of pension reform could generate social tensions in entities under the EGI scheme.

Risk management measures

Skills

- The *ENGIE Skills* approach provides an annual general overview of the evolution of the Métiers and the Group’s skills requirement. This system is closely linked to the two other levers of HR support for transformation, which are *ENGIE Mobility* (for France and Belgium) to stimulate the internal job market and *ENGIE Schools*, the Group’s internal international network of business schools (see Section 3.4.1 “Human resources development and mobility policies”).
- For nuclear skills, Electrabel is rolling out a program to mitigate the risk of a shortage of technicians. Detailed management of needs and resources has been put in place.
- The BtoC BU is rolling out an anticipation and social support program linked to the closure of the Regulated Tariffs department.
- To respond to the shortage of labor, the Group is implementing an ambitious program to host work-study students (10% of the workforce) and has created an internal unit specializing in the recruitment of targeted populations.

Engagement of employees

- For the fourth consecutive year, the Group carried out its “ENGIE & Me” engagement survey to measure employee engagement and adapt its action plan. In 2019, the sustainable engagement rate was 80%, unchanged compared with 2018. The indicator that has improved the most relates to adherence to the strategy (+3 pts).
- By communicating regularly about innovation, new business models, and other topics related to the transformation, the Group is fostering discussions with its staff in order to strengthen engagement.
- With the *ENGIE Leadership Way*, ENGIE promotes managerial behaviors that encourage innovation and the development of employees and has also implemented a new policy of recognition of experts essential for its competitiveness.
- Lastly, the Group has extended to Europe the community of technical ambassadors set up at the end of 2018 in France in order to promote the technical jobs both internally and externally.

Risk of social movements

- Within national and European representative bodies and through national, European and global collective agreements, ENGIE associates its social partners with the implementation of its social ambition.
- In France, the Group is taking part in negotiations with the public authorities over the development of the EGI pension scheme.

2 Ethical risks (**)

The main risks identified are: corruption, violations of human rights, non-compliance with competition and/or embargo rules, fraud, and breaches of personal data (privacy). Any breach of the ethical principles of the Group could constitute a legal and reputational risk (see Note 25 of Section 6.2.2 “Notes to the consolidated financial statements”).

Risk management measures

In order to prevent the occurrence of such risks, ethical compliance policies and procedures are rolled out throughout the Group and apply to all of the controlled entities. The Ethics, Compliance & Privacy department promotes their generalized implementation within the Group, relying on management, the network of Ethics & Compliance Officers and Data Protection Managers, and on employee training. They contribute to compliance with the new Sapin II and Duty of Vigilance laws as well as with European Regulation 2016/679 on personal data protection.

Ethical and non-compliance risks are analyzed annually and action plans are implemented if necessary. Moreover, risks relating to corruption and human rights/duty of vigilance are specifically assessed as part of the Group's risk analysis process (see Section 3.8 "Ethics and compliance").

In addition, the policy on the analysis of ethical risks relating to investment projects and major contracts and the human rights guidelines applicable to the whole Group require the entities to analyze corruption risks and human rights risks for every new project.

3 Reputational risk (**)

The energy sector is the subject of various public debates due to the profound changes that it is undergoing.

The Group is exposed to reputational risk, both directly and indirectly, especially when the Group's values, ethics, operational excellence or legitimacy as an operator are called into question. Damage to the Group's reputation could have an impact on its market share and its ability to win new contracts.

Risk management measures

As a vital part of the Group's intangible corporate assets, the "ENGIE" brand (registered in more than 100 countries) is constantly monitored to protect it against any fraudulent use that could harm the Group's image.

Through its policies, organization, procedures and governance, the Group endeavors to prevent operational risks (see Sections 2.2.6 "Industrial risks" and 2.2.7 "Other operational risks") and smear campaigns that could affect its reputation.

The Group uses external monitoring to record disputes, including those on social networks, where its name is mentioned, in order to identify and deal with any problems at the source.

4 Health and safety at work (*)

The Group is committed to eradicating serious and fatal accidents and to continuing to reduce occupational accidents among its employees, subcontractors, and temporary workers (for example, falling from a height, injury due to handling or use of tools, road accident while traveling for work), as well as occupational illnesses.

Risk management measures

The Group health and safety policy was agreed with the union federations at European level and subsequently worldwide. An action plan was defined for the 2016-2020 period, strengthened with a specific action program called "No Life at Risk", the aim of which is to develop the safety culture and the commitment and vigilance of all individuals in order to protect their lives and those of others, involving everybody working on behalf of the Group. (See Section 3.4.6 "Health and safety policy").

In 2019, the BUs relied on five levers of engagement to strengthen the safety culture and guide the practices and behaviors of every individual:

- the promotion of a "Culture of Fairness" (recognition of virtuous behavior and sanctions proportionate to the seriousness of the deviations observed);
- the development of leadership in health and safety;
- the development of subcontractors' maturity;
- the digitization of security processes and solutions;
- the multiplication of managerial security visits.

As men and women constitute the Group's main strategic resource, it wants to take care of the physical and mental well-being of all its employees. In 2019, this ambition was concretized by the following measures:

- establishing diagnostic testing using social climate barometers and surveys;
- the development of training for managers on the prevention of psychosocial risks;
- the provision of assistance tools to employees (via dedicated telephone lines);
- the implementation of awareness and prevention campaigns.

5 Security of people (*)

The international scope of the Group means that some employees and other parties such as subcontractors may be exposed to health and security risks, the threat of which warrants a specific organization incorporating a "country watch".

Risk management measures

Wherever it operates, the Group continually assesses the risks related to terrorism, armed conflict, political or social unrest, organized or ordinary crime and, more generally, the occurrence of "unconventional" situations.

Geographic areas are subject to classification that corresponds to specific prevention and protection measures. To accomplish this mission, the Group relies on State services as well as specialized providers.

Measures are implemented across all BUs. For example, the following have been rolled out:

- tools to provide training and information, monitoring and assistance to employees;
- an alert, analysis and prevention system that is constantly updated by recognized professionals with whom the Group coordinates the management of security and health risks.

2.3 Internal control procedures

2.3.1 Internal control definitions and objectives

Internal control standard

ENGIE's internal control is based on the COSO II model of the Committee of Sponsoring Organizations of the Treadway Commission and the AMF reference framework. It is based on five components: control environment, risk assessment, control activities, information and communication, and monitoring activities.

Internal control objectives

ENGIE's internal control aims to provide reasonable assurance that the following objectives are being met: (i) compliance with laws and regulations; (ii) reliability of accounting and financial information; and (iii) effectiveness and efficiency of operations.

Internal control is constantly being adapted to changes in the Group's organization and businesses and contributes to the rolling out of its strategy.

Internal control limits

Internal control cannot provide absolute assurance, particularly due to possible dysfunctions relating to error or human failure and arbitrage between the costs relating to the potential occurrence of a risk and the cost of the measures designed to prevent it.

INCOME program

On the basis of financial materiality and an analysis of risks, each year ENGIE updates the scope of the most significant controlled entities that are subject to centralized monitoring through the INCOME (INternal COntrol over Management Efficiency) program (188 entities in 2019).

2.3.2 Internal control organization and stakeholders

2.3.2.1 Organization of internal control

The organization of internal control complies with the principles of the Group's organization, particularly decentralization, autonomy and the accountability of managers. In the context of the authorities delegated by the Chief Executive Officer, each manager of a BU or entity is responsible for implementing and overseeing an internal control system that conforms to the applicable regulatory framework and any specific features thereof. The Internal Control Department reports to the Finance Department and is in charge of leading and coordinating the system at Group level. It proposes and updates a framework, a methodology and an information system that centralizes all the data relating to the rolling out and assessment of the system's effectiveness.

2.3.2.2 Elements of the general compliance framework

Ethics and compliance

In line with its values and its undertakings, ENGIE aims to act in compliance with the laws and regulations in force in the countries where it operates in all circumstances. To this end, the Group has established an ethics policy that guides its strategic decisions, management and professional practices. It also has the necessary tools to measure compliance with this undertaking (see Section 3.8 "Ethics and compliance").

Recruitment, training and skills management

The quality, commitment and skills of its employees are necessary conditions for the management of the Group's operations. Recruitment, training and skills management policies are key elements of the internal control system, ensuring the required level of competence in all areas, particularly those in which specific expertise is needed, in accordance with the Group's values (see Section 3.4 "Social information").

Information systems

The digital and IS strategy, and the IT solutions policies and standards, are defined by the Group Digital and IT Department. The security of information systems of the sectors and central functions of the Group is the responsibility of the corresponding functional departments, in accordance with these policies and standards. Similarly, the BUs are responsible for the security of their information systems under the control of the Group Digital and IT Department and, for the industrial control systems (ICSs), under the joint control of the Global Care Department and the Group Digital and IT Department, which coordinates the technical actions to secure these ICSs and their connection to the cybersecurity supervision platform of the Global Security Operations Centre.

Important subjects for internal control, such as the segregation of duties and the management of access rights, are taken into account during the design stage of new information systems and regularly reviewed thereafter.

The IT managers of the BUs are, among other things, in charge of the information system recovery plans, while the information systems security officer of the BU is responsible for cybersecurity.

Internal policies and standards

All the decisions, standards and procedures issued by corporate defining the Group's methods of operation are available on its intranet. The Finance Department provides all the procedures and rules intended to ensure the reliability of the accounting and financial information applicable to the Group's entities. The Internal Control Department provides all the Group's employees with the following procedures and best practices:

- methodological guides for entities relating to the definition, assessment and coordination of an internal control system adapted to the nature of their activities;
- internal control frameworks (61 in 2019) covering business, support and global processes (e.g.: sales, procurement, payroll, information systems, accounting, tax, investment, cash management and personal data protection). Each framework details the intrinsic risks and the key controls designed to manage them;
- best practice on subjects such as the segregation of duties, the role of directors, data protection, etc.

These guidelines can be tailored as needed to the BUs and entities.

2.3.2.3 The system's stakeholders

The stakeholders and their respective roles are presented according to a management model with three lines, overseen by ENGIE's governance bodies.

The Group's governance bodies

The Board of Directors ensures the proper functioning of internal control within the Group. The Executive Committee defines the organization and responsibilities of managers and ensures compliance with the delegations of authorities. An annual review of internal control is submitted to the Executive Committee and the Audit Committee.

First line of management

The operational managers, who are responsible for the internal control of the processes of their entities, constitute a key element of the system. They ensure that control activities are effectively implemented, analyze the results, correct any deficiencies and endeavor to improve the efficiency of their system.

The Management Committees of the BUs and entities are responsible for establishing and overseeing the internal control covering the scope of their activities. They play a vital role in the quality of the control environment: promoting Group values, defining the organization, assessing results, communicating, etc.

Second line of management

This line of management is organized into sectors, overseen by the Group's corporate departments.

The Finance Department carries out internal accounting and financial control (see the relevant section below). Within this department, the Insurance division is involved in risk identification, loss prevention, and the definition and implementation of hedging strategies.

The General Secretariat helps to make the Group's operations and the decisions of its managers legally secure, particularly in the following areas: commitments, litigation, arbitration, studies and actions to protect the criminal liability of the Group and its managers, embargo, company law, financial and stock market regulation, intellectual property law, competition law and regulation and financial law.

Within the General Secretariat, the Ethics, Compliance and Privacy Department is responsible for drafting ENGIE's ethics and compliance rules, as well as ensuring that such rules are actually applied in accordance with the laws and regulations in force.

The Corporate Societal Relations Department is responsible for compliance with environmental laws and regulations throughout ENGIE. It assesses the environmental maturity of the Group's various businesses and is in charge of regulatory environmental reporting.

The Internal Control Department coordinates the implementation of the internal control policy approved by the Executive Board. It coordinates a network of representatives who are in charge, under the responsibility of the managers of the entities, of guiding internal control, and organizes training and information sessions. It monitors and anticipates external regulatory developments as well as changes to the Group, in order adapt the relevant procedures.

Third line of management: the Internal Audit Department

Reporting to the Chief Executive Officer, the Audit Department operates throughout the Group in accordance with an annual plan based on risk analysis and interviews with the operational managers. This plan may be expanded at the request of the Executive Committee so that it covers priority subjects for the Group (subjects related to ethics, personal data protection, etc.). Submitted for approval to the Audit Committee, this plan is designed to cover all of the entities and enables the quality of the business control and management environment to be checked.

Internal Audit also helps to assess the internal control covering operational and financial processes and the reliability of the self-assessment of controls carried out under the INCOME program.

Internal Audit presents its conclusions to the managers of the BUs and entities and regularly reports on its key observations and on the progress of the associated action plans to the Executive Committee and the Audit Committee. It regularly meets with the Statutory Auditors to share internal control analyses.

2.3.3 Internal control relating to financial and accounting information

2.3.3.1 Organization and stakeholders

The Group Accounting Department is in charge of financial reporting, preparing the parent company financial statements of ENGIE, producing the consolidated financial statements, and liaising with the Statutory auditors and the accounting departments of the AMF. It establishes the Group's accounting principles and oversees their implementation to ensure compliance with the accounting standards. It monitors the evolution of standards and their impact on the Group's financial statements and adapts the principles accordingly. Within the Group Accounting Department, the Group Consolidations Department and the Accounting Standards Department optimize the handling and resolution of complex technical problems. These departments strengthen the quality and standardization of the analyses performed and the positions taken.

The Enterprise Performance Management Department is tasked with establishing the analyses and reports required by the Executive Board for the economic and financial coordination of the Group. It draws up and maintains the Group's management control toolkit and oversees the rolling out of these toolkits to the various entities. It guides the Management Control sector in defining and implementing processes and tools. It also coordinates the "Lean 2021" Group performance program.

The IT Solutions Department Finance Sector is a centralized activity at the corporate level that is responsible for the IS strategy of the Finance Function and for the determination and coordination of the IT solutions policies, rules and standards applicable to the sector. Applications and infrastructure are distributed to the BUs and Métiers in accordance with the policies defined by corporate. The IT Solutions Department Finance Sector oversees the implementation of the Group's IS security policy within the sector and monitors and plans IS spending and investments.

The consolidated reporting entities all use the SAP software package "Business Objects Financial Consolidation" for the consolidation of the Group's financial statements and management reporting. This application is jointly managed by the Accounting IT Center of Expertise (which handles administrative tasks and system configuration and provides operating assistance to users) and the Information Systems Department, which is in charge of specific underlying infrastructures.

The Group Tax Department is responsible for defining and rolling out the Group's tax policy. It coordinates the validation of tax returns and transfer pricing documentation and ensures that tax data are uniformly reported. As it has a central administrative role, the Group Tax Department is hierarchically responsible for all tax activities. Generally speaking, it is closely supported by the Finance Departments of the BUs, which assume responsibility for tax in terms of compliance and transparency.

The Investor Relations Department is in charge of relations with institutional investors and sell side analysts. With regard to management information, the Management Control sector of corporate is the Investor Relations Department's only source of information. All other information arising from the legal reporting process, that is classed as regulated information pursuant to AMF rules, is provided by the Group Accounting Department. Lastly, the department oversees and coordinates the process of market communication (quarterly, half-yearly and annual financial information and information on major transactions) in collaboration with the General Secretariat.

The Finance Department also uses the current "Missions and operating principles of financial communication" procedure, which sets out management principles for the Group's financial communication and clearly defines its activities in areas concerning analyst and investor relations and market intelligence.

Through the functional lines, all of these corporate departments oversee internal control within their respective areas via the Finance Departments of the BUs, which are specifically responsible for: producing the separate financial statements of the legal entities and accounting bodies that comprise them and converting them according to IFRS (corporate is responsible for consolidating these converted data); and implementing internal control procedures at all the operating subsidiaries, as well as decentralized management control (see Section 2.3.3.3 "Setting objectives and coordination").

2.3.3.2 Consolidation process

The Group Accounting Department is in charge of producing the consolidated financial statements, supported by the Enterprise Performance Management and management control teams of the BUs. It manually updates the accounting principles and closing instructions disseminated before each phase of consolidation.

Each of these entities carries out controls in its own area of responsibility to ensure that Group accounting standards and policies have been circulated and applied correctly. This principle of subsidiarity allows second-tier controls to be applied to the prepared information: at the BU level for information passed on to this level by the reporting entities; and at the corporate level for information passed on to this level by the BUs.

The CEO and CFO of each BU attest to the quality and comprehensiveness of the financial information provided to the Group by means of a representation letter.

Discussions with the Statutory Auditors enhance the quality of financial information with respect to the standards, particularly in the case of complex situations that are open to interpretation.

2.3.3.3 Setting objectives and coordination

Every year, each of the Group's BUs produces an Medium Term Business Plan (MTBP), a budget and budget re-estimates. The Enterprise Performance Management Department, which reports to the Finance Department, prepares instructions for this purpose for each BU, including details such as macroeconomic hypotheses, financial and non-financial indicators, the timetable and the segmentation of the scope of activity. Each BU is responsible for sending these instructions to the subsidiaries and reporting entities within its scope after tailoring them to the specific characteristics of its business activity.

The Executive Committee approves for each BU the objectives set for the following year, the corresponding budget and the outlook beyond the current year derived from the budget process and the MTBP, to be used as the basis for the impairment testing of goodwill and long-term assets. The Group's consolidated budget and MTBP are presented to the Audit Committee and the Strategy, Investment and Technology Committee before being submitted to the Board of Directors.

2.3.4 Formalization and coordination of internal control

Within the scope of the INCOME program, oversight of the internal control system takes place at several levels:

- the operational managers oversee the correct implementation of the control activities of their processes, assess the results and rectify any weaknesses detected;
- a formalized annual process of self-assessment of key controls, carried out with the support of the individuals responsible for internal control within the entities, taking into account the entities' control processes and general control environment;
- Internal Audit reviews the quality of the self-assessments and the general control environment.

Outside the scope of the INCOME program, internal control toolkits and a specific questionnaire are provided to the entities. These enable sensitive areas to be covered, such as the separation of tasks and the protection of assets.

The Group also implements a system of commitment involving the managers of the BUs and the main corporate departments concerning the establishment, oversight and effectiveness of an internal control system covering their respective areas of responsibility.

Each year, meetings take place between the Internal Control Department and the Statutory Auditors in order to share analyses of the quality of the existing systems and to identify, where necessary, action plans to rectify any weaknesses detected.

2.3.5 Recent actions to strengthen the system

The most significant actions are as follows:

- the design and roll-out of a set of internal control toolkits focused on personal data protection;
- successful testing of automated controls based on data analysis and launch of their roll-out at Group level;
- provision to the operational managers of fraud prevention tools.

3

Non-Financial Statement and CSR information

Ordinance 2017-1180 dated July 19, 2017 and Decree 2017-1265 dated August 9, 2017 transposed European Directive 2014/95/EU as regards disclosure of non-financial information by companies (the "CSR Directive") via the Non-Financial Statement (NFS), thus amending Article 225 of the French Commercial Code, which required companies to incorporate their social, environmental and societal information into their management report.

Pursuant to this legislation, the ENGIE Group's Non-Financial Statement comprises the following elements:

- a description of the Group's activities presented in a summary form by major business segment in Section 3.2 "Business model", and in a detailed form in Section 1.3 "Description of the Group's activities";
- an analysis of the CSR risks relating to the areas referred to in the CSR Directive, detailed in Section 3.3 "Analysis of main CSR risks";
- a presentation of the governance of CSR performance in Section 3.1 "Corporate Social Responsibility", together with: the Board of Directors' diversity policy, described in Section 4 "Corporate Governance", the Vigilance Plan described in Section 3.9 "Vigilance Plan", and the rules of ethics described in Section 3.8 "Ethics and compliance".

3.1 Corporate Social Responsibility

Rethinking the global energy landscape has today become a necessity in the face of climate change. The urgent need to reduce environmental impacts means that we have to establish a lower-carbon, more decentralized, more digitized and more pared-back energy system.

3.1.1 CSR policy and governance

The aim of the CSR policy and the environmental and societal policies deriving from it, which were updated in 2017 and 2018, is to help the Group to open new avenues and create shared value by making the environment central to its activities, giving meaning to its actions, promoting an alternative way of consuming energy, and contributing to the achievement of the UN Sustainable Development Goals.

The CSR Department relies on a network of Chief Sustainability Officers in each BU, as well as an internal network of global CSR ambassadors, in order to engage employees as widely as possible on these subjects.

After approval by the Executive Vice-President in charge of CSR, the CSR Department gives regular presentations on the latest CSR topics (Science-Based Targets, Task Force on Climate-related Financial Disclosures, CSR commitments) and an annual report (CSR rating, CSR objectives, environmental and societal actions of the Group and the BUs) to the EESDC.

The CSR Department jointly chairs the Green Bond Committee with the Finance Department, overseeing projects likely to be financed by green bonds regularly issued on the market by the Group. It also jointly chairs the Duty of Vigilance Committee (see Section 3.9 "Vigilance Plan").

The CSR Department regularly meets with a range of stakeholders, such as NGOs, investors (including socially responsible investors), ratings agencies, clients, and opinion leaders, and organizes panels to work on the sustainability of offerings, projects and services related to the Group's operations.

Each year, at its Shareholders' Meeting, the Group publishes an integrated report, produced under the guidance of the CSR Department, on its overall financial, environmental, social and societal performance, which it discusses in advance with its main stakeholders.

3.1.2 2030 CSR objectives

This year, the Group has published a new set of CSR objectives supplementing the 2020 targets.

This new set of objectives is part of the new Group strategy presented in 2019 and consists of 19 objectives, seven of which will be monitored and presented each year when the Group's financial statements are published.

These seven, "rank 1" objectives are as follows:

- greenhouse gas (GHG) emissions from electricity generation, regardless of the assets held, in line with the SBT trajectory, with a target of 43 million tons of CO_2 eq. in 2030;
- GHG emissions from use of sold product in line with the SBT trajectory, with a target of 52 million tons of CO_2 eq. in 2030;
- an alternative option in the Group's offers contributing to decarbonization, with a target of 100% in 2030;
- a proportion of SBT-certified preferred suppliers (excluding energy purchases) of 100% in 2030;
- a lost-time injury frequency rate for Group employees and subcontracted employees on closed sites of 2.9 in 2030;
- a proportion of women in Group management of 50% in 2030;
- an equity ratio of women to men of 100/100 in 2030.

3.1.3 Update on the work of the TCFD

In 2015, the G20 created the TCFD (Task-force on Climate-related Financial Disclosures), after the Financial Stability Board (FSB) was tasked with drawing up recommendations regarding the financial transparency of companies with regard to climate risk.

The global Finance and Insurance sector aims to:

- take more account of climate-related risks in financing and investment portfolios;
- avoid the risk of a drastic devaluation of assets and carbon bubbles;
- appreciate the resilience of companies faced with medium- and long-term climate impacts;
- make capital allocations consistent with transition objectives to remain below the scenario of a rise in average global temperatures of less than 2°C.

The final version of these recommendations was published in June 2017.

In October 2017, ENGIE supported these recommendations with the climate leaders of the WEF (World Economic Forum) at the G20, and set up an internal cross-functional working group which defined a plan for implementation of the recommendations over a five-year period (2017-2021).

In the context of the plan, ENGIE established a partnership with the IPSL (Institute Pierre Simon Laplace), aiming to identify the nature of the meteorological data likely to impact its facilities and to define the evolution curves for this data, in order to assess the financial effects on these facilities. To respond accurately to investor demand, this partnership will enable narratives to be constructed for +2°C and +4°C scenarios.

Several extreme climatic events have been defined and have made it possible to assess the specific impacts to the different types of the Group's activities and to identify the measures to be taken to deal with them. From + 2 ° C and + 4 ° C scenarios, ENGIE will be able to size the level of adaptation plans which will be defined and implemented on each of its assets and quantify the financial impacts.

3.1.4 Science Based Targets certification

The Science Based Targets (SBT) initiative aims to encourage companies to take ambitious climate action by validating the compliance of their forecast chronicles of CO_2 eq emissions with the commitments of the Paris Agreement. Mindful of its environmental responsibility, ENGIE submitted at the end of 2019 a request for certification of its CO_2 eq emissions to the + 2 ° C commitments of the Paris Agreement, certification obtained in February 2020.

For this, the Group is engaged on two points :

- reduce the carbon intensity of its electricity production (scopes 1 and 3) by 52% by 2030 compared to 2017;

- reduce emissions from the use of products sold (scope 3) by 34% by 2030 compared to 2017.

This certification gives credence to ENGIE's ambition to become the leader in the energy transition to a carbon neutral world.

3.2 Business model

The acceleration of the energy transition is shifting the sector's value towards more environmentally-friendly activities and services that are closer to the end customer. It has also created a need to provide responses tailored to each region, incorporating a good understanding of local situations and resources. ENGIE is involved in raising awareness of, and co-constructing, the energy transition with its stakeholders.

ENGIE's business model includes the modeling of the Group's activities and of the value creation associated with these activities.

The Group's activities, described in Section 1.3 "Description of the Group's activities", can be divided into four segments:

- Client Solutions, itself divisible into two parts:
  - BtoB (Business to Business) solutions: engineering, installation, energy efficiency, energy sales, and integrated services (including facility management),
  - BtoT (Business to Territories) solutions: heating and cooling networks, decentralized energy generation, green mobility (NGV, hydrogen), digital systems and platforms, solutions for cities (lighting, video surveillance, etc.);
- Infrastructures, divided into:
  - gas transmission, which includes gas transmission by pipeline, regasification of LNG delivered by tanker, LNG transportation by truck, and the injection of green gases,
  - gas storage, which includes underground gas storage and geothermal drilling,
  - gas distribution, which includes natural gas distribution and the injection of green gases;
- Renewables: wind, solar, hydropower, biogas, biomass…;
- Thermal, corresponding into electricity generation based on energy from fossil sources;

and other activities, including the supply of energy and sale to residential and professional or BtoC (Business to Consumer) customers, and nuclear power generation.

The following chart provides the key figures for each activity.

Customer Solutions (1.8€bn or 17% EBITDA)

- 21 €bn of revenue
- 3 main business segments:
  - Cities and communities:
  - Industries
  - Properties
- Brands:
  - ENGIE Solutions in France (since January 1, 2020)
  - Outside of France: ENGIE Cofely, ENGIE Axima, ENGIE INEO, ENGIE AXIMA, ENDEL ENGIE, Tractebel, ENGIE
- 119 350 employees

- Positionings:
  - 1st cooling network operator in the world
  - 350 heating and cooling networks in 20 countries
  - 4th heating network operator (in TWh)
  - 1st supplier of energy services
  - 2nd supplier of installation services in Europe
  - 2nd supplier of charging stations for electric vehicles in the world
  - Leader in solar units for industrial and commercial customers

- One of the top gas sellers and importers in Europe, 1st in France
- 2nd largest producer and supplier of electricity in France
- 1st producer and supplier of electricity in Belgium
- Activities:
  - Decentralized energy production,
  - Green mobility (GNV, hydrogen),
  - Digital platforms and systems,
  - Solutions for cities (public lighting, video security)

Networks (4.0 €bn or 39% EBITDA)

Transmission
- GRTgaz and Elengy (France), gas transportation subsidiaries in Germany, Mexico,...
- 1st transporter in France and 2nd largest in Europe
- 1st terminal operator in France and 2nd in Europe
- GRTgaz
- Electral networks

Storage
- Storengy France, Storengy Deutschland, Storengy UK
- Leader in underground gas storage in Europe
- Storage activities regulated in France, competitive in the UK and in Germany

Distribution
- GRDF (France), Distrigaz (Romania), Engie MaxiGas (Mexico), Turkey, Argentina, Thailand
- 1st natural gas distribution network in Europe
- Activities mainly regulated

Renewables : Production and marketing of electricity (1.7 €bn or 17% EBITDA)

Wind
- 7.4 GW
- 1st onshore wind producer in France
- Activities under PPAs

Solar
- 2.6 GW
- 1st producer in France
- Activities under PPAs

Biogas /Biomass
- 0.6 GW
- 1st producer in France
- Activities under PPAs

Hydro
- 16,3 GW
- 1st alternative hydroelectric producer in France
- Activities under PPAs

Thermal : Production and marketing of electricity (1.8 €bn or 17% EBITDA)

Natural Gas
- 52.2 GW
- Major presence in Middle East (30,1GW)
- Activities under PPAs

Coal
- 3,9 GW
- Exit in progress

Other activities (1.0 €bn or 10% EBITDA)

BtoC Clients
- Brand : Engie
- 21 m of contracts including 10.5 m in France
- 144 TWh of gas sales and 37 TWh of electricity sales
- 1st supplier of natural gas in France

Nuclear
- 5,8 GW
- 1st producer in Belgium
- Activities under PPA

Supply
- Supply and management of gas assets
- Management and valuation of electricity assets
- Energy supply
- 5 trading platforms
- Commercial activities in more than 50 countries

In modeling the value created by the activities, the International Integrated Reporting Council (IIRC) recommends distinguishing resources mobilized on the one hand and the results obtained on the other.

The Group's four segments of activity (Client Solutions, Global Infrastructures, Renewables, and Thermal) utilize capital or resources of different kinds and create value according to five areas, as shown below.

Value creation for ENGIE

RESOURCES

Financial capital
equity capital, borrowed capital, etc.
See Section 6.2 "Consolidated financial statements"

Industrial capital
industrial assets, expenditure, expenditure on development and maintenance, etc.
See Section 6.2 "Consolidated financial statements"

Intellectual capital
workforce and expenditure on R&D and innovation, etc.
See Section 1.1.5 "Innovation, Research & Technologies policy"

Human capital
workforce, expenditure on staff and training etc. See Section 3.4 "Social Information"

Societal Capital
stakeholders mobilized internally and externally, etc.
See Section 3.6 "Societal Information"

Natural Capital
volumes on and expenditure on purchasing raw materials, other supplies, expenditure relating to environmental preservation, etc.
See Sections 3.5" Environmental Information" and 3.7 "Purchasing, subcontracting and suppliers"

BUSINESS MODEL

- Customers solutions
- Global infrastructures
- Renewables
- Thermal
- Other activities

VALUE CREATION

A sustainable energy transition
renewable power generation capacities, proportion of renewable energy in the portfolio, waste recycling rate, rate of reduction of CO2 emissions and other pollutants, % of power generation sites with an environmental plan agreed with the stakeholders, etc.
See Section 3.5 "Environmental Information"

A profitable energy transition
organic growth in revenue and EBITDA, remuneration of shareholders, ROCE, etc.
See Sections 1.2 "Key figures" and 6.2 "Consolidated financial statements"

An energy transition for the future
investment in innovation and digital, number of labs created, etc.
See Section 1.1.5 "Innovation, Research & Technologies policy"

An energy transition for all
recurring amount of taxes paid, amount of local purchasing, % of SMEs among suppliers, number of customers benefiting from subsidized tariffs, number of beneficiaries with access to energy
See Sections 3.6 "Societal Information" and 3.7 "Purchasing, subcontracting and suppliers"

An energy transition that brings together
compensation policy, percentage of employee shareholding, level of employee engagement, accident frequency rate, % of industrial sites that have established a system for stakeholder dialogue
See Sections 3.4 "Social nformation" and 3.6 "Societal Information"

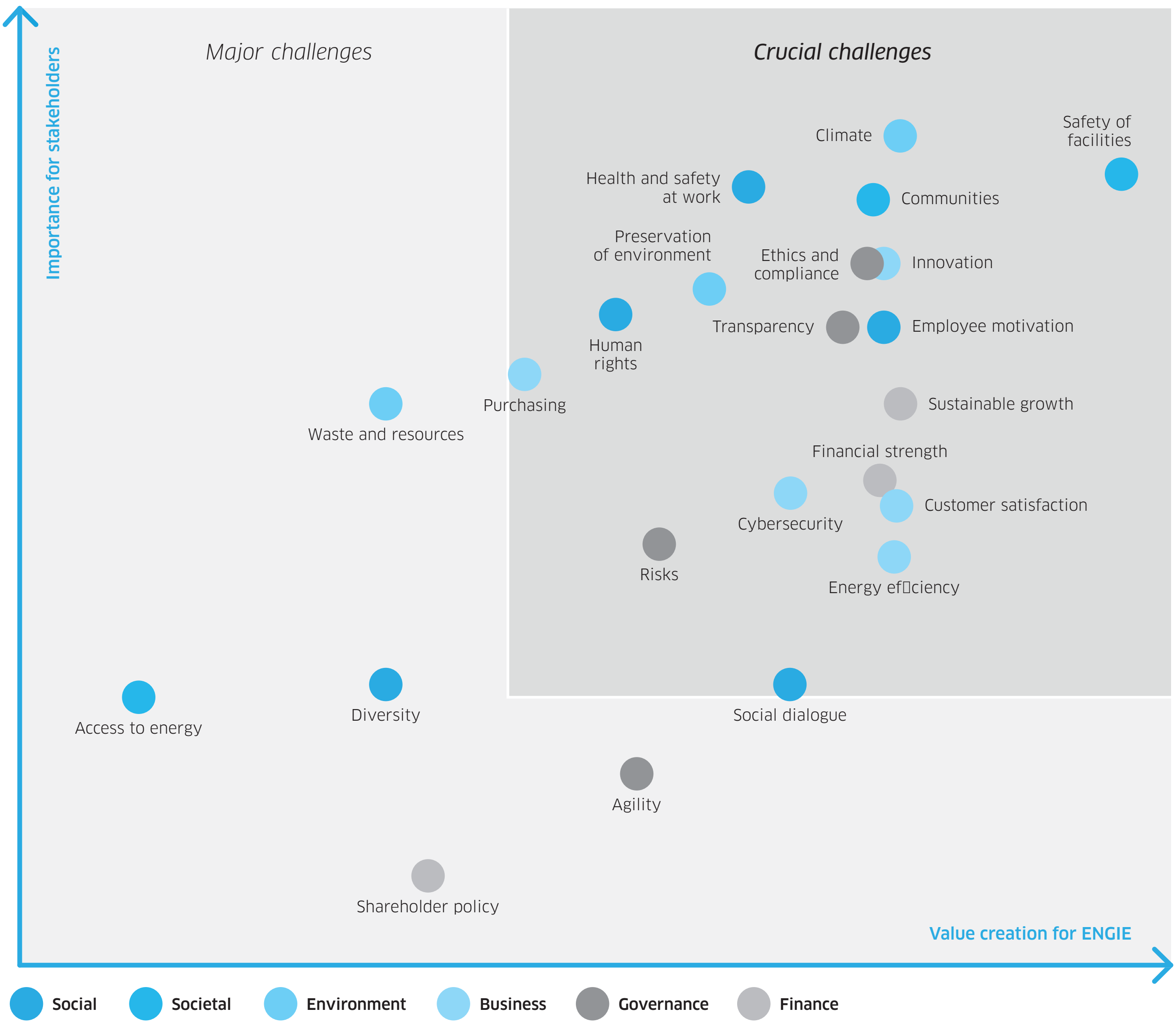
3.3 Analysis of main CSR risks

In order to identify the main CSR risks, ENGIE relied on the most recent version (2017) of its matrix of challenges, or materiality matrix, which was created to gain a better understanding of the expectations of its stakeholders and its management and to target its actions more effectively.

To create this materiality matrix, around 100 people were consulted by means of an online questionnaire and in-depth interviews. The methods used and the details of the consultation can be found on the website ENGIE.com.

The consultation process identified 23 material challenges (18 crucial, five major, no medium challenges) of several kinds: social, societal, environmental, governance-related, business-related and financial. These 23 material challenges are positioned on the matrix:

- according to their importance for internal or external stakeholders (vertical axis);
- according to the impact in terms of value creation for Group management (horizontal axis).



Of the 23 material challenges, 19 relate to Corporate Social Responsibility, with which the risks and opportunities listed below, also CSR-related, can be associated.

CSR challenges	Risks	Opportunities
Cyber-security facilities system	Facilities security breach Nuclear safety breach Cyber attack on industrial systems Damage to assets	Sales of services: digitization, robotization, security and monitoring of sensitive sites
Climate	Contribution to climate change Impact of climate change on the Group's activities	Service sales: renewable energy, energy efficiency, decarbonization advisory, heating and cooling networks
Preservation of the environment Resources and waste	Pollution of the surrounding environment Loss of diversity Loss of water resources Atmospheric pollution Waste	Service sales: reducing the carbon footprint of industrial sites, environment management plan, program to restore flora and fauna
Community	Low level of societal acceptance of activities	Co-construction of offers with stakeholders
Transparency	Poor management of major projects	Continuation of industrial activities
Purchasing Access to energy	Reputational damage	Group's societal role beneficial to its internal and external reputation Support of stakeholders and regional integration Tackling fuel poverty with adapted offers Development of "access to energy" offers in the regions
Employee motivation Social dialogue Agility Innovation	Absence and inappropriateness of skills Social movements	Digitization improving work efficiency Appeal of the Group to young people aware of carbon neutrality Adapting to changes in occupational sectors
	Lack of employee engagement Loss of competitiveness	Occupational well-being Employee motivation
Diversity	Lack of employee diversity	Group's societal role beneficial to its internal and external reputation Inclusivity of the company Reflection of society
Health and safety at work	Health and safety at work Safety of individuals during travel	Occupational well-being Employee motivation
Ethics and compliance	Corruption Tax non-compliance	Group setting an example as a good citizen, motivating employees
Human rights	Human rights violations	Group's societal role beneficial to its internal and external reputation
Energy efficiency	No material risks	Sale of energy as a service Developing trust with customers

The CSR risks thus identified based on material challenges constitute the main CSR risks referred to in the Non-Financial Statement.

As a reminder, Chapter 2 "Risk factors and control" in this document assesses and ranks risks that are net specific material risks, i.e. risks associated with ENGIE's activities that could have a financial impact in the short or medium term in the context of investment decisions concerning ENGIE, and which are classified as net because they are presumed to be material even after the measures taken by the Group to manage them have been taken into account.

By contrast with Chapter 2, the analysis of the main CSR risks in this chapter takes into consideration the gross material CSR risks, i.e. CSR risks that could have medium- or long-term non-financial impacts, concerning ENGIE but not necessarily specific to ENGIE's activities, and classified as gross because they do not take account of the management measures implemented by ENGIE. This explains why the list of risks in this chapter is more important that the list in Chapter 2.

For clearer presentation, these main CSR risks have been grouped by challenge within each area (environmental, societal and social). In accordance with the regulations, these risks are analyzed by means of: (i) a summary of the policies or action plans implemented to limit them; (ii) indicators established to monitor them, sometimes with targets set, and (iii) the results of these indicators over three years (2017, 2018 and 2019).

The main United Nations Sustainable Development Goals (SDGs) that could be impacted by these risks have also been indicated.

Furthermore, pursuant to the French Act of March 27, 2017, ENGIE has drawn up a vigilance plan to monitor risks associated with human rights in the broadest sense, including aspects related to health and safety, responsible purchasing and the environment. This vigilance plan covers all of ENGIE's activities and its controlled subsidiaries world-wide, as well as those of its main suppliers. The vigilance plan is described in Section 3.9 "Vigilance plan".

Lastly, the CSR Department monitors environmental, social and societal disputes, submitting regular CSR reports to the COMEX and to Board of Directors. It is in contact with NGOs to discuss these topics and manages stakeholder engagement in-house training to reduce their occurrence in the future.

3.3.1 Main environmental risks

Challenge: "Facilities safety"

The Group's stakeholders and management have identified facilities safety (not limited to industrial safety, but encompassing the safety of nuclear facilities and the cybersecurity of entities and industrial facilities) as a crucial challenge for the Group. The following four main CSR risks can be associated with this challenge:

- industrial safety risk, corresponding to the risk of harm to the integrity of persons or property due to the Group's operational activities;
- nuclear safety risk, corresponding to specific risks in the event of accidents that might result in radioactive releases from the Group's nuclear plants;
- risk of cyber attack on industrial command systems;
- risk of damage to tangible and intangible assets, i.e. malicious acts affecting the Group's industrial or tertiary sites and facilities, which make up its tangible assets, as well as those affecting information, which is part of the Group's intangible assets, whether conveyed on computerized or physical media or even verbally.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Industrial safety	• ENGIE's health and safety policy incorporating industrial safety • Industrial safety policies specific to the different activities conducted by Group subsidiaries • Action plans implemented by the subsidiaries that integrate feedback as part of a continuous improvement approach	• Monitoring of incidents and accidents related to industrial safety at subsidiary level • Assessment of the level of risk control achieved through dedicated internal control standards (IND 2 & 3)	No significant incident at industrial facilities	No significant incident at industrial facilities	No significant incident at industrial facilities[1]	3 GOOD HEALTH AND WELL-BEING
Nuclear safety	• Nuclear Safety and Radiation Protection Policy • Independent supervision of nuclear safety • 2016-2020 Global Nuclear Safety Plan • Minimum requirements for systems of management of nuclear actors	• Monitoring of significant incidents	No significant incident	No significant incident	No significant incident	3 GOOD HEALTH AND WELL-BEING
Cyber attack on industrial control systems	• The Group policy review on Security of Industrial Control Systems • Technical security standard assessement • Qualitative assessement of the maturity level of the cybersecurity culture on the entities	• Monitoring of the security rate of priority sites to be secured (critical and sensitive sites) • Assessment of the level of risk control achieved through dedicated internal control standards (IND 4)	All critical sites were secured at the end of 2017 as well as a majority of the sensitive sites	All critical and sensitive sites were secured at the end of 2018	Maintaining the security of existing sites and securing new sites in accordance with objectives	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Damage to assets	• Group policy to protect individuals and tangible and intangible assets • Prevention and protection measures implemented on the basis of the criticality of the geographic location • Group Information Security Committee	• Monitoring of threats to the Group, particularly from terrorists • Monitoring of damage to assets	No significant damage to assets	No significant damage to assets	No significant damage to assets	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

(1) *An incident or damage is considered signifiant when it leads to several serously or severely injured people, or a long-term or irreversible impact on the environment. From the point of view of damage to assets, an incident or damage is considered significant when the annual financial impact is greater than 1% of the Group's EBITDA.*

"Climate" challenge

The fight against climate change, which includes reducing greenhouse gases, has been identified as a crucial challenge for the Group's stakeholders and management.

The following two main CSR risks can be associated with this challenge:

- risk relating to the Group's contribution to climate change;
- risk associated with the impact of climate change on the Group's activities.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Contribution to climate change	The environmental policy specifies the environmental challenges faced by the Group, including climate change; the resources used by the Group to meet these challenges and improve its performance; and the governance elements that contribute to the implementation of the Group's environmental policy.	In order to reduce its carbon exposure, ENGIE has set itself objectives for 2020:				
		• the ratio of direct CO_2 emissions in energy production (electricity and associated heat) will be reduced by 20% compared to 2012	-18.1%	-28.7%	-43,7%	13 CLIMATE ACTION
		• the share of renewable energies in the electricity production capacity mix (counted at 100%, regardless of the rate detention) will be 25%	23.1%	23.7%	27,8%	7 AFFORDABLE AND CLEAN ENERGY
Impact of climate change		The Group has set a target of ensuring that 100% of its target sites (i.e presenting a risk to the environment according to a multi-criteria approach integrating biodiversity, water, waste and air pollution) have management plans that incorporate environmental issues, drawn up in collaboration with their stakeholders, and include adaptation of the Group's facilities to respond to climate change.	61%	75%	86%	13 CLIMATE ACTION

"Preservation of the environment" and "resources and waste" challenges

Preserving the environment, i.e. preserving the soil, water and atmosphere from any pollution, as well as preserving resources and treating waste in order to protect biodiversity and protected habitats located close to the Group's facilities, are issues that were particularly highlighted by the Group's stakeholders and management.

The following four main CSR risks can be associated with these challenges:

- the risk of loss of biodiversity;
- the risk of water stress;
- the risk of waste management;
- the risk of pollution of the surrounding environment.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Biodiversity		ENGIE has committed to provide 100% of its priority sites (i.e. those likely to affect biodiversity due to their proximity to a protected natural area) with an action plan to respond to the challenges of preserving biodiversity	90%	94%	94%	15 LIFE ON LAND
Water stress		The Group has set a target of reducing its level of freshwater withdrawals per MWh of energy generation by 15% compared with 2012	-48%	-39%	-61.4%	13 CLIMATE ACTION
		The Group has asked 100% of its sites in areas of high water stress to draw up local action plans in collaboration with stakeholders	Nd	58%	63%	14 LIFE BELOW WATER
Waste management	The environmental policy states that the Group aims to preserve biodiversity and even develop it by incorporating it into its strategy and occupational sectors	The Group monitors the quantities of waste produced, both hazardous and non-hazardous, and aims to increase the waste-to-energy rate	81% of non-hazardous waste recovered	85% of non-hazardous waste recovered	76% of non-hazardous waste recovered	15 LIFE ON LAND
			13% of hazardous waste recovered	28% of hazardous waste recovered	31% of hazardous waste recovered	

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Atmospheric pollution		The Group monitors quantities of NOx, SO_2 and fine particles and aims to reduce these atmospheric pollutants				
		NOx	92,209 t	60,412 t	50,408t	15 LIFE ON LAND
		SO_2	159,623 t	118,291 t	129,026t	
		Fine particles	7,353 t	4,873 t	4,544 t	

3.3.2 Main societal risks

The challenges of “communities”, “transparency”, “purchasing” and “access to energy”

The Group’s stakeholders and management identified the following as crucial or major challenges:

- the “communities” challenge, i.e. stakeholder dialogue, local acceptability of the Group’s activities, the local economic development resulting from the Group’s activities, and partnership and sponsorship actions with civil society;
- the “transparency” challenge, relating to management of the ENGIE brand, and the communication and management of disputes;
- the “purchasing” challenge, which concerns the selection of suppliers according to ESG criteria, and maintaining a diversified range of key suppliers in order to ensure the continuity of the production chain;
- the “access to energy” challenge, which includes offers of products and services intended for unserved populations, generally located in developing countries, the fight against the fuel poverty of populations benefiting from access to energy, and more generally support for the social and solidarity economy.

The following three main CSR risks can be associated with the following three challenges:

- The risk of a low level of societal acceptance of the Group’s activities: the Group’s activities involve the holding of various permits and authorizations, the obtaining or renewal of which with the competent regulatory authorities may involve long and costly procedures. The Group may face opposition from the local population or associations during the installation or operation of certain equipment;
- The risk of major projects of non-compliance with costs and construction deadlines and the operational performance of large-scale industrial projects;
- Reputational risk: inability of the company to establish and maintain the trust of stakeholders and to obtain the benefits associated with this, inability to maintain the values and social standards of the company, including with its suppliers or subcontractors, inability of the company and the project to build and protect its brand image, and inability of projects aimed at improving access to energy to reach their targets.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Low level of societal acceptance	The Group’s societal policy specifies the Group’s societal challenges, the resources it uses to meet these challenges, and the governance elements that contribute to implementation of the policy	The Group has committed to ensuring that 100% of its industrial activities are covered by an appropriate stakeholder dialogue and collaboration mechanism	48%	53%	74%	11 SUSTAINABLE CITIES AND COMMUNITIES
		The Group provides the Stakeholder Engagement tool, which is a self-assessment framework based on standard AA1000 - Stakeholder management, produced by the Accountability NGO, to its BUs and entities				11 SUSTAINABLE CITIES AND COMMUNITIES
		Annual follow-up of BUs or entities trained to use the tool	6	6	9	
Major projects	The investment procedure for projects passing through the Group Commitments Committee provides for a risk analysis and a self-assessment matrix of 12 CSR criteria based on information from the EIA (Environmental Impact Assessment) and ESIA (Environmental Social Impact Assessment)	Risks analysis 12 CSR criteria matrix		No indicator		11 SUSTAINABLE CITIES AND COMMUNITIES

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Reputation	Protection of the brand	The Group has set a target of a BtoC customer satisfaction level of 85% by 2020 (*change in methodology in 2019, with a questionnaire administered by email and no longer by phone leading to a reduction in satisfaction of 12%)	83%	81%	72% (*)	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	Environmental policy	Monitoring of number of environmental complaints and convictions	13 complaints and 1 conviction with no compensation obligation	24 complaints and no conviction	10 complaints and 1 conviction	13 CLIMATE ACTION
	Ethics Charter Code of conduct for business relations Code of conduct for relations with suppliers	Ethical failures are monitored using the INFORM'ethics reporting tool	175 incidents, proven or non-proven	218 incidents, proven or non-proven	282 incidents, proven or non-proven	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	The Purchasing Policy sets out the obligations and commitments applicable to ENGIE in terms of its relations with suppliers	The Group has committed to ensuring that 100% of its entities have established a system for responsible supply chain management by 2020	37%	84%	86%	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	The Group helps to promote the access to energy of populations living far away from networks, including in Africa, and through its social impact fund, Rassembleurs d'Énergies	The Group has set a target of providing access to renewable energy to 20 million people at the base of the pyramid by 2020	2.4M	3.7M	8.9M	7 AFFORDABLE AND CLEAN ENERGY
	Vigilance Plan (see Section 3.9)					11 SUSTAINABLE CITIES AND COMMUNITIES

3.3.3 Main social risks

The challenges of "employee motivation", "social dialogue", and "innovation"

The Group's stakeholders and management saw "employee motivation", "social dialogue" and "innovation" as crucial challenges. These challenges cover employee satisfaction, empowerment and well-being, talent management, training, mobility management, change management, support for the Group's transformation, its ability to adapt to change by innovating or using the technological innovations available, and ensuring the development of a collaborative and international managerial culture and high-quality social dialogue.

They also identified the "agility" challenge, which covers the proper functioning of the governance of the Group's bodies, effective procedures for making and monitoring decisions, the Group's transformation plan, and the development of new, more agile working methods, as a major challenge.

The following two main CSR risks can be associated with these challenges:

- the skills risk: i.e. a shortage of qualified people, unavailability of resources that are flexible according to needs, the loss of key knowledge in the event of departure due to lack of succession plans or due to more attractive conditions in the same geographical area;
- the risk of lack of employee engagement or agility, in the context of the Group's transformation, which might result in social movements.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	Objective contributing to an SDG
Lack of skills	The human resources development and mobility policy is based around the ENGIE Skills system, which is aimed at developing skills early to prepare for the future, and ENGIE Mobility, which fosters internal mobility and is supported by ENGIE University	The Group has committed to increasing the rate of employees trained during the year to more than 66% by 2020	67.7%	66.1%	69,2%	4 QUALITY EDUCATION
		Monitoring of number of hires (permanent and fixed-term)	23,838	29,754	37,182	8 DECENT WORK AND ECONOMIC GROWTH
		Monitoring of voluntary turnover rate	5.8%	5.8%	7.1%	8 DECENT WORK AND ECONOMIC GROWTH
	The Group is implementing an ambitious policy to foster innovation and research & technology. Innovation relies on the ENGIE Fab entity to implement new businesses and on the ENGIE New Ventures investment fund to support start-ups. Research & technology relies on the ENGIE Research entity, which brings together several Labs and centers of expertise and engineering	R&D budget	€180M	€182M	€189M	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Lack of engagement	The Leadership Way defines four key behaviors: caring - demanding - open - bold. These behaviors enable us to meet five objectives: Prepare the future - Cultivate and give responsibility - Act and challenge the status quo - Deliver results - Adopt inspiring behavior on a daily basis.	The Group is committed to monitoring the engagement of management by means of its annual global questionnaire, "*ENGIE&ME*", and to achieving an engagement level of 80% in 2020.	78%	79%	80%	8 DECENT WORK AND ECONOMIC GROWTH
	The Group has set up privileged forums for consultation between management and employee representatives: The European Works Council and the French Group Works Council	These bodies monitor and sign Group collective bargaining agreements	Professional equality agreement	No new agreement	No new agreement	5 GENDER EQUALITY

The "diversity" challenge

The diversity challenge includes measures to promote equal opportunities, and the promotion of women to management positions.

The risk of lack of diversity, resulting in non-representativity of the working population with respect to the society in which the Group operates, can be associated with this challenge.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Lack of diversity	Group diversity policy Diversity label	The Group has committed to increasing the proportion of women in its workforce to 25% by 2020	22.2%	21.1%	20.9%	5 GENDER EQUALITY
		The Group has committed to ensuring that the proportion of women appointed to senior management positions each year will be more than 33% until 2020	38.5%*	24%**	28%**	5 GENDER EQUALITY
		The Group has committed to increasing the proportion of non-French and non-Belgian senior managers to more than 25% by 2020 * calibrated on TOPEX ; ** calibrated on Group Managed Roles (GMR)	21%*	24%**	25.5%**	8 DECENT WORK AND ECONOMIC GROWTH

The “health and safety at work” challenge

The Group’s stakeholders and management considered the challenge of “health and safety at work” for employees, contractors and subcontractors, and quality of life at work to be a crucial challenge. The Group’s ambition is to eliminate serious and fatal accidents, in particular by identifying and eliminating the precursor accidents, and to reduce the number of accidents at work.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Health and safety at work	The global agreement on health and safety at work states the goals and strategies of the health and safety policy.	The Group has set a target frequency rate of less than 3 for lost-time injuries for employees by 2020 (at 2015 scope)	Employee accident FR of 3.3 against a target of 3.6 (Employee accident FR of 3.5 at 2018 scope)	Employee accident FR of 3.4 against a target of 3.5	Employee accident FR of 3.7 against a target of 3.9	3 GOOD HEALTH AND WELL-BEING
	The health and safety policy sets out the fundamental principles that have to be met for all the ENGIE entities, in order to respect the integrity of people and assets. It constitutes, for every person, a reference point for to ensure that health and safety are incorporated within all the actions of the Group.	Managerial safety inspections Identification of potentially serious situations and events				3 GOOD HEALTH AND WELL-BEING
		% of Group entities that have a process that ensures training in the “life-saving rules” for subcontractors	85%	92%	92%	3 GOOD HEALTH AND WELL-BEING
		% of Group entities that have a process that ensures the identification and management of potentially serious events	90%	93%	95%	3 GOOD HEALTH AND WELL-BEING
	European agreement on the improvement of working conditions. 2016-2020 Health and safety action plan “No Life at Risk” program of specific actions designed to strengthen the health and safety culture.	Annual health and safety reviews conducted with each BU Monitoring of health and safety results by the Executive Committee, the EESDC and the Board of Directors Utilization by BUs of a new internal control questionnaire on health, safety and security				3 GOOD HEALTH AND WELL-BEING
	Annual communication campaign Feedback shared among the BUs and subsidiaries		Communication campaign on work shutdowns if safety conditions are not met	Communication campaign on the employee and subcontractor engagement: “United together for everyone’s safety“	Communication campaign to carry out a risk analysis on the ground, immediately before starting the activity	3 GOOD HEALTH AND WELL-BEING
	Safety rules for international trips Employee access to the ISOS international medical and health portal Employee access to the analyses and reports of the Control Risks Group site on country risks and to e-learning on personal security when traveling abroad Group rules on the promotion of fair health and safety published in 2019 (system of recognition and fair sanction)	Reinforcement of event-detection mechanisms “Travel Tracker” tool to monitor individuals traveling in high-risk areas New alert system for office-based personnel which supplementing the alert system for international personnel mobility	No significant event	No significant event	No significant event	3 GOOD HEALTH AND WELL-BEING

The challenge of “ethics and compliance”

The Group’s stakeholders and management saw the “ethics and compliance” challenge as a crucial challenge. This challenge includes conducting business responsibly, complying with competition and/or embargo rules, the fight against corruption, compliance with ethical rules in conducting business and lobbying, and compliance with tax and the associated regulatory requirements.

The following two main CSR risks can be associated with this challenge:

- corruption risk, i.e. the risk of criminal wrongdoing by which a person solicits or accepts a benefit with a view to carrying out an act within the scope of his or her duties;
- tax risk, i.e. the risk of non-compliance with tax regulations, reporting obligations and their development.

Risks	Policies or action plans established to cover or remedy risks more	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Corruption	The anti-corruption policy is based on: • the Ethics Charter • the Practical Guide to Ethics • the Integrity reference system • the Ethics Compliance reference system • specific policies: Third party assessments, business consultants, gifts, invitations, conflicts of interest, lobbying in particular and supplier relations • ethics and CSR clause in the general terms of sales	System for whistleblowing and reporting ethics incidents Control process Annual compliance procedure by means of a specific reporting system INCOME COR 4 internal control program Internal audits and external audits including the ISO 37001 certification audit (certification received in 2018 and renewed in 2019) Annual publication of the communication on the progress of UN Global Compact Principle 10	175 incidents (proven or unproven) declared in *INFORM’ethics*	218 incidents (proven or unproven) declared in *INFORM’ethics*	282 incidents (proven or unproven) declared in INFORM’ethics including 9 concerning corruption cases	8 DECENT WORK AND ECONOMIC GROWTH
		Alert system: ethics@engie.com	not communicated	not communicated	183 incidents including 17 concerning business ethics cases	
		The Group is committed to training its senior managers, expanding its commitment for 2019 to Group managed roles (GMRs) and anti-corruption in 2025	94% of senior managers	91% of senior managers	91% of senior managers and 86% of executive managers	16 PEACE, JUSTICE AND STRONG INSTITUTIONS
Tax	The tax policy sets out the rules and principles for the payment of taxes in the countries in which the Group operates	Tax reporting by country	See the table showing tax reporting by country on the ENGIE website	See the table showing tax reporting by country on the ENGIE website	See the table showing tax reporting by country on the ENGIE website*	16 PEACE, JUSTICE AND STRONG INSTITUTIONS

* *https://www.engie.com/en/finance/taxation*

The “human rights” challenge

The Group’s stakeholders and management saw the “human rights” challenge as a crucial challenge. This challenge includes respect for the rights of employees and local communities and respect for the Group’s commitments in its commercial relationships.

The risk of human rights violations can be associated with this challenge.

Risks	Policies or action plans established to cover or remedy risks	Steering resources or KPIs, objectives	2017 results	2018 results	2019 results	SDGs concerned
Human rights violations	Human Rights referential and policy Vigilance Plan Ethics due diligence policy (suppliers, subcontractors, and commercial partners)	Checklist on the risk of violating human rights (annual risk review, see Sections 2.2.7 and 3.8.2) Annual ethics compliance report (quantitative and qualitative indicators) (See Section 3.8.6) System for whistleblowing and reporting ethics incidents Monitoring of the Group Vigilance Plan (see Section 3.9.3)	175 incidents (proven or non-proven) declared in INFORM’ethics, 19% of which involve social responsibility and human rights and 4% involve HR practices	218 incidents (proven or non-proven) declared in INFORM’ethics, 34% of which involve social responsibility and human rights, including HR practices	282 incidents (proven or non-proven) declared in INFORM’ethics, including no case concerning human rights	8 DECENT WORK AND ECONOMIC GROWTH

3.4 Social information

3.4.1 Human resources development and mobility policies

Listening to its stakeholders, the Human Resources function constantly reconciles economic performance, human progress and strong contributions to society. It is a necessary and complex responsibility which calls for a strong and agile HR function, capable of transforming itself to provide concrete and innovative responses to the multiple challenges that ENGIE has to meet.

Driven by the double ambition of being the leader in the carbon-neutral transition and contributing to harmonious progress for as many people as possible, ENGIE is accelerating its transformation. Passionately committed to the success of the business project, HR pursues three strategic objectives: developing skills within the Group, developing leadership and building ENGIE's culture.

In order to roll out the Group's strategy, ENGIE always has the skills appropriate for its changing needs. To achieve this, the Group has to: (i) anticipate and identify the needs of BU and Métiers as well as emerging trends; (ii) develop and adapt skills (upskilling, adaptation and adapted career paths) to our new solutions and business challenges, and (iii) strengthen the Group's ability to attract, recruit and retain the talents of today for tomorrow in an increasingly competitive market.

But beyond skills development, the transformative capacity of an organization depends on the ability of its leaders to accelerate the transformation and commit to it in a sustainable way. The Group's 43,000 managers are committed to the transformation, and are responsible for mobilizing their teams to roll out the strategy. ENGIE's current and future performance thus depends on its ability to identify, assess and develop Talents (through the Boost! program), who, beyond their respective BU, unfailingly embody the ENGIE Leadership Way and carry the Group's ambition forward. The Group also supports today's executives through new training programs (Co.Leaders Extreme).

Lastly, HR relies on the following four structural dimensions of culture: (i) engagement; (ii) customer focus, involving cooperation; (iii) the priority given to working through digital (with, eventually, a digital connection for all employees), and (iv) the diversity, inclusion and reflection of stakeholders.

With a target of 50% female managers by 2030 and a level of apprentices of 10% by 2023 in Europe, the Group's culture is evolving and will make diversity its signature.

3.4.1.1 Anticipation of the skills needed to prepare for the future

The carbon-neutral transition and technological accelerations due to digitization and artificial intelligence are transforming the professions of employees and creating shortages of qualified personnel in the Group's many businesses, whether traditional or newly emerging.

To tackle this, ENGIE is implementing a social strategy to increase the skills and mobility of its employees in three directions: (i) advance skills management to prepare for the future; (ii) enhanced internal mobility to serve the transformation of the company and (iii) professional training objectives for all employees.

These three priorities are implemented in order to favor the enrichment of tasks, the renewal of experiences, and the consideration of employee initiatives and empowerment, which strengthen their engagement and foster their development and employability.

An ambitious apprenticeship policy is enabling the shortage of qualified staff to be addressed in the long term, while contributing to the emergence of a more inclusive economy.

In order to anticipate changes in the Group's occupational sectors and skills needs, the *ENGIE Skills* system challenges the BU and entities every year on their three-year projections.

The results of the *ENGIE Skills* survey have been rolled out to all Group employees this year, with the help of an animated film that highlights, among other things, six key trends for the period 2019-2021, along with action plans.

More specifically, these results were also shared during Executive Leadership Sessions with the management teams of the BU and the Group Executive Committee (these are a key element in strategic planning for the BU and the Métiers) and with union organizations in Europe, which were very keen to obtain information on this strategic subject. ENGIE Skills makes an effective contribution to social dialogue.

The action plans include:

- promoting the technical sector and revitalizing career opportunities: extending the community of ambassador technicians, created in France in 2018, abroad. This network of 327 ambassadors promotes the occupational sectors both internally and externally;
- strengthening and widening sourcing by focusing on learning potential, in particular by supporting the development of pathways to growth occupational sectors. Nine pathways were rolled out, with more than 220 people joining them in the last 18 months, with a target of 500 internal/external participants set for Europe by 2021;
- anticipating the development of the "green" occupational sectors of the energy transition, with the construction and rolling out of training systems enabling young apprentices and employees to move towards these occupations of the future (ENGIE Academy project).

3.4.1.2 Internal mobility to support the Group's transformation

In order to stimulate the internal labor market and to address the challenges projected by ENGIE Skills, the *ENGIE Mobility* system plays a key role in helping employees achieve their internal mobility aims.

In partnership with the Group's BU, *ENGIE Mobility,* among other things, revised the Group's Mobility Policy in 2019, with the aim of making internal mobility more fluid and strengthening the mobility culture, to enable every employee to imagine and build his or her future within the Group.

ENGIE believes that internal mobility is a key lever in employee development and business performance. Mobility continues to create ENGIE's DNA. For this reason, the Group stipulates that all internal job applications must be prioritized in the recruitment process.

In addition to this policy, a digital space dedicated to constructing the professional project and to mobility was rolled out in 2019 to employees in France, and is expected to become available for all employees, including abroad, in 2020.

Several events have also helped to stimulate the internal labor market: six events for specific occupations, coordination of regional mobility networks, and local events at the Group's agencies.

In connection with its aim of strengthening local talent, ENGIE Mobility also expanded its services offer to support international mobility.

Lastly, *ENGIE Mobility* is regularly called upon, in the context of the transformation projects of certain organizations, to contribute its expertise and a services offer tailored to the projected changes. ENGIE Mobility was thus involved with the BtoC BU (particularly with the regulated tariffs department), employees seconded to the Touat gas project in Algeria, the Social Dialogue Department of Group HR, in relation to the impact of the creation of the SECs (Social and Economic Committees), and employees with a union mandate being reintegrated.

3.4.1.3 Developing employee key skills and employability through training

In 2019, *ENGIE University* stepped up the implementation of programs on Group strategy, to enable every employee to learn about it (the carbon-neutral transition Strategy), on leadership, on the energy transformation and on customer focus with managers and executives.

Specific pathways were designed to accelerate the development of the potential of talented individuals. Five temporary campuses, including four abroad, were created, each delivering more than 20 different training courses at a time in a single location. The campuses host hundreds of employees, providing a way of taking the training offered by ENGIE University into the Group's various geographical areas. They provide an effective response to the challenges of decentralization and the development of leadership skills whilst maintaining the Group's philosophy. These events, which complete the traditional training courses, were a key driver for ENGIE's culture, serving to boost employees' commitment, sense of belonging, and ownership of the strategy.

ENGIE University continues to step up the use of digital to train employees. The number of digital training hours has tripled since 2016. More formats and modalities help to provide multiple learning opportunities to employees.

In addition, the Group's transformation also entails the evolution of our occupational sectors. *ENGIE University,* supplementing the training provided by the occupational schools, develops programs so that employees can become more skilled in their day-to-day occupations.

With regard to the latter point, the ENGIE Schools program was rolled out in 2019. *ENGIE Schools* is the international internal network of the Group's occupational schools. It comprises 30 internal training centers offering bespoke technical modules in line with the Group's occupational sectors. Aiming to support the Group's international growth, the program is intended to accelerate the transfer of technical skills world-wide and to develop common guidelines, providing a framework for the exchange of information by occasional technical internal trainers between entities. The first school was opened in Chile in 2019.

In the context of this new dynamic, a digital platform for the sharing of all the internal training content of the Group's entities at the international level is currently being rolled out. Thus, the Group's 171,000 employees (and, in particular, the 69% of them currently engaged in a technical assignment) will have access to diversified, adapted, international occupational training. More than 2,400 training modules are currently available on the platform, with a target of 100% sharing by 2021.

In addition, a first "flying school" was trialed in October 2019 between France, Spain and Chile. Truly bespoke training programs, the flying schools are training actions between peers and countries, which take place on an ad hoc basis at the request of an operational entity, for a given technical target.

Through this dynamic of exchanging skills at the global level, the Group aims to capitalize on its internal skills, in order to serve the "common good" and to provide standardized services to its customers, regardless of worldwide location.

Lastly, in a context of individual change and collective transformation, the Group designed a whole range of solutions to meet the needs of employees: coaching, mentoring, training, entrepreneurship development, financial support, end-of-career paid leave, etc. 69,2% of ENGIE employees received training in 2019.

3.4.1.4 Targeted development policies

In 2019, the Group continued to roll out the ENGIE Boost initiative, which is aimed at identifying, developing and increasing the loyalty of high-potential talent at all levels of the organization, in order to prepare these individuals to occupy the most strategic roles at the Group.

Lasting 18 and 24 months respectively, the Rise! and Pulse! programs prepare leaders with the capacity to assume strategic responsibilities within ENGIE in the near future. The Up! program is designed for High-Potential talent within each BU.

Inclusion in the Rise! or Pulse! programs is determined by the Group Human Resources Department, which uses People Reviews carried out with the BUs and a range of assessment and development tools to ensure a clear and coherent approach.

This initiative is not intended to reward performance or to be used as a recognition tool; it is an opportunity offered to employees in order to develop their potential and to ensure we are in the best position for future development. It is also an opportunity to create an active, diverse community of leaders who are committed to ENGIE's future and who engage their teams.

2019 saw the creation of a specific development offer for these programs, based on the development of the carbon-neutral strategy and the embodiment by the leaders of the *ENGIE Leadership Way*.

ENGIE Leadership Way is central to the Group's development policies. Rolled out to all managers and in each of the HR processes, it provides strength and consistency, particularly during staff hiring and selection, training and development, talent detection, performance appraisal, and remuneration.

With regard to the latter, since 2017, the variable remuneration of the Group's executives has been divided into three parts:

- an economic part (65% of the total), based on financial criteria at Group and BU level;

- an individual part (35% of the total), based on the involvement of the executive in this group in relation to ENGIE's Leadership Way (in terms of innovation, cooperation, and managerial conduct);
- a possible maximum penalty of 20% of the target bonus triggered in the event of the observation of conduct that does not comply with the Group's values (occupational fatalities or ethical problems).

Since 2018, the system has been progressively extended to all the Group's managers.

On the development front, the Co.Leader training course, a central part of the rolling out of *ENGIE's Leadership Way,* was delivered to 25,000 Group managers in two years. This roll out is also based on the 360° feedback approach, i.e. assessments by line managers, peers and subordinates of the dimensions of ENGIE Leadership Way. It enables development plans to be defined at the individual and/or collective level.

In addition to training actions, ENGIE has continued to implement targeted actions such as coaching and mentoring, allocating assignments or projects in order to provide diverse, enriching experiences, and providing personalized career support for ENGIE Boosters and executives managed at Group level.

In December 2019, the Group had 306 top managers (GMRs, or Group managed roles) at Group level, 28% of whom were women and 25% of whom were not French or Belgian.

A new expert policy was also launched in 2019: EXPAND. The policy aims to identify and recognize the Group's experts, to develop expertise communities and to make them emissaries of ENGIE both inside and outside the Group. ENGIE values all types of expertise, whether technical, technological or functional. The expertise and development of its experts are vital to the success of the Group's strategy and competitiveness. Three levels of experts have been established – local, key and global – according to their impact scope and their exposure.

3.4.1.5 HR cross-functionality and innovation to boost the Group's performance

The Group's success depends on the establishment of new, more cross-functional and open working methods and leadership styles at each level of management.

The HR Department uses new technologies and digital tools to develop a common culture and to boost performance.

One of the initiatives launched is the Common HR program, which aims to establish a digitized "From hire to retire" experience. This will be achieved through:

- the convergence of our HR processes through "OneHR", the Group's computerized HR management system, to share and facilitate data analysis to help with employee development;
- the progressive use of artificial intelligence;
- the creation of a single portal (My Portal);
- the aim of setting up a data-driven HR line, in collaboration with the Data@Engie project.

A digital HR committee was set up to coordinate experiments in the BU and at Group level relating to topics such as the management of skills and HR data.

Moreover, the Group HR department carried out the ENGIE&Me engagement survey on the Group's employees for the fourth consecutive year, with a participation rate of 66%, 16% higher than in 2018. The survey indicates an engagement rate of 80% (for a target of 90%), the same as in the previous year. The indicator for employee engagement with regard to strategy increased the most (+3 points). Group HR identified areas of improvement. A priority action plan on the contribution of everybody to the implementation of the carbon-neutral target, on inclusion and diversity, on career development, and on mobility is being defined. The survey also highlighted a gap in perception between men and women, in particular with regard to development opportunities, which will result in continued efforts to change the perception of gender gaps.

3.4.2 Attracting and hiring talent

In 2019, the Group continued its actions with young people, experienced professionals and influencers to consolidate its image as an international Group, serving the energy world of tomorrow, renewable, low-carbon and digital. It highlighted the involvement of ENGIE's employees, the Imaginative Builders, who present themselves as a "community" serving the common good, in the rolling out of its carbon-neutral strategy.

Targeted recruitment campaigns emphasized the future occupations of the Group among the key populations that ENGIE hires (technicians, occupations related to renewable energy or digital, business developers, etc.) in France and abroad, particularly through the coordination of the HR ecosystem (ENGIE.com career pages, job boards, LinkedIn, Twitter, etc.).

A campaign dedicated to apprenticeship programs and events specially designed to draw women's attention to the Group's businesses have been rolled out, in relation to the strong, structuring commitments made by ENGIE in 2019, including a target proportion of apprentices of 10% in France and Europe by 2023 and a proportion of women in the management population of 50% by 2030.

The Group has also undertaken to recruit 50% of apprentices after their professional training period. More than ever, ENGIE is making apprenticeship a path of excellence towards employability.

In France, the Group's societal commitment and territorial footprint have been strengthened by efforts to include certain target populations (women, technicians) or those distanced from employment (people with disabilities or from priority neighborhoods).

To stand out in a competitive environment (war for talent), ENGIE recruitment days were held in various French regions, combining the promotion of internal mobility and external recruitment.

In 2019, the Group also set up ENGIE Staffing, an internal recruitment unit, in order to create a network of excellence ensuring recruitment quality and efficiency across the entire Group in France, and to tackle a highly competitive recruitment market.

Other events, such as the ENGIE People Labs, which are designed to act as accelerators of societal innovation, bringing together the various talented individuals of the Group and its partners (such as the Junior Entrepreneurs), also enhanced the Group's attractiveness, bringing together internal and external communities to reflect on themes associated with the new energy world and major societal trends.

3.4.3 Social commitment: Building a company committed to corporate citizenship and solidarity

For many years, the Group has implemented a corporate social responsibility (CSR) policy that is proactive, ambitious and innovative to combat discrimination and promote equal opportunity and treatment. The social dimension of ENGIE's CSR policy is organized around three key areas, which enhance its attractiveness and competitiveness: diversity, inclusion, and solidarity and social connection. Social innovation underpins all of these areas.

Diversity

The diversity policy implemented by ENGIE in 2012 was rewarded by the four-year renewal of its Diversity label in October 2017 for all Group activities in France.

ENGIE has signed the European "Embrace difference" petition on diversity and inclusion of the ERT (European Round-Table of Industrialists).

Professional and gender equity

In September 2019, ENGIE renewed its commitment to professional equality by signing up to the Women's Empowerment Principles defined by the United Nations.

At the same time, the Group's ambition regarding gender diversity was strengthened, with a target level for female managers of 50% by 2030, in addition to the target level for women in the overall workforce of 25% by the end of 2020. At the end of 2019, women made up 21% of the Group's workforce. The proportion of women on the Group Executive Committee is 30.7% (four women and nine men). Women represent 23.9% of the ENGIE 50.

To accelerate and support the promotion of gender equality, ENGIE has rolled out the Fifty-Fifty project, which aims to implement initiatives in this area.

The efforts made with regard to equal pay in 2019 were pursued in all of the French subsidiaries to improve the performance of the "Pénicaud Index" published in France. This index will be extended to the entire Group in 2020. A tool to analyze pay gaps at equal levels of responsibility has also been provided to all the BU to help them identify factors explaining any gaps and plan corrective measures.

An integrated system to prevent sexism and sexual harassment has been established in France. It comprises 70 trained points of contact, a helpline open to all, and communication and awareness-raising tools, including local versions.

Lastly, as part of its partnership with Le Laboratoire de l'Égalité, ENGIE will help to develop an artificial intelligence pact to ensure that new technologies underlying HR processes that incorporate AI are not discriminatory.

To promote gender equity within the BU, ENGIE strives to raise awareness among young people so that they become familiar with the Group's technical careers. To this end, it has partnered with programs such as "Elles Bougent", of which ENGIE has been honorary president since 2019, and "Girls Day and Boys Day" in Belgium and the Netherlands.

Young employees, seniors and intergenerational policy

Aiming to make apprenticeship a powerful lever for the employability of young people in 2019, the Chief Executive Officer set an ambitious target level for apprentices of 10% in France by the end of 2021 and in Europe by the end of 2023.

Meanwhile, apprentices continued to gain experience of international mobility in 2019, mainly from France to the UK. A project will be launched to meet the mobility needs of apprentices in the ENGIE Master and to structure this offer.

ENGIE has also pursued its inclusion initiatives on the "Engagement Jeunes" intercompany exchange platform, dedicated to young people looking for their first job, in line with the White Paper on access to employment for disadvantaged young people. ENGIE also took part in the "PaQte Avec les Quartiers pour Toutes les Entreprises" initiative, with a commitment to providing internships to 1,000 young people in their final year of college, every year from December 2018.

In July 2019, in partnership with the For Youth Alliance, ENGIE took part in the European Entrepreneurship Education Summit in Lille, on the 100th anniversary of Junior Achievement, an association that works to develop the entrepreneurial skills of young people. In this context, ENGIE confirmed its support for the "Entreprendre Pour Apprendre" initiative, providing around 10 Group employees as volunteers to coach six mini-businesses across France and fund 50 European Skills Passes.

Knowledge and skills transfer is also boosted by planning for pre-retirement periods, encouraging younger workers to take part in tutoring programs such as "Les maîtres de l'énergie" (Energy Experts), and mentoring and reverse mentoring programs, i.e., where employees receive personalized support from other employees who are either more senior or have more expertise in a specific area.

At the same time, and for the eighth straight year, ENGIE raised awareness of intergenerational issues among around 30 employees by taking part in the Octave program, a powerful tool for change led by Danone. By opening itself up to other enterprises in this way, ENGIE has developed its capacity for innovation.

Religious diversity

One of the 26 legal criteria of the principle of non-discrimination applies to the actual or perceived adherence to a religion. ENGIE is committed to ensuring that no employee or applicant is treated unfavorably because of their religious beliefs. To support managers with this issue, in 2015 the Group prepared some points of reference on religious diversity in the company. This guide was updated in 2019 and provided to the entities, along with an interactive version and a meeting coordination kit.

Employees with disabilities

For ENGIE, the measures put in place to help disabled people are an integral part of the CSR commitments in its HR policy. These commitments, which are implemented at the highest level of the Group, involve, in France, recruitment, integration, support and job retention, awareness-raising, communication and collaboration with the sheltered sector.

These commitments have been put into practice with the signing of agreements approved by the DIRECCTE and signed by the social partners. There are currently 10 agreements on employment of the disabled being validated in France.

The first agreements were signed 30 years ago. In order to favor the achievement of the targets set under these agreements, financial and human resources have been deployed: around €3 million in 2019 and more than 20 "disability contacts" supported by local representatives.

ENGIE's direct employment rate in France was 4.2%, compared with an overall rate of 4.8% in 2018. In 2019, ENGIE employed more than 2,800 people with disabilities, and around 3,400 worldwide (bearing in mind that the concept of a disabled employee differs widely from country to country).

ENGIE sees apprenticeship as the path of excellence to attract, recruit and increase loyalty among the best, while diversifying its recruitment. Apprenticeship is therefore a highly effective lever used by ENGIE to recruit young people with disabilities. ENGIE has undertaken to make a substantial effort to recruit apprentices with disabilities each year, aiming for a level of 3% by the end of 2021 in France, i.e. more than 200 apprentices with disabilities.

Specialized recruitment takes place in France to identify people with disabilities who have skills and abilities the Group needs.

With regard to job retention, the support measures put in place aim to focus particularly on the situation of employees, by anticipating risks of incapacity, advising them, implementing measures allowing them to work in conditions adapted to their needs, and ensuring their career development. Three forms of support are provided to employees in France:

- human support: individual monitoring, skills report, declaration of recognition of the status of disabled worker (RQTH), etc.;
- technical support: seating, screens, modified access to premises, etc.;
- financial support: aid for purchases of prostheses and wheelchairs, aid for careers, etc.

Communication and awareness-raising are essential in order to publicize the provisions contained in the agreements, to disseminate good practices in the area of disability and to combat stereotypes. For example, in addition to normal activities, numerous events were organized by the contacts in the entities during the European Disability Employment Week (EDEW) in November 2019.

Many entities also got involved in the DuoDay operation in May 2019, with the creation of around 10 duos: one disabled person makes up a duo with a professional in order to learn about his or her activity through immersion in that person's daily situation.

Finally, collaboration with the sheltered and adapted sector embodies the Group's inclusive vision of CSR commitments by perpetuating indirect jobs, promoting the local economy and encouraging integration and reintegration into employment.

Purchasing in the adapted and sheltered sector represented around €8.5 million in France.

Inclusion, job-seeking support and social solidarity

The Group is committed to the social and professional inclusion of people in severe difficulty or in a situation of exclusion. Its actions include:

- sponsorship of talented students from disadvantaged neighborhoods (scholarships and mentoring by a committed Group employee, post-baccalaureate and pre-baccalaureate);
- assistance with job creation via ENGIE's employment foundation, Fondation Agir Pour l'Emploi (FAPE), which operates under the auspices of the Fondation de France. The foundation's resources come from donations by Group employees and retirees, which are fully matched by their companies. Since its establishment in 2013, FAPE (in France and Belgium) has awarded more than €1.6 million in

grants for 150 projects aimed at access to employment, job creation and inclusion of the most vulnerable individuals across the region;

- the Group renewed the Parcours Emploi – Mobilité – Sport (PEMS) program in 2019 in two regions: Ile-de-France (more than 80 young people) and Arras (15 young people). The program helps young people between the ages of 18 and 25 from disadvantaged city neighborhoods to obtain apprenticeship contracts. More than 250 young people have been supported by the initiative since it started in 2016, with a positive exit rate still above 60%.

In early 2019, ENGIE signed the PAQTE with the Ministry of Territorial Cohesion and made commitments regarding receiving, raising the awareness of, or integrating 1,000 young people per year from disadvantaged neighborhoods.

The ENGIE Solidarité Nouvelle contre le Chômage (SNC) Group was created with 20 volunteers who partner up to mentor around a dozen people in long-term unemployment living in Ile-de-France.

ENGIE supports the International Social Observatory (ISO) and the work of its international delegations in Europe, China, South America and Africa.

LGBT+ (Lesbian, Gay, Bisexual, Transgender/Transsexual plus)

As part of its initiatives to boost diversity and combat discrimination, ENGIE signed the L'Autre Cercle's LGBT+ commitment charter on December 6, 2017. In 2019, ENGIE took part in the IFOP-L'Autre Cercle study, which aims to learn about the challenges of the LGBT+ question in the world of work. This study, which took place within France, will enable assessment of how ENGIE's employees, regardless of their sexual orientation or gender identity, regard the inclusion of LGBT+ people in their working environment, and the subsequent drawing up of measures to meet the needs expressed.

3.4.4 Compensation, employee savings plans and employee shareholding

Principles of the remuneration policy

Group policy is to offer everyone remuneration that is personalized, fair and competitive on the market, and which reflects the performance and level of responsibility of each person. The Group uses external information provided by specialized firms to establish its positioning in relation to the local reference market. It also ensures compliance with the minimum wages applicable in the different countries in which it operates.

In line with the implementation in France of the index of professional gender equality, ENGIE has provided the BU with a tool for identifying and analyzing pay gaps and corrective measures. In France, ENGIE's aim for 2019 is to achieve at least 85 points, with a target of 100 points by the end of 2021 for the majority of the Group's entities.

In addition to traditional group employee savings, profit-sharing, and employee shareholding policies, ENGIE is developing value-sharing policies.

A mapping of social security minimums was carried out in 2019 on a global scale for all socio-professional categories combined, in order to roll out a minimum social protection program to all employees *(ENGIE Care)*.

Group employee savings plans policy

These plans are available to employees of companies that are fully consolidated or whose share capital is majority-owned, directly or indirectly, by ENGIE SA.

Savings plans:

In France, since the end of 2009, ENGIE Group employees have had access to a Group Savings Plan (Plan d'Épargne Groupe – PEG), which includes employee shareholding funds as well as a large range of diversified savings options.

Outside France, measures have also been put in place in some countries to allow employees to save, under terms adapted to local laws.

Retirement savings plans:

In France, since 2010, all Group employees may, at their own pace, build funds for retirement by paying into the ENGIE Group Collective Retirement Plan (Plan d'Épargne pour la Retraite Collectif – PERCO).

Outside France, products exist in some countries that allow employees to supplement their pensions by making voluntary contributions on favorable terms.

Solidarity funds:

In France, the ENGIE solidarity employee mutual Fund (FCPE) called "Rassembleurs d'Énergies Flexible" has supplemented the range of Group Savings Plan and Retirement Savings Plan investment products since the beginning of 2012 and enables employees to take part in a social initiative in tune with their businesses.

Profit-sharing and incentives

Due to the existence of legally separate companies, there is no common collective profit-sharing and incentive plan for the Group.

At the ENGIE SA level, an incentive agreement was signed with all representative trade unions on June 26, 2017, for the 2017-2019 period. The amount paid out in 2019 for 2018 profit-sharing was €16,273,027. The employee profit-sharing agreement for ENGIE was signed on June 26, 2009. Application of the statutory profit-sharing formula for 2018 resulted in no payment being made to employees in 2019.

Employee shareholding

At the end of 2019, employees held 3.2% of the share capital, including 2.4% held through an employee-sponsored mutual fund (FCPE). Pursuant to Article L. 225-100-3 of the French Commercial Code, the Supervisory Boards of these FCPEs exercise the voting rights attached to the securities registered among their assets and decide, if necessary, whether to contribute these securities to public tender or exchange offers.

The Supervisory Boards of the employee-sponsored mutual funds comprise shareholder representatives and, up to a maximum of half the members, company representatives designated under the procedures set out in the funds' rules. Although the Supervisory Board is composed in an equitable way, its chairman, who must be chosen from the shareholder representatives, holds the casting vote.

On December 11, 2019, the employee shareholding plan, Link 2014, in which 32,000 employees took part five years ago, became available. Subscribers to the Link Multiple 2014 leverage effect formula were paid the monetary value of their investments.

3.4.5 Employee relations

Within national and European representative bodies and through national, European and global collective bargaining agreements, ENGIE involves its social partners in the implementation of its social ambition, which has been opened and broadened to take into account environmental and societal challenges.

At Group level, employee relations are organized around two representative bodies that are privileged forums for consultation between management and employee representatives.

The European Works Council (EWC)

With 41 full members representing the Group's 137,200 employees throughout Europe, the purpose of the EWC is to develop and strengthen European social dialogue, ensure balanced representation between the Group's countries and main business activities, and develop social dialogue within these activities. A secretariat with 13 members representing eight countries meets every two months.

In 2019, the EWC held two plenary meetings, along with six EWC secretariat meetings, and eight meetings of the health and safety, social, strategy and research working groups.

On November 28, 2019, the EWC and the Executive Board signed a joint declaration of the signatories' commitment to anticipate and support economic, social and organizational transformations related to the development of digital within the Group. This shared frame of reference for all of the Group's entities and employees aims to maintain and develop skills, provide training in digital tools and support with changing work methods (remote working, dynamic spaces, etc.), and reaffirm the importance of quality of life at work.

French Group Works Council

This body, which represents more than 77,000 employees in France, has 30 full members. Two meetings were held in 2019. The French Groupe Work Council is an information body with representatives of institutions representing the employees of French companies.

Group collective bargaining agreements

ENGIE proposed to the international federations the opening of negotiations from the end of 2019 on a global agreement on fundamental rights and social responsibility, in order to renew and improve the commitments it made in this area in 2010.

In 2019, dialogue with employee representatives and trade unions continued at all levels of the Group and particularly with the working groups of the European Works Council and the follow-up committees for the various Group agreements.

3.4.6 Health and safety policy

3.4.6.1 Results

The Group's performance in terms of employee health and safety is as follows:

- a lost-time injury frequency rate of 3.7. This result is welcome in view of the current transformation of the Group's activities towards more services, which are more exposed to risks for people, and on average less mature in terms of safety culture than industrial activities;
- a lost-time injury severity rate of 0.21, unchanged overall compared with previous years.

The number of fatal accidents arising from the exercise of a professional activity among all the people working for the Group (Group employees, temporary workers and subcontractors) was 4 [(1)] in 2019, within a broader scope of activities than in 2018 and with a greater potential exposure to risk due to the transformation of the Group's activities.

In the field of occupational health, the number of new cases of occupational disease was 120 in 2019.

3.4.6.2 The health and safety management system

The key principles of the Group's health and safety policy were defined in 2010 through an agreement with the representative bodies of European personnel, and strengthened by the global agreement on occupational health and safety of May 13, 2014.

The Group's Health and Safety Rules set out the minimum standards and requirements that apply within the Group.

To make the Group's commitment to the health and safety of its subcontractors even more visible, a new lost-time injury frequency rate was introduced in 2019, including accidents involving employees, but also those involving subcontractors operating on site with controlled access ("total" frequency rate).

In addition, given the maturity of the process for detecting situations and high potential severity (HiPo) events, a new performance indicator was developed in 2019: the prevention rate, which is the ratio of the number of HiPo situations and events to the sum of the number of HiPos and lost-time injuries; this new indicator, which includes both employees and subcontractors of the Group, is focused on identifying and anticipating

(1) And one fatal accident, currently under investigation to establish its cause.

risks, and therefore constitutes a "proactive" indicator, complementary to traditional, "reactive" results indicators.

In 2019, all of the Group's BU completed a new internal control questionnaire dedicated to health, safety and security.

The Group's performance in terms of occupational health and safety and process safety is monitored by the Executive Committee, the Board of Directors and the Ethics, Environment and Sustainable Development Committee of the Board of Directors (EESDC). In 2019, all analyses of fatal workplace accidents were presented to the Executive Committee and the, EESDC. Regular updates were also provided at meetings of the Board of Directors and of ENGIE 50, which brings together all the directors of the BU and the Group's main functional departments.

The health and safety performance is shared with managers and the Group's health and safety functional line, distributed to the BU via managers and made available to all employees on the Group intranet.

Periodic updates and annual reviews are carried out with each BU in order to assess the effectiveness of the measures implemented and, particularly in 2019, to evaluate their capacity to prevent serious and fatal accidents involving employees and subcontractors.

The Group is monitoring changes in the situation relating to the coronavirus epidemic and is implementing appropriate measures to prevent the infection from spreading to its employees, subcontractors and customers, according to the contamination level in the various countries where it operates.

The BUs have updated their business continuity plans according to the features of the epidemic and have taken measures appropriate for the situation in the regions where they are active. Technical and organizational steps have also been taken to maintain, as far as possible, the quality of the service delivered to customers.

At the governance level, a Group steering committee has been set up to take decisions on the management of the various aspects of the crisis, preserving the health of permanent and temporary workers and subcontractors and managing human resources and internal and external communications. Steering committees have also been established by the BUs.

Three coordination committees for the various countries are now in place for France, Belgium and other countries. These committees enable the measures taken to be harmonized and information and practices to be exchanged.

3.4.6.3 Strengthening the health and safety culture

Various tools are used to strengthen the health and safety culture among the Group's employees and subcontractors.

The action program to reinforce the safety culture of everyone, with a focus on preventing serious and fatal accidents ("No Life at Risk") continued.

The Group has established a major training program in order to develop the leadership qualities of its managers in health and safety, i.e. their capacity to influence the safety behavior of their colleagues.

Substantial investments were made in training in 2019: 32.6% of the total number of training hours were devoted to Quality, Safety and Environment (QSE).

A memory (mémoriel®) anchor learning module, based on the latest scientific expertise in memory and artificial intelligence, has been deployed to give each employee a personalized tool for learning the main rules to be respected in terms of health, safety and security, which is adapted according to the remaining knowledge to be acquired.

In 2019, the Group's annual health and safety communication campaign focused on the need to strengthen the risk analysis of the activity just before starting it, in order to manage the risks more effectively. Awareness campaigns on specific subjects were also rolled out by the BUs and the subsidiaries, with respect to the most significant risks generated by their activities.

The health and safety functional line facilitation makes extensive use of digital tools, with a great deal of work going into dissemination of information to the various BUs and entities: organization of themed monthly webinars, and of presentation of feedback on fatal accidents, and the provision for the functional line of various technical media through a shared collaborative space (SharePoint Global Care).

A weekly newsletter, Prevention News, covering most of the exchanges with the BUs, is sent out to the entire health and safety functional line. This document enables information on all accidents, significant hazardous situations and situations and events with high-potential severity (HiPo) reported by the BUs to be shared Group-wide.

3.4.6.4 Prevention of serious and fatal accidents

As part of its action plan to eradicate fatal accidents, the Group has defined nine "Life-Saving Rules", which constitute the last guardrail before a serious or fatal accident, if all other technical and organizational barriers have not worked.

The BUs are also implementing a systematic approach to identifying, analyzing and handling, through a specific action plan, situations and events with high-potential severity (HiPo) that are precursors to serious accidents.

Lastly, operators are asked to stop working if safety conditions are not met (the "Stop the work" approach) and to engage in shared vigilance ("I am equally vigilant about the safety of other people").

The Group's firm commitment to eradicating fatal accidents, in particular for its subcontractors, led it in 2019 to revise the Group Rule on analyzing HiPos and serious and fatal accidents in order to simplify and strengthen its requirements, and to obtain greater involvement on the part of managers, Group employees and subcontractors.

A new Group Rule on promoting a fair health and safety culture has also been rolled out within the Group. The BUs have to set up a system for recognizing virtuous behavior and proportionate sanctions for any deviations from health and safety rules.

These provisions foster the establishment of a climate of trust and transparency, conducive to escalation to management of dangerous situations, incidents and near accidents, and to good practices.

3.4.6.5 Dialogue with social partners

In 2019, dialogue with employee representatives and trade unions continued at all levels of the Group and particularly with global and European bodies in the context of Group health and safety agreements. A working group from the European Works Council takes stock twice a year of advances in health and safety at work and quality of life at work.

3.4.7 Social data

3.4.7.1 Note on the methodology of social indicators

1 Tool

The social indicators are derived from Group social reporting (GSR). They are set out in a shared Group database (which may be viewed on request).

The collection, processing and reporting of data entered by the local entities, subsidiaries of the ENGIE Group, is carried out in the SyGMA consolidation tool, in accordance with the IFRS financial scope.

The indicators published in this report relate to fully consolidated companies, whose capital and management are under the control of ENGIE.

The social indicators are fully consolidated, regardless of the percentage of the company's capital owned.

2 Scope of reporting

A reporting percentage is attached to each indicator, according to the workforce covered. Some missing or inconsistent data are omitted from the report, in particular for some entities in the North America and Asia-Africa zones, which were recently integrated into the Group data. Only data remuneration has been excluded for the Africa BU.

Data relating to remuneration and professional training have not been included for the GTT BU.

3 Consolidation methods

The indicators for this report are consolidated using clearly defined procedures and criteria.

Data on the organization's structure, employee turnover, working conditions, training and safety were consolidated by aggregation.

4 Internal control

The social data are successively consolidated and verified by each operational entity and by each BU, before reaching the Group HRD level.

5 Additional information on some indicators

a) Employment

The Group data include those of the 25 BU and of Corporate, grouped into seven sectors that essentially correspond to the geographical areas of the Group's activities (see Section 1.3 "Description of the Group's activities").

Administrative employees are recognized under "senior technicians and supervisors".

The Belgian entities in the energy sector (Electrabel) do not declare "manual workers, clerical staff and technicians" as, contractually, unskilled or low-skilled workers have employee status. This might cause some underestimation of this category.

The French concept of cadres (managerial staff) is sometimes difficult to understand in other countries. This can lead to a slight underestimation of the number of managerial staff because some entities may take only their senior management into account.

b) Staff changes

Since 2017, indicators in this section have been calculated on a current scope basis, i.e. the fully consolidated reporting entities included in the scope of consolidation at 12/31/Y.

The lay-offs indicator does not include contractual terminations.

c) Diversity and equal opportunity

The declared percentage of people with disabilities provides the best possible information on the inclusion of people with disabilities. We do not consider it relevant to provide a reporting percentage for this indicator, since some entities are unable to gather the relevant information due to local regulatory restrictions.

d) Career development

The professional training indicators provided in this document do not take e-learning into account.

When all data cannot be provided within the timelines, the most recent are provided as well as a forecast of the missing data at year-end.

e) Organization of working time

The working hours of personnel within the Group companies are organized within the legal framework for working time, which varies from country to country.

Days of absence per person are calculated according to the Group convention of eight hours of work per day.

f) Compensation

Group policy is to offer everyone remuneration that is personalized, fair and competitive on the market, and which reflects the performance and level of responsibility of each person.

Changes in payroll costs are also provided in Section 6.4.4 "Five-year financial summary".

g) Health and safety indicators

The analyses carried out in this document concern the entities and activities in which ENGIE has operational management, regardless of the method of financial consolidation.

The occupational health & safety reporting scope includes the data of entities sold during the year up to their date of transfer,

Concerning the indicator number of new cases of occupational illness, we do not consider it relevant to provide a refund rate since some companies cannot collect this indicator due to local regulatory constraints.

3.4.7.2 Table of social indicators

	GRI		GROUP(1) 2019	GROUP(1) 2018	GROUP(1) 2017	NORTH AMERICA 2019	NORTH AMERICA 2018	NORTH AMERICA 2017
WORKFORCE								
Total workforce ■■	**1.A**	**LA1**	**171,103**	**160,301**	**155,128**	**3,559**	**6,010**	**3,770**
breakdown by geographic region	**1.A**	**LA1**						
France	1.A	LA1	77,151	74,961	72,589	0	0	0
Belgium	1.A	LA1	16,835	16,910	16,658	0	0	0
Other European countries	1.A	LA1	43,232	42,228	45,266	0	0	0
Total Europe	**1.A**	**LA1**	**137,218**	**134,099**	**134,513**	**0**	**0**	**0**
North America	1.A	LA1	6,318	7,380	4,903	3,559	6,010	3,770
South America	1.A	LA1	14,310	7,033	6,147	0	0	0
Asia - Middle East - Oceania	1.A	LA1	9,815	9,092	8,858	0	0	0
Africa	1.A	LA1	3,442	2,697	707	0	0	0
% reporting			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
breakdown by SPC	**1.A**	**LA1**						
Managers ■■	1.A	LA1	42,963	40,131	37,191	1,498	1,680	893
Non-managers ■■	1.A	LA1	128,140	120,170	117,937	2,061	4,330	2,877
% Managers	1.A		25.1%	25.0%	24.0%	42.1%	28.0%	23.7%
% Non-managers	1.A		74.9%	75.0%	76.0%	57.9%	72.0%	76.3%
% reporting			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
breakdown by type of contract	**1.A**	**LA1**						
Permanent ■■	1.A	LA1	90.3%	92.5%	93.3%	98.5%	99.4%	99.2%
Fixed terms ■■	1.A	LA1	9.7%	7.5%	6.7%	1.5%	0.6%	0.8%
% reporting			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Age pyramid of permanent employees	**1.A**	**LA1**						
under 25 yrs old	1.A	LA1	3.7%	3.4%	3.1%	4.4%	6.3%	5.6%
25-29 yrs old	1.A	LA1	9.9%	9.5%	9.5%	10.0%	11.6%	13.4%
30-34 yrs old	1.A	LA1	13.6%	13.5%	13.5%	12.4%	12.9%	14.6%
35-39 yrs old	1.A	LA1	15.0%	15.1%	14.6%	12.3%	13.1%	14.7%
40-44 yrs old	1.A	LA1	13.6%	13.6%	13.5%	12.0%	12.6%	12.5%
45-49 yrs old	1.A	LA1	13.8%	14.3%	14.7%	13.5%	12.3%	11.9%
50-54 yrs old	1.A	LA1	13.7%	14.1%	14.2%	13.2%	12.3%	10.8%
55-59 yrs old	1.A	LA1	11.2%	11.2%	11.5%	11.1%	10.9%	9.2%
60-64 yrs old	1.A	LA1	4.7%	4.5%	4.6%	7.8%	5.7%	5.2%
65 and +	1.A	LA1	0.8%	0.8%	0.9%	3.3%	2.4%	2.1%
% reporting			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female workforce ■■	**1.F**	**LA13**	**35,720**	**33,817**	**34,378**	**814**	**1,405**	**1,256**
% reporting			100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

(1) Groupe covers the ENGIE 7 sectors
(2) New formula in 2019.
(3) Excluding contractual terminations
(4) The evolution of severity rates does not include fatalities
(5) 3.4 at 2018 scope (excluding companies integrated in 2019)
■■ Reasonable assurance for fiscal year 2019.

FRANCE EXCLUDING INFRASTRUCTURE			FRANCE INFRASTRUCTURE		
2019	2018	2017	2019	2018	2017
57,616	55,631	52,478	17,415	17,194	17,032
54,108	52,470	49,685	17,183	16,970	16,809
21	0	0	0	0	0
1,046	913	530	232	224	223
55,175	**53,383**	**50,215**	**17,415**	**17,194**	**17,032**
46	21	0	0	0	0
8	8	8	0	0	0
2,076	1,951	1,890	0	0	0
311	268	365	0	0	0
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
14,088	13,153	11,758	4,601	4,437	4,245
43,528	42,478	40,720	12,814	12,757	12,787
24.5%	23.6%	22.4%	26.4%	25.8%	24.9%
75.5%	76.4%	77.6%	73.6%	74.2%	75.1%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
91.6%	91.6%	91.9%	94.3%	94.3%	94.3%
8.4%	8.4%	8.1%	5.7%	5.7%	5.7%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
3.9%	3.4%	3.0%	3.0%	3.3%	3.9%
10.0%	10.0%	10.4%	10.2%	10.8%	11.4%
14.0%	14.3%	14.5%	15.4%	15.1%	15.3%
15.7%	15.7%	15.4%	15.4%	15.6%	14.8%
13.4%	13.4%	13.4%	14.8%	14.4%	14.5%
13.8%	14.3%	14.5%	15.0%	14.7%	14.0%
14.1%	14.4%	14.5%	12.9%	13.0%	13.6%
11.7%	11.5%	11.4%	10.7%	10.9%	10.6%
3.1%	2.8%	2.8%	2.5%	2.1%	1.8%
0.3%	0.3%	0.3%	0.1%	0.1%	0.1%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
9,519	**9,190**	**8,551**	**4,766**	**4,553**	**4,406**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

	GRI	GROUP[1] 2019	GROUP[1] 2018	GROUP[1] 2017	NORTH AMERICA 2019	NORTH AMERICA 2018	NORTH AMERICA 2017
DIVERSITY AND EQUAL OPPORTUNITY							
Proportion of women in workforce ■■	**1.F LA13**	**20.9%**	**21.1%**	**22.2%**	**22.9%**	**23.4%**	**33.3%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of women in management ■■	**1.F LA13**	**23.5%**	**23.3%**	**22.9%**	**22.3%**	**29.2%**	**30.8%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of apprentices in workforce [2]	**1.F LA1**	**3.3%**	**3.0%**	**2.9%**	**0.0%**	**0.1%**	**0.0%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of disabled employees	**1.F**	**2.0%**	**2.1%**	**2.0%**			
Employees under 25 as a% of permanent hires	**1.F**	**14.8%**	**13.9%**	**15.7%**	**11.4%**	**9.8%**	**10.2%**
Employees over 50 as a% of permanent hires	**1.F**	**12.2%**	**13.6%**	**14.3%**	**19.4%**	**21.7%**	**23.8%**
STAFF AND JOB MOVEMENT							
No. of permanent hires	**1.A LA2**	**20,388**	**18,011**	**14,339**	**726**	**1,246**	**886**
No. of fixed-term hires	**1.A LA2**	**16,794**	**11,743**	**9,499**	**133**	**74**	**31**
Hiring rate	**1.A LA2**	**21.8%**	**18.9%**	**15.6%**	**24.6%**	**30.3%**	**24.8%**
% reporting		100.00%	99.38%	99.07%	100.00%	81.68%	61.59%
Permanent hiring rate	**1.A LA2**	**54.8%**	**60.5%**	**60.2%**	**84.5%**	**94.4%**	**96.6%**
% reporting		100.00%	99.38%	99.07%	100.00%	81.68%	61.59%
Number of lay-offs [3]	**1.A**	**5,691**	**4,101**	**4,204**	**216**	**706**	**572**
% reporting		100.00%	99.38%	99.07%	100.00%	81.68%	61.59%
Turnover	**1.A LA2**	**11.3%**	**9.3%**	**8.4%**	**22.0%**	**27.9%**	**21.0%**
% reporting		100.00%	99.38%	99.07%	100.00%	81.68%	61.59%
Voluntary turnover	1.A LA2	7.1%	5.8%	5.8%	15.8%	11.5%	5.3%
% reporting		100.00%	99.38%	99.07%	100.00%	81.68%	61.59%
CAREER DEVELOPMENT							
Proportion of workforce trained ■■	**1.E LA10**	**69.2%**	**66.1%**	**67.7%**	**31.9%**	**67.3%**	**17.7%**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
Proportion of women in trained workforce	**1.E LA10**	**18.5%**	**18.4%**	**17.6%**	**25.5%**	**16.4%**	**5.5%**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
Proportion of managers and non-managers in trained workforce:	**1.E LA10**						
Managers	1.E LA10	24.0%	25.0%	24.6%	18.6%	13.0%	7.7%
Non-managers	1.E LA10	76.0%	75.0%	75.4%	81.4%	87.0%	92.3%
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%

(1) Groupe covers the ENGIE 7 sectors
(2) New formula in 2019.
(3) Excluding contractual terminations
(4) The evolution of severity rates does not include fatalities(1) New formula in 2019.
(5) 3.4 at 2018 scope (excluding companies integrated in 2019)
■■ *Reasonable assurance for fiscal year 2019.*

	FRANCE EXCLUDING INFRASTRUCTURE			FRANCE INFRASTRUCTURE		
	2019	2018	2017	2019	2018	2017
	16.5%	**16.5%**	**16.3%**	**27.4%**	**26.5%**	**25.9%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	22.2%	**21.6%**	**21.1%**	**32.5%**	**31.9%**	**31.4%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	6.2%	**5.0%**	**4.8%**	**5.8%**	**5.5%**	**5.4%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	3.7%	**3.8%**	**3.6%**	**3.6%**	**3.6%**	**3.4%**
	16.6%	**17.3%**	**18.8%**	**22.9%**	**28.2%**	**29.4 %**
	9.3%	**8.4%**	**8.8%**	**2.8%**	**3.2%**	**4.4%**
	6,535	**5,840**	**4,183**	**705**	**592**	**742**
	4,756	**5,476**	**4,423**	**654**	**651**	**586**
	19.8%	**20.6%**	**16.5%**	**7.9%**	**7.3%**	**7.8%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	57.9%	**51.6%**	**48.6%**	**51.9%**	**47.6%**	**55.9%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	861	**809**	**876**	**25**	**19**	**23**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	7.5%	**7.5%**	**6.5%**	**1.3%**	**1.1%**	**0.7%**
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
	5.0%	**4.9%**	**3.7%**	**1.1%**	**0.9%**	**0.5%**
	100.00%	**100.00%**	**100.00%**	**100.00%**	**100.00%**	**100.00%**
	63.7%	**63.3%**	**70.5%**	**67.8%**	**78.8%**	**75.2%**
	98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
	12.4%	**12.8%**	**12.6%**	**23.1%**	**26.0%**	**21.4%**
	98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
	23.4%	22.6%	22.8%	24.2%	21.8%	20.4%
	76.6%	77.4%	77.2%	75.8%	78.2%	79.6%
	98.46%	99.97%	100.00%	100.00%	100.00%	100.00%

	GRI	GROUP[1] 2019	GROUP[1] 2018	GROUP[1] 2017	NORTH AMERICA 2019	NORTH AMERICA 2018	NORTH AMERICA 2017
Total no. of training hours	**1.E LA10**	**3,271,154**	**3,069,973**	**3,082,644**	**9,804**	**5,097**	**10,541**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
Breakdown of training hours by topic	**1.E LA10**						
Business techniques		38.9%	40.8%	45.2%	77.4%	21.0%	50.1%
Quality, safety and environment.		32.6%	32.0%	31.7%	4.5%	20.6%	39.0%
Languages		2.0%	2.8%	2.9%	1.5%	2.5%	0.0%
Management and personnel development		15.0%	17.4%	13.0%	6.3%	2.6%	2.8%
Others		11.4%	7.0%	7.1%	10.4%	53.4%	8.0%
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
No. of training hours per person trained	**1.E LA10**	**28**	**31**	**30**	**19**	**11**	**16**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
No. of training hours per woman trained	**1.F LA10**	**25**	**27**	**27**	**5**	**9**	**29**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
Training expenses per hour of training (in €)	**1.E LA10**	**31**	**29**	**34**	**11**	**10**	**12**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
Training expenses per person trained (in €)	**1.E LA10**	**879**	**885**	**1,036**	**212**	**109**	**199**
% reporting		97.42%	95.00%	97.57%	45.71%	13.47%	17.95%
WORKING CONDITIONS							
Days of absence per person	**1.B LA7**	**12**	**13**	**12**	**5**	**6**	**3**
% reporting		99.13%	95.90%	98.32%	81.38%	29.65%	48.92%
Overtime	**1.B LA7**	**3.1%**	**3.0%**	**3.0%**	**5.0%**	**3.8%**	**4.4%**
% reporting		99.13%	96.39%	98.62%	81.38%	38.79%	61.59%
HEALTH AND SAFETY DATA							
Number of fatal accidents (employees)		**2**	**4**	**1**	**0**	**0**	**0**
% reporting		100%	100%	100%	100%	100%	100%
Frequency rate (employees)		**3,7** [5]	**3.4**	**3,3** [5]	**1.73**	**1.00**	**0.69**
% reporting		100%	98%	99.08%	100%	100%	65%
Severity rate [4] **(French framework)**		**0.21**	**0.19**	**0.20**	**0.11**	**0.03**	**0.08**
% reporting		100%	98%	99.08%	100%	100%	65%
Severity rate [4] **(ILO framework)**		**0.14**	**0.13**	**0.13**	**0.09**	**0.03**	**0.01**
% reporting		100%	98%	99.08%	100%	100%	65%
Number of new cases of occupational illness		**120**	**91**	**76**	**0**	**0**	**2**
% reporting		100%	86%	89%	100%	100%	100%

(1) Groupe covers the ENGIE 7 sectors
(2) New formula in 2019.
(3) Excluding contractual terminations
(4) The evolution of severity rates does not include fatalities
(5) 3.4 at 2018 scope (excluding companies integrated in 2019)
■■ *Reasonable assurance for fiscal year 2019*

FRANCE EXCLUDING INFRASTRUCTURE			FRANCE INFRASTRUCTURE		
2019	2018	2017	2019	2018	2017
897,165	950,527	1,018,716	586,894	582,986	531,107
98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
34.0%	34.0%	36.2%	41.2%	45.5%	51.5%
42.5%	45.5%	43.3%	17.4%	17.3%	18.6%
1.4%	1.6%	1.8%	0.7%	1.6%	1.5%
13.3%	12.4%	11.9%	22.3%	31.3%	23.1%
8.8%	6.5%	6.8%	18.4%	4.2%	5.3%
98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
25	27	28	50	43	42
98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
24	24	25	46	38	38
98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
38	27	31	41	49	57
98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
946	735	857	2,044	2,113	2,366
98.46%	99.97%	100.00%	100.00%	100.00%	100.00%
13	**13**	**13**	**15**	**16**	**16**
99.22%	99.97%	100.00%	100.00%	100.00%	100.00%
1.5%	1.8%	1.6%	2.8%	2.4%	2.5%
99.22%	99.97%	100.00%	100.00%	100.00%	100.00%
0	**1**	**1**	**0**	**1**	**0**
100%	100%	100.0%	100%	100%	100%
5.25	**5.22**	**5.38**	**2.13**	**2.47**	**2.20**
100%	100%	100.0%	100%	100%	100%
0.36	**0.34**	**0.38**	**0.10**	**0.12**	**0.11**
100%	100%	100%	100%	100%	100%
0.21	**0.20**	**0.22**	**0.08**	**0.07**	**0.09**
100%	100%	100%	100%	100%	100%
108	**82**	**68**	**0**	**1**	**1**
100%	100%	100%	100%	81%	100%

	GRI		REST OF EUROPE 2019	2018	2017	LATIN AMERICA 2019	2018	2017
WORKFORCE								
Total workforce ■■	**1.A**	**LA1**	**54,276**	**54,020**	**56,209**	**14,867**	**7,407**	**6,446**
Breakdown by geographic region	**1.A**	**LA1**						
France	1.A	LA1	174	306	263	0	0	0
Belgium	1.A	LA1	14,101	14,241	13,872	0	0	0
Other European countries	1.A	LA1	40,001	39,408	41,842	0	0	0
Total Europe	**1.A**	**LA1**	**54,276**	**53,955**	**55,977**	**0**	**0**	**0**
North America	1.A	LA1	0	65	232	1,123	979	844
South America	1.A	LA1	0	0	0	13,744	6,428	5,602
Asia - Middle East - Oceania	1.A	LA1	0	0	0	0	0	0
Africa	1.A	LA1	0	0	0	0	0	0
% reporting	1.A	LA1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown by SPC	**1.A**	**LA1**						
Managers ■■	1.A	LA1	10,220	9,866	9,442	1,811	1,556	1,016
Non-managers ■■	1.A	LA1	44,056	44,154	46,767	13,056	5,851	5,430
% Managers	1.A	LA1	18.8%	18.3%	16.8%	12.2%	21.0%	15.8%
% Non-managers	1.A		81.2%	81.7%	83.2%	87.8%	79.0%	84.2%
% reporting	1.A		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown by type of contract	**1.A**	**LA1**						
Permanent ■■	1.A	LA1	93.6%	93.6%	94.1%	70.2%	91.8%	92.6%
Fixed terms ■■	1.A	LA1	6.4%	6.4%	5.9%	29.8%	8.2%	7.4%
% reporting	1.A	LA1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Age pyramid of permanent employees	**1.A**	**LA1**						
under 25 yrs old	1.A	LA1	3.3%	3.2%	3.1%	6.5%	4.6%	4.4%
25-29 yrs old	1.A	LA1	12.6%	13.0%	12.6%	17.8%	19.2%	18.3%
30-34 yrs old	1.A	LA1	9.9%	10.3%	10.4%	19.5%	18.8%	18.3%
35-39 yrs old	1.A	LA1	12.6%	13.0%	12.6%	17.8%	19.2%	18.3%
40-44 yrs old	1.A	LA1	13.0%	13.0%	12.7%	13.8%	14.3%	14.2%
45-49 yrs old	1.A	LA1	14.5%	15.1%	15.9%	10.7%	10.3%	11.0%
50-54 yrs old	1.A	LA1	16.3%	16.2%	15.7%	7.3%	9.0%	9.5%
55-59 yrs old	1.A	LA1	13.4%	13.1%	13.3%	5.2%	5.8%	5.7%
60-64 yrs old	1.A	LA1	7.9%	7.4%	7.3%	2.5%	2.7%	3.3%
65 and +	1.A	LA1	1.5%	1.4%	1.7%	0.8%	0.7%	0.8%
% reporting	1.A	LA1	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Female workforce ■■	**1.F**	**LA13**	**11,579**	**11,816**	**13,581**	**2,253**	**1,256**	**1,118**
% reporting	1.F	LA13	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

(1) Groupe covers the ENGIE 7 sectors
(2) New formula in 2019.
(3) Excluding contractual terminations
(4) The evolution of severity rates does not include fatalities
(5) 3.4 at 2018 scope (excluding companies integrated in 2019)
■■ *Reasonable assurance for fiscal year 2019*

MIDDLE EAST/ASIA/AFRICA			OTHER		
2019	2018	2017	2019	2018	2017
10,024	8,957	6,510	13,346	11,082	12,683
45	34	14	5,641	5,181	5,818
0	0	0	2,713	2,669	2,786
0	0	0	1,953	1,683	2,671
45	**34**	**14**	**10,307**	**9,533**	**11,275**
34	241	0	1,556	64	57
0	0	0	558	597	537
6,822	6,261	6,187	917	880	781
3,123	2,421	309	8	8	33
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
2,050	1,712	1,335	8,695	7,727	8,502
7,974	7,245	5,175	4,651	3,355	4,181
20.5%	19.1%	20.5%	65.2%	69.7%	67.0%
79.5%	80.9%	79.5%	34.8%	30.3%	33.0%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
82.9%	82.5%	87.2%	91.9%	94.0%	95.5%
17.1%	17.5%	12.8%	8.1%	6.0%	4.5%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
4.0%	3.5%	3.5%	2.9%	1.3%	0.9%
14.0%	13.8%	14.6%	10.1%	7.8%	7.0%
20.1%	19.2%	18.5%	15.1%	15.6%	15.5%
18.3%	17.4%	16.2%	17.8%	18.5%	17.3%
14.2%	14.2%	14.6%	15.2%	15.9%	15.5%
11.9%	13.5%	13.3%	13.4%	13.6%	13.9%
8.0%	8.8%	8.9%	11.2%	12.1%	12.4%
6.2%	6.3%	6.8%	9.0%	9.1%	11.1%
2.6%	2.6%	3.0%	4.2%	4.8%	5.4%
0.6%	0.8%	0.6%	1.0%	1.3%	1.0%
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1,643	**1,564**	**1,010**	**5,146**	**4,033**	**4,456**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

3

	GRI	REST OF EUROPE 2019	2018	2017	LATIN AMERICA 2019	2018	2017
DIVERSITY AND EQUAL OPPORTUNITY							
Proportion of women in workforce ■■	**1.F LA13**	**21.3%**	**21.9%**	**24.2%**	**15.2%**	**17.0%**	**17.3%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of women in management ■■	**1.F LA13**	**17.3%**	**17.1%**	**16.6%**	**20.6%**	**19.2%**	**17.3%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of apprentices in workforce (2)	**1.F LA1**	**1.2%**	**1.1%**	**0.9%**	**0.3%**	**0.6%**	**2.1%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of disabled employees	**1.F**	**0.7%**	**0.7%**	**0.7%**	**0.6%**	**1.1%**	**0.5%**
Employees under 25 as a% of permanent hires	**1.F**	**13.9%**	**11.9%**	**14.4%**	**14.8%**	**12.2%**	**13.9%**
Employees over 50 as a% of permanent hires	**1.F**	**18.8%**	**21.1%**	**21.1%**	**8.3%**	**6.5%**	**5.1%**
STAFF AND JOB MOVEMENT							
No. of permanent hires	**1.A LA2**	**6,204**	**6,594**	**5,862**	**3,131**	**1,773**	**1,199**
No. of fixed-term hires	**1.A LA2**	**2,435**	**2,516**	**2,310**	**7,169**	**2,010**	**1,464**
Hiring rate	**1.A LA2**	**16.0%**	**16.7%**	**15.0%**	**65.8%**	**53.7%**	**41.3%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Permanent hiring rate	**1.A LA2**	**71.8%**	**72.4%**	**71.7%**	**30.4%**	**46.9%**	**45.0%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Number of lay-offs (3)	**1.A**	**1,019**	**1,574**	**1,243**	**3,016**	**667**	**869**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Turnover	**1.A LA2**	**9.8%**	**11.5%**	**9.9%**	**39.3%**	**16.8%**	**21.7%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Voluntary turnover	**1.A LA2**	**7.3%**	**7.7%**	**6.7%**	**17.7%**	**6.4%**	**7.5%**
% reporting		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
CAREER DEVELOPMENT							
Proportion of workforce trained	**1.E LA10**	**73.3%**	**63.8%**	**61.7%**	**89.8%**	**72.5%**	**72.7%**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of women in trained workforce	**1.E LA10**	**19.5%**	**17.4%**	**17.1%**	**15.9%**	**18.4%**	**18.8%**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
Proportion of managers and non-managers in trained workforce:	**1.E LA10**						
Managers	1.E LA10	21.5%	21.6%	20.4%	11.2%	24.2%	19.0%
Non-managers	1.E LA10	78.5%	78.4%	79.6%	88.8%	75.8%	81.0%
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%

(1) Groupe covers the ENGIE 7 sectors
(2) New formula in 2019.
(3) Excluding contractual terminations
(4) The evolution of severity rates does not include fatalities
(5) 3.4 at 2018 scope (excluding companies integrated in 2019)
■■ *Reasonable assurance for fiscal year 2019*

MIDDLE EAST/ASIA/AFRICA			OTHER		
2019	2018	2017	2019	2018	2017
16.4%	**17.5%**	**15.5%**	**38.6%**	**36.4%**	**35.1%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
20.4%	**22.7%**	**20.4%**	**29.9%**	**28.8%**	**28.3%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
1.4%	**1.4%**	**1.4%**	**2.9%**	**2.5%**	**2.1%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
0.2%	**0.3%**	**0.2%**	**1.0%**	**1.1%**	**1.3%**
12.3%	**12.1%**	**13.3%**	**11.6%**	**8.0%**	**7.5%**
10.0%	**6.4%**	**9.5%**	**9.5%**	**9.4%**	**10.6%**
1,102	**840**	**677**	**1,985**	**1,126**	**790**
703	549	311	944	467	374
18.0%	**16.0%**	**15.2%**	**22.7%**	**14.6%**	**9.1%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
61.1%	**60.5%**	**68.5%**	**67.8%**	**70.7%**	**67.9%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
171	**99**	**372**	**383**	**227**	**249**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
11.8%	**9.0%**	**13.6%**	**10.9%**	**7.9%**	**6.7%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
9.1%	**7.6%**	**7.5%**	**7.0%**	**4.7%**	**3.8%**
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
65.6%	**56.3%**	**73.1%**	**59.8%**	**55.0%**	**63.0%**
92.17%	65.88%	95.06%	96.14%	96.84%	97.09%
15.2%	**16.0%**	**16.2%**	**42.6%**	**41.5%**	**37.9%**
92.17%	65.88%	95.07%	96.14%	96.84%	97.09%
23.8%	22.2%	22.0%	64.3%	69.5%	63.2%
76.2%	77.8%	78.0%	35.7%	30.5%	36.8%
92.17%	65.88%	95.06%	96.14%	96.84%	97.09%

3

	GRI	REST OF EUROPE 2019	2018	2017	LATIN AMERICA 2019	2018	2017
Total no. of training hours	**1.E LA10**	**1,091,096**	**988,462**	**981,190**	**392,190**	**217,719**	**147,670**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
Breakdown of training hours by topic	**1.E LA10**						
Business techniques		44.3%	45.4%	50.2%	32.9%	38.8%	41.1%
Quality, safety and environment.		30.2%	30.3%	31.4%	47.3%	34.0%	26.7%
Languages		2.3%	2.3%	3.0%	2.8%	10.3%	7.8%
Management and personnel development		14.1%	15.3%	8.9%	9.2%	9.2%	13.2%
Others		9.1%	6.8%	6.5%	7.7%	7.6%	11.2%
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
No. of training hours per person trained	**1.E LA10**	**28**	**28**	**29**	**28**	**43**	**31**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
No. of training hours per woman trained	**1.F LA10**	**21**	**22**	**24**	**20**	**38**	**31**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
Training expenses per hour of training (in €)	**1.E LA10**	**23**	**24**	**29**	**7**	**12**	**14**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
Training expenses per person trained (in €)	**1.E LA10**	**632**	**671**	**847**	**208**	**490**	**449**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
WORKING CONDITIONS							
Days of absence per person	**1.B LA7**	**12**	**12**	**12**	**10**	**7**	**9**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
Overtime	**1.B LA7**	**3.5%**	**3.8%**	**4.0%**	**5.1%**	**4.4%**	**3.9%**
% reporting		99.39%	100.00%	100.00%	100.00%	100.00%	100.00%
HEALTH AND SAFETY DATA							
Number of fatal accidents (employees)		**1**	**0**	**0**	**0**	**1**	**0**
% reporting		100%	100%	100%	100%	100%	100%
Frequency rate (employees)		**3.6**	**3.72**	**3.10**	**5.38**	**1.84**	**1.44**
% reporting		100%	100%	100%	100%	100%	100%
Severity rate (4) (French framework)		**0.23**	**0.12**	**0.16**	**0.12**	**0.10**	**0.02**
% reporting		100%	100%	100%	100%	100%	100%
Severity rate (4) (ILO framework)		**0.17**	**0.11**	**0.11**	**0.09**	**0.10**	**0.02**
% reporting		100%	100%	100%	100%	100%	100%
Number of new cases of occupational illness		**5**	**0**	**0**	**6**	**1**	**3**
% reporting		100%	54%	50%	100%	100%	100%

(1) Groupe covers the ENGIE 7 sectors
(2) New formula in 2019.
(3) Excluding contractual terminations
(4) The evolution of severity rates does not include fatalities
(5) 3.4 at 2018 scope (excluding companies integrated in 2019)
■■ Reasonable assurance for fiscal year 2019

	MIDDLE EAST/ASIA/AFRICA			OTHER		
	2019	2018	2017	2019	2018	2017
	124,336	**171,645**	**220,215**	**169,671**	**153,537**	**173,206**
	92.17%	65.88%	95.06%	96.14%	96.84%	97.09%
	31.6%	43.4%	59.3%	39.2%	36.6%	36.8%
	41.3%	32.1%	25.6%	10.1%	12.2%	15.8%
	1.2%	2.1%	1.5%	7.2%	7.3%	10.9%
	12.1%	9.1%	7.2%	20.7%	31.2%	20.2%
	13.8%	13.3%	6.4%	22.8%	12.8%	16.3%
	92.17%	65.88%	95.06%	96.14%	61.92%	97.09%
	21	**35**	**49**	**23**	**26**	**21**
	92.17%	65.88%	95.06%	96.14%	96.84%	97.09%
	18	**28**	**29**	**23**	**25**	**22**
	92.17%	65.88%	95.07%	96.14%	96.84%	97.09%
	18	**11**	**14**	**77**	**40**	**54**
	92.17%	65.88%	95.06%	96.14%	96.84%	97.09%
	375	**385**	**676**	**1,752**	**1,033**	**1,152**
	92.17%	65.88%	95.06%	96.14%	96.84%	97.09%
	10	**5**	**8**	**12**	**13**	**12**
	99.44%	68.51%	95.06%	100.00%	96.84%	97.09%
	7.5%	**8.7%**	**9.0%**	**0.3%**	**0.2%**	**0.4%**
	99.44%	71.86%	95.06%	100.00%	96.84%	97.09%
	1	**0**	**0**	**0**	**0**	**0**
	100%	100%	100%	100%	100%	100%
	1.09	**0.48**	**0.80**	**1.64**	**1.09**	**1.87**
	100%	80%	100%	100%	97%	100%
	0.02	**0.01**	**0.04**	**0.03**	**0.03**	**0.07**
	100%	80%	100%	100%	97%	100%
	0.01	**0.01**	**0.01**	**0.03**	**0.03**	**0.06**
	100%	80%	100%	100%	97%	100%
	0	**4**	**0**	**1**	**0**	**0**
	100%	80%	100%	100%	97%	100%

3.5 Environmental information

ENGIE faces the main environmental challenges: climate change, the quality and availability of natural resources (air, water, soil and energy) and the protection of biodiversity and ecosystems. Although its activities sometimes have an impact on ecosystems and natural resources, the Group seeks to measure and reduce this via the environmental management of its activities.

ENGIE's challenges and ambitions in this area are reflected in the Group's environmental policy (available on the ENGIE website) and in the performance indicators deployed across all its activities. The challenges also include the risks identified in the environmental vigilance plan. A team in charge of analysis and coordination is specifically dedicated to environmental responsibility and reports to the Director of Environment. It has environmental coordinators in each BU who lead their own networks of coordinators, organize actions, supplement corporate expertise with their knowledge of operations, and implement environmental reporting.

The Corporate Social Responsibility Department produces an annual report which is sent to the Executive Committee and then presented to the Board of Directors' Ethics, Environment and Sustainable Development Committee. This report is supplemented by BUs' own reports and letters of environmental compliance, as well as the results of environmental audits ordered by the Executive Committee.

3.5.1 Legal and regulatory framework

The Group actively monitors regulatory developments (set out in Chapter 2 "Risk factors and controls"), stating its positions while they are being prepared and applying the new rules as soon as they are published. In particular, the Group has been calling for the harmonization of international regulations and greater integration between the various environmental and energy policies. In the run-up to COP21, the Group strongly pledged to support an ambitious international climate agreement to limit the global temperature rise to 2°C. It also pledged to support the more widespread application of regulations on carbon pricing, which would be a price signal for investment in low-carbon technologies and an incentive to reduce greenhouse gas emissions. To this end, the Group plays an active role in the CPLC (Carbon Pricing Leadership Coalition).

3.5.2 Environmental management

At the end of 2019, the entities that had implemented an Environmental Management System (EMS) accounted for 72.6% of relevant revenue [(1)]. The need to obtain external EMS certification is assessed locally with regard to local economic conditions and benefits.

PERCENTAGE OF RELEVANT REVENUE COVERED

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
By an EMAS certification	3.08%	2.42%	4.75%
By an ISO 14001 (non-EMAS) certification	58.23%	66%	61.84%
By another external EMS certification	2.88%	2.15%	3.16%
TOTAL EXTERNAL CERTIFICATIONS	**64.19%**	**70.57%**	**69.75%**
By an internal certification (but not by a certified EMS)	8.37%	9.73%	11.92%
TOTAL INTERNAL AND EXTERNAL EMS	**72.56%**	**80.30%**	**81.67%**

When the implementation of a certified or registered management system is not economically justified, entities are encouraged to define an internal management system ensuring concern for the environment in carrying out their activities. As a result, some Group entities have defined their own management system standard. When an internal or external EMS is implemented, employees take part in awareness and training sessions relating to the environmental issues they encounter at their sites so that they adopt the EMS and make it their own.

(1) *Relevant revenue excludes revenue generated by activities not considered pertinent in termes of environnemental impact (services, tradin, sales, activities, etc.).*

3.5.3 Performance control and measurement systems, a prerequisite for environmental responsibility

To monitor the implementation of its environmental policy, control environmental risks and encourage the communication of its environmental performance to stakeholders, ENGIE implements a specific reporting system that goes beyond the requirements of French law and which takes into account the Global Reporting Initiative (GRI) recommendations.

Environmental reporting is closely tied to operational performance reporting, thus becoming a management tool. The Group's Executive Board transmits this goal of making environmental concerns an integral part of management responsibilities.

A system of letters for environmental compliance ensures operational management involvement.

Methodological elements

ENGIE conducts its environmental reporting using a dedicated tool that allows data to be reported following a defined methodology. This tool, called EARTH, is an environmental reporting IT solution used to manage the network of environmental correspondents and coordinators; to handle the management and documentation of the scope of environmental reporting; to manage data entry, monitoring and consolidation of indicators; to draft reports; and to provide the documentation necessary for producing and collecting data (reporting procedures and instructions).

EARTH is deployed in each of the BUs and thus covers the entire ENGIE organization.

The legal entities included in the reporting scope are those whose operations are relevant in terms of environmental impact and that are consolidated fully or proportionately under the rules of financial consolidation (IFRS). Legal entities solely engaged in energy trading, financial activities or engineering are excluded. The selected entities report on the performance and impacts of the industrial facilities over which they have technical operational control, including facilities operated on behalf of third parties. Legal entities consolidated at equity are excluded.

Thus, in accordance with the rules of financial consolidation, 100% of the impact data collected is consolidated when the entities are fully consolidated. For entities proportionately consolidated, the environmental impact data are consolidated in proportion to the Group's consolidation rate provided that it has 100% technical operational control or that, as a minimum, this is shared with other shareholders.

The scope is determined on June 30 of the fiscal year. For disposals after that date, the entity is expected to complete the environmental questionnaire with the data available on the last day of the month prior to the disposal. Acquisitions made after June 30 are not taken into account, unless the relevant BU has requested an exception, and subject to the data being available.

To calculate environmental management indicators such as the "share of relevant revenue covered by an environmental certification, an environmental crisis management plan, etc.", the relevant revenue is estimated for each legal entity. To obtain the relevant revenue, operations regarded as "not relevant in terms of environmental impact" (e.g. trading, finance and engineering) are stripped out of the consolidated revenue figure for each legal entity.

The environmental data reporting procedures encompass general procedures defined as standard guidelines to be implemented at the appropriate levels of the reporting process. Procedures and guidelines are rolled out Group-wide via a network of duly mandated environmental contacts and coordinators. These procedures and guidelines at Group and BU level describe in detail the environmental data collection, control, consolidation, validation and transmission phases at the different levels of the organization, as well as the rules for defining the scope of consolidation. They include technical documents that provide methodological guidelines for the calculation of some specific indicators. Depending on its activities, each entity is assigned a profile that determines the indicators to answer. The list of the entities included in the scope of environmental reporting is approved by each BU.

The definitions of the indicators used to measure the environmental performance of Group businesses have been revised based on comments made by the Statutory Auditors. They also take into account the comments by line managers represented in dedicated work groups. All the documentation is available from the Group upon request (CSR Department).

Previously, ENGIE used to provide a "coverage rate" for each indicator published, corresponding to the response rate obtained from all the entities surveyed. Thanks to the implementation of the new EARTH reporting tool, the coverage rate is now 100% for all indicators.

The following points should be noted with regard to the data published in this report:

- the reliability of the scope of environmental reporting is a priority for ENGIE, which is evolving in an international context of business disposals and acquisitions. Before every reporting campaign, the financial scope for consolidation is compared against the information fed back by the BU's environmental managers in order to check which industrial entities contributing to EARTH report to which financial entities;
- for facilities burning natural gas that do not have automated measurement systems, default emission factors for SOx and fine particle emissions has been set up (factors recommended by the EMEP, the European Monitoring and Evaluation Programme);
- since 2007, ENGIE has been a signatory to the CEO Water Mandate, thus demonstrating its commitment to the preservation of water resources. The water indicators are consistent with the GRI indicators in 2011 and fall into four categories: withdrawal, discharge, consumption, reuse/recycling. Since 2015, the materiality of the water indicators published has been reviewed and the Statutory Auditors verify the inputs, outputs and consumption of fresh and non-fresh water;
- as it is concerned about what becomes of the waste generated by its activities, the Group has indicators on the production and recovery of the waste generated by its activities. These are based on definitions of waste and recovery established by local regulations. To avoid erroneous data about stock, only the tonnages taken away and weighed on site are reported as disposed of. The tonnages that must be reported are wet or dry, depending on the way they are disposed of: if the waste disposed of was wet, the reported tonnages are wet and the converse for dry waste. As an exception, if the waste is permanently stored on site, the associated dry tonnages must also be reported as disposed of. In the latter case, the waste is never recovered. Waste generated by the construction or dismantling of plant and equipment, by the repowering or upgrading of facilities, and by soil rehabilitation, are not covered by the indicators for waste generated by activities;

- CO_2 emissions from the combustion of fossil fuels were calculated based on the most recent emission factors published by the IPCC (IPCC Guidelines for National GHG Inventories, Vol. 2 Energy – 2006). However, the emission factors for coal can vary greatly depending on the provenance. For this reason, each reporting entity consuming coal provides a factorlocally calculated emission levels. This is also the case for alternative fuels for which it is not possible to use standard emission factors;
- The global warming potential (GWP) compares the warming capacity of the various greenhouse gases to CO_2. The GWP used to convert the Group's greenhouse gas (GHG) emissions to CO_2 equivalent are the latest GWP published by the IPCC (5th Assessment Report – 2014), considered on a 100-year scale;
- specific GHG emissions from energy generation in kg CO_2 eq./MWh are calculated for the BUs where this is a main activity: Generation Europe, North America, Latin America, Brazil, Asia Pacific, Middle East, South and Central Asia, and Turkey, Benelux, North, South and Eastern Europe, UK, France BtoB, France Networks, and France Renewable Energy;
- for the sake of consistency, the factor for converting thermal energy produced (GWhth) into electric power (GWhe) is set at 0.44 for all Group power generation businesses and at 0.25 for incinerators;
- significant environmental impacts resulting from subcontractors during services performed at one of the Group's facilities must be included in the Group's impacts except when a specific contractual clause provides that a subcontractor is liable for impacts generated at the site while providing the service. Data provided by subcontractors is not subject to systematic internal verification before being included in Group data and is the responsibility of the subcontractors alone. Regulations and legal obligations related to the environment may differ from one country to another, and certain data may thus be sometimes more difficult to gather;
- the energy efficiency indicator covers fossil fuel and biofuel power plants and also includes heat supplied by third parties;
- ENGIE operates hydraulic installations, some of which have water tanks. Given the difficulties in modeling the evaporation of each site, the evaporated water is not yet included in environmental reporting; for category 11 of scope 3 (use stage of product), only gas sales to end customers are taken into account. Market sales are now excluded and data reported for the years 2016 and 2017 have been restated;
- for the category "Use of sold products" in Scope 3, a change in methodology has been made to exclude sales of natural gas on financial markets and to intermediaries with retroactive effect from 2017. This is also the case for LNG sales on financial markets and to intermediaries with retroactive effect from 2018. In addition, although emissions from sales of coal to end customers have fallen sharply over the last three years, they have been added for completeness with retroactive effect from 2017. Also for the "Use of sold products" category of Scope 3, natural gas sales are expressed in TWh HCV, for Higher Calorific Value, while the emission factors used until 2018 were defined for TWh LCV, for Lower Calorific Value. As this leads to a 10% overestimation of the emissions linked to the use of gas sold to end users, the TWh HCV have been converted into TWh LHV and the data restated accordingly with retroactive effect from 2017;
- emissions of NOx, SOx and particulate matters are calculated locally on the basis of measurements. Where it is not possible to measure these emissions, a calculation method is provided for NOx emissions and standard emission factors based on fuel consumption are used for SOx and particulate matters. These emission factors are taken from the standards of the US Environmental Protection Agency (US EPA).

3.5.4 Group actions

3.5.4.1 Climate change

Direct emissions

Information presented in this section and in Section 2.2.2 "Climate change" reflects the financial risks associated with the effects of climate change and the measures taken by the company to mitigate them by implementing a low carbon strategy in all areas of its business as required by Article L. 225-37 of the French Commercial Code.

By developing a low carbon[(1)] energy mix and through its energy efficiency activities, the Group has put energy transition and the fight against climate change at the heart of its strategic focus. ENGIE is further increasing its decarbonization efforts: the emission rate at the end of 2019 was 248.7g CO_2eq./kWh, down 19.6% compared to 2018, and down 43.8% compared to 2012 objective of, i.e. well in excess of its 2020 target of -20%. The Group's absolute direct CO_2 eq. emissions fell by more than 12.2 million tons in one year, from 66.2 tons to 54 million tons, a 18.4% reduction.

This excellent result reflects the Group's desire to follow an emissions trajectory compatible with the Paris Agreement's objective of not exceeding +2°C by 2050, which corresponds to an 85% reduction in its direct emissions by 2050 compared to 2012, total disengagement from coal, and growth in green energy (renewable electricity and biogas).

In addition, the Group supports TCFD's (Task Force on Climate-related Financial Disclosures) recommendations for greater transparency on the risks and opportunities related to the impacts of climate change, monitors issuer-investor work and prepares a plan to implement these recommendations. The Group publishes its Scope 1, 2 and 3 (main items) emissions and answers the CDP (formerly Carbon Disclosure Project) questionnaire each year.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Total direct GHG emissions - Scope 1 ■■	53,952,322 t CO eq.	66,117,396 t CO eq.	89,756,230 t CO eq.
of which CH_4 emissions	1,726,874 t CO eq.	1,830,192 t CO eq.	2,252,850 t CO eq.
GHG emissions per business unit – energy generation	248.7 kg CO eq./MWheq.	315.3 kg CO eq./MWheq.	363.7 kg CO eq./MWheq.
GHG emissions per business unit – gas storage	0.9 kg CO eq./MWheq.	0.9 kg CO eq./MWheq.	0.8 kg CO eq./MWheq.
GHG emissions per business unit – gas transportation (excluding via LNG tanker)	1.0 kg CO eq./MWheq.	1.1 kg CO eq./MWheq.	1.7 kg CO eq./MWheq.
GHG emissions per business unit – LNG terminals	0.8 kg CO eq./MWheq.	1.8 kg CO eq./MWheq.	2.3 kg CO eq./MWheq.
GHG emissions per business unit – gas distribution	3.4 kg CO eq./MWheq.	3.2 kg CO eq./MWheq.	2.8 kg CO eq./MWheq.

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2019*

Adaptation through anticipation of the negative impacts of climate change is key to making ENGIE's infrastructure and activities more resistant to natural hazards (more extreme events such as floods and droughts, etc. and other more progressive phenomena such as rising sea levels, rising temperatures, etc.). The risks generated by climate change are varied and include physical risks, risks of disruption to value chains, reputational risks and regulatory risks. ENGIE is implementing practical measures to guard against this set of risks, including the construction of a perimeter wall to tackle the risk of exceptionally heavy flooding at the Tihange site in Belgium, a vegetation project to prevent soil erosion in the event of storms in Mexico, the digging of ditches and a reservoir to deal with the risk of flooding at the Capel Grange solar park in England, etc. The Group has also established methods to help its various sites to draw up adaptation action plans. The use of tools, such as Aqueduct software, helps the Group to identify local-scale risks and enables it to identify adaptation strategies tailored to the problems and features of each site. Adapting to climate brings multiple beneficial effects for ENGIE: anticipating risks enables it to manage its assets better, cut costs and expand its market to new products and services.

(1) *The share of energy production from renewable and nuclear sources has increased by 67.3% in 5 years, from 32.7% to 54.8% in 2019.*

Indirect emissions

The Group's approach to GHG emissions accounting and reporting is based on the GHG Protocol Corporate Standards (for companies) and the ISO 14064 standard (supplemented by ISO 14069). These standards constitute an internationally recognized reference framework. For the purposes of consistency with the other environmental information published, the "Scope 2" and "Scope 3" emissions listed below do not include those of the water and waste management businesses of SUEZ.

ENGIE has analyzed the various categories of emissions in order to identify and quantify the most pertinent categories. The following categories have been identified and quantified to date.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Indirect emissions related to energy ("Scope 2")	**2,518,487 t CO eq.**	**2,912,586 t CO eq.**	**3,576,861 t CO eq.**
Indirect emissions related to power consumption [1]	1,438,826 t CO eq.	1,853,696 t CO eq.	2,602,395 t CO eq.
Indirect emissions related to the consumption of steam, heating or cooling [1]	1,079,661 t CO eq.	1,058,890 t CO eq.	974,466 t CO eq.
Other indirect GHG emissions ("Scope 3")	**126,317,314 t CO eq.**	**133,060,132 t CO eq.**	**145,527,966 t CO eq.**
Upstream fuel chain (energy-related emissions not included in the "direct GHG emissions" and "indirect energy-related GHG emissions" categories)	20,179,995 t CO eq.	23,368,440 t CO eq.	25,616,434 t CO eq.
Investments (GHG emissions from power plants consolidated under the equity method)	28,862,010 t CO eq.	30,732,680 t CO eq.	9,847,667 t CO eq.
Use of products sold (fuel sales to third parties, market sales excluded)	60,599,653 t CO eq.	68,796,400 t CO eq.	3,301,942 t CO eq.
Purchased products and services	13,685,097 t CO eq.	6,812,253 t CO eq.	27,896,370 t CO eq.
Capital equipment	2,990,558 t CO eq.	3,350,358 t CO eq.	78,865,553 t CO eq.

(1) The electricity and thermal energy consumption used to calculate this data is subject to verification by the Statutory Auditors with "reasonable" assurance for the financial year 2019 (see Section 3.11).

3.5.4.2 Renewable energy

The strengthening of the Group's capacity in renewable energy has continued, for both electricity and heat generation and, in the case of biogas, for transportation. In 2019, renewable energy accounted for close to 19.5 GW of installed electric equivalent, representing 29.5% of the total capacity directly operated by the Group.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Renewable - Net installed power (electric and thermal) ■■	19,512 MWeeq.	18,094 MWeeq.	16,812 MWeeq.
Share of renewable resources in installed capacity	29.5%	27.8%	24.5%
Renewable - Electricity and heat produced ■■	71,496 GWheeq.	66,325 GWheeq.	58,985 GWheeq.
Energy produced – share of large hydropower	71.5%	76.2%	75.4%
Energy produced – share of small hydropower	1.2%	1.5%	1.4%
Energy produced – share of wind	14.5%	9.2%	9.9%
Energy produced – share of geothermal	0.19%	0.19%	0.14%
Energy produced – share of solar	3.1%	2.6%	1.2%
Energy produced – share of biomass and biogas	9.6%	10.3%	12.0%

These capacities correspond to the scope of the environmental reporting specified in Section 3.5.3 (excluding equity-accounted and non-controlled facilities).
■■ Verified by the Statutory Auditors with "reasonable" assurance for 2019.

3.5.4.3 Energy efficiency

For electricity-generating facilities, energy performance is directly connected to the site's efficiency which influences its profitability. Measures taken to improve the generation fleet, and which are compliant with environmental regulations and the constraints of the electricity market, have helped optimize its energy efficiency and, hence, consumption of raw materials. For example, the replacement of older turbines or boilers with recent models has an immediate positive impact on a facility's energy efficiency.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Primary energy consumption - total (excluding own consumption) ■■	337,596 GWh	330,656 GWh	445,327 GWh
Share of coal/lignite	11.54%	20.89%	24.55%
Share of natural gas	41.72%	44.56%	40.11%
Share of fuel oil (heavy and light)	0.71%	0.74%	0.99%
Share of uranium	36.37%	24.48%	26.90%
Share of biomass and biogas	5.73%	5.77%	4.57%
Share of other fuels	3.25%	3.28%	2.63%
Share of fuel in transport	0.68%	0.29%	0.25%
Electricity and thermal energy consumption (excluding own consumption) ■■	8,075 GWheeq.	9,124 GWheeq.	9,503 GWheeq.
Energy efficiency of fossil fuel plants (including biomass/biogas) ■■	44.9%	44.2%	43.4%

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2019 (see Section 3.11).*

3.5.4.4 Nuclear energy

Maintaining a very high level of safety at the seven nuclear reactors operated by ENGIE is a key priority for the Group. ENGIE also attaches great importance to limiting the environmental impact of these facilities (e.g. waste, emissions).

Provisions for the downstream portion of the nuclear fuel cycle (operations relating to fuel after its use in a nuclear reactor) and for the costs of decommissioning nuclear power plants after they are shut down, are shown in 19 to Section 6.2.2 "Notes to the consolidated financial statements".

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Radioactive gas emissions			
Rare gases	35.1 TBq	54.4 TBq	34.0 TBq
Iodines	0.02 GBq	0.03 GBq	0.01 GBq
Aerosols	0.26 GBq	0.26 GBq	0.34 GBq
Radioactive nuclear waste (low and medium level)	149 m^3	204 m^3	178 m^3
Radioactive liquid wastes			
Beta and Gamma emitters	17.21 GBq	22.77 GBq	20.56 GBq
Tritium	65.1 TBq	84.8 TBq	55.7 TBq

The risk factors relating to nuclear power are presented in Section 2.2.5 "Industrial Risks".

3.5.4.5 Water

As a committed player in water management, ENGIE is taking part in the current debate over corporate risk disclosure and water stewardship, alongside organizations such as the CEO Water Mandate of the UN Global Compact and the OECD. These initiatives have led to a homogenization of the definition and implementation of water stewardship. The Group has two water-related objectives for 2020: one involves the implementation of concerted local action plans for sites in areas with extremely high water stress, and the other involves reducing freshwater withdrawals across the Group. In 2019, ENGIE was awarded a B rating by the CDP Water Disclosure program, in real progress from 2018.

Each year, as part of the optimization of its energy production, ENGIE assesses the risk of water stress for the Group's industrial sites using the Baseline Water Stress Index and the Aqueduct tool (World Resource Institute). In 2019, 33 sites were located in areas with extremely high water stress (4.5% of sites excluding solar and wind), for which action plans are being implemented. The impact of water stress is relative, however, as it depends on the site's activity and fresh water needs. Only 6 out of the 33 sites have substantial freshwater requirements (more than 100,000 m^3/year). For the others, the challenge is rather how to indirectly help to preserve water resources, for example by proposing the reuse of the water by other entities in the drainage basin. As of 2013, the Group has calculated the water footprint in the life cycle analysis of 1 kWh of electricity, and of 1 kWh of gas in 2016. All of the Group's initiatives have resulted in a 61.4% reduction in freshwater withdrawals from its power generation business since 2012.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Fresh water			
Total withdrawal	2823 Mm^3	2717 Mm^3	2793 Mm^3
Total discharge	2755 Mm^3	2642 Mm^3	2680 Mm^3
Non-fresh water			
Total withdrawal	5636 Mm^3	7603 Mm^3	8685 Mm^3
Total discharge	5611 Mm^3	7594 Mm^3	8672 Mm^3
Total consumption	93.3 Mm^3	85.3 Mm^3	124.9 Mm^3

3.5.4.6 Waste

In January 2014, ENGIE took the recommendations of an internal audit on waste management and incorporated them into its environmental policy released in 2017. Its chief aim was to reduce the quantities of waste it produces and to increase its rate of waste recovery.

These efforts have led to a recovery rate of 76% for non-hazardous waste and 31% for hazardous waste in 2019. The Group's industrial sites actively seek local waste recovery solutions, even though some of these channels remain dependent on market opportunities governed by the laws of supply and demand.

Food waste and associated waste only relate to group catering for employees. In this area, ENGIE selects subcontractors that include missing space measures against food waste in their specifications.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Total quantity of non-hazardous waste and by-products discharged (including sludge)	3,192,173 t	2,723,905 t	2,773,419 t
Fly ash, refioms (residues from the purification of incineration fumes from household waste)	1,642,912 t	1,509,757 t	1,709,087 t
Ash, bottom ash	677,893 t	645,597 t	503,592 t
Desulfurization by-products	120,757 t	180,478 t	191,522 t
Sludge	18,828 t	19,500 t	20,576 t
Driftwood	5,305 t	8,888 t	7,331 t
Total quantity of non-hazardous waste and by-products recovered (including sludge)	2,432,929 t	2,315,236 t	2,255,802 t
Total quantity of hazardous waste and by products discharged (including sludge and excluding radioactive waste) ■■	52,893 t	43,174 t	386,783 t
Total quantity of hazardous waste and by products recovered (including sludge and excluding radioactive waste) ■■	16,377 t	11,953 t	52,203 t

■■ *Verified by the Statutory Auditors with "reasonable" assurance for 2019.*

3.5.4.7 Atmospheric pollutants

ENGIE uses a wide range of techniques to further reduce its emissions: reduction at the source using a tailored energy mix; optimization of combustion and treatment of fumes; filters or water injection to reduce fine particle emissions; installation of low-NOx burners or use of urea injection (secondary treatment) to control nitrogen oxides; and choosing fuels with very low sulfur content to reduce sulfur dioxide emissions. A strong improvement was observed in 2018 thanks to the reorientation of ENGIE's production assets portfolio.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
NOx emissions	50,408 t	60,412 t	92,209 t
SO_2 emissions	129,026 t	118,291 t	159,623 t
Fine particle emissions	4,544 t	4,873 t	7,353 t

3.5.4.8 Management of biodiversity

3

In order to contribute to biodiversity protection and to mitigate its impact under the "prevent, reduce, offset" process, the Group has been committed since 2010 to integrating biodiversity into its strategy and activities. Restoring natural habitats (e.g. contribution of Glow in Thailand to the restoration of the Houay Mahad Hill Forest), reducing the impact of wind turbines on wildlife (e.g. Cheppes-la-Prairie windfarm in France), installing fish ladders at dams (e.g. the Sauveterre-sur-le-Rhône fishway), ensuring that gas-grid easements contribute to ecological continuity, and applying differentiated landscaping to green spaces are examples of actions taken by the Group. In pursuit of its commitment to biodiversity, the Group relies on the skills and expertise of its two partners: the French committee of the IUCN (International Union for Conservation of Nature) and France Nature Environnement.

As part of a voluntary initiative, which was recognized at the end of 2012 by the French government as part of the National Biodiversity Strategy, the Group has defined a targeted action plane [(1)] for each of its priority sites in Europe designed to address the biodiversity protection issues identified at the site and/or by local stakeholders, based on the site's activity. Since 2016, biodiversity action plans have been incorporated into a more comprehensive approach to integrated and concerted environmental management at site level for the target sites, but the method of identifying sites for biodiversity remains unchanged.

Building on the results of 2015, and to support the Group's change and transformation, ENGIE extended its contribution to the National Biodiversity Strategy for the period 2016-2018 by defining a new objective: local and sustainable integration. The aim of this objective is to position biodiversity as an asset in order to integrate its activities within the regions in conjunction with its stakeholders, and to highlight the good practices carried out by the Group's business units, such as ecological site management. The Group also strengthened its international commitments by joining the "act4nature" initiative in July 2018.

3.5.4.9 Active prevention of environmental risks

The management of industrial, health and environmental risks has two components: risk prevention and crisis management.

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
% of relevant revenue covered by an environmental risk prevention plan	80.2%	87.6%	83.2%
% of relevant revenue covered by an environmental crisis management plan	85.1%	88.4%	87.7%

The 10 complaints registered in 2019 did not give rise to an obligation to pay compensation. One complaint concerns a problem of odor nuisance for the neighborhood, 2 are related to a construction site but no damage was finally confirmed, 7 were addressed to ENGIE by private individuals for nuisances related to the operation of wind turbines (noise, stroboscopic effect, falling of ice chunks). The Group actively monitors these data and implements actions to further reduce them.

In 2017, local residents brought a lawsuit before the Environmental Court of Valdivia, for alleged environmental damage caused by the growth of an algae, during the summer, in the tank of the hydropower plant of Laja (Chile). ENGIE has not yet received a notification. The Group has implemented measures to contain the growth of such algae.

In 2019, environmental expenses (investments and current operating expenses related to environmental preservation) amounted to more than €466 million.

(1) *A targeted action plan must combine and detail all the measures taken to preserve or restore biodiversity locally. See the note on methodology in Section 3.5.3 for more details.*

Indicator title	ENGIE 2019	ENGIE 2018	ENGIE 2017
Environment-related complaints	10	24	13
Environment-related convictions	1	0	1
Amount of compensation (in € thousands)	13 k€	0 k€	0 k€
Environmental expenditure (in € thousands)	466,365 k€	406,428 k€	396,731 k€

3.5.4.10 Noise pollution

Any industrial activity is a source of noise pollution. In order to reduce these impacts, Group entities conduct regular soundproofing work (acoustic cladding, noise barriers, containment, etc.). For more recent projects, reducing this potential form of noise pollution is directly integrated into the design.

For its renewable energy projects, particularly onshore wind and solar, ENGIE conducts impact studies and offers support measures to prevent, reduce or offset any noise or visual impact. Examples of such actions include defining and implementing turbine restrictions (stoppage or reduced power at key times and/or under certain wind conditions), conducting specific actions with builders to reduce the sound power of machines, seeking better harmonization with the landscape during the design and, after construction, initiating planting and vegetation schemes on sites or for neighbors if there is an obvious visual impact. By way of illustration, in France, ENGIE has partnered with the "Respect" project launched as part of the offshore wind project in the city of Tréport and on the islands of Yeu and Noirmoutier. The aim is to improve understanding of the biological impact related to the noise footprint of projects and reduce this by developing appropriate technology. The results were integrated into the impact studies and made it possible to obtain prefectural authorizations in October 2018.

3.5.4.11 Land use

Protection of soil and groundwater is an integral part of the Group's environmental policy. The environmental consequences of soil pollution can be significant, as can the costs of subsequent remedial measures. It is therefore important to prevent this risk and to hedge it with financial provisions. These amounted to €1 billion in 2019 and concerned site rehabilitation, decommissioning of non-nuclear facilities and scheduled product elimination. In this area, ENGIE complies with the regulations in each of the countries in which the Group operates.

For example, a soil pollution survey was carried out at several power plant sites in Belgium. Risks were assessed in conjunction with the appropriate environmental authorities and a remediation program was implemented.

ENGIE owns a number of former gasworks. These sites may be affected by oil, heavy metals and other volatile substances that can adversely affect health. As a result, they must be repaired before reuse. In 1996, a ten-year plan was agreed via a memorandum between Gaz de France and the French government to rehabilitate these sites, which have been compatible with their use from a health perspective since 2007. When these former sites are sold, ENGIE is committed to ensuring that the buyer's project is compatible with the environmental and industrial liabilities of the site and that the risk to the environment and residents is effectively managed. At all its sites, the Group monitors the soil and groundwater, in accordance with its operating permits, in order to prevent pollution.

Moreover, in order to more firmly anchor its presence in the regions, ENGIE has established a structured system of dialogue with its stakeholders, pursuant to the main international standards (AA1000, ISO 26000, the Global Compact principles, and OECD guidelines). This system is based on regular meetings with NGOs and non-profit associations, and on the development of long-term partnerships in connection with ENGIE's activities. The dialogue is defined at Group level and then rolled out to each BU according to specific local requirements in terms of issues, activities and regulations. As part of these new CSR objectives, ENGIE aims to cover 100% of its industrial activities with an appropriate dialogue and consultation mechanism by 2020.

Gas pipelines account for the largest amount of land use by ENGIE. As the gas lines are buried, they do not break up natural habitats, but may nevertheless generate land-use conflicts. GRTgaz has therefore established amicable easement agreements in France with all the owners of the land crossed, following consultation periods (the signing rate for amicable agreements is regularly >90% for projects). These agreements define land usage restrictions for the owners (prohibition on building in pipeline locations and planting vegetation higher than 2.70 m) in exchange for compensation. More specific work is carried out with the agricultural industry to preserve land use for farmers as part of their professional activity.

For the development of new wind and photovoltaic renewable energy production sites, the choice of the site is paramount. The arable nature of the land is an essential element taken into account very early in the project to avoid any subsequent conflict. In France, calls for tenders for photovoltaic power plants are made under the aegis of the French Energy Regulatory Commission. Proposing a site on arable land causes valuable points to be lost in tenders and this is another reason for selecting other types of land. For wind farms, development on arable land is possible provided that an assessment is carried out before and after the project by an independent agricultural expert. This allows for fair compensation to be paid to owners or farmers for the use of these lands.

3.6 Societal information

The responsible growth model developed by ENGIE is based on professional dialogue with all stakeholders to encourage co-construction and shared value creation.

3.6.1 Socio-economic development in local communities

For ENGIE, adapting its offerings to meet its customers' requirements and learning about them make innovation and partnerships a central part of its local activities.

Internationally, in agreement with local authorities, the Group is committed, as part of a structured and participatory approach, to developing social programs linked to its industrial projects. ENGIE supports small and medium-sized enterprises and start-ups through various programs implemented in local communities.

The Group also supports social enterprise through the ENGIE Rassembleurs d'Énergies social and environmental fund, which aims to bring together and strengthen the Group's actions to encourage access to energy and combat fuel poverty.

By the end of 2019, nine years after it was created, the ENGIE Rassembleurs d'Énergies fund had invested in 20 companies active on four continents: Europe, Africa, Asia and Latin America – and in around 20 countries. These companies cover 13 sustainable development targets through a broad range of technologies that respond to the problem of energy access and help to reduce fuel poverty: energy efficiency in social housing and the circular economy in Europe, decentralized electrification through individual or collective solar power systems and access to clean cooking solutions, particularly with biogas solutions, in emerging countries. The companies in the portfolio currently provide power to more than 4 million recipients and employ more than 5,000 people worldwide. More than 20,000 employees have invested in the ENGIE Rassembleurs d'Énergies fund.

ENGIE Rassembleurs d'Énergies has thus invested €32 million in own funds, including €6 million in 2019 alone, having studied more than 150 opportunities. The ENGIE Rassembleurs d'Énergies fund was B.Corp certified in 2019 for a renewable period of three years. The fund's solidarity assimilation was renewed in 2019, due to the fact that the Ministry of the Ecological and Solidarity Transition took into account the corporate object of companies outside France and their real impact on the improvement of the living conditions of beneficiaries. This provision enables the fund to maintain its status and manage the solidarity savings of Group employees.

3.6.2 Dialogue with stakeholders and partnerships

ENGIE maintains an ongoing and proactive dialogue with all stakeholders around its industrial activities. Based on the existing approaches, the Group has started supporting its operating entities to deepen and structure their practices, from the implementation of dialogue strategies to their operational deployment. The support is based on a Group methodology which is adapted to the strategic, technical and geographical specificities of the operational activities. It is based on international standards such as ISO 26000, AA1000 or IFC and consists of both the awareness-raising/training of managers and colleagues with respect to dialogue with stakeholders, and technical support for the creation/structuring of action plans adapted to the challenges of the territories and reflecting the expectations of stakeholders. The goal is to optimize performance and increase value creation by improving/integrating engagement with stakeholders throughout the business cycle.

The Group has also set itself the target of ensuring that 100% of its industrial activities are be covered by 2020 by an appropriate dialogue and consultation mechanism which aims to prevent conflicts and strengthen the sustainability of its activities. Of the Group's 182 industrial activities (sites or groupings of sites) identified at the end of 2019 to be covered by such a mechanism, 74% were covered by the end of 2019.

As guarantee of sustainability for the company and a creator of shared value, this culture of listening and dialogue is extended by lasting partnerships on social and environmental issues.

At the international level, ENGIE is a member of the United Nations Global Compact in the Global Compact Advanced category.

In 2019, the Group continued its partnerships with Emmaüs France in the context of its contribution to energy access and its commitment to the fight against fuel poverty as well as with the ONE Foundation (Océan Nature et Environnement – Ocean, Nature and Environment) in support of the company/NGO dialogue around its industrial projects. ENGIE thus supported home improvement projects carried out by Emmaüs through material donations (office equipment, vehicles, etc.) but also by making available its expertise in the energy field (energy and water testing, energy performance works, etc.). In addition, awareness-raising actions to control energy demand have been set up with populations helped by Emmaüs.

3.6.3 Solidarity and combating fuel poverty

In all geographical regions where ENGIE operates, initiatives promoting community philanthropy, solidarity and combating fuel poverty are implemented by the ENGIE Corporate Foundation or Group entities, in connection with local authorities, local associations, local NGOs or the Group's corporate functional departments.

ENGIE, in particular through its Foundation, has launched several initiatives promoting solidarity and combating fuel poverty.

In 2019, ENGIE continued to support the Fonds de Solidarité pour le Logement (French solidarity housing fund), providing €6 million in line with the Public Service Agreement. In 2019, around 80,000 of ENGIE's retail customers benefited from these departmental council subsidies.

Since 2011, the Group has been acting alongside the public authorities as a partner in the French national "Live Better" program. Under the new agreement signed in December 2014, ENGIE extended its commitment to the program and will have paid out €100 million in the period 2014-2020 to renovate 250,000 homes.

ENGIE has created a network of mediation partners with over 120 customer assistance centers throughout the country as of the end of 2019. Mediators at these associations, who are trained by ENGIE, talk to customers facing payment difficulties, help them to understand their bills, give them advice on their energy spending and can help them to set up structured payment plans or direct them towards social services to apply for assistance.

ENGIE Energy Solidarity partners are in touch with local communities, departments and associations. Some 100 ENGIE solidarity advisers are also dedicated to processing requests from social workers. In 2019, those advisers responded to approximately 300,000 requests from social services.

The ISIGAZ (Information Sécurité Intérieure Gaz) program set up by GRDF aims to inform and educate customers who are tenants of social housing located in "Politique de la ville" (City Policy) neighborhoods about gas safety and how to save energy.

The ISIGAZ program was terminated at the end of 2018 (end of SPC), but more than 2,700 families were informed in 2019 in order to complete the local agreements that had been signed previously. In total, since the launch of ISIGAZ in 2006, more than 337,000 families have been educated and more than 52,000 connectors for cooking appliances have been installed.

In addition, since 2015, GRDF has deployed a program called CIVIGAZ, in partnership with the Fondation Agir Contre l'Exclusion (Action Against Exclusion Foundation). This program also aims to inform and educate customers on gas safety and how to save energy regardless of their occupancy status (tenant or owner) and regardless of the type of neighborhoods in which they reside (City Policy neighborhoods or not). The focus is on areas of concern that are determined in consultation with local authorities. It is deployed by associations that recruit and support civic service volunteers. In 2019, nearly 4,000 families were informed through the work of 43 young people. In total, since the launch of CIVIGAZ in 2015, nearly 55,000 families have been informed thanks to more than 700 civic service volunteers.

As part of its ENGIE Volunteers Program (EVP) initiated by the CSR Department, ENGIE supports and coordinates the internal NGOs of the Group for missions allowing access to energy for populations in difficulty.

Energy Assistance, a non-profit association, was created in Belgium in 2001 by ENGIE's employees. On this model, Energy Assistance France was founded in 2005, then Energy Assistance Italia and Energy Assistance Monaco were founded in 2011.The objective of these four associations is to put the skills and know-how of their members, active or retired from the Group, supported by the Group's technical means, at the service of humanitarian projects intended for populations who do not have access or have very limited access to essential energy services on all continents.

Since its creation, Energy Assistance has carried out 371 projects which have contributed to the access to electricity of more than 3.8 million people. In 2019, Energy Assistance finalized 20 projects thanks to 50 volunteers representing 700 volunteering's days, mainly for projects of electrification by photovoltaic panels of buildings (schools or health centers) in Africa.

Since its creation, Energy Assistance France has carried out 147 projects in 36 countries benefiting more than 1.5 million people. In 2019, Energy Assistance France carried out 23 projects which mobilized 37 volunteers, mainly projects of electrification by photovoltaic panels of school and health buildings in Burkina Faso and Madagascar.

Energy Assistance Italia and Monaco carry out or finance a smaller number of projects.

For more information, refer to the websites of the various Energy Assistance associations

3.6.4 ENGIE Corporate Foundation

The ENGIE Foundation's mission is to "contribute the energy of the possible", i.e. to stimulate and fund the most useful, necessary and ambitious projects in a world facing many challenges: global warming, migration crises, preserving biodiversity, access to energy for all, and combating poverty.

Since its creation in 1992, the Foundation has supported 1,000 projects, associations or institutions. Since 2010, it has prioritized the funding of projects in three areas: childhood and youth in distress, access to sustainable energy for all and protecting biodiversity, particularly projects led by women. The Foundation also supports emergency aid initiatives for refugees.

The Foundation is managed by a Board of Directors, comprising 22 directors: 12 representatives of the ENGIE Group, founder of the Foundation, and 10 external representatives. Project applications are submitted for the opinion of two selection committees, one in France and one in Belgium, which meet twice a year. The committees examine and approve financial sponsorship projects for amounts of less than €150,000, and also assess and follow them up. They are made up of Group experts and qualified individuals who contribute their expertise and enrich the committees' discussions. The two committees obtain concrete and measurable results.

The ENGIE Foundation has established a multi-year program (2015-2020) for €29 million. In 2018-2019, the Foundation supported 117 projects with more than 485,000 direct or indirect beneficiaries. Of these projects, 73% were dedicated to children and 23% to access to energy and biodiversity, with the remaining 4% devoted to supporting women and female leadership. The following flagship initiatives took place in 2019:

- support for the Schools, Lights and Rights program, which has enabled a million children to learn about their civil rights in the Democratic Republic of the Congo;
- support for awareness-raising initiatives for the general public carried out by the Surfrider association on the issue of aquatic waste;
- the financing of a "Clean water, healthy child" project based on hygiene, soil remediation and environmental education, to improve the health of more than 5,600 children and indirectly benefit more than 17,000 people on the Paracatu site (Brazil), thanks to the mobilization of technicians from the ENGIE solar power plant under construction;
- the funding of a house located in Gérard Marchant hospital in Toulouse to welcome and support cancer patients undergoing treatment or after treatment, managed by the National Anti-Cancer League of Haute-Garonne;
- the co-funding of a hygiene and care center dedicated to homeless women managed by Samu Social in Paris (12th *arrondissement*) providing reception and social and medical support for 200 women per year;
- the co-financing of an essential services unit powered by a floating tidal turbine producing 100 MWh per year, directly benefiting 3,000 villagers from Loubassa on the Congo River (Congo).

For more information, please see the Foundation's website: https://fondation-engie.com/

3.7 Purchasing, Subcontracting and Suppliers

Suppliers and subcontractors represent key stakeholders in the Group's value chain.

The Group's Purchasing function has defined a clear vision organized around the following goals:

- to contribute to the Group's operational performance by putting forward a panel of competitive and differentiated suppliers to the operational teams;
- to uphold the Group's commitments to its suppliers;
- to contribute to the Group's CSR approach;
- to develop key talent and expertise within the Purchasing sector and promote Purchasing within the Group's career paths.

In order to achieve this ambition, the Purchasing function relies on a management system structured around:

- an innately sustainable purchasing policy: this external document, which is shared with suppliers, is the expression of ENGIE's involvement; it specifies the Group's commitments and requirements in its relationship with its suppliers, particularly:
  - compliance with health and safety requirements: the requirement for suppliers to make health and safety commitments,
  - social responsibility, ethics, embargo and anti-corruption: a commitment from suppliers to engage in ethical business relationships,
  - sustainable Development: the search for competitive bids and sustainable and innovative solutions;
- a purchasing Governance: this internal document defines Group-wide principles for the management of external expenditure and sets out the rules for how the Purchasing function operates within its activities. It aims to reinforce the separation of tasks between buyers and purchasing advisers, while strengthening their cooperation when selecting the best offerings.

The requirements of these two Purchasing function reference documents, as well as the Group's more general requirements, are included in the operational processes in order to enable their implementation, control and remediation. There are three operational processes: Manage the supplier panel, Manage the purchasing categories, Buy / Supply.

The other Group reference documents integrated in the processes are: The Ethics & Compliance Charter, the CSR Policy, the Health and Safety Policy, the Code of Conduct in Supplier Relations and the Supplier Due Diligence Policy.

In addition, the Group's Purchasing function has set itself the goal of implementing a CSR approach by 2020 for the management of the supply chain for the Group's controlled entities.

This CSR approach is:

- structured around three key components:
  - respect for supplier and subcontractor payment deadlines,
  - support for subcontractors with regard to the Health and Safety Policy,
  - integration within operational processes of a CSR continuous improvement approach and training in this approach for key stakeholders;
- integration into the operational processes via the following key steps using a Plan-Do-Check-Act approach:
  - analysis of risks and opportunities by Purchasing category, prioritized by country. Each Purchasing category is evaluated using a shared method based on the 7 dimensions of CSR weighted by country risk (Governance, Environment, Health & Safety, Societal Impact, Human Rights, Development of Human Resources, Ethics and Anti-Corruption),
  - a mitigation plan and the definition of supplier qualification and selection criteria using the analysis above. As these plans and criteria are specific, they may include document audits or on-site audits,
  - establishment of specific contract clauses to strengthen our requirements. These may include the application of penalties in the event of non-compliance,
  - the performance delivered by the suppliers, measured periodically in the context of the Business reviews and the associated revised improvement plans,
  - finally, in the context of continuous improvement, all the preceding steps are integrated within the internal control and audit processes;
- implementation with the Group's preferred suppliers (~250) first, then with the major supplies for each BU in the Group.

This bold ambition will be achieved via a progressive, ongoing training program that began in 2013 within the Purchasing function and the BUs, which covers the Group's challenges, strategy, the contribution of the Purchasing function to the transformation of the Group, ethics in supplier relationships and, specifically in 2018, as part of training offered to 840 stakeholders in the Purchasing function, the advanced purchasing levers that integrate the requirements of new laws (Duty of vigilance and Sapin 2).

In addition, all meetings of the Purchasing function managers include sessions to increase awareness of CSR issues, as do meetings organized with purchasing advisors and operational staff involved in the Purchasing process.

This training plan acts as a lever for the development of greater expertise and the transformation of the function.

3.8 Ethics and Compliance

The Group's senior executives, particularly the Chief Executive Officer, the General Secretary and all other members of the Executive Committee, drive and oversee the Group's ethics and compliance policy and ensure that it is properly applied.

A strong message of "zero tolerance" with respect to all forms of fraud and corruption is regularly communicated by the Chief Executive Officer. The same message is conveyed by all managers at all Group levels.

ENGIE's principles of action are based on international standards, in particular those aimed at combating corruption and fraud, protecting human rights and protecting personal data.

The Group has taken a proactive stance in the fight against corruption by joining the United Nations Global Compact – the tenth principle of which relates to combating corruption – and the French chapter of the NGO Transparency International.

ENGIE implements an ethics and compliance program structured around the following pillars:

3.8.1 Organization and structure

Ethics and compliance within the Group are overseen by the Board of Directors via its Ethics, Environment and Sustainable Development Committee (EESDC).

The Compliance Committee assesses the handling of ethical incidents and monitors the process for updating the Group's ethics and compliance framework. Chaired by the Group's General Secretary, the Committee consists of the Group Internal Audit Director, the Group Internal Control Director, the Group Legal Director, and the Group Ethics, Compliance and Privacy Director.

Reporting in functional terms to the General Secretary within the Legal Department, the Group Ethics, Compliance and Privacy Department manages the integration of ethics into the Group's strategy, management and practices. It proposes ethics and compliance policies and procedures for the Group and works with all organizational levels to help implement them. Since 2018, the Group Ethics, Compliance & Privacy Department has expanded its scope of intervention to become the competent department for all issues requiring the establishment of a compliance procedure.

The Group Ethics, Compliance and Privacy Department is thus responsible for personal data protection, export controls and embargoes, interest representation and trade secrets. It coordinates the implementation of the Group's vigilance plan (see Section 3.9) and deals with whistleblower reports arising under the Group procedure which it manages. The Ethics, Compliance and Privacy Department leads the network of Ethics & Compliance Officers and Data Protection Managers throughout the Group.

3.8.2 Risk assessment

The assessment of ethical risks is included in the Group's risk analysis process (Enterprise Risk Management or ERM). Five ethical risks have been identified: corruption; human rights violation; failure to take account of competition law and/or embargoes; fraud; and lack of ethics management. These are reported via a reporting tool. The Group's risk analysis approach also includes the risk related to the handling of personal data and the risk of non-compliance with the GDPR (General Data Protection Regulation). The process for assessing corruption risks, human rights violation risks and data privacy risks uses a common analysis methodology for all BUs (a self-diagnostic scorecard on corruption risk, a checklist regarding human rights violations risk and guidelines on the assessment of the risk of personal data breaches).

3.8.3 Reference texts

ENGIE's ethics and compliance policy aims to develop an ethics culture and practice based on:

- the Ethics Charter , which establishes the general framework for the professional conduct of every employee. It specifies ENGIE's four fundamental ethical principles. It also describes the Group's ethics and compliance organization;
- the Practical Guide to Ethics relating to the day-to-day application of ethics. It includes the Group's decision to refrain from any financing of political activities, including in countries where such funding is authorized and regulated by law.

These two documents apply to all Group employees and are shared with external stakeholders.

The "Integrity" reference system is a collection of policies and procedures for preventing fraud, corruption and influence peddling. In 2019, policies on business consultants and the entire ethical due diligence field and procedures, related to the duty of vigilance (stakeholders, corporate patronage, charitable giving, suppliers, and business consultants) were revised.

The "Human Rights" reference system and policy comprise ENGIE's commitments to respect internationally-recognized human rights and specify the operational processes for analyzing and managing risks so that the Group can be vigilant about the impact of its activities on the human rights of all individuals. The referential and policy are the cornerstones of the human rights component of the Group's vigilance plan.

The "Ethics Compliance" reference system sets out how the Group implements the Group ethics and compliance programs and measures compliance. It also includes the Group's procedures for complying with rules on embargoes and export controls, competition law and personal data protection. The requirements of European Regulation 2016/679 on personal data protection are contained in the Group's personal data protection policy, rolled out in 2017. These requirements resulted in the definition and implementation of procedures and reviews, maturing in 2019, which are being pursued by the integration of privacy by design currently under way. Lastly, on January 1, 2019, new guidelines were rolled out within the Group relating to the identification of weak signals in the area of ethics.

Codes of conduct are used to apply ENGIE's ethics commitments to business practices and operations. The codes of conduct include, for example, the "Ethics of Business Relationships: Governing Principles", the "Code of Conduct in Supplier Relations," and the "Code of Conduct on Lobbying". Finally, with regard to interest representation, the Group has had a simple reporting procedure and tool in place since 2017, so that all of the entities concerned can comply with their legal obligations, particularly with regard to the reporting obligation to France's High Authority for Transparency in Public Life, pursuant to the law on "transparency, the fight against corruption and the modernization of economic life" (Sapin 2 law).

These documents are available on the website via the following link: **www.engie.com.**

3.8.4 Whistleblowing and reporting of ethics incidents

The Group's new whistleblowing policy was defined in 2017. It includes the legal requirements of Sapin II and those of the law on the duty of vigilance. On July 1, 2018, a new procedure for collecting alerts was set up at the central level, via the email address *ethics@engie.com*, together with a dedicated telephone number, both of which are outsourced to an external service provider in charge of the two whistleblowing channels. This new procedure was opened to all of the Group's staff worldwide on January 1, 2019. Alerts may be received in several languages and the service is available 24/7. The Group's whistleblowing system is an addition to the Group's other reporting routes, which enable any employee, as well as any person outside the Group, to report suspicions of or actual breaches of ethics rules. In 2019, 183 referrals were made within this framework.

Ethical failures are monitored using the *INFORM'ethics* reporting tool, which has been rolled out in the BUs and Corporate… It covers seven areas: accounting and financial integrity, conflicts of interest, social responsibility and human rights, business ethics, confidential information, the protection of intangible assets, and data privacy. In 2019, 282 incidents were reported (218 in 2018, 199 in 2017).

3.8.5 Training and awareness

The Group conducts a series of awareness campaigns and training programs: these include mandatory awareness seminars on fraud and corruption risk for all new Group managed roles (GMRs) (86% of GMRs took part in 2019), for members of the BU Executive Committees and for members of the ethics and compliance networks. The training for purchasers from the purchasing line (see also Section 3.7 "Purchasing, subcontractors and suppliers") has changed to include all the challenges associated with fraud and corruption risk and duties of vigilance. A new e-learning module competition law has been rolled out across the entire Group, and training on institutional relations in France has been implemented. Training for Data Protection Managers and training in human rights continued in 2019.

Awareness-raising through videos continued in 2019 (gifts, invitations, corruption, whistleblowing, human rights, conflicts of interest) for all of the Group's employees. The Group also provides all BUs, entities, métiers and NewCorp functions with training modules that can be tailored to employees based on their exposure to ethical risks, particularly the employees most exposed to corruption risk. An automatic *reporting* system for distance training has been established throughout the Group.

3.8.6 Controls and certifications

The monitoring of the implementation of the ethics and compliance policy is based on an annual compliance procedure and a dashboard of some 15 indicators (including the dissemination of ethics documentation, training, and the implementation of ethics policies).

At each organizational level, the Ethics & Compliance Officers produce an annual report on the work and progress accomplished by their entity in this area. This report is submitted to the relevant supervising entity and accompanied by a compliance letter from the manager certifying his or her commitment to the application of the ethics and compliance program within the organization for which he or she is responsible. At the start of the year, a bilateral assessment of the activities and risks of each BU is carried out by the Ethics, Compliance & Privacy Director. The consolidated annual report resulting from this process is submitted to the Group's Executive Committee and to the Ethics, Environment and Sustainable Development Committee.

Key controls aimed at ensuring compliance with the Group's ethics and compliance reference texts are incorporated into the INCOME internal control program. This compliance procedure is part of a broader control procedure: a control of different policies is incorporated into each audit campaign, and there are annual internal control campaigns on the implementation level of ethical, embargo and data privacy policies.

Internal audits are performed to assess the effective implementation of the policies and of the GDPR compliance program and, where applicable, define areas for improvement.

The Group is also engaged in external audits of its ethics and compliance framework. In 2015, the Group was awarded anti-corruption certification by Mazars, an accounting and auditing firm, and by ADIT, a business intelligence firm. In 2018, the Group obtained ISO 37001 certification for its anti-corruption management systems, which was renewed in 2019. This certification was delivered by ETHIC Intelligence, a certification agency specializing in the certification of corruption prevention programs which abides by the requirements of the ISO/IEC 17021-1 & 9 standard.

The certification audit was carried out at the ENGIE Group level and at several operating entities, a scope that covers all of the Group's activities, both geographically and in terms of the occupational sectors. In this context, in 2019, a certification control audit was carried out on all of these activities, also concerning new entities, and the Group's certification was confirmed.

3.9 Vigilance Plan

This section summarizes the ENGIE Group's Vigilance Plan and reports on its operational implementation [(1)].

The vigilance plan covers all the measures established by ENGIE SA to prevent for its activities and those of its controlled subsidiaries (pursuant to Article L. 233-1 of the French Commercial Code), serious violations of human rights and fundamental freedoms, the health and safety of individuals and the environment according to its ethical and social responsibility commitments. The Group's adherence to international standards on human rights, including the health and safety of persons and the environment is the minimum basis for commitments that the Group intends to apply wherever it operates.

The plan is based on the different processes to identify and prevent the Group's risks specific to each issue or scope of vigilance, and which have already been deployed over several years, and on a common alert system. Completely backed by the ethics organization, it benefits from steering, governance and dedicated monitoring.

3.9.1 Identification and management of the risks of serious harm to individuals and the environment

The Group exercises vigilance through different policies that cover all the issues described in the plan, and regular procedures to identify and assess risks, determine goals and follow-up processes and evaluate their effectiveness.

The 300 ethical due diligence procedures carried out in 2019 by ENGIE's safety department and the 92due diligence procedures carried out by external providers all involve a study relating to breaches or suspected breaches of rules on human rights, health and safety and the environment.

Prevent and manage the risks related to human rights

The major risks of negative impacts on the human rights of any individual due to the Group's activities are related to the fundamental rights of workers (health and safety at work, freedom of association, non-discrimination, interdiction of forced labor and child labor, working hours, housing conditions for workers), the rights of local communities (consequences for health and living conditions of local communities, displacement and rehousing of populations), the security of employees and sites (practices of private and public security forces, safety of employees in at-risk countries) and the practices of partners and suppliers (as conditions of energy supply or practices of commercial partners in the projects).

The Group's human rights policy, adopted in 2014, specifies the Group's commitments and provides for regular processes to identify and manage risks so that each entity ensures compliance in their activities and commercial relations. In particular, every year, the entities must assess their activities with regard to their impact on human rights, via a dedicated questionnaire (ERM process), as well as any new business activity (dedicated questionnaire aimed at identifying the risk factors specific to the activity considered, relating to the country, the activity, the presence of vulnerable populations, the products/services used, and business relations). Business partners and suppliers are also subject to ethical due diligence procedures, explicitly including human rights. The monitoring of the application of these processes is incorporated into the ethics compliance report (quantitative indicators) and into the internal control system.

In 2019, six BUs were regarded as having strong related human rights risks, either because of their country of activity or their type of activity.

At the operational level, the specific risks identified are the subject of specific action plans (for examples of responses, please refer to the website dedicated to the Vigilance Plan). At the Group level, the risk identification tools were refined in 2019 to take its new activities into account. Face-to-face training on the Group's human rights approach was developed. A new e-learning module on human rights for all employees was launched.

(1) More detailled information on the Vigilance Plan and its implementation is available on the Group's website at: htpps://engie.com/ethique-compliance/plan-vigilance

The Purchasing reference system, which included an ethics and vigilance clause, was reinforced in 2019 through the updating of the Code of Conduct for relations with suppliers to incorporate the requirements of the conventions of the International Labor Organization on fundamental workers' rights. Emphasis was also placed on measures to combat discrimination against discrimination and harassment of anyone working within the Group, including the staff of its subcontractors.

Prevent and manage the risks related to the health, safety and security of individuals

The health, safety and security risks mapping includes, on one side, the risks of damage to the health, safety and security of individuals working for the Group, employees, temporary workers and subcontractors and, on the other side, the risks related to the Group's industrial assets or those which the Group maintains and/or operates on behalf of customers, which could generate risks for individuals working for the Group or for residents living near these industrial assets.

Annual reviews are carried out on the identification of the risks arising from the Group's activities, their assessment and the follow-up of the treatment action plans. The ENGIE Group has developed control processes to ensure the implementation of actions and the achievement of objectives [(1)]. A comprehensive health and safety report is presented annually to the Executive Committee and the EESDC.

In 2019, actions aimed at reducing the accident frequency rate work were continued. A specific "No Life At Risk" program was deployed within the Group to strengthen the culture of safety among employees and subcontractors, and the commitment to implement the Group's basic rules intended to prevent serious or fatal accidents, particularly compliance with the Group's Life-Saving Rules, the identification and control of risks, the identification and treatment of situations and events with high potential severity, work shutdowns if safety conditions are not gathered met (see also, for further details, Section 3.4.6 "Health and safety policy").

These various provisions were supplemented in 2019 with:

- a communication campaign to strengthen the risk analysis of the activity just before starting it, in order to manage the risks more effectively (last minute risk assessment);
- a review of training of managers aimed at strengthening their leadership in health and safety: the training was supplemented in particular with various tools available to managers, employees, temporary workers and subcontractors to prevent serious and fatal accidents;
- the deployment of an e-learning system for anchoring rules in memory®.health-security-safety fundamentals for all company employees;
- the establishment of a rule dedicated on the promotion of a fair health and safety culture, intended to reinforce virtuous behavior, in particular proposals for technical or organizational changes, and to establish a system of sanctions proportionate to the severity of the discrepancies observed.

The Group has a policy to protect individuals from malicious acts, whether they are employees or subcontractors at the sites at which they normally work, or employees on a mission or expatriates. The prevention and protection measures are adopted on the basis of the criticality of the geographic region in which the individual is located. This criticality is continually assessed in collaboration with local authorities (see also Section 2.8 "Social and societal risks").

Preventing and managing environmental and societal risks

The environmental risks identified by the Group are related to Water (scarcity of the resource and pollution in the event of discharge), Biodiversity (degradation of ecosystems), Air (emission of atmospheric pollutants), Soil (soil pollution) and Waste (pollution and waste treatment). These local environmental risks are identified annually at the sites level and allow a list of sites "at risk" to be established.

In addition to these local risks, ENGIE takes into account global risks, in particular the climatic risk. (Cf. Section 3.1). From a societal point of view, the risks analyzed are the impact of activities on local communities and their social consequences.

The Group's CSR Policy[(2)] guides the vigilance process with regard to environmental and social matters. Environmental and societal risks are analyzed periodically at every level of the company. CSR analysis criteria make it possible to identify risks, such as climate change, biodiversity, air, water, and soil and take them into account before starting projects. In collaboration with the local stakeholders, each industrial site identified as being "at risk" draws up an action plan that includes all of these environmental aspects. From a societal point of view, risks analyzed are the activities' impact on local communities and their social consequences. The Group's CSR policy aims to institute action plans at various levels to avoid, reduce, and if necessary, offset the environmental and societal impacts of the Group's activities. This policy is deployed in each BU, subsidiary, and site. Its implementation is monitored through goals and action plans that are reviewed every year. This review process enables us to make sure our obligations, with respect to environmental and societal vigilance, are properly satisfied.

In 2019, the monitoring of the implementation of the action plans at sites presenting a potential environmental risk was included in the environmental reporting. The BUs with industrial sites have all contributed. Approximately 20% of the sites are subjectto action plans. Furthermore, 53% of industrial activities were covered by an appropriate mechanism for dialogue with stakeholders. And in collaboration with the departments responsible for major projects and training, the CSR Department trained business developers and project managers of 6 entities/business units to its methodology of dialogue with the stakeholders in their activities. In addition, the CSR Department supports the operational teams in their dialogue processes on a daily basis. For more information: https://www.engie.com/analystes-rse/gouvernance/devoir-de-vigilance-des-risques-environnementaux-et-societaux/

(1) Such as health and safety discussions held at each Executive Committee meeting, a reporting system of indicators dedicaded to the health and safety of its employees and that of subcontractors working on its sites, and annual performance reviews with the Group's various BUs.

(2) For more details on this policy, see Section 3.2 "Societal responsability".

Prevent and manage risks related to energy supply

The social and environmental risks related to the Group's energy supply (coal, biomass, natural gas and LNG) have been identified as a specific issue of vigilance for the Group. They are managed directly by the Global Energy Management (GEM) BU, which has partially identified the risks specific to each of its activities (by energy source, by country, etc.) as well as the relevant players and the responses to address these risks, particularly through existing sector initiatives. A CSR strategy was formalized to meet these challenges, with specific action plans per energy source.

In 2019, within the GEM BU, the governance structure was strengthened in 2019 to ensure that the duty of vigilance is included in decision-making processes and the supply chain risk assessment approach was systematized. A new strategy focused on the social and environmental aspects was also developed.

Prevent and manage the risks related to non-energy purchases

The Group procurement Governance, the document governing the management system, was revised in 2019 to strengthen the role of the Chief Procurement Officer of the BU, particularly with regard to ethics. On this basis, an analysis of ethical risks must be carried out in each BU, taking into account the occupational sectors, procurement categories and spend, organizations and projects. The rotation of the individuals in the Purchasing function engaged in the supplier relationship is encouraged.

Risk prevention also takes place through the implementation of three operational processes, "Manage the Purchase categories", "Buy & Supply" and "Manage the supplier panel", the management system of the non-energie purchases incorporates the requirements related to human rights, health and safety at work, ethics and the environment.

The prevention plan under the duty of vigilance is implemented through the Purchasing Process by following the following key steps:

- analysis of risks and opportunities by Purchasing category and by country (amended in 2019 with our partner EcoVadis);
- associated management plan (qualification and selection criteria for preferred suppliers, need for an audit, due diligence, supplier data accessible via the Procurement Information Center, etc.);
- incoporation of contract clauses on ethics, GDPR, etc.;
- measurement of the performance delivered by the suppliers and related improvement plans.

In addition, the partnership launched in late 2018 with an external provider (ECOVADIS) was extended in 2019 to assess the CSR impact of the Group's 250 preferred suppliers in four areas (Environment, Work and Human Rights, Ethics and Sustainable Purchasing). In June 2019, the CSR assessment of suppliers was extended to the Major Suppliers of the BUs to cover a panel of around 1,400 existing suppliers in nearly 70 countries and representing a significant portion of expenditure.

Alongside the assessment of the suppliers, the partner ECOVADIS created a risk map covering all of the Group's purchasing categories. This risk mapping confirmed that six purchasing categories were high risk, with all areas combined: engineering and turnkey installation, wind power, lighting, construction and civil engineering, industrial piping and steel structure, mechanical equipment and services. This risk matrix, together with a set of recommendations, enables selection criteria and means of limiting risks to be defined for new suppliers.

Lastly, as the assessment of the Group's new preferred suppliers is automatically implemented during the tender phase, the Group can carry out the pre-requisite full due diligence procedure before contract signature.

3.9.2 Alert mechanism and collection of alerts

In the context of the application of the Sapin 2 law and the law on the duty of vigilance, in 2018 the Group deployed a new alert system common to the entire Group and defined a new policy on whistleblowers. On January 1, 2019, information about this alert system was specifically communicated to all employees via a mailing, videoscribing and poster campaign, with particular visibility on the Group's website, and was presented to the employee representative bodies via the existing committees at Group level, such as the European Works Council.

This system [1] is open to all employees, both permanent and temporary, and to all its external stakeholders, and covers all the vigilance issues.

An alert can be issued, anonymously or not, via email (ethics@engie.com) or a free telephone call. It is received by an external service provider that transmits the report anonymously to ENGIE for processing.

In 2019, 183 alerts were received via the system, 96 of which concern subjects related to the duty of vigilance ("social responsibility and human rights category"). Most of these alerts concern allegations relating to the interpersonal relationships between employees or bullying.

(1) *Fore more information on the system, please see: https://www.engie.com/ethique-et-compliance/notre-approche/dispositif-alerte-2/*

3.9.3 Steering, governance and follow-up of deployment of the plan

Steering and follow-up at the highest corporate level

The Group has set up monitoring and global coordination at the highest level to ensure that it can meet the law's objectives in an effective and coordinated way. The Group's vigilance plan was validated by the Group's Executive Committee on January 22, 2018, which entrusted management to the Ethics, Compliance & Privacy department, under the responsibility of the General Secretary. A report on the effective implementation of the plan is presented annually to the EESDC of the Board of Directors. Coordination and deployment of the plan is monitored by a specific, groupwide committee [1] whose mission is to ensure an effective ENGIE SA process for the Group, to successfully disseminate the plan and to increase awareness among the entities, as well as to facilitate the feedback of information for the legal reporting requirement. In addition, each entity must ensure that the Vigilance Plan is known and properly rolled out at its level and within its direct and indirect subsidiaries. The monitoring of these actions by the entities is included in the annual compliance report.

Stakeholder relations

The plan and the progress made in its implementation are presented and regularly discussed with the employee representative bodies via the existing committees at Group level, such as the European Works Council, and moreover, the EESDC, and the Board of Directors. At the local level, the entities were also specifically asked to present the vigilance plan and the legal obligations to their employee representative organizations.

Such as health and safety discussions held at each Executive Committee meeting, a reporting system of indicators dedicated to the health and safety of its employees and that of the subcontractors working on its sites, and annual performance reviews with the Group's various BUs.

(1) The monitoring committee is composed of the four main sectors concerned by the operational implementation of the plan: the Ethics, Compliance and Privacy Department and the Corporate Social Responsibility Department, which co-chair the committee, the Global Care Department and the Sourcing Strategy and Purchasing Department; the Legal, Audit and Internal Control support functions; and the BUs considered to be the greatest risk in terms of vigilance: MESCAT BU, Asia-Pacific BU, Latin America BU, GEM BU and UK BU.

3.10 Independent third party's report on consolidated non-financial statement presented in the management report

Year ended December 31st, 2019

To the General Assembly,

In our quality as an independent verifier, accredited by the COFRAC under the number n° 3-1681 (scope of accreditation available on the website www.cofrac.fr), and as a member of the network of one of the statutory auditors of ENGIE (hereafter "entity"), we present our report on the consolidated non-financial statement established for the year ended on the 31 December 2019 (hereafter referred to as the "Statement"), included in the management report pursuant to the requirements of articles L. 225 102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code de commerce*).

The entity's responsibility

The Board of Directors is responsible for preparing the Statement, including a presentation of the business model, a description of the principal non-financial risks, a presentation of the policies implemented considering those risks and the outcomes of said policies, including key performance indicators.

The Statement has been prepared in accordance with the entity's procedures (hereinafter the "Guidelines"), the main elements of which are presented in the Statement and are available upon request at the Company's headquarters from the Group Environmental and Social Responsibility Department, the Group Health and Safety Department and the Group Human Resources Department.

Independence and quality control

Our independence is defined by the requirements of article L. 822-11-3 of the French Commercial Code and the French Code of Ethics (*Code de déontologie*) of our profession. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with applicable legal and regulatory requirements, the ethical requirements and French professional guidance.

Responsibility of the independent third party

Based on our work, our responsibility is to provide a report expressing a limited assurance conclusion on:

- the compliance of the Statement with the requirements of article R. 225-105 of the French Commercial Code;
- the fairness of the information provided in accordance with article R. 225 105 I, 3° and II of the French Commercial Code, i.e., the outcomes, including key performance indicators, and the measures implemented considering the principal risks (hereinafter the "Information").

However, it is not our responsibility to comment on the entity's compliance with other applicable legal and regulatory requirements, in particular the French duty of care law and anti-corruption and tax avoidance legislation nor on the compliance of products and services with the applicable regulations.

Nature and scope of the work

The work described below was performed in accordance with the provisions of articles A. 225-1 et seq. of the French Commercial Code, as well as with the professional guidance of the French Institute of Statutory Auditors ("CNCC") applicable to such engagements and with ISAE 3000 (1).

- we obtained an understanding of all the consolidated entities' activities and the description of the principal risks associated;
- we assessed the suitability of the criteria of the Guidelines with respect to their relevance, completeness, reliability, neutrality and understandability, with due consideration of industry best practices, where appropriate;
- we verified that the Statement includes each category of social and environmental information set out in article L. 225 102 1 III as well as information regarding compliance with human rights and anti-corruption and tax avoidance legislation;
- we verified that the Statement provides the information required under article R. 225-105 II of the French Commercial Code, where relevant with respect to the principal risks, and includes, where applicable, an explanation for the absence of the information required under article L. 225-102-1 III, paragraph 2 of the French Commercial Code;
- we verified that the Statement presents the business model and a description of principal risks associated with all the consolidated entities' activities, including where relevant and proportionate, the risks associated with their business relationships, their products or services, as well as their policies, measures and the outcomes thereof, including key performance indicators associated to the principal risks;
- we referred to documentary sources and conducted interviews to
  - assess the process used to identify and confirm the principal risks as well as the consistency of the outcomes, including the key performance indicators used, with respect to the principal risks and the policies presented, and
  - corroborate the qualitative information (measures and outcomes) that we considered to be the most important (2). For certain risks: « Low level of societal acceptance of activities », « Reputational », « Participation of employees », « Corruption » and « Tax non-compliance », our work was carried out on the consolidating entity, for the others risks, our work was carried out on the consolidating entity and on a selection of entities.

(1) *ISAE 3000 - Assurance engagements other than audits or reviews of historical financial information*

(2) ***Social, health and safety information:*** *results of the human resources development and mobility policies (Engie Skills, Engie Mobility, Engie University), results of the diversity policy, results of the health and safety policy.*
Environmental information: *climate change (most important sources of GHG emissions related to activity, GHG emissions reduction objectives, climate change adaptation measures), water management and management of sites under water-stress conditions, biodiversity protection.*
Societal information: *actions implemented to avoid corruption and tax evasion, results of responsible supply chain management.*

- we verified that the Statement covers the scope of consolidation, i.e. all the consolidated entities in accordance with article L. 233-16 of the French Commercial Code;
- we obtained an understanding of internal control and risk management procedures the entity has put in place and assessed the data collection process to ensure the completeness and fairness of the Information;
- for the key performance indicators and other quantitative outcomes that we considered to be the most important [(1)], we implemented:
- analytical procedures to verify the proper consolidation of the data collected and the consistency of any changes in those data;
- tests of details, using sampling techniques, in order to verify the proper application of the definitions and procedures and reconcile the data with the supporting documents. This work was carried out on a selection of contributing entities [(2)] and covers on average, 20% of the headcount and between 33% and 83% of the quantitative environmental data;
- we assessed the overall consistency of the Statement based on our knowledge of all the consolidated entities.
- We believe that the work carried out, based on our professional judgement, is sufficient to provide a basis for our limited assurance conclusion. A higher level of assurance would have required us to carry out more extensive procedures.

Means and resources

Our verification work mobilized the skills of 12 people and took place between September 2019 and March 2020 on a total duration of intervention of about 30 weeks.

We conducted about ten interviews with the persons responsible for the preparation of the Statement in particular representing Human Resources, Health and Safety, and the environment.

Conclusion

Based on the procedures performed, nothing has come to our attention that causes us to believe that the consolidated non-financial statement is not presented in accordance with the applicable regulatory requirements and that the Information, taken as a whole, is not presented fairly in accordance with the Guidelines, in all material respects.

Paris-La Défense, March 10th, 2020

Independent third party

EY & Associés

Jean-François Belorgey	Alexis Gazzo
Associé	Associé, Développement Durable

(1) *Social, health and safety information: Total workforce, Total workforce - Breakdown by SPC, Total workforce – Breakdown by type of contract, Female workforce, Proportion of women in workforce, Proportion of women in management, Proportion of workforce trained, Proportion of trainees in the workforce, Proportion of disabled employees, Number of permanent hires, Number of fixed-term hires, Hiring rate, Permanent hiring rate, Number of lay-offs, Turnover, Voluntary turnover, Proportion of workforce trained, Total number of training hours, Number of training hours per person trained, Days of absence per person, Number of fatal accidents (employees), Frequency rate, Severity rate (French framework), Severity rate (ILO framework), Engagement level from the Engie&Me survey, Proportion of women in senior management positions, Proportion of non-French and non-Belgian senior managers, Proportion of Group entities that have a process that ensures training in the "life-saving rules" for subcontractors, Proportion of Group entities that have a process that ensures the identification and management of potentially serious events.*
Societal information: BtoC customer satisfaction level, Training of the employees most exposed to corruption risk.
Environmental information: Percentage of relevant revenue covered by an EMAS certification, Percentage of relevant revenue covered by an ISO14001 (non-EMAS) certification, Renewable – Net installed power (electric and thermal), Renewable – Electricity and heat produced, Primary energy consumption – total (excluding own consumption), Electricity and thermal energy consumption (excluding own consumption), Energy efficiency of fossil fuel plants (including biomass/biogas), Total direct GHG emissions - scope 1, Indirect emissions related to energy ("Scope 2"), GHG emissions per business unit – energy generation, Fresh water – Total withdrawal, Fresh water - Total discharge, Non-fresh water - Total withdrawal, Non-fresh water - Total discharge, Total Consumption (fresh water and non-fresh water), Total quantity of non-hazardous waste and by-products discharged (including sludge), Total quantity of non-hazardous waste & by products recovered (including sludge), Total quantity of hazardous waste and by-products discharged (including sludge and excluding radioactive waste), Total quantity of hazardous waste and by-products recovered (including sludge and excluding radioactive waste), NOx emissions, SO2 emissions, Fine particle emissions.

(2) *Social, health and safety information: Audits performed at the BU level: France Renewable Energy BU and North, South and Eastern Europe BU. Audits performed at entities level: France BtoC BU: Direction des Tarifs Réglementés ; France Networks BU: Cofely Réseaux Etablissement ; United Kingdom BU: ENGIE Services ; Middle East, South and Central Asia, and Turkey BU: SUEZ Tractebel Operation & Maintenance (Oman), Other BU: ENGIE SA Corporate activities.*
Environmental information: Audits performed at the BU level: United Kingdom BU. Audits performed at entities level: France Renewable Energy BU: CN'AIR, Compagnie Nationale du Rhône ; France BtoB BU: ENGIE COFELY installations – East-North Territory, ENGIE energy production and distribution subsidiaries – East-North Territory, France Networks BU: Climespace ; Generation Europe BU: Coo, DK6 (Dunkerque), Knippegroen, SPEM (Montoir), Maxima, Amercoeur, Eems power plants ; Benelux BU: Doel, Tihange ; North, South and Eastern Europe BU : ENGIE Servizi ; Latin America BU: ENGIE Generación Monterrey, Mejillones, Tocopilla and Inversiones Hornitos power plants (ENGIE Energia Chile) ; Brazil BU: Salto Santiago, Companhia Energecia Estreito, Machadinho, ITA Energetica and Jorge Lacerda power plants (ENGIE Brasil Energia); Asia-Pacific BU : Pelican Point power plant ; Storengy BU: Chémery storage site.

3.11 Statutory auditors' reasonable assurance report on selected social and environmental information

Year ended December 31, 2019

Pursuant to your request and in our capacity as Statutory Auditors of ENGIE (the "Company"), we performed a review in the aim of providing reasonable assurance on the environmental and social indicators selected by ENGIE and identified by the symbols ■■ in sections 3.4 and 3.5 of the Universal Registration Document for fiscal year 2019 (the "Data" [1]).

Responsibility of the Company

The Data has been prepared under the responsibility of ENGIE executive management, in accordance with the criteria used by the company (hereinafter the "Reporting Criteria") for social and environmental reporting data, a summary of which appears in the Universal Registration Document in the section "Methodological elements" and "Note on the methodology of social indicators", available upon request at the Company's headquarters from the Group Environmental and Social Responsibility Department, the Group Health and Safety Department and the Group Human Resources Department.

Independence and quality control

Our independence is defined by regulatory texts, the profession's Code of Ethics as well as the provisions set forth in Article L.822-11-3 of the French Commercial Code (Code de commerce). Furthermore, we have set up a quality control system that includes the documented policies and procedures designed to ensure compliance with ethical rules, professional standards and the applicable legal texts and regulations.

Responsibility of the Statutory Auditors

Based on our work, our responsibility is to express reasonable assurance on the fact that the Data has been prepared, in all material aspects, in accordance with the Reporting Criteria. The conclusions expressed here below cover only this Data and not all of the information set forth in sections 3.4 and 3.5 of the Reference Document.

We have performed the procedures described below in accordance with the professional guidance issued by the national auditing body (Compagnie nationale des commissaires aux comptes) relating to this operation and ISAE 3000 [2].

- We have assessed the appropriateness of the Reporting Criteria with respect to its relevance, completeness, reliability, neutrality and clarity, by taking into consideration, when relevant, the sector's best practices;
- We have verified the set-up of a process to collect, compile, process, and check the completeness and consistency of the Data;
- We have interviewed the relevant staff from the Group Environmental and Social Responsibility Department, the Group Health and Safety Department and the Group Human Resources Department at the headquarters and Business Units (hereinafter "BUs") in order to analyze the deployment and application of the Reporting Criteria ;
- We have set up analytical procedures on the Data and verified, using sampling techniques, the calculations as well as the consolidation of Data ;
- We have tested the Data for a representative sample of entities that we selected [3] based on their activity, their contribution to the consolidated Data, their location and a risk analysis. We have conducted interviews to verify the proper application of procedures and conducted substantive tests, using sampling techniques, to verify the calculations performed and reconcile data with supporting evidence. The selected sample represented 50% of the workforce and between 15% and 61% of the environmental information.

(1) ***Social, health and safety information:*** *Total workforce, Total workforce - Workforce by geographic region, Total workforce - Breakdown by SPC, Total workforce – Breakdown by type of contract, Female workforce, Proportion of women in workforce, Proportion of women in management, Proportion of workforce trained, Frequency rate.*
Environmental information: *Primary energy consumption – total (excluding own consumption), Electricity and thermal energy consumption (excluding own consumption), Energy efficiency of fossil fuel plants (including biomass/biogas), Renewable – Net installed power (electric and thermal), Renewable – Electricity and heat produced, Total quantity of hazardous waste and by-products discharged (including sludge and excluding radioactive waste), Total quantity of hazardous waste and by-products recovered (including sludge and excluding radioactive waste), Total direct GHG emissions - scope 1, Total direct GHG emissions - scope 2, GHG emissions per business unit – energy generation.*

(2) *ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.*

(3) ***Social, health and safety information:*** *Audits performed at BU level: France Renewable Energy BU; Benelux BU; North, South and Eastern Europe BU; Tractebel Engineering BU Audits performed at entities level: France BtoB BU: INEO, ENDEL; France BtoC BU: Direction des Tarifs Réglementés; France Networks BU: Cofely Réseaux Etablissement; United Kingdom BU: ENGIE Services; North America BU: Unity International Group, ENGIE Insight Services ; Latin America BU: IMA Industrial; Brazil BU: ENGIE Brasil Serviços de Energia; Middle East, South and Central Asia, and Turkey BU: SUEZ Tractebel Operation and Maintenance (Oman); Asia-Pacific BU: ENGIE Services Singapore; GRTgaz BU: GRTgaz; Elengy BU: Elengy; Other BU: ENGIE SA Corporate activities.*
Environmental information: *Audits performed at BU level: United Kingdom BU. Audits performed at entities level: France Renewable Energy BU: CN'AIR, Compagnie Nationale du Rhône; France BtoB BU: ENGIE energy production and distribution – East-North Territories; France Networks BU: Climespace; Generation Europe BU: Coo, DK6 (Dunkerque), Knippegroen, SPEM (Montoir), Maxima, Amercoeur and Eems power plants; Benelux BU: Doel, Tihange; North, South and Eastern Europe BU: ENGIE Servizi; Latin America BU: ENGIE Generación Monterrey, Mejillones, Tocopilla and Inversiones Hornitos power plants (ENGIE Energia Chile); Brazil BU: Salto Santiago, Companhia Energecia Estreito, Machadinho, ITA Energetica and Jorge Lacerda power plants (ENGIE Brasil Energia); Asia-Pacific BU: Pelican Point power plant; Storengy BU: Chémery storage site.*

We believe that the sampling methods and sizes of the samples we have used in exercising our professional judgment enable us to express a reasonable assurance. Due to the use of sampling techniques and the other limits inherent to the operations of any information and internal control system, the risk that a material anomaly be identified in the Data cannot be totally eliminated.

We believe that these procedures enable us to express reasonable assurance on the Data.

Conclusion

In our opinion, the information selected by the Group and identified by the sign ■■ in sections 3.4 and 3.5 of the Universal Reference Document have been prepared, in all material aspects, in accordance with the Reporting Criteria.

Paris-La Défense, March 10, 2020

The Statutory Auditors

DELOITTE & ASSOCIES		ERNST & YOUNG et Autres	
Olivier Broissand	Patrick E. Suissa	Charles-Emmanuel Chosson	Stéphane Pédron
Associé	Associé	Associé	Associé

4

Governance

The information presented in this section forms the report of the Board of Directors on corporate governance, prepared in accordance with the provisions of the final paragraph of Article L. 225-37 of the French Commercial Code. This report was prepared on the basis of the decisions of the Board of Directors. The sections of the report relevant to the activities of the respective Board committees were presented to them before the report was approved by the Board at its meeting of February 26, 2020 (the changes to the composition of the Board of Directors proposed at the Shareholders' Meeting of May 14, 2020 are set out in Section 4.2.2).

This Report includes the information below regarding the composition of the Board of Directors, the conditions under which it prepared its work, and any limits imposed by the Board of Directors on the powers of the Executive Board. It also covers ENGIE's policy on diversity of expertise within the Board. This report sets out, in Section 4.4 "Compensation and benefits of members of the administrative and management bodies", the applicable provisions, principles and rules established to determine the compensation and benefits of any kind awarded to corporate officers.

4.1 Corporate governance bodies

4.1.1 Composition of the Board of Directors

Pursuant to Article 13 of the Company by-laws and the provisions of Articles L. 225-17, L. 225-23 and L. 225-27 of the French Commercial Code, the Board of Directors of ENGIE is composed of a maximum of 22 members, including three Directors who represent the Group's employees and one Director who represents employee shareholders.

The Directors serve a four-year term. The terms of office of Directors elected by the General Shareholders' Meeting expire at the close of the General Shareholders' Meeting convened in the year during which the term expires to approve the financial statements for the previous year.

The replacement of Directors appointed by the General Shareholders' Meeting, whose positions have become vacant during the term of office, due to death or the resignation of one or more Directors' seats, is subject to the laws and regulations in force. Note that these measures may not be applied in the event of the vacancy, for any reason, of the seat of a Director elected by the employees or of the seat of the Director representing the employee shareholders.

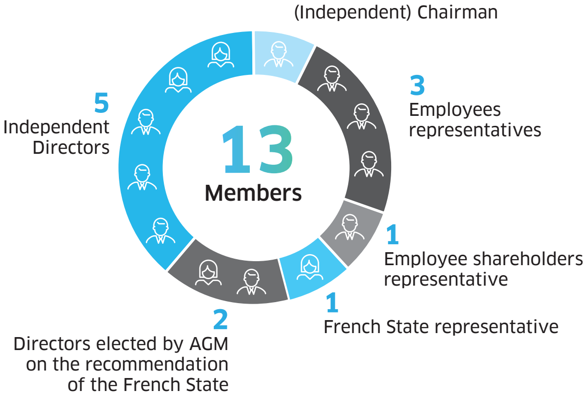
The Shareholders' Meeting of May 17, 2019 re-elected as Directors Françoise Malrieu, Marie-José Nadeau, Mari-Noëlle Jégo-Laveissière and Patrice Durand.

On February 24, 2020 Isabelle Kocher resigned from her position as Director.

On the date of this report, the Company is administered by a Board of Directors composed of 13 members, including:

- 6 Directors elected by the Shareholders' Meeting pursuant to the provisions of the French Commercial Code relating to public limited companies;
- 2 Directors elected by the Shareholders' Meeting on the recommendation of the French State pursuant to Article 6 of Ordinance No. 2014-948 of August 20, 2014, in view of the French State's interest in ENGIE's share capital;
- 1 Director representing the French State, appointed by decree under Article 4 of Ordinance 2014-948 of August 20, 2014;
- 3 Directors elected representing employees, pursuant to Articles L. 225-27 et seq. of the French Commercial Code; and
- 1 Director representing employee shareholders, pursuant to Article L. 225-23 of the French Commercial Code, elected by the Shareholders' Meeting.

The Board of Directors includes six Independent Directors (see Sections 4.1.1.1 "Experience and expertise of the Directors in office", and 4.1.1.5 "Independence of Directors in office"), making the percentage of Independent Directors 67%; pursuant to the Afep-Medef Code, the number of Directors representing employees and employee shareholders is not included in the calculation of the percentage of Independent Directors.



13 members | **40%**(1) of women | **67%** of independent

(1) In assessing the ratio of women to men on boards of Directors, the law stipulates that Director who are employee representatives - who are not elected by the Shareholders'Meeting - are not taken into account.

4.1.1.1 Experience and expertise of the Directors in office

Pursuant to the provisions of Article L.225-17 of the French Commercial Code, which established the principle of balanced gender representation on Boards of Directors, ENGIE's Board of Directors includes four female Directors from a total of 13. In assessing the ratio of women to men on Boards of Directors, the law stipulates that, currently, Directors who are employee representatives - who are not elected by the Shareholders' Meeting - are not taken into account. As the Board of Directors of ENGIE includes three Directors representing employees, the assessment is based on 10 Directors, four of whom are women (a ratio of 40%).

ENGIE also seeks to increase the diversity and international experience of its Board of Directors. Four nationalities are represented by the 13 Directors (Australian, British, Canadian and French).

SUMMARY PRESENTATION OF THE BOARD OF DIRECTORS

First and last name, gender (1) and age		Nationality	Number of ENGIE shares held (2)	Number of offices in other listed companies	Indep-endent Director	Date of initial appointment	Expiration of term	Seniority on the Board (3)	Participation in Board committees (4)
Jean-Pierre Clamadieu M, 61		French	30,000	2		5/18/2018	2022	1	Chairman of the SITC, ACGC (5)
Fabrice Brégier M, 58		French	500	1		5/3/2016	2020	3	ACGC
Françoise Malrieu F, 74		French	1,419	0		5/2/2011	2023	8	Chairman of the ACGC, Audit Committee, EESDC
Ross McInnes M, 65		French Australian	500	3		5/18/2018	2022	1	Chairman of the EESDC, Audit Committee, SITC
Marie-José Nadeau F, 66		Canadian	1,000	1		4/28/2015	2023	4	Chairman of the Audit Committee, SITC
Lord Ricketts of Shortlands M, 67		British	750	0		5/3/2016 (6)	2020	3	ACGC
Isabelle Bui F, 38		French	0	1		6/5/2019	2023	0	Audit Committee, SITC, ACGC
Patrice Durand M, 66		French	750	0		12/14/2016	2023	3	SITC
Mari-Noëlle Jégo-Laveissière F, 51		French	500	1		4/28/2015	2023	4	EESDC
Christophe Agogué M, 58		French	125	0	NA (7)	5/18/2018	2022	1	EESDC
Alain Beullier M, 55		French	51	0	NA (7)	1/21/2009	2022	11	ACGC
Philippe Lepage M, 55		French	287	0	NA (7)	4/28/2014	2022	5	SITC
Christophe Aubert M, 55		French	160	0	NA (7)	5/12/2017	2021	2	Audit Committee

(1) Female (F), Male (M)
(2) Directors co-opted or elected by the Shareholders' Meeting on the recommendation of the French State, the Director representing the French State and the Directors representing employees or employee shareholders are exempt from ownership of shares of the Company (see Section 4.1.2.1 "Chairmanship and Organization".
(3) In years elapsed
(4) SITC: Strategy, Investment and Technology Committee
ACGC: Appointments, Compensation and Governance Committee
EESDC: Ethics, Environment and Sustainable Development Committee
(5) Attends without being a member
(6) With effect from August 1, 2016
(7) Pursuant to the Afep-Medef Code, the number of directors representing employees and employee shareholders is not taken into account in calculating the percentage of independent directors; see also Section 4.1.1.5 below

CHANGES IN COMPOSITION OF THE BOARD OF DIRECTORS AND COMMITTEES IN 2019

	Departure	Appointment	Renewal
Board of Directors	Ann-Kristin Achleitner (5/17/2019) Edmond Alphandéry (5/17/2019) Aldo Cardoso (5/17/2019) Catherine Guillouard (5/17/2019) Barbara Kux (5/17/2019) Isabelle Kocher (2/24/2020)	Isabelle Bui (6/5/2019)	Patrice Durand (5/17/2019) Mari-Noëlle Jego-Laveissière (5/17/2019) Françoise Malrieu (5/17/2019) Marie-José Nadeau (5/17/2019)
Audit Committee	Edmond Alphandéry (5/17/2019) Aldo Cardoso [(1)] (5/17/2019)	Isabelle Bui (6/26/2019)	Marie-José Nadeau [(1)] (5/17/2019)
SITC	Edmond Alphandéry [(1)] (5/17/2019) Aldo Cardoso (5/17/2019) Catherine Guillouard (5/17/2019)	Jean-Pierre Clamadieu [(1)] (5/17/2019) Ross McInnes (5/17/2019) Isabelle Bui (6/26/2019)	Patrice Durand (5/17/2019) Marie-José Nadeau (5/17/2019)
ACGC		Isabelle Bui (6/26/2019)	Françoise Malrieu [(1)] (5/17/2019)
EESDC	Ann-Kristin Achleitner [(1)] (5/17/2019) Barbara Kux (5/17/2019)	Ross McInnes [(1)] (5/17/2019)	Mari-Noëlle Jégo-Laveissière (5/17/2019) Françoise Malrieu (5/17/2019)

(1) Committee Chair

Directors elected by the Shareholders' Meeting (6)

Age and nationality

61

French nationality

First appointment

5/18/2018

Expiration of term

2022

Shares held

30,000 shares

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

JEAN-PIERRE CLAMADIEU

Chairman of the Board of Directors

Jean-Pierre Clamadieu is a graduate of the École Nationale Supérieure des mines de Paris and an engineer of the Corps des mines. He began his career within the French Administration, particularly working for the Ministry of Industry and as technical advisor to the Minister of Labor. In 1993, he joined the Rhône-Poulenc group where he held several management positions. In 2003, he was appointed Chief Executive Officer of the Rhodia group, and then Chairman-CEO in 2008. In September 2011, following the merger of the Rhodia and Solvay groups, Jean-Pierre Clamadieu was named Vice Chairman of the Solvay Executive Committee. From May 2012 to the end of February 2019, Jean-Pierre Clamadieu served as Chairman of the Executive Committee and CEO of Solvay. On May 18, 2018, he was appointed Director and Chairman of the Board of ENGIE.

Participation in Board committees

Chairman of the Strategy, Investment and Technology Committee [1]

Attends without being a member the meetings of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Chairman of the Board of Directors

Offices and positions in companies outside the Group

Chairman of the Board of Directors of the National Opera of Paris

Reference Director of AXA [2], Director of Airbus [2]

Vice-Chairman of the Executive Committee of the World Business Council for Sustainable Development (Switzerland)

Member of France Industrie, the European Table for Industry and the Steering Committee of the Montaigne Institute

Offices that have expired in the last five years

Chairman of the Executive Committee and CEO of Solvay (Belgium) [2]

Director of Faurecia and SNCF

Chairman of the CEFIC (European Chemical Industry Council)

Director of the International Council of Chemical Associations (ICCA)

Chairman of the Medef sustainable development commission

Chairman of the Council of France-Brazil business leaders of Medef International

Areas of expertise

Office of Chairman or director of a large company

Executive Board

Industrial sector

(1) Since May 17, 2019

(2) Listed company

FABRICE BRÉGIER

Age and nationality

58

French nationality

First appointment

5/3/2016

Expiration of term

2020

Shares held

500 shares

Business address

ENGIE

1 place Samuel de Champlain

92400 Courbevoie

A graduate of the École Polytechnique, Chief Engineer at the Corps des Mines, Fabrice Brégier began his career at the DRIRE Alsace (Ministry of Industry and Trade), before being appointed Sub-Director of Economic, International and Financial Affairs with the Ministry of Agriculture (Directorate-General for Food) in 1989. After serving as an Advisor to several French Ministers, Mr. Brégier joined Matra Défense in 1993, where he was successively Chairman of Franco-German joint ventures and Director of Stand-Off activities at Matra BAe Dynamics. In 1998, he became CEO of Matra BAe Dynamics. In 2001, he was appointed CEO of MBDA, the leading European missile systems company. Early in 2003, Fabrice Brégier joined Eurocopter, becoming Chairman and CEO in April. In 2005, he was appointed Director of EADS' Eurocopter Division and member of the EADS Executive Committee, then in 2006 was appointed Chief Operating Officer of Airbus and a member of the EADS Executive Committee. From 2012 to 2018, Fabrice Brégier served as Chairman and CEO of Airbus. In September 2018, he became Chairman of Palantir Technologies France, a leading company in the field of Big Data.

Participation in Board committees

Member of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Chairman of Palantir Technologies France

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

Chairman of Palantir Technologies France

Member of the Board of Directors of SCOR (1)

Offices that have expired in the last five years

Chief Operating Officer of Airbus (1) and Chairman of Airbus Commercial Aircraft until February 2018

Areas of expertise

Executive Board

Digital, innovation, new technologies

Industrial sector

(1) Listed company

Age and nationality

74

French nationality

First appointment

5/2/2011

Expiration of term

2023

Shares held

1,419 shares

Business address

19 avenue Léopold II

75016 Paris

FRANÇOISE MALRIEU

Françoise Malrieu is an expert in finance and governance. A graduate of the HEC School of Management, she launched her career in 1969 in the financial analysis department of BNP, later becoming director of the department. She joined Lazard Frères in 1987, where she led the merger-acquisitions department. As a manager, then managing partner, she participated in a number of operations, particularly the privatization programs. In 2001, she joined Deutsche Bank as Managing Director responsible for the corporate finance activity. She ended her career in banking in 2010. After several years putting her expertise and knowledge of businesses to use in the service of governance, she now actively participates in the study and development of industry best practices. As a member of the executive boards of several associations, she helps businesses and associations work together to implement projects that have a social impact.

Participation in Board committees

Chair of the Appointments, Compensation and Governance Committee

Member of the Audit Committee and the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chair of the Appointments, Compensation and Governance Committee

Member of the Audit Committee and the Ethics, Environment and Sustainable Development Committee

Offices and positions in companies outside the Group

Director of the La Poste Group and of Lazard Frères Banque

Offices that have expired in the last five years

Chair of the Board of Directors of the Société de Financement de l’Économie Française - SFEF

Member of the Supervisory Board of Oberthur Technologies

Member of the Supervisory Board of Bayard Presse SA

Areas of expertise

Finance

Office of Chair or director of a large company

CSR

(1) Listed company

4

ROSS McINNES

Age and nationality

65

French and Australian nationalities

First appointment

5/18/2018

Expiration of term

2022

Shares held

500 shares

Business address

SAFRAN

2 bd du Général Martial Valin

75015 Paris

A graduate of the University of Oxford, Ross McInnes began his career in 1977 with Kleinwort Benson in London and then in Rio de Janeiro. In 1980, he joined Continental Bank (which became Bank of America) where he successively held several positions in Corporate finance operations, first in Chicago and then in Paris. In 1989, Ross McInnes joined Eridania Beghin-Say, where he was appointed Chief Financial Officer in 1991, and a member of the Board of Directors in 1999. The following year, Ross McInnes joined Thomson-CSF (now Thales) as Senior Vice-President and Chief Financial Officer and worked on the transformation of the Group until 2005. He then joined the PPR Group (now Kering) as Senior Vice-President for Finance and Strategy, then became a member of the Supervisory Board of Générale de Santé in 2006. He temporarily chaired the Management Board of Générale de Santé from March until June 2007. He also holds the positions of Vice-Chairman of Macquarie Capital Europe, specializing primarily in infrastructure investments. In March 2009, Mr. McInnes joined Safran and became Executive Vice President, Economic and Financial Affairs in June of that year. He served as a member of the Safran Management Board from July 2009 to April 2011, then as Deputy Chief Executive Officer until April 2015. On April 23, 2015, he became Chairman of the Safran Board of Directors. Since February of 2015, Ross McInnes has also served as Special Representative for economic relations with Australia, appointed by the Minister of Foreign Affairs and International Development in the context of French economic diplomacy. From November 2016 to November 2019, he was a member of the High Committee on Corporate Governance. In February 2017, he joined SICOM, the general partner of VIVESCIA Industries, as a "qualified person". In October 2017, the Prime Minister appointed Mr. McInnes Co-Chairman of the "Public Action 2022" Committee to propose actions to reform public policies. The Committee has since achieved its goals. Since January 2018, Ross McInnes has been a Trustee and Director of the IFRS Foundation. In October 2018, the Prime Minister tasked him with promoting France to British or foreign companies in the non-financial sector located in the United Kingdom. Ross McInnes is also a Director of Eutelsat Communications and Lectra.

Participation in Board committees

Chairman of the Ethics, Environment and Sustainable Development Committee (since May 17, 2019)

Member of the Strategy, Investment and Technology Committee (since May 17, 2019) and the Audit Committee

Principal activities outside the Company

Chairman of the Board of Directors of Safran [1]

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chairman of the Ethics, Environment and Sustainable Development Committee

Member of the Audit Committee and the Strategy, Investment and Technology Committee

Offices and positions in companies outside the Group

Chairman of the Board of Directors of Safran [1]

Director of Lectra [1] and Eutelsat Communications [1]

Special representative for economic relations with Australia

Qualified person at SICOM, the general partner of VIVESCIA Industries

Trustee and Director of the IFRS Foundation

Offices that have expired in the last five years

Director of Faurecia [1], IMI Plc [1] (United Kingdom), and Société Financière du Planier

Within the Safran group [1]: Deputy Chief Executive Officer of Safran, Director of Safran USA, Inc. (United States), and Permanent Representative of Etablissement Vallaroche on the Board of Directors of Soreval (Luxembourg).

Areas of expertise

Office of Chairman or director of a large company

Finance

Industrial sector

(1) Listed company

MARIE-JOSÉ NADEAU

Marie-José Nadeau is an expert on the energy sector. She is an honorary Chair of the international organization World Energy Council, which she chaired from 2013-2016. A trained attorney who holds a Master's degree in law from the University of Ottawa, she served as Secretary General and Executive Vice-President for Corporate Affairs at Hydro-Québec (Canada) for 22 years. An experienced director, she is Vice-Chair of the Advisory Council of the Electric Power Research Institute (United States), Vice-Chair of the Board and the Executive Committee of the Montreal Symphony Orchestra, a director of Metro Inc., one of the major Canadian retailers, and a director of Trans Mountain Corporation, a company that operates and is developing a network of pipelines in western Canada. In 2009, she was awarded the title of Advocatus Emeritus by the Quebec Bar in recognition of her exceptional contribution to the legal profession. In 2016, she was received as a member of the Order of Canada in recognition for her commitment to education and the environment.

Age and nationality

66

Canadian nationality

First appointment

4/28/2015

Expiration of term

2023

Shares held

1,000 shares

Business address

300 avenue des sommets,

App. 1102

Verdun (Quebec)

H3E 2B7 Canada

Participation in Board committees

Chair of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Chair of the Audit Committee

Member of the Strategy, Investment and Technology Committee

Offices and positions in companies outside the Group

Director of Metro Inc [1] and of Trans Mountain Corporation (Canada)

Chair of the Advisory Council of the Electric Power Research Institute (United States)

Offices that have expired in the last five years

Chair of the World Energy Council (United Kingdom)

Secretary General and Executive Vice-President, Corporate Affairs at Hydro-Québec (Canada)

Director of the Montreal Symphony Orchestra, Concordia University and Churchill Falls and Labrador Corporation Limited (Canada)

Areas of expertise

Energy sector

Office of Chair or director of a large company

Executive Board

(1) Listed company

Age and nationality

67

British nationality

First appointment

5/3/2016

Expiration of term

2020

Shares held

750 shares

Business address

15 Queensmead Road

Bromley

Kent - BR2 0ER

United Kingdom

LORD RICKETTS OF SHORTLANDS

A graduate of Oxford University, with a Master of Arts in English Literature from Pembroke College, Honorary DLC from the University of Kent and Honorary LLD from the University of Bath, Peter Ricketts began his career in 1974 at the Foreign and Commonwealth Office (FCO). In 1975, he was assigned as a Political Attaché in Singapore, and then served as the UK's Permanent Representative to NATO in Brussels, before joining the FCO. At the FCO, he served as the Assistant Private Secretary to former Foreign Secretary Sir Geoffrey Howe in 1983, First Secretary at the British Embassy in Washington (United States) in 1985, Division Chief in Hong Kong in 1990, Advisor for European and Economic Affairs at the British Embassy in France in 1995, and Deputy Director of Policy in 1997. In 2000 he was appointed Chairman of the Joint Intelligence Committee, then in 2001 he was named Policy Director of the FCO. From 2003 to 2006 he was Permanent Representative of the United Kingdom to NATO. In 2006, he became Secretary General of the FCO, and in 2010 he was named National Security Advisor of the United Kingdom. Finally, from 2012 to January 2016, he was the United Kingdom's Ambassador to France and Monaco. In October 2016, he was appointed to the House of Lords.

Participation in Board committees

Member of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Member of the House of Lords, London

President, Normandy Memorial Trust (Charitable Association)

Member, Royal Academy

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

Strategic Consultant, Lockheed Martin (UK)

Offices that have expired in the last five years

None

Areas of expertise

Geostrategic challenges

Public sector

Social dialogue/human resources

Director representing the French State, appointed by decree (1)

Director from the public sector

Age and nationality

38

French nationality

First appointment

6/5/2019

Expiration of term

2023

Shares held

0

Business address

Agence des Participations

de l'État

Bâtiment Colbert – Télédoc 228

139 rue de Bercy

75572 Paris Cedex 12

ISABELLE BUI

A graduate of Institut d'Études Politiques de Paris and of École Nationale d'Administration, Isabelle Bui began her career in 2008 at the Ministry of Economy and Finance, in the Directorate-General of the Treasury, as assistant head of the Investment, Intellectual Property and Services office. Following two other positions at the Treasury in the Investment (anti-financial crime and sanctions) and Financing (housing and general interest) offices, she joined the Total Group in 2012. She was Assistant to the Director of International Public Affairs in charge of multilateral affairs until 2014. Returning to the Directorate-General of the Treasury, she was appointed head of the Banking Services and Payment Methods office. Before joining the Agence des Participations de l'Etat (APE: French government shareholdings agency) in May of 2019 as Director of Transport Shareholdings, she was, from 2017, General Secretary of the Club de Paris and head of the Debt, International Financing and Secretariat office of the Club de Paris.

Participation in Board committees

Member of the Audit Committee (since June 26, 2019), the Strategy, Investment and Technology Committee (since June 26, 2019) and the Appointments, Compensation and Governance Committee (since June 26, 2019)

Principal activities outside the Company

Director of Transport Shareholdings at the APE

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Audit Committee, the Strategy, Investment and Technology Committee and the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

Director of Aéroports de Paris (1) as a representative of the French State

Director of the Régie autonome des transports parisiens (RATP: Autonomous Parisian Transportation Administration) as a representative of the French State

Offices that have expired in the last five years

Director of Monnaie de Paris as a representative of the French State

Areas of expertise

Public sector

Office of Chair or director of a large company

Finance

(1) Listed company

4

Directors elected by the Shareholders' Meeting on the recommendation of the French State (2)

Age and nationality

66

French nationality

First appointment

12/14/2016

Expiration of term

2023

Shares held

750 shares

Business address

22 avenue Théophile Gautier

75016 Paris

PATRICE DURAND

A graduate of the Ecole Polytechnique and of the Ecole Nationale d'Administration, Patrice Durand began his career in 1978 as Sub-Prefect, Director of the office of the Prefect of Eure-et-Loir and then the Haute-Normandie region in 1979. From 1981 to 1994, he served successively as head of mission in the Directorate-General of Administration at the Ministry of the Interior, Deputy Secretary-General and Secretary-General of the Paris Club; Head of the Office of Energy, Transport, and Mines and Secretary of the Economic and Social Development Fund, Head of Capital Goods and Other Investments and Deputy Director of Treasury Management. In 1994, he became Executive Vice President, then in 1995, Deputy CEO in charge of economic and financial affairs at Air France. From 1999 onwards, he was a member of the Executive Committee, in charge, among other things, of the finances of the Central Risk Management, General Inspection, Legal Affairs, Asset Management, IT and Processing departments, before becoming Deputy CEO of the Crédit Lyonnais Group in 2002. In 2003, he was also named Director of Operations and Logistics and a member of the Executive Committee of Crédit Agricole SA. In 2005, he joined Thales as Deputy CEO in charge of finance and administration. From 2012 to 2015, he was Deputy CEO in charge of finance and operations at the Ingenico Group. Since 2016, he has served as a director of French and foreign companies.

Participation in Board committees

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Director of companies

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Strategy, Investment and Technology Committee

Offices and positions in companies outside the Group

Member of the Supervisory Board of GCS Holding BV (Netherlands), Global Collect Services BV (Netherlands)

Offices that have expired in the last five years

Director of Ingenico do Brasil Ltda (Brazil), Ingenico Holdings Asia II Limited (Hong Kong), Ingenico Mexico, SA de C.V (Mexico), Ingenico Corp., Ingenico Inc. (Latin America) and Ingenico Inc. (United States)

Member of the Supervisory Board of GCS Holding BV (Netherlands)

Director of Ingenico Holdings Asia (Hong Kong) and Fujian Landi Commercial Equipment Co. Ltd (China)

Chief Finance and Operations Officer Ingenico [1]

Areas of expertise

Finance

Industrial sector

Services sector

(1) Listed company

Age and nationality

51

French nationality

First appointment

4/28/2015

Expiration of term

2023

Shares held

500 shares

Business address

ORANGE

Orange Gardens

44 avenue de la République

92320 Châtillon

MARI-NOËLLE JÉGO-LAVEISSIÈRE

A graduate of the École Normale Supérieure in Paris, Mari-Noëlle Jégo-Laveissière is also an engineer of the Corps des Mines. She began her career in 1996 in the Distribution Network Department of France Télécom's Paris Regional Department. She then held other management positions within the group known as Orange since July 1, 2013, particularly in Marketing, Research and Development, and International Networks and Businesses. Mari-Noëlle Jégo-Laveissière, Executive Director of Innovation, Marketing and Technology and member of the Executive Committee of the Orange Group since March 2014, was appointed Deputy CEO of the Orange Group, Chief Technology and Innovation Officer on May 2, 2018.

Participation in Board committees

Member of the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

Deputy CEO of the Orange Group, Chief Technology and Global Innovation Officer

Current offices held

Offices and positions in Group companies

Director of ENGIE

Member of the Ethics, Environment and Sustainable Development Committee

Offices and positions in companies outside the Group

Deputy CEO of the Orange Group [(1)], Chief Technology and Global Innovation Officer (since May 2, 2018)

Director of Valéo [(1)] and NoWCP, Orange Romania (Romania), Soft@Home and Viaccess

Offices that have expired in the last five years

Director of Agence Nationale des Fréquences (ANFR) and of Nordnet

Areas of expertise

Digital, innovation, new technologies

Services sector

CSR

(1) Listed company

Directors elected to represent employees (3)

Age and nationality

58

French nationality

First appointment

5/18/2018

Expiration of term

2022

Shares held

125 shares

at 12/31/2019

Business address

GRDF

6 rue Condorcet

75009 Paris

CHRISTOPHE AGOGUÉ

Christophe Agogué is an HEC graduate with a specialization in finance. In 1986, he joined EDF where he was responsible for negotiations with COGEMA on the reprocessing of used fuel. After a period in the management office, he was responsible for managing and then served on the management board of the subsidiary Nersa, in charge of the Superphénix reactor. In 2001, he moved to Gaz de France where he led the real estate department and participated in the operations to buy back the transport network from the French State, and in the first studies on the regulation of infrastructure activities. Having joined GRDF at its inception, he works on the construction of several transmission tariffs. He has held union positions on behalf of CFE-Énergies since 2009. He will be the union representative to the Central Works Committee of GRDF and to the ENGIE France Group Committee and is the secretary for his local Works Committee.

Participation in Board committees

Member of the Ethics, Environment and Sustainable Development Committee

Principal activities outside the Company

GRDF [1] employee responsible on Regulation Economy Department

Author of essays, novels and plays

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the Federation of the Gas and Electricity Industries - CFE-Energies trade union

Member of the Ethics, Environment and Sustainable Development Committee

Member of the Board of Directors of Rassembleurs d’Energies [1]

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

Areas of expertise

Finance

Social dialogue/human resources

Energy sector

(1) ENGIE Group

Age and nationality

55

French nationality

First appointment

1/21/2009

Expiration of term

2022

Shares held

51 shares

Business address

Elengy

Zone portuaire, BP 35

44550 Montoir-de-Bretagne

ALAIN BEULLIER

Alain Beullier joined EDF GDF in 1984, holding various positions in the Customer Service and Sales Advisory departments in several EDF GDF services centers in the Paris region. Currently an employee of Elengy, responsible for monitoring environmental regulation, Alain Beullier was named Director representing the “Other Employees” category by employee vote on December 18, 2008, was re-elected on March 14, 2014 and on March 15, 2018. Alain Beullier holds a corporate director’s certificate issued by Sciences Po Executive Education and the Institut Français des Administrateurs, class of 2016.

Participation in Board committees

Member of the Appointments, Compensation and Governance Committee

Principal activities outside the Company

Elengy [(1)] employee responsible for the monitoring of environmental regulations

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the Chemical Energy Federation — CFDT trade union

Member of the Appointments, Compensation and Governance Committee

Offices and positions in companies outside the Group

None

Offices that have expired in the last five years

None

Areas of expertise

CSR

Energy sector

Social dialogue/human

(1) ENGIE Group

Age and nationality

55

French nationality

First appointment

4/28/2014

Expiration of term

2022

Shares held

287 shares

Business address

Elengy

Zone portuaire, BP 35

44550 Montoir-de-Bretagne

PHILIPPE LEPAGE

Recruited in 1982, Philippe Lepage was High-voltage Maintenance Technician from October 1982 to July 2002, and Chemical Production Supervisor from July 2002 to January 2009. Since January 2009, he has been Assistant Shift Supervisor at the LNG terminal at Montoir-de-Bretagne. Philippe Lepage was named Director representing the "Other Employees" category by employee vote on March 14, 2014 and was re-elected on March 15, 2018.

Participation in Board committees

Member of the Strategy, Investment and Technology Committee

Principal activities outside the Company

Elengy [1] employee attached to the General Secretariat

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the National Federation of Mines and Energy – CGT trade union

Member of the Strategy, Investment and Technology Committee

Director representing employees of Elengy [1] elected by employee vote on May 25, 2009 and re-elected on October 14, 2014

Offices and positions in companies outside the Group

Member of the French Gas Association, representing employees for the CGT union to the gas sectoral social dialog committee of the European Commission and a member of the Business Line Strategy Committee on "New Energy Systems"

Offices that have expired in the last five years

None

Areas of expertise

Digital, innovation, new technologies

Energy sector

Regulatory environment

(1) ENGIE Group

Director elected by the Shareholders' Meeting to represent employee shareholders (1)

Age and nationality

55

French nationality

First appointment

5/12/2017

Expiration of term

2021

Shares held

160 shares

Business address

ENGIE Solutions

18 rue Thomas Edison

33610 Canéjan France

CHRISTOPHE AUBERT

Christophe Aubert has worked for a wide variety of companies, including Technicatome (CEA), Staefa Control System, Landis&Gyr (Siemens) and Industelec (EDF), before joining ENGIE Solutions in February 2002 as head of sales at a regional office in southwest France, before joining the southwest regional sales management team in 2007. He holds a corporate director's certificate issued by Sciences Po Executive Education and the Institut Français des Administrateurs, class of 2019.

Participation in Board committees

Member of the Audit Committee

Principal activities outside the Company

ENGIE Energy Services [1] employee, serving as project head attached to the southwest sales department, responsible for the development of complex projects

Current offices held

Offices and positions in Group companies

Director of ENGIE sponsored by the Federation Construction Bois - CFDT trade union

Member of the Audit Committee

Offices and positions in companies outside the Group

Member of the Supervisory Board of the Link France and 2015 ORS France mutual funds

Manager of MAAC IMMO

Offices that have expired in the last five years

None

Areas of expertise

Services sector

Finance

Regulatory environment

(1) ENGIE Group

4.1.1.2 Government Commissioner

In accordance with Article L.111-70 of the French Energy Code, the Minister of Energy appoints a Government Commissioner to the Company who attends meetings of the Board of Directors and the Committees in an advisory capacity and may present his/her observations to any Shareholders' Meeting.

This position is held by Laurent Michel, appointed by ministerial order dated November 13, 2014. Anne-Florie Coron was appointed Substitute Government Commissioner by ministerial order dated May 5, 2017.

4.1.1.3 Representative of the Social and Economic Committee

Pursuant to articles L.2312-72 et seq. of the French Labor Code, one full member of the Social and Economic Committee, appointed by the latter, attends all meetings of the Board of Directors in an advisory capacity. Hamid Aït Ghezala performs this role.

4.1.1.4 Absence of conflict of interest or conviction

The Chairman draws the attention of the Board to any conflicts of interest that he/she has identified, or of which he/she has been made aware, relating, if applicable, to the Chief Executive Officer or the members of the Board of Directors. He/she reviews any potential conflict of interest and agreements disclosed pursuant to Article 1.12 of the Internal Regulations of the Board of Directors.

In addition to the provisions of the French Commercial Code which govern related-party agreements, the Directors' Charter (see Section 4.1.2.1 "Chairmanship and Organization") stipulates that each Director must make every effort to avoid any conflict that may exist between his/her moral and material interests and those of the Company, must inform the Board of any conflict of interest in which he/she may be directly or indirectly involved and, where he/she cannot avoid the conflict of interest, must abstain from discussions and voting on any decision concerning such matters.

To ENGIE's knowledge, there are no potential conflicts of interest between the Directors' duties with regard to ENGIE and their private interests and/or other duties.

There are no family ties among the Directors.

To ENGIE's knowledge, during the past five years, none of the Directors or executives of ENGIE has been convicted of fraud, served as manager in a bankruptcy, receivership, liquidation or administration situation, been subject to legal proceedings brought and/or official public sanction issued by a statutory or regulatory authority, or been prevented by a court from serving as a member of the management body or supervisory board of an issuer, nor from participating in the management or oversight of the business of an issuer.

Furthermore, no loans or guarantees have been granted to, or on behalf of, members of the Company's board or management.

4.1.1.5 Independence of Directors in office

Article 1.1.2 of the Internal Regulations requires the Board to review the independence of each of its members, based on criteria determined by the Board. This review must be conducted annually, prior to the Shareholders' Meeting held to approve the financial statements for the previous fiscal year. The process for assessing the independence of each Director was performed by the Appointments, Compensation and Governance Committee at its meeting of February 7, 2020, and then by the Board of Directors at its meeting of February 26, 2020.

Both bodies reviewed the status of each Director on a case-by-case basis with respect to the Afep-Medef Code to which they refer.

It is specified that the following Directors, who were appointed as a result of legal or statutory obligations, cannot be deemed independent:

- Isabelle Bui, Director representing the French State, appointed by Article 4 of Ordinance 2014-948 of August 20, 2014, as well as Patrice Durand and Mari-Noëlle Jégo-Laveissière, elected by the Shareholders' Meeting on the recommendation of the State, pursuant to Article 6 of Ordinance 2014-948 of August 20, 2014;
- Alain Beullier, Philippe Lepage and Christophe Agogué, Directors representing the employees pursuant to Articles L. 225-27 et seq. of the French Commercial Code, and Christophe Aubert, Director representing employee shareholders, pursuant to Article L. 225-23 of the same code.

Six Directors are deemed to be independent (see also Section 4.1.1.1 "Profiles, experience and expertise of the Directors in office"), making the percentage of Independent Directors 67%, it being specified that, pursuant to the Afep-Medef Code, the number of Directors representing employees and employee shareholders is not counted in the calculation of the percentage of Independent Directors.

INDEPENDENCE OF THE DIRECTORS UNDER THE INDEPENDENCE CRITERIA SET FORTH IN SECTION 9 OF THE AFEP-MEDEF CODE

	Independent (I) Not independent (NI)	Corporate employee during the previous 5 years	Cross-directorships	Significant business relations	Family ties	Statutory Auditor	Term of office longer than 12 years	Status of non-executive corporate officer	Status of major shareholder
Jean-Pierre Clamadieu	I								
Fabrice Brégier	I								
Françoise Malrieu	I								
Ross McInnes	I								
Marie-José Nadeau	I								
Peter Ricketts of Shortlands	I								
Isabelle Bui	NI								×
Patrice Durand	NI								×
Mari-Noëlle Jégo-Laveissière	NI								×
Christophe Agogué	NI	×							
Alain Beuillier	NI	×							
Philippe Lepage	NI	×							
Christophe Aubert	NI	×							

× *= Independence criterion not met*

Criterion 1: Corporate employee during the previous 5 years

The director must not be or have been during the previous five years:

- an employee or executive corporate officer of the Company;
- an employee, executive corporate officer or director of a company consolidated by the Company;
- an employee, executive corporate officer or director of the parent company of the Company or of a company consolidated by said parent company.

Criterion 2: Cross-directorships

The director must not be an executive corporate officer of a company in which the Company directly or indirectly holds the office of director, or in which an employee designated as such or an executive corporate officer of the Company (current or within the last five years) holds the office of director.

Criterion 3: Significant business relations

The director may not be a significant customer, supplier, business banker, financing banker, consultant:

- of the Company or its group;
- or for whom the Company or its group represents a significant share of the business.

The assessment of the significant nature (or not) of the relationship with the Company or its group is debated by the Board, and the quantitative and qualitative criteria that led to this assessment (continuity, economic dependence, exclusivity, etc.) are explained in the annual report.

Criterion 4: Family ties

The director has no close family ties with a corporate officer.

Criterion 5: Statutory Auditor

The director has not been the Statutory Auditor of the Company during the previous 5 years.

Criterion 6: Term of office longer than 12 years

The director has not served for more than 12 years. The status of independent director is lost on the twelve-year anniversary date.

Criterion 7: Status of non-executive corporate officer

A non-executive corporate officer may not be considered independent if he or she receives variable remuneration in cash or securities or any remuneration related to the performance of the Company or the Group.

Criterion 8: Status of major shareholder

Directors representing major shareholders of the Company or its parent company may be considered independent when such shareholders do not exercise control over the Company. However, if a director exceeds a threshold of 10% of the capital or voting rights, the Board, based on a report by the Appointments Committee, systematically reviews the independent status of the director(s) concerned, taking into account the structure of the Company's capital and whether or not potential conflicts of interest exist.

4.1.1.6 Multiple directorships

The number of offices held by the directors in listed companies outside the Group, including foreign companies, was assessed as of February 26, 2020, in accordance with the recommendations of paragraph 19 of the Afep-Medef Code, which stipulates that "*an executive corporate officer may not hold more than two other offices as a director in listed companies outside his/her group, including foreign companies*. *A director may not hold more than four other offices in listed companies outside the Group, including foreign companies*."

	Number of offices held in external listed companies (1)	Compliance with the Afep-Medef Code
Jean-Pierre Clamadieu	2	✓
Fabrice Brégier	1	✓
Françoise Malrieu	0	✓
Ross McInnes	3	✓
Marie-José Nadeau	1	✓
Peter Ricketts of Shortlands	0	✓
Isabelle Bui	1	✓
Patrice Durand	0	✓
Mari-Noëlle Jégo-Laveissière	1	✓
Christophe Agogué	0	✓
Alain Beullier	0	✓
Philippe Lepage	0	✓
Christophe Aubert	0	✓

(1) *According to the criteria of the Afep-Medef Code*

4.1.1.7 Diversity policy for members of the Board of Directors

The Board of Directors works to promote diversity on the Board in terms of the professional qualifications and experience, gender, nationality and age of its members.

With regard to the professional qualifications and experience of the directors, the objective of the Board is to ensure that its composition is adequate for ENGIE's activities, challenges and strategic plans, thereby contributing to the quality of the decisions made.

To implement this objective, the Board will propose to the Shareholders' Meeting of May 14, 2020 the reappointment, for a period of four years, of Fabrice Brégier and Lord Ricketts of Shortlands, whose key areas of expertise are described in the table below.

Following discussions with investors in 2019, the Board of Directors has decided, on the recommendation of the Appointments, Compensation and Governance Committee, to change the way in which information about directors is provided to the market, taking a more individual approach centered exclusively on the key areas of expertise of each director.

It was decided to provide information on three key areas of expertise for each director, based on his or her professional qualifications and experience, which are set out in the table below et under each of their biographies.

INDIVIDUAL KEY AREAS OF EXPERTISE OF DIRECTORS

List of areas of expertise	Executive Board	Office of Chair or director of a large company	CSR	Finance	Digital, innovation, new technologies	Social dialogue/ human resources	Energy sector	Services sector	Industrial sector	Public sector	Geostrategic challenges	Regulatory environment
Jean-Pierre Clamadieu	✓	✓	✓									
Fabrice Brégier	✓				✓				✓			
Françoise Malrieu		✓	✓	✓								
Ross McInnes		✓		✓					✓			
Marie-José Nadeau	✓	✓					✓					
Lord Ricketts						✓				✓	✓	
Isabelle Bui		✓		✓						✓		
Patrice Durand				✓				✓	✓			
Mari-Noëlle Jégo-Laveissière			✓		✓			✓				
Christophe Agogué				✓		✓	✓					
Alain Beullier			✓			✓	✓					
Philippe Lepage					✓		✓					✓
Christophe Aubert				✓				✓				✓

With respect to the proportion of women and men, the legal requirement for 40% of Board members to be women and 40% to be men has been met. The proportion of women on the Board as of February 26, 2020 is 40%.

Four nationalities are represented by the 13 directors (Australian, British, Canadian and French).

Finally, in terms of age, the Board has one director aged over 70. The applicable legal requirement, in the absence of a specific provision in the bylaws, is therefore satisfied i.e. directors over the age of 70 do not make up more than one third of the directors in office.

4.1.2 Functioning of the Board of Directors

4.1.2.1 Chairmanship and organization

The operating procedures of the Board of Directors are defined in Article 14 of the bylaws. Its organizational procedures are set out in Article 1 of the Board of Directors' Internal Regulations, which specify the ways and means by which the Board can operate efficiently on behalf of the Company and its shareholders, as well as the responsibilities incumbent on each Director.

The Board of Directors meets as often as the Company's interests require and, in accordance with its Internal Regulations, at least six times a year, including at least once each quarter. Board of Directors' meetings may be held via any means of videoconference or telecommunication that allows Directors to be identified and ensures their effective participation.

Board meetings are also attended by the Government's Commissioner and the representative of the Central Social and Economic Committee, who have an advisory role, and by the Executive Vice-President appointed in the context of the transition – General Secretary, the Executive Vice-President in charge of Finance and CSR, and the Secretary to the Board of Directors.

Once a year, the Board of Directors carries out a self-assessment under the guidance of the Appointments, Compensation and Governance Committee; every three years, this assessment is carried out externally.

Also once a year, without the presence of the CEO and those Directors who have an employment contract with a Group company, the Chairman convenes a meeting of directors to assess the CEO's performance. The Chairman informs the members of the Board about the convocation of these meetings. The Chairman may invite Employee Directors to take part in all or part of these meetings.

The Secretary of the Board of Directors provides administrative services to the Board and records the minutes of its meetings.

Under Article 13.6 of the bylaws, all Directors must own at least fifty (50) shares in the Company, unless an exemption has been granted under the applicable laws or regulations. On the recommendations of the Appointments, Compensation and Governance Committee, this bylaw obligation was strengthened in the Internal Regulations by an obligation for each director to hold a minimum of 500 shares, unless exempted by legal or regulatory provisions. This obligation must be met no later than the Shareholders' Meeting called in 2020 to approve the financial statements for the year ended December 31, 2019, or within twelve (12) months after joining the Board of Directors. This requirement does not apply to Directors ratified or elected by the Shareholders' Meeting on the recommendation of the French State, the Director representing the French State, the Directors representing the employees or the Director representing employee shareholders (the number of shares personally owned by the Directors is provided in Section 4.1.1.1 above).

The Internal Regulations were amended on February 27, 2019 to include the measure stipulated in the previous paragraph on the minimum number of shares to be held by Board members, and a clarification concerning the role of the Board in the area of climate change.

The appendices to the Internal Regulations include the Directors' Charter and the Code of Conduct, which set out the rights and duties of each Director.

The Directors' Charter includes the rules relating to Directors' terms of office, compliance with the company's interests, the laws and bylaws, independence criteria, duty of expression, conflicts of interest, professionalism, involvement and effectiveness.

Directors undertake to devote the necessary time and attention to their duties. They must stay informed of the activities and the specifics of the Company, its issues and values, including by talking with principal officers. They must assiduously and diligently attend Board meetings.

The individual attendance rates of the Directors for meetings of the Board and its Committees are set out in Section 4.1.2.6 "Attendance by Directors at meetings of the Board of Directors and its Committees in 2019" below.

The Code of Conduct sets out the rules governing trading in the Company's securities and the offense of insider trading applicable to Directors, corporate officers and all employees. It expresses the Company's desire to ensure prudent management of its securities, and to comply and ensure others' compliance with current regulations governing securities transactions carried out by corporate officers and employees.

In addition to the foregoing, the Regulations for Employee Directors, approved by the Board of Directors at its meeting of December 9, 2009, lay down conditions under which Directors representing employees are to exercise their duties.

The Chairman of the Board of Directors:

- organizes and directs the work of the Board, and reports on this to the Shareholders' Meeting;
- chairs the Board's meetings, oversees deliberations, ensures compliance with the Internal Regulations, and may suspend the session at any time;
- upholds the quality of dialog and ensures that the Board's decisions are made on a collective basis;
- makes sure that the Board spends enough time on discussions and allots time to each of the items on the agenda in proportion to the importance that each issue represents for the Company. The Directors ensure, collectively, that the time allotted to each of them to express their views is evenly balanced;
- pays particular attention to ensuring that the issues raised on the agenda receive an appropriate response;
- ensures that the Board and its Committees function properly, assisting them and submitting questions to them for opinions;
- ensures that the principles of good governance are applied (particularly that Directors have the information they need to carry out their duties, sufficiently in advance and in a clear and appropriate form);
- ensures that the Shareholders' Meetings that he/she chairs are properly organized;

- answers shareholders' questions and, more generally, ensures that good relations are maintained with shareholders. If necessary, he/she provides assistance in responding to the requests of shareholders not represented on the Board, and makes him or herself available to meet with them and listen to their comments and suggestions (see also Section 4.2 "Dialog with shareholders").

In consultation with the Chief Executive Officer, the Chairman of the Board is also responsible for:

- organizing the strategic work of the Board and monitoring the preparation and implementation of succession plans for the members of the Group Executive Committee;
- representing the Group at a high level with national and international bodies in the interest of the Group.

The Chairman also:

- devotes his/her best efforts to promoting the Group's values and image in all circumstances;
- keeps the members of the Board informed, as necessary, between two meetings;
- is the only person authorized to speak and act on the Board's behalf;
- draws the attention of the Board to any conflicts of interest that he/she has identified, or of which he/she has been made aware, concerning, where applicable, the Chief Executive Officer or the members of the Board of Directors. He/she reviews any potential conflicts of interest and agreements disclosed pursuant to Article 1.12 of the Internal Regulations of the Board of Directors;
- participates in the organization of the periodic self-assessment of the Board conducted by the ACGC, as well as discussions on governance issues relating to the Board's operating procedures.

The Board may assign information or consultation missions to the Chairman on specific subjects within the Board's purview.

The Chairman works in coordination with the CEO, who has responsibility for Group administration and operational management in the context of the collective management team.

As well as exercising the powers conferred on him/her by law, he/she may be consulted by the collective management team on any matter relating to the conduct of the business.

The Chairman is kept regularly informed by the CEO about significant events in the life of the Group, particularly with regard to strategy, organization, investment and disinvestment. At the CEO's invitation, the Chairman may attend internal meetings with the Company's managers and teams to provide his/her point of view on strategic issues.

If he or she is unable to serve, the Chairman is replaced, pursuant to Article 16 of the bylaws and Article 1.3.1 of the Internal Regulations, by a Vice-Chairman or, if that is not possible, by the Chief Executive Officer if the CEO is a Director or, if not, by another Director chosen by the Board at the beginning of the meeting.

4.1.2.2 Tasks of the Board of Directors

The Board of Directors, on a collective basis, determines the Company's business strategy and oversees its implementation. Subject to the applicable laws and regulations and the Company bylaws, it determines the supervisory framework of General Management. It also exercises the following powers:

- appointing the executive corporate officers;
- dealing with all matters concerning the smooth running of the Company and, through its decisions, managing the Company's business;
- working to promote long-term value creation by the company by taking into consideration the social and environmental challenges of its activities;
- ensuring that shareholders and investors receive relevant, balanced and educational information about the Company's strategy and development model, the handling of significant non-financial issues and the Company's long-term prospects;
- performing any checks and verifications it considers appropriate;
- reviewing, at least once a year:
  - the budget,
  - the Group's industrial strategy,
  - the Group's financial strategy,
  - market trends, the competitive context and principal challenges, including in the area of the Group's social and environmental responsibility,
  - the professional and salary equality policy.

The Chief Executive Officer is vested with the broadest powers to act in all circumstances in the name of the Company and represents the Company in its relations with third parties. However, certain significant operations are subject to prior authorization by the Board of Directors, such as the following:

- acquiring or divesting any of the Company's direct or indirect interests in any company formed, or to be formed, taking an interest in the formation of any company, joint venture, consortium or body or subscribing to any issue of shares, share equivalents or bonds in which the Company's or the Group's financial exposure exceeds €250 million for the transaction in question;
- becoming involved in asset contribution or exchange transaction, with or without a cash balance, relative to goods, securities, stocks or bonds for an amount exceeding €250 million;
- entering into supply, works or service contract (with the exceptions of contracts related to long-term energy purchase transactions), including successive amendments thereto, if any, for an amount exceeding €400 million;
- resolving disputes by way of agreement, settlement or arbitration decision for an amount exceeding €200 million;
- entering into long-term energy purchasing plans on behalf of the Group that involves quantities, per transaction, in excess of:
  - 30 billion kWh of gas per year, including the terms of transmission,
  - 20 billion kWh of electricity per year, including the terms of transmission;
- entering into significant transactions beyond the scope of the Company's stated strategy,
- entering into real estate acquisitions or disposal transactions for an amount exceeding €200 million,
- entering into the following transactions for an amount exceeding €1.5 billion:
  - granting or contracting any loans, borrowings, credit or cash advances by the Company, or authorizing any Group subsidiary or financing medium for this purpose,
  - acquiring or assigning any receivables, by any method,
  - entering into significant agreements with the French State relating to the objectives and terms and conditions of implementation of public service assignments entrusted to the Company or its subsidiaries, within the limits set by law.

Each year, the Board of Directors authorizes the Chief Executive Officer to issue guarantees, other securities and bonds for an amount that it determines.

4.1.2.3 Work of the Board of Directors

12	14	95%	+ than 10
meetings	Directors	attendance	executive sessions

The Board of Directors of ENGIE met 12 times in 2019, with an average attendance rate of 95%. 13 of the 19 Directors serving over the year attended all meetings of the Board, and four Directors missed only one meeting. The average individual attendance rate at meetings of the Board of Directors and the committees for 2019 is indicated, for each director, in Section 4.1.2.6 "Attendance by Directors at meetings of the Board of Directors and its Committees in 2019".

The agenda of Board meetings is established by the Chairman in consultation with the Chief Executive Officer. The objective is to prioritize discussions for issues which, under the Group's governance principles and pursuant to the texts in force, such as the Internal Regulations, involve a decision.

Each meeting begins with one item devoted to health and safety, followed by a review of the Group's business.

Meetings of Directors with no executive functions at the Company (executive sessions) regularly take place after Board meetings. If necessary, the subjects raised during the executive session will be reported to the Chief Executive Officer.

Main activities in 2019:

Purpose :

At its Annual General Meeting on May 17, 2019, the Board of Directors announced to the market its intention of defining its purpose statement with its employees and sharing it no later than the 2020 Annual Shareholders' Meeting, while deferring its decision regarding its possible statutory nature. It instructed the Executive Board to submit proposals to it.

The work to create the purpose statement was led in project mode, with a Steering Committee gathering together the main departments concerned.

The Steering Committee focused on identifying and analyzing existing practices, defining specifications that the content of the purpose statement should comply with, leading consultations with various stakeholders, and creating proposals for the purpose statement with the Executive Board.

The Steering Committee was able to draw on numerous consultations with the stakeholders, in particular those with clients, which took place in 2018 and at the start of 2019, covering aspects such as vision, ambition, what, why, and how (Imagine 2030 [(1)], Harmonious Progress, Capital Markets Day). In order to avoid the pitfall of excessive consultation, the Steering Committee decided to define the scope of the new consultations that took place between July and November 2019. Depending on the stakeholders, these consultations focused either on the specifications, the content of the purpose statement, or the two combined.

The following new internal consultations were conducted: consultation of 167,000 employees by including an open question in the ENGIE&Me annual engagement survey, and consultations with internal employee communities in the form of workshops, individual interviews with each member of the Executive Committee, and a seminar dedicated to 'why' and the B-Corp approach.

The following external stakeholders were consulted: around 15 investors out of the 30 that were approached, proxy advisors, non-financial rating agencies, and more than 20 civil society stakeholders via individual interviews (development NGOs, human rights NGOs, environmental NGOs, social NGOs, universities, think tanks, development banks, and local and national elected representatives).

The Appointments, Compensation and Governance Committee reviewed the purpose statement at its meetings on May 24, September 16, and December 5, 2019, and on February 7 and 25, 2020.

In addition to reviewing the reports on the work of the Appointments, Compensation and Governance Committee, the Board of Directors discussed the purpose statement at its meeting on January 29, 2020; this plenary discussion was followed up by written discussions between the Directors and the purpose statement was ultimately approved at its meeting on February 26, 2020. The purpose statement will be submitted to the shareholders for their approval at the General Meeting on May 14, 2020.

This purpose statement is worded as follows:

ENGIE's purpose ("raison d'être") is to act to accelerate the transition towards a carbon-neutral economy, through reduced energy consumption and more environmentally-friendly solutions. The purpose brings together the company, its employees, its clients and its shareholders, and reconciles economic performance with a positive impact on people and the planet. ENGIE's actions are assessed in their entirety and over time.

The Board of Directors takes into account ENGIE's purpose statement, and social and environmental issues when setting the strategic priorities. It also is responsible for ensuring the implementation of these strategic priorities.

The Board's activities were mainly focused, after instruction from the relevant Board committee, where applicable, on the following matters:

Group strategic planning and monitoring of its operations:

- definition of the new strategic plan;
- examination of the equity story for Capital Markets Day on February 28, 2019;
- Research and Innovation;
- the Group's digital ambition and its contribution to the implementation of the strategic plan;
- the review of various questions relating to the Group's nuclear business, including discussions with the Belgian authorities on nuclear provisions;
- the program, preparation and follow-up for the Board's annual strategic reflection seminar (see box).

Investments and sales of assets:

- the review of a series of investment and divestment projects, including those requiring a decision by the Board, which resulted in:
  - the sale of coal-fired power plants in Europe,

(1) *Voice of the Customer research: 317 interviews with stakeholders (BtoB, BtoT) conducted by members of ENGIE 50, a broad consultation with more than 14,000 employees who shared their opinions and interviewed clients, partners, and other external stakeholders.*

4

  - the acquisition of EDPR's hydroelectric portfolio in Portugal,
  - the signing with Edelweiss Infrastructure Yield Plus of a strategic partnership for solar energy in India,
  - the taking over of the operation, maintenance, optimization and improvement of public service systems on the campus of the University of Iowa,
  - the strengthening of the Group's position in the transmission of electricity in Brazil (30-year concession in the north of the country);
- feedback on acquisitions and look-back on a series of acquired projects;
- progress reports on current projects, including the development of the Nord Stream 2 underwater pipeline construction project and the study of a transactional agreement with the Argentine government concerning the Santa Fé concession.

Strategic planning seminar

The members of the Board of Directors met at their annual strategic planning seminar and discussed developments in the sector as well as the expectations of the Group's stakeholders. They conducted a progress review of the strategic plan for each business line in order to identify any opportunities to be seized and any challenges ahead. This review clarified the strategic outlook and the financial equilibrium to be used as a basis for future decisions taken by the Board.

Finance, audit and risks:

- approval of the separate and consolidated financial statements, the proposed allocation of earnings and their draft press releases;
- approval of the provisional management documents;
- approval of the budget and medium-term business plan;
- analysis of the Group's annual risk review;
- renewal of the annual authorizations granted to the Chief Executive Officer to issue bond loans and to issue guarantees and other securities;
- adoption of procedures relating to regulated agreements and current agreements;
- analysis of financial studies and analysts' notes.

Governance, appointments and compensation:

- good continuity of Group governance;
- assessment of its own functioning and evolution;
- the ownership of shares by Directors and changes to rules on compensation;
- the diversity and independence policy for Directors in office;
- appointments to the Board committees;
- change in the management team;
- lessons to be learned from the dialog between the Chairman and the shareholders, investors and proxy advisors, particularly in the context of governance roadshows;
- the variable compensation of the Chief Executive Officer, the compensation of the executive corporate officers and the Long Term Incentives allocation plan;
- preparation for the Combined Shareholders' Meeting and responses to written questions from shareholders;
- activist fund practices and operations.

Corporate Social Responsibility:

- systematic examination of the adequacy of investment projects vis-a-vis each of the Group's CSR criteria, thus taking into account social, ethical and climatic challenges in particular;
- the professional and salary equality policy;
- the declaration on modern slavery provided for under UK regulations;
- examination of the annual health and safety report;
- internal CSR reports.

Training

In addition to the bespoke training program provided to all new Directors, the Company regularly holds specific training or information sessions at the request of the members of the Board of Directors. This also enables Directors to meet with the Group's senior executives. In 2019, the Company held three sessions specific to the Group's businesses: on Renewables, Infrastructure and Client Solutions.

4.1.2.4 Standing committees

Four standing committees assist the Board of Directors:

- the Audit Committee;
- the Strategy, Investment and Technology Committee ;
- the Appointments, Compensation and Governance Committee ;
- and the Ethics, Environment and Sustainable Development Committee.

Each committee is chaired by an Independent Director.

These committees are tasked with studying matters of concern to the Group that the Board or the Chairman has submitted for their opinion. They are also charged with preparing the Board's work and decisions on such matters and projects and reporting their conclusions to the Board in the form of reports, proposals, opinions, information or recommendations.

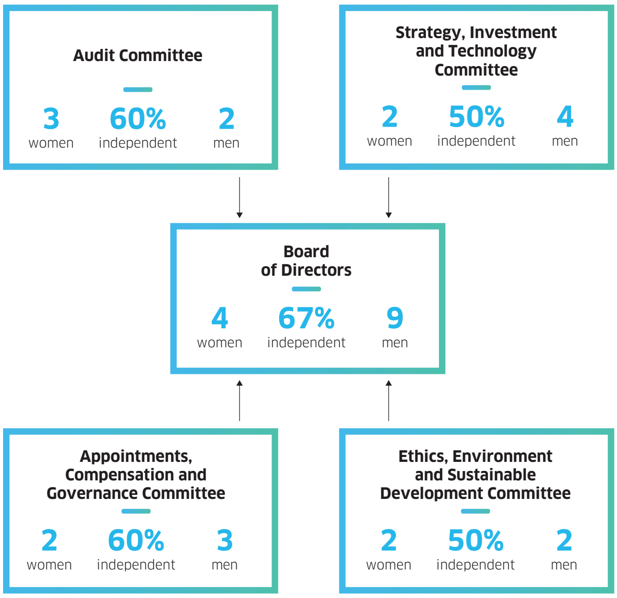
The committees perform their duties under the responsibility of the Board of Directors. No committee may, on its own initiative, address issues that fall outside the scope of its mission. The committees have no decision-making power.

On the Chairman's recommendation, and having heard the opinion of the Appointments, Compensation and Governance Committee, the Board of Directors appoints the members and Chairman of each Committee, based on the skills, experience and availability of each Director (see Section 4.1.1.1 "Profiles, experience and expertise of the Directors in office" and the table "Changes in the composition of the Board of Directors and Committees in 2019").

In order to carry out their work, the committees may interview members of Company and Group divisions and/or commission technical studies on matters within their competence at the Company's expense, provided that they have informed the Chairman of the Board about this, and that they report on it to the Board. If the committees use the services of external consultants, they must ensure that the advice concerned is objective.

The practice of holding executive sessions, i.e. part of the committee's meeting taking place without the presence of management, is either systematic or occasional, depending on the committee concerned.

The General Secretariat provides secretarial services to the Board committees.



The Audit Committee

7 meetings | **5** members | **93%** attendance

The Audit Committee has five members: Marie-José Nadeau [(1)] (Chair), Christophe Aubert, Isabelle Bui (since June 26, 2019), Françoise Malrieu and Ross McInnes [(1)].

The Audit Committee met seven times in 2019, with an average attendance rate of 93%. The Statutory Auditors attended all of these meetings.

Each meeting of the committee was followed by an executive session.

Main tasks

The main tasks of the Audit Committee are:

- to monitor the process of preparing financial information and, if necessary, to make recommendations to ensure its integrity;
- to examine in advance, and provide an opinion on, the draft annual and interim financial statements;
- to interview, whenever it deems this to be necessary, the Statutory Auditors, General Management, Financial Management, Internal Audit and any other management personnel;
- to examine important financial press releases before they are released;
- to select, appoint and re-appoint the Statutory Auditors;
- to monitor the performance by the Statutory Auditors of their assignments;
- to ensure that the Statutory Auditors comply with the conditions of independence;
- to monitor the provision by the Statutory Auditors of services other than the auditing of the financial statements and the application of the rules for the capping of the related fees;
- to examine, each year, the Statutory Auditors' fees and their scheduled work;
- to monitor the efficiency of the Group's internal control and auditing systems and procedures;
- to examine, with the internal audit managers, the plans and actions taken in the area of internal audit, the conclusions of these planned measures and actions and the subsequent recommendations and follow-up;
- to monitor the efficiency of the Group's risk management systems and procedures, with regard to procedures for preparing and processing accounting and financial data;
- to regularly obtain updates on the Group's financial position, cash position and significant commitments and risks.

The Committee reports regularly to the Board on the performance of its duties. It also reports on the results of the audit assignment, how it contributed to the completeness of the financial information and the role it played in this process. It immediately notifies the Board of any problems encountered.

Main activities in 2019

The Audit Committee's activities were mainly focused on the following matters:

- the consolidated and separate financial statements as at December 31, 2018 and June 30, 2019, the financial information for the first and third quarters of 2019 and their press releases;
- the annual and interim assumptions and forecasts and the provisional management documents;
- the dividend policy and 2019 guidance;
- changes in the operational KPIs communicated to the market;
- the quarterly activity reports from the internal audit and the follow-up of the audit recommendations, and the 2019 and 2020 annual internal audit plans;
- the review of the Group's internal control, including the control process applicable to its nuclear facilities in Belgium;
- the operating accounts of the Chairman and the Board of Directors;
- the financial resolutions submitted to the Shareholders' Meeting;
- the procedure for pre-approval of the non-audit assignments of the Statutory Auditors;
- the prior approval of any work assigned to the Statutory Auditors that falls outside their audit assignment and the monitoring of these assignments; the report on the 2018 fees of the Statutory Auditors, their 2019 work program and the renewal of their mandates;
- the 2019 risk review;
- the Group insurance review;
- the financial rating;
- the assessment procedure for current agreements;
- the impact of Brexit on the Group;
- the new "Prospectus 3" regulation on risk factors;

(1) *Independent Director*

- cybersecurity;
- integration of acquisitions and follow-up of synergies;
- nuclear safety;
- digital budget and information systems;
- 2019 treasury management policy;
- feedback from roadshows;
- Capital Markets Day.

Work of a joint meeting of the Audit Committee and the SITC:

- budget and medium-term business plan.

The Strategy, Investment and Technology Committee

8	6	92%
meetings	members	attendance

The Strategy, Investment and Technology Committee has six members: Jean-Pierre Clamadieu [(1)] (Chairman since May 17, 2019), Isabelle Bui (since June 26, 2019), Patrice Durand, Philippe Lepage, Ross McInnes [(1)] and Marie-José Nadeau [(1)].

The Chief Executive Officer attends the meetings of the Strategy, Investment and Technology Committee.

The Strategy, Investment and Technology Committee met eight times in 2019, with an average attendance rate of 92%.

Main tasks

The main tasks of the Committee are:

- to provide an opinion on the Company's main strategic aims, particularly with regard to strategy;
- to examine all external and internal growth projects, disposals, strategic agreements, alliances or partnerships, that are submitted to the Board;
- to examine strategic decisions relating to technological developments, as well as questions concerning the construction and upgrading of industrial facilities and annual and multi-year supply, works or services contracts, purchasing policy and significant real estate projects.

Main activities in 2019

The Committee's activities were mainly focused on the following matters:

- strategic issues;
- elements of the equity story, including for Capital Markets Day on February 28, 2019;
- the ENTECH model and its progress;
- Research, Innovation, digital and new business in the Group;
- discussions with the Belgian authorities on nuclear provisions;
- the contribution of digital to operational excellence and the quality of customer relations, and the digital transformation;
- feedback on acquisitions and look-back on a series of acquired projects;
- the preparation and follow-up for the Board's annual strategic seminar;
- a series of investment and disposal projects;
- the staging posts of projects in progress.

Work of a joint meeting of the SITC and the Audit Committee:

- budget and medium-term business plan.

The Appointments, Compensation and Governance Committee

7	5	97%
meetings	members	attendance

The Appointments, Compensation and Governance Committee has five members: Françoise Malrieu [(1)] (Chair), Alain Beullier, Fabrice Brégier [(1)], Isabelle Bui (since June 26, 2019) and Lord Ricketts of Shortlands [(1)].

The Chairman and the Chief Executive Officer attend meetings of the Appointments, Compensation and Governance Committee, unless the meetings address matters that concern them.

Each meeting of the committee results in an executive session.

The Appointments, Compensation and Governance Committee met seven times in 2019, with an average attendance rate of 97%.

Main tasks

The main tasks of the Committee are:

- to examine and make recommendations to the Board of Directors on:
  - all nominations for a seat on the Board that must be submitted to the Shareholders' Meeting for approval, as well as for the position of Committee member of Chairman,
  - the succession of the Company's Chairman and Chief Executive Officer,
  - the compensation, pension and welfare plans, benefits in kind and various pecuniary rights awarded to the Chairman and to the Chief Executive Officer, as well as to any members of the Board that hold employment contracts with the Company;
- ensuring that the executive corporate officers are implementing a policy of non-discrimination and diversity, particularly in relation to a balanced representation of men and women on the executive bodies;
- directing the process for the annual assessment of the Board's work;
- assessing, with the Chairman, the proper operation of governance bodies;
- the consultative review of the succession plan for the Company's executives and information on General Management projects relating to the appointment of members of the Executive Committee and on their compensation policy;

(1) *Independent Director*

- the review of all nominations of the Chairman and the Chief Executive Officer for any corporate office in a listed company outside the Group, in order to inform the Board's opinion on the nomination;
- to formulate an opinion on maintaining the bonus share awards for members of the Executive Committee.

Main activities in 2019

The Committee's activities were mainly focused on the following matters:

- the policy on diversity within the Board;
- the reduction in the size of the Board and the independence of its members;
- changes in the compensation and shareholding objectives of the Directors;
- the proper functioning of the Board and its committees;
- the governance roadshows led by the Chairman of the Board;
- compensation of the executive corporate officers and the succession plans;
- changes in the management team;
- the compensation policy for executive managers;
- performance share plans;
- employee shareholding;
- draft resolutions within its remit submitted to the Shareholders' Meeting.

The Ethics, Environment and Sustainable Development Committee

4	4	100%
meetings	members	attendance

The Ethics, Environment and Sustainable Development Committee has four members: Ross McInnes [1] (Chairman since May 17, 2019), Christophe Agogué, Mari-Noëlle Jégo-Laveissière and Françoise Malrieu [1].

The committee members meet once a year without management present to discuss the functioning of the committee and the matters that they would like it to address.

The Committee met four times in 2019, with an attendance rate of 100%.

Main tasks

The main tasks of the Committee are:

- to ensure that the Group has the right level of commitment with regard to ethics, non-financial compliance, and corporate, social and environmental responsibility;
- to examine the Group's policies, guidelines and charters in these areas;
- to examine human resources policies and learn about the monitoring of the corresponding risks;
- to ensure, where applicable, the establishment of a system to prevent and detect corruption and influence peddling;
- to examine the risks and opportunities related to climate change and more generally to monitor the Group's approach to non-financial issues and the long-term outlook, including by setting non-financial objectives.

Main activities in 2019

The Committee's activities were mainly focused on the following matters:

Ethics and compliance:

- the situation with regard to ethical incidents in 2019;
- the activity report of the ethics, compliance and data privacy department.

Environmental and social responsibility:

- examination of the Group's CSR performance and a report by one of the Statutory Auditors on this performance;
- the drafts of new CSR objectives to follow the objectives for 2016-2020;
- the integrated draft report;
- commercial BtoC sales calls in France;
- various climate-related questions, including the evolution of tasks for the Science Based Targets and the recommendations for the Task Force on Climate-related Financial Disclosure (TCFD);
- the examination, before notification to all the Directors, of an internal CSR report, providing, amongst other things, information on all salient facts affecting ENGIE, external news, peer actions, and any disputes, ending with a specific focus on climate, water and biodiversity.

Employer's social responsibility:

- examination of psychological and social risks;
- monitoring of 2019 HR action plan;
- the professional and salary equality policy;
- annual health and safety report;
- review of fatal accidents.

4.1.2.5 Assessment of the operations of the Board of Directors

The assessment of the operations of the Board of Directors and its Committees in 2019 was led by the Appointments, Compensation and Governance Committee (ACGC), with the assistance of an external consultant.

It mainly focused on the change in the operations of the Board of Directors since the last assessment, and also included an assessment of the contribution of Directors according to the specific roles within the Board played by each of them.

All Directors were confidentially interviewed by the external consultant, based on an interview guide approved by the ACGC, to provide their individual opinion on the collective operations of the Board of Directors and the individual contribution of each member. This process allowed the Chairman of the Board of Directors or the Chairman of the ACGC to provide each Director with an evaluation of his or her contribution.

The implementation of the previous assessment was subject to monitoring, in the same way as a benchmark of the current operations of the Board was carried out based on governance best practices.

(1) Independent Director

Points raised mainly related to governance, the areas of expertise of the Board as well as work methods, the operations of Committees and preparation for future challenges.

The assessment established that the reduction of the number of Directors on the Board, the changes to the structure of meetings, the practice of holding executive sessions, and the concept of the Board's strategic reflection seminar were all very much appreciated.

Areas for improvement were identified, in particular relating to the management team's exposure to the Board, the setting of priorities for the work of the Board and the organization of a strategic seminar to further improve the efficiency of the latter. Specific attention was paid to the monitoring of decisions.

The Board of Directors and the Committees duly noted the recommendations from this assessment work and will take necessary action on them.

The attendance rate of each Director at Board and Committee meetings in 2019 has been made public for the third consecutive year (see Section 4.1.2.6 below).

4.1.2.6 Attendance by Directors at meetings of the Board of Directors and its Committees in 2019

	Board of Directors	Audit Committee	SITC	ACGC	EESDC
Jean-Pierre Clamadieu	100%		100%		
Isabelle Kocher	100%				
Ann-Kristin Achleitner (1)	100%				100%
Edmond Alphandéry (1)	80%	100%	100%		
Fabrice Brégier	92%			100%	
Isabelle Bui (2)	100%	25%	100%	100%	
Aldo Cardoso (1)	100%	100%	100%		
Barbara Kux (1)	100%				100%
Françoise Malrieu	100%	100%		100%	100%
Ross McInnes	100%	100%	100% (3)		100% (3)
Marie-José Nadeau	100%	100%	100%		
Peter Ricketts of Shortlands	100%			100%	
Patrice Durand	100%		100%		
Catherine Guillouard (1)	20%		0%		
Mari-Noëlle Jégo-Laveissière	83%				100%
Christophe Agogué	100%				100%
Alain Beullier	92%			86%	
Philippe Lepage	100%		100%		
Christophe Aubert	92%	100%			
OVERALL ATTENDANCE RATE	**95%**	**93%**	**92%**	**97%**	**100%**

(1) Until May 17, 2019
(2) Since June 5, 2019
(3) Since May 17, 2019

4.2 Dialog with shareholders

4.2.1 Dialog of the Chairman

Before the Shareholders' Meeting of May 17, 2019, the Chairman met and spoke with members of the Group Shareholders' Advisory Committee, the main associations of individual shareholders (F2IC and APAI) and the AG2S association of employee shareholders of ENGIE. He met with representatives of holders of units of the Group's employer-sponsored mutual funds. Jean-Pierre Clamadieu also spoke at Investir Day, a new event for private shareholders and individual investors that brought together 4,000 participants on October 3, 2019 in Paris.

During 2019, the Chairman also spoke with the main institutional investors and voting advisory agencies, particularly in the context of the governance roadshows that took place in the second quarter of 2019, discussing matters of strategy, governance, compensation and CSR.

The dialog will continue in 2020.

4.2.2 Shareholders' Meeting of May 14, 2020 - Composition of the Board of Directors

At its meeting on February 26, 2020, the Board of Directors decided to convene a Combined General Shareholders' Meeting on May 14, 2020.

The terms of office of Fabrice Brégier and Peter Ricketts of Shortlands will expire at the close of this Shareholders' Meeting. They stand for election by shareholders and the Board proposes the renewal of their term of office. Their key areas of expertise are described in the table in Section 4.1.1.7.

At the end of the Shareholders' Meeting, subject to the approval of these resolutions, the Board of Directors shall consist of 13 members. The proportion of Independent Directors will be 67%[(1)], the proportion of women will be 40%[(2)] and the Board will include four nationalities.

In light of the current health crisis (coronavirus), the participation conditions for the Shareholders' Meeting may change in accordance with health and/or legal requirements. We would therefore like shareholders to note that both postal and electronic means may be used to vote at the Shareholders' Meeting and to send written questions to the Board, under the conditions set out by the regulations.

The documents of the Shareholders' Meeting are available on the Company website (engiecom, section Finance / Shareholders).

ENGIE's Shareholders' Meeting will be fully broadcasted live and in replay on our website (www.engie.com).

4.3 General Management

Following the termination of Isabelle Kocher's duties, on February 24, 2020, the Board decided to appoint with immediate effect Claire Waysand, General Secretary, as Chief Executive Officer, as part of a collective management team together with Paulo Almirante, Executive Vice-President and Chief Operating Officer and Judith Hartmann, Executive Vice-President and Chief Financial Officer. The Board has asked Jean-Pierre Clamadieu to support the transition management team in order to ensure the success of this period.

General Management of the Company is invested with the broadest powers to act in all circumstances on behalf of the Company, exercises her functions within the limits of the corporate purpose and subject to the powers that the law expressly attributes to Shareholders' Meetings and the Board of Directors. According to the internal rules, the respective powers and duties of the Chairman of the Board and the Chief Executive Officer are determined by the Board of Directors and the Internal Regulations of the Board (see Section 4.1.2.2 "Powers of the Board of Directors").

Two executive bodies - the Executive Committee and the Operational Management Committee - are responsible for formulating ENGIE's strategy and monitoring its implementation.

The Executive Committee, which is in charge of Group management, comprises the Executive Vice-Presidents under the management of the Chief Executive Officer. It formulates strategic decisions according to the guidelines defined by the Board of Directors. It develops ENGIE's long-term outlook and ensures that the short-term objectives are achieved. It makes all major decisions particularly concerning investment, reviews performance, and monitors the pace of the Group transformation. It meets, in principle, every week.

The composition of the Executive Committee is based on the principle of bringing together the functional and operational responsibilities shared between its various members, with a cross-disciplinary approach that breaks down silos and establishes collective responsibility.

At the date of this document, the Executive Committee has the following 13 members, representing six nationalities:

- Chief Executive Officer: Claire Waysand, General Secretary, appointed as part of a collective management team together with Paulo Almirante and Judith Hartmann,
- Executive Vice-Presidents of the collective management team :
  - Paulo Almirante, Chief Operating Officer, in charge of the BUs from Brazil, North, South and Eastern Europe, Middle East, South and Central Asia, and Turkey,
  - Judith Hartmann, Chief Financial Officer in charge of the GTT BU, coordination with SUEZ and Corporate Social Responsibility,
- Executive Vice-Presidents :
  - Gwenaelle Avice-Huet, in charge of the North America, France Renewable Energy, Hydrogen and Global Business Line Renewables BUs,
  - Olivier Biancarelli, Chief Executive Officer of Tractebel, in charge of Global Business Line Customer Solutions and ENGIE Impact,
  - Franck Bruel, in charge of the United Kingdom, Latin America and North America (United States and Canada) BUs,
  - Ana Busto, in charge of Brand and Communications,
  - Pierre Chareyre, in charge of the Global Energy Management, Europe Generation, France BtoC, Benelux and the Global Business Line Thermal BUs,
  - Pierre Deheunynck, in charge of Group Human Resources, Transformation, Corporate, Global Business Support, Global Care and Group Real Estate,
  - Didier Holleaux, in charge of the Elengy, GRDF, GRTgaz, Storengy, China and Asia-Pacific BUs and the Global Business Line Infrastructures,
  - Shankar Krishnamoorthy, in charge of the Global Industrial Hub and the Africa BU,
  - Yves Le Gélard, Digital Director in charge of Group Information Systems,
  - Wilfrid Petrie, in charge of ENGIE Solutions.

(1) *Percentage calculated pursuant to the Afep-Medef Code which stipulates that the Directors representing employees and employee shareholders are not taken into account when calculating the proportion of the independent directors.*

(2) *In accessing the ratio of women to men on boards of Directors, the law stipulates that Directors who are employee representatives - who are not elected by the Shareholders' Meeting - are not taken into account.*

The Operational Management Committee, known as ENGIE 50, is in charge of operational activities, and is composed of the Executive Vice-Presidents, the CEOs of the BUs, the directors of the Global Business Lines and the managers of the main functional departments. It is chaired by the Chief Executive Officer. The Operational Management Committee implements ENGIE's strategic decisions; it is also in charge of taking the Group's transformation closer to the regions. It meets, in principle, every month.

In accordance with Article 225-37-4 para. 6 of the French Commercial Code, the report on corporate governance includes "*information on how the company seeks balanced representation of women and men within the committee set up, where appropriate, by the Executive Board for the purposes of regularly assisting it in carrying out its general functions, and information on the results in terms of diversity in the 10% of positions with higher responsibility. If the company does not apply such a policy, the report shall contain an explanation of the reasons for this*".

As the "*committee set up, where appropriate, by the Executive Board for the purposes of regularly assisting it in carrying out its general functions*" corresponds to the Executive Committee.

With respect to 10% of positions with higher responsibility, if the scope described by the French Commercial Code is that of the Company, i.e. ENGIE SA, in terms of the organization of the Group, its integrated structure, and its positioning in more than 70 countries for a total of 171,000 employees, it seems more appropriate to consider the Group as a whole with regard to the spirit of the law. The Group has approximately 500 senior managers across all the territories in which it is present whose role is to deliver the Group's strategy. ENGIE therefore considers that the relevant scope to use for the 10% of positions with higher responsibility is that of ENGIE 50.

The Executive Committee consisted of 13 members, including 4 women (30.7%), of 6 nationalities, and ENGIE 50 was composed of 46 members, including 11 women (23.9%), and comprised 9 nationalities. 6 members of ENGIE 50 were outside the Group in their previous positions.

For several years, the Group's appointments policy has strengthened gender diversity: thus, since January 1, 2019, 7 women have joined ENGIE 50 (excluding the Executive Committee), from a total of 20 appointments, i.e. a proportion of women appointed of 35%. In 2018, only 1 woman was appointed from a total of 7 appointments, i.e. 14%.

The Group seeks to develop mixed talent pools, comprising executive managers with strong potential, thus helping to increase female representation in the two bodies mentioned above, namely the Executive Committee and ENGIE 50. Therefore, for key positions in the Group, the final appointment decision is made on the basis of a list of candidates that includes men and women. Most appointments are made from this talent pool, comprising around 530 people, 33% of whom are women. External sourcing was also strengthened in 2019, prioritizing sourcing of women.

These actions aim to change career paths and talent development, opening them up to various profiles, so as to eventually form governance bodies that fully embody the Group's diversity policy.

4.4 Compensation and benefits of members of the administration and management bodies

4.4.1 Compensation of executive corporate officers

Compensation of executive corporate officers is determined by the Board of Directors based on the recommendations of the Appointments, Compensation and Governance Committee. It is subject to a presentation and binding votes at the Annual Shareholders' Meeting in accordance with Articles L. 225-37-2, L. 225-37-3, and L. 225-100 of the French Commercial Code.

The compensation policy is reviewed annually by the Appointments, Compensation and Governance Committee and is based in particular on specific studies carried out by an external firm specializing in this area.

In its recommendations to the Board of Directors, the Appointments, Compensation and Governance Committee seeks to propose a compensation policy that is in line with corporate responsibility and the practices of comparable major international groups for similar positions, based on a benchmark established by a specialized external firm that includes companies listed on the CAC 40, the Eurostoxx 50 (excluding companies in the financial sector), and the Eurostoxx Utilities indices.

Pursuant to Article 9.6 of the Afep-Medef Code, the Chairman of the Board of Directors, as an independent director, does not receive variable compensation linked to the Company's performance.

Compensation of the other executive corporate officers generally includes:

- a fixed component, which remains unchanged throughout the term of office, unless the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee, decides otherwise;
- a variable component, balanced relative to total compensation, the purpose of which is to reflect the executive's personal contribution to the Group's development and results; and
- a long-term incentive component, subject to performance conditions.

Stringent performance criteria are set both for the variable component and for long-term incentive plans, maintaining a link between the Group's performance and the compensation of its directors in the short, medium and long term and contributing to the Company's strategy and sustainability.

The compensation policies applicable to the Chairman of the Board and the Chief Executive Officer as of 2020 are described in Section 4.4.1.10.3.

4.4.1.1 Fixed compensation

Fixed compensation in 2019

Jean-Pierre Clamadieu received remuneration of €433,064. This amount corresponds to pro rata annual remuneration of €350,000 for the period from January 1 to March 1, 2019 and €450,000 for the period from March 2 to December 31, 2019.

The fixed annual compensation of Isabelle Kocher, Chief Executive Officer, was set at €1,000,000, to which was added a benefit in kind of €6,012 for the period in question.

Fixed compensation in 2020

Please refer to Section 4.4.1.10.3.

4.4.1.2 Variable compensation

Variable compensation in 2018

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, received no compensation in respect of his office for the period in question.

Jean-Pierre Clamadieu, Chairman of the Board of Directors as of May 18, 2018, received no variable compensation in respect of his office.

With regard to Isabelle Kocher, the structure of the target variable compensation paid in 2019 for 2018 also remained unchanged at €700,000, corresponding to 70% of her fixed compensation and capped at €840,000, i.e. 120% of the target variable compensation. Variable compensation in 2018 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%).

For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE (return on capital employed) and net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2018 were based on the Group's projected budget as presented to the Board of Directors on March 7, 2018.

For the qualitative component, the criteria used were as follows:

- Develop long-term growth drivers (40%):
  - pursue and strengthen organic growth via existing offerings and by developing new skills and customer solutions.
  - contribute to growth through acquisitions in the BtoB, BtoT and high-tech business lines;
- Prepare post-2025 options in Belgium (20%);
- CSR, emphasizing employer social responsibility (20%):
  - make employee engagement and commitment one of the main levers for the Group's transformation and performance (employee survey),
  - continue to adapt internal skills to meet organizational and customer solutions needs,
  - embed new management practices and the concept of organizational agility within the Group's culture;
- Develop the Digital & Innovation road map (10%):
  - define the strategy for the three-year plan and the 2030 targets,
  - adapt the internal organization and partnerships based on the objectives set;
- make the customer's perception of the brand and the image a key element in the Group's transformation and performance (10%):
  - continue to bring the commercial offerings into line with the Group's strategy,
  - develop a communication and brand awareness program,
  - develop Know Your Customer (KYC) and make customer satisfaction a driver of cultural change (NPS: net promoter score).

At its meeting of February 27, 2019, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee:

- noted that the success rate of the quantifiable criteria was 85.46%; (broken down as follows: Net recurring income, Group share, per share (1/2): 82.52%; ROCE (1/6): 94.06%; Free cash flow (1/6): 105.51%; Net debt (1/6): 65.63%),
- set the success rate of the qualitative criteria at 101.00%.

Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 91.68%.

The variable component for 2018 was thus €641,760.

Variable compensation in 2019

Jean-Pierre Clamadieu, Chairman of the Board of Directors, received no variable compensation in respect of his office.

With regard to Isabelle Kocher, the structure of the target variable compensation paid in 2020 for 2019 also remained unchanged at €700,000, corresponding to 70% of her fixed compensation and capped at €840,000, i.e. 120% of the target variable compensation. Variable compensation in 2019 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%).

For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE and economic net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2019 were based on the Group's projected budget as presented to the Board of Directors on February 27, 2019.

For the qualitative component, the criteria used were as follows:

- Quality of strategic plan and reception by investors (10%)
- Implementation of growth strategy in downstream BtoB/T and refocusing business lines (25%)
  - organic growth on these segments - upselling of services
  - external growth
  - refocusing of business lines/geographical areas of the Group's scope
- Securing the Group's position in Belgium (25%)
  - preparing a long-term solution for nuclear provisions so that the Group can return to managing its assets freely
  - preparing a decision on whether or not to operate two or three nuclear units
  - strengthening the Group's image
- Organization, engagement and governance (20%)

- CSR (20%)
  - pursuing efforts to reduce CO_2 emissions in line with 2020 goals
  - progress in the management of health and safety risks
  - continued roll-out of the ethics compliance reference system

At its meeting of February 24, 2020, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee:

- noted that the success rate of the quantifiable criteria was 97.5% (broken down as follows: Net recurring income, Group share, per share (1/2): 103.4%; ROCE (1/6): 100.3%; Free cash flow (1/6): 107.2%; Net debt (1/6): 67.4%)
- set the success rate of the qualitative criteria at 90%.

Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 94.5%.

The variable component for 2019 was thus €661,500. It will only be paid to Isabelle Kocher if approved by the shareholders at the Shareholders' Meeting of May 14, 2020.

Variable compensation in 2020

Please refer to Section 4.4.1.10.3.

4.4.1.3 Long-term incentive compensation (Performance Units)

The Appointments, Compensation and Governance Committee, following the recommendations of the Afep-Medef Code, which seeks to promote the long-term engagement of corporate leaders, recommended to the Board of Directors that the executive corporate officer compensation include a long-term incentive component, provided that this is reasonable and subject to strict performance conditions, and is comparable to that of other beneficiaries. On December 6, 2011, the Board of Directors decided that the long-term incentive may not exceed 40% of the total compensation of the executive corporate officers. The Board of Directors decided on February 26, 2020 that in future, this component may not, when initially awarded, represent more than 50% of the CEO's overall compensation.

The Appointments, Compensation and Governance Committee proposed a long-term incentive plan to the Board of Directors in the form of Performance Units (PUs).

Performance Units for 2019

Jean-Pierre Clamadieu was not awarded any PUs for 2019, in accordance with the compensation policy, which stipulates that the compensation of the Chairman of the Board will not include any annual or multi-year variable compensation or long-term incentive plans.

On the recommendation of the Appointments, Compensation and Governance Committee, the Board of Directors, at its meeting of February 27, 2019, voted to award 120,000 Performance Units to Isabelle Kocher for 2019.

The PU awarded for 2019 was valued at €7.84 per unit at the time of allocation.

When Isabelle Kocher left the ENGIE Group, the continuous service condition associated with these PUs was not met and they therefore became null and void.

Performance Units for 2020

As Isabelle Kocher left the ENGIE Group on February 24, 2020, no PUs were awarded to Isabelle Kocher for 2020.

4.4.1.4 Pension plans

Jean-Pierre Clamadieu is not covered by any supplementary pension plan in respect of his duties as Chairman of the Board of Directors.

In addition to mandatory pension plans, until December 31, 2014, Isabelle Kocher benefited from the supplementary collective pension plans of the former SUEZ group (which she joined in 2002), consisting of a defined contribution plan and a defined benefit plan.

The defined contribution plan (Article 83) is based on her gross annual compensation and the following contribution rates: 5% tranche A (equivalent to the annual social security limit), 8% tranche B (between one and four times the annual social security limit), 8% tranche C (between four and eight times the annual social security limit).

In accordance with the decisions of the Board of Directors on March 10, 2016, Isabelle Kocher's rights to the supplementary collective defined contribution and defined benefit pension plans were frozen on suspension of her employment contract, i.e. at December 31, 2014.

The rights accumulated from 2002 to 2014 under the collective defined benefit plan would have resulted, subject to the condition of continuous service in the Group, in an annual annuity, estimated at year-end 2015, at the end of her career aged 65, of €145,456, before tax and social security deductions. When Isabelle Kocher left the ENGIE Group, the continuous service condition underlying these rights was no longer met and they therefore became null and void.

At its meeting on March 10, 2016, the Board of Directors also decided to set up a new supplementary pension plan for Isabelle Kocher whereby the company no longer guarantees the amount of pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82) and half is a cash sum, given the immediate taxation on payments made into this new mechanism. The employer contribution corresponds to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It also depends on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results. Accordingly, the Board of Directors decided to pay an employer contribution of €366,091 for the 2015 fiscal year. This employer contribution is subject to social contributions without any limit according to the applicable rules. For 2016, the employer contribution was €406,762. For 2017, the employer contribution was €438,632. For 2018, the employer contribution was €410,440. For 2019, the employer contribution was €415,375. It will only be paid to Isabelle Kocher if approved by the shareholders at the Shareholders' Meeting of May 14, 2020.

4.4.1.5 Employment contract, special retirement plans, severance pay and non-compete clause

	Employment contract	Supplementary pension plan	Compensation or benefits due or likely to be due on termination or change of function	Compensation due under a non-compete clause
Jean-Pierre Clamadieu	no	no	no	no
Chairman				
Isabelle Kocher	yes			
Chief Executive Officer	(suspended)	see 4.1.4.1.4	See below	See below
(until January 24, 2020)				

Isabelle Kocher's employment contract has been suspended since January 1, 2015. This suspended employment contract does not provide specifically for non-compete or severance compensation. As part of the Company's human resources policies, all employees of ENGIE Management Company receive severance compensation when their employment contract is terminated. Indemnities due under said policies amounts to 3/5 of the monthly salary per year of service in the company or Group and is capped at 18 months' salary. "Monthly salary" is understood to mean one-twelfth of the fixed compensation of the current year plus the last variable component that was paid. Isabelle Kocher's length of service at the time of her appointment as Chief Executive Officer on May 3, 2016 was 13 years and seven months. Note that there is no system of hiring bonuses or golden parachutes in place for executive corporate officers at ENGIE. Isabelle Kocher's employment contract did not contain a non-compete clause.

In the context of the termination of her duties, the Board of Directors, at its meeting of February 24, 2020, authorized the conclusion of a transactional memorandum of understanding provides for a settlement indemnity of €672,736 gross for the amicable and final settlement of the terms of the end of the Chief Executive Officer's tenure. The payment of this settlement indemnity is subject to the approval, by the Shareholders' Meeting of ENGIE called to vote in 2020 on the 2019 financial statements, of ENGIE's financial undertakings in the memorandum of understanding for the settlement.

It was also agreed that the employment contract of Isabelle Kocher (who joined the ENGIE Group in 2002) with ENGIE Management Company, which was suspended from January 1, 2015 until the date of the end of her tenure as CEO, would be terminated. Isabelle Kocher will therefore benefit from indemnities for early termination of her employment contract under the social measures in place at ENGIE Management Company, amounting to 3/5 of her monthly salary per year of service (capped at 18 months' salary), i.e. a gross amount of €1,149,204, and severance pay of three months' remuneration, i.e. €250,000 (gross).

Given the nature of her duties at ENGIE and the market in which the Group operates, it was deemed important, in order to preserve the legitimate interests of the Group, to require Isabelle Kocher to make a non-compete commitment, which she accepted in the memorandum of understanding.

In exchange for this non-compete commitment, which will apply for 18 months, Isabelle Kocher will receive a total gross indemnity of €1,231,320. This indemnity, which is linked to the duration of the non-compete commitment, corresponds to 50% of her average gross monthly fixed and variable compensation (annual variable) received in the 12 months prior to the date of the effective termination of her duties as Chief Executive Officer.

The non-compete commitment and the payment of the corresponding indemnity are subject to the approval, by the Shareholders' Meeting of ENGIE called to vote in 2020 on the 2019 financial statements, of ENGIE's undertakings in the memorandum of understanding.

4.4.1.6 Summary of compensation of each executive corporate officer

	2019		2018	
In euros	Amount due for 2019	Amount paid in 2019	Amount due for 2018	Amount paid in 2018
Jean-Pierre Clamadieu				
Chairman (since May 18, 2018)				
Fixed compensation	433,064	433,064	217,339	217,339
Variable compensation	0	0	0	0
Employer contribution to retirement plan	0	0	0	0
Extraordinary compensation	0	0	0	0
Directors' fees	0	0	0	0
Benefits in kind	0	0	0	0
TOTAL	**433,064**	**433,064**	**217,339**	**217,339**

In euros	2019 Amount due for 2019	2019 Amount paid in 2019	2018 Amount due for 2018	2018 Amount paid in 2018
Isabelle Kocher				
Chief Executive Officer				
Fixed compensation	1,000,000	1,000,000	1,000,000	1,000,000
Variable compensation	661,500	641,760	641,760	754,530
Employer contribution to retirement plan	415,375	410,440	410,440	438,632
Extraordinary compensation	0	0	0	0
Directors' fees	0	0	0	0
Benefits in kind	6,012	6,012	6,012	6,012
TOTAL	**2,082,887**	**2,058,212**	**2,058,212**	**2,199,174**

4.4.1.7 Summary of compensation of each executive corporate officer

Gérard Mestrallet, Chairman of the Board of Directors until May 18, 2018, received no compensation in respect of his office.

In euros	2019	2018
Jean-Pierre Clamadieu		
Chairman (since May 18, 2018)		
Compensation due for the fiscal year (detailed in the preceding table)	433,064	217,339
Valuation of options granted for the fiscal year	0	0
Valuation of Performance Shares granted for the fiscal year	0	0
Valuation of Performance Units granted for the fiscal year	0	0
TOTAL	**433,064**	**217,339**

In euros	2019	2018
Isabelle Kocher		
Chief Executive Officer		
Compensation due for the fiscal year (detailed in the preceding table)	2,082,887	2,058,212
Valuation of options granted for the fiscal year	0	0
Valuation of Performance Shares granted for the fiscal year	0	0
Valuation of Performance Units granted for the fiscal year	940,800 (null and void, see below)	789,600 (null and void, see below)
TOTAL	**3,023,687**	**2,847,812**

The valuation of Performance Units (PUs), based on a model provided by an external specialist firm, is based on an approach used for all of its client companies to obtain comparable valuations. It uses parameters and assumptions that are consistent with the principles of IFRS, but takes into account all possible performance conditions (external and internal), not just "market" performance conditions as in IFRS 2. This valuation also takes into account the share price, the annual expected dividend yield, historical share price volatility, the risk-free interest rate, a three-year maturity, a three-year vesting period and an estimated life of four and a half years. The valuation used was €11.15 for the 2014 award, €9.69 for the 2015 award, €7.73 for the 2016 award, €6.09 for the 2017 award, €6.58 for the 2018 award and €7.84 for the 2019 award.

This valuation is theoretical, to the extent that the final vesting of PUs (several years after the grant date) depends on the achievement of strict and demanding performance conditions.

The Board of Directors decided to raise the continuous service condition associated with the 99,717 Performance Units awarded to it for 2016, which were scheduled to vest in March 2020, to the level of the success rate for the performance conditions associated with them. At its meeting of February 26, 2020, the Board of Directors set the success rate for the performance criteria at 22.39%. The number of PUs that were awarded for 2016 and that vested was therefore 22,326. They can be exercised until March 2023.

Pursuant to the applicable legal provisions, the vesting of the 2016 PUs remains subject to the approval, by the Shareholders' Meeting called to vote in 2020 on the 2019 financial statements, of the resolution relating to the compensation components due or awarded to Isabelle Kocher for 2019.

At its meeting of February 24, 2020, the Board of Directors also noted that the continuous service condition attached to the 360,000 PUs awarded to Isabelle Kocher for 2017, 2018, and 2019, and not yet vested, was not met. These PUs therefore became null and void.

Lastly, it should be noted that the 20,374 PUs exercisable and exercisable since March 15, 2019 under the award plan for 2015 will remain exercisable until March 15, 2022.

4.4.1.8 Compensation components paid in 2019 or awarded for the same year to each executive corporate officer of the Company, subject to shareholder approval

In accordance with Article L. 225-100 II of the French Commercial Code, the Shareholders' Meeting of May 14, 2020 will vote on the fixed, variable and extraordinary components of the total compensation and benefits of any kind paid in, or awarded for, 2019 to Jean-Pierre Clamadieu, Chairman of the Board of Directors, and Isabelle Kocher, Chief Executive Officer.

The variable or extraordinary compensation components awarded for 2019 can only be paid after approval by the Shareholders' Meeting of the components of the compensation of the corporate executive officer concerned.

COMPENSATION COMPONENTS PAID IN, OR AWARDED FOR, 2019 TO JEAN-PIERRE CLAMADIEU, CHAIRMAN OF THE BOARD

Compensation components	Amounts paid in 2019	Amounts awarded for 2019	Details
Fixed compensation	€433,064	€433,064	Jean-Pierre Clamadieu's fixed compensation is €450,000 for a full year as of March 1st, 2019 (previously €350,000).
Annual variable compensation	None	None	Jean-Pierre Clamadieu receives no annual variable compensation
Employer contribution to retirement plan	None	None	Jean-Pierre Clamadieu receives no employer pension contribution.
Multi-annual variable compensation	None	None	Jean-Pierre Clamadieu receives no multi-annual variable compensation.
Directors' fees	None	None	Jean-Pierre Clamadieu receives no directors' fees.
Extraordinary compensation	None	None	Jean-Pierre Clamadieu receives no extraordinary compensation.
Allocation of stock options, Performance Shares and any other long-term compensation	None	None	Jean-Pierre Clamadieu is not allocated stock options, Performance Shares or any other long-term compensation.
Compensation associated with the commencement or termination of duties	None	None	Jean-Pierre Clamadieu receives no compensation associated with the commencement or termination of duties.
Supplementary pension plan	None	None	Jean-Pierre Clamadieu is not a beneficiary of any supplementary pension plan.
Benefits in kind	None	None	Jean-Pierre Clamadieu did not benefit from the use of a company vehicle.

COMPENSATION COMPONENTS PAID IN, OR AWARDED FOR, 2019 TO ISABELLE KOCHER, CHIEF EXECUTIVE OFFICER

Compensation components	Amounts paid in 2019	Amounts awarded for 2019	Details
Fixed compensation	€1,000,000	€1,000,000	The fixed remuneration of Isabelle Kocher was set at €1,000,000.
Annual variable compensation	€641,760	€661,500	Isabelle Kocher's variable compensation for 2018 to be paid in 2019 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%). For the quantifiable component, the criteria used were net recurring income, Group share, per share (50%) and free cash flow, ROCE (return on capital employed) and net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2018 were based on the Group's projected budget as presented to the Board of Directors on March 7, 2018. For the qualitative component, the criteria used were as follows: 1- Develop long-term growth drivers (40%) • Pursue and strengthen organic growth via existing offerings and by developing new skills and customer solutions. • Contribute to growth through acquisitions in the BtoB, BtoT and high-tech business lines. 2- Prepare post-2025 options in Belgium (20%) 3- CSR, emphasizing the employer's social responsibility (20%) • Make employee engagement and commitment one of the main levers for the Group's transformation and performance (employee survey). • Continue to adapt internal skills to meet organizational and customer solutions needs. • Embed new management practices and the concept of organizational agility within the Group's culture. 4- Develop the Digital & Innovation road map (10%) • Define the strategy for the three-year plan and the 2030 targets. • Adapt the internal organization and partnerships based on the objectives set. 5- Make the customer's perception of the brand and the image a key element in the Group's transformation and performance (10%) • Continue to bring the commercial offerings into line with the Group's strategy. • Develop a communication and brand awareness program. • Develop Know Your Customer (KYC) and make customer satisfaction a driver of cultural change (NPS: net promoter score). At its meeting of February 27, 2019, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee: • noted that the success rate of the quantifiable criteria was 85.46% (broken down as follows; Net recurring income, Group share, per share (1/2): 82.52%; ROCE (1/6): 94.06%; Free cash flow (1/6): 105.51%; Net debt (1/6): 65.63%); • set the success rate of the qualitative criteria at 101.00%. Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 91.68%. The variable component for 2018 is therefore €641,760.

Compensation components	Amounts paid in 2019	Amounts awarded for 2019	Details
			The structure of Isabelle Kocher's target variable compensation paid in 2020 for 2019 also remains unchanged at €700,000, corresponding to 70% of her fixed compensation and capped at €840,000, i.e. 120% of the target variable compensation. Variable compensation in 2019 is broken down into two components: a quantifiable component (60%) and a qualitative component (40%). For the quantifiable component, the criteria used are net recurring income, Group share, per share (50%) and free cash flow, ROCE and economic net debt (each counting for one-sixth of the overall total) (50%). The quantifiable targets for 2019 were based on the Group's projected budget as presented to the Board of Directors on February 27, 2019. For the qualitative component, the criteria used were as follows: 1- Quality of strategic plan and reception by investors (10%) 2- Implementation of growth strategy in downstream BtoB/T and refocusing business lines (25%) • organic growth - upselling of services • external growth • refocusing of business lines/geographical areas of the Group's scope 3- Securing the Group's position in Belgium (25%) 4- Organization, engagement and governance (20%) 5- CSR (20%) • pursuing efforts to reduce CO_2 emissions in line with 2020 goals • progress in the management of health and safety risks • continued roll-out of the ethics compliance reference system At its meeting of February 26, 2020, the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee: • noted that the success rate of the quantifiable criteria was 97.5% (broken down as follows: Net recurring income Group share, per share (1/2): 103.4%; ROCE (1/6): 100.3%; Free cash flow (1/6): 107.2%; Net debt (1/6): 67.4%); • set the success rate of the qualitative criteria at 90%. Based on the respective weightings of the quantifiable (60%) and qualitative (40%) criteria, the overall success rate was determined to be 94.5%. The variable component for 2019 was thus €661,500. It will only be paid to Isabelle Kocher if approved by the shareholders at the Shareholders' Meeting of May 14, 2020.
Employer contribution to retirement plan	€410,440	€415,375	At its meeting of May 3, 2016, the Board of Directors voted to maintain the employer contribution arrangement from which Isabelle Kocher benefited when she was Chief Operating Officer. Under this supplementary pension plan system, the Company does not guarantee the amount of pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82) and half is a cash sum, given the immediate taxation on commencement of this new mechanism. The employer contribution corresponds to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It also depends on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results. For 2018, this employer contribution was €410,440, which was paid in 2019. For 2019, this employer contribution is €415,375, which will be paid in 2020, subject to shareholder approval at the Shareholders' Meeting of May 14, 2020.
Multi-annual variable compensation	None	None	Isabelle Kocher did not receive any multi-annual variable compensation.
Directors' fees	None	None	Isabelle Kocher did not receive any directors' fees.
Extraordinary compensation	None	None	Isabelle Kocher did not receive any extraordinary compensation.

4

Compensation components	Amounts paid in 2019	Amounts awarded for 2019	Details
Awarding of stock options, Performance Shares and any other long-term compensation	0	Valuation: €940,800	The 120,000 Performance Units awarded by the Board of Directors on February 27, 2019 to Isabelle Kocher for 2019, valued at €940,800 (see the note on this theoretical valuation in Section 4.4.1.7), have become null and void, as the continuous service condition was no longer met after Isabelle Kocher left the Group on February 24, 2020.
Compensation associated with the commencement or termination of duties	None	None	Isabelle Kocher's employment contract had been suspended since January 1, 2015. This suspended employment contract does not provide specifically for non-compete or severance compensation. As part of the Company's human resources policies, all employees of ENGIE Management Company receive severance compensation when their employment contract is terminated. Indemnities due under said policies amounts to 3/5 of the monthly salary per year of service in the company or Group and is capped at 18 months' salary. "Monthly salary" is understood to mean one-twelfth of the annual fixed compensation of the current year plus the last variable component that was paid. Please refer to Section 4.4.1.5 on the non-compete commitment authorized by the Board of Directors on February 24, 2020.
Supplementary pension plan	None	None	In addition to mandatory pension plans, until December 31, 2014, Isabelle Kocher benefited from the supplementary collective pension plans of the former SUEZ group (which she joined in 2002), consisting of a defined contribution plan and a defined benefit plan. The defined contribution plan (Article 83) is based on her gross annual compensation and the following contribution rates: 5% tranche A (equivalent to the annual social security limit), 8% tranche B (between one and four times the social security limit), 8% tranche C (between four and eight times the social security limit). The rights accumulated from 2002 to 2014 under the collective defined benefit plan would have resulted, subject to the condition of continuous service in the Group, in an annual annuity, estimated at year-end 2015, at the end of her career aged 65, of €145,456, before tax and social security deductions. When Isabelle Kocher left the ENGIE Group, the continuous service condition underlying these rights was no longer met and they therefore became null and void.
Benefits in kind	€6,012	€6,012	Isabelle Kocher benefited from the use of a company car.

4.4.1.9 Comparison tables of the level of compensation of corporate officers in relation to the compensation of employees – Annual changes in performance and compensation

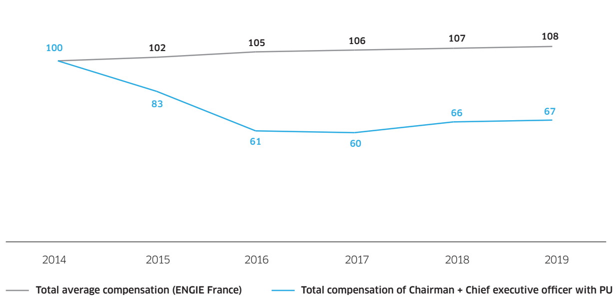
Scope of employees in France

The tables present the ratios between the compensation of each executive director and their changes in recent years, as well as the average compensation of employees in France, the relevant scope for comparison.

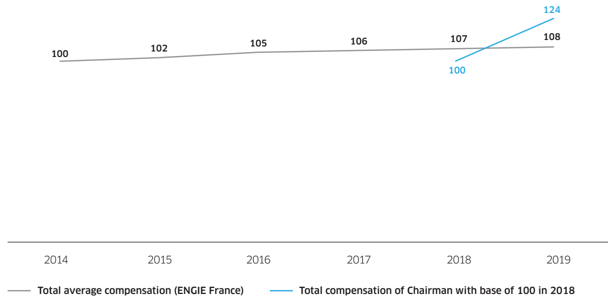
	2014	2015	2016	2017	2018	2019
Chairman *(Gérard Mestrallet until May 18, 2018, succeeded by Jean-Pierre Clamadieu)*						
Ratio with average compensation	0	0	0	0	7.6 (1)	9.3
Chairman and Chief Executive Officer/Chief Executive Officer *(Gérard Mestrallet, Isabelle Kocher after May 3, 2016)*						
Ratio with average compensation	90.3	73.7	52.7	50.9	55.1	55.7

(1) Full-year calculation

CHANGE IN CHAIRMAN AND CEO/CEO COMPENSATION AND IN AVERAGE COMPENSATION FOR ENGIE FRANCE, COMPARED TO A BASE OF 100 IN 2014

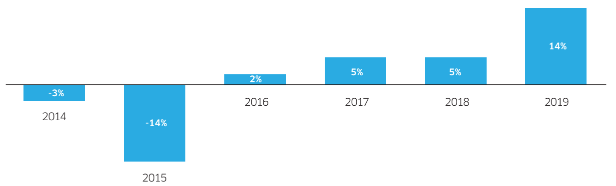


CHANGES IN CHAIRMAN COMPENSATION AND IN AVERAGE COMPENSATION FOR ENGIE FRANCE COMPARED TO A BASE OF 100 IN 2018 AND 2014, RESPECTIVELY

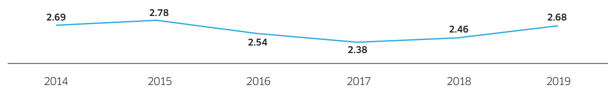


The tables below illustrate the annual changes in the company's consolidated performance.

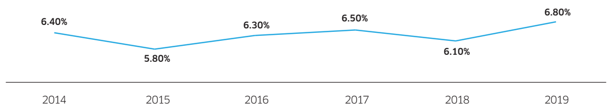
COI (ORGANIC GROWTH)



NET RECURRING INCOME, GROUP SHARE (EXCLUDING E&P AND LNG) (IN BILLION EUROS)



ROCE



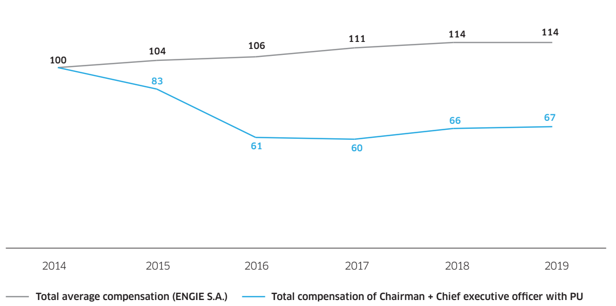
Scope of ENGIE S.A. employee (for information)

Although considered irrelevant, in order to meet the legal obligations, the tables below are based on the average and median compensation of the employees of the parent company, ENGIE S.A.

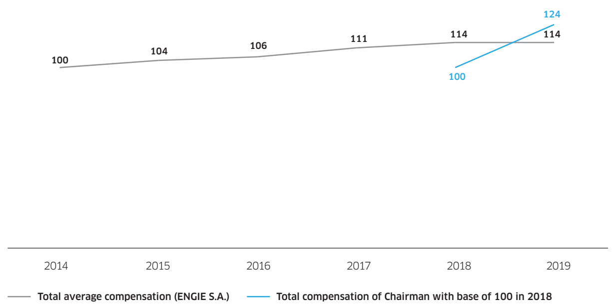
	2014	2015	2016	2017	2018	2019
Chairman *(Gérard Mestrallet until May 18, 2018, succeeded by Jean-Pierre Clamadieu)*						
Ratio with average compensation for ENGIE S.A	0	0	0	0	4.7 (1)	5.9
Ratio with median compensation for ENGIE S.A	0	0	0	0	5.3 (1)	6.5
Chairman and Chief Executive Officer/Chief Executive Officer *(Gérard Mestrallet, Isabelle Kocher after May 3, 2016)*						
Ratio with average compensation for ENGIE S.A	59.9	48.1	34.5	32.1	34.5	35.1
Ratio with median compensation for ENGIE S.A	66	53.6	36	38.4	38.5	38.9

(1) Full-year calculation

CHANGE IN CHAIRMAN/CEO COMPENSATION AND IN AVERAGE COMPENSATION FOR ENGIE S.A., COMPARED TO A BASE OF 100 IN 2014



CHANGES IN CHAIRMAN COMPENSATION AND IN AVERAGE COMPENSATION FOR ENGIE S.A. COMPARED TO A BASE OF 100 IN 2018 AND 2014, RESPECTIVELY



4.4.1.10 Compensation policies for corporate officers

The compensation policies for corporate officers below will be submitted for shareholder approval at the Ordinary Shareholders' Meeting of May 14, 2020, in accordance with Article L. 225-37-2 of the French Commercial Code.

4.4.1.10.1 Compensation policy for directors

On the recommendation of the Board of Directors, the Sareholders' Meeting sets the total annual amount of Directors' compensation to be distributed by the Board among its members.

On the recommendation of the Appointments and Compensation Committee, the Board of Directors, at its meeting of December 11, 2013, amended the rules for distributing the annual amount of directors' fees, set by the Gaz de France Shareholders' Meeting of July 16, 2008 at €1.4 million (unchanged since 2008) in line with an individual distribution system, combining a fixed portion with a predominant variable portion based on the attendance of Directors at Board and Committee meetings, in accordance with the recommendation of Article 21.1 of the Afep-Medef Code.

When the size of the Board of Directors was reduced as of May 17, 2019, the Board of Directors' meeting of July 29, 2019 revised the allocation rules, within the total amount granted by the Shareholders' Meeting of 2008, to take account, in particular, of the growing demands on governance bodies, on the proposal of the ACGC. Three changes were made to the former rules for the allocation of Directors' compensation (see section 4.1.4.4.1 of the 2018 Registration Document):

- an increase of 10% in the variable portion related to attendance of meetings of the Board and its committees;
- for non-residents, an increase in the variable portion in the event of physical attendance at meetings of the Board and its committees, by 25% for Europeans and by 50% for non-Europeans;
- setting the fixed portion for chairmen of the EESDC and the ACGC at €10,000 (compared with €5,000 previously).

The new allocation rules, applied for the period after July 29, 2019, are indicated below, it being specified that the executive corporate officers receive no compensation for attending meetings of the Board of Directors.

Director		Fixed fee	€15,000 per year
		Variable fee, dependent on attendance	€55,000 [(1)] if 100% attendance
Audit Committee	Chairman	Fixed fee	€15,000 per year
		Variable fee, dependent on attendance	€44,000 [(1)], if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€22,000 [(1)], if 100% attendance
SITC	Chairman	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€27,500 [(1)], if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€16,500 [(1)], if 100% attendance
EESDC	Chairman	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€22,000 [(1)], if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€16,500 [(1)], if 100% attendance
ACGC	Chairman	Fixed fee	€10,000 per year
		Variable fee, dependent on attendance	€22,000 [(1)], if 100% attendance
	Committee member	Fixed fee	€5,000 per year
		Variable fee, dependent on attendance	€16,500 [(1)], if 100% attendance

(1) Variable portion increased by 25% for European non-residents or 50% for non-European non-residents, in the event of physical attendance at meetings

4.4.1.10.2 Directors appointed by the Shareholders' Meeting

The corporate officers who are not executives received the compensation shown in the table below for fiscal year 2019. Unless otherwise indicated, no other compensation was paid to these officers by the Company or by its subsidiaries for the said fiscal year.

In euros	Fiscal year 2019 (1)	Fiscal year 2018 (1)
Ann-Kristin Achleitner	37,500 (2)	90,000 (2)
Edmond Alphandéry	47,917 (3)	119,429 (3)
Fabrice Brégier	84,063 (3)	78,095 (3)
Aldo Cardoso (4)	45,833 (2)	96,944 (2)
Patrice Durand (5)	74,552 (3)	60,825 (3)
Catherine Guillouard (6)	0	0
Mari-Noëlle Jégo-Laveissière (5)	68,354 (3)	66,027 (3)
Barbara Kux	35,417 (2)	81,429 (2)
Françoise Malrieu	141,458 (3)	133,182 (3)
Ross McInnes (7)	126,541 (3)	60,000 (3)
Marie-José Nadeau	165,573 (2)	140,000 (2)
Peter Ricketts of Shortlands	91,432 (2)	85,000 (2)
TOTAL	**918,640**	**1,010,931**

(1) Directors' compensation due for a given fiscal year are paid during the fiscal year concerned
(2) Before deduction of withholding tax levied on directors' fees paid to Directors residing outside France
(3) Before deduction of withholding tax relating to tax and social contributions
(4) In his capacity as Chairman of the Board of Directors since June 15, 2018 of Société Monégasque de l'Électricité et du Gaz (SMEG), a subsidiary 63.9% owned by ENGIE, Aldo Cardoso received €38,461.54 for fiscal year 2019 and €14,827 for fiscal year 2018 in directors' compensation from SMEG
(5) Director elected from the private sector by the Shareholders' Meeting on the proposal of the French State
(6) Director elected from the public sector by the Shareholders' Meeting on the proposal of the French State
(7) Director elected by the Shareholders' Meeting of May 18, 2018

Director representing the French State and the Directors elected by the Shareholders' Meeting on the proposal of the French State

The Director representing the French State and the Directors from the public sector appointed by the Shareholders' Meeting on the proposal of the French State – Isabelle Bui (from June 5, 2019) and Catherine Guillouard (until May 17, 2019), respectively – have not personally received any compensation from the Company or from companies controlled by the Company for their service as Directors in 2019.

The Directors from the private sector appointed by the Shareholders' Meeting on the proposal of the French State, namely Mari-Noëlle Jégo-Laveissière and Patrice Durand, received 85% of the directors' fees corresponding to their office, pursuant to the ministerial Order of December 28, 2014, as amended by the ministerial order of January 5, 2018, taken in application of Article 6 of Ordinance No. 2014-948 of August 20, 2014 concerning governance and equity operation of companies with a public shareholder (see the table above).

In respect of the foregoing, the balance of the directors' compensation corresponding to these offices (€101,469) was paid directly to the Public Treasury in compliance with regulations.

Directors representing the employees and employee shareholders

Directors representing employees and employee shareholders on the ENGIE Board of Directors received no compensation (directors' fees or other) from the Company or from companies controlled by the Company in consideration of their service as Directors.

These Directors are Christophe Agogué, Alain Beullier, Philippe Lepage and Christophe Aubert.

4.4.1.10.3 Compensation policy for executive corporate officers

The compensation policy for executive corporate officers is determined by the Board of Directors based on the recommendations of the Appointments, Compensation and Governance Committee. It is subject to a presentation and binding votes at the Annual Shareholders' Meeting in accordance with Article L. 225-37-2 of the French Commercial Code.

The compensation policy is reviewed annually by the Appointments, Compensation and Governance Committee and is based in particular on specific studies carried out by an external firm specializing in this area.

Pursuant to Article 3.3.1 of the Board's Internal Regulations, executive corporate officers do not take part in meetings of the Appointments, Compensation and Governance Committee on matters relating to them

In its recommendations to the Board of Directors, the Appointments, Compensation and Governance Committee seeks to propose a compensation policy that is in line with corporate responsibility and the practices of comparable major international groups for similar positions, based on a benchmark established by a specialized external firm that includes companies listed on the CAC40, the Eurostoxx 50 (excluding companies in the financial sector), and the Eurostoxx Utilities indices.

Pursuant to Article 9.6 of the Afep-Medef Code, the Chairman of the Board of Directors, as an independent director, does not receive variable compensation linked to the Company's performance.

Compensation of the other executive corporate officers generally includes:

- a fixed component, which remains unchanged throughout the term of office, unless the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee, decides otherwise;
- a variable component, balanced relative to total compensation, the purpose of which is to reflect the executive's personal contribution to the Group's development and results; and
- a long-term incentive component, subject to performance conditions.

Stringent performance criteria are set both for the variable component and for long-term incentive plans, maintaining a link between the Group's performance and the compensation of its directors in the short, medium and long term and contributing to the Company's strategy and sustainability.

If the approval rate for the compensation policy is less than 80% at the last Shareholders' Meeting, the Appointments, Compensation and Governance Committee looks at the direction of the vote of the shareholders that opposed the approval of this policy and the possible follow-up to be given to their vote.

Compensation policy for the Chairman of the Board for 2020

The compensation of the Chairman of the Board of Directors includes a fixed annual salary. It does not include any annual or multi-year variable compensation or long-term incentive plans.

The fixed annual compensation is €450,000.

In accordance with current policy, executive corporate officers do not receive directors' fees for their participation in the work of the Board and its committees.

The Chairman of the Board receives social security coverage and health care coverage.

He may benefit from the use of a company vehicle.

Compensation policy for the Chief Executive Officer for the period January 1 to February 24, 2020

The Chief Executive Officer's compensation includes a fixed component, a variable annual component and a long-term incentive component.

The annual variable component is designed to reflect the executive's personal contribution to the Group's development and results. It is balanced in relation to the fixed component and determined as a percentage of fixed compensation. It also includes criteria aligned with the assessment, conducted annually, of the Chief Executive Officer's performance and with the Company's strategy. Sixty percent of its criteria are quantifiable, to reward economic performance, and 40% are qualitative. The qualitative criteria include at least one corporate, societal and environmental responsibility target. The quantifiable and qualitative targets have sub-weightings. If the Chief Executive Officer leaves during the first quarter, the Board of Directors may set the annual variable component for the current year as a pro rata proportion of the annual variable component awarded to the Chief Executive Officer for the previous year.

The long-term incentive component takes the form of Performance Units that are subject to performance conditions comparable to those of the performance share plans for which Company executive corporate officers are not eligible. The performance conditions are quantitative only and include at least one external condition relating to the relative change in total shareholder return and an internal condition relating to value creation. This long-term incentive component is designed to encourage executives to make a long-term commitment as well as to increase their loyalty and align their interests with the Company's corporate interests and the interests of shareholders. This particular component may not account for more than 40% of the executive's total compensation at the initial award. When Performance Units are exercised, the Chief Executive Officer is required to reinvest a portion of the income for the year in Company shares until said officer's share portfolio is equal to two years' fixed compensation.

The payment of the variable and extraordinary compensation components for 2020 is contingent on the approval of shareholders at the 2021 Ordinary Shareholders' Meeting. This applies to the annual variable component and the employer contribution to the pension plan of the Chief Executive Officer for 2021, payment of which will only occur following approval at the aforementioned Shareholders' Meeting.

The Chief Executive Officer benefits from a supplementary pension plan, under which the Company does not guarantee the amount of the pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82) and half of which is a cash sum, given the immediate taxation on commencement of this mechanism. The employer contribution will correspond to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It will also depend on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results. The Chief Executive Officer will also continue to be eligible for the collective pension and health care plan for executive officers in order to ensure that they are compensated under terms that are in line with market conditions.

The Chief Executive Officer, if also a director, does not receive any directors' fees for sitting on the Board of Directors.

The Chief Executive Officer benefits from the use of a company car.

Lastly, the Board of Directors has the authority to negotiate a non-compete commitment with a Chief Executive Officer whose tenure with the Group is to cease, if such a commitment seems advisable to preserve the Group's interests, and under financial conditions that conform to the principles laid down in the Afep-Medef Code, to which ENGIE refers. No payment can take place before this non-compete commitment has been approved by ENGIE's Shareholders' Meeting.

Pursuant to these principles, the Chief Executive Officer's fixed compensation in 2020 remains unchanged at €1,000,000 for one full year. As the Chief Executive Officer's tenure ceased on February 24, 2020, the gross fixed compensation for the year will be €166,667.

As the Chief Executive Officer's tenure will cease on February 24, 2020, the Board of Directors has decided, as previously mentioned, to set the annual variable component for 2020 as a pro rata proportion of the annual variable amount awarded to the CEO for 2019, i.e. a gross amount of €110,250.

Lastly, as the CEO's tenure will cease on February 24, 2020, she will not be awarded any long-term incentive component for 2020.

The Chief Executive Officer will furthermore continue to benefit, in the period of January 1 to February 24, 2020, from a supplementary defined contribution pension plan under the terms mentioned above, as well as from collective pension and health care plan protection for executive officers.

It should also be noted that Isabelle Kocher's employment contract with ENGIE Management Company has been suspended since January 1, 2015.

As Isabelle Kocher's tenure as CEO would cease, it was agreed that her employment contract would be terminated. Isabelle Kocher will therefore benefit from indemnities for termination of the employment contract under the social measures in place at ENGIE Management Company (which provides for indemnities of 3/5 of the monthly salary per year of service in the company or Group, capped at 18 months' salary).

Lastly, it is again noted that under the memorandum of understanding dated February 24, 2020 between ENGIE and Isabelle Kocher in the context of her departure, she will receive the indemnities described in Section 4.7, subject to approval of this MoU by the Ordinary Shareholders' Meeting of May 14, 2020.

Compensation of the Chief Executive Officer appointed on February 24, 2020

To ensure the success of the transition, the Board of Directors, at its meeting of February 24, 2020, appointed General Secretary Claire Waysand as acting Chief Executive Officer, with immediate effect, as part of a management team comprising Paulo Almirante, Executive Vice President and Chief Operating Officer, and Judith Hartmann, Executive Vice President and Chief Financial Officer. The Board has asked Jean-Pierre Clamadieu, Chairman of the Board of Directors, to support this transitional management team to ensure that the transition phase goes smoothly.

The Board of Directors has also tasked Jean-Pierre Clamadieu with the assistance of the Appointments, Compensation and Governance Committee, chaired by Françoise Malrieu, to seek the Group's next CEO.

Given these specific circumstances and the transitional nature of the situation, Claire Waysand will continue to benefit from her employment contract with Engie Management Company corresponding to her duties as General Secretary of the Engie group, which she will also continue to perform.

The compensation and benefits under this employment contract are as follows:

- Gross annual fixed compensation of €550,000
- Annual variable compensation in the form of a target bonus of 100% of the annual fixed compensation, corresponding to 100% achievement of targets, with a cap of 150% in case of overperformance. Sixty-five percent of this bonus is subject to quantitative criteria and 35% to qualitative assessment. Lastly, a penalty of up to 20% of the target may apply (health & safety/compliance)
- A variable long-term compensation component in the form of performance shares
- Profit-sharing and the option of placing sums in Group Savings Plans (Plan d'Épargne Groupe – PEG) and/or Retirement Savings Plans (Plan d'Épargne pour la Retraite Collectif – PERCO)
- Company car
- Collective schemes in place for all Engie Management Company employees, including additional health care and social security insurance coverage and the supplementary pension plan.

Claire Waysand will receive specific compensation for this temporary assignment in 2020, the amount of which will be determined by the Board when the assignment ends, up to a limit of €400,000, in addition to the compensation she will receive under her employment contract with Engie Management Company. To set the amount of this specific compensation, the Board will take into account the effectiveness of the management team and its ability to guide the Group's operations during this period.

Compensation of the future Chief Executive Officer for 2020

The Chief Executive Officer's compensation includes a fixed component, a variable annual component and a long-term incentive component.

The fixed component is determined according to the role, experience and reference market of the CEO, particularly in relation to the fixed compensation of executive corporate officers of groups similar to ENGIE in terms of size and scope, and, more generally, on the basis of the above benchmark. It is reviewed annually. It does not change for the duration of the term of office, unless the Board of Directors, on the recommendation of the Appointments, Compensation and Governance Committee, votes otherwise, in particular with regard to the market context, or any changes in ENGIE's profile or Group employee compensation.

The annual variable component is designed to reflect the executive's personal contribution to the Group's development and results. It is balanced in relation to the fixed component and determined as a percentage of the fixed compensation set by the Board of Directors. It constitutes between 0% and 150% of the fixed component, according to whether the pre-established targets are achieved or exceeded.

It is calculated annually, according to the Chief Executive Officer's performance, using quantifiable criteria to compensate economic performance (65%), and qualitative criteria (35%), where at least one criterion reflects the Group's CSR objectives.

For the quantifiable component, the criteria used are net recurring income, Group share (50%), current operating income (25%), and economic debt (25%). The quantifiable targets for 2020 were based on the Group's provisional budget as presented to the Board of Directors on February 26, 2020.

The long-term incentive component takes the form of Performance Units that are subject to performance conditions comparable to those of the performance share plans for which Company executive corporate officers are not eligible. The performance conditions are quantifiable only and include at least one external condition relating to the relative change in total shareholder return and an internal condition relating to value creation. This long-term incentive component is designed to encourage executives to make a long-term commitment as well as to increase their loyalty and align their interests with the Company's corporate interests and the interests of shareholders. This particular component may not account for more than 50% of the executive's total compensation at the initial award.

The payment of the variable and extraordinary compensation components for 2020 is contingent on the approval of shareholders at the 2021 Ordinary Shareholders' Meeting. This applies to the annual variable component and the employer contribution to the pension plan of the Chief Executive Officer for 2021, payment of which will only occur following approval at the aforementioned Shareholders' Meeting.

Lastly, the Chief Executive Officer will continue to benefit from a supplementary pension plan, under which the Company does not guarantee the amount of the pension but pays an annual employer contribution, half of which comprises contributions paid to a third-party organization under an optional defined contribution pension plan (Article 82) and half is a cash sum, given the immediate taxation on commencement of this mechanism. The employer contribution will correspond to 25% of the sum of the fixed compensation and the actual variable compensation accrued for the given year. It will also depend on the Company's performance, since the calculation base already includes the variable portion linked to the Group's results.

The Chief Executive Officer will also benefit from health care and social security schemes equivalent to the collective schemes for ENGIE's executive officers in France.

The Chief Executive Officer, if also a director, does not receive any directors' fees for sitting on the Board of Directors.

Furthermore, the Board of Directors has the authority to negotiate with a Chief Executive Officer, at the time of his/her arrival or departure, a non-compete commitment that will apply when his/her tenure with the Group ceases, if such a commitment seems advisable to preserve the Group's interests, and under financial conditions that conform to the principles laid down in the Afep-Medef Code, to which ENGIE refers. No payment can take place before this non-compete commitment has been approved by ENGIE's Shareholders' Meeting.

Lastly, the Chief Executive Officer benefits from the use of a company vehicle.

4.4.2 Compensation of executives who are not corporate officers (members of the Executive Committee

Compensation of executives who are not corporate officers (members of the Executive Committee) is composed of a fixed portion and a variable portion.

Changes in the fixed portion of compensation are linked to changes in specific situations, expansion or significant change in responsibilities and to repositioning made necessary in view of internal equity or a clear discrepancy vis-à-vis the external market.

The main purpose of the variable portion is to reward the contributions of executives to the Group's results.

The amounts below include the variable portions paid in 2019 for 2018 and paid in 2018 for 2017.

65% of the variable portion paid in 2020 for fiscal year 2019 was calculated based on economic criteria (net recurring income, Group share), and 35% on qualitative criteria, which focused on the success of the Group's transformation.

SUMMARY TABLE OF GROSS COMPENSATION, INCLUDING BENEFITS IN KIND, FOR EXECUTIVES WHO ARE NOT CORPORATE OFFICERS (EXECUTIVE COMMITTEE MEMBERS)(1)

In euros	**2019**	**2018**
Fixed	6,162,118	5,490,771
Variable	6,338,384	6,469,559
Total	**12,500,503**	**11,960,330**
Number of members	14	11

(1) Compensation is calculated excluding severance pay and taking into account actual time worked during the year in question

Pension provision

The total amount of pension obligations for members of the Executive Committee was €36.9 million at December 31, 2019. This is an estimated amount, as these obligations are, in principle, not made at an individual level.

The Group has a policy of funding pension obligations via plan assets without these being specifically dedicated to the pension obligations of a specific population.

4.4.3 Information on the award of bonus shares or Performance Shares[1]

4.4.3.1 Availability of Performance Shares

Article L.225-197-1 places restrictions on the free availability of Performance Shares granted to executive corporate officers under share plans.

In accordance with these provisions, a system was established specifying the obligation to hold as registered shares a certain percentage (set by the Board of Directors) of vested Performance Shares. The objective is that after a certain point, the executive corporate officers and, more generally, Executive Committee members would hold a portfolio of ENGIE shares corresponding to a fraction of their compensation.

At its meeting of March 1, 2017, the Board of Directors decided, on the recommendation of the Appointments, Compensation and Governance Committee, to update the existing system as follows:

- fixed target: build a share portfolio equivalent to two years' fixed compensation for executive corporate officers, and to one and a half years for other members of the Executive Committee. This objective is set in terms of the number of shares for each person concerned, and is calculated based on the fixed annual compensation prevailing at January 1 of the year in question and on the average share price over the previous year;
- until the target is met: continue to hold two-thirds of the vested Performance Shares and reinvest in ENGIE shares two-thirds of the income from the exercise of the PUs net of tax and social security withholding until the shareholding target (equal to two years' fixed compensation) referred to above is met.

4.4.3.2 Bonus share or Performance Share plans implemented during fiscal year 2019

- Authorization of the Shareholders' Meeting of May 18, 2018

The twenty ninth resolution of the ENGIE Ordinary and Extraordinary Shareholders' Meeting of May 18, 2018 authorized the Board of Directors to award bonus shares to employees and/or corporate officers of companies belonging to the Group (with the exception of corporate officers of the Company) up to the limit of 0.75% of the share capital on the date of the decision to allocate shares, with an annual cap of 0.25% of said share capital [1]. It should also be noted that the Shareholders' Meeting was not asked to grant an authorization for stock options.

- Performance Share Plan for 2018 (Board meeting of February 27, 2019)

Under the authorization given by the Shareholders' Meeting of May 18, 2018, the Board of Directors, at its meeting of February 27, 2019, decided to implement a Performance Share Plan for certain employees in the Trading business, in accordance with the order of November 3, 2009 and with European Directives CRDIII and CRDIV regarding the compensation of financial market professionals, and with the order of December 13, 2010. The main features of this plan and other plans granted for 2018 are listed on pages 154 et seq. of the 2018 Registration Document filed with the AMF on March 20, 2019.

- Performance Share plans for 2019 (Board meetings of December 17, 2019 and February 26, 2020)

Under the authorization granted by the Shareholders' Meeting of May 18, 2018, the Board of Directors, at its meeting of December 17, 2019, decided to implement Performance Share Plans for certain employees of ENGIE and its subsidiaries (excluding executive corporate officers of ENGIE). As part of the Group's transformation, the Board of Directors decided to maintain the current number of beneficiaries in order to secure the buy-in of key Group stakeholders in the success of this transformation. The plan is based on existing shares with no dilutive effect for shareholders. The main features of this plan, which involves 5,157,215 shares for 7,094 people, are as follows:

4

(1) *It is reminded that there is no more ENGIE stock options since November 9, 2017.*

Vesting period	From 12/17/2019 to 3/14/2023 (2024 for senior executives outside France)
Continuous service condition *(Current employment contract with a Group company at these dates, except in cases of retirement, death, disability or exceptional decision)*	On 3/14/2023 (2024 for senior executives outside France)
Vesting date	3/15/2023 (2024 for senior executives outside France)
Holding period *(mandatory, except in the case of death or disability)*	No holding period except for senior executives in France for whom the holding period runs from 3/15/2023 to 3/14/2024 (no holding if vesting occurs in 2024)
Transferable from	On or after 3/15/2023, and for senior executives, on or after 3/15/2024
Performance conditions	With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: a)One-third of the calculation is based on the net recurring income, Group share for 2021 and 2022 compared to the budgeted net recurring income, Group share for those years (pro forma); and b)One-third is based on ROCE for 2021 and 2022 compared to the budgeted ROCE for the same years (pro forma); and c)One-third is based on ENGIE's TSR (total shareholder return) compared with the TSR of a panel of companies composed of EDF, E.ON, Enel, EDP, Naturgy (formerly Gas Natural), Iberdrola, Innogy, Spie, Uniper and RWE [1] for the period December 2022 to January 2023 versus November to December 2019[2] A single performance slope is applied to each of the three criteria: - ENGIE performance ≤ 75% of the target level: 0% success rate - ENGIE performance ≥ 100% of the target level: 100% success rate - Proportional and linear progression for intermediate results *The arithmetic mean of the three success rates in a), b) and c) above represents the percentage of shares that will vest.* This condition applies to all Performance Shares awarded to the Group's executives and beyond the first tranche of 150 shares awarded to all other beneficiaries.

In addition, under the authorization given by the Shareholders' Meeting of May 18, 2018, the Board of Directors, at its meeting of February 26, 2020, decided to implement a Performance Share Plan for certain employees in the Trading business, in accordance with the ministerial order of November 3, 2009 and with European Directives CRDIII and CRDIV regarding the compensation of financial market professionals, and with the ministerial order of December 13, 2010.

The allocation concerned 96 people within the Trading business, for a total of 279,497 ENGIE Performance Shares. The Board of Directors set the following schedule and general conditions for the plan:

Vesting period	2/26/2020 to 3/14/2022 for around half the shares 2/26/2020 to 3/14/2023 for the remaining shares
Continuous service condition *(Current employment contract with a Group company at these dates, except in cases of retirement, death, disability or exceptional decision)*	3/14/2022 for around half the shares 3/14/2023 for the remaining shares
Vesting date	3/15/2022 for around half the shares 3/15/2023 for the remaining shares
Holding period	No holding period
Transferable from	From 3/15/2022 for around half the shares From 3/15/2023 for the remaining shares
Performance conditions	▪ Based on the Trading business's profit before tax for fiscal year 2021 for around half the shares ▪ Based on the Trading business's profit before tax for fiscal year 2022 for the remaining shares

(1) Each company in the reference panel receives an identical weighting, apart from E.ON, Uniper, RWE and Innogy, which are accounted for at 50% each for weighting purposes.

(2) To smooth the possible effects of volatility (gain or loss), the TSR will be calculated by taking the average of ENGIE's TSR and the TSR of the panel companies over two months, namely December 2022 to January 2023, versus November to December 2019.

4.4.4 Performance Shares awarded to and available for sale by each executive corporate officer – Summary of current plans

4.4.4.1 ENGIE Performance Shares awarded to each ENGIE executive corporate officer by ENGIE and all other companies of the ENGIE Group in 2019

None

4.4.4.2 ENGIE Performance Shares that became available for sale by each executive corporate officer of ENGIE in fiscal year 2019

None

4.4.4.3 Summary of current ENGIE Performance Share plans

For year	2014	2015		2016	
	2014 Plan	2015 Plan	2015 Traders' Plan	2016 Plan	2016 Traders' Plan
Date of authorization from the General Shareholders' Meeting	4/28/2014	4/28/2015	4/28/2014	5/3/2016	5/3/2016
Date of Board decision	12/10/2014	12/16/2015	2/24/2016	12/14/2016	3/1/2017
Share price in euros (1)	12.1	9.8	10.2	8.44	9.89
Start of vesting period (2)	12/10/2014	12/16/2015	2/24/2016	12/14/2016	3/1/2017
End of vesting period	3/14/2018 (3)	3/14/2019 (5)	3/14/2018 (7) 3/14/2019 (7)	3/14/2020 (9)	3/14/2019 (7) 3/14/2020 (7)
Start of holding period	3/15/2018 (3)	3/15/2019 (5)	3/15/2020 (7) 3/15/2021 (7)	None (10)	None
End of holding period	3/15/2020 (3)	3/15/2021 (5)	3/15/2020 (7) 3/15/2021 (7)	None (11)	None
Related conditions	(4)	(6)	(8)	(12)	(13)
Shares vested as at 12/31/2018	462,240	3,158,565	61,378	5,105,080	134,940
Shares vested from 1/1/2019 to 12/31/2019	402,124	1,086,774	58,928	5,660	66,490
Shares canceled from 1/1/2019 to 12/31/2019	60,116	1,637,757	2,450	163,010	5,738
Balance of shares as at 12/31/2019	-	434,034		4,936,410	62,712

(1) Weighted average price (according to the method used for the consolidated financial statements)
(2) Early vesting possible in the event of death or permanent disability. Condition of continuous service at the vesting date
(3) For France, Belgium and Spain, with holding period from 3/15/2018 to 3/14/2020 inclusive and transferable from 3/15/2020; for other countries, vesting on 3/14/2019 with no holding period
(4) For all beneficiaries, there is a dual condition: 50% based on net recurring income, Group share for 2016 and 2017 and 50% based on the TSR of ENGIE stock compared with the TSR of the Eurostoxx Utilities (Eurozone) companies. 50% of the dual condition met
(5) For France and Belgium, with holding period from March 15, 2019 to March 14, 2021 inclusive and transferable from March 15, 2021; for other countries, vesting on March 14, 2020 with no holding period
(6) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: 50% based on net recurring income, Group share for 2017 and 2018 and 50% based on the TSR of ENGIE stock compared with the TSR of the Eurostoxx Utilities (Eurozone) companies
(7) For 50% of shares
(8) 50% based on 2017 ENGIE Global Markets (formerly GDF SUEZ Trading) profit before tax (met in full) and 50% based on 2018 ENGIE Global Markets profit before tax (met in full)
(9) For all beneficiaries except senior executives outside France and Belgium for whom the vesting period ends on March 14, 2021 with no holding period
(10) For all beneficiaries except senior executives outside France and Belgium for whom the vesting period ends on March 14, 2021 with no holding period
(11) For senior executives in France and Belgium, a holding period from March 15, 2020 to March 14, 2021, inclusive, applies
(12) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share, for fiscal years 2018 and 2019, one-third based on ROCE for fiscal years 2018 and 2019, and one-third based on the TSR of ENGIE stock compared with the TSR of a panel composed of EDF, E.ON, Enel, Naturgy (formerly Gas Natural), Iberdrola and RWE
(13) 50% based on 2018 ENGIE Global Markets (formerly GDF SUEZ Trading) profit before tax and 50% based on 2019 ENGIE Global Markets profit before tax

2017		2018		2019	
2017 Plan	2017 Traders' Plan	2018 Plan	2018 Traders' Plan	2019 Plan	2019 Traders' Plan
5/12/2017	5/12/2017	5/18/2018	5/18/2018	5/18/2018	5/18/2018
12/13/2017	3/7/2018	12/11/2018	2/27/2019	12/17/2019	2/26/2020
11.64	10.79	9.36	11.41	11.59	TBC
12/13/2017	3/1/2018	12/11/2018	2/27/2019	12/17/2019	2/26/2020
3/14/2021 [14]	03/14/2020 [7] 03/14/2021 [7]	3/14/2022 [19]	3/14/2021 [7] 3/14/2022 [7]	3/14/2023 [24]	3/14/2022 [7] 3/14/2023 [7]
None [15]	None	None [20]	None	None [25]	None
None [16]	None	None [21]	None	None [26]	None
[17]	[18]	[22]	[23]	[27]	[28]
5,138,215	133,185	5,022,660	186,221	None	None
425	None	175	None	None	None
110,855	8,144	119,190	9,728	None	None
5,026,935	125,041	4,903,295	176,493	5,157,215	None

(14) 3/14/2022 for senior executives outside France and Belgium
(15) 3/15/2021 for senior executives in France and Belgium
(16) 3/15/2022 for senior executives in France and Belgium
(17) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share for fiscal years 2019 and 2020, one-third based on ROCE for fiscal years 2019 and 2020, and one-third based on the TSR of ENGIE stock compared with the TSR of a panel composed of EDF, E.ON, Uniper, Innogy, Enel, Naturgy (formerly Gas Natural), Iberdrola and RWE. Each of these companies is assigned an identical weighting, with the exception of E.ON and Uniper, and RWE and Innogy, respectively, which are accounted for as single companies (50% each) for weighting purposes. This condition applies to all shares awarded to the Group's senior executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries
(18) 50% based on 2019 ENGIE Global Markets profit before tax and 50% based on 2020 ENGIE Global Markets profit before tax
(19) 3/14/2023 for senior executives outside France and Belgium
(20) 3/15/2022 for senior executives in France and Belgium
(21) 3/15/2023 for senior executives in France and Belgium
(22) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share for fiscal years 2020 and 2021, one-third based on ROCE for fiscal years 2020 and 2021, and one-third based on the TSR of ENGIE stock compared with the TSR of a panel composed of EDF, EDP, ENEL, E.ON, Uniper, Innogy, RWE, Naturgy (Gas Natural), Iberdrola, and Spie. Each of these companies is assigned an identical weighting, with the exception of E.ON, Uniper, RWE, and Innogy, which are accounted for at 50% each for weighting purposes. This condition applies to all shares awarded to the Group's senior executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries
(23) 50% based on 2020 ENGIE Global Markets profit before tax and 50% based on 2021 ENGIE Global Markets profit before tax
(24) 3/15/2024 for senior executives in France
(25) 3/15/2023 for senior executives in France
(26) 3/15/2024 for senior executives in France
(27) With the exception of beneficiaries awarded performance shares in the context of innovation programs and similar, a triple condition applies for all beneficiaries: one-third based on net recurring income, Group share for fiscal years 2021 and 2022, one-third based on ROCE for fiscal years 2021 and 2022, and one-third based on the TSR of ENGIE stock compared with the TSR of a panel composed of EDF, EDP, ENEL, E.ON, Uniper, Innogy, RWE, Naturgy (formerly Gas Natural), Iberdrola, and Spie. Each of these companies is assigned an identical weighting, with the exception of E.ON, Uniper, RWE, and Innogy, which are accounted for at 50% each for weighting purposes. This condition applies to all shares awarded to the Group's senior executives and does not affect the first tranche of 150 shares awarded to the other beneficiaries
(28) 50% based on 2021 ENGIE Global Markets profit before tax and 50% based on 2022 ENGIE Global Markets profit before tax

4.4.4.4 Summary of Bonus and Performance Shares held by Isabelle Kocher at December 31, 2019

Plan	ENGIE 2/13/2006	ENGIE 2/12/2007	ENGIE 7/16/2007 (1)	ENGIE 11/14/2007	ENGIE 6/1/2008 (1)	ENGIE 11/12/2008	ENGIE 7/8/2009 (1)
Conditions	ROCE 2007	ROCE 2008	ROCE 2008	EBITDA 2009	EBITDA 2009	EBITDA 2010	None
Vesting date	03/15/2008(2)	3/15/2009(2)	7/16/2009(2)	3/15/2010(2)	6/1/2010(2)	3/15/2011(2)	7/8/2011
Vesting shares	0	0	0	0	0	0	0
Vested shares	1,428	2,124	15	1,493	10	786	20
Transferable from	3/15/2010	3/15/2011	7/16/2011	3/15/2012	6/1/2012	3/15/2013	7/8/2013

(1) Worldwide plans for all employees
(2) Subject to a dual condition of performance and continuous service

Plan	ENGIE 11/10/2009	SUEZ 12/16/2010	ENGIE 6/22/2011 (1)	ENGIE 12/6/2011	ENGIE 12/5/2012	ENGIE 12/11/2013	ENGIE 12/10/2014
Conditions	EBITDA 2010	Net profit 2010-2014 and share performance	None	TSR and net recurring income, Group share	TSR and net recurring income, Group share	TSR and net recurring income, Group share	TSR and net recurring income, Group share
Vesting date	3/15/2012 (2)	12/16/2014 (2)	6/24/2013	None	3/15/2016 (3)	3/15/2017 (3)	3/15/2018 (3)
Vesting shares	0	0	0	0	0	17,000	
Vested shares	770	2,100	10	0	10,625	7,244 (5)	17,500 (4)
Transferable from	3/15/2014	12/16/2016	6/24/2015	None	3/15/2018	3/15/2019	3/15/2020

(1) Worldwide plans for all employees
(2) The dual performance condition was not met and 15,000 rights to vesting shares were canceled on March 14, 2015
(3) Subject to a dual condition of performance and continuous service
(4) For her role as Executive Vice President, Chief Financial Officer in 2014
(5) 42.61% of performance condition met

Note that the executive corporate officers have made a formal undertaking not to make use of hedging instruments in respect of Performance Shares.

4.4.5 Performance shares granted in fiscal year 2019 by ENGIE and by all companies included in the ENGIE performance share scope to the ten non-corporate officer employees of the issuer and its companies who received the greatest number of performance shares

Total number of shares awarded	Share price (1) *(in euros)*	Issuer	Plan
510,000	11.03	ENGIE	12/17/2019

(1) Weighted average price, according to the method used for the consolidated financial statements

4.4.6 Summary of transactions disclosed by executive management and corporate officers in fiscal 2019

	Date of transaction	Type of transaction	Financial instrument	Quantity	Unit price *(in euros)*	Transaction price *(in euros)*
Jean-Pierre Clamadieu	March 1st, 2019	Acquisition	Equity investments	20,000	13.2578	265,156.00
Isabelle Kocher	March 15, 2019	Acquisition	Performance Units (1)	20,374	(2)	(2)
Paulo Almirante	March 15, 2019	Acquisition	Shares (5)	1,500	(5)	(5)
Pierre Chareyre	March 15, 2019	Acquisition	Shares (3)	12,500	(4)	(4)
Shankar Krishnamoorthy	March 15, 2019	Acquisition	Shares (5)	4,000	(5)	(5)
Judith Hartmann	March 15, 2019	Acquisition	Shares (3)	17,500	(4)	(4)
Didier Holleaux	March 15, 2019	Acquisition	Shares (3)	12,500	(4)	(4)
Yves Le Gélard	March 15, 2019	Acquisition	Shares (3)	4,000	(4)	(4)
Pierre Mongin	March 15, 2019	Acquisition	Shares (3)	8,500	(4)	(4)
Wilfrid Petrie	November 14, 2019	Sale	Shares	904	14.3200	12,945.28
Wilfrid Petrie	December 4, 2019	Sale	Shares	800	14.3250	11,460.00

(1) Vesting of Performance Units allocated for the fiscal year 2015
(2) As soon as the Performance Units are exercisable their gross value is correlated to the price of the ENGIE share. At March 15, 2019, the ENGIE share price was €13.265
(3) Vesting of Performance Shares allocated for 2015
(4) As soon as the Performance Shares are vested, their gross value is correlated to the price of the ENGIE share. It should be noted that a discount should be applied due to the two-year lock-up period to March 15, 2021. At March 15, 2019, the ENGIE share price was €13.265
(5) Vesting of Performance Shares allocated for 2014

4.5 Additional information concerning corporate governance

4.5.1 Current operations concluded under the normal conditions

In accordance with the new legislative provisions and on the recommendation of the Audit Committee, the Board of Directors adopted a procedure on December 17, 2019 to assess whether the agreements relating to current operations, concluded under normal conditions by the company, actually fulfill these conditions.

A committee within ENGIE's General Secretariat informed about all draft agreements likely to be classified as a regulated or current agreement is tasked with analyzing the characteristics of this agreement and both submitting it to the authorization and control procedure provided for in the regulated agreements, and classifying it as a procedure concerning current operations concluded under normal conditions.

This procedure also provides for follow-up in the form of an annual update on its implementation to the Audit Committee and the Board of Directors. In accordance with the regulations, it should also be noted that persons directly or indirectly involved in one of the above agreements do not take part either in discussions or in voting on its assessment.

4.5.2 Related party agreements and regulated agreements

The special report of the Statutory Auditors on related party agreements referred to in Article L.225-38 et seq. of the French Commercial Code for fiscal year 2019 is provided in Section 4.7 of this chapter.

Details of transactions with related parties as specified by the regulations adopted under EC regulation 1606/2002, are provided in Note 25 to the Consolidated Financial Statements (Section 6.2).

4.5.3 Service contracts binding members of corporate governance bodies

To ENGIE's knowledge, there is no service contract binding members of the Company's management bodies or any of its subsidiaries that provides for benefits to be granted under such a contract.

4.5.4 Authorizations relating to share capital and share equivalents and their utilization

The Company's shareholders delegated the following powers and authorizations in relation to financial matters to the Board of Directors:

AUTHORIZATIONS GRANTED BY THE COMBINED SHAREHOLDERS' MEETING OF MAY 17, 2019

Resolution	Nature of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
5th	Authorization to transact in the stock market on shares of the Company	18 months (until November 16, 2020)	Maximum purchase price: €30. Maximum shareholding: 10% of the share capital. Aggregate amount of purchases: ≤ €7.3 billion	ENGIE held 0.91% of its share capital as of December 31, 2019	9,09% of share capital
14th	Capital increase reserved for members of the Group Employee Savings Plan	26 months (until July 16, 2021)	2% of the share capital (1) (2)	None	Full amount of the authorization
15th	Capital increase reserved for any entity formed as part of the implementation of the international employee shareholding plan offered by the Group	18 months (until November 16, 2020)	0.5% of the share capital (1) (2)	None	Full amount of the authorization

(1) The total maximum nominal amount of the issues approved under the 14th and 15th resolutions is set at €265 million by the 23rd resolution of the Combined Shareholders' Meeting of May 18, 2018

(2) The nominal amount of the issues decided under the 15th resolution will be charged against the ceiling of 2% of the share capital stipulated in the 14th resolution

AUTHORIZATIONS GRANTED BY THE COMBINED SHAREHOLDERS' MEETING OF MAY 18, 2018

Resolution	Type of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
13th	Issue, with preferential subscription rights, of ordinary shares and/or any marketable securities giving access to the capital of the Company and/or its subsidiaries, and/or issue of marketable securities giving entitlement to the allocation of debt securities (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for marketable securities representing debt (1)	None	Full amount of the authorization
14th	Issue, without preemptive subscription rights, by public offering, of ordinary shares and/or any marketable securities giving access to the capital of the Company and/or its subsidiaries, and/or issue of marketable securities giving entitlement to the allocation of debt securities (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for marketable securities representing debt (1)	None	Full amount of the authorization
15th	Issue, in the context of a private placement for qualified investors or for a limited circle of investors, without preemptive subscription rights, of ordinary shares or any other marketable securities giving access to the capital of the Company, in the context of an offering described in Article L. 411-2 II of the French Monetary and Financial Code (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for marketable securities representing debt (1)	None	Full amount of the authorization
16th	Increase in the number of shares or marketable securities to be issued in the event of a securities issue executed pursuant to the 13th, 14th and 15th resolutions, up to a limit of 15% of the initial issue, with or without preemptive subscription rights, through a public offering or a private placement (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	Maximum of 15% of the initial issue (1) (2)	None	Full amount of the authorization
17th	Issue of ordinary shares and/or marketable securities in consideration for contributions of securities made, up to a limit of 10% of the share capital (to be used outside public tender offer periods only).	26 months (until July 17, 2020)	€225 million for shares (1) (2) + €5 billion for marketable securities representing debt (1)	None	Full amount of the authorization
24th	Capital increase by incorporation of premiums, reserves, profits or other (to be used outside public tender offer periods only)	26 months (until July 17, 2020)	Aggregate amount that may be capitalized	None	Full amount of the authorization
25th	Authorization to reduce the share capital by canceling treasury stock	26 months (until July 17, 2020)	10% of the share capital per 24 month period	Reduction by cancellation of 6,036,166 treasury shares in connection with Link 2018 as of August 2, 2018	9.75% of the share capital

Resolution	Type of authorization or delegation of authority	Validity and expiration	Maximum nominal amount per authorization	Amounts utilized	Remaining balance
28th	Authorization to award bonus shares (i) to employees and/or officers of Group companies (with the exception of corporate officers of the Company) and (ii) to employees participating in a Group international employee shareholding plan	38 months (until July 17, 2021)	0.75% of the share capital (3)	None	Full amount of the authorization
29th	Authorization to award bonus shares to certain employees and officers of Group companies (with the exception of corporate officers of the Company)	38 months (until July 17, 2021)	Maximum shareholding: 0.75% of the share capital (3)	Award on December 11, 2018 of 5 022 660 Performance Shares, on February 27, 2019 of 187 674 Performance Shares (i.e 0.21% of share capital at February 27, 2019), on December 17, 2019 of 5 157 215 Performance Actions and February 26, 2020 of 279 497 Performance Shares, (i.e. 0.22% of share capital at February 26, 2020)	0.31% of share capital

(1) This is a common ceiling set by the Combined Shareholders' Meeting of May 18, 2018 for the issues approved under the 13th, 14th, 15th, 16th and 17th resolutions

(2) The total maximum nominal amount of the issues approved under the 13th, 14th, 15th, 16th and 17th resolutions is set at €265 million by the 23rd resolution of the Combined Shareholders' Meeting of May 18, 2018

(3) This is a common ceiling set by the Combined Shareholders' Meeting of May 18, 2018 for the awards approved under the 28th and 29th resolutions

4.5.5 Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings

Notice to attend Meetings (Articles 20, 21 and 22 of the bylaws)

Ordinary and Extraordinary Shareholders' Meetings and, where applicable, Special Shareholders' Meetings, are called, meet and deliberate in accordance with the conditions provided for by law. The party issuing the notice convening the meeting also draws up the meeting agenda. However, one or more shareholders may, in accordance with the conditions provided for by law, request that draft resolutions be entered on the agenda.

The meeting may take place at the Company's head office or at any other location stated in the notice.

Meetings are chaired by the Chairman of the Board of Directors or, in his absence, by the Vice-Chairman of the Board of Directors, the Deputy Chief Executive Officer if he or she is also director, or, in the absence of the Deputy Chief Executive Officer, by a Director specially authorized by the Board for this purpose. Otherwise, the Meeting elects its own Chairman.

The two members of the General Shareholders' Meeting present who accept the duties thereof and who hold the greatest number of votes act as vote tellers. The officers of the meeting appoint the Secretary, who may be chosen from outside the shareholders.

An attendance sheet is kept in accordance with the conditions provided for by law. Minutes of meetings are drawn up and copies thereof are issued and certified in accordance with the conditions provided for by law.

Attendance at Meetings (Article 20 of the bylaws)

All shareholders have the right to attend the meetings provided their shares are paid in full.

The right to attend meetings or to be represented therein is subject to the registration of the securities in the shareholder's name by midnight (CET) of the second business day prior to the meeting, either in the registered securities' accounts held by the Company or in bearer securities' accounts held by the authorized intermediary.

The Board of Directors may, if it deems necessary, send to the shareholders individualized admission cards in each shareholder's name and require them to be presented in order to gain access to the Shareholders' Meeting.

If the Board of Directors so decides at the time the Meeting is called, shareholders may participate in the meeting by videoconference or by any telecommunication or remote transmission means, including via the Internet, that permits their identification in accordance with the terms and conditions set under current regulations. Where applicable, this decision shall be announced in the notice convening the meeting published in the Bulletin des Annonces Légales Obligatoires (Bulletin of Mandatory Legal Announcements or BALO).

Voting rights (Articles 10, 11, 12 and 20 of the bylaws)

Unless otherwise provided for by law, each shareholder has as many voting rights and may cast as many votes at meetings as he or she holds shares, which are fully paid up. Effective April 2, 2016, in accordance with Article L. 225-123 of the French Commercial Code, all registered and fully paid-up shares registered in the name of the same beneficiary for at least two years are automatically entitled to a double voting right (see Section 5.1.1.3 "Voting rights").

The shares are indivisible with regard to the Company. Where the shares are subject to a right of usufruct, voting rights attached to shares belong to the beneficial owner of the shares in the case of Ordinary Shareholders' Meetings, and to the bare owner in the case of Extraordinary Shareholders' Meetings.

Any time it is necessary to own several shares in order to exercise any right whatsoever, the owners of isolated shares or an insufficient number of shares may exercise such a right provided that they combine or, as the case may be, buy or sell the necessary shares or rights.

Any shareholder may cast a vote by proxy in accordance with the terms and conditions provided for by the law and regulations in all Meetings. The owners of securities mentioned in the seventh paragraph of Article L. 228-1 of the French Commercial Code may be represented, in accordance with the conditions provided for by law, by a registered intermediary. Any shareholder may cast a vote by proxy in accordance with the terms and conditions provided for by the law and regulations. The shareholders may, in accordance with the terms and conditions provided for by the law and regulations, send their postal proxy form either as a printed form or, further to a decision of the Board of Directors published in the notice of meeting and the notice to attend the meeting, by electronic transmission.

Dividends (Article 26.2 of the bylaws)

Any shareholder who can, at the end of a fiscal year, provide proof of registration for at least two years and continuation thereof on the dividend payment date for the fiscal year in question, shall receive a 10% increase in the dividend for the shares so registered, over the dividend paid on other shares. This increase will be capped at 0.5% of the share capital for a single shareholder.

Golden share (Article 6 of the bylaws)

In accordance with the French Energy Code and Decree No. 2015-1823 of December 30, 2015, the share capital includes a golden share resulting from the conversion of one ordinary share, which is held by the French State and is aimed at protecting France's critical interests in the energy sector and ensuring the continuity and safeguarding of energy supplies (see Section 5.2.4 "Golden share").

Changes in rights attached to shares

Except where otherwise specified by law, the rights attached to the Company's shares may be modified only by the Extraordinary Shareholders' Meeting, subject to the special terms relating to the French State's golden share under Article 6 of the bylaws (see also Section 5.2.4 "Golden share").

In accordance with the provisions of the applicable law and regulations, which define the rights attached to ENGIE shares, any amendment of the bylaws must be approved by a two-thirds majority at the Extraordinary Shareholders' Meeting. All increases in the commitments of the shareholders must be unanimously approved by all shareholders.

4.5.6 Information on elements that could have an impact on Takeover Bids or Public Exchange Offers

Pursuant to Article L. 225-37-5 of the French Commercial Code, the elements that could have an impact in the event of a public tender offer or exchange offer are specified in Section 3.4.4 "Employees Savings and Shareholding", 4.1 "Corporate governance bodies", 4.1.2 "Functioning of the Board of Directors", 4.4 "Compensation and benefits paid to members of corporate governance bodies", 4.5.4 "Authorizations relating to share capital and share equivalents and their utilization", 4.5.5 "Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings", 5.2.2 "Breakdown of share capital", 5.2.3 "Statutory disclosure thresholds", 5.2.4 "Golden share" and 7.1 "General information concerning ENGIE and its bylaws".

4.5.7 Statutory Auditors

Statutory Auditors

Deloitte & Associés

Company represented by Patrick Suissa and Olivier Broissand.

6 place de la Pyramide, 92908 Paris-La Défense Cedex, France

Deloitte & Associés has been a Statutory Auditor for the Company since July 16, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019.

Ernst & Young et Autres

Company represented by Charles-Emmanuel Chosson and Stéphane Pédron.

1/2 place des Saisons, 92400 Courbevoie – Paris La Défense 1, France

Ernst & Young et Autres has been a Statutory Auditor for the Company since May 19, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019. Previously, ERNST & YOUNG Audit was an auditor between 1995 and 2007.

It will be proposed to the Shareholders'Meeting of May 14, 2020 to reappoint the Statutory Auditors, Ernst & Young et Autres and Deloitte & Associés, for a six-year term expiring at the end of the Ordinary Shareholders' Meeting that will be convened in 2026 to approve the financial statements for the fiscal year ended December 31, 2025.

Alternate Statutory Auditors

AUDITEX (for Ernst & Young et Autres)

1/2 place des Saisons, 92400 Courbevoie – Paris La Défense 1, France

Auditex has been an alternate Statutory Auditor for the Company since May 19, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019.

BEAS (for Deloitte & Associés)

6 place de la Pyramide, 92908 Paris-La Défense Cedex, France

BEAS has been an alternate Statutory Auditor for the Company since July 16, 2008. Its term of office was renewed at the Combined Shareholders' Meeting of April 28, 2014 for a period of six years and will expire at the close of the 2020 Ordinary Shareholders' Meeting held to approve the financial statements for the fiscal year ending December 31, 2019.

In accordance with the option provided by Article L.823-1 of the French Commercial Code, it is not proposed to renew the terms of office of the substitute Statutory Auditors expiring at the end of the General Meeting of May 14, 2020.

4.6 Corporate Governance Code

ENGIE maintains its commitment to implementing corporate governance guidelines and for this purpose refers to the Afep-Medef Corporate Governance Code for listed companies (amended in January 2020).

The following table sets out the Company's explanations for the non-application of some recommendations of the Afep-Medef Code.

Article of Afep-Medef Code	Explanation
Article 22 (termination of the employment contract in the event of appointment to corporate office)	In order to ensure this transition, the Board decided on February 24, 2020 to appoint with immediate effect Claire Waysand, General Secretary, as Chief Executive Officer, as part of a collective management team together with Paulo Almirante, Executive Vice-President and Chief Operating Officer and Judith Hartmann, Executive Vice-President and Chief Financial Officer. The Board has asked Jean-Pierre Clamadieu to support the transition management team in order to ensure the success of this period. The Board of Directors has also tasked Jean-Pierre Clamadieu, with the assistance of the Appointments, Compensation and Governance Committee, chaired by Françoise Malrieu, to seek the Group's next CEO. Given these specific circumstances and the transitional nature of the situation, Claire Waysand will continue to benefit from her employment contract with ENGIE Management Company corresponding to her duties as General Secretary of the ENGIE Group, which she also continues to perform.
Article 22 (termination of the employment contract in the event of appointment to corporate office)	Isabelle Kocher's employment contract has been suspended since January 1, 2015. The Afep-Medef Code recommends that when an employee becomes an executive corporate officer, their employment contract with the company should be terminated. Having appointed Isabelle Kocher Chief Executive Officer at its meeting of May 3, 2016, the Board of Directors determined that it was appropriate to keep her employment contract suspended. The Board decided that the rights accrued by Isabelle Kocher in respect of the supplementary collective pension plans for executive officers up until December 31, 2014, which is the period prior to the suspension of her employment contract, would remain frozen and preserved, which implied keeping her employment contract suspended. ENGIE's internal promotion policy assigns corporate officer positions to experienced executives with in-depth knowledge of the industry and markets in which ENGIE operates and who have had successful career paths within the Group. For these executives, the loss of rights associated with their employment contract and length of service would be a hindrance and counterproductive.

4.7 Statutory Auditors' special report on related party agreements

Shareholders' Meeting to approve the financial statements for the year ended December 31, 2019

To the ENGIE Shareholders' Meeting,

In our capacity as Statutory Auditors of your Company, we hereby presentto you on related party agreements.

We are required to inform you, on the basis of the information provided to us, of the terms and conditions of those agreements indicated to us, or that we may have identified in the performance of our engagement, as well as the reasons justifying why they benefit the Company. We are not required to give our opinion as to whether they are beneficial or appropriate or to ascertain the existence of other agreements. It is your responsibility, in accordance with Article R. 225-31 of the French Commercial Code, to assess the relevance of these agreements prior to their approval.

We are also required, where applicable, to inform you in accordance with Article R. 225-31 of the French Commercial Code, of the continuation of the implementation during the past year of the agreements previously approved by the Shareholders' Meeting.

We performed those procedures which we deemed necessary in compliance with professional guidance issued by the French Institute of Statutory Auditors (Compagnie Nationale des Commissaires aux Comptes) relating to this type of engagement. These procedures consisted in verifying the consistency of the information provided to us with the relevant source documents.

A. Agreements submitted for approval to the Shareholders' Meeting

A.1. Agreements authorized and signed during the past year

We hereby inform you that we have not been notified of any agreement authorized and signed in the past year to be submitted for approval to the Shareholders' Meeting pursuant to the provisions of Article L. 225-38 of the French Commercial Code.

A.2. Agreements authorized and signed since year-end

We have been notified of the following related party agreement, authorized and signed since the end of the past year, which was authorized in advance by your Board of Directors

With Isabelle Kocher, ENGIE Director and Chief Executive Officer until February 24, 2020

Nature, purpose, terms and reasons: Memorandum of understanding for settlement between ENGIE and Isabelle Kocher in the context of her departure and the end of her mandate as Director and Chief Executive Officer

The memorandum of understanding for settlement that is intended to settle, on an amicable basis, the terms of the end of the tenure of the Chief Executive Officer, between your Company and Isabelle Kocher, was authorized by the Board of Directors on February 24, 2020 and signed on the same day. Your Company's financial undertakings under the Memorandum of understanding are subject to approval by the Shareholders' Meeting called to vote on the 2019 financial statements.

Under the terms of the memorandum of understanding for settlement, your Company undertakes to:

- pay a gross amount of €1,231,320 as a non-compete indemnity for a period of 18 months;
- pay a gross amount of €672,736 as a settlement indemnity;
- provide Isabelle Kocher with material resources for a maximum period of 18 months, ending when she has found full-time professional employment.

The grounds provided by your Board for this agreement are as follows: "*the conclusion of the memorandum of understanding enables ENGIE to preserve its interests in the context of the departure of its former executive, whose employment contract was suspended, by providing for the waiver by the latter of any recourse based on the execution and/or cessation of her tenure at the Group and obliging her to comply with a non-compete clause for a period of eighteen (18) months*."

It is also specified that Isabelle Kocher, who joined the ENGIE Group in 2002, will also receive a gross amount of €1,399,204 for legal or contractual indemnities which she is entitled to receive due to early termination of her employment contract, which will take place in the context of contractual termination by mutual agreement after implementation of the relevant procedure.

B. Agreements previously approved by the Shareholders' Meeting

B.1. Agreements approved in previous years that continued to be implemented during the past year

Pursuant to Article R. 225-30 of the French Commercial Code, we have been informed that the following agreements, already approved by the Shareholders' Meeting in previous years, continued to be implemented during the past year.

With Jean-Pierre Clamadieu, Chairman of the Board of Directors of your Company

a) *Nature, purpose and terms*: *Benefit plan for Jean-Pierre Clamadieu*

The Board of Directors, at its meeting of June 19, 2018, resolved to grant the Chairman of the Board of Directors a benefit plan equivalent to the policy for all ENGIE executives in France, through a group insurance policy taken out by your Company. This policy provides life insurance and disability insurance.

b) *Nature, purpose and terms*: *Healthcare plan for Jean-Pierre Clamadieu*

The Board of Directors, at its meeting of December 11, 2018, approved a health insurance policy equivalent to the policy for all ENGIE executives in France, granted through a group insurance policy taken out by your Company. This policy covers the standard coverage items for reimbursement of medical costs for the insured and his beneficiaries as of March 1, 2019.

With Isabelle Kocher, Director and Chief Executive Officer of your Company until February 24, 2020

Nature, purpose and terms: Group benefit and healthcare plans

At its meeting of May 3, 2016, the Board of Directors also voted to keep Isabelle Kocher on the same system as when she was Chief Operating Officer, namely the Group benefit and healthcare plans for executives from which she benefited before her employment contract was suspended.

With Suez Environnement Company, now known as SUEZ

Person concerned

Isabelle Kocher, Director and Chief Executive Officer of your Company until February 24, 2020 and Director of Suez.

Nature, purpose and terms: Agreement relating to the settlement of disputes in Argentina

In connection with the spinoff-distribution of the environment business of SUEZ (now ENGIE), your Company and SUEZ (formerly Suez Environnement Company) had entered into a twenty-year agreement on the economic transfer, to SUEZ, of the rights and obligations related to the equity interests held by SUEZ (now ENGIE) in the Argentine companies Aguas Argentinas and Aguas Provinciales de Santa Fé, relating thereto or arising therefrom (the "Argentine Rights").

This agreement, which continued to be implemented during the year, had been expressly authorized by the Board of Directors of SUEZ at its meeting of June 4, 2008 and signed on June 5, 2008.

In 2019, SUEZ billed €10,709,362.50 to your Company under this agreement.

B.2. Agreements approved in previous years that were not implemented during the past year

In addition, we have been notified that the following agreements, previously approved by Shareholders' Meetings of prior years, were not implemented during the past fiscal year.

With companies in the ENGIE Group and members of the ENGIE Alliance EIG

Person concerned

Isabelle Kocher, Director and Chief Executive Officer of your Company until February 24, 2020 and Chairman of the Board of Directors of ELECTRABEL until October 3, 2019.

Nature, purpose and terms: Membership of ENGIE Alliance EIG

At its meeting of July 4, 2001, the Board of Directors of SUEZ, which merged with Gaz de France to form ENGIE, authorized the creation of a special-purpose financing vehicle, the ENGIE Alliance EIG, and approved the guarantee granted by SUEZ to the other members of the EIG, which are subsidiaries of SUEZ.

Consequently, in its capacity as parent company of the Group, your Company is the ultimate guarantor for the other members, including ELECTRABEL, for any debt incurred by a member that may exceed their proportionate share.

This agreement had no impact on fiscal year 2019.

Paris-La Défense, March 10, 2020

The Statutory Auditors

DELOITTE & ASSOCIES	ERNST & YOUNG et Autres
Olivier Broissand Patrick E. Suissa	Charles-Emmanuel Chosson Stéphane Pédron

5

Information on the share capital and shareholding

5.1 Information on the share capital and non-equity instruments

5.1.1 Share capital and voting rights

5.1.1.1 Share capital

ENGIE shares are listed on Compartment A of Euronext Paris and Euronext Brussels under ISIN Code FR0010208488 and ticker symbol ENGI. ENGIE shares are included in the CAC 40 index, the main index published by Euronext Paris, and are eligible for the Deferred Settlement Service (SRD). ENGIE is also listed on the following indexes: BEL 20 (until March 18, 2019), Euro STOXX 50, STOXX Europe 600, Euro STOXX, STOXX Europe 600 Utilities, MSCI Euro, SBF 120, MSCI Pan Euro, Euro STOXX Utilities.

As of December 31, 2019, ENGIE's share capital stood at €2,435,285,011, divided into 2,435,285,011 fully paid-up shares with a par value of €1 each.

5.1.1.2 Pledges, guarantees and collateral

Pledges of assets

The percentage of shares pledged is not significant.

Other pledges

In € million	Total Value	2020	2021	2022	2023	2024	2025 to 2029	> 2029	Account Total	Corresponding %
Intangible assets	137	133	-	-	-	-	-	5	7,038	1.9%
Property, plant and equipment	2,261	26	660	15	13	11	10	1,525	51,950	4.4%
Equity investments	4,183	99	17	-	2	314	483	3,267	10,580	39.5%
Bank accounts	194	137	26	2	0	10	16	2	10,519	1.8%
Other assets	288	-	40	-	9	167	-	71	36,815	0.8%
TOTAL	**7,063**	**395**	**744**	**17**	**24**	**503**	**509**	**4,870**	**116,902**	**6.0%**

Note: The total amount of the pledge relating to equity instruments may relate to consolidated equity instruments with zero value in the consolidated balance sheet (elimination of these equity instruments upon consolidation).

5.1.1.3 Voting rights

Each shareholder has as many voting rights and may cast as many votes at meetings as he or she holds shares which are fully paid up.

However, in accordance with Article L. 225-123 of the French Commercial Code, all registered and fully paid-up shares registered in the name of the same beneficiary for at least two years are automatically entitled to a double voting right.

On December 31, 2019, the Company had 2,435,285,011 shares corresponding to 3,141,028,716 theoretical voting rights.

Pursuant to Article L.111-68 of the French Energy Code as modified by law n°2019-489 of May 22, 2019, the French government is required to hold at least one share of the Company.

In addition, pursuant to the French Energy Code and Decree 2007-1790 of December 20, 2007, ENGIE's share capital includes a golden share (for details, see Section 5.2.4 "Golden share").

5.1.2 Potential capital and share equivalents

As of December 31, 2019, there were no share equivalents conferring direct or indirect access to ENGIE's share capital.

5.1.3 Five-year summary of changes in the share capital

Date	Event	Nominal *(in euros)*	Premium *(in euros)*	Share capital *(in euros)*	Number of shares	Par value per share *(in euros)*
8/2/2018	Increase of the share capital resulting from the subscription of 4,813,039 shares under the capital increase reserved for participants in an employee savings plan offered by the Group (Link 2018)	4,813,039	47,745,346.88	2,440,098,050	2,440,098,050	1.00
8/2/2018	Increase of the share capital resulting from the subscription of 1,223,127 shares under the capital increase reserved for participants in an employee savings plan offered by the Group (Link 2018)	1,223,127	12,133,419.84	2,441,321,177	2,441,321,177	1.00
8/2/2018	Reduction of the share capital resulting from the cancellation of 6,036,166 treasury shares	6,036,166	-	2,435,285,011	2,435,285,011	1.00

5.1.4 Stock repurchase

5.1.4.1 Treasury stock

The fifth resolution of the Combined Shareholders' Meeting of May 17, 2019 authorized the Company to trade in its own shares in order to manage its shareholders' equity according to the applicable laws and regulations.

Terms:

- maximum purchase price: €30 (excluding transaction costs);
- maximum number of shares that may be purchased for the duration of the program: 10% of the share capital;
- maximum total amount of acquisitions, net of fees: €7.3 billion.

A one-year liquidity agreement, renewable by tacit agreement, of an initial value of €55 million was signed on May 2, 2006, on the Euronext Paris market with Rothschild & Cie Banque. The amount of this agreement was raised to €150 million on July 22, 2008.

The main purpose of this agreement is to reduce the volatility of the ENGIE share and therefore the risk perceived by investors. This agreement complies with the Code of Conduct drawn up by the Association Française des Entreprises d'Investissement (French Association of Investment Companies). This agreement continued to apply in 2019.

A new contract was signed on January 24, 2019, in order to comply with the AMF's decision of July 2, 2018, setting the maximum amount of the contract at €50 million as of January 1, 2019.

Between January 1 and December 31, 2019, the Company purchased 12,455,417 shares, for a total value of €172.3 million (or €13.83 per share) under the liquidity agreement. Over the same period, and also under this agreement, ENGIE sold 12,455,417 shares for a total price of €172.6 million (or €13.86 per share).

Furthermore, between January 1 and December 31, 2019, ENGIE did not purchase any shares to cover its commitments to the employee shareholding plan.

Between January 1 and February 29, 2020, ENGIE purchased 1,921,434 shares for a total value of €29.7 million (or €15.46 per share) under the liquidity agreement. Over the same period, and also under this agreement, ENGIE sold 1,921,434 shares for a total price of €29.8 million (or €15.51 per share).

Furthermore, between January 1 and February 29, 2020, ENGIE did not purchase any shares to cover its commitments to the beneficiaries of stock options, bonus shares, and company savings plans.

On February 29, 2020, the Company held 0.91% of its share capital, or 22,072,394 shares to cover its commitments to the beneficiaries of stock options, bonus shares, and company savings plans.

5.1.4.2 Description of the stock repurchase program to be submitted to the Combined Shareholders' Meeting of May 14, 2020

Pursuant to Articles 241-1 to 241-7 of the AMF's General Regulations, the purpose of the following program description is to set out the objectives, terms and conditions of ENGIE's stock repurchase program, as it will be submitted to the Combined Shareholders' Meeting to be held on May 14, 2020.

A. Main features of the program

The main features and goals of the program are summarized below:

- relevant securities: shares listed on Eurolist – SRD at the Paris Stock Exchange or on Eurolist at the Brussels Stock Exchange;
- maximum capital repurchase percentage authorized by the Shareholders' Meeting: 10% of the share capital;
- maximum unit purchase price: €30 (excluding transaction costs).

B. Objectives of the stock repurchase program

The objectives of the ENGIE stock repurchase program are summarized below:

- to ensure liquidity in the Company's shares by an investment service provider under liquidity agreements;
- to provide for the subsequent cancellation of the repurchased shares under a decision or authorization to reduce the share capital by the Extraordinary Shareholders' Meeting;
- to allocate or assign such shares to employees or former employees and corporate officers or former corporate officers of the Group;
- to set up stock purchase plans, bonus share plans on existing shares, or employee shareholding plans under company savings plans;
- to allocate or sell such shares to any entity as part of implementing an international employee shareholding plan;
- to provide for the holding and subsequent delivery of shares (as exchange, payment or otherwise) in the context of external growth transactions within the limit of 5% of the share capital;
- to provide for the hedging of securities conferring entitlement to Company share allocations, through issuance of shares, upon the exercise of the rights attached to securities conferring entitlement to Company shares by conversion, redemption, exchange, upon presentation of a warrant or other means of allocation;
- to implement any other market practices previously or subsequently authorized or to be authorized by market authorities.

C. Terms and conditions

Maximum percentage of share capital that may be repurchased and maximum amount payable by ENGIE

The maximum number of shares that may be purchased by ENGIE may not exceed 10% of the share capital of the Company on the date of the Shareholders' Meeting, i.e. 243.5 million shares, for a maximum theoretical amount of €7.3 billion. ENGIE reserves the right to hold the maximum amount authorized.

On February 29, 2020, ENGIE directly held 22,153,694 shares, i.e. 0.91% of the share capital.

Therefore, based on the estimated share capital on the date of the Meeting, the stock repurchase program could cover 221 million shares, representing 9.09% of the share capital, for a maximum amount of €6.6 billion.

Maximum term of the stock repurchase program

The stock repurchase program will be in effect for a period of 18 months beginning on the date of this Shareholders' Meeting, i.e. until November 13, 2021.

5.1.4.3 Book value and nominal value

The book value and the nominal value of the shares held by ENGIE itself or in its name, or by its subsidiaries, are indicated respectively in Note 7 of Section 6.4 "Parent company financial statements," and in Section 5.1.3. "Five-year summary of changes in the share capital."

5.1.5 Non-equity securities

5.1.5.1 Deeply subordinated securities

On January 28, 2019, ENGIE executed a new issue of €1 billion in deeply subordinated perpetual notes. At the same time, ENGIE launched a tender offer for the hybrid bond of €1 billion, 3% coupon, issued in June 2014, for which ENGIE was able to acquire 84% of the securities. In the wake of the offer, the securities still outstanding (16%) were purchased automatically by means of a squeeze out. All the securities purchased were canceled. Upon completion of these transactons, the entire issue of June 2014 had thus been refinanced by the new issue of January 2019.

On July 8, 2019, a second hybrid issue of €500 million was placed to partially refinance the hybrid bond of €750 million, 4.75% coupon, issued in July, 2013. The outstanding amount of this issue was reduced to €413 million after cancellation of the securities purchased by ENGIE (€337 million) as part of a tender offer launched at the same time as the issue of €500 million.

Following these transactions, as of December 31, 2019, the outstanding amount of the deeply subordinated perpetual bonds issued by the Group was the following:

Issuer	Currency	Coupon rate	Issue date	Maturity	First option for redemption	Outstanding amount *(in millions of euros)*	Exchange	ISIN Code
ENGIE	EUR	4.750%	7/10/2013	Perpetual	7/10/2021	413	Paris	FR0011531730
ENGIE	EUR	3.875%	6/2/2014	Perpetual	6/2/2024	1,000	Paris	FR0011942283
ENGIE	EUR	1.375%	1/16/2018	Perpetual	4/16/2023	1,000	Paris	FR0013310505
ENGIE	EUR	3.250%	1/28/2019	Perpetual	2/28/2025	1,000	Paris	FR0013398229
ENGIE	EUR	1.625%	7/8/2019	Perpetual	7/8/2025	500	Paris	FR0013431244

All of the above securities are rated Baa2 by Moody's, BBB by Standard & Poor's, and BBB+ by Fitch.

In accordance with the provisions of IAS 32, and given their characteristics, these instruments are recognized in equity in the Group's consolidated financial statements (see Section 6.2 "Consolidated financial statements" – Note 18.2.1).

5.1.5.2 Euro Medium Term Note (EMTN) Program

ENGIE has a €25 billion Euro Medium Term Note (EMTN) program. This program was updated on December 23, 2019 and approved by the AMF under reference number 19-590.

5.1.5.3 Bond issues

The main features of the bond issues outstanding as of December 31, 2019, issued by the Company, are detailed in Note 11 of Section 6.4 "Notes to the financial statements".

5.1.5.4 Green Bonds

5.1.5.4.1 Description of the bond

To support its development plan in renewable energy sources, energy efficiency services, the preservation of natural resources, clean mobility, and R&D in these areas, ENGIE issued four Green Bonds for €3.4 billion in 2019.

Issuer	Type	Currency	Coupon rate	Issue date	Maturity	Outstanding amount *(in millions of euros)*	Exchange	ISIN Code	Details on allocations
ENGIE	Senior	EUR	1.375%	5/19/2014	5/19/2020	1,200	Paris	FR0011911239	Registration Document 2014, 2015 and 2016
		EUR	2.375%	5/19/2014	5/19/2026	1,300	Paris	FR0011911247	
ENGIE	Senior	EUR	0.875%	3/27/2017	3/27/2024	700	Paris	FR0013245859	Registration Document 2017
		EUR	1.500%	3/27/2017	3/27/2028	800	Paris	FR0013245867	
ENGIE	Senior	EUR	0.375%	9/28/2017	2/28/2023	500	Paris	FR0013284247	Registration Document 2018
		EUR	1.375%	9/28/2017	2/28/2029	750	Paris	FR0013284254	
ENGIE	Hybrid	EUR	1.375%	1/16/2018	Perpetual (first call date 4/16/2023)	1,000	Paris	FR0013310505	Registration Document 2018 and Universal Registration Document 2019
ENGIE	Hybrid	EUR	3.250%	1/28/2019	Perpetual (first call date 2/28/2025)	1,000	Paris	FR0013398229	Universal Registration Document 2019
ENGIE	Senior	EUR	0.375%	6/21/2019	6/21/2027	750	Paris	FR0013428489	
		EUR	1.375%	6/21/2019	6/21/2039	750	Paris	FR0013428513	
ENGIE	Senior	EUR	0.500%	10/24/2019	10/24/2030	900	Paris	FR0013455813	

The total amount issued by ENGIE in Green Bonds reached €9.65 billion at the end of 2019. ENGIE has thus confirmed its leadership and its commitment to playing a leading role in the energy transition while supporting the development of green finance.

The Green Bonds meet the terms of the Green Bond Framework that ENGIE has defined for its Green Bond issues, which is available on its website. The main principles are summarized below:

- the funds raised by these bonds are allocated to projects that meet environmental, social and societal criteria, as defined in the "use of proceeds" clause in the final terms of the Green Bond issue;
- until the funds raised are entirely allocated to Eligible Projects (or after, in case of a substantial change in allocations), ENGIE is committed to providing information in its Universal Registration Document on the fund allocations made during the period concerned.

As part of the Green Bond Framework, ENGIE is committed to fulfilling the following conditions:

- eligible Projects must conform to the eligibility criteria determined by ENGIE and validated by Vigeo Eiris. Furthermore, in order to be eligible, they must not have been developed prior to the year preceding the year of issue. The amounts allocated are calculated after deduction of any funding already dedicated to these projects;
- as of 31 December of each year, the Group must hold cash (and cash equivalents) of an amount at least equal to the funds raised by the Green Bond, less amounts allocated to fund Eligible Projects as of that date.

ENGIE aims to have fully allocated each Green Bond within two years of the date of issue (three years if the bond has a maturity of 10 years or more). When, for a given year, several Green Bonds are not fully allocated to Eligible Projects, the allocation for the year will be made by order of age, i.e. prioritizing the bonds issued first. In the case of bonds issued on the same date, the shortest tranche will be allocated first.

In line with its commitments, ENGIE requested one of its Statutory Auditors, Deloitte & Associés, to provide a statement certifying compliance of the selected projects with the eligibility criteria and the amounts allocated to those projects.

ENGIE refers to the four principles established by the International Capital Market Association ("Green Bond Principles"), which are: (i) use of proceeds; (ii) existing processes to evaluate and select Eligible Projects; (iii) management of proceeds; and (iv) reporting.

5.1.5.4.2 Projects and CSR Eligibility criteria

The categories of projects covered by the Green Bonds are described below.

Project category	Description
Renewable energy	This category of projects includes the financing of, or investments in, the design, construction and installation of renewable energy production or transport units. It covers energy produced from renewable non-fossil sources. It includes hydro, geothermal, wind, solar, biogas, biomass and any other renewable energy source.
Energy efficiency	This category of projects includes the financing of, or investments in, projects that contribute to a reduction of energy consumption per unit of output, such as, for example, heating and cooling networks, optimization of buildings or plant efficiency, and energy management systems (Smart Grids, Smart Metering).
Protection of resources	This category of projects includes the financing of, or investments in, projects that contribute to a reduction in consumption of natural resources, such as water and/or waste management.
Clean mobility	This category of projects includes the financing of, or investments in, projects that contribute to a reduction in CO_2, gas or particles harmful to health and/or the environment, or in energy, expressed by passenger and kilometer.
Other projects conforming to the categories of the Green Bond Principles	This category of projects includes the financing of, or investments in, the categories of projects included in the Green Bond Principles; the environmental and societal eligibility criteria applicable to these projects in view of their eligibility will be defined by ENGIE and examined by Vigeo Eiris.

The eligibility criteria included in the Green Bond Framework, available on ENGIE's website, are described below. These criteria were drawn up together with Vigeo Eiris and were used to select the projects.

Criteria	
Fight against climate change and/or contribution to the preservation of natural resources	The project is not linked to energy production by fossil fuels or nuclear sources and contributes to the reduction in greenhouse gas (GHG) emissions and/or to the reduction of natural resources consumption and waste.
Environmental management [1]	The project has an environmental impact assessment and, if necessary, remedial measures for such impacts, for the construction and operation phases.
Biodiversity and natural resources [2]	The project, located near protected natural sites or areas, has an impact assessment on biodiversity and natural resources and, if necessary, remedial measures for such impacts, during both the construction and operation phases.
Dialogue with stakeholders and community involvement [3]	The project involves consultation, dialogue or cooperation with local stakeholders, comprising action plans that may include social impact studies, or, at a minimum, satisfaction surveys for low-impact projects.
Promotion of business ethics	The project or acquisition has trained its senior managers in business ethics (responsibilities, competition rules and anti-corruption measures).
	The project or acquisition promotes ethical practices with its main suppliers and subcontractors through an ethics clause in its contracts.
	In the case of a minority stake, ENGIE is committed to providing its partners with the Group's Ethics Charter and Practical Guide to Ethics.
Responsible procurement	The project or acquisition ensures the traceability of its procurement processes, based on tender procedures (if a call for tenders is required) and takes CSR criteria into account in the qualification of the project's main suppliers.

Criteria	
Human rights and labor rights	The project or acquisition has put systems in place to verify compliance with international human rights and labor rights standards, in particular the Universal Declaration of Human Rights, its associated commitments, and the International Labor Organization Conventions.
Health and safety (3)	Factors related to health and safety and to industrial safety are taken into consideration in all phases of the project life cycle.
	The project has the necessary health and safety resources during the phases of the project life cycle (e.g. construction phase, etc.).

(1) Applicable only to renewable energy and natural resource protection projects
(2) Applicable only to renewable energy projects and natural resource protection projects at sites located near protected natural zones or areas
(3) Not applicable for an acquisition

The Green Bond Committee was established in 2017. This Committee meets regularly to discuss market developments, the eligibility criteria and the allocation processes. It is jointly led by the CSR Department and the Finance Department and brings together the Purchasing Department, the Global Care Department and the main BUs concerned.

5.1.5.4.3 Eligible Projects

The main Eligible Projects financed by the Green Bond issues of January 2018 (ISIN: FR0013310505) and January 2019 (ISIN: FR0013398229) that meet the aforementioned conditions are listed in the tables below:

Green Bond of €1 billion issued in January 2018

Type of project	Technology	Region	Projects' name	Country	CAPEX *(in millions of euros)*
Renewables	Wind	Europe	Seagull 1 and 2 [(1)], ICO Windpark	Belgium	224
			Windfloat	Portugal	
			Goya [(1)], Phoenix	Spain	
		North America	East Forks [(1)], Jumbo Hill, Seymour Hills	United States	
		South America	Tres Mesas 3 and 4 [(1)]	Mexico	
			Calama	Chile	
		Africa	Rhas Ghareb	Egypt	
		Asia and Oceania	SECI projects, GUVNL	India	
	Solar	Europe	Seneca	Spain	313
		North America	Fund IV	United States	
		South America	Trompezon [(1)], Villa Ahumada [(1)], Abril [(1)], Calpulalpan [(1)], Akin [(1)], Sol de Insurgentes	Mexico	
			Capricornio, Tamaya	Chile	
		Africa	Kathu [(1)]	South Africa	
			Fenix [(1)]	Uganda	
			PowerCorner, Mobisol	Tanzania	
			Scaling solar	Senegal	
		Asia and Oceania	Nadec	Saudi arabia	
			Retop	China	
			Kadapa	India	
	Biomass-biogas	Europe	Biogas Plus	The Netherlands	59
			Sisslerfeld [(1)]	Switzerland	
			Biogas injector, ENGIE New Ventures	France	
	Transmission	South America	Gralha Azul	Brazil	10
			Global capex in millions of euros for renewable energy projects		**606**
Energy efficiency	Energy efficiency	Europe	*Smart Grid* (GAZPAR) [(1)], ENGIE New Ventures	France	267
		South America	Salto Osaria	Brazil	
	Energy storage	Global	ENGIE EPS [(1)]	Italy	3
			Global capex in millions of euros for energy efficiency projects		**270**
Total			**Global capex in millions of euros**		**876**

(1) Eligible projects having received an allocation in previous Green Bonds of the Group.

The projects and the associated capex shown in the table above, totaling €876 million, supplement the projects allocated last year to the Green Bond of January 2018 (€124 million), as presented on page 179 of the 2018 Registration Document.

Green Bond of €1 billion issued in January 2019

Type of project	Technology	Region	Projects' name	Country	CAPEX *(in millions of euros)*
Renewables	Wind	Europe	CN'AIR, ENGIE Green, LANGA projects and Saméole	France	451
			Windfloat	Portugal	
		North America	King Plains, Las Lomas, Live Oak (1), Dakota Range III, Prairie Hill, Triple H, Solomon Forks (1)	United States	
		Asia and Oceania	Willogeleche (1)	Australia	
	Solar	Europe	CN'AIR, ENGIE Green, LANGA projects	France	90
		North America	Anson, Bluestone, Gretna, Long Draw	United States	
		Asia and Oceania	Lifou, Kota-bore, Lavaghu, Koumac	New Caledonia	
	Biomass-biogas	Europe	VolV biomass	France	93
			DSP Macon (1), DSP Bordeaux		
			Biogas injector		
	Geothermal	Asia and Oceania	Muara Laboh (1)	Indonesia	13
	R&D	Europe		France	46
				Global capex in millions of euros for renewable energy projects	**693**
Energy efficiency	District heating	Europe	ENGIE Nework projects	France	4
	District cooling	Europe	Climespace projects (1)	France	6
	Energy efficiency	Europe	CertiNergy & Solutions	France	81
	R&D	Europe		France	47
				Global capex in millions of euros for energy efficiency projects	**138**
Clean mobility	Clean mobility	Europe	ChargePoint	United Kingdom	165
			Powerlines	Germany	
			GNVert	France	
			EV Box (1)	The Netherlands	
		South America	Transantiago (1), Los Andes Rent a Car	Chile	
	R&D	Europe		France	4
				Global capex in millions of euros for clean mobility projects	**169**
Total				**Global capex in millions of euros**	**1000**

(1) *Eligible projects having received an allocation in previous Green Bonds of the Group.*

As a reminder, the Green Bonds issued in 2014 and 2017 have been fully allocated. Details of the Eligible Projects and the corresponding allocations were published in the 2014 to 2018 Registration Documents.

Total funds allocated to Eligible Projects throughout 2019 amounted to respectively €11 million for 2017, €138 million for 2018 and €1,740 million for 2019. This total amount of €1,889 million of Eligible Projects enables completion and finalization of the allocation to the Green Bond issued in January 2018, full allocation of the Green Bond issued in January 2019 and allocation of 13 million to the Green Bond of €750 million issued on June 21, 2019. In line with the Group's commitments, a more detailed description of the projects, the impact in terms of avoided emissions and the related methodology is available on the Sustainable Development page of the Group's website (www.engie.com/analystes-rse/finance-durable/green-bond).

The Green Bonds contribute to the funding or acquisition of Eligible Projects in (i) renewable energy (wind, solar, hydropower and/or biomass), (ii) energy efficiency, (iii) resource protection, and (iv) clean mobility.

1) Renewable energy

The energy transition and the development of renewable energy on a global scale are a strategic priority for ENGIE. The Group is the world's leading independent power producer with installed capacity of 96.8 gigawatts (GW), including 27.8% (26.9 GW) in renewables (hydroelectricity, wind, solar, geothermal, biomass, etc.). The Group is targeting a 58% share of renewable energy in its generation portfolio by 2030. In 2019, ENGIE continued to expand its portfolio of renewable assets in wind, solar, biomass, and geothermal by developing new projects or acquiring new companies. These low-carbon resources play an essential role in the energy transition and the fight against climate change.

At the end of December 2019, a total of €1,299 million had been allocated to Eligible Projects in the field of renewable energy sources on the Green Bonds of January 2018 and January 2019. When fully operational, these projects should contribute to avoiding greenhouse gas emissions by a minimum of 5.92 million metric tons of CO_2 eq. per year.

5

The methodology for calculating avoided emissions is based on a comparison of the Life-Cycle Analysis (LCA) emission value of the energy generation technology being used by the project and the one of the energy mix of the country in question. ENGIE estimates the contribution to avoided emissions resulting from Green Bond-funded projects by multiplying the difference between the two LCA values stated with the plant's capacity and the technology's average load factor. The contribution to avoided emissions are calculated for one year of operation of the projects, considered in a full operational mode and taken at 100% regardless of the Group's ownership rate of these projects.

Per-country reference data for the average operating rates of technologies used and the average CO_2 emissions rates per kWh of the generation mix were drawn from data from Enerdata. The technologies' LCA data is derived from work performed by the IPCC (Intergovernmental Panel on Climate Change). For CDM (Clean Development Mechanism) projects registered and approved by the United Nations, the resulting contribution to avoided emissions is derived from the underlying methodologies.

2) Energy efficiency

The development of energy efficiency services and solutions that enable our customers to reduce consumption and therefore their carbon footprint is the other strategic area for the Group, which has redefined its aim of being the leader of the carbon-neutral transition for its customers.

As of December 31, 2019, a total amount of €408 million had been allocated to the Eligible Projects developed in energy efficiency on the Green Bonds of January 2018 and January 2019. When fully operational, these projects should contribute to reducing greenhouse gas emissions by a minimum of 0.45 million metric tons of CO_2 eq. per year.

For the calculation of the reduced emissions related to the energy efficiency project, ENGIE evaluates them by multiplying the energy savings contributed by the project by the emissions of the mix of the country in question. The contribution to reduced emissions are calculated for one year of operation of the projects, considered in a full operational mode and taken at 100% regardless of the Group's ownership rate of these projects.

3) Protecting natural resources

No natural resource protection projects were allocated to the Green Bond in 2019.

4) Clean mobility

Clean mobility is a central pillar of the development of offers to support our target customers (local authorities and major industrial groups) in decarbonizing their mobility.

As of December 31, 2019, a total amount of €182 million had been allocated to Eligible Projects developed in the area of clean mobility on the Green Bonds of January 2019 and June 2019. When fully operational, these projects should contribute to reducing greenhouse gas emissions by a minimum of 0.04 million metric tons of CO_2 eq. per year.

For the calculation of the reduced emissions related to the clean mobility project, ENGIE evaluates them by multiplying an estimation of the energy savings contributed by the project (as compared to a base scenario) by the emissions of the mix of the country in question. The contribution to reduced emissions are calculated for one year of operation of the projects, considered in a full operational mode and taken at 100% regardless of the Group's ownership rate of these projects.

5) Results of the Green Bond issued in January 2018

The main geographic areas concerned by the projects allocated to the January 2018 Green Bond are Europe and South and North America, which respectively accounted for 39.8%, 23.7% and 15.5% of the total amount invested. With regard to the technologies used, the main technologies involved in the allocation to the January 2018 Green Bond are solar 36.3%, wind 27.7% and energy efficiency 26.6%.

Region	**Allocated funds%**
Europe	39.8%
South America	23.7%
North America	15.5%
Africa	11.3%
Asia and Oceania	9.7%

Technology	**Allocated funds%**
Solar	36.3%
Windr	27.7%
Energy efficiency	26.6%
Biomass-biogas	5.9%
Clean mobility	2.2%
Transmission	1.0%
Energy storage – District heating	0.3%

When fully operational, these projects should contribute to avoiding or reducing greenhouse gas emissions by a minimum of 3.39 million metric tons of CO_2 eq. per year.

6) Results of the Green Bond issued in January 2019

The main geographic areas concerned by the projects allocated to the January 2019 Green Bond are Europe and North America, which respectively accounted for 68.7%, and 27.8% of the total amount invested. With regard to the technologies used, the main technologies involved in the allocation to the January 2019 Green Bond are wind 45.0%, and clean mobility 16.6%.

Region	Allocated funds%
Europe	68.7%
North America	27.8%
Asia and Oceania	2.8%
South America	0.8%

Technology	Allocated funds%
Wind	45.0%
Clean mobility	16.6%
R&D	9.7%
Biomass-biogas	9.2%
Solar	9.0%
Energy efficiency	8.1%
Geothermal	1.3%
District cooling	0.6%
District heating	0.4%

When fully operational, these projects should contribute to avoiding or reducing greenhouse gas emissions by a minimum of 3.43 million metric tons of CO_2 eq. per year.

5

5.1.5.4.4 Attestation from one of the Statutory Auditors of ENGIE SA on the information related to the allocation, as of December 31, 2019, of funds raised through the Green Bonds issued on January 10, 2018, January 17, 2019 and June 14, 2019

To the Group's Chief Executive Officer,

In our capacity as statutory auditor of ENGIE SA (the "Company") and in accordance with your request, we have prepared this attestation on the information related to the allocation, as of December 31, 2018, of funds raised through the Green Bonds issued on January 10, 2018, January 17, 2019 and June 14, 2019 (the "Issues"), for €1, €1 and € 1.5 billion respectively, contained in the attached document "Green Bonds", and prepared pursuant to the use of proceeds of the final terms, signed on January 12, 2018 (FR0013310505), January 24, 2019 (FR0013398229) and June 19,2019 (FR0013428489) (the "Final Terms").

This document, prepared for the purposes of informing the Green Bond debt securities holders, presents an allocation of the funds raised from the Issues to eligible projects ("Eligible Projects"), over the period from January 1, 2017 to December 31, 2019, for a total amount of €1,889 million.

This information was prepared under your responsibility, based on the accounting records used for the preparation of the consolidated financial statements for the years ended December 31, 2017, December 31, 2018 and December 31, 2019.

Our role is to report on:

- the compliance, in all material respects, of the Eligible Projects referred to in the attached document, with the eligibility criteria defined and approved jointly by both the Company and Vigeo, referred to in the attached document and in the appendices to the Final Terms (the "Eligibility Criteria");
- the consistency of the amount raised from the Issues allocated to Eligible Projects, as of December 31, 2019, with data underlying the accounting records;
- the consistency with the consolidated financial statements for the year ended December 31, 2019, of an amount of cash, cash equivalent and money market instruments higher than the remaining balance of net proceeds not allocated to Eligible Projects.

However, we have no responsibility for:

- challenging the Eligibility Criteria, and, in particular, we give no interpretation on the Final Terms;
- forming an opinion on the use of the funds allocated to Eligible Projects after such funds have been allocated.

In the context of our role as Statutory Auditor, we have audited, jointly with the other Statutory Auditor, the consolidated financial statements of the Company for the years ended December 31, 2017, December 31, 2018 and December 31, 2019. Our audits were conducted in accordance with professional standards applicable in France, and were planned and performed for the purpose of forming an opinion on the consolidated financial statements taken as a whole and not on any individual component of the accounts used to determine the information. Accordingly, our audit tests and samples were not carried out with this objective and we do not express any opinion on any component of the accounts taken individually. The consolidated financial statements for the year ended December 31, 2019, which have not yet been approved by the Shareholders' Meeting, have been audited and our report thereon is dated March 10, 2020.

Our engagement, which constitutes neither an audit nor a review, was performed in accordance with professional standards applicable in France. For the purposes of this attestation, our work consisted, using sampling techniques or other methods of selection, in:

- understanding the procedures implemented by the Company for producing the information contained in the attached document;
- verifying the compliance, in all material respects, of the Eligible Projects referred to in the attached document with the Eligibility Criteria;
- verifying the consistency of the amount raised from the Issues allocated to Eligible Projects with data underlying the accounting records;
- verifying that the cash, cash equivalent and money market instruments balance as in the consolidated financial statements for the year ended December 31, 2018 is higher than the remaining balance of net proceeds not allocated to Eligible Projects, as of December 31, 2018.

On the basis of our work, we have no matters to report on:

- the compliance, in all material respects, of the Eligible Projects with the Eligibility Criteria;
- the consistency of the amount raised from the Issues allocated to Eligible Projects as of December 31, 2019 with data underlying the accounting records;
- the consistency with the consolidated financial statements for the year ended December 31, 2019, of an amount of cash, cash equivalent and money market instruments higher than the remaining balance of net proceeds not allocated to Eligible Projects, as of December 31, 2019.

This attestation has been prepared solely for your attention within the context described above and may not be used, distributed or referred to for any other purpose.

In our capacity as statutory auditor of ENGIE SA, our responsibility towards the Company and its shareholders is defined by French law and we do not accept any extension of our responsibility beyond that provided for by French law. We are not liable and accept no responsibility towards any third party.

This attestation is governed by French law. The French courts have exclusive jurisdiction to hear any dispute, claim or dispute that may arise from our engagement letter or this attestation, or any question relating to it. Each party irrevocably waives its rights to oppose an action brought before these courts, to claim that the action was brought before an incompetent court, or that these courts have no jurisdiction.

Paris-La Défense, March 12, 2020

One of the Statutory Auditors

Deloitte & Associés

Patrick E. Suissa Olivier Broissand

5.2 Shareholding

5.2.1 Stock exchange quotation

TRADING VOLUMES AND HIGH AND LOW PRICES OF ENGIE SHARES IN PARIS

2019	High (1) *(in euros)*	Low (1) *(in euros)*	Trading volume (2)
January	14.05	12.54	5,956,937
February	14.13	13.25	5,114,604
March	13.52	13.12	5,589,274
April	13.61	13.00	4,726,379
May	13.82	12.45	6,221,387
June	13.50	12.52	6,030,727
July	14.32	13.44	4,621,899
August	13.85	13.26	4,834,741
September	14.98	13.39	6,234,077
October	15.12	14.54	5,644,295
November	14.91	14.02	5,451,028
December	14.75	14.06	5,173,629

(1) Rate obtained from daily closing prices
(2) Daily average (source: Bloomberg)

Subsequent to the deregistration of ENGIE with the U.S. Securities & Exchange Commission on October 30, 2009, ENGIE maintains an unlisted Level 1 American Depositary Receipt (ADR) program on a U.S. stock exchange. These ADRs are traded on the Nasdaq over-the-counter market.

5

5.2.2 Breakdown of share capital

As of December 31, 2019, the Company held 2,435,285,011 shares, including 22,153,694 in treasury stock.

The Company's share capital did not change during 2019.

MAJOR CHANGES IN ENGIE SHAREHOLDINGS DURING THE PAST THREE FISCAL YEARS

	December 31, 2019			December 31, 2018		December 31, 2017	
	Number of shares	% of share capital	% of theoretical voting rights (1)	% of share capital	% of theoretical voting rights (1)	% of share capital	% of theoretical voting rights (1)
French State	575,693,307	23.64	34.23	23.64	33.84	24.10	28.08
BlackRock	110,018,958 (2)	4.52 (2)	3.53 (2)	5.02 (3)	3.99 (3)	5.09 (4)	4.50 (4)
Employee shareholding	78,323,401	3.22	3.87	3.97	4.65	2.66	3.97
CDC Group	63,825,744	2.62	2.35	1.83	1.75	1.88	2.01
CNP Assurances	23,495,792	0.96	0.75	0.99	0.78	0.99	0.87
Treasury stock	22,153,694	0.91	0.71	0.98	0.76	1.92	1.68
Management	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant	Not significant
Public	1,561,774,145	64.13	54.57	63.57	54.23	63.36	58.89
TOTAL	**2,435,285,011**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

(1) Pursuant to Article 223-11 of the AMF General Regulations, the number of theoretical voting rights is calculated on the basis of all shares to which voting rights are attached, including shares held by the Group, from which voting rights have been removed
(2) Information not available on December 31, 2019 (data on December 30, 2019 from the disclosure threshold notification)
(3) Information not available on December 31, 2018 (data on December 27, 2018 from the disclosure threshold notification)
(4) Information not available on December 31, 2017 (data on November 30, 2017 from the disclosures threshold notification)

By means of a disclosure threshold notification of January 2, 2020, and following completion of various transactions with the aim of creating a public bancassurance hub, La Banque Postale-CNP Assurances, the CDC declared to us that it held 3.66% of the share capital and 3.18% of the voting rights of ENGIE, corresponding to the sum of the shareholdings of CDC (direct) and of the CNP Assurances Group.

Pursuant to the provisions of Article L. 233-13 of the French Commercial Code, it is stipulated that, to ENGIE's knowledge, only the French State held a stake of 5% or more of the share capital or voting rights at the end of fiscal 2019.

5.2.3 Disclosure thresholds

Declarer	Date	Movement	% of share capital	% of voting rights	AMF opinion no.
BlackRock	1/9/2019	Decrease	4.97%	3.87%	219C0068
BlackRock	1/16/2019	Increase	5.08%	3.96%	219C0126
BlackRock	1/21/2019	Decrease	4.94%	3.85%	219C0151
BlackRock	5/14/2019	Increase	5.02%	3.89%	219C0795
BlackRock	5/15/2019	Decrease	4.73%	3.67%	219C0812
BlackRock	5/28/2019	Increase	5.02%	3.90%	219C0895
BlackRock	5/30/2019	Decrease	4.94%	3.84%	219C0896
BlackRock	6/4/2019	Increase	5.05%	3.92%	219C0925
BlackRock	6/6/2019	Decrease	4.98%	3.87%	219C0938
BlackRock	6/10/2019	Increase	5.05%	3.92%	219C0947
BlackRock	6/11/2019	Decrease	4.95%	3.84%	219C0959
BlackRock	6/12/2019	Increase	5.08%	3.95%	219C0963
BlackRock	6/14/2019	Decrease	4.97%	3.86%	219C0981
BlackRock	8/27/2019	Increase	5.02%	3.90%	219C1484
BlackRock	8/28/2019	Decrease	4.82%	3.74%	219C1497

BlackRock has crossed the legal threshold of one-twentieth (5%) of ENGIE's share capital on 15 occasions. On eight occasions, on January 9 and 21, May 15 and 30, June 6, 11 and 14, and August 28, 2019, BlackRock reduced its stake below the threshold. On seven occasions, on January 16, May 14 and 28, June 4, 10 and 12, and August 27, 2019, BlackRock increased its stake above the threshold.

To the Company's knowledge, as of the date of this Universal Registration Document, only the French State hold share capital and/or voting rights in ENGIE that exceed one of the legal thresholds.

5.2.4 Golden share

Pursuant to Article L. 111-68 of the French Energy Code as modified by law n°2019-489 of May 22, 2019, the French government is required to hold at least one share of the Company.

Pursuant to Article L. 111-69 of the French Energy Code, ENGIE's share capital includes a "golden share" resulting from the conversion of one common share owned by the French State to preserve the essential interests of France in the energy sector relating to the continuity and security of the energy supply. The golden share is granted to the French government indefinitely and entitles it to veto decisions made by ENGIE or its French subsidiaries, which directly or indirectly seek to sell in any form whatsoever, transfer operations, assign as collateral or guarantee, or change the intended use of certain assets covered by the French Energy Code, if it considers they could harm French energy interests, particularly as regards the continuity and safeguarding of supplies.

Under the terms of Article D. 111-21 of the French Energy Code, the assets covered by the French State's right of veto pursuant to the golden share are:

- natural gas transmission pipelines located in France;
- assets related to the distribution of natural gas in France;
- underground natural gas storage located in France;
- liquefied natural gas facilities located in France.

Pursuant to those same provisions, all decisions of this nature must be reported to the French Minister of the Economy.

The decisions mentioned above are deemed to be authorized if the Minister of the Economy does not veto them within one month of the date of their disclosure, as recorded by a receipt issued by the administration. This period may be extended for a period of 15 days by order of the Minister of the Economy. Before the expiration of the aforementioned one-month period, the Minister of the Economy may waive the right to veto. If there is a veto, the Minister of the Economy will communicate the reasons of his or her decision to the Company in question. The decision of the Minister of the Economy may be appealed.

Pursuant to Decree No. 2019-1071 of October 22, 2019 and Decree No. 93-1296 of December 13, 1993, any transaction executed in violation of these rules is automatically null and void.

As of the date of this Universal Registration Document, to ENGIE's knowledge, there is no agreement relating to an operation on any entity that is a member of the ENGIE Group, concerned by these provisions, or any agreement which, if implemented, could lead to a change in its control.

5.2.5 Dividend distribution policy

ENGIE seeks to pursue a dynamic and attractive dividend distribution policy. To encourage and reward shareholder loyalty, the General Shareholders' Meeting of April 28, 2014 instituted a 10% dividend mark-up for shareholders who have held their shares in registered form for at least two years, this 10% being the maximum amount authorized by Article L. 232-14 of the French Commercial Code. This measure was applied for the first time to the dividend payment for fiscal year 2016 and will be capped at 0.5% of the share capital for a single shareholder, as stipulated in Article L. 232-14 of the French Commercial Code.

The Group's objectives described in Section 6.1.1.1.2 "financial targets" do not constitute under any circumstances a commitment by the Company, and future dividends will be assessed on a year-by-year basis depending on the Company's performance, financial position and any other factor considered relevant by the Board of Directors in preparing its proposals to the Shareholders' Meeting.

The Board of Directors will propose to the Shareholders' Meeting of May 14, 2020 the payment of a dividend for fiscal year 2019 of €0.80 per share, corresponding to a distribution ratio of 72% on the basis of net recurring income (Group share) for 2019.

As a reminder, in early 2019, ENGIE announced a new medium-term dividend policy, within a range of 65% to 75% of the distribution ratio, based on net recurring income (Group share).

DIVIDEND PER SHARE IN THE LAST FIVE YEARS

Fiscal year *(fully paid up shares)*	**Net dividend per share** *(in euros)*
2014	1.00
2015	1.00
2016	1.00
2017	0.70
2018	1.12

After a period of five years, unclaimed dividends are automatically paid to the French Treasury.

5.3 Financial reporting schedule

Publication of annual earnings 2019	February 27, 2020
Publication of Q1 results 2020	May 12, 2020
Annual Shareholders' Meeting	May 14, 2020
Publication of the 2020 half-year results	July 31, 2020

6

Financial information

6

6.1 Review of the financial position

6.1.1 Management report

6.1.1.1 ENGIE 2019 results

The previously published financial data presented hereafter have been restated to take into account impacts resulting from the transition method used for the application of IFRS 16 – Leases. A reconciliation of the reported data with the restated comparative data is presented in Section 6 of the management report for key financial indicators and Note 1 "Accounting framework and basis for preparing the consolidated financial statements".

ENGIE financial information at December 31, 2019

2019 net recurring income Group share guidance achieved

EUR 0.80 dividend per share to be proposed at the AGM (+7% vs. 2018)

- Net recurring income Group share (NRIgs) of €2.7 billion, up 9%, and 11% on an organic [1] basis.
- Current operating income (COI) of €5.7 billion, up 11%, and 14% on an organic basis, mainly driven by Nuclear, Others (notably Energy Management), Thermal and Renewables, partially offset by Supply and Networks. EBITDA of €10.4 billion, up 7%, and 8% on an organic basis.
- Financial net debt increased by €2.7 billion mainly due to growth investments, notably the TAG acquisition, which closed in H1. Financial net debt/EBITDA ratio of 2.5x.
- For fiscal year 2019, it will be proposed to the AGM to increase the dividend to €0.80 per share, up 7% versus 2018 ordinary dividend.
- 2020 net recurring income Group share (NRIgs) expected to be between €2.7 billion – €2.9 billion [2]. For 2022, ENGIE anticipates a NRIgs CAGR in the range of 6-8% (to reach €3.2 billion and €3.4 billion).

KEY FINANCIAL DATA AT DECEMBER 31, 2019

In billions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	60.1	57.0	+5.4%	+4.1%
Adjusted revenues (1)	64.1	60.6	+5.8%	+4.7%
EBITDA	10.4	9.7	+6.8%	+8.1%
CURRENT OPERATING INCOME (COI)	5.7	5.2	+11.1%	+14.4%
Net recurring income relating to continued operations, Group share (1)	2.7	2.5	+9.3%	+11.1%
Net income, Group share	1.0	1.0		
Cash Flow From Operations (CFFO) (2)	7.6	7.7	(0.2)	
Financial net debt	25.9	23.3	2.7	

(1) In Q4 2019, the Group has implemented a new IFRS pronouncement related to commodity derivatives and requiring a change in presentation of Revenues with no impact on other performance indicators. For comparability with previous communications, adjusted revenues are also provided based on the former definition. For more information please refer to Note 1 to the 2019 consolidated financial statements.
(2) Cash flow from operations = Free cash flow before maintenance Capex.

In 2019, the drivers of the gross COI evolution were as follows:

- Nuclear was driven by higher availability of Belgian production units and slightly more favorable achieved prices;
- in business line Others, increasing Energy Management results were mainly driven by the partial sale of a gas supply contract, performance of market activities and gas contract renegotiations;
- Client Solutions results benefited from the contribution of acquisitions and the performance of decentralized energy activities, partly offset by investments in business development capability and some operational restructuring actions;
- Networks was impacted by several negative effects outside France (mainly one-offs and temperature) as well as several adverse factors in France that were expected and are mostly temporary (mainly tariff smoothing in transmission). Networks also benefited from the first year contribution of the TAG gas transmission pipeline in Brazil, acquired in mid-2019;

(1) Organic variation: gross variation without scope and foreign exchange effect.

(2) These targets and this indication assume average weather conditions in France, full pass through of supply costs in French regulated gas tariffs, no significant accounting changes, no major regulatory or macroeconomic changes, commodity price assumptions based on market conditions as of December 31, 2019 for the non-hedged part of the production, no change in the nuclear provision legal and regulatory framework, average foreign exchange rates as follows for 2020: €/USD: 1.13; €/BRL: 4.57 and dilution from the €4 billion disposal plan for 2020-22.

- **Renewables** benefited from higher Brazilian hydro prices and increasing commissioning of renewable capacity (3.0 GW in 2019). The target of 9 GW to be commissioned from 2019 to 2021 is now fully secured;
- **Supply** activities continued to be impacted by a difficult market context, mainly from margin contractions in French retail, by positive 2018 one-offs in Benelux and adverse temperature effects in Australia and France;
- **Thermal** was impacted by the disposal of Glow partly offset by Power Purchase Agreement (PPA) performance and positive market price conditions in Chile as well as the reinstatement of the capacity remuneration mechanism in the United Kingdom.

ENGIE continued to pursue its strategic focus on the energy transition in 2019.

In **Client Solutions**, ENGIE and its partners won commercial contracts for the University of Iowa (United States), government buildings in Ottawa (Canada), a "smart region" around Angers (France) and industrial buildings in Singapore. In addition, ENGIE made several acquisitions including Conti in North America, Otto Industries in Germany and Powerlines in Austria. ENGIE Impact was created to bring large customers with solutions to build their sustainability roadmap and accelerate their energy transition.

In **Networks**, ENGIE announced on June 13, 2019 that the consortium in which it holds a majority stake completed the acquisition of a 90% shareholding in TAG, the largest gas transmission network owner in Brazil. TAG has a portfolio of long-term contracts providing an attractive earnings stream and improves diversification of ENGIE's geographic footprint in Networks activities. In January 2020, ENGIE also further strengthened its position in Brazil by announcing the acquisition of a project of a 1,800 km power transmission line. Finally, ENGIE gained visibility on the financial outlook of its French gas networks activities with the conclusion of the regulatory reviews between the end of 2019 and the beginning of 2020.

In **Renewables**, 3.0 GW of renewable capacity was commissioned and the 9 GW commissioning target, over 2019-21, is now fully secured. The new joint-venture in Mexico with Tokyo Gas and the strategic partnership signed with Edelweiss Infrastructures Yield in India at the beginning of 2020 demonstrate ENGIE's ability to deploy the DBSO [1] model and attract partners for the development of its portfolio. In addition, ENGIE, along with financial partners, won a bid to acquire a 1.7 GW hydroelectric portfolio from EDP in Portugal. Finally, in January 2020, ENGIE reached an agreement with EDPR for the 50/50 joint-venture in offshore wind to create a global offshore wind player.

In **Thermal**, ENGIE continued to execute its carbon footprint reduction strategy, with coal now approximately 4% of global power generation capacity, following the disposal of its 69.1% stake in Glow in Thailand and Laos (3.2 GW of generation capacity, of which 1.0 GW is coal), ending its participation in coal in the Asia-Pacific region, and the disposal of its German and Dutch coal assets (capacity of 2.3 GW).

In **Nuclear**, an arrangement on Belgian nuclear provisions was reached reducing uncertainty for all parties regarding the level of provisions and their funding.

6.1.1.1.1 Analysis of financial results at December 31, 2019

6.1.1.1.1.1 Revenues of €60,1 billion

Revenues were €60.1 billion, up 5.4% on a gross basis and 4.1% on an organic basis.

Reported revenue growth was driven by scope effects, including various acquisitions in Client Solutions (primarily in the United States with Conti, France and Latin America with CAM) and in BtoB Supply in the US, partially offset by the disposals of ENGIE's stake in Glow in Thailand in March 2019 and of BtoB Supply activities in Germany at the end of 2018. This growth also includes a slightly positive foreign exchange effect, mainly due to the appreciation of the US dollar, partly offset by the depreciation of the Argentinian peso and the Brazilian real against the euro.

Organic revenue growth was primarily driven by Supply revenues in North America, France and Europe, growth in Client Solutions in Europe, energy management services and favorable market conditions for Global Energy Management (GEM) activities and strong momentum in Latin America (PPA portfolio growth in Chile as well as commissioning of new wind and solar farms in Brazil). This growth was partially offset by lower revenues from Supply activities in the UK and Australia and from Thermal activities in Europe.

Clients Solutions revenues were up 11% on a gross basis and 3% on an organic basis, benefiting from a positive effect of acquisitions and favorable market context for industrial clients in Europe.

6.1.1.1.1.2 EBITDA of €10.4 billion

EBITDA was €0.4 billion, up 6.8% on a gross basis and 8.1% on an organic basis.

These gross and organic variations are overall in line with the current operating income growth, except for the increase in depreciation mainly due to the commissioning of assets in Latin America and in France, especially in Networks which are not taken into account at EBITDA level.

In addition, Lean 2021, which contributes to the organic increase at EBITDA and COI levels, exceeded the 2019 targets and is on track to meet the target set for 2021.

6.1.1.1.1.3 Current operating income (COI) of €5.7 billion

Current operating income amounted to €5.7 billion, up 11.1% on a reported basis and 14.4% on an organic basis.

The reported COI growth includes a positive foreign exchange effect, mainly due to the appreciation of the US dollar, partly offset by the depreciation of the Argentinian peso and the Brazilian real against the euro This positive effect is partly offset by an aggregate negative scope effect, including the disposal of the 69.1% stake in Glow in Thailand and Laos, partly offset by various acquisitions predominantly in Networks (TAG) and in Client Solutions.

(1) *Develop, Build, Share & Operate.*

Organic COI performance varied across the Group's business lines:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Client Solutions	1,090	1,010	+7.9% (1)	-0.9%
Networks	2,327	2,401	-3.1%	-5.6%
Renewables	1,190	1,129	+5.4%	+7.5%
Thermal	1,260	1,423	-11.5%	+7.2%
Nuclear	(314)	(1,051)	+70.1%	+70.1%
Supply	345	539	-36.0%	-33.5%
Others	(172)	(297)	+42.1%	+41.6%
TOTAL	**5,726**	**5,154**	**+11.1%**	**+14.4%**

(1) *Excluding the impact from the 2019 SUEZ one-offs, this gross evolution would have been c. +7% (c. € +10 million net positive impact: positive outcome on Argentina court case, restructuring costs and asset write-downs).*

- Client Solutions reported a 1% organic COI decrease, impacted by headwinds in specific segments and an increase in development costs notably on newer growth businesses. These effects were partly offset by an increased contribution from SUEZ and decentralized energy activities.
- Networks reported a 6% organic COI decrease, mainly due to gas distribution activities with 2018-19 negative one-off effects recorded outside of France and negative temperature effects in France and in Europe, only partially offset by a commissioning costs provision reversal and tariff increases in France. Gas transmission activities in France also suffered from a negative volume effect due to the merger of the North and South gas market zones and from a negative price effect resulting from tariff smoothing.
- Renewables reported an 8% organic COI increase, primarily driven by higher prices for hydroelectric power generation in Brazil and in France and the 3.0 GW commissioning of new capacities since January 1, 2019, notably in Brazil (0.5 GW), the United States (0.5 GW), Spain (0.4 GW), Mexico (0.3 GW), India (0.3 GW), France (0.3 GW) and Egypt (0.3 GW). These positive effects were partly offset by lower DBSO margins compared to the high level of DBSO transactions in 2018 and lower hydroelectric power generation in France.
- Thermal showed a 7% organic COI increase, mainly attributable to the PPA portfolio growth and positive market price conditions in Chile. In addition, the reinstatement of the capacity remuneration mechanism in the United Kingdom, as well as the favorable impact of the gas spreads in Europe were positive. These effects were partially offset by the expiry of a PPA in Turkey in April 2019. The amount of liquidated damages received was roughly stable in 2019 versus 2018.
- Nuclear delivered a 70% organic COI growth, benefiting from higher availability rates in Belgium following 2018 unplanned outages (+2,720bps and +62% volumes produced) and better achieved prices (+2€/MWh).
- Supply COI reduced by 34% on an organic basis, primarily driven by margin pressures on French gas and electricity retail contracts, a commissioning costs accrual reversal (related to the coverage of the cost to serve customers handled by energy suppliers during the French market opening, from 2007 to 2016, fully offset by a symmetrical provision reversal for Gas distribution in France), 2018 positive one-offs in Benelux and negative temperature effects in Australia and in France. These effects were partly offset by higher business margins in France.
- Others business line delivered 42% organic COI growth, mainly reflecting GEM's good performance coming from the partial sale of a gas supply contract to Shell and a positive impact from gas contract renegotiations and overall favorable market conditions, as well as lower Corporate costs.

Organic COI performance varied across segments:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
France	2,861	3,057	-6.4%	-7.0%
Of which France excluding Infrastructures	*903*	*1,039*	*-13.1%*	*-15.2%*
Of which France Infrastructures	*1,957*	*2,018*	*-3.0%*	*-2.8%*
Rest of Europe	684	46		
Latin America	1,694	1,359	+24.6%	+20.2%
USA & Canada	159	153	+3.9%	-5.5%
Middle East, Asia & Africa	559	896	-37.6%	-9.1%
Others	(231)	(357)		
TOTAL	**5,726**	**5,154**	**+11.1%**	**+14.4%**

Based on the reportable segments, the organic COI growth was led by the **Rest of Europe** (mainly driven by the recovery of Nuclear activities with better availability and higher prices, the reinstatement of the capacity remuneration mechanism in the United Kingdom, the favorable impact of gas spreads in Europe; partly offset by 2018 positive one-offs including Liquidated Damages received, difficulties in Benelux and the UK in Supply activities and in Client Solutions with some loss-making contracts), by the **Others** segment (mainly due to GEM's good performance in market activities and an increased contribution from SUEZ) and by **Latin America** (notably due to the favorable impact of LDs received in Thermal activities in 2019, higher prices for hydroelectric power generation and commissioning of new wind and solar assets in Brazil and in Mexico as well as PPA portfolio growth in Chile).

These positive impacts were partly offset by an organic COI decrease in **Middle East, Asia & Africa** (mainly driven by headwinds in Supply in Australia and Africa, in Networks in Turkey, partly offset by positive contribution of Thermal generation and Renewables activities), in France (for France excluding Infrastructures, mainly due to lower DBSO margins compared to the 2018 high level, margin pressure in Supply activities and lower hydroelectric power generation partly offset by higher hydro prices, increased wind and solar contributions and improved profitability in Client Solutions activities; for France Infrastructures, mainly due to the lower contribution of transmission and distribution activities) and in **USA & Canada** (mainly driven by Client Solutions, notably due to negative one-offs booked in 2019, lower contribution from Thermal activities due to lower capacity prices; partly offset by higher DBSO margins and commissioned asset contributions in Renewable activities).

6.1.1.1.1.4 Net recurring income relating to continued operations, Group share of €2.7 billion and Net income Group share of €1.0 billion

Net recurring income relating to continued operations, Group share amounted to €2.7 billion compared with €2.5 billion in 2018. This increase was mainly driven by the continued improvement in the current operating income partly offset by higher taxes, mainly due to the 2018 positive effect from the recognition of deferred tax assets and slightly higher recurring financial costs, reflecting the modification in the business mix (higher debt in Brazil).

Net income Group share amounted to €1.0 billion in 2019, stable year-on-year, as a result of the increase in Net recurring income and gains on disposals, mainly resulting from the Glow transaction, which offset the impact of the triennial review of nuclear provisions in Belgium and minor negative mark-to-market variation.

6.1.1.1.1.5 Financial net debt of €25.9 billion

Financial net debt stood at €25.9 billion, up €2.7 billion compared to December 31, 2018. This variation is attributed to (i) capital expenditures over the period (€10.0 billion [1], including the €1.5 billion expenditures for the TAG transaction in Brazil), (ii) dividends paid to ENGIE SA shareholders (€1.8 billion) and to non-controlling interests (€0.7 billion) and (iii) other elements (€0.6 billion) mainly related to foreign exchange rates, new right-of-use assets and mark-to-market variations. These items were partly offset by (i) cash flow from operations (€7.6 billion) and (ii) the impacts of the portfolio rotation program (€2.8 billion, mainly related to the Glow disposal).

Cash flow from operations [2] amounted to €7.6 billion, down €0.2 billion. The decrease stemmed predominantly from working capital requirement variations (€1.3 billion negative impact), mainly caused by margin calls on derivatives and mark-to-market variation of financial derivatives, partly offset by the increase of operating cash flow (€0.9 billion) and lower tax and interests payments (€0.2 billion).

At the end of December 2019, the **financial net debt to EBITDA** ratio amounted to 2.5x. Excluding the TAG acquisition which was not included in the 2019 guidance and which contributed only partially to the 2019 EBITDA, this ratio amounted to 2.4x, stable compared to the end of 2018 and on the target of less than or equal to 2.5x. The average cost of gross debt was 2.70%, slightly up compared to the end of 2018, notably due to new borrowings in Brazil.

At the end of December 2019, **the economic net debt** [3] **to EBITDA ratio** stood at 4.0x. Excluding the TAG acquisition, this ratio stood at 3.8x, slightly increasing compared to December 2018.

6.1.1.1.2 Financial targets

The targets for the financial years ended December 31, 2020 and 2022 set forth below are based on data, assumptions and estimates considered to be reasonable by the Group at the date of issuance of this document.

These data and assumptions may evolve or be amended due to uncertainties related to the economic, financial, accounting, competitive, regulatory and tax environment or other factors that the Group may not be aware of at the date of registration of the management report. In addition, the fulfilment of forecasts requires the success of the Group's strategy. The Group therefore makes no commitment or warranty regarding the fulfilment of the forecasts set out in this section.

The targets presented below and the underlying assumptions, also been prepared in accordance with the provisions of Delegated Regulation (EU) No. 2019/980 supplementing Regulation (EU) No. 2017/1129 and the ESMA recommendations on forecasts.

The targets presented below result from the budget and medium-term plan process as described in Note 13 to the consolidated financial statements; they have been prepared on a comparable basis with historical financial information and in accordance with the accounting methods applied to the Group's consolidated financial statements for the year ended December 31, 2019 (including IFRS 16 and IFRIC 23, which the Group has applied as from January 1, 2019) described in the consolidated financial statements.

(1) Net of DBSO partial sell-downs.

(2) Cash flow from operations = Free cash flow before maintenance CAPEX.

(3) Economic net debt amounted to €41.1 billion at the end of December 2019 (compared with €35.7 billion at the end of December 2018); it includes, in particular, nuclear provisions and post-employment benefits.

Assumptions

- **strategy**: confirmation and deepening of the Group ambition to establish ENGIE as a leading force in the energy and climate transition;
- **acquisitions and disposals**: no significant change in the Group scope of consolidation beyond acquisitions or disposals already announced or impacts specifically mentioned in the targets below;
- **foreign exchange rates**:
  - 2020: average annual €/US Dollar and €/Brazilian real foreign exchange rates at 1.13 and 4.57 respectively,
  - 2021 and 2022: average annual €/US Dollar and €/Brazilian real foreign exchange rates at 1.16 and 4.57, respectively;
- **Belgium nuclear assets availability**: 74%, 93% and 94% for 2020, 2021 and 2022, respectively (rates computed on the basis of the installed capacity, assuming Doel 3 closure in October 2022);
- **regulated tariffs in France Infrastructures**:
  - distribution, transport and storage: tariffs as published by the CRE in January 2020,INEY
  - regasification: estimated updated tariffs as from 2021; the CRE tariff review will take place in 2020;
- **regulated gas & power tariffs in France**: full pass through of supply costs;
- **commodity prices**: based on market conditions as of December 31, 2019 (notably for European outright power, forwards at 44, 47, 48 €/MWh in 2020, 2021 and 2022 respectively) for the non-hedged part of the production (20%, 46% and 77% in 2020, 2021 and 2022 respectively);
- **climate**: normalized conditions in France (gas distribution and energy supply + normalized hydro production), hydrology in Brazil to improve by 2022;
- **recurring effective tax rate**: 31% in 2020, reducing by ~300bps through 2022;
- **employee benefit provisions discount rates**: based on market conditions as of December 31, 2019, as disclosed in Note 20 to the consolidated financial statements;
- no significant accounting changes compared to 2019;
- no major regulatory and macro-economic changes compared to 2019.

2020 and 2022 financial targets

ENGIE anticipates 2020 **net recurring income, Group share to be between €2.7 and €2.9 billion**. This guidance is based on an indicative EBITDA range of €10.5 to €10.9 billion and COI range of €5.8 to €6.2 billion.

COI Indicative expectations by Business Line for 2020:

In millions of euros	Dec. 31, 2019	COI 2019-2020 (1)	Key drivers
Client Solutions	1,090	+	Organic revenues and margin growth, new acquisitions.
Networks	2,327	-	Increase from TAG offset by decreases in new remuneration rates.
Renewables	1,190	+ +	Hydro volume and prices in France and decision in Brazil on compensation for past losses due to low hydro dispatch. Wind & Solar increase due to DBSO and COD of assets.
Thermal	1,260	- -	Scope impact and decreasing spreads.
Nuclear	(314)	+	Higher achieved prices, lower volumes.
Supply	345	+ +	Positive effect from negative 2019 one-offs and normalized temperatures in 2020.

(1) A single + or - sign accounts for single digit growth or decrease; double ++ or - - signs account for a double-digit growth or decrease.

For 2020 and over the long term, ENGIE anticipates an economic net debt/EBITDA ratio below or equal to 4.0x and remains committed to a strong investment grade rating.

For 2022, ENGIE anticipates **net recurring income, Group share to grow at a CAGR**[1] **range of 6-8%** (i.e. between €3.2 and 3.4 billion). This guidance is based on an indicative CAGR range for EBITDA between 2-4% and for COI between 4-6%.

For the 2020-2022 period, ENGIE expects to invest €10 billion[2] in growth, €8 billion in maintenance and €4 billion in the Synatom financial Capex for the full funding of the nuclear waste provision by 2025. Disposals are expected to amount to €4 billion, primarily aiming at further reducing CO_2 emissions and simplifying geographical footprint and structure.

6.1.1.1.3 Dividend policy

For **fiscal year 2019**, ENGIE confirms the payment of a **€0.80 per share dividend** representing a payout ratio of 72%, **payable in cash**.

The annual dividend will be paid at one time, after the Ordinary General Meeting (OGM) approving the annual accounts.

For the future, ENGIE confirms the **medium-term dividend policy, in the range of 65 to 75% NRIgs payout ratio**.

(1) CAGR: Compound Annual Growth Rate.

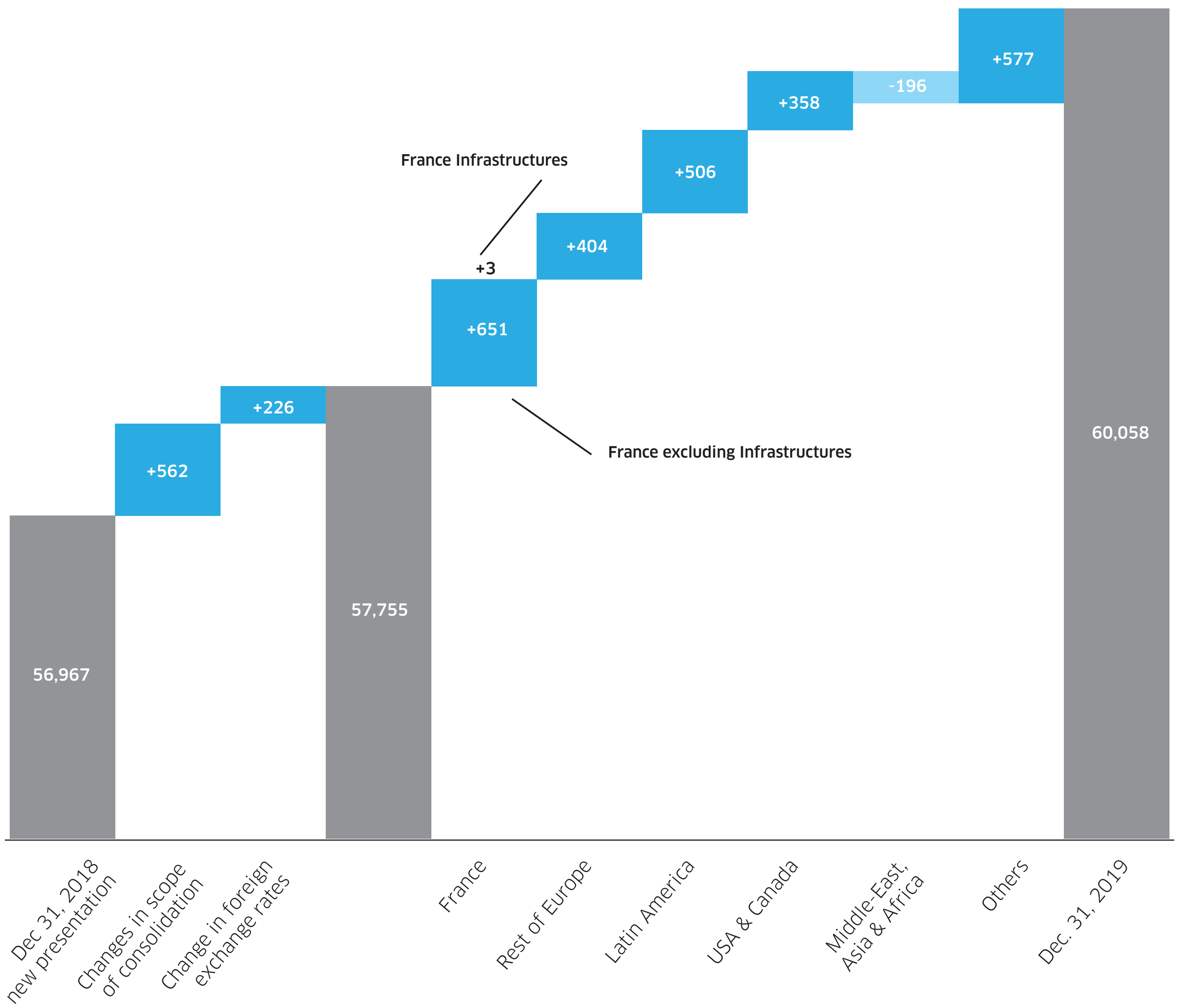
(2) Net of DBSO partial sell-downs.

6.1.1.2 Business trends

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	60,058	56,967	+5.4%	+4.1%
EBITDA	10,366	9,702	+6.8%	+8.1%
Net depreciation and amortization/Other	(4,640)	(4,548)		
CURRENT OPERATING INCOME (COI)	5,726	5,154	+11.1%	+14.4%

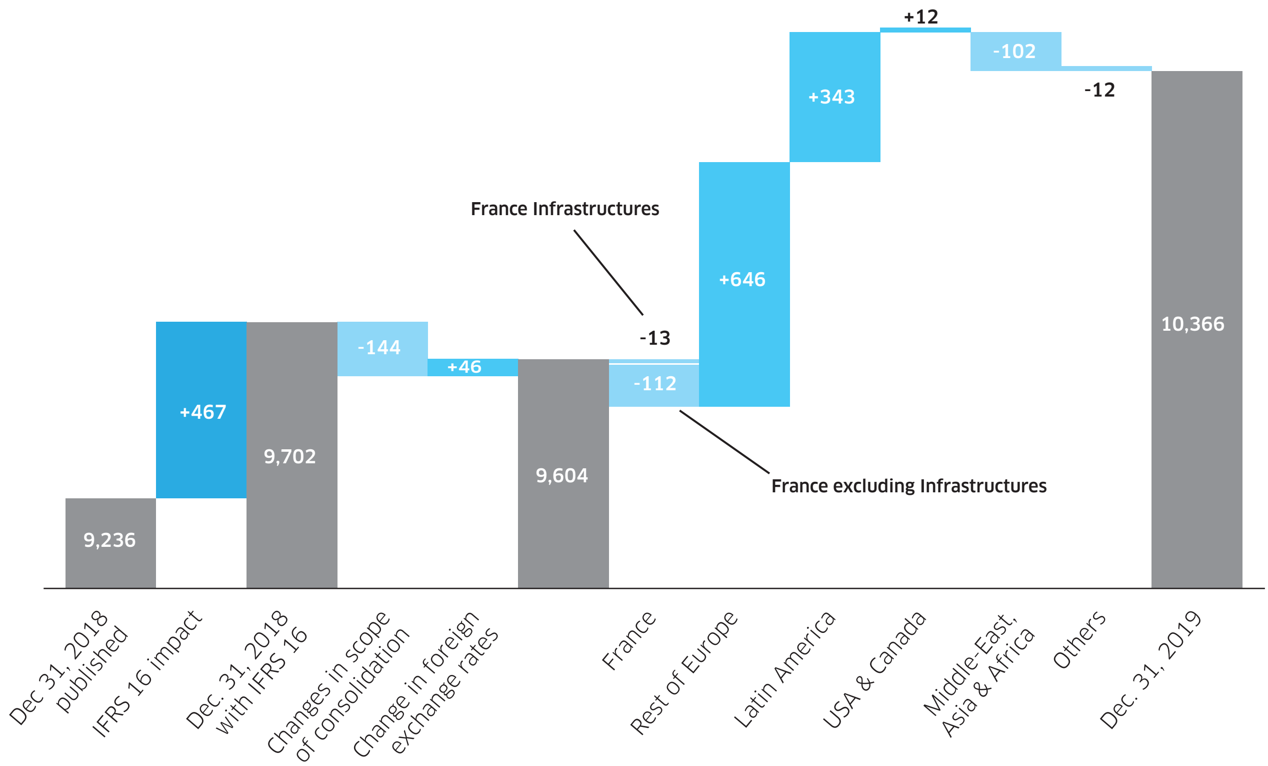
REVENUE TRENDS

In millions of euros



EBITDA TRENDS

In millions of euros



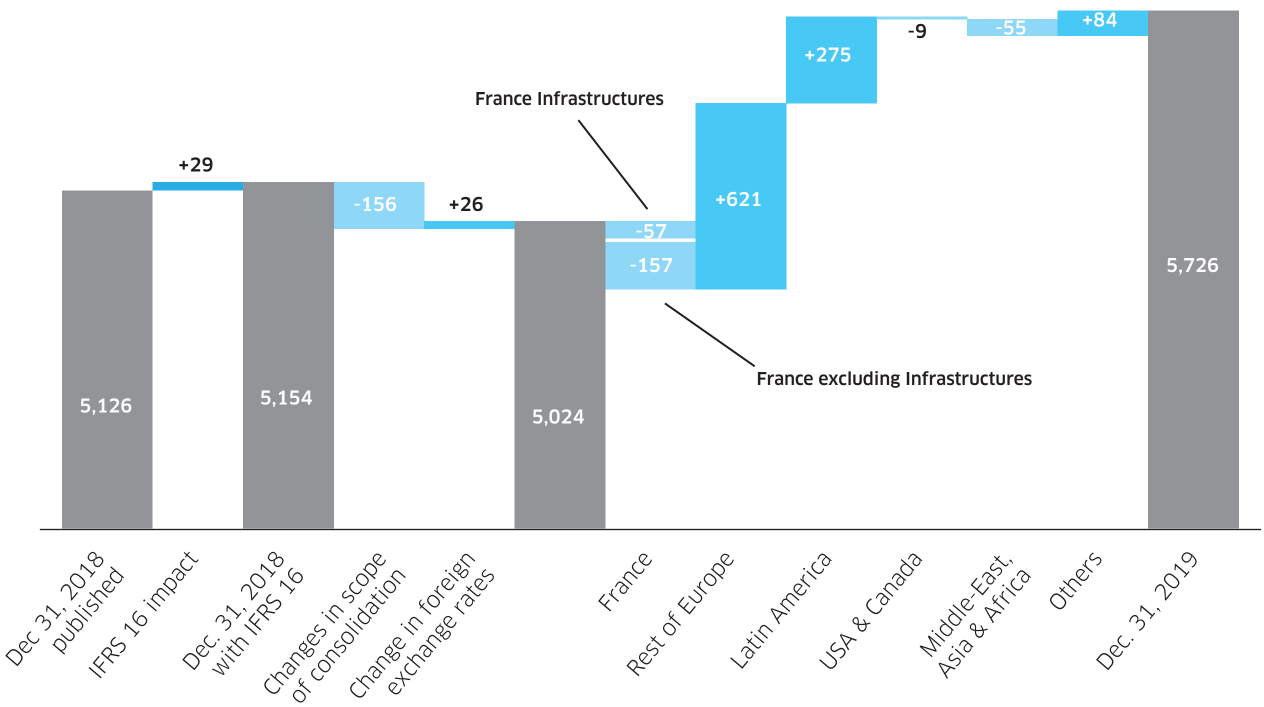
Geography/Business Line matrix

In millions of euros	Client Solutions	Networks	Renewables	Thermal	Nuclear	Supply	Others	TOTAL at Dec. 31, 2019
France	959	3,537	421	-	-	294	-	5,211
Rest of Europe	577	137	145	442	192	256	-	1,750
Latin America	35	339	1,035	750	-	62	-	2,221
USA & Canada	64	1	70	32	-	63	61	291
Middle East, Asia & Africa	44	17	97	563	-	6	-	727
Others	156	(8)	(43)	(23)	-	(42)	125	166
TOTAL EBITDA	**1,835**	**4,024**	**1,725**	**1,765**	**192**	**639**	**186**	**10,366**

In millions of euros	Client Solutions	Networks	Renewables	Thermal	Nuclear	Supply	Others	TOTAL at Dec. 31, 2018 with IFRS 16
France	920	3,554	503	-	-	352	-	5,329
Rest of Europe	552	151	125	515	(555)	294	-	1,081
Latin America	11	280	901	554	-	43	-	1,789
USA & Canada	70	1	5	64	-	37	74	252
Middle East, Asia & Africa	40	57	82	898	-	57	-	1,133
Others	137	(7)	(27)	9	-	-	6	119
TOTAL EBITDA	**1,730**	**4,035**	**1,589**	**2,040**	**(555)**	**783**	**81**	**9,702**

CURRENT OPERATING INCOME (COI) TRENDS

In millions of euros



Geography/Business Line matrix

In millions of euros	Client Solutions	Networks	Renewables	Thermal	Nuclear	Supply	Others	TOTAL at Dec. 31, 2019
France	574	1,957	181	-	-	149	-	2,861
Rest of Europe	345	82	88	293	(314)	190	-	684
Latin America	-	280	849	504	-	61	-	1,694
USA & Canada	13	1	45	26	-	25	49	159
Middle East, Asia & Africa	25	15	72	460	-	(13)	-	559
Others	132	(8)	(45)	(23)	-	(65)	(222)	(231)
TOTAL COI	**1,090**	**2,327**	**1,190**	**1,260**	**(314)**	**345**	**(172)**	**5,726**

In millions of euros	Client Solutions	Networks	Renewables	Thermal	Nuclear	Supply	Others	TOTAL at Dec. 31, 2018 with IFRS 16
France	552	2,018	259	-	-	227	-	3,057
Rest of Europe	341	108	70	342	(1,051)	235	-	46
Latin America	(1)	227	749	342	-	42	-	1,359
USA & Canada	24	1	(5)	59	-	13	60	153
Middle East, Asia & Africa	32	54	63	708	-	40	-	896
Others	44	(7)	(28)	9	-	(19)	(356)	(357)
TOTAL COI	**993**	**2,402**	**1,109**	**1,460**	**(1,051)**	**538**	**(296)**	**5,154**

6.1.1.2.1 France

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	**21,423**	**20,448**	**+4.8%**	**+3.2%**
Total revenues (incl. intra-group transactions)	**22,736**	**21,760**	**+4.5%**	
EBITDA	**5,211**	**5,329**	**-2.2%**	**-2.4%**
Net depreciation and amortization/Other	(2,351)	(2,272)		
CURRENT OPERATING INCOME (COI)	**2,861**	**3,057**	**-6.4%**	**-7.0%**

6.1.1.2.1.1 France excluding Infrastructures

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	**15,854**	**14,998**	**+5.7%**	**+4.4%**
EBITDA	**1,672**	**1,775**	**-5.8%**	**-6.5%**
Net depreciation and amortization/Other	(769)	(736)		
CURRENT OPERATING INCOME (COI)	**903**	**1,039**	**-13.1%**	**-15.2%**

VOLUMES SOLD

In TWh	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)
Gas sales	83.2	88.3	-5.8%
Electricity sales	38.8	39.0	-0.5%

FRANCE CLIMATIC ADJUSTMENT

In TWh	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	Total change in TWh
Climate adjustment volumes	(3.6)	(2.9)	(0.7)
(negative figure = warm climate, positive figure = cold climate)			

Revenues in the France excluding Infrastructures segment amounted to €15,854 million, up 5.7% on a reported basis and 4.4% on an organic basis. Organic growth can be explained by higher revenues in the BtoC power segment and BtoB services businesses. Acquisitions in BtoB services also contributed significantly to growth on a reported basis (in particular Powerlines, Pierre Guerin, Endel SRA and Sodelem).

Gas sales volumes in the BtoC segment decreased by 5.1 TWh compared to 2018, of which 0.7 TWh related to a negative temperature effect, mainly as a result of the end of regulated gas tariffs. The BtoC power portfolio recorded a significant increase of 1.6 TWh, whereas volumes produced by power generation and France Networks dropped by 1.8 TWh.

Current operating income was €903 million, down 13.1% on a reported basis and 15.2% on an organic basis. This drop was mainly due to lower DBSO (Develop, Build, Share & Operate) margins in 2019, and higher operating expenses (OPEX) in the BtoC segment to support the development of gas and power market offers. 2019 results were also affected by the impact of lower hydroelectric power generation. These underperformances were partly offset by higher prices for hydro power, higher wind and solar production, and a good organic performance in BtoB activities thanks to new contracts and increased profitability.

6.1.1.2.1.2 France Infrastructures

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	5,569	5,450	+2.2%	+0.1%
Total revenues (incl. intra-group transactions)	**6,548**	**6,575**	**-0.4%**	
EBITDA	3,539	3,554	-0.4%	-0.4%
Net depreciation and amortization/Other	(1,582)	(1,536)		
CURRENT OPERATING INCOME (COI)	1,957	2,018	-3.0%	-2.8%

Revenues in the France Infrastructures segment amounted to €5,569 million, €119 million above 2018. The increase was driven by terminalling activities, which benefited from the outsourcing of LNG activities as well as tariff increases in distribution activities, and by transmission activities, although growth was limited by tariff smoothing and lower subscribed capacity. These favorable impacts were partly offset by a decrease in storage activities with a reduction in buy/sale operations in France following the introduction of new regulations in 2018, offset by international activities.

Current operating income for the period was €1,957 million, down 2.8% on an organic basis. In transmission activities, this decrease was due to negative price effects in France – mainly tariff smoothing – and Germany. To a lesser extent, storage activities were impacted by customer penalties in France due to a temporarily deteriorated operating performance as well as to negative price effects in Germany, while terminalling activities were impacted by tariff changes. Growth in distribution activities partly offset these effects, with tariff hikes more than offsetting mild climate and other changes in OPEX.

6.1.1.2.2 Rest of Europe

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	17,270	16,946	+1.9%	+2.4%
EBITDA	1,750	1,081	+61.9%	+59.4%
Net depreciation and amortization/Other	(1,066)	(1,036)		
CURRENT OPERATING INCOME (COI)	684	46		

Revenues in the Rest of Europe segment amounted to €17,270 million, up 2.4% on an organic basis. This growth was driven by Supply and Client Solutions activities, whereas Thermal revenues decreased.

Supply activities benefited from positive price effects in Belgium, the Netherlands and Romania, partly offset by Supply activities in the United Kingdom and Germany due to the divestments in the German Retail BtoB portfolio in 2018.

The increase in Client Solutions mainly arose from Belgium's installation and energy efficiency segments, Central Europe which benefited from positive scope effects in Germany as a result notably of the acquisition of OTTO (January 2019), and organic growth in Spain mainly in installation activities.

Current operating income amounted to €684 million. The reported growth of €639 million was mainly driven by Nuclear activities and a slight increase in Renewables. Client Solutions remained stable compared to last year, while Supply, Networks and Thermal activities were down.

Nuclear activities benefited from higher availability rates in Belgium (2018 had been impacted by a high number of days of unplanned outages) and better achieved prices. Renewable activities benefited from good performances in wind onshore activities in Benelux.

Client Solutions reported a lower contribution from asset-light activities as a result of a significant drop notably in the United Kingdom and Benelux due to contract renegotiations and legacy loss-making contracts, but achieved a better performance in asset-based activities mainly in the Generation Europe BU through its cogeneration units as well as in the North, South and Eastern Europe BU in Italy and Germany.

The decrease in Thermal activities mainly arose from higher positive one-offs in 2018, lower coal spreads partially offset by better gas spreads, and capacity market reinstatement in the United Kingdom. Supply activities decreased in Benelux and the United Kingdom, and Networks activities decreased in Germany.

6.1.1.2.3 Latin America

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	5,341	4,639	+15.1%	+10.9%
EBITDA	2,221	1,789	+24.2%	+19.1%
Net depreciation and amortization/Other	(527)	(430)		
CURRENT OPERATING INCOME (COI)	1,694	1,359	+24.6%	+20.2%

Revenues in the Latin America segment totaled €5,341 million, up 15.1% on a reported basis and 10.9% organically. Reported growth comprises the positive effect of a Client Solutions entity acquired at the end of last year (CAM), partially offset by a negative net foreign exchange effect, with the depreciation of the Brazilian real (-2.4%) and Argentinian peso (-36.0%) being partially offset by the appreciation of the US dollar (+5.5%), Mexican peso (+5.3%) and Peruvian sol (+3.9%). In Chile, business was positively impacted by the ramp-up of new Power Purchase Agreements with distribution companies. In Brazil, organic growth was mainly driven by the commissioning of wind and solar farms and a new thermal unit, and the effect of inflation on PPA contracts.

Current operating income totaled €1,694 million, up 24.6% on a reported basis and 20.2% on an organic basis. Reported growth benefited from the positive impact of the acquisition in June 2019 of a gas transportation entity in Brazil (TAG). The organic growth was due to the favorable impact of liquidated damages received in Chile and Brazil in 2019, and the positive organic effects mentioned above for revenues. These impacts were partially offset by a positive one-off recorded in 2018 in Mexico.

6.1.1.2.4 USA & Canada

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	4,545	3,355	+35.5%	+10.1%
EBITDA	291	252	+15.6%	+4.5%
Net depreciation and amortization/Other	(132)	(99)		
CURRENT OPERATING INCOME (COI)	159	153	+3.9%	-5.5%

Revenues in the USA & Canada segment came in at €4,545 million, up 35.5% on a reported basis. In addition to positive foreign exchange effects, revenues benefited from scope-in effects relating to recent acquisitions in Client Solutions and Retail BtoB (Plymouth Rock) in the United States. The 10.1% organic growth was mainly the result of positive price effects on BtoB power sales in the United States with no effect at current operating income level.

Current operating income totaled €159 million, down 5.5% on an organic basis compared to 2018. The main reasons for the decrease were a lower operational performance in Client Solutions due to loss-making contracts, set-up costs for ENGIE Impact and lower capacity prices in Thermal activities. These effects were partly offset by the progressive ramp-up of Renewables activities in the United States, including the DBSO sell down of a wind project (Live Oak) and contributions from two wind projects commissioned in 2019.

6.1.1.2.5 Middle East, Asia & Africa

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	2,914	4,014	-27.4%	-6.7%
EBITDA	727	1,133	-35.9%	-12.5%
Net depreciation and amortization/Other	(168)	(237)		
CURRENT OPERATING INCOME (COI)	559	896	-37.6%	-9.1%

Revenues for the Middle East, Africa & Asia segment totaled €2,914 million, down 27.4% on a reported basis and 6.7% organically. The reported decrease was mainly due to the disposal of Glow (Thailand) in March 2019, a weakened performance in Supply (mainly Simply Energy in Australia), as well as lower revenues in Client Solutions in Africa and Australia. The decrease was partly offset by acquisitions in the Middle East (Cofely Besix) and Asia (RCS Engineering), and positive foreign exchange effects.

Electricity sales decreased by 27 TWh to 16.8 TWh, with reduced volumes mostly due to the sale of Glow and Loy Yang B.

Current operating income totaled €559 million, down 37.6% on a reported basis and 9.1% organically. The gross reported decrease was due to the negative impact of the disposal of Glow and Loy Yang B, partly offset by positive foreign exchange effects. The organic decrease notably reflects difficulties (i) in Supply in Australia and Africa, (ii) in Networks partly related to a positive provision reversal in Turkey in 2018, and to a lesser extent (iii) in Services activities. The decrease was partly offset by the positive contribution of Thermal Generation and the positive impact of Renewables activities, including liquidated damages for the Willogoleche wind farm in Australia.

6.1.1.2.6 Others

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)	% change (organic basis)
Revenues	8,565	7,565	+13.2%	+7.5%
EBITDA	166	119	+39.7%	-9.9%
Net depreciation and amortization/Other	(397)	(476)		
CURRENT OPERATING INCOME/(LOSS) (COI)	(231)	(357)	+35.4%	+23.5%

The Others reportable segment includes (i) GEM, (ii) Tractebel, (iii) GTT, (iv) Hydrogen, as well as (v) the Group's holding and corporate activities which include the entities centralizing the Group's financing requirements, *Entreprises & Collectivités* (E&C) and the contribution of SUEZ (associate).

Revenues for the Others reportable segment amounted to €8,565 million. The 13.2% reported growth compared to 2018 represented €1,000 million, mainly driven by GEM due to a favorable market context and E&C mainly due to an increase in power volumes and average prices (up €910 million gross for both GEM & E&C).

Current operating loss amounted to €231 million, representing a €126 million improvement compared to 2018. This improvement was mainly due to a strong performance by GEM in market activities, the partial transfer of a gas supply contract, gas contract renegotiations and the Certinergy acquisition in February 2019, partially offset by a sluggish performance by storage activities in bearish markets. Current operating income/(loss) also benefited from positive one-offs at SUEZ and in connection with the Link 2018 employee shareholding plan. These favorable impacts were partly offset by a decline in margins for Tractebel Engineering.

6.1.1.3 Other income statement items

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 with IFRS 16	% change (reported basis)
CURRENT OPERATING INCOME (COI)	**5,726**	**5,154**	**+11.1%**
(+) Mark-to-Market on commodity contracts other than trading instruments	(426)	(223)	
Current operating income including operating MtM and share in net income of equity method entities	**5,300**	**4,932**	**+7.5%**
Impairment losses	(1,770)	(1,798)	
Restructuring costs	(218)	(162)	
Changes in scope of consolidation	1,604	(150)	
Other non-recurring items	(1,240)	(147)	
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**3,676**	**2,674**	**+37.5%**
Net financial income/(loss)	(1,387)	(1,414)	
Income tax benefit/(expense)	(640)	(702)	
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	**1,649**	**558**	
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**-**	**1,067**	
NET INCOME/(LOSS)	**1,649**	**1,624**	**+1.5%**
Net income/(loss) Group share	**984**	**1,029**	
Of which Net income/(loss) relating to continued operations, Group share	*984*	*(14)*	
Of which Net income/(loss) relating to discontinued operations, Group share	-	*1,043*	
Non-controlling interests	**664**	**595**	
Of which Non-controlling interests relating to continued operations	*664*	*572*	
Of which Non-controlling interests relating to discontinued operations	-	*24*	

Income from operating activities amounted to €3,676 million in 2019, representing an increase compared with 2018, mainly due to (i) gains on asset disposals (principally relating to the disposal of ENGIE's interest in Glow), (ii) the improvement in current operating income, (iii) partly offset by the recognition of additional costs related to the triennial review of nuclear provisions in Belgium.

Income from operating activities was also affected by:

- net impairment losses of €1,770 million in 2019 compared with €1,798 million in 2018, mainly relating to Belgian nuclear power assets (including €638 million on dismantling assets for nuclear facilities whose operating life may not be extended, recognized against the provision, as part of the triennial review of nuclear provisions) and thermal power generation assets in Latin America and the Middle East (*see Note 9.1*);

- restructuring costs of €218 million (compared with €162 million in 2018) (*see Note 9.2*);
- positive scope effects of €1,604 million, mainly relating to the disposal of ENGIE's interest in Glow;
- other non-recurring items for a negative €1,240 million, mainly including the €1,166 million net expense related to additions to provisions for the back-end of the nuclear fuel cycle as part of the triennial review of nuclear provisions in Belgium.

The **net financial loss** amounted to €1,387 million in 2019, compared with €1,414 million the previous year (*see Note 10*).

The **income tax expense** for 2019 amounted to €640 million (versus €702 million in 2018). It includes an income tax benefit of €471 million arising on non-recurring taxable items (versus €147 million in 2018), mainly comprising mark-to-market losses recognized by ENGIE SA. The effective tax rate decreased significantly in 2019 (35.8% versus 78.1% in 2018), mainly due to the non-taxation of proceeds from the Glow disposal. Adjusted for these non-recurring items, the effective recurring tax rate was 28.2%, up on the 2018 rate of 23.7% mainly due to the impact of more positive one-off effects in 2018 than in 2019.

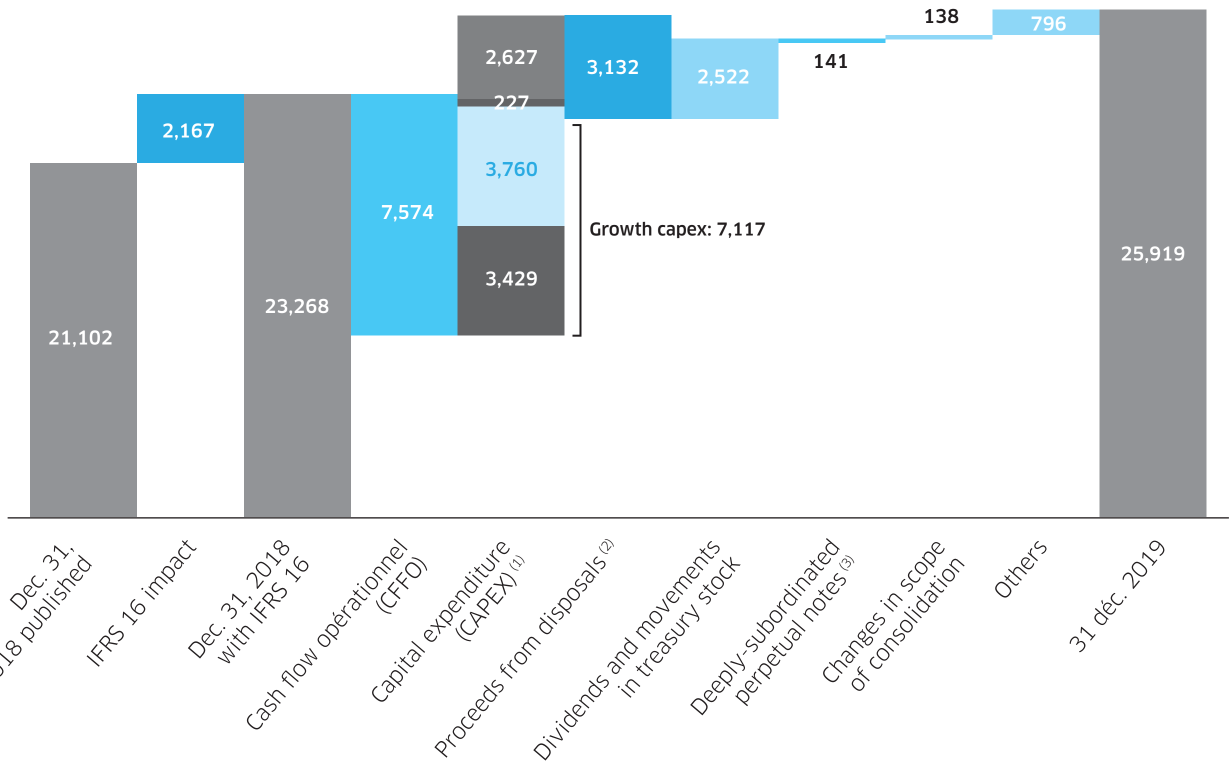
Net income relating to continued operations attributable to non-controlling interests amounted to €664 million, compared with €595 million in 2018. The increase was mainly due to lower impairment losses compared to the previous year on coal assets in Germany, partly offset by the deconsolidation of ENGIE's interest in Glow as from March 14, 2019 following its disposal.

6.1.1.4 Changes in net financial debt

Net financial debt stood at €25.9 billion, up 2.7 billion compared to December 31, 2018. This increase is mainly attributable to (i) capital expenditure over the period (€10.0 billion [1], including €1.5 billion in expenditure for the TAG transaction in Brazil), (ii) dividends paid to ENGIE SA shareholders (€1.8 billion) and to non-controlling interests (€0.7 billion) and (iii) other items (€0.6 billion) mainly related to foreign exchange rates, new leased right-of-use assets and mark-to-market variations. These items were partly offset by (i) cash flow from operations (€7.6 billion) and (ii) the impacts of the portfolio rotation program (€3.0 billion, mainly related to the completion of the disposal of the stake in Glow).

Changes in net financial debt break down as follows:

In millions of euros



(1) Capital expenditure net of DBSO proceeds.

(2) Excluding DBSO proceeds.

(3) See Note 18.2.1 "Issuance of deeply-subordinated perpetual notes".

(1) *Net of DBSO proceeds.*

The net financial debt to EBITDA ratio came out at 2.50 at December 31, 2019.

In millions of euros	Dec. 31, 2019	Jan. 1, 2019 with IFRS 16
Net financial debt	25,919	23,268
EBITDA	10,366	9,702
NET DEBT/EBITDA RATIO	**2.50**	**2.40**

The economic net debt to EBITDA ratio stood at 3.96 at December 31, 2019.

In millions of euros	Dec. 31, 2019	Jan. 1, 2019 with IFRS 16
Economic net debt	41,078	35,669
EBITDA	10,366	9,702
ECONOMIC NET DEBT/EBITDA RATIO	**3.96**	**3.68**

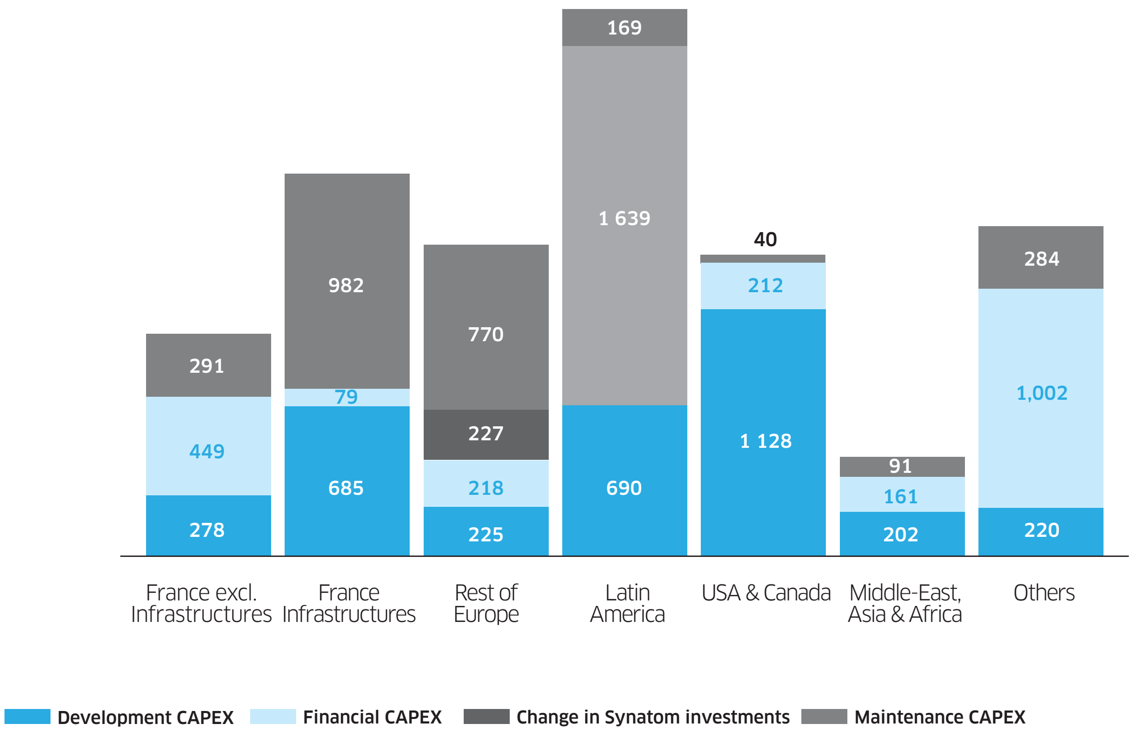
6.1.1.4.1 Cash flow from operations (CFFO)

Cash flow from operations (CFFO) amounted to €7.6 billion, down €0.2 billion. The decrease stemmed predominantly from working capital requirement variations (€1.2 billion negative impact) caused by margin calls on derivatives and mark-to-market variation of financial derivatives, partly offset by the increase of operating cash flow (€0.9 billion) and lower tax and interests paid (€0.2 billion).

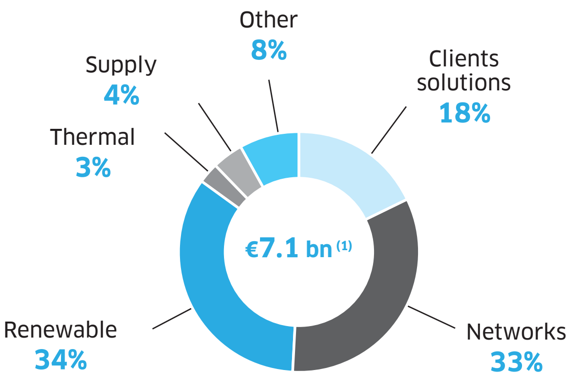
6.1.1.4.2 Net investments

Capital expenditure (CAPEX) amounted to €10,042 million, breaking down as follows by segment:

In millions of euros



Growth capital expenditure amounted to €7,117 million, breaking down as follows by Business Line:



MAIN PROJECTS (€BN)

Client Solutions	**1.3**
France - Powerlines & Pierre Guerin acquisition	0.3
North America - CONTI acquisition	0.2
NECST – OTTO Luft-und Klimatechnik GmbH & Co acquisition	0.2
North America - Genbright & Systecon acquisition	0.1
GEM & E&C – Certinergy acquisition	0.1
Networks	**2.4**
TAG acquisition	1.5
GRDF (Gazpar & Networks development)	0.5
Renewables	**2.4**
North America - Wind Onshore development	0.8
France Renewables. incl. Vol-V acquisition	0.4
Brazil – Umburanas. Campo Largo & Jirau	0.3
North America - Solar development	0.2
Latin America - Mexican Solar	0.2
MESCAT, incl. Kadapa	0.2

(1) Net of disposals under DBSO operations, excluding Corporate, and Synatom reallocated to maintenance expenditure.

The **geography**/Business Line matrix for capital expenditures is presented hereunder:

In millions of euros	Client Solutions	Networks	Renewables	Thermal	Nuclear	Supply	Others	TOTAL at Dec. 31, 2019
France	423	1,709	481	-	-	151	-	2,764
Rest of Europe	416	77	42	174	636	95	-	1,440
Latin America	47	1,651	541	254	-	6	-	2,499
USA & Canada	330	1	968	8	-	73	-	1,380
Middle East, Asia & Africa	80	9	271	-	-	93	-	453
Others	325	-	186	81	-	38	876	1,506
TOTAL CAPEX	**1,621**	**3,446**	**2,488**	**517**	**636**	**457**	**876**	**10,042**

In millions of euros	Client Solutions	Networks	Renewables	Thermal	Nuclear	Supply	Others	TOTAL at Dec. 31, 2018
France	469	1,617	237	-	-	148	-	2,471
Rest of Europe	357	58	18	143	750	104	-	1,430
Latin America	145	129	1,024	456	-	4	-	1,758
USA & Canada	350	-	461	1	-	100	5	918
Middle East, Asia & Africa	84	10	239	214	-	69	-	616
Others	131	-	6	-	-	28	284	449
TOTAL CAPEX	**1,537**	**1,814**	**1,986**	**813**	**750**	**454**	**289**	**7,643**

Net investments amounted to €7,586 million and include:

- growth capital expenditure for €7,117 million. This mainly stemmed from (i) the acquisition in Infrastructures, in consortium with the Caisse de Dépôt et Placement du Québec (CDPQ), of a 90% stake in Transportadora Associada de Gás S.A. (TAG) in Brazil (€1,557 million, including acquisition costs), of the energy services company Conti in North America (€178 million), and in Client Solutions of the OTTO Luft-und Klimatechnik GmbH & Co facilities and services company in Germany (€149 million), (ii) the development in Infrastructures of blending and development projects in the natural gas distribution and transportation network in France (€685 million), (iii) investments in Renewables relating to the development of wind and photovoltaic farms in the United States (approximately €1 billion), Mexico (€345 million), Brazil (€307 million) and India (€139 million), and (iv) the financing of the Nord Stream 2 pipeline project (€433 million);
- gross maintenance capital expenditure amounting to €2,627 million;
- the €227 million increase in Synatom investments;
- new leased right-of-use assets recognized over the period (€539 million);
- changes in the scope of consolidation for the period relating to acquisitions and disposals of subsidiaries for €138 million; and
- proceeds from disposals representing an inflow of €3,132 million, mainly relating to the disposal of ENGIE's interest in Glow in Thailand.

6.1.1.4.3 Dividends and movements in treasury stock

Dividends and movements in treasury stock during the period amounted to €2,522 million and included:

- €1,833 million in dividends paid by ENGIE SA to its shareholders, which corresponds to the balance of the 2018 dividend (€0.75 per share for shares with rights to an ordinary and exceptional dividend and €0.86 per share for shares with rights to a dividend mark-up) paid in May 2019;
- dividends paid by various subsidiaries to their non-controlling interests in an amount of €538 million, the payment of interest on hybrid debt for €150 million and movements in treasury stock.

6.1.1.4.4 Net financial debt at December 31, 2019

Excluding amortized cost but including the impact of foreign currency derivatives, at December 31, 2019 a total of 74% of net financial debt was denominated in euros, 15% in US dollars and 10% in Brazilian real.

Including the impact of financial instruments, 79% of net financial debt is at fixed rates.

The average maturity of the Group's net financial debt is 11.2 years.

At December 31, 2019, the Group had total undrawn confirmed credit lines of €13.0 billion.

6.1.1.5 Other items in the statement of financial position

In millions of euros	Dec. 31, 2019	Jan. 1, 2019 with IFRS 16 & IFRIC 23	Net change
Non-current assets	**99,297**	**93,818**	**5,479**
Of which goodwill	*18,665*	*17,809*	*856*
Of which property, plant and equipment and intangible assets, net	*58,996*	*57,776*	*1,220*
Of which investments in equity method entities	*9,216*	*7,846*	*1,370*
Current assets	**60,496**	**61,994**	**(1,498)**
Of which assets classified as held for sale	*468*	*3,809*	*(3,340)*
Total equity	**38,037**	**40,930**	**(2,893)**
Provisions	25,115	21,512	3,603
Borrowings	38,544	34,345	4,199
Other liabilities	58,097	59,024	(928)
Of which liabilities directly associated with assets classified as held for sale	*92*	*2,141*	*(2,049)*

The carrying amount of **property, plant and equipment and intangible assets** was €59.0 billion, up €1.2 billion compared with December 31, 2018. The increase was primarily the result of acquisitions and development capital expenditure during the period (€7.4 billion positive impact), translation adjustments (€0.1 billion positive impact), partly offset by depreciation and amortization charges (€4.3 billion negative impact), impairment losses (€1.7 billion negative impact), changes in the scope of consolidation (€0.8 billion negative impact), the classification of renewable energy assets in Mexico and green gas production assets in operation in France as "Assets classified as held for sale" (€0.4 billion negative impact), and disposals (€0.2 billion negative impact).

Goodwill increased by €0.9 billion to €18.7 billion, mainly due to acquisitions made by the following BUs: France BtoB, France Renewables, Northern, Southern and Eastern Europe, and Latin America, partly offset by the recognition of impairment losses on the disposal of the coal-fired power plants in Germany and the Netherlands (*see Note 4.1.2*).

Total equity amounted to €38.0 billion, a decrease of €2.9 billion compared with December 31, 2018. The decrease stemmed mainly from the payment of the cash dividend (€2.3 billion negative impact, including €1.8 billion of dividends paid by ENGIE SA to its shareholders and €0.5 billion paid to non-controlling interests), other items of comprehensive income (€1.8 billion negative impact), and the effect of the deconsolidation of Glow following its disposal (€0.5 billion negative impact), partly offset by net income for the period (€1.6 billion positive impact).

Provisions increased by €3.6 billion to €25.1 billion compared with December 31, 2018. This increase stemmed mainly from the impacts of the triennial review of nuclear provisions in Belgium (which added €2.1 billion to the total amount) (*see Note 19*), actuarial losses on provisions for post-employment benefits and other long-term benefits (which added €1.1 billion to the total amount) owing to the fall in discount rates over the period (*see Note 20*).

At December 31, 2019, assets and liabilities classified under **"Assets classified as held for sale"** and **"Liabilities directly associated with assets classified as held for sale"** comprised renewable energy assets in Mexico and green gas production assets in operation in France.

6.1.1.6 Adjustment of comparative information

The aforementioned 2018 figures have been adjusted in respect of:

- the application of the IFRIC position on commodity derivative accounting, leading the Group to review the presentation of some items of the income statement (with no impact on net income, equity or the current operating income indicator used in the management dialogue and financial communication) (see restatements presented in Note 1 to the consolidated financial statements);
- the transition method used for the application of IFRS 16 – *Leases* (see hereunder); in order to make them comparable to the 2019 figures.

The adjustments relating to the application of IFRS 16 on the income statement and certain Group key indicators are as follows:

In millions of euros	Dec. 31, 2018 new presentation [(1)]	IFRS 16	Dec. 31, 2018 new presentation with IFRS 16
Income statement			
REVENUES	**56,967**	**-**	**56,967**
Purchases and operating derivatives	(38,660)	466	(38,194)
Personnel costs	(10,624)	-	(10,624)
Depreciation, amortization and provisions	(3,586)	(438)	(4,024)
Taxes	(1,069)	1	(1,068)
Other operating income	1,514	-	1,514
Current operating income including operating MtM	**4,542**	**29**	**4,571**
Share in net income of equity method entities	361	-	360
Current operating income including operating MtM and share in net income of equity method entities	**4,903**	**29**	**4,932**
Impairment losses	(1,798)	-	(1,798)
Restructuring costs	(162)	-	(162)
Changes in scope of consolidation	(150)	-	(150)
Other non-recurring items	(147)	-	(147)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**2,645**	**29**	**2,674**
NET FINANCIAL INCOME/(LOSS)	**(1,381)**	**(33)**	**(1,414)**
Income tax expense	(704)	2	(702)
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS	**560**	**(2)**	**558**
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS	**1,069**	**(2)**	**1,067**
NET INCOME/(LOSS)	1,629	(4)	1,624
Net income/(loss) Group share	**1,033**	**(4)**	**1,029**
of which Net income/(loss) relating to continued operations, Group share	*(12)*	*(2)*	*(14)*
of which Net income/(loss) relating to discontinued operations, Group share	*1,045*	*(2)*	*1,043*
Non-controlling interests	**595**	**-**	**595**
of which Non-controlling interests relating to continued operations	*572*	-	*572*
of which Non-controlling interests relating to discontinued operations	*24*	-	*24*
BASIC EARNINGS/(LOSS) PER SHARE (EUROS)	**0.37**	**(0.00)**	**0.37**
of which Basic earnings/(loss) relating to continued operations per share	*(0.07)*	*(0.00)*	*(0.07)*
of which Basic earnings/(loss) relating to discontinued operations per share	*0.44*	*(0.00)*	*0.44*
DILUTED EARNINGS/(LOSS) PER SHARE (EUROS)	**0.37**	**(0.00)**	**0.37**
of which Diluted earnings/(loss) relating to continued operations per share	*(0.07)*	*(0.00)*	*(0.07)*
of which Diluted earnings/(loss) relating to discontinued operations per share	*0.43*	*(0.00)*	*0.43*
EBITDA	**9,236**	**467**	**9,702**
CURRENT OPERATING INCOME (COI)	**5,126**	**29**	**5,154**
NET RECURRING INCOME	**3,238**	**(4)**	**3,234**
NET RECURRING INCOME GROUP SHARE	**2,425**	**(4)**	**2,421**
NET RECURRING INCOME RELATING TO CONTINUED OPERATIONS, GROUP SHARE	**2,458**	**(2)**	**2,455**

(1) Comparative data at December 31, 2018 have been reclassified in accordance with the new income statement presentation adopted by the Group consequent to the application of the IFRIC position on commodity derivatives.

In millions of euros	Dec. 31, 2018 published	IFRS 16	Dec. 31, 2018 with IFRS 16
Cash flows			
CASH FLOW FROM OPERATIONS (CFFO)	7,300	437	7,736

In millions of euros	Dec. 31, 2018 published	IFRS 16 & IFRIC 23	Jan. 1, 2019 with IFRS 16 & IFRIC 23
Statement of financial position			
NET DEBT	21,102	2,167	23,268
ECONOMIC NET DEBT	35,590	79	35,669
INDUSTRIAL CAPITAL EMPLOYED	51,412	2,156	53,568

The application of IFRS 16 and its impact on the statement of financial position at January 1, 2019 is presented in Note 1 "Accounting framework and basis for preparing the consolidated financial statements".

6.1.1.7 Parent company financial statements

The figures provided below relate to the financial statements of ENGIE SA, prepared in accordance with French GAAP and applicable regulations.

Revenues for ENGIE SA in 2019 totaled €17,282 million, a decrease compared to 2018 (€27,833 million), mainly due to lower gas sales to other gas operators.

The net operating loss was €931 million at December 31, 2019, an improvement of €127 million compared with a loss of €1,058 million in 2018. Energy margin increased by €143 million, thanks to lower supply costs and continued growth in the electricity business.

Net financial income amounted to €1,192 million, €2,525 million less than in 2018 when dividend payments and income from receivables were €2,449 million higher.

Non-recurring items represented a loss of €835 million, mainly comprising impairment of equity investments.

The income tax benefit amounted to €377 million compared to a benefit of €549 million in 2018, including a tax consolidation benefit of €294 million.

The net loss for the year came out at €196 million.

Shareholders' equity amounted to €34,594 million at end-2019 compared with €36,616 million at end-2018. The €2,022 million decrease was mainly due to the 2019 net loss of €196 million and to the dividend payment of €1,833 million.

At December 31, 2019, borrowings and debt stood at €39,234 million, and cash and cash equivalents totaled €9,891 million (of which €7,753 million relating to subsidiaries' current accounts).

Information relating to payment terms

Pursuant to the application of Article D. 441-4 of the French Commercial Code, companies whose annual financial statements are subject to a statutory audit must publish information regarding supplier and customer payment terms. The purpose is to demonstrate that there is no significant failure to comply with such terms.

INFORMATION RELATING TO SUPPLIER AND CUSTOMER PAYMENT TERMS MENTIONED IN ARTICLE D. 441-4 OF THE FRENCH COMMERCIAL CODE

	Article D. 441 I.- 1°: Invoices received, unpaid and overdue at the reporting date						Article D. 441 I.- 2°: Invoices issued, unpaid and overdue at the reporting date					
In millions of euros	**0 days (indicative)**	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days or more**	**Total (1 day or more)**	**0 days (indicative)**	**1 to 30 days**	**31 to 60 days**	**61 to 90 days**	**91 days or more**	**Total (1 day or more)**
(A) By aging category												
Number of invoices	-					34,346	-					5,532,869
Aggregate invoice amount (incl. VAT)	-	132.8	11.4	0.6	86.8	231.5	-	109.9	80.7	42.3	533.8	766.8
Percentage of total amount of purchases (incl. VAT) for the period	-	0.67%	0.06%	0.00%	0.43%	1.16%						
Percentage of total revenues (incl. VAT) for the period							-	0.54%	0.40%	0.21%	2.62%	3.76%
(B) Invoices excluded from (A) relating to disputed or unrecognized receivables and payables												
Number of excluded invoices						325						1,203
Aggregate amount of excluded invoices						6.7						57.1
(C) Standard payment terms used (contractual or legal terms – Article L. 441-6 or Article L. 443-1 of the French Commercial Code)												
Payment terms used to calculate late payments						-						Contractual payment terms: 14 days
						Legal payment terms: 30 days						Legal payment terms: 30 days

6.1.2 Cash and shareholders' equity

6.1.2.1 Borrowing conditions and financial structure applicable to the issuer

Debt structure

Gross debt (excluding bank overdrafts, amortized cost and financial derivative instruments) amounted to €34.8 billion at the end of 2019, up from year-end 2018, and was primarily composed of €26.0 billion in bond issues and €5.3 billion in bank loans. Other loans and drawdowns on credit lines accounted for a total of €0.3 billion. Short-term loans (commercial paper/short-term marketable securities) accounted for 9% of total gross debt at the end of 2019.

A total of 84% of the gross debt was issued on financial markets (bond issues and commercial paper/short-term marketable securities).

Net debt, excluding amortized costs, the effect of financial derivative instruments and cash collateral, came to €24.0 billion at the end of 2019.

At the end of 2019, net debt was 74% denominated in euros, 15% in US dollars and 10% in Brazilian reals, excluding amortized cost but after the foreign exchange impact of derivatives.

After the impact of derivatives, 79% of the net debt was at a fixed rate. The average cost of gross debt was 2.70%. The average maturity of net debt was 11.2 years at the end of 2019.

The principal contracts are carried by ENGIE SA and are described in Section 6.4 "Parent Company financial statements" Note 11 – 11.2.1 & 11.2.2.

Main transactions in 2019

The principal transactions performed in 2019 affecting financial debt are described in Note 17.3.3 of Section 6.2 "Consolidated financial statements." The Group also exercised the first option to extend the maturity of the centralized syndicated line of credit of €5.0 billion to December 2024. The annual update of the prospectus for ENGIE's €25 billion EMTN program received approval No. 19-590 from the AMF on December 23, 2019.

Ratings

ENGIE is rated by Standard & Poor's, Moody's and Fitch.

In April 2019, S&P confirmed its A- rating and increased its short-term rating from A-2 to A-1 to reflect the Group's exceptional liquidity level, with a stable outlook.

Fitch updated its analysis in June 2019 and confirmed its A/F1 rating, with a stable outlook.

In June, Moody's revised its long-term rating downwards from A2 to A3 following promulgation of the PACTE law in France, which resulted in the elimination of the upgrade of one notch for support from the French State. Moody's updated its analysis in December 2019 and confirmed its A3/P-2 rating, with a stable outlook.

6.1.2.2 Restrictions on the use of capital

On December 31, 2019, the Group had total undrawn confirmed credit lines (usable, among other things, as back-up lines for the commercial paper/short-term marketable securities programs) of €13.0 billion. A total of 96% of these lines are centrally managed and their availability is not subject to any financial covenant or linked to a credit risk rating. The counterparties of these lines are well diversified, with no single counterparty holding more than 5% of the total of these centralized lines. No centralized credit facility was in use as at the end of 2019.

Furthermore, the Group has set up credit lines in some subsidiaries, for which the documentation includes ratios related to their financial standing. These lines of credit are not guaranteed by ENGIE SA or GIE ENGIE Alliance.

The definition, as well as the level of these ratios, also known as "financial covenants," are determined by agreement with the lenders and may be reviewed during the life of the loan.

The most frequent ratios are:

- Debt Service Cover Ratio = Free Cash Flow (Principal + interest expense) or for servicing interest (Interest Cover Ratio = EBITDA/interest expense);
- Loan Life Cover Ratio (adjustment of the average cost of the future Free Cash Flows debt divided by the borrowed amount still owed);
- Debt/Equity ratio or maintenance of a minimum amount of equity.

At December 31, 2019, all Group companies whose debt is consolidated were compliant with the covenants and representations contained in their financial documentation, with the exception of a few non-significant entities for which appropriate actions to achieve compliance are being implemented.

6.1.2.3 Expected sources of financing to honor commitments relating to investment decisions

The Group believes that its funding needs will be covered by available cash and the possible use of its existing credit facilities. However, it may call upon the capital markets on an ad hoc basis.

If necessary, dedicated financing could be established for very specific projects.

The Group has a total of €3.9 billion in financing that matures in 2020 (excluding the maturity of €3.2 billion in commercial paper/short-term marketable securities). In addition, at December 31, 2019, it had €10.8 billion in cash (net of bank overdrafts) and a total of €13.0 billion in available lines (not net of the amount of commercial paper/short-term marketable securities), including €1.2 billion expiring in 2020.

6.2 Consolidated financial statements

6.2.1 Consolidated financial statements

Income statement

In millions of euros	Notes	Dec. 31, 2019 (1)	Dec. 31, 2018 (1) (2)
REVENUES	**6.2 & 7**	**60,058**	**56,967**
Purchases and operating derivatives	8.1	(39,950)	(38,660)
Personnel costs	8.2	(11,478)	(10,624)
Depreciation, amortization and provisions	8.3	(4,393)	(3,586)
Taxes		(1,108)	(1,069)
Other operating income		1,670	1,514
Current operating income including operating mtm		**4,800**	**4,542**
Share in net income of equity method entities	6.2	500	361
Current operating income including operating mtm and share in net income of equity method entities	**6.2**	**5,300**	**4,903**
Impairment losses	9.1	(1,770)	(1,798)
Restructuring costs	9.2	(218)	(162)
Changes in scope of consolidation	9.3	1,604	(150)
Other non-recurring items	9.4	(1,240)	(147)
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**9**	**3,676**	**2,645**
Financial expenses		(2,300)	(1,981)
Financial income		913	600
NET FINANCIAL INCOME/(LOSS)	**10**	**(1,387)**	**(1,381)**
Income tax benefit/(expense)	11	(640)	(704)
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS		**1,649**	**560**
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS		**-**	**1,069**
NET INCOME/(LOSS)		**1,649**	**1,629**
Net income/(loss) Group share		**984**	**1,033**
Of which Net income/(loss) relating to continued operations, Group share		*984*	*(12)*
Of which Net income/(loss) relating to discontinued operations, Group share		*-*	*1,045*
Non-controlling interests		**664**	**595**
Of which Non-controlling interests relating to continued operations		*664*	*572*
Of which Non-controlling interests relating to discontinued operations		*-*	*24*
BASIC EARNINGS/(LOSS) PER SHARE (EUROS)	**12**	**0.34**	**0.37**
Of which Basic earnings/(loss) relating to continued operations per share		*0.34*	*(0.07)*
Of which Basic earnings/(loss) relating to discontinued operations per share		*-*	*0.44*
DILUTED EARNINGS/(LOSS) PER SHARE (EUROS)	**12**	**0.34**	**0.37**
Of which Diluted earnings/(loss) relating to continued operations per share		*0.34*	*(0.07)*
Of which Diluted earnings/(loss) relating to discontinued operations per share		*-*	*0.43*

(1) Data presented at December 31, 2019 have been prepared in accordance with the new income statement presentation adopted by the Group. Comparative data at December 31, 2018 have been reclassified in accordance with this new presentation (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

(2) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

Statement of comprehensive income

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2019 Owners of the parent	Dec. 31, 2019 Non-controlling interests	Dec. 31, 2018 (1)	Dec. 31, 2018 Owners of the parent (1)	Dec. 31, 2018 Non-controlling interests (1)
NET INCOME/(LOSS)		**1,649**	**984**	**664**	**1,629**	**1,033**	**595**
Debt instruments	16.1	48	48	-	29	29	-
Net investment hedges	17	29	29	-	7	7	-
Cash flow hedges (excl. commodity instruments)	17	(229)	(232)	3	(175)	(184)	9
Commodity cash flow hedges	17	(744)	(808)	64	(18)	7	(26)
Deferred tax on items above	11	240	261	(21)	48	43	5
Share of equity method entities in recyclable items, net of tax		(250)	(239)	(11)	201	201	-
Translation adjustments		(45)	32	(78)	22	(54)	77
Recyclable items relating to discontinued operations, net of tax		-	-	-	36	39	(3)
TOTAL RECYCLABLE ITEMS		**(953)**	**(910)**	**(43)**	**150**	**88**	**62**
Equity instruments	16.1	103	103	-	42	42	-
Actuarial gains and losses	20	(1,128)	(1,040)	(88)	(245)	(247)	1
Deferred tax on items above	11	255	232	22	58	58	-
Share of equity method entities in actuarial gains and losses, net of tax		(31)	(31)	-	(43)	(45)	2
Non-recyclable items relating to discontinued operations, net of tax		-	-	-	(3)	(1)	(2)
TOTAL NON-RECYCLABLE ITEMS		**(801)**	**(735)**	**(66)**	**(192)**	**(193)**	**2**
TOTAL COMPREHENSIVE INCOME/(LOSS)		**(105)**	**(660)**	**555**	**1,586**	**928**	**659**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

Statement of financial position

ASSETS

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 (1)
Non-current assets			
Goodwill	13	18,665	17,809
Intangible assets, net	14	7,038	6,718
Property, plant and equipment, net	15	51,958	48,917
Other financial assets	16	7,022	6,193
Derivative instruments	16	4,137	2,693
Assets from contracts with customers	7	15	-
Investments in equity method entities	3	9,216	7,846
Other non-current assets	24	384	474
Deferred tax assets	11	860	1,066
TOTAL NON-CURRENT ASSETS		**99,297**	**91,716**
Current assets			
Other financial assets	16	2,546	2,290
Derivative instruments	16	10,134	10,679
Trade and other receivables, net	7	15,180	15,613
Assets from contracts with customers	7	7,816	7,411
Inventories	24	3,617	4,158
Other current assets	24	10,216	9,337
Cash and cash equivalents	16	10,519	8,700
Assets classified as held for sale	4.2	468	3,798
TOTAL CURRENT ASSETS		**60,496**	**61,986**
TOTAL ASSETS		**159,793**	**153,702**

(1) *Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 and IFRIC 23 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

LIABILITIES

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 [(1)]
Shareholders' equity		33,087	35,551
Non-controlling interests	2	4,950	5,391
TOTAL EQUITY	**18**	**38,037**	**40,941**
Non-current liabilities			
Provisions	19	22,817	19,194
Long-term borrowings	16	30,002	26,434
Derivative instruments	16	5,129	2,785
Other financial liabilities	16	38	46
Liabilities from contracts with customers	7	45	36
Other non-current liabilities	24	1,222	960
Deferred tax liabilities	11	4,631	5,415
TOTAL NON-CURRENT LIABILITIES		**63,882**	**54,869**
Current liabilities			
Provisions	19	2,298	2,620
Short-term borrowings	16	8,543	5,745
Derivative instruments	16	10,446	11,510
Trade and other payables	16	19,109	19,759
Liabilities from contracts with customers	7	4,286	3,598
Other current liabilities	24	13,101	12,529
Liabilities directly associated with assets classified as held for sale	4.2	92	2,130
TOTAL CURRENT LIABILITIES		**57,874**	**57,891**
TOTAL EQUITY AND LIABILITIES		**159,793**	**153,702**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 and IFRIC 23 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

Statement of changes in equity

In millions of euros	Number of shares	Share capital	Additional paid-in capital	Consolidated reserves	Deeply-subordinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Shareholders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2017	**2,435,285,011**	**2,435**	**32,506**	**1,455**	**3,129**	**(915)**	**(1,088)**	**(883)**	**36,639**	**5,938**	**42,577**
IFRS 9 & 15 impact [1]	-	-	-	(122)	-	(270)	36	-	(357)	(99)	(455)
Reclassification of premiums and coupons [2]				(570)	570	-	-	-	-	-	-
EQUITY AT JANUARY 1, 2018 [1] [2]	**2,435,285,011**	**2,435**	**32,506**	**763**	**3,699**	**(1,184)**	**(1,053)**	**(883)**	**36,282**	**5,840**	**42,122**
Net income/(loss)				1,033					1,033	595	1,629
Other comprehensive income/(loss)				(193)		165	(78)		(106)	63	(42)
TOTAL COMPREHENSIVE INCOME/(LOSS)		**-**	**-**	**840**	**-**	**165**	**(78)**	**-**	**928**	**659**	**1,586**
Employee share issues and share-based payment		6	60	80					146	1	146
Cancellation of treasury stock		(6)	-	(75)	-	-	-	81	-	-	-
Dividends paid in cash				(1,739)					(1,739)	(882)	(2,621)
Purchase/disposal of treasury stock				(236)				342	105	-	105
Deeply-subordinated perpetual notes [2]				(11)	1,000				989	-	989
Reclassification under debt and redemption of deeply-subordinated perpetual notes [2]				(24)	(949)				(973)	-	(973)
Interests on deeply-subordinated perpetual notes				(123)					(123)	-	(123)
Transactions between owners				(34)					(34)	10	(24)
Transactions with impact on non-controlling interests [3]				-					-	(229)	(229)
Share capital increases and decreases subscribed by non-controlling interests									-	(6)	(6)
Other changes		-	-	(29)	-	-	-	-	(30)	(2)	(31)
EQUITY AT DECEMBER 31, 2018 [4]	**2,435,285,011**	**2,435**	**32,565**	**(590)**	**3,750**	**(1,019)**	**(1,130)**	**(460)**	**35,551**	**5,391**	**40,941**

(1) Comparative data at January 1, 2018 have been restated due to the application of IFRS 9 and IFRS 15 (see Note 2 "Restatement of 2017 comparative data" to the 2018 consolidated financial statements).

(2) For clarity's sake, it has been decided to present deeply-subordinated perpetual notes at their nominal value instead of their net value (premiums and coupons deducted). This reclassification has no impact on equity. Transactions for the period are presented in Note 19.2.1"Issuance of deeply-subordinated perpetual notes" to the 2018 consolidated financial statements.

(3) Mainly relating to the deconsolidation of the ENGIE E&P International following its disposal (see Note 5.1.2 "Disposal of the exploration-production business" to the 2018 consolidated financial statements) and the change of consolidation method for Hazelwood (see Note 3.1 "List of main subsidiaries at December 31, 2018" to the 2018 consolidated financial statements).

(4) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

In millions of euros	Number of shares	Share capital	Additional paid-in capital	Consolidated reserves	Deeply-subordinated perpetual notes	Changes in fair value and other	Translation adjustments	Treasury stock	Shareholders' equity	Non-controlling interests	Total
EQUITY AT DECEMBER 31, 2018 [(1)]	**2,435,285,011**	**2,435**	**32,565**	**(590)**	**3,750**	**(1,019)**	**(1,130)**	**(460)**	**35,551**	**5,391**	**40,941**
IFRS 16 impact (*see Note 1*)	-	-	-	(7)	-	-	-	-	(7)	(4)	(11)
EQUITY AT JANUARY 1, 2019 WITH IFRS 16	**2,435,285,011**	**2,435**	**32,565**	**(597)**	**3,750**	**(1,019)**	**(1,130)**	**(460)**	**35,544**	**5,386**	**40,930**
Net income/(loss)				984					984	664	1,649
Other comprehensive income/(loss)				(735)		(942)	32		(1,645)	(109)	(1,754)
TOTAL COMPREHENSIVE INCOME/(LOSS)		**-**	**-**	**250**	**-**	**(942)**	**32**	**-**	**(660)**	**555**	**(105)**
Employee share issues and share-based payment		-	-	50					50	-	50
Dividends paid in cash [(2)]			(1,096)	(738)					(1,833)	(453)	(2,286)
Purchase/disposal of treasury stock				(157)				157	-	-	-
Deeply-subordinated perpetual notes [(2)]				(172)	163				(9)	-	(9)
Transactions between owners				36					36	4	40
Transactions with impact on non-controlling interests [(3)]				-					-	(515)	(515)
Application of IFRIC 23 rule by SUEZ				(35)					(35)	-	(35)
Share capital increases and decreases subscribed by non-controlling interests									-	(28)	(28)
Other changes		-	-	(6)	-	-	-	-	(6)	1	(5)
EQUITY AT DECEMBER 31, 2019	**2,435,285,011**	**2,435**	**31,470**	**(1,369)**	**3,913**	**(1,961)**	**(1,098)**	**(303)**	**33,087**	**4,950**	**38,037**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

(2) Transactions of the period are listed in Note 18 "Equity".

(3) Mainly relates to the deconsolidation of Glow following its disposal (see Note 4.1 "Disposals carried out in 2019").

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

Statement of cash flows

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 [1]
NET INCOME/(LOSS)		**1,649**	**1,629**
- Net income/(loss) relating to discontinued operations		-	1,069
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS		**1,649**	**560**
- Share in net income of equity method entities	3	(500)	(361)
+ Dividends received from equity method entities		773	572
- Net depreciation, amortization, impairment and provisions		7,083	5,085
- Impact of changes in scope of consolidation and other non-recurring items		(1,579)	195
- Mark-to-market on commodity contracts other than trading instruments		426	223
- Other items with no cash impact		(18)	105
- Income tax expense	11	640	704
- Net financial income/(loss)	10	1,387	1,381
Cash generated from operations before income tax and working capital requirements		**9,863**	**8,464**
+ Tax paid		(575)	(757)
Change in working capital requirements	**24.1**	**(1,110)**	**149**
CASH FLOW FROM OPERATING ACTIVITIES RELATING TO CONTINUED OPERATIONS		**8,178**	**7,857**
CASH FLOW FROM OPERATING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS		**-**	**17**
CASH FLOW FROM OPERATING ACTIVITIES		**8,178**	**7,873**
Acquisitions of property, plant and equipment and intangible assets	5.6	(6,524)	(6,202)
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	5.6	(864)	(983)
Acquisitions of investments in equity method entities and joint operations	5.6	(1,746)	(338)
Acquisitions of equity and debt instruments	5.6	(595)	(283)
Disposals of property, plant and equipment, and intangible assets		134	114
Loss of controlling interests in entities, net of cash and cash equivalents sold		2,676	2,865
Disposals of investments in equity method entities and joint operations		14	2
Disposals of equity and debt instruments		148	186
Interest received on financial assets		28	26
Dividends received on equity instruments		67	52
Change in loans and receivables originated by the Group and other	5.6	(532)	(251)
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES RELATING TO CONTINUED OPERATIONS		**(7,193)**	**(4,813)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS		**-**	**(1,282)**
CASH FLOW FROM (USED IN) INVESTING ACTIVITIES		**(7,193)**	**(6,095)**
Dividends paid [2]		(2,522)	(2,659)
Repayment of borrowings and debt		(3,035)	(5,328)
Change in financial assets held for investment and financing purposes		(135)	(289)
Interest paid		(780)	(727)
Interest received on cash and cash equivalents		82	79
Cash flow on derivatives qualifying as net investment hedges and compensation payments on derivatives and on early buyback of borrowings		(114)	(152)
Increase in borrowings		6,622	4,724
Increase/decrease in capital		(1,372)	70
Issue of deeply-subordinated perpetual notes		1,478	989
Purchase and/or sale of treasury stock		-	104
Changes in ownership interests in controlled entities	5.6	(12)	(18)
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES RELATING TO CONTINUED OPERATIONS		**212**	**(3,207)**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES RELATING TO DISCONTINUED OPERATIONS		**-**	**1,279**
CASH FLOW FROM (USED IN) FINANCING ACTIVITIES		**212**	**(1,928)**
Effects of changes in exchange rates and other relating to continued operations [3]		623	(78)
Effects of changes in exchange rates and other relating to discontinued operations		-	(1)
TOTAL CASH FLOW FOR THE PERIOD		**1,819**	**(229)**
Reclassification of cash and cash equivalents relating to discontinued operations		-	-
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD		**8,700**	**8,929**
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**10,519**	**8,700**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

(2) The line "Dividends paid" includes the coupons paid to owners of the deeply subordinated perpetual notes for an amount of €150 million at December 31, 2019 (€123 million at December 31, 2018).

(3) Of which €619 million of other financial assets deducted from net financial debt reclassified from "Other financial assets" to "Cash and cash equivalents" (see Note 16.1 "Financial assets"), with no impact on net financial debt.

NB: The amounts shown in the tables are expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals.

6.2.2 Notes to the consolidated financial statements

ENGIE SA, the parent company of the Group, is a French *société anonyme* with a Board of Directors that is subject to the provisions of Book II of the French Commercial Code (*Code de Commerce*), as well as to all other provisions of French law applicable to French commercial companies. It was incorporated on November 20, 2004 for a period of 99 years.

It is governed by current and future laws and by regulations applicable to *sociétés anonymes* and its bylaws.

The Group is headquartered at 1 place Samuel de Champlain, 92400 Courbevoie (France).

ENGIE shares are listed on the Paris, Brussels and Luxembourg stock exchanges.

On February 26, 2020, the Group's Board of Directors approved and authorized for issue the consolidated financial statements of the Group for the year ended December 31, 2019.

NOTE 1 Accounting framework and basis for preparing the consolidated financial statements

1.1 Accounting standards

Pursuant to European Regulation (EU) 2019/980 dated March 14, 2019, financial information concerning the assets, liabilities, financial position, and profit and loss of ENGIE has been provided for the last two reporting periods (ended December 31, 2018 and 2019). This information was prepared in accordance with European Regulation (EC) 1606/2002 "on the application of international accounting standards" dated July 19, 2002. The Group's consolidated financial statements for the year ended December 31, 2019 have been prepared in accordance with IFRS Standards as published by the International Accounting Standards Board and endorsed by the European Union [(1)].

The accounting standards applied in the consolidated financial statements for the year ended December 31, 2019 are consistent with the policies used to prepare the consolidated financial statements for the year ended December 31, 2018, except for those described in § 1.1.1 below.

1.1.1 IFRS Standards, amendments or IFRIC Interpretations applicable in 2019

1.1.1.1 IFRS 16 – Leases and IFRIC 23 – Uncertainty over Income Tax Treatments

- IFRS 16 – *Leases*

  In January 2016, the IASB issued a new standard on leases. IFRS 16 – *Leases* replaces IAS 17 – *Leases* along with its interpretations (IFRIC 4 – *Determining whether an Arrangement contains a Lease*, SIC 15 – *Operating Leases-Incentives* and SIC 27 – *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*).

  Under the new standard, on the lessee side, all lease commitments, for which no exemption applies due to the contract's short term and/or the low value of the assets leased, will be recognized on the balance sheet, without distinguishing operating leases from finance leases. Previously, only the latter were recognized in the balance sheet of the lessee. As a result, an amount representing the right-of-use asset during the lease period is recognized as an asset and a debt corresponding to the present value of fixed lease payments as a liability, in the balance sheet. In the income statement, rental expenses previously recognized for operating leases are partially replaced by depreciation of the right-of-use asset and by financial expenses related to the interest on the lease liability. The presentation of the cash flow statement is also impacted with an improvement in cash flows from operating activities against an increase in cash flows from financing activities.

On the lessor's side, the accounting principles are substantially unchanged compared to IAS 17. Lessors will continue to classify leases either as operating or finance leases using similar principles as under IAS 17. IFRS 16 does not as such have an impact for leases where the Group is the lessor.

The Group adopted IFRS 16 – *Leases* from January 1, 2019, using the modified retrospective approach. Under this method, comparative information is not restated and the cumulative effect of initial application is recognized in equity as an adjustment to opening balance of retained earnings for the current period.

On applying IFRS 16 for the first time, on January 1, 2019, the Group chose to use the following practical expedients permitted by the standard:

- not to reassess whether a contract previously assessed under IAS 17 and IFRIC 4 contains a lease ("the grand-fathering clause"),
- adjust the right-of-use assets by the amount of the provisions for onerous leases recognized in the statement of financial position as at December 31, 2018 (rather than performing an impairment test),
- exclude initial direct costs from the measurement of the right-of-use assets,
- use a single discount rate for a portfolio of leases with reasonably similar characteristics, and
- use hindsight, for example when determining the lease term, if the contract contains options to extend or terminate the lease.

On the other hand, the Group decided not to exclude leases for which the residual lease term ends within 12 months of the transition date.

Assessment of the lease term, including whether a renewal option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised, was made on a case-by-case basis.

The Group uses the recognition exemptions allowed by the standard, and therefore does not recognize any right-of-use assets and liabilities for leases with a lease term of 12 months or less ("short-term leases"), or for leases for which the underlying asset is of a low value ("low-value asset").

(1) *Available on the European Commission's website: http://ec.europa.eu/internal_market/accounting/ias/index_en.htm.*

The Group does not apply the practical expedient allowed by the standard, which permits the application of a portfolio approach for leases with similar characteristics, nor the one which makes it possible not to separate lease and services components.

Lease liabilities were measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate at January 1, 2019. The weighted average incremental borrowing rate applied to the lease liabilities on January 1, 2019 was 1.43% (*see Note 15 "Property, plant and equipment" for more information on the methodology used to determine the weighted average incremental borrowing rate*).

The impacts on transition of newly recognized assets and liabilities on the consolidated statement of financial position, for leases where the Group acts as lessee, are summarized below:

In millions of euros	Jan. 1, 2019
Right-of-use assets presented in Property, plant and equipment	3,045
Finance leases reclassified under Right-of-use assets	(905)
Other current and non-current assets	(31)
TOTAL ASSETS	**2,110**
TOTAL EQUITY	**(11)**
Lease liabilities presented in Short and long term borrowings	2,167
Other current and non-current liabilities	(46)
TOTAL EQUITY AND LIABILITIES	**2,110**

Newly recognized right-of-use assets mainly concern the following types of assets:

In millions of euros	Jan. 1, 2019
Real estate	1,782
Vehicles	206
Others	153
TOTAL	**2,141**

For leases previously classified as finance leases, and as required by the standard, the Group did not change the carrying amounts of existing assets and liabilities at the date of initial application (i.e., the right-of-use assets and lease liabilities equal the lease assets and liabilities recognized under IAS 17). These commitments were reclassified as right-of-use assets for a net amount of €905 million, mainly relating to power plants in Latin America.

In the consolidated income statement, the reversal of the rental expenses under leases previously considered as operating leases results in an increase in EBITDA, in depreciation and in financial expenses.

The difference between (i) the commitments relating to operating leases under IAS 17 for which ENGIE acts as lessee, disclosed in the Group's consolidated financial statements at December 31, 2018 (see Note 23.1 "Operating leases – for which ENGIE acts as lessee") with an amount of €2,087 million and (ii) the liability accounted for as a lease liability in accordance with IFRS 16 at January 1, 2019 which amounts to €2,546 million corresponds to (i) leases previously classified as finance leases for €380 million and (ii) the discounting effect for €79 million.

- IFRIC 23 – *Uncertainty over Income Tax Treatments*

IFRIC 23 clarifies the requirements of IAS 12 – *Income Taxes*. What is clarified is how income taxes are recognized and measured where there is an uncertainty regarding the treatment of an item, regarding the determination of taxable profit or loss, the tax bases of assets and liabilities, unused tax losses, unused tax credits and tax rates.

The Group has applied IFRIC 23 – *Uncertainty over Income Tax Treatments* since January 1, 2019, without restating comparative information. This interpretation has no material impact on the Group's consolidated financial statements.

- Impact of the application of IFRS 16 and IFRIC 23 on the consolidated statement of financial position at January 1, 2019

Impacts relating to the first-time application of IFRS 16 and IFRIC 23 on the statement of financial position at January 1, 2019 are presented hereunder:

In millions of euros	Dec. 31, 2018 published	IFRS 16 & IFRIC 23	Jan. 1, 2019 with IFRS 16 & IFRIC 23
Non-current assets			
Goodwill	17,809	-	17,809
Intangible assets, net	6,718	(7)	6,711
Property, plant and equipment, net	48,917	2,148	51,065
Other financial assets	6,193	-	6,193
Derivative instruments	2,693	-	2,693
Investments in equity method entities	7,846	-	7,846
Other non-current assets	474	(39)	435
Deferred tax assets	1,066	-	1,066
TOTAL NON-CURRENT ASSETS	**91,716**	**2,102**	**93,818**
Current assets			
Other financial assets	2,290	-	2,290
Derivative instruments	10,679	-	10,679
Trade and other receivables, net	15,613	-	15,613
Assets from contracts with customers	7,411	-	7,411
Inventories	4,158	-	4,158
Other current assets	9,337	(3)	9,334
Cash and cash equivalents	8,700	-	8,700
Assets classified as held for sale	3,798	11	3,809
TOTAL CURRENT ASSETS	**61,986**	**8**	**61,994**
TOTAL ASSETS	**153,702**	**2,110**	**155,812**
Shareholders' equity	35,551	(7)	35,544
Non-controlling interests	5,391	(4)	5,386
TOTAL EQUITY	**40,941**	**(11)**	**40,930**
Non-current liabilities			
Provisions	19,194	-	19,194
Long-term borrowings	26,434	1,777	28,211
Derivative instruments	2,785	-	2,785
Other financial liabilities	46	-	46
Liabilities from contracts with customers	36	-	36
Other non-current liabilities	960	-	960
Deferred tax liabilities	5,415	(4)	5,410
TOTAL NON-CURRENT LIABILITIES	**54,869**	**1,773**	**56,642**
Current liabilities			
Provisions	2,620	(301)	2,318
Short-term borrowings	5,745	389	6,134
Derivative instruments	11,510	-	11,510
Trade and other payables	19,759	-	19,759
Liabilities from contracts with customers	3,598	-	3,598
Other current liabilities	12,529	249	12,778
Liabilities directly associated with assets classified as held for sale	2,130	11	2,141
TOTAL CURRENT LIABILITIES	**57,891**	**348**	**58,239**
TOTAL EQUITY AND LIABILITIES	**153,702**	**2,110**	**155,812**

1.1.1.2 Other IFRS Standards, amendments or IFRIC Interpretations

The other amendments and interpretations applicable as from 2019 have no significant impact on the Group's consolidated financial statements.

- Amendments to IFRS 9 – *Financial Instruments: Prepayment Features with Negative Compensation;*
- Amendments to IAS 28 – *Investments in Associates and Joint Ventures: Long-term Interests in Associates and Joint Ventures;*
- Amendments to IAS 19 – *Employee Benefits: Plan Amendment, Curtailment or Settlement;*
- Annual improvements to IFRSs – 2015-2017 cycle.

1.1.1.3 Other pronouncements

In its agenda decision of March 2019, the IFRS Interpretations Committee (IFRIC) concluded that, due to the characteristics of particular contracts entered into to buy or sell non-financial items, accounted for as derivatives under IFRS 9, and settled by either delivering or taking delivery of the non-financial items, said contracts have to be accounted for on a single line of the consolidated income statement, including their changes in fair value as well as the effects of their physical settlement.

This agenda decision applies to the Group's derivative financial instruments relating to commodities, including gas and electricity, used in economic hedging relationships but which are not qualified as such under IFRS.

The Group's practice was up to now, to present the changes in the fair value (mark-to-market or MtM) of commodity derivatives, not qualified as either trading or hedging instruments under IFRS, below "Current operating income after share in net income of equity method entities". At physical settlement, gains and losses were reclassified in operating income together with the economically hedged item, so that the operating performance of the transactions concerned is recognized at the hedged rate.

Following the IFRIC decision, the Group changed its accounting policy as from the year ended December 31, 2019, with no impact on net income, equity or the current operating income indicator used in the management dialogue and financial communication. The Group therefore now presents unrealized income/(loss) relating to the concerned derivatives, whether it represents a seller or buyer position, on the same line as realized income/(loss) arising from their physical settlement, i.e. under "Purchases and operating derivatives" within the indicator now named "Current operating income including operating MtM and share in net income of equity method entities". Thus:

- MtM on commodity contracts other than trading instruments, previously presented under "Income/(loss) from operating activities", is now included in "Purchases and operating derivatives";
- commodity sale transactions giving rise to physical delivery and used for economic hedging purposes which fall within the scope of IFRS 9, previously presented under "Revenues from other contracts" are now presented as a deduction from the "Purchases" line.

The performance management indicator (COI), which is defined as excluding operating MtM, is now calculated and reconciled to "Current operating income including operation MtM and share in net income of equity method entities" in Note 5 "Financial indicators used in financial communication".

The Group has also decided to improve the presentation by nature of the other items of "Current operating income including operating MtM and share in net income of equity method entities", without impacting the total for this indicator.

The reconciliation between the old and new presentation of the income statement at December 31, 2018 is summarized below:

In millions of euros	Dec. 31, 2018 old presentation	Operating MtM (1)	Commodity sales transactions (2)	Taxes (3)	Other expenses (4)	Dec. 31, 2018 new presentation	
Revenues from contracts with customers	56,388	-	(221)	-	-	56,167	Revenues from contracts with customers
Revenues from other contracts	4,208	-	(3,408)	-	-	801	Revenues from other
REVENUES	**60,596**	**-**	**(3,629)**	**-**	**-**	**56,967**	**REVENUES**
Purchases	(32,190)	(223)	3,629	314	(10,190)	(38,660)	Purchases and operating derivatives
Personnel costs	(10,624)	-	-	-	-	(10,624)	Personnel costs
Depreciation, amortization and provisions	(3,586)	-	-	-	-	(3,586)	Depreciation, amortization and provisions
Taxes	-	-	-	(1,069)	-	(1,069)	Taxes
Other operating expenses	(10,981)	-	-	755	10,226	-	Other operating expenses
Other operating income	1,550	-	-	-	(36)	1,514	Other operating income
CURRENT OPERATING INCOME	**4,765**	**(223)**	**-**	**-**	**-**	**4,542**	**Current operating income including operating MtM**
Share in net income of entities accounted for using the equity method	361	-	-	-	-	361	Share in net income of equity method entities
CURRENT OPERATING INCOME AFTER SHARE IN NET INCOME OF ENTITIES ACCOUNTED FOR USING THE EQUITY METHOD	**5,126**	**(223)**	**-**	**-**	**-**	**4,903**	**Current operating income including operating MtM and share in net income of equity method entities**
Mark-to-market on commodity contracts other than trading instruments	(223)	223	-	-	-	-	
Impairment losses	(1,798)	-	-	-	-	(1,798)	Impairment losses
Restructuring costs	(162)	-	-	-	-	(162)	Restructuring costs
Changes in scope of consolidation	(150)	-	-	-	-	(150)	Changes in scope of consolidation
Other non-recurring items	(147)	-	-	-	-	(147)	Other non-recurring items
INCOME/(LOSS) FROM OPERATING ACTIVITIES	**2,645**	**-**	**-**	**-**	**-**	**2,645**	**INCOME/(LOSS) FROM OPERATING ACTIVITIES**

(1) Reclassification under "Purchases" of the unrealized income/(loss) (MtM) on derivatives not qualified as trading.
(2) Reclassification under "Purchases" of the realized income/(loss) on physical commodity contracts not qualified as IFRS 15 contracts.
(3) Accounted for under a single dedicated line for operating tax effects and taxes (excluding social security contributions presented within personnel costs and excluding income tax presented on a dedicated mine).
(4) Reclassification of other operating expenses according to their nature.

Revenues without a change in accounting policy consequent to the IFRIC decision would have stood at €64,137 million at December 31, 2019.

1.1.2 IFRS Standards, amendments or IFRIC Interpretations effective in 2020 and that the Group has elected to early adopt

- Amendments to IFRS 9 – *Financial Instruments*; IAS 39 – *Financial Instruments: recognition and measurement*; IFRS 7 – *Financial Instruments: Disclosures – Interest rate benchmark reform* (see *Note 17.1.5.2*) (1).

1.1.3 IFRS Standards, amendments or IFRIC Interpretations effective in 2020 and that the Group has elected not to early adopt

- Amendments to IFRS 3 – *Business Combinations: Definition of a Business* (1).
- Amendments to IAS 1 – *Presentation of Financial Statements* and IAS 8 – *Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Material*.
- IFRS 17 – *Insurance Contracts* (1).

The impact of these standards and amendments is currently being assessed.

(1) These standards, amendments and interpretations have not yet been adopted by the European Union.

1.2 Measurement and presentation basis

1.2.1 Historical cost convention

The Group's consolidated financial statements are presented in euros and have been prepared using the historical cost convention, except for financial instruments that are accounted for under the financial instrument categories defined by IFRS 9.

1.2.2 Chosen options

1.2.2.1 Reminder of IFRS 1 transition options

The Group used some of the options available under IFRS 1 for its transition to IFRS in 2005. The options that continue to have an impact on the consolidated financial statements are:

- translation adjustments: the Group elected to reclassify cumulative translation adjustments within consolidated equity at January 1, 2004;
- business combinations: the Group elected not to restate business combinations that took place prior to January 1, 2004 in accordance with IFRS 3.

1.2.2.2 Business combinations

Business combinations carried out prior to January 1, 2010 were accounted for in accordance with IFRS 3 prior to the revision. In accordance with IFRS 3 revised, these business combinations have not been restated.

Since January 1, 2010, the Group applies the purchase method as defined in IFRS 3 revised, which consists in recognizing the identifiable assets acquired and liabilities assumed at their fair values at the acquisition date, as well as any non-controlling interests in the acquiree. Non-controlling interests are measured either at fair value or at the entity's proportionate interest in the net identifiable assets of the acquiree. The Group determines on a case-by-case basis which measurement option to be used to recognize non-controlling interests.

1.2.2.3 Consolidated statement of cash flows

The consolidated statement of cash flows is prepared using the indirect method starting from net income.

"Interest received on non-current financial assets" is classified within investing activities because it represents a return on investments. "Interest received on cash and cash equivalents" is shown as a component of financing activities because the interest can be used to reduce borrowing costs. This classification is consistent with the Group's internal organization, where debt and cash are managed centrally by the Group treasury department.

As impairment losses on current assets are considered to be definitive losses, changes in current assets are presented net of impairment.

Cash flows relating to the payment of income tax are presented on a separate line.

1.2.3 Foreign currency transactions

1.2.3.1 Translation of foreign currency transactions

Foreign currency transactions are recorded in the functional currency at the exchange rate prevailing on the date of the transaction.

Functional currency is the currency of the primary economic environment in which an entity operates, which in most cases corresponds to local currency. However, certain entities may have a functional currency different from the local currency when that other currency is used for an entity's main transactions and better reflects its economic environment.

At each reporting date:

- monetary assets and liabilities denominated in foreign currencies are translated at year-end exchange rates. The resulting translation gains and losses are recorded in the consolidated income statement for the year to which they relate;
- non-monetary assets and liabilities denominated in foreign currencies are recognized at the historical cost applicable at the date of the transaction.

1.2.3.2 Translation of the financial statements of subsidiaries with a functional currency other than the euro (the presentation currency)

The statements of financial position of these subsidiaries are translated into euros at the official year-end exchange rates. Income statement and cash flow statement items are translated using the average exchange rate for the year. Any differences arising from the translation of the financial statements of these subsidiaries are recorded under "Translation adjustments" as other comprehensive income.

Goodwill and fair value adjustments arising on the acquisition of foreign entities are classified as assets and liabilities of those foreign entities and are therefore denominated in the functional currencies of the entities and translated at the year-end exchange rate.

1.2.4 Use of estimates and judgments

1.2.4.1 Estimates

The preparation of consolidated financial statements requires the use of estimates and assumptions to determine the value of assets and liabilities and contingent assets and liabilities at the reporting date, as well as income and expenses reported during the period.

Developments in the economic and financial environment prompted the Group to step up its risk oversight procedures and include an assessment of these risks in measuring financial instruments and performing impairment tests. The Group's estimates used in business plans and determination of discount rates used in impairment tests and for calculating provisions, take into account the environment and the important market volatility.

Accounting estimates are made in a context that remains sensitive to energy market developments, therefore making it difficult to apprehend medium-term economic prospects.

Due to uncertainties inherent in the estimation process, the Group regularly revises its estimates in light of currently available information. Final outcomes could differ from those estimates.

The key estimates used in preparing the Group's consolidated financial statements relate mainly to:

- measurement of the fair value of assets acquired and liabilities assumed in a business combination (*see Note 4*);
- measurement of revenue not yet metered, so called un-metered revenue (*see Note 7*);

- measurement of recognized tax loss carry-forwards (*see Note 11*);
- measurement of the recoverable amount of goodwill (*see Note 13*), other intangible assets (*see Note 14*) and property, plant and equipment (*see Note 15*);
- financial instruments (*see Notes 16 and 17*);
- measurement of provisions, particularly for back-end of nuclear fuel cycle, dismantling obligations, disputes, pensions and other employee benefits (*see Notes 19 and 20*).

1.2.4.2 Judgment

As well as relying on estimates, Group management also makes judgments to define the appropriate accounting policies to apply to certain activities and transactions, particularly when the effective IFRS Standards and IFRIC Interpretations do not specifically deal with the related accounting issues.

In particular, the Group exercised its judgment in assessing:

- the type of control (*see Note 2*);
- the performance obligations of sales contracts (*see Note 7*);
- how revenue is recognized for distribution or transmission services invoiced to clients (*see Note 7*);
- the identification of "own use contracts" as defined by IFRS 9 within non-financial purchase and sales contracts (electricity, gas, etc.) (*see Note 16*);
- the determination of whether arrangements are/or contain a lease (*see Notes 15 and 16*);
- the regrouping of operating segments for the presentation of reportable segments; and in the context of defining the various Business Lines (*see Note 6*).

Entities for which judgment on the nature of control has been exercised are listed in Note 2 "Main subsidiaries at December 31, 2019" and Note 3 "Investments in equity method entities".

Accounting standards

Accounting standards are presented in the Notes to which they relate in the form of an insert.

NOTE 2 Main subsidiaries at December 31, 2019

Accounting standards

Controlled entities (subsidiaries) are fully consolidated in accordance with IFRS 10 – *Consolidated Financial Statements*. An investor (the Group) controls an entity and therefore must consolidate it if all of the following three criteria are met:

- it has the ability to direct the relevant activities of the entity;
- it has the rights and is exposed to variable returns from its involvement with the entity;
- it has the ability to use its power over the entity to affect the investor's return.

2.1 List of main subsidiaries at December 31, 2019

The following lists are made available by the Group to third parties, pursuant to Regulation No. 2016-09 of the French accounting standards authority (ANC) issued on December 2, 2016:

- list of companies included in consolidation;
- list of companies excluded from consolidation because their individual and cumulative incidence on the Group's consolidated accounts is not material. They correspond to entities deemed not significant as regards the Group's main key figures (revenues, total equity, etc.), shell companies or entities that have ceased all activities and are undergoing liquidation/closure proceedings;
- list of main non-consolidated interests.

This information is available on the Group's website (www.engie.com, Investors/Regulated information section). Non-consolidated companies are classified under non-current financial assets (*see Note 16.1.1.1*) under "Equity instruments at fair value".

The list of the main subsidiaries consolidated under the full consolidation method presented below was determined, as regards operating entities, based on their contribution to Group revenues, EBITDA, net income and net debt. The main equity-accounted investments (associates and joint ventures) are presented in Note 3 "Investments in equity method entities".

Some entities such as ENGIE SA, ENGIE Energie Services SA or Electrabel SA comprise both operating activities and headquarters functions which report to management teams of different reportable segments. In the following tables, these operating activities and headquarters functions are shown within their respective reportable segments under their initial company name followed by a (*) sign.

FRANCE EXCLUDING INFRASTRUCTURES

Company name	Activity	Country	% interest Dec. 31, 2019	Dec. 31, 2018
ENGIE SA *	Energy sales	France	100.0	100.0
ENGIE Energie Services SA *	Energy services/Networks	France	100.0	100.0
Axima Concept	Systems, facilities and maintenance services	France	100.0	100.0
Endel Group	Systems, facilities and maintenance services	France	100.0	100.0
INEO Group	Systems, facilities and maintenance services	France	100.0	100.0
Compagnie Nationale du Rhône	Electricity distribution and generation	France	49.9	49.9
ENGIE Green	Electricity distribution and generation	France	100.0	100.0
CPCU	Urban heating networks	France	66.5	66.5

FRANCE INFRASTRUCTURES

Company name	Activity	Country	% interest Dec. 31, 2019	Dec. 31, 2018
GRDF	Natural gas distribution	France	100.0	100.0
GRTgaz Group (excluding Elengy)	Natural gas transportation	France, Germany	74.6	74.6
Elengy	LNG terminals	France	74.6	74.6
Fosmax LNG	LNG terminals	France	54.1	54.1
Storengy France	Underground natural gas storage	France	100.0	100.0
Storengy Deutschland GmbH	Underground natural gas storage	Germany	100.0	100.0

REST OF EUROPE

Company name	Activity	Country	% interest Dec. 31, 2019	Dec. 31, 2018
ENGIE Thermique France	Electricity generation	France	100.0	100.0
Electrabel SA *	Electricity generation, Energy sales	Belgium	100.0	100.0
Synatom	Managing provisions relating to power plants and nuclear fuel	Belgium	100.0	100.0
Cofely Fabricom SA	Systems, facilities and maintenance services	Belgium	100.0	100.0
ENGIE Energie Nederland N.V. *	Electricity generation, Energy sales	Netherlands	100.0	100.0
ENGIE Services Nederland N.V.	Energy services	Netherlands	100.0	100.0
ENGIE Energielösungen GmbH	Energy services	Germany	-	100.0
ENGIE Deutschland GmbH	Energy services	Germany	100.0	100.0
ENGIE Deutschland AG *	Electricity generation	Germany	100.0	100.0
ENGIE Kraftwerk Wilhelmshaven GmbH & Co. KG	Electricity generation	Germany	-	57.0
ENGIE Supply Holding UK Limited	Energy sales	United Kingdom	100.0	100.0
ENGIE Retail Investment UK Limited	Holding	United Kingdom	100.0	100.0
First Hydro Holdings Company	Electricity generation	United Kingdom	75.0	75.0
Keepmoat Regeneration	Energy services	United Kingdom	100.0	100.0
ENGIE Services Holding UK Ltd	Energy services	United Kingdom	100.0	100.0
ENGIE Services Limited	Energy services	United Kingdom	100.0	100.0
ENGIE Cartagena	Electricity generation	Spain	100.0	100.0
ENGIE Italia S.p.A *	Energy sales	Italy	100.0	100.0
ENGIE Servizi S.p.A	Energy services	Italy	100.0	100.0
ENGIE Romania	Natural gas distribution, Energy sales	Romania	51.0	51.0

LATIN AMERICA

Company name	Activity	Country	% interest Dec. 31, 2019	% interest Dec. 31, 2018
ENGIE Energía Chile Group	Electricity distribution and generation	Chile	52.8	52.8
ENGIE Energía Perú	Electricity distribution and generation	Peru	61.8	61.8
ENGIE Brasil Energia Group	Electricity distribution and generation	Brazil	68.7	68.7

USA & CANADA

Company name	Activity	Country	% interest Dec. 31, 2019	% interest Dec. 31, 2018
ENGIE North America	Electricity distribution and generation, Natural gas, LNG, Energy services	United States	100.0	100.0
ENGIE Holding Inc.	Holding – parent company	United States	100.0	100.0
ENGIE Infinity Renewables	Electricity distribution and generation	United States	100.0	100.0
SoCore Energy LLC	Development and installation of photovoltaic panels	United States	100.0	100.0
ENGIE Resources Inc.	Energy sales	United States	100.0	100.0
ENGIE Insight Service	Energy services	United States	100.0	100.0

MIDDLE EAST, ASIA & AFRICA

Company name	Activity	Country	% interest Dec. 31, 2019	% interest Dec. 31, 2018
Glow Group (1)	Electricity distribution and generation	Thailand	-	69.1
UCH Power Limited	Electricity generation	Pakistan	100.0	100.0
Simply Energy	Energy sales	Australia	72.0	72.0
Baymina Enerji A.S.	Electricity generation	Turkey	95.0	95.0

(1) The disposal of Glow Group was finalized on March 14, 2019 (see Note 4 "Main changes in Group structure").

OTHERS

Company name	Activity	Country	% interest Dec. 31, 2019	% interest Dec. 31, 2018
ENGIE SA *	Holding – parent company, Energy management trading, Energy sales, LNG	France	100.0	100.0
ENGIE Energie Services SA *	Holding	France	100.0	100.0
ENGIE FINANCE SA	Financial subsidiaries	France	100.0	100.0
ENGIE Solar	Solar EPC	France	100.0	100.0
Gaztransport & Technigaz (GTT)	Engineering	France	40.4	40.4
Electrabel SA *	Holding, Electricity generation, Energy management trading	France/Belgium	100.0	100.0
ENGIE Global Markets	Energy management trading	France, Belgium, Singapore	100.0	100.0
ENGIE Energy Management *	Energy management trading	France, Belgium, Italy, United Kingdom	100.0	100.0
ENGIE CC	Financial subsidiaries, Central functions	Belgium	100.0	100.0
Tractebel Engineering	Engineering	Belgium	100.0	100.0
International Power Limited	Holding	United Kingdom	100.0	100.0
ENGIE Energy Management Holding Switzerland AG	Holding	Switzerland	100.0	100.0

2.2 Significant judgments exercised when assessing control

The Group primarily considers the following information and criteria when determining whether it has control over an entity:

- governance arrangements: voting rights and whether the Group is represented in the governing bodies, majority rules and veto rights;
- the nature of substantive or protective rights granted to shareholders, relating to the entity's relevant activities;
- deadlock resolution mechanisms;
- whether the Group is exposed, or has rights, to variable returns from its involvement with the entity.

The Group exercised its judgment regarding the entities and sub-groups described below.

Entities in which the Group has the majority of the voting rights

GRTgaz (France Intrastructures): 74.6%

In addition to the analysis of the shareholder agreement with Société d'Infrastructures Gazières, a subsidiary of *Caisse des Dépôts et Consignations* (CDC), which owns 24.8% of the share capital of GRTgaz, the Group also assessed the rights granted to the French Energy Regulatory Commission (*Commission de régulation de l'énergie* – CRE). As a regulated activity, GRTgaz has a dominant position on the gas transportation market in France. Accordingly, since the transposition of the Third European Directive of July 13, 2009 into French law (Code de l'énergie Energy Code) of May 9, 2011, GRTgaz has been subject to independence rules as concerns its directors and senior management team. The French Energy Code confers certain powers on the CRE in the context of its duties to control the proper functioning of the gas markets in France, including verifying the independence of the members of the Board of Directors and senior management and assessing the choice of investments. The Group considers that it exercises control over GRTgaz and its subsidiaries (including Elengy) in view of its current ability to appoint the majority of the members of the Board of Directors and take decisions about the relevant activities, especially in terms of the level of investment and planned financing.

Entities in which the Group does not have the majority of the voting rights

In the entities in which the Group does not have a majority of the voting rights, judgment is exercised with regard to the following items, in order to assess whether there is a situation of *de facto* control:

- dispersion of the shareholding structure: number of voting rights held by the Group relative to the number of rights held respectively by the other vote holders and their dispersion;
- voting patterns at shareholders' meetings: the percentages of voting rights exercised by the Group at shareholders' meetings in recent years;
- governance arrangements: representation in the governing body with strategic and operational decision-making power over the relevant activities;
- rules for appointing key management personnel;
- contractual relationships and material transactions.

The main fully consolidated entities in which the Group does not have the majority of the voting rights are Compagnie Nationale du Rhône (49.98%) and Gaztransport & Technigaz (40.4%).

Compagnie Nationale du Rhône ("CNR" – France excluding Infrastructures): 49.98%

The Group holds 49.98% of the share capital of CNR, with CDC holding 33.2%, and the balance (16.82%) being dispersed among around 200 local authorities. In view of the current provisions of the French "Murcef" law, under which a majority of CNR's share capital must remain under public ownership, the Group is unable to hold more than 50% of the share capital. However, the Group considers that it exercises *de facto* control as it holds the majority of the voting rights exercised at shareholders' meetings due to the widely dispersed shareholding structure and the absence of evidence of the minority shareholders acting in concert.

Gaztransport & Technigaz ("GTT" – Others): 40.4%

Since GTT's initial public offering in February 2014, ENGIE has been the largest shareholder in the company with a 40.4% stake, the free float representing around 49% of the share capital. The Group holds the majority of the voting rights exercised at shareholders' meetings in view of the widely dispersed shareholding structure and the absence of evidence of minority shareholders acting in concert. ENGIE also holds the majority of the seats on the Board of Directors. The Group considers that it exercises *de facto* control over GTT, based on an IFRS 10 criteria.

2.3 Subsidiaries with material non-controlling interests

The following table shows the non-controlling interests in Group entities that are deemed to be material, the respective contributions to equity and net income at December 31, 2019 and December 31, 2018, as well as the dividends paid to non-controlling interests of these significant subsidiaries:

Corporate name	Activity	Percentage interest of non-controlling interests		Net income/(loss) of non-controlling interests		Equity of non-controlling interests		Dividends paid to non-controlling interests	
In millions of euros		Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018 (1)	Dec. 31, 2019	Dec. 31, 2018
GRTgaz Group (France Infrastructures, France)	Regulated gas transportation activities and management of LNG terminals	25.4	25.4	89	99	1,076	1,133	120	158
ENGIE Energía Chile Group (Latin America, Chile) (2)	Electricity distribution and generation - thermal power plants	47.2	47.2	54	49	926	913	52	25
Glow Group (Middle East, Asia & Africa, Thailand) (3)	Electricity distribution and generation - hydroelectric, wind and thermal power plants	-	30.9	32	96	-	512	-	75
ENGIE Romania Group (Rest of Europe, Romania)	Distribution of natural gas, Energy sales	49.0	49.0	47	43	533	512	14	18
ENGIE Brasil Energia Group (Latin America, Brazil) (2)	Electricity distribution and generation	31.3	31.3	177	170	520	473	94	206
ENGIE Energía Perú (Latin America, Peru) (2)	Electricity distribution and generation - thermal and hydroelectric power plants	38.2	38.2	36	34	393	376	22	11
Gaztransport & Technigaz (Other, France) (2)	Naval engineering, cryogenic membrane containment systems for LNG transportation	59.6	59.6	75	63	343	339	73	59
Other subsidiaries with non-controlling interests				154	41	1,159	1,131	78	331
TOTAL				**664**	**595**	**4,950**	**5,391**	**453**	**882**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) Engie Energia Chile, Engie Brasil Energia, Gaztransport & Technigaz and Engie Energia Perú are listed in their respective countries.
(3) The disposal of Glow Group was finalized on March 14, 2019 (see Note 4 "Main changes in Group structure").

2.3.1 Condensed financial information on subsidiaries with material non-controlling interests

The condensed financial information concerning these subsidiaries presented in the table below is based on a 100% interest and is shown before intragroup eliminations.

	GRTgaz Group		ENGIE Energía Chile Group		Glow Group [(1)]		ENGIE Romania Group	
In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Income statement								
Revenues	2,275	2,298	1,180	1,028	255	1,354	1,436	1,231
Net income/(loss)	325	389	103	94	93	262	95	87
Net income/(loss) Group share	236	283	49	45	61	165	49	44
Other comprehensive income/(loss) – Owners of the parent	(77)	(13)	9	49	(162)	41	(13)	(3)
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**159**	**270**	**59**	**94**	**(101)**	**206**	**36**	**41**
Statement of financial position								
Current assets	689	918	546	364	-	3,278	613	626
Non-current assets	10,403	10,404	2,707	2,700	-	(257)	809	787
Current liabilities	(1,016)	(921)	(322)	(271)	-	(950)	(277)	(312)
Non-current liabilities	(6,097)	(6,198)	(1,025)	(910)	-	(835)	(65)	(64)
TOTAL EQUITY	**3,979**	**4,204**	**1,907**	**1,882**	**-**	**1,237**	**1,080**	**1,037**
TOTAL NON-CONTROLLING INTERESTS	**1,076**	**1,133**	**926**	**913**	**-**	**512**	**533**	**512**
Statement of cash flows								
Cash flow from operating activities	967	1,213	467	249	93	421	71	109
Cash flow from (used in) investing activities	(495)	(493)	(144)	(248)	(93)	(132)	(77)	(58)
Cash flow from (used in) financing activities	(480)	(740)	(171)	(15)	(14)	(534)	(34)	(54)
TOTAL CASH FLOW FOR THE PERIOD [(2)]	**(8)**	**(20)**	**152**	**(14)**	**(14)**	**(245)**	**(40)**	**(3)**

(1) The disposal of Glow Group was finalized on March 14, 2019 (see Note 4 "Main changes in Group structure").
(2) Excluding effects of changes in exchange rates and other.

In millions of euros	ENGIE Brasil Energia Group Dec. 31, 2019	ENGIE Brasil Energia Group Dec. 31, 2018	ENGIE Energía Perú Dec. 31, 2019	ENGIE Energía Perú Dec. 31, 2018	Gaztransport & Technigaz Dec. 31, 2019	Gaztransport & Technigaz Dec. 31, 2018
Income statement						
Revenues	2,207	2,017	479	427	289	246
Net income/(loss)	623	544	94	88	126	106
Net income/(loss) Group share	446	374	58	55	51	43
Other comprehensive income/(loss) – Owners of the parent	(93)	(119)	12	27	(1)	-
TOTAL COMPREHENSIVE INCOME/(LOSS) – OWNERS OF THE PARENT	**353**	**255**	**70**	**81**	**51**	**43**
Statement of financial position						
Current assets	1,533	1,045	295	255	343	319
Non-current assets	5,792	4,232	1,714	1,728	452	491
Current liabilities	(1,345)	(907)	(177)	(174)	(174)	(166)
Non-current liabilities	(3,757)	(2,983)	(802)	(824)	(46)	(74)
TOTAL EQUITY	**2,224**	**1,388**	**1,029**	**985**	**575**	**570**
TOTAL NON-CONTROLLING INTERESTS	**520**	**473**	**393**	**376**	**343**	**339**
Statement of cash flows						
Cash flow from operating activities	1,045	875	237	195	139	168
Cash flow from (used in) investing activities	(1,136)	(851)	(22)	(19)	(10)	(9)
Cash flow from (used in) financing activities	436	89	(199)	(144)	(122)	(94)
TOTAL CASH FLOW FOR THE PERIOD (1)	**345**	**113**	**16**	**33**	**7**	**66**

(1) Excluding effects of changes in exchange rates and other.

NOTE 3 Investments in equity method entities

Accounting standards

The Group accounts for its investments in associates (entities over which the Group has significant influence) and joint ventures using the equity method. Under IFRS 11 – *Joint Arrangements*, a joint venture is a joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the arrangement.

The respective contributions of associates and joint ventures in the statement of financial position, the income statement and the statement of comprehensive income at December 31, 2019 and December 31, 2018 are as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Statement of financial position		
Investments in associates	4,646	4,590
Investments in joint ventures	4,570	3,256
INVESTMENTS IN EQUITY METHOD ENTITIES	**9,216**	**7,846**
Income statement		
Share in net income/(loss) of associates	255	88
Share in net income/(loss) of joint ventures	245	273
SHARE IN NET INCOME/(LOSS) OF EQUITY METHOD ENTITIES	**500**	**361**
Statement of comprehensive income		
Share of associates in “Other comprehensive income/(loss)”	(123)	132
Share of joint ventures in “Other comprehensive income/(loss)”	(158)	26
SHARE OF EQUITY METHOD ENTITIES IN “OTHER COMPREHENSIVE INCOME/(LOSS)”	**(281)**	**158**

Significant judgments

The Group primarily considers the following information and criteria in determining whether it has joint control or significant influence over an entity:

- governance arrangements: whether the Group is represented in the governing bodies, majority rules and veto rights;
- the nature of substantive or protective rights granted to shareholders, relating to the entity's relevant activities.

  This can be difficult to determine in the case of "project management" or "one-asset" entities, as certain decisions concerning the relevant activities are made upon the creation of the joint arrangement and remain valid throughout the project. Accordingly, the rights' analysis relates to the relevant residual activities of the entity (those that significantly affect the variable returns of the entity);
- deadlock resolution mechanisms;
- whether the Group is exposed, or has rights, to variable returns from its involvement with the entity.

  This can also involve analyzing the Group's contractual relations with the entity, in particular the conditions in which these contracts are entered into, their duration as well as the management of conflicts of interest that may arise when the entity's governing body casts votes.

The Group exercised its judgment regarding the following entities and sub-groups:

Project management entities in the Middle East

The significant judgments made in determining the consolidation method to be applied to these project management entities related to the risks and rewards relating to contracts between ENGIE and the entity concerned, as well as an analysis of the residual relevant activities over which the entity retains control after its creation. The Group considers that it has significant influence or joint control over these entities, since the decisions taken throughout the term of the project about the relevant activities such as refinancing, or the renewal or amendment of significant contracts (sales, purchases, operating and maintenance services) require, depending on the case, the unanimous consent of two or more parties sharing control.

SUEZ Group (32.06%)

Since the SUEZ shareholders' agreement expired on July 22, 2013, ENGIE no longer controls SUEZ but exercises significant influence over the SUEZ group. In particular, this is because: (i) the Group does not have a majority of members on SUEZ's Board of Directors, (ii) at Shareholders' Meetings, although SUEZ's shareholder base is fragmented and ENGIE holds a large interest, past voting shows that ENGIE alone did not have the majority at Ordinary and Extraordinary Shareholders' Meetings between 2010 and 2019.

Transportadora Associada de Gás S.A. ("TAG" – Latin America): 58.5% holding interest (directly and indirectly) representing a net interest in of 49.3%

The Group exercises joint control over TAG (*see Note 4.3.1*).

Joint ventures in which the Group holds an interest of more than 50%

Tihama (60%)

ENGIE holds a 60% stake in the Tihama cogeneration plant in Saudi Arabia and its partner Saudi Oger holds 40%. The Group considers that it has joint control over Tihama since the decisions about its relevant activities, including for example the preparation of the budget and amendments to major contracts, etc., require the unanimous consent of the parties sharing control.

Joint control – difference between joint ventures and joint operations

Classifying a joint arrangement requires the Group to use its judgment to determine whether the entity in question is a joint venture or a joint operation. IFRS 11 requires an analysis of "other facts and circumstances" when determining the classification of jointly controlled entities.

The IFRS Interpretations Committee (IFRS IC) (November 2014) decided that for an entity to be classified as a joint operation, other facts and circumstances must give rise to direct enforceable rights to the assets, and obligations for the liabilities, of the joint arrangement.

In view of this position and its application to our analyses, the Group has no material joint operations at December 31, 2019.

3.1 Investments in associates

3.1.1 Contribution of material associates and of associates that are not material to the Group taken individually

The table hereafter shows the contribution of each material associate along with the aggregate contribution of associates deemed not material taken individually, in the consolidated statement of financial position, income statement, statement of comprehensive income, and the "Dividends received from equity method entities" line of the statement of cash flows.

The Group used qualitative and quantitative criteria to determine material associates. These criteria include the contribution to the consolidated line items "Share in net income/(loss) of associates" and "Investments in associates", the total assets of associates in Group share, and associates carrying major projects in the study or construction phase for which the related investment commitments are material.

Corporate name	Activity	Capacity	Percentage interest of investments in associates		Carrying amount of investments in associates		Share in net income/(loss) of associates		Other comprehensive income/(loss) of associates		Dividends received from associates	
In millions of euros			Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
SUEZ Group (Other)	Water and waste processing		32.06	32.06	1,953	1,968	113	55	(37)	21	129	130
Project management entities in the Middle East (Middle-East, Asia & Africa, Saudi Arabia, Bahrain, Qatar, United Arab Emirates, Oman, Kuwait) (1)	Gas-fired power plants and seawater desalination facilities				950	1,004	79	97	(96)	96	77	97
Energia Sustentável Do Brasil (Latin America, Brazil)	Hydro power plant	3,750 MW	40.00	40.00	659	646	(49)	(57)	-	-	-	-
GASAG (Rest of Europe, Germany)	Gas and heat networks		31.57	31.57	233	261	16	18	(17)	1	9	4
Other investments in associates that are not material taken individually					852	710	96	(25)	27	14	61	104
INVESTMENTS IN ASSOCIATES					**4,646**	**4,590**	**255**	**88**	**(123)**	**132**	**277**	**334**

(1) *Investments in associates operating gas-fired power plants and seawater desalination facilities in the Arabian Peninsula have been grouped together under "Project management entities in the Middle East". This includes around 40 associates operating thermal power plants with a total installed capacity of 27,632 MW (at 100%) and a further 1,507 MW (at 100%) in capacity under construction.*
These associates have fairly similar business models and joint arrangements: the project management entities selected as a result of a competitive bidding process develop, build and operate power generation plants and seawater desalination facilities. The entire output of these facilities is sold to government-owned companies under power and water purchase agreements, over periods generally spanning 20 to 30 years.
In accordance with their contractual arrangements, the corresponding plants are recognized as property, plant and equipment or as financial receivables whenever substantially all of the risks and rewards associated with the assets are transferred to the buyer of the output. This treatment complies with IFRIC 4 and IFRS 16. The shareholding structure of these entities systematically includes a government-owned company based in the same country as the project management entity. The Group's percentage interest and percentage voting rights in each of these entities varies between 20% and 50%.

The share in net income/(loss) of associates includes a net non-recurring loss for a total amount of €79 million in 2019 (compared to a net non-recurring loss of €155 million in 2018), mainly including changes in the fair value of derivative instruments and disposal gains and losses, net of tax (*see Note 5.3 "Net recurring income Group share"*).

3.1.2 Financial information regarding material associates

The tables below provide condensed financial information for the Group's main associates. The amounts shown have been determined in accordance with IFRS, before the elimination of intragroup items and after (i) adjustments made in line with Group accounting policies and (ii) fair value measurements of the assets and liabilities of the associate performed at the date of acquisition at the level of ENGIE, as required by IAS 28. All amounts are presented based on a 100% interest with the exception of "Total equity attributable to ENGIE".

In million of euros	Revenues	Net income/ (loss)	Other compre-hensive income/ (loss)	Total compre-hensive income/ (loss)	Current assets	Non-current assets	Current liabilities	Non-current liabilities	Total equity	% interest of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2019											
SUEZ Group [(1)]	18,015	352	(58)	294	11,481	24,153	12,098	14,248	9,288	32.06	1,953
Project management entities in the Middle East	3,778	390	(409)	(19)	2,851	21,053	3,543	16,644	3,717	-	950
Energia Sustentável Do Brasil	578	(123)	-	(123)	204	4,137	304	2,388	1,648	40.00	659
GASAG	1,251	51	(54)	(2)	850	1,847	1,757	203	736	31.57	233
AT DECEMBER 31, 2018											
SUEZ Group [(1)]	17,331	335	(103)	232	10,872	22,681	11,664	12,896	8,993	32.06	1,968
Project management entities in the Middle East	4,254	467	406	873	2,572	21,401	3,775	16,263	3,934	-	1,004
Energia Sustentável Do Brasil	564	(142)	-	(142)	199	4,388	544	2,428	1,615	40.00	646
GASAG	1,196	56	3	59	798	1,733	1,508	196	827	31.57	261

(1) *The data indicated in the table for SUEZ correspond to financial information published by SUEZ. Total SUEZ equity attributable to the Group amounts to €6,463 million based on the published financial statements of SUEZ and €6,092 million based on the financial statements of ENGIE. The difference in these amounts mainly reflects the non-inclusion of the share in deeply-subordinated perpetual notes issued by SUEZ in total equity attributable to ENGIE, partly offset by the fair value measurement of the assets and liabilities of SUEZ at the date the Group changed its consolidation method (July 22, 2013).*

SUEZ is the only material listed associate. Based on the closing share price at December 31, 2019, the market value of this interest was €2,686 million.

3.1.3 Transactions between the Group and its associates

The data below set out the impact of transactions with associates on the Group's 2019 consolidated financial statements.

In millions of euros	Purchases of goods and services	Sales of goods and services	Net financial income (excluding dividends)	Trade and other receivables	Loans and receivables at amortized cost	Trade and other payables	Borrowings and debt
Project management entities in the Middle East	-	254	-	36	130	2	-
Contassur [(1)]	-	-	-	160	2	-	-
Energia Sustentável Do Brasil	140	-	-	-	29	10	-
Other	65	35	28	14	264	10	760
AT DECEMBER 31, 2018	**205**	**289**	**28**	**211**	**426**	**21**	**760**

(1) *Contassur is a life insurance company accounted for using the equity method. Contassur offers insurance contracts, chiefly with pension funds that cover post-employment benefit obligations for Group employees and also employees of other companies mainly engaged in regulated activities in the electricity and gas sector in Belgium. Insurance contracts entered into by Contassur represent reimbursement rights recorded within "Other assets" in the statement of financial position. These reimbursement rights totaled €161 million at December 31, 2019 (€168 million at December 31, 2018).*

3.2 Investments in joint ventures

3.2.1 Contribution of material joint ventures and of joint ventures that are not material to the Group taken individually

The table below shows the contribution of each material joint venture along with the aggregate contribution of joint ventures deemed not material taken individually to the consolidated statement of financial position, income statement, statement of comprehensive income, and the "Dividends received from entities accounted for using the equity method" line of the statement of cash flows.

The Group used qualitative and quantitative criteria to determine material joint ventures. These criteria include the contribution to the line items "Share in net income/(loss) of joint ventures" and "Investments in joint ventures", the Group's share in total assets of joint ventures, and joint ventures conducting major projects in the study or construction phase for which the related investment commitments are material.

Corporate name	Activity	Capacity	Percentage interest of investments in joint ventures		Carrying amount of investments in joint ventures		Share in net income/(loss) of joint ventures		Other comprehensive income/(loss) of joint ventures		Dividends received from joint ventures	
In millions of euros			Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Transportadora Associada de Gás S.A. (TAG) (Latin America, Brazil)	Gas transmission network		58.50	-	1,364	-	44	-	(71)	-	159	-
National Central Cooling Company "Tabreed" (Middle-East, Asia & Africa, Abu Dhabi)	District cooling networks		40.00	40.00	740	710	42	40	-	-	24	39
EcoÉlectrica (USA & Canada, Puerto Rico)	Combined-cycle gas-fired power plant and LNG terminal	507 MW	50.00	50.00	395	416	25	34	-	-	59	104
Portfolio of power generation assets in Portugal (Rest of Europe, Portugal)	Electricity generation	2 909 MW	50.00	50.00	312	325	39	44	(2)	1	50	49
WSW Energie und Wasser AG (Rest of Europe, Germany)	Electricity distribution and generation	142 MW	33.10	33.10	207	204	(4)	11	-	-	4	3
Tihama Power Generation Co (Middle-East, Asia & Africa, Saudi Arabia)	Electricity generation	1 599 MW	60.00	60.00	108	163	32	34	(5)	1	86	-
Ohio State Energy Partners (USA & Canada, Unites States)	Services		50.00	50.00	114	129	2	5	(10)	5	9	4
Megal GmbH (France Infrastuctures, Germany)	Gas transmission network		49.00	49.00	79	91	2	6	-	-	14	13
Transmisora Eléctrica del Norte (Latin America, Chile)	Electricity transmission line		50.00	50.00	80	85	7	7	(10)	8	-	-
Other investments in joint ventures that are not material taken individually					1,171	1,134	55	92	(61)	11	35	31
INVESTMENTS IN JOINT VENTURES					**4,570**	**3,256**	**245**	**273**	**(158)**	**26**	**439**	**244**

The share in net income/(loss) of joint ventures includes non-recurring loss of €14 million in 2019 (non-recurring income of €6 million in 2018), resulting chiefly from changes in the fair value of derivatives, impairment losses and disposal gains and losses, net of tax (*see Note 5.3 "Net recurring income Group share"*).

3.2.2 Financial information regarding material joint ventures

The amounts shown have been determined in accordance with IFRS before the elimination of intragroup items and after (i) adjustments made in line with Group accounting policies and (ii) fair value measurements of the assets and liabilities of the joint venture performed at the date of acquisition at the level of ENGIE, as required by IAS 28. All amounts are presented based on a 100% interest with the exception of "Total equity attributable to ENGIE" in the statement of financial position.

INFORMATION ON THE INCOME STATEMENT AND STATEMENT OF COMPREHENSIVE INCOME

In millions of euros	Revenues	Depreciation and amortization on intangible assets and property, plant and equipment	Net financial income/ (loss)	Income tax expense	Net income/ (loss)	Other compre-hensive income/ (loss)	Total compre-hensive income/ (loss)
AT DECEMBER 31, 2019							
Transportadora Associada de Gás S.A.	655	(191)	(191)	(52)	88	(121)	(34)
National Central Cooling Company "Tabreed"	370	(41)	(44)	-	105	-	105
EcoÉlectrica	308	(69)	-	(2)	50	-	50
Portfolio of power generation assets in Portugal	426	(67)	(29)	(36)	93	(7)	86
WSW Energie und Wasser AG	729	(12)	(2)	6	(11)	-	(11)
Tihama Power Generation Co	42	(5)	(23)	(8)	54	(8)	46
Ohio State Energy Partners	121	-	(44)	-	4	(20)	(15)
Megal GmbH	123	(69)	(4)	3	4	-	4
Transmisora Eléctrica del Norte	76	-	(30)	(5)	15	(21)	(6)
AT DECEMBER 31, 2018							
Transportadora Associada de Gás S.A.	-	-	-	-	-	-	-
National Central Cooling Company "Tabreed"	335	(34)	(37)	-	100	-	100
EcoÉlectrica	280	(63)	2	(3)	68	-	68
Portfolio of power generation assets in Portugal	749	(65)	(31)	(37)	106	3	109
WSW Energie und Wasser AG	856	(11)	(3)	(19)	35	-	35
Tihama Power Generation Co	111	(5)	(24)	(8)	56	1	57
Ohio State Energy Partners	52	-	(33)	-	10	11	21
Megal GmbH	124	(63)	(4)	2	12	-	12
Transmisora Eléctrica del Norte	75	-	(33)	(5)	14	16	30

INFORMATION ON THE STATEMENT OF FINANCIAL POSITION

In millions of euros	Cash and cash equivalents	Other current assets	Non-current assets	Short-term borrowings	Other current liabilities	Long-term borrowings	Other non-current liabilities	Total equity	% interest of Group	Total equity attributable to ENGIE
AT DECEMBER 31, 2019										
Transportadora Associada de Gás S.A.	86	329	7,844	595	86	4,616	629	2,331	58.50	1,364
National Central Cooling Company "Tabreed"	-	143	2,671	13	184	765	-	1,851	40.00	740
EcoÉlectrica	34	97	701	(7)	29	-	21	789	50.00	395
Portfolio of power generation assets in Portugal	232	635	1,039	176	139	770	92	728	50.00	312
WSW Energie und Wasser AG	19	59	805	37	54	94	92	606	33.10	207
Tihama Power Generation Co	56	124	432	69	26	325	13	179	60.00	108
Ohio State Energy Partners	19	1,055	89	343	25	522	43	229	50.00	114
Megal GmbH	6	2	729	210	41	262	62	162	49.00	79
Transmisora Eléctrica del Norte	43	34	774	42	4	645	-	160	50.00	80
AT DECEMBER 31, 2018										
National Central Cooling Company "Tabreed"	65	124	2,574	-	173	816	-	1,775	40.00	710
EcoÉlectrica	24	107	755	3	27	-	23	833	50.00	416
Portfolio of power generation assets in Portugal	231	568	1,305	287	178	763	115	761	50.00	325
WSW Energie und Wasser AG	12	148	778	55	84	101	103	596	33.10	204
WSW Energie und Wasser AG	129	140	488	61	40	370	15	271	60.00	163
Tihama Power Generation Co	16	8	1,039	(6)	7	804	-	257	50.00	129
Megal GmbH	-	13	752	10	55	446	70	185	49.00	91
Transmisora Eléctrica del Norte	66	30	773	75	3	621	-	170	50.00	85

3.2.3 Transactions between the Group and its joint ventures

The data below set out the impact of transactions with joint ventures on the Group's 2019 consolidated financial statements.

In millions of euros	Purchases of goods and services	Sales of goods and services	Net financial income (excluding dividends)	Trade and other receivables	Loans and receivables at amortized cost	Trade and other payables	Borrowings and debt
EcoÉlectrica	-	147	-	18	-	-	-
Portfolio of power generation assets in Portugal	-	-	-	1	128	-	-
WSW Energie und Wasser AG	-	23	-	1	-	1	-
Megal GmbH	65	-	-	-	51	-	-
Futures Energies Investissements Holding	3	19	3	2	207	-	-
Other	(40)	89	8	27	200	6	5
AT DECEMBER 31, 2019	**28**	**278**	**11**	**49**	**585**	**7**	**5**

3.3 Other information on investments accounted for using the equity method

3.3.1 Unrecognized share of losses of associates and joint ventures

Cumulative unrecognized losses of associates (corresponding to the cumulative amount of losses exceeding the carrying amount of investments in the associates concerned) including other comprehensive income/(loss), amounted to €113 million in 2019 (€171 million in 2018). This decrease resulted from (i) unrecognized income relating to fiscal year 2019 amounting to €89 million and (ii) changes in other comprehensive income.

These unrecognized losses correspond to the negative fair value of derivative instruments designated as interest rate and commodity hedges ("Other comprehensive income/(loss)") contracted by associates in the Middle-East, Africa & Asia reportable segment in connection with the financing of construction projects for power generation plants.

3.3.2 Commitments and guarantees given by the Group in respect of equity method entities

At December 31, 2019, the main commitments and guarantees given by the Group in respect of equity method entities concern:

- Energia Sustentável do Brasil ("Jirau"), for an aggregate amount of BRL 4,210 million (€930 million).

  At December 31, 2019, the amount of loans granted by Banco Nacional de Desenvolvimento Econômico e Social, the Brazilian Development Bank, to Energia Sustentável do Brasil amounted to BRL 10,525 million (€2,325 million). Each partner stands as guarantor for this debt to the extent of its ownership interest in the consortium;
- TAG for performance bonds and other guarantees for an amount of €176 million;
- The project management entities in the Middle East and Africa, for an aggregate amount of €917 million.

  Commitments and guarantees given by the Group in respect of these project management entities chiefly correspond to:
  - an equity contribution commitment (capital/subordinated debt) for €101 million. These commitments only concern entities acting as holding companies for projects in the construction phase,
  - letters of credit to guarantee debt service reserve accounts for an aggregate amount of €200 million. The project financing set up in certain entities can require those entities to maintain a certain level of cash within the company (usually enough to service its debt for six months). This is particularly the case when the financing is without recourse. This level of cash may be replaced by letters of credit,
  - collateral given to lenders in the form of pledged shares in the project management entities, for an aggregate amount of €266 million,
  - performance bonds and other guarantees for an amount of €350 million.

NOTE 4 Main changes in Group structure

Accounting standards

In accordance with IFRS 5 – *Non-Current Assets Held for Sale and Discontinued Operations*, assets or groups of assets held for sale are presented separately on the face of the statement of financial position and are measured and accounted for at the lower of their carrying amount and fair value less costs to sell.

An asset is classified as "held for sale" when its sale is highly probable within twelve months from the date of classification, when it is available for immediate sale under its present condition and when the management is committed to a plan to sell the asset and an active program to locate a buyer and complete the plan has been initiated. To assess whether a sale is highly probable, the Group takes into consideration among other things indications of interest and offers received from potential buyers as well as specific execution risks attached to certain transactions.

Furthermore, assets or group of assets are presented as discontinued operations in the Group's consolidated financial statements when they are classified as "held for sale" and represent a separate major line of business under IFRS 5.

4.1 Disposals carried out in 2019

The Group unveiled its 2019-2021 strategy on February 28, 2019 and on the same occasion announced a €6 billion asset disposal program as part of its continued transformation.

The table below shows the impact of the main disposals and sale agreements of 2019 on the Group's net debt, excluding partial disposals with respect to DBSO [(1)] activities:

In millions of euros	Disposal price	Reduction in net debt
Disposal of ENGIE's interest in Glow – Thailand	2,591	2,466
Disposal of German and Dutch coal-fired power plants	213	106
Other disposals that are not material taken individually	606	522
TOTAL	**3,410**	**3,094**

Additional disposals in the process of completion at December 31, 2019 are described in Note 4.2 "Assets held for sale".

4.1.1 Disposal of ENGIE's interest in Glow (Thailand)

On March 14, 2019, the Group completed the sale of its 69.1% interest in Glow to Global Power Synergy Public Company Ltd. (GPSC), having received official approval from Thailand's Energy Regulatory Commission on March 8, 2019. This transaction followed an initial agreement entered into by ENGIE and GPSC in June 2018.

The combined effects of the transaction and of the cash generated by these activities since January 1, 2019 have reduced the Group's net debt by €2,466 million. The disposal gain before tax amounted to €1,580 million in 2019, of which €143 million corresponds to the recycling to the income statement of items from the statement of comprehensive income (translation adjustments for €351 million and hedges for a negative €208 million).

4.1.2 Disposal of ENGIE's interest in coal-fired power plants in Germany and the Netherlands

On November 29, 2019, the Group finalized the disposal to Riverstone Holdings LLC, an international investment fund specializing in energy, of the coal-fired power plants of Farge, Zolling and Wilhelmshaven in Germany and Rotterdam in the Netherlands, with a total installed capacity of 2,345 MW.

This transaction resulted in a €106 million reduction in ENGIE's net debt at December 31, 2019 (and €84 million to be received in 2020). The disposal loss before tax amounted to €26 million at December 31, 2019, following a negative value adjustment of €121 million, mainly corresponding to goodwill.

(1) Develop, Build, Share and Operate, a model used in renewable energies based on the continuous rotation of capital employed, for which the impacts of disposals are recorded as deduction from CAPEX within current operating income.

4.2 Assets held for sale

Total "Assets classified as held for sale" and total "Liabilities directly associated with assets classified as held for sale" amounted to €468 million and €92 million, respectively, at December 31, 2019.

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [(1)]
Property, plant and equipment, net and intangible assets	378	2,661
Other assets	90	1,137
TOTAL ASSETS CLASSIFIED AS HELD FOR SALE	**468**	**3,798**
Borrowings and debt	26	1,019
Other liabilities	65	1,111
TOTAL LIABILITIES DIRECTLY ASSOCIATED WITH ASSETS CLASSIFIED AS HELD FOR SALE	**92**	**2,130**

(1) *Data published at December 31, 2018 was not restated due to the transition approach used when applying IFRS 16 and IFRIC 23 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*

The assets related to Glow (Thailand), solar parks in operation by Langa in France, and renewable energy assets in Mexico, recorded in "Assets classified as held for sale" at December 31, 2018, were sold in 2019 (see Note 4.1 "Disposals carried out in 2019").

Assets classified as held for sale at December 31, 2019 include renewable energy assets in Mexico and green gas production assets in operation in France. These transactions are expected to be completed in first-half 2020. Given the expected capital gains from the disposal, no value adjustment has been recorded.

4.3 Acquisitions carried out in 2019

4.3.1 Acquisition of a 58.5% interest in Transportadora Associada de Gás S.A. (TAG) in Brazil

In early April 2019, a consortium comprising ENGIE (32.5%), ENGIE Brasil Energia (32.5%) and Caisse de Dépôt et Placement du Québec (CDPQ) (35%), won the bidding process initiated by Petrobras for the acquisition of a 90% interest in Transportadora Associada de Gás S.A. (TAG).

ENGIE therefore holds a 58.5% interest in TAG directly and indirectly, representing a net interest of 49.3% for the Group. The other TAG shareholders are CDPQ with 31.5% and Petrobras, which has retained a 10% stake.

The acquisition price was USD 8.6 billion, of which USD 5.3 billion was financed by debt external to the consortium and USD 2.4 billion by the shareholders. The impact of the acquisition on the Group's net debt was €1.6 billion (including acquisition costs).

The transaction was completed on June 13, 2019.

TAG owns the largest natural gas transportation network in Brazil, a key country in ENGIE's recently unveiled strategy, and will provide the Group with a steady contractual income stream. TAG's assets include 4,500 kilometers of gas pipelines, representing 47% of the country's gas infrastructure.

The Group has joint control over TAG since the decisions about its relevant activities, including for example preparation of the budget and medium-term plan, investments, operations and maintenance, are taken by majority vote requiring the consent of both ENGIE and CDPQ. Consequently, this interest is accounted for using the equity method.

4.3.2 Other transactions in 2019

Various other acquisitions were made in 2019, including OTTO Luft-und Klimatechnik GmbH & Co, a German ventilation installation and services company; SUEZ's nuclear maintenance business (formerly SRA SAVAC); Vol V Biomasse, which operates across the entire biomethane value chain; TIKO, a developer of smart energy management systems for the residential market; a controlling interest in Cofely Besix Facility Management (CBFM); and Conti, an energy services company in North America.

These various acquisitions increased net debt by €1.6 billion.

In addition, on December 19, 2019, the Group and its consortium partners Crédit Agricole Assurances and Mirova (a subsidiary of Natixis Investment Managers) announced that they had won a competitive process conducted by EDP for the acquisition of Portugal's second largest hydroelectric portfolio. ENGIE owns 40% of the consortium, while Crédit Agricole Assurances and Mirova, through managed funds, own 35% and 25%, respectively. A net debt impact of approximately €650 million is anticipated for ENGIE. This investment will be accounted for using the equity method. Closing of the transaction is expected during the second half of 2020.

Finally, ENGIE has also announced the acquisition of Renvico in Italy, a company that operates in the field of renewable energy, specializing in wind farm management. The closing of the transaction is expected to occur in 2020.

NOTE 5 Financial indicators used in financial communication

The purpose of this note is to present the main non-GAAP financial indicators used by the Group as well as their reconciliation with the indicators of the IFRS consolidated financial statements. Published data at December 31, 2018, presented below, were not restated due to the transition method used for the application of IFRS 16 (*see Note 1 "Accounting framework and basis for preparing the consolidated financial statements* [1]).

5.1 EBITDA

The reconciliation between EBITDA and current operating income including operating MtM and share in net income of equity method entities is as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [(1)]
CURRENT OPERATING INCOME INCLUDING OPERATING MTM AND SHARE IN NET INCOME OF EQUITY METHOD ENTITIES	**5,300**	**4,903**
Mark-to-market on commodity contracts other than trading instruments	426	223
Net depreciation and amortization/Other	4,497	3,882
Share-based payments (IFRS 2)	51	79
Non-recurring share in net income of equity method entities	93	149
EBITDA	**10,366**	**9,236**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

5.2 Current operating income (COI)

The reconciliation between current operating income (COI) and current operating income including operating MtM and share in net income of equity method entities is as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [(1)]
CURRENT OPERATING INCOME INCLUDING OPERATING MTM AND SHARE IN NET INCOME OF EQUITY METHOD ENTITIES	**5,300**	**4,903**
(-) Mark-to-market on commodity contracts other than trading instruments	426	223
CURRENT OPERATING INCOME (COI)	**5,726**	**5,126**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

From 2020, the composition of COI will be homogenized with that of EBITDA to exclude, in line with ENGIE's accounting policies, the non-recurring share in net income of equity method entities (negative €93 million in 2019 and negative €149 million in 2018), resulting in an adjusted COI of €5,819 million and €5,275 million at December 31, 2019 and December 31, 2018 respectively.

5.3 Net recurring income Group share

Net recurring income Group share is a financial indicator used by the Group in its financial reporting to present net income Group share adjusted for unusual or non-recurring items.

This financial indicator therefore excludes:

- all items presented between the lines "Current operating income including operating MtM and share in net income of equity method entities" and "Income/(loss) from operating activities", i.e. "Impairment losses", "Restructuring costs", "Changes in scope of consolidation" and "Other non-recurring items". These items are defined in Note 9 "Other items of income/(loss) from operating activities";
- mark-to-market on commodity contracts other than trading instruments;
- the following components of net financial income/(loss): the impact of debt restructuring, compensation payments on the early unwinding of derivative instruments net of the reversal of the fair value of these derivatives that were settled early, changes in the fair value of derivative instruments that do not qualify as hedges under IFRS 9 – *Financial Instruments*, as well as the ineffective portion of derivative instruments that qualify as hedges;
- the income tax impact of the items described above, determined using the statutory income tax rate applicable to the relevant tax entity;
- net non-recurring items included in "Share in net income of equity method entities". The excluded items correspond to the non-recurring items as defined above.

(1) Comparative data including the impact relating to the application of IFRS 16 are presented in Section 1 of this 2019 Annual Financial Report.

The reconciliation of net income/(loss) with net recurring income Group share is as follows:

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 [1]
NET INCOME/(LOSS) GROUP SHARE		**984**	**1,033**
NET INCOME/(LOSS) RELATING TO DISCONTINUED OPERATIONS, GROUP SHARE		**-**	**1,045**
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS, GROUP SHARE		**984**	**(12)**
Non-controlling interests relating to continued operations		664	572
NET INCOME/(LOSS) RELATING TO CONTINUED OPERATIONS		**1,649**	**560**
Reconciliation items between current operating income after share in net income of equity method entities and income/(loss) from operating activities		**1,623**	**2,258**
Impairment losses	*9.1*	*1,770*	*1,798*
Restructuring costs	*9.2*	*218*	*162*
Changes in scope of consolidation	*9.3*	*(1,604)*	*150*
Other non-recurring items	*9.4*	*1,240*	*147*
Other adjusted items		**154**	**430**
Mark-to-market on commodity contracts other than trading instruments	*8.1*	*426*	*223*
Ineffective portion of derivatives qualified as fair value hedges	*10*	*3*	*3*
Gains/(losses) on debt restructuring and early unwinding of derivative financial instruments	*10*	*(6)*	*(7)*
Change in fair value of derivatives not qualified as hedges and ineffective portion of derivatives qualified as cash flow hedges	*10*	*223*	*183*
Non-recurring income/(loss) from debt instruments and equity instruments	*10*	*(115)*	*26*
Other adjusted tax impacts		*(470)*	*(147)*
Non-recurring income/(loss) included in share in net income of equity method entities		*93*	*149*
NET RECURRING INCOME RELATING TO CONTINUED OPERATIONS		**3,426**	**3,248**
Net recurring income relating to continued operations attributable to non-controlling interests		743	790
NET RECURRING INCOME RELATING TO CONTINUED OPERATIONS, GROUP SHARE		**2,683**	**2,458**
Net recurring income/(loss) relating to discontinued operations, Group share		-	(33)
NET RECURRING INCOME GROUP SHARE		**2,683**	**2,425**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

5.4 Industrial capital employed

The reconciliation of industrial capital employed with items in the statement of financial position is as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
(+) Property, plant and equipment and intangible assets, net	58,996	55,635
(+) Goodwill	18,665	17,809
(-) Goodwill Gaz de France – SUEZ and International Power (2)	*(7,650)*	*(7,610)*
(+) IFRIC 4, IFRS 16 and IFRIC 12 receivables	1,737	1,550
(+) Investments in equity method entities	9,216	7,846
(-) Goodwill arising on the International Power combination (2)	*(154)*	*(151)*
(+) Trade and other receivables, net	15,180	15,613
(-) Margin calls (2) (3)	*(2,023)*	*(1,669)*
(+) Inventories	3,617	4,158
(+) Assets from contracts with customers	7,831	7,411
(+) Other current and non-current assets	10,601	9,811
(+) Deferred tax	(3,771)	(4,349)
(+) Cancellation of deferred tax on other recyclable items (2)	*(571)*	*(247)*
(-) Provisions	(25,115)	(21,813)
(+) Actuarial gains and losses in shareholders' equity (net of deferred tax) (2)	*3,507*	*2,637*
(-) Trade and other payables	(19,109)	(19,759)
(+) Margin calls (2) (3)	*1,996*	*1,681*
(-) Liabilities from contracts with customers	(4,330)	(3,634)
(-) Other current and non-current liabilities	(14,298)	(13,507)
INDUSTRIAL CAPITAL EMPLOYED	**54,325**	**51,412**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) For the purpose of calculating industrial capital employed, the amounts recorded in respect of these items have been adjusted from those appearing in the statement of financial position.
(3) Margin calls included in "Trade and other receivables, net" and "Trade and other payables" correspond to advances received or paid as part of collateralization agreements set up by the Group to manage counterparty risk on commodity transactions.

5.5 Cash flow from operations (CFFO)

The reconciliation of cash flow from operations (CFFO) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
Cash generated from operations before income tax and working capital requirements	9,863	8,464
Tax paid	(575)	(757)
Change in working capital requirements	(1,110)	149
Interest received on non-current financial assets	28	26
Dividends received on non-current financial assets	67	52
Interest paid	(780)	(727)
Interest received on cash and cash equivalents	82	79
Change in financial assets at fair value through income	(135)	(289)
(+) Change in financial assets at fair value through income recorded in the statement of financial position and other	*135*	*303*
CASH FLOW FROM OPERATIONS (CFFO)	**7,574**	**7,300**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

6

5.6 Capital expenditure (CAPEX)

The reconciliation of capital expenditure (CAPEX) with items in the statement of cash flows is as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [(1)]
Acquisitions of property, plant and equipment and intangible assets	6,524	6,202
Acquisitions of controlling interests in entities, net of cash and cash equivalents acquired	864	983
(+) Cash and cash equivalents acquired	*229*	*83*
Acquisitions of investments in equity method entities and joint operations	1,746	338
Acquisitions of equity and debt instruments	595	283
Change in loans and receivables originated by the Group and other	532	251
(+) Other	*8*	*11*
Change in ownership interests in controlled entities	12	18
(+) Payments received in respect of the disposal of non-controlling interests	-	-
(-) Disposal impacts relating to DBSO [(2)] activities	(468)	(526)
TOTAL CAPITAL EXPENDITURE (CAPEX)	**10,042**	**7,643**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements"), but now includes the impact of disposals carried out in the context of the Group's DBSO activities.

(2) Develop, Build, Share & Operate.

5.7 Net financial debt

The reconciliation of net financial debt with items in the statement of financial position is as follows:

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 [(1)]
(+) Long-term borrowings	16.2 & 16.3	30,002	26,434
(+) Short-term borrowings	16.2 & 16.3	8,543	5,745
(+) Derivative instruments – carried in liabilities	16.4	15,575	14,295
(-) Derivative instruments hedging commodities and other items		*(15,350)*	*(13,970)*
(-) Other financial assets	16.1	(9,568)	(8,483)
(+) Loans and receivables at amortized cost not included in net financial debt		4,870	3,844
(+) Equity instruments at fair value		*1,297*	*1,107*
(+) Debt instruments at fair value not included in net financial debt		*1,899*	*1,551*
(-) Cash and cash equivalents	16.1	(10,519)	(8,700)
(-) Derivative instruments – carried in assets	16.4	(14,272)	(13,372)
(+) Derivative instruments hedging commodities and other items		*13,443*	*12,652*
NET FINANCIAL DEBT		**25,919**	**21,102**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

5.8 Economic net debt

Economic net debt is as follows:

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 [(1)]
NET FINANCIAL DEBT	**16**	**25,919**	**21,102**
Future minimum operating lease payments [(2)]			2,087
Provisions for back-end of the nuclear fuel cycle	19	7,611	6,170
Provisions for dismantling of plant and equipment	19	7,329	6,081
Provisions for site rehabilitation	19	237	222
Post-employment benefit – Pension	20	2,427	1,970
(-) Infrastructures regulated companies		*(93)*	*60*
Post-employment benefit – Reimbursement rights	20	(160)	(167)
Post-employment benefit – Other benefits	20	5,001	4,293
(-) Infrastructures regulated companies		*(3,080)*	*(2,572)*
Deferred tax assets for pension and related obligations	11	(1,635)	(1,374)
(-) Infrastructures regulated companies		*759*	*601*
Plan assets relating to nuclear provisions, inventories of uranium and a receivable of Electrabel towards EDF Belgium	16 & 24	(3,236)	(2,884)
ECONOMIC NET DEBT		**41,078**	**35,590**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) As from January 1, 2019, commitments related to lease liabilities are included in net debt due to the application of IFRS 16.

NOTE 6 Segment information

6.1 Strengthening of ENGIE's organizational structure

In the first half of 2019, ENGIE unveiled its ambition to become the world leader in the zero carbon transition for its customers and announced measures to strengthen its organizational structure in order to accelerate the implementation of its strategy.

The Group has kept its current decentralized organizational structure based on 24 Business Units (BUs), which are essentially geographical, in order to remain close to its customers and foster initiative, and has strengthened this structure by creating four new Global Business Lines (GBLs): Client Solutions, Networks, Renewables and Thermal.

The role of these GBLs is to support the local teams and encourage cross-cutting performance by proposing an inter-BU strategy for their business, contributing to decisions on the allocation of resources between BUs, identifying and managing the key cross-cutting digital and excellence programs, identifying and implementing worldwide partnerships, and supporting, measuring and presenting the global performance of their business activities. These GBLs plus the Supply and Nuclear business activities form the Group's six core Business Lines (BLs).

The Group now operates on a matrix structure with the BUs forming the primary axis and the BLs the secondary axis.

6.2 Operating segments and reportable segments

6.2.1 Definition of reportable segments

In accordance with IFRS 8, the Group has redefined its reportable and operating segments following these organizational developments and the deep changes to the BU business portfolios upon completion of the 2016-2018 transformation plan.

Each BU corresponds to an "operating segment" whose operational and financial performance is regularly reviewed by the Group's Executive Committee, which remains the Group's "chief operating decision maker" within the meaning of IFRS 8. The 24 BUs have now been regrouped into seven reportable segments reflecting the geographic areas where the Group operates:

- one reportable segment corresponding to the USA & Canada operating segment;
- five reportable segments corresponding to groups of operating segments;
- furthermore "Others" comprises operating segments that cannot be grouped together (Global Energy Management, Tractebel, GTT, Hydrogen) as well as the activities of *Entreprises & Collectivités* (E&C) due to the specificity of their businesses and markets or due to their particular risk profile, as well as the Group's holding and corporate activities.

Operating segments	Reportable segments
NORTH AMERICA	USA & CANADA
FRANCE BtoB FRANCE BtoC FRANCE NETWORKS FRANCE RENEWABLES	FRANCE EXCLUDING INFRASTRUCTURES
GRDF GRTgaz ELENGY STORENGY	FRANCE INFRASTRUCTURES
BENELUX GENERATION EUROPE UNITED KINGDOM NORTH, SOUTH AND EASTERN EUROPE	REST OF EUROPE
LATIN AMERICA BRAZIL	LATIN AMERICA
ASIA PACIFIC CHINA AFRICA MIDDLE EAST, SOUTH AND CENTRAL ASIA AND TURKEY	MIDDLE EAST, ASIA & AFRICA

In order to determine how to group together the operating segments, as set out above, the Group exercised its judgment to decide whether two or more operating segments could be grouped together in the same reportable segment. The following key factors were examined to assess the similarity of the operating segments' economic characteristics:

- nature of business and services;
- regulatory environment;
- economic environment in which the relevant activities operate (market maturity, growth prospects, political risks, etc.);
- risk profiles of the activities;
- how the activities fit into the Group's strategy and new business model.

The Group decided to organize the operating segments within the reportable segments for the following reasons:

- the France BtoB, France BtoC, France Networks and France Renewables operating segments have been grouped together within the France excluding Infrastructures reportable segment, which encompasses all the French downstream energy businesses (energy services and gas and electricity sales and distribution to BtoB, BtoT and BtoC customers), and the increasingly decentralized renewable energy generation activities. These are complementary unregulated businesses that are supported by a well-developed local network and primarily aim to develop a combined offering for local customers: energy services, decentralized production resources and combined gas and electricity supply contracts. These BUs also operate within an environment driven by the "energy transition for green growth" law (LTECV);
- the GRDF, GRTgaz, Storengy and Elengy operating segments, which comprise the gas infrastructure businesses in Europe (distribution, transport, storage and LNG terminals), have been grouped together within the France Infrastructures reportable segment, as they are all regulated businesses with similar risk profiles and margins;

- the Benelux, Generation Europe, United Kingdom and North, South and Eastern Europe operating segments have been grouped together within the Rest of Europe reportable segment as these BUs, which comprise all of the Group's European energy activities excluding France, have a similar business mix (energy production, supply, sale and services), operate in mature energy markets, and are undergoing transformation as part of the energy transition, with rapid development in renewable energy and client solutions;
- the Latin America and Brazil operating segments have been grouped together within the Latin America reportable segment, as these segments share similar growth prospects with a substantial proportion of their revenue generated by electricity sales under long-term agreements;
- the Asia-Pacific, China, Africa and Middle East, Southern and Central Asia and Turkey operating segments have been grouped together within the Middle East, Asia & Africa reportable segment, as all these regions have high power generation requirements and consequently represent significant growth prospects for the Group in the energy and energy services businesses. They operate in markets driven by the energy transition, with rapid development in renewable energy and client solutions.

6.2.2 Description of reportable segments

- France excluding Infrastructures: encompasses the activities of the following BUs: (i) France BtoB: energy sales and services for buildings and industry, cities and regions and major infrastructures, (ii) France BtoC: sales of energy and related services to individual and professional customers, (iii) France Renewables: development, construction, financing, operation and maintenance of all renewable power generation assets in France and (iv) France Networks, which designs, finances, builds and operates decentralized energy production and distribution facilities (heating and cooling networks).
- France Infrastructures: encompasses the GRDF, GRTgaz, Elengy and Storengy BUs, which operate natural gas transportation, storage and distribution networks and facilities, and LNG terminals, mainly in France. They also sell access rights to these terminals.
- Rest of Europe: encompasses the activities of the following BUs: (i) Benelux (Group's business in Belgium, Netherlands and Luxembourg: nuclear and renewable electricity generation, sales of natural gas and electricity and energy services activities), (ii) Generation Europe, which comprises the Group's thermal electricity generation activities in Europe, (iii) United Kingdom (management of renewable energy generation assets and the portfolio of distribution assets, supply of energy services and solutions, etc.) and (iv) North, South and Eastern Europe (sales of natural gas and electricity and related energy services and solutions, operation of renewable energy generation assets, management of distribution networks).
- Latin America: encompasses the activities of (i) the Brazil BU and (ii) the Latin America BU (Argentina, Chile, Mexico and Peru). The subsidiaries concerned are involved in centralized power generation, including renewable energy, gas chain activities (including infrastructure), and energy services.
- USA & Canada: encompasses power generation, energy services and natural gas and electricity sales activities in the United States, Canada and Puerto Rico.
- Middle East, Asia & Africa: encompasses the activities of the following BUs: (i) Asia-Pacific (Australia, New Zealand, Thailand, Singapore and Indonesia), (ii) China, (iii) Africa (mainly Morocco and South Africa) and (iv) the Middle East, South and Central Asia and Turkey (including India and Pakistan). In all of these regions, the Group is active in electricity generation and sales, gas distribution and sales, energy services and seawater desalination in the Arabian Peninsula.
- Others: encompasses the activities of (i) GEM, whose role is to manage and optimize, on behalf of the BUs that hold power generation assets, the Group's physical and contractual asset portfolios (excluding gas infrastructure), particularly in the European market, to sell energy to major pan-European and national industrial companies, and to provide solutions related to its expertise in the financial energy markets to third parties, (ii) Tractebel (engineering companies specialized in energy, hydraulics and infrastructure), (iii) GTT (specialized in the design of cryogenic membrane confinement systems for sea transportation and storage of LNG, both onshore and offshore), (iv) Hydrogen (design of renewable hydrogen-based zero carbon energy solutions), as well as (v) the Group's holding and corporate activities which include the entities centralizing the Group's financing requirements, *Entreprises & Collectivités* (E&C) and the contribution of the associate SUEZ.

The main commercial relationships between the reportable segments are as follows:

- relationships between the "France Infrastructures" reportable segment and the users of those infrastructures, i.e. the "France excluding Infrastructures" and "Others" (GEM and E&C) reportable segments: services relating to the use of the Group's gas infrastructures in France are billed based on regulated rates (or revenues) applicable to all users. Revenue and margins related to GRDF business continue to fall within the scope of "France Infrastructures";
- relationships between the "Others" (GEM) reportable segment and the "France excluding Infrastructures" and "Rest of Europe" reportable segments: GEM manages the Group's natural gas supply contracts and sells gas at market prices to commercial companies within the "France excluding Infrastructures" and "Rest of Europe" reportable segments. As regards electricity, GEM manages and optimizes the power stations and sales portfolios on behalf of entities that hold power generation assets and deducts a percentage of the energy margin in return for providing these services. The revenue and margins related to power generation activities (minus the percentage deducted by GEM) are reported by the segments that hold power generation assets ("France excluding Infrastructures" and "Rest of Europe");
- relationships between the "Generation Europe" operating segment, which is part of the "Rest of Europe" reportable segment, and the commercial entities in the "France excluding Infrastructures" reportable segment: a portion of the power generated by thermal assets within the "Generation Europe" BU is sold to commercial entities from these segments at market prices.

Due to the variety of its businesses and their geographical location, the Group serves a very diverse range of situations and customer types (industry, local authorities and individual customers). Accordingly, no external customer represents individually 10% or more of the Group's consolidated revenues.

6.2.3 Key indicators by reportable segment [1]

In accordance with IFRS 8, comparative segment information at December 31, 2018 has been restated in order to present this information in accordance with the new segment structure introduced by the Group on January 1, 2019.

However, it has not been restated due to the transition method used for the application of IFRS 16 (*see Note 1 "Accounting framework and basis for preparing the consolidated financial statements"*), in accordance with the transition options of the standard, applicable as from January 1, 2019.

REVENUES

	Dec. 31, 2019 [1]			Dec. 31, 2018 [1]		
In millions of euros	External revenues	Intra-Group Revenues	Total	External revenues	Intra-Group Revenues	Total
France excluding Infrastructures	15,854	334	16,188	14,998	188	15,186
France Infrastructures	5,569	979	6,548	5,450	1,125	6,575
Total France	*21,423*	*1,313*	*22,736*	*20,448*	*1,312*	*21,760*
Rest of Europe	17,270	1,488	18,758	16,946	1,770	18,716
Latin America	5,341	1	5,342	4,639	-	4,639
USA & Canada	4,545	1	4,547	3,355	62	3,417
Middle East, Asia & Africa	2,914	-	2,914	4,014	4	4,018
Others	8,565	5,995	14,560	7,565	6,332	13,897
Elimination of internal transactions	-	(8,798)	(8,798)	-	(9,481)	(9,481)
TOTAL REVENUES	**60,058**	**-**	**60,058**	**56,967**	**-**	**56,967**

(1) *Data presented at December 31, 2019 have been prepared in accordance with the new income statement presentation adopted by the Group. Comparative data at December 31, 2018 have been reclassified in accordance with this new presentation (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*

EBITDA

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [1]
France excluding Infrastructures	1,672	1,670
France Infrastructures	3,539	3,499
Total France	*5,211*	*5,168*
Rest of Europe	1,750	973
Latin America	2,221	1,775
USA & Canada	291	224
Middle East, Asia & Africa	727	1,122
Others	166	(27)
TOTAL EBITDA [2]	**10,366**	**9,236**

(1) *Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*
(2) *EBITDA at December 31, 2019 includes the impact of IFRS 16 (cancellation of leases) in an amount of around €0.4 billion.*

DEPRECIATION AND AMORTIZATION

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [1]
France excluding Infrastructures	(761)	(628)
France Infrastructures	(1,581)	(1,479)
Total France	*(2,343)*	*(2,106)*
Rest of Europe	(1,041)	(928)
Latin America	(523)	(416)
USA & Canada	(127)	(72)
Middle East, Asia & Africa	(102)	(134)
Others	(360)	(225)
TOTAL DEPRECIATION AND AMORTIZATION	**(4,497)**	**(3,882)**

(1) *Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*

(1) *Comparable data including the impact related to the first-time application of IFRS 16 are presented in Section 1 of this 2019 Annual Financial Report.*

SHARE IN NET INCOME OF EQUITY METHOD ENTITIES

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
France excluding Infrastructures	17	1
France Infrastructures	3	12
Total France	*20*	*13*
Rest of Europe	55	89
Latin America	8	(25)
USA & Canada	60	75
Middle East, Asia & Africa	246	166
Others	111	42
Of which share in net income of SUEZ	*113*	*55*
TOTAL SHARE IN NET INCOME OF EQUITY METHOD ENTITIES	**500**	**361**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

Associates and joint ventures account for €255 million and €245 million respectively of share in net income of equity method entities at December 31, 2019, compared to €88 million and €273 million in 2018.

CURRENT OPERATING INCOME (COI)

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
France excluding Infrastructures	903	1,035
France Infrastructures	1,957	2,016
Total France	*2,861*	*3,051*
Rest of Europe	684	37
Latin America	1,694	1,355
USA & Canada	159	151
Middle East, Asia & Africa	559	893
Others	(231)	(362)
TOTAL CURRENT OPERATING INCOME (COI)	**5,726**	**5,126**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

6

INDUSTRIAL CAPITAL EMPLOYED

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
France excluding Infrastructures	7,143	6,306
France Infrastructures	20,172	19,802
Total France	*27,315*	*26,107*
Rest of Europe	1,797	3,563
Latin America	11,462	9,897
USA & Canada	3,717	2,494
Middle East, Asia & Africa	3,633	3,553
Others	6,401	5,796
Of which SUEZ equity value	*2,027*	*2,018*
TOTAL INDUSTRIAL CAPITAL EMPLOYED	**54,325**	**51,412**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

CAPITAL EXPENDITURE (CAPEX)

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
France excluding Infrastructures	1,019	853
France Infrastructures	1,745	1,619
Total France	*2,764*	*2,472*
Rest of Europe	1,439	1,430
Latin America	2,499	1,758
USA & Canada	1,380	918
Middle East, Asia & Africa	453	616
Others	1,506	449
TOTAL CAPITAL EXPENDITURE (CAPEX)	**10,042**	**7,643**

6.3 Key indicators by Business Line

6.3.1 Definition of Business Lines

- Client Solutions (excluding BtoC clients): encompasses services and service packages such as design, engineering, works, operation, installation, maintenance and facility management, as well as asset management activities such as heating and cooling networks, dedicated energy generation assets (decentralized energy delivered directly to the client). It also includes the Group's interest in the SUEZ group.
- Networks: comprises the Group's electricity and gas infrastructure activities and projects. These activities include the management and development of (i) gas and electricity transportation networks in Europe and Latin America and natural gas distribution networks in Europe, Asia and the American continent, (ii) natural gas underground storage in Europe, and (iii) regasification infrastructure in France and Chile. Apart from the historical infrastructure management activities, its asset portfolio also contributes to the challenges of energy decarbonization and network greening (gradual integration of green gas, hydrogen based projects, geothermal projects, energy as a service, etc.).
- Renewables: comprises all centralized renewable energy generation activities, including financing, construction and operation of renewable energy facilities, using various energy sources such as hydroelectric, onshore wind, photovoltaic solar, biomass, offshore wind, geothermal and biogas. The energy produced is fed into the grid and sold either on the open or regulated market or through electricity sale agreements.
- Thermal: encompasses all the Group's centralized energy generation activities using thermal assets, whether contracted or not. It includes the operation of power plants fueled mainly by gas and coal, as well as pump-operated storage plants. The energy produced is fed into the grid and sold either on the open or regulated market or through electricity sale agreements. It includes the financing, construction and operation of desalination plants, whether or not connected to power plants.
- Nuclear: encompasses all of the Group's nuclear power generation activities, with seven reactors in Belgium (four in Doel and three in Tihange) and drawing rights in France.
- Supply: encompasses all the Group's activities relating to the sale of gas and electricity to end customers, whether professional or individual. It also includes all the Group's activities in services for residential clients.

Others encompasses (i) energy management and optimization activities, (ii) the GTT BU, and (iii) corporate and holding activities.

6.3.2 Key indicators by Business Line

EBITDA

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
Client Solutions	1,835	1,511
Networks	4,024	3,975
Renewables	1,725	1,575
Thermal	1,765	2,025
Nuclear	192	(555)
Supply	639	764
Others	186	(58)
TOTAL EBITDA	**10,366**	**9,236**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

CURRENT OPERATING INCOME (COI)

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
Client Solutions	1,090	982
Networks	2,327	2,399
Renewables	1,190	1,105
Thermal	1,260	1,455
Nuclear	(314)	(1,051)
Supply	345	537
Others	(172)	(302)
TOTAL CURRENT OPERATING INCOME (COI)	**5,726**	**5,126**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

CAPITAL EXPENDITURE (CAPEX)

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Client Solutions	1,621	1,537
Networks	3,446	1,814
Renewables	2,488	1,986
Thermal	517	813
Nuclear	636	750
Supply	457	454
Others	876	289
TOTAL CAPITAL EXPENDITURE (CAPEX)	**10,042**	**7,643**

6.4 Key indicators by geographic area

The amounts set out below are analyzed by:

- destination of products and services sold for revenues;
- geographic location of consolidated companies for industrial capital employed.

	Revenues (1)		Industrial capital employed	
In millions of euros	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018 (2)
France	24,223	23,661	31,831	30,543
Belgium	5,894	5,098	(6,026)	(3,254)
Other EU countries	14,631	14,196	8,363	7,188
Other European countries	989	815	490	386
North America	5,273	3,838	4,419	2,881
Asia, Middle East & Oceania	3,867	4,776	3,355	3,337
South America	4,759	4,197	10,920	9,515
Africa	422	385	971	816
TOTAL	**60,058**	**56,967**	**54,325**	**51,412**

(1) Data presented at December 31, 2019 have been prepared in accordance with the new income statement presentation adopted by the Group. Comparative data at December 31, 2018 have been reclassified in accordance with this new presentation (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

NOTE 7 Revenues

7.1 Revenues

Accounting standards

Revenues from contracts with customers concern revenues from contracts that fall within the scope of IFRS 15. Revenues are recognized when the customer obtains control of goods or services promised in the contract, for the amount of consideration to which an entity expects to be entitled in exchange for said promised goods or services.

A contractual analysis of the Group's sale contracts has led to the application of the following revenue recognition principles.

- Gas, electricity and other energies

  Revenues from sales of gas, electricity and other energies are recognized upon delivery of the power to the retail, business or industrial customer.

  Power deliveries are monitored in real time or on a deferred basis for those customers whose energy consumption is metered during the accounting period, in which case the portion of not yet metered revenues "in the meter" is estimated on the closing date.

- Gas, electrical and other energy infrastructures

  Revenues derived by gas and electricity infrastructure operators upon providing transportation or distribution or storage capacities, are recognized on a straight-line basis over the contract term.

  In the countries where the Group acts as an energy provider (supplier) without being in charge of its distribution or transportation, mainly in France and Belgium, an analysis of the energy sales contracts and of the related regulatory framework is carried out to determine whether the distribution or transportation services invoiced to the customers have to be excluded from the revenues recognized under IFRS 15.

  Judgment may be exercised by the Group for this analysis in order to determine whether the energy provider acts as an agent or a principal for the gas or electricity distribution or transportation services re-invoiced to the customers. The main criteria used by the Group to exercise its judgment and conclude, in certain countries, that the energy provider acts as an agent of the infrastructure operator are as follows: who is primarily responsible for fulfillment of the distribution or transportation services? Does the energy provider have the ability to commit to capacity reservation contracts towards the infrastructure operator? To what extent does the energy provider have discretion in establishing the price for the distribution or transportation services?

- Constructions, installations, Operations and Maintenance (O&M), facility management (FM) and other services

  Constructions and installations contracts mainly concern assets built on the premises of customers such as cogeneration units, heaters or other energy-efficiency assets. The related revenues are usually recognized according to the percentage of completion on the basis of the costs incurred.

  O&M contracts generally require the Group to perform services ensuring the availability of assets generating energy. These services are performed over time and the related revenues are recognized according to the percentage of completion on the basis of the costs incurred.

  FM generally involves managing and integrating a great number of different services, outsourced by customers. The consideration due to FM suppliers can either be fixed or variable depending on the number of hours or on another indicator, irrespective of the nature of the services provided. Hence, the related revenues are recognized according to the percentage of completion on the basis of the costs incurred or of the number of hours performed.

If it is not possible to conclude from the contractual analysis that the contract falls within the scope of IFRS 15, the revenues are then accounted for as non-IFRS 15 revenues.

Revenues from other contracts, corresponding to revenues from operations that do not fall within the scope of IFRS 15, presented in the "Others" column include lease or concession income, as well as any financial component of operating services.

The table below shows a breakdown of revenues by type of accounting principles:

In millions of euros	Sales of gas	Sales of electricity and other energies	Sales of services linked to infrastructures	Constructions, installations, O&M, FM and other services	Others	Dec. 31, 2019 [1]
France excluding Infrastructures	3,207	4,160	144	8,338	5	15,854
France Infrastructures	64	1	5,265	218	22	5,569
Total France	*3,271*	*4,160*	*5,409*	*8,556*	*27*	*21,423*
Rest of Europe	3,147	6,403	331	7,323	66	17,270
Latin America	559	3,840	351	457	134	5,341
USA & Canada	465	2,734	2	1,342	3	4,545
Middle East, Asia & Africa	446	1,293	21	1,053	101	2,914
Others	3,464	3,303	130	1,050	619	8,565
TOTAL REVENUES	**11,351**	**21,732**	**6,244**	**19,781**	**949**	**60,058**

In millions of euros	Sales of gas	Sales of electricity and other energies	Sales of services linked to infrastructures	Constructions, installations, O&M, FM and other services	Others	Dec. 31, 2018 [(1)]
France excluding Infrastructures	3,164	4,040	105	7,684	5	14,998
France Infrastructures	155	-	5,092	200	3	5,450
Total France	*3,318*	*4,040*	*5,197*	*7,885*	*9*	*20,448*
Rest of Europe	3,237	6,398	410	6,845	55	16,946
Latin America	461	3,522	322	197	138	4,639
USA & Canada	592	1,858	-	900	5	3,355
Middle East, Asia & Africa	452	2,605	31	806	121	4,014
Others	3,835	2,231	117	908	473	7,565
TOTAL REVENUES	**11,895**	**20,654**	**6,077**	**17,540**	**801**	**56,967**

(1) Data presented at December 31, 2019 have been prepared in accordance with the new income statement presentation adopted by the Group. Comparative data at December 31, 2018 have been reclassified in accordance with this new presentation (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

7.2 Trade and other receivables, assets and liabilities from contracts with customers

Accounting standards

On initial recognition, trade and other receivables are recorded at their transaction price as defined in IFRS 15.

A contract asset is an entity's right to consideration in exchange for goods or services that have been transferred to a customer but for which payment is not yet due or is contingent on the satisfaction of a specific condition stipulated in the contract. When an amount becomes due, it is transferred to receivables.

A receivable is recorded when the entity has an unconditional right to consideration. A right to consideration is unconditional if only the passage of time is required before payment of that consideration.

A contract liability is an entity's obligation to transfer goods or services to a customer for which the entity has already received consideration from the customer. The liability is derecognized upon recognition of the corresponding revenue.

Trade and other receivables and assets from contracts with customers are tested for impairment in accordance with the provisions of IFRS 9 on expected credit losses.

The impairment model for financial assets is based on the expected credit loss model. To calculate expected losses, the Group uses a matrix approach for trade receivables and assets from contracts with customers, for which the change in credit risk is monitored on a portfolio basis. An individual approach is used for large customers and other large counterparties, for which the change in credit risk is monitored on an individual basis.

See Note 17 "Risks arising from financial instruments" for the Group's assessment of counterparty risk.

7.2.1 Trade and other receivables and assets from contracts with customers

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Trade and other receivables, net	15,180	15,613
Of which IFRS 15	*7,385*	*7,552*
Of which non-IFRS15	*7,795*	*8,060*
Assets from contracts with customers	7,831	7,411
Accrued income and unbilled revenues	*6,783*	*6,377*
Energy in the meter [(1) (2)]	*1,048*	*1,034*

(1) i.e. 1.7% of annual revenues.
(2) Net of advance payments.

In 2019, the segments reporting the greatest amounts of assets from contracts were France excluding Infrastructures (€2,884 million, mainly in France BtoB and BtoC), Rest of Europe (€2,708 million, mainly in Benelux, Germany and the United Kingdom) and Others (€1,017 million mainly BU GEM).

In millions of euros	Dec. 31, 2019 Gross	Dec. 31, 2019 Allowances and expected credit losses	Dec. 31, 2019 Net	Dec. 31, 2018 Gross	Dec. 31, 2018 Allowances and expected credit losses	Dec. 31, 2018 Net
Trade and other receivables, net	16,277	(1,097)	15,180	16,689	(1,076)	15,613
Assets from contracts with customers	7,848	(17)	7,831	7,419	(8)	7,411
TOTAL	**24,125**	**(1,114)**	**23,011**	**24,108**	**(1,085)**	**23,023**

Gas and electricity in the meter

For customers whose energy consumption is metered during the accounting period, the gas supplied but not yet metered at the reporting date is estimated based on historical data, consumption statistics and estimated selling prices.

For sales on networks used by a large number of grid operators, the Group is allocated a certain volume of energy transiting through the networks by the grid managers. As the final allocations are sometimes only known several months down the line, revenue figures cannot be determined with absolute certainty. However, the Group has developed measuring and modeling tools allowing it to estimate revenues with a reasonable degree of accuracy and subsequently ensure that risks of error associated with estimating quantities sold and the related revenues can be considered as immaterial.

In France and Belgium, un-metered revenues ("gas in the meter") are calculated using a direct method taking into account customers' estimated consumption based on the last invoice or metering not yet billed. These estimates are in line with the volume of energy allocated by the grid managers over the same period. The average price is used to measure "gas in the meter" and takes account of the category of customer and the age of the delivered unbilled "gas in the meter". The portion of unbilled revenues at the reporting date varies according to the assumptions about volume and average price.

"Electricity in the meter" is also determined using a direct allocation method similar to that used for gas, but taking into account specific factors related to electricity consumption. It is also measured on a customer-by-customer basis or by customer type.

Realized but not yet metered revenues ("un-metered revenues") mainly related to France and Belgium for an amount of €3,275 million at December 31, 2019 (€3,108 at December 31, 2018).

7.2.2 Liabilities from contracts with customers

In millions of euros	Dec. 31, 2019 Non-current	Dec. 31, 2019 Current	Dec. 31, 2019 Total	Dec. 31, 2018 Non-current	Dec. 31, 2018 Current	Dec. 31, 2018 Total
Liabilities from contracts with customers	45	4,286	4,330	36	3,598	3,634
Advances and downpayments received	*11*	*2,190*	*2,201*	-	*1,713*	*1,713*
Deferred revenues	*34*	*2,096*	*2,129*	*36*	*1,885*	*1,921*

In 2019, the segments reporting the greatest amounts of revenues recognized over time are France excluding Infrastructures (€2,382 million, mainly in France BtoB and BtoC) and Rest of Europe (€1,295 million, mainly in Benelux, Germany and the United Kingdom).

7.3 Revenues relating to performance obligations not yet satisfied

Revenues relating to performance obligations only partially satisfied at December 31, 2019 amounted to €16,792 million.

They mainly concern the United Kingdom (€7,441 million) and France BtoB (€5,052 million) BUs. These BUs handle a large number of construction, installation, maintenance and facility management contracts under which revenues are recognized over time. The Benelux, Tractebel Engineering and North, South and Eastern Europe BUs will also be recognizing revenues over the next three years for performance obligations satisfied over time.

NOTE 8 Operating expenses

Accounting standards

Operating expenses include:

- purchases and commodity hedges including:
  - the purchase of commodities and associated costs (infrastructure, transport, storage, etc.),
  - the realized impact, as well as the change in fair value (MtM), of commodity transactions, with or without physical delivery, that fall within the scope of IFRS 9 – *Financial Instruments* and that do not qualify as trading or hedging. These contracts are set up as part of economic hedges of operating transactions in the energy sector;
- purchases of services and other items such as subcontracting and interim expenses, lease expenses (short-term lease contracts or leases with low underlying asset value), concession expenses, etc.;
- personnel costs;
- depreciation, amortization, and provisions; and
- taxes.

8.1 Purchases and operating derivatives

In millions of euros	Dec. 31, 2019 (1)	Dec. 31, 2018 (1, 2)
Purchases and other income and expenses on operating derivatives other than trading (3)	(29,340)	(28,431)
Service and other purchases (4)	(10,609)	(10,229)
PURCHASES AND OPERATING DERIVATIVES	**(39,950)**	**(38,660)**

(1) Data presented at December 31, 2019 have been prepared in accordance with the new income statement presentation adopted by the Group. Comparative data at December 31, 2018 have been restated in accordance with this new definition (see Note 1 “Accounting framework and basis for preparing the consolidated financial statements”).

(2) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 “Accounting framework and basis for preparing the consolidated financial statements”).

(3) Of which a net expense of €426 million at December 31, 2019 relating to MtM on commodity contracts other than trading (compared to a net expense of €223 million at December 31, 2018).

(4) Of which €258 million in lease expenses, relating to short term lease contracts and leases with a low underlying asset value, accounted for in accordance with IFRS 16 at December 31, 2019 (compared to €828 million lease expenses accounted for in accordance with IAS 17 at December 31, 2018).

8.2 Personnel costs

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018
Short-term benefits		(10,933)	(9,998)
Share-based payments	21	(56)	(86)
Costs related to defined benefit plans	20.3.4	(368)	(407)
Costs related to defined contribution plans	20.4	(121)	(133)
PERSONNEL COSTS		**(11,478)**	**(10,624)**

6

8.3 Depreciation, amortization and provisions

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018 (1)
Depreciation and amortization	14 & 15	(4,497)	(3,882)
Net change in write-downs of inventories, trade receivables and other assets		(104)	-
Net change in provisions	19	208	296
DEPRECIATION, AMORTIZATION AND PROVISIONS		**(4,393)**	**(3,586)**

At December 31, 2019, depreciation and amortization mainly break down as €943 million for intangible assets and €3,554 million for property, plant and equipment.

NOTE 9 Other items of income/(Loss) from operating activities

Accounting standards

Other items of Income/(loss) from operating activities include:

- "Impairment losses" include impairment losses on goodwill, other intangible assets, property, plant and equipment and investments in entities consolidated using the equity method of accounting;
- "Restructuring costs" concern costs corresponding to a restructuring program planned and controlled by management that materially changes either the scope of a business undertaken by the entity, or the manner in which that business is conducted, based on the criteria set out in IAS 37;
- "Changes in the scope of consolidation". This line includes:
  - direct costs related to acquisitions of controlling interests,
  - in a business combination achieved in stages, remeasurement at fair value at the acquisition date of the previously held interest,
  - subsequent changes in the fair value of contingent consideration,
  - gains or losses from disposals of investments which result in a change of consolidation method, as well as any impact from the remeasurement of retained interests with the exception of gains and losses arising from transactions realized in the framework of "Develop, Build, Share & Operate" (DBSO) or "Develop, Share, Build & Operate" (DSBO) business models. These transactions on renewable activities are recognized in current operating income as they are part of the recurring rotation of the Group's capital employed;
- "Other non-recurring items" notably include gains and losses on disposals of non-current assets.

9.1 Impairment losses

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018
Impairment losses:			
Goodwill	13.1	(116)	(14)
Property, plant and equipment and other intangible assets	14 & 15	(1,735)	(1,609)
Investments in equity method entities and related provisions		-	(209)
TOTAL IMPAIRMENT LOSSES		**(1,851)**	**(1,831)**
Reversal of impairment losses:			
Property, plant and equipment and other intangible assets		61	33
Investments in equity method entities and related provisions		20	-
TOTAL REVERSALS OF IMPAIRMENT LOSSES		**81**	**33**
TOTAL		**(1,770)**	**(1,798)**

Net impairment losses amounted to €1,770 million in 2019, relating to property, plant and equipment and goodwill. After taking into account the deferred tax effects and the share of impairment losses attributable to non-controlling interests, the impact of these impairment losses on net income Group share for 2019 amounted to €1,579 million.

Impairment tests are performed in accordance with the conditions described in Note 13.3.

9.1.1 Impairment losses recognized in 2019

Net impairment losses amounted to €1,770 million in 2019 and mainly concerned:

- Belgian nuclear power assets

  As a result of continued investment in extending the operating life of the nuclear power plants to 50 years and the increase in dismantling assets related to the revision of dismantling provisions (*see Note 19.2 "Nuclear dismantling liabilities"*), the carrying amount of the nuclear power plants increased significantly in 2019 in a context of falling prices. Given the impairment losses recognized in the past (*see Note 10.2.1 to the consolidated financial statements for the year ended December 31, 2018*), nuclear assets were tested for impairment distinguishing between nuclear power plants where there is no longer any possibility of extending their operating life and those whose operating life may still be extended beyond 2025.

  In these conditions, the Group has updated its forecasts in line with the maintenance schedule for nuclear power plants reviewed for the next three years and in line with the adaptation of their management method as they approach the end of their lifetime. The Group recognized impairment losses of €1,023 million in 2019 against plants whose operating life may no longer be extended, including €639 million in respect of dismantling assets corresponding to the increase in nuclear dismantling provisions.

- Other impairment losses

  Other impairment losses recognized by the Group mainly concerned:
  - thermal power generation assets in Latin America for €165 million, following the anticipated shutdown of these plants;
  - the decision to mothball a thermal power generation asset in the Middle East for €135 million, in an unfavorable economic environment;
  - the intangible asset of €111 million corresponding to the France BtoC client portfolio value. This value was affected by the 2019 law, which enacts the end of regulated gas tariffs from 2023;
  - value adjustments of several coal-fired power plants in Germany and the Netherlands in connection with their disposal (*see Note 4.1 "Disposals carried out in 2019"*) for €148 million mainly recorded against all of the goodwill allocated to the assets sold for €108 million.

9.1.2 Impairment losses recognized in 2018

Net impairment losses amounted to €1,798 million in 2018, and mainly concerned:

- thermal power generation assets in Europe (€646 million), mainly due to the expected impact of a stricter regulatory environment for coal-fired power plants;
- Belgian nuclear power assets (€615 million), in respect of the nuclear plants whose operating life will not be extended;
- other impairment losses related to an investment in the Africa/Asia reportable segment (€209 million), gas infrastructure facilities in Europe (€87 million) and thermal power generation assets in Latin America (€71 million).

After taking into account the deferred tax effects and the share of impairment losses attributable to non-controlling interests, the impact of these impairment losses on net income Group share for 2018 amounted to €1,540 million.

9.2 Restructuring costs

In 2019, restructuring costs totaled €218 million (versus €162 million in 2018). Restructuring costs in both years mainly included costs related to staff reduction plans and measures to adapt to economic situations, as well as the shutdown of production, the closure or restructuring of certain facilities and other miscellaneous restructuring costs.

9.3 Changes in scope of consolidation

The impact of changes in the scope of consolidation in 2019 was a positive €1,604 million and mainly comprised (i) the positive impact of the sale of Glow for €1,580 million, including €143 million in respect of items of other comprehensive income recycled to the income statement (translation adjustments for €351 million and hedges for a negative €208 million).

The impact of changes in the scope of consolidation in 2018 was a negative €150 million and mainly comprised (i) the €87 million negative impact of the sale of the Loy Yang B thermal power plant in Australia, primarily in respect of items of other comprehensive income recycled to the income statement, and (ii) the €27 million negative impact of the sale of LNG operations in the United States.

9.4 Other non-recurring items

Other non-recurring items totaling a negative €1,240 million in 2019, mainly included the non-recurring impact of the nuclear provision review (back-end of the cycle) and other miscellaneous expenses for a negative €1,166 million.

In 2018, other non-recurring items totaling a negative €147 million mainly included asset scrapping, costs related to site closures and other miscellaneous expenses.

NOTE 10 Net financial income/(loss)

In millions of euros	Expense	Income	Dec. 31, 2019	Expense	Income	Dec. 31, 2018 (1)
Interest expense on gross debt and hedges	*(894)*	*-*	*(894)*	*(828)*	*-*	*(828)*
Foreign exchange gains/losses on borrowings and hedges	*-*	*30*	*30*	*-*	*4*	*4*
Ineffective portion of derivatives qualified as fair value hedges	*(3)*	*-*	*(3)*	*(3)*	*-*	*(3)*
Gains and losses on cash and cash equivalents and liquid debt instruments held for cash investment purposes	*-*	*84*	*84*	*-*	*81*	*81*
Capitalized borrowing costs	*106*	*-*	*106*	*134*	*-*	*134*
Cost of net debt	**(790)**	**114**	**(676)**	**(697)**	**85**	**(611)**
Cost of lease liabilities (2)	**(48)**	**-**	**(48)**	**(16)**	**-**	**(16)**
Cash payments made on the unwinding of swaps	*(62)*	*-*	*(62)*	*(108)*	*-*	*(108)*
Reversal of the negative fair value of these early unwound derivative financial instruments	*-*	*62*	*62*	*-*	*102*	*102*
Expenses on debt restructuring transactions	*-*	*6*	*6*	*-*	*13*	*13*
Gains/(losses) on debt restructuring and early unwinding of derivative financial instruments	**(62)**	**68**	**6**	**(108)**	**115**	**7**
Net interest expense on post-employment benefits and other long-term benefits	*(121)*	*-*	*(121)*	*(112)*	*-*	*(112)*
Unwinding of discounting adjustments to other long-term provisions	*(566)*	*-*	*(566)*	*(538)*	*-*	*(538)*
Change in fair value of derivatives not qualified as hedges and ineffective portion of derivatives qualified as cash flow hedges	*(223)*	*-*	*(223)*	*(185)*	*-*	*(185)*
Income/(loss) from debt instruments and equity instruments	*(34)*	*212*	*179*	*(84)*	*73*	*(11)*
Interest income on loans and receivables at amortized cost	*-*	*169*	*169*	*-*	*111*	*111*
Other	(457)	350	(107)	(241)	216	(25)
Other financial income and expenses	**(1,400)**	**731**	**(669)**	**(1,161)**	**400**	**(761)**
NET FINANCIAL INCOME/(LOSS)	**(2,300)**	**913**	**(1,387)**	**(1,981)**	**600**	**(1,381)**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) At December 31, 2018, the cost of lease liabilities corresponds to interest on finance leases previously classified in "Cost of net debt".

The increase in the cost of net debt was mainly due to the increasing weight of debt in Brazil in relation with the acquisition of TAG (*see Note "4.3.1 Acquisition of a 58.5% interest in Transportadora Associada de Gás S.A. (TAG) in Brazil"*) since December 31, 2018, partly offset by the positive impacts of debt financing transactions carried out by the Group and to active interest-rate management (*see Note 16.3.3 "Financial instruments – Main events of the period"*).

At December 31, 2019, the average cost of debt after hedging came out at 2.70% compared with 2.68% at December 31, 2018.

NOTE 11 Income tax expense

Accounting standards

The Group calculates taxes in accordance with prevailing tax legislation in the countries where income is taxable.

In accordance with IAS 12, deferred taxes are recognized according to the liability method on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and their tax bases, using tax rates that have been enacted or substantively enacted by the reporting date. However, under the provisions of IAS 12, no deferred tax is recognized for temporary differences arising from goodwill for which impairment losses are not deductible for tax purposes, or from the initial recognition of an asset or liability in a transaction which (i) is not a business combination and (ii) at the time of the transaction, affects neither accounting income nor taxable income. In addition, deferred tax assets are only recognized to the extent that it is probable that taxable income will be available against which the deductible temporary differences can be utilized.

A deferred tax liability is recognized for all taxable temporary differences associated with investments in subsidiaries, associates, joint ventures and branches, except if the Group is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Net balances of deferred taxes are calculated based on the tax position of each company or on the total income of companies included within the relevant consolidated tax group, and are presented in assets or liabilities for their net amount per tax entity.

Deferred taxes are reviewed at each reporting date to take into account factors including the impact of changes in tax laws and the prospects of recovering deferred tax assets arising from deductible temporary differences.

Deferred tax assets and liabilities are not discounted.

Tax effects relating to coupon payments on deeply-subordinated perpetual notes are recognized in profit or loss.

11.1 Actual income tax expense recognized in the income statement

11.1.1 Breakdown of actual income tax expense recognized in the income statement

The tax expense recognized in the income statement for 2019 amounts to €640 million (€704 million income tax expense in 2018). It breaks down as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
Current income taxes	(761)	(712)
Deferred taxes	121	9
TOTAL INCOME TAX BENEFIT/(EXPENSE) RECOGNIZED IN INCOME	**(640)**	**(704)**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

6

11.1.2 Reconciliation of theoretical income tax expense with actual income tax expense

A reconciliation of theoretical income tax expense with the Group's actual income tax expense is presented below:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [1]
Net income/(loss)	**1,649**	**1,629**
Share in net income of equity method entities	500	361
Net income from discontinued operations	-	1,069
Income tax expense	(640)	(704)
Income/(loss) before income tax expense and share in net income of associates (A)	**1,790**	**903**
Of which French companies	*285*	*1,434*
Of which companies outside France	*1,505*	*(531)*
Statutory income tax rate of the parent company (B)	34.4%	34.4%
THEORETICAL INCOME TAX EXPENSE (C) = (A) X (B)	**(616)**	**(311)**
Reconciling items between theoretical and actual income tax expense		
Difference between statutory tax rate applicable to the parent and statutory tax rate in force in jurisdictions in France and abroad	215	42
Permanent differences [2]	(23)	(72)
Income taxed at a reduced rate or tax-exempt [3]	533	123
Additional tax expense [4]	(123)	(74)
Effect of unrecognized deferred tax assets on tax loss carry-forwards and other tax-deductible temporary differences [5]	(867)	(968)
Recognition or utilization of tax income on previously unrecognized tax loss carry-forwards and other tax-deductible temporary differences [6]	212	370
Impact of changes in tax rates [7]	(55)	54
Tax credits and other tax reductions [8]	101	185
Other [9]	(16)	(53)
INCOME TAX BENEFIT/(EXPENSE) RECOGNIZED IN INCOME	**(640)**	**(704)**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) Includes mainly disallowable impairment losses on goodwill, disallowable operating expenses, the deduction of interest expenses arising from hybrid debts and effects relating to the cap on allowable interest on borrowings in France in 2018.
(3) Reflects notably capital gains on disposals of securities exempt from tax or taxed at a reduced rate in some tax jurisdictions, the impact of the specific tax regimes used by some entities, disallowable impairment losses and capital losses on securities, and the impact of untaxed income from remeasuring previously-held (or retained) equity interests in connection with acquisitions and changes in consolidation methods.
(4) Includes mainly tax on dividends resulting from the parent company tax regime, withholding tax on dividends and interest levied in several tax jurisdictions, allocations to provisions for income tax, and regional and flat-rate corporate taxes.
(5) Includes (i) the cancellation of the net deferred tax asset position for some tax entities in the absence of sufficient profit being forecast and (ii) the impact of disallowable impairment losses on fixed assets.
(6) Includes the impact of the recognition of net deferred tax asset positions for some tax entities.
(7) Includes mainly the impact of tax rate changes on deferred tax balances in France.
(8) Includes notably reversals of provisions for tax litigation, tax credits in France and other tax reductions.
(9) Includes mainly the correction of previous tax charges.

11.1.3 Analysis of the deferred tax income/(expense) recognized in the income statement, by type of temporary difference

	Impact in the income statement	
In millions of euros	Dec. 31, 2019	Dec. 31, 2018 [(1)]
Deferred tax assets:		
Tax loss carry-forwards and tax credits	572	302
Pension and related obligations	28	2
Non-deductible provisions	(137)	(77)
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(93)	(141)
Measurement of financial instruments at fair value (IAS 32 / IFRS 9)	(1,360)	845
Other	(36)	38
TOTAL	**(1,028)**	**969**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(239)	(249)
Measurement of financial instruments at fair value (IAS 32 / IFRS 9)	1,661	(751)
Other	(273)	116
TOTAL	**1,149**	**(884)**
DEFERRED TAX INCOME/(EXPENSE)	**121**	**85**
Of which continued activities	*121*	*9*

(1) *Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*

11.2 Deferred tax income/(expense) recognized in "Other comprehensive income"

Net deferred tax income/(expense) recognized in "Other comprehensive income" is broken down by component as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Equity and debt instruments	(2)	(1)
Actuarial gains and losses	256	68
Net investment hedges	12	(14)
Cash flow hedges on other items	218	71
Cash flow hedges on net debt	10	(10)
TOTAL EXCLUDING SHARE OF EQUITY METHOD ENTITIES	**494**	**114**
Share of equity method entities	81	(20)
Discontinued operations	-	(81)
TOTAL	**575**	**13**

11.3 Deferred taxes presented in the statement of financial position

11.3.1 Change in deferred taxes

Changes in deferred taxes recognized in the statement of financial position, after netting deferred tax assets and liabilities by tax entity, break down as follows:

In millions of euros	Assets	Liabilities	Net position
AT DECEMBER 31, 2018 (1)	**1,066**	**(5,415)**	**(4,349)**
IFRS 16 (*see Note 1*)	-	4	4
AT JANUARY 1, 2019 including IFRS 16	**1,066**	**(5,410)**	**(4,345)**
Impact on net income/(loss) for the year	(1,028)	1,149	121
Impact on other comprehensive income items	482	38	520
Impact of changes in scope of consolidation	(86)	29	(57)
Impact of translation adjustments	10	(27)	(17)
Other	(115)	121	7
Impact of netting by tax entity	531	(531)	-
AT DECEMBER 31, 2019	**860**	**(4,631)**	**(3,771)**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

11.3.2 Analysis of the net deferred tax position recognized in the statement of financial position (before netting deferred tax assets and liabilities by tax entity), by type of temporary difference

Accounting standards

Measurement of recognized tax loss carry-forwards

Deferred tax assets are recognized on tax loss carry-forwards when it is probable that taxable profit will be available against which the tax loss carry-forwards can be utilized. The probability that taxable profit will be available against which the unused tax losses can be utilized, is based on taxable temporary differences relating to the same taxation authority and the same taxable entity and estimates of future taxable profits. These estimates and utilizations of tax loss carry-forwards were prepared on the basis of profit and loss forecasts over a six-year tax projection period as included in the medium-term business plan validated by Management, subject to exceptions justified by a particular context and, if necessary, on the basis of additional forecasts.

	Statement of financial position at	
In millions of euros	Dec. 31, 2019	Dec. 31, 2018 (1)
Deferred tax assets:		
Tax loss carry-forwards and tax credits	2,118	1,765
Pension obligations	1,635	1,374
Non-deductible provisions	268	371
Difference between the carrying amount of PP&E and intangible assets and their tax bases	763	787
Measurement of financial instruments at fair value (IAS 32 / IFRS 9)	2,199	3,398
Other	518	545
TOTAL	**7,502**	**8,239**
Deferred tax liabilities:		
Difference between the carrying amount of PP&E and intangible assets and their tax bases	(8,953)	(8,773)
Measurement of financial instruments at fair value (IAS 32 / IFRS 9)	(1,700)	(3,343)
Other	(620)	(472)
TOTAL	**(11,273)**	**(12,588)**
NET DEFERRED TAX ASSETS/(LIABILITIES)	**(3,772)**	**(4,349)**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

11.4 Unrecognized deferred taxes

At December 31, 2019, the tax effect of tax losses and tax credits eligible for carry-forward but not utilized and not recognized in the statement of financial position amounted to €3,836 million (€3,216 million at December 31, 2018). Most of these unrecognized tax losses relate to companies based in countries which allow losses to be carried forward indefinitely (mainly Belgium and Luxembourg) or for up to nine or six years in the Netherlands depending on the year these losses were realized. These tax loss carry-forwards did not give fully or partially rise to the recognition of deferred tax due to the absence of sufficient profit forecasts in the medium term.

The tax effect of other tax-deductible temporary differences not recorded in the statement of financial position was €929 million at end-December 2019 versus €1,364 million at end-December 2018.

NOTE 12 Earnings per share

Accounting standards

Basic earnings per share is calculated by dividing net income Group share for the year by the weighted average number of ordinary shares outstanding during the year. The average number of ordinary shares outstanding during the year is the number of ordinary shares outstanding at the beginning of the year, adjusted by the number of ordinary shares bought back or issued during the year.

For the diluted earnings per share calculation, the weighted average number of shares and basic earnings per share are adjusted to take into account the impact of the conversion or exercise of any dilutive potential ordinary shares (options, warrants and convertible bonds, etc.).

In compliance with IAS 33 – *Earnings per Share*, earnings per share and diluted earnings per share are based on net income/(loss) Group share after deduction of payments to bearers of deeply-subordinated perpetual notes (*see Note 18.2.1 "Issuance of deeply-subordinated perpetual notes"*).

The Group's dilutive instruments included in the calculation of diluted earnings per share include bonus shares and performance shares granted in the form of ENGIE securities.

Numerator (in millions of euros)	Dec. 31, 2019	Dec. 31, 2018 (1)
Net income/(loss) Group share	**984**	**1,033**
Of which Net income(loss) relating to continued operations, Group share	*984*	*(12)*
Interest from deeply-subordinated perpetual notes	(165)	(145)
Net income used to calculate earnings per share	**820**	**889**
Of which Net income(loss) relating to continued operations, Group share, used to calculate earnings per share	*820*	*(156)*
Impact of dilutive instruments	-	-
Diluted net income/(loss) Group share	**820**	**889**
Denominator (in millions of shares)		
Average number of outstanding shares	**2,413**	**2,396**
Impact of dilutive instruments:		
Bonus share plans reserved for employees	*12*	*11*
Diluted average number of outstanding shares	**2,425**	**2,407**
Earnings per share (in euros)		
Basic earnings/(loss) per share	**0.34**	**0.37**
Of which Basic earnings/(loss) Group share relating to continued operations per share	*0.34*	*(0.07)*
Diluted earnings/(loss) per share	**0.34**	**0.37**
Of which Diluted earnings/(loss) Group share relating to continued operations per share	*0.34*	*(0.06)*

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

NOTE 13 Goodwill

Accounting standards

Goodwill is measured as the difference between:

- on the one hand the sum of:
  - the consideration transferred,
  - the amount of non-controlling interests in the acquire, and
  - in a business combination achieved in stages, the acquisition-date fair value of the previously held equity interest in the acquiree;
- on the other hand the net fair value of the identifiable assets acquired and liabilities assumed. The key assumptions and estimates used to determine the fair value of assets acquired and liabilities assumed include the market outlook for the measurement of future cash flows as well as applicable discount rates. These assumptions reflect management's best estimates at acquisition date.

The amount of goodwill recognized at the acquisition date cannot be adjusted after the end of the 12 month measurement period.

Goodwill relating to interests in associates is recorded under "Investments in equity method entities".

Risk of impairment

Goodwill is not amortized but tested for impairment each year in accordance with IAS 36, or more frequently where an indication of impairment is identified. Impairment tests are carried out at the level of cash-generating units (CGUs) or groups of CGUs, which constitute groups of assets which generate cash flows that are largely independent from cash flows generated by other CGUs.

Goodwill is impaired if the net carrying amount of the CGU to which the goodwill is allocated is greater than the recoverable amount of that CGU. The methods used to carry out these impairment tests are described in paragraph 13.3.

Impairment losses in relation to goodwill cannot be reversed and are shown as "Impairment losses" in the income statement.

Indicators of goodwill impairment

The main indicators of impairment used by the Group are:

- using external sources of information :
  - a decline in an asset's value over the period that is significantly more than would be expected from the passage of time or normal use,
  - significant adverse changes that have taken place over the period, or will take place in the near future, in the technological market, economic or legal environment in which the entity operates or in the market to which an asset is dedicated,
  - an increase over the period in market interest rates or other market rates of return on investments if such increase is likely to affect the discount rate used in calculating an asset's value in use and decrease its recoverable amount materially,
  - the carrying amount of the net assets of the entity exceeds its market capitalization;
- using internal sources of information :
  - evidence of obsolescence or physical damage to an asset,
  - significant changes in the extent to which, or manner in which, an asset is used or is expected to be used, that have taken place in the period or soon hereafter and that will have an adverse effect on it. These changes include the asset becoming idle, plans to dispose of an asset sooner than expected, reassessing its useful life as finite rather than indefinite or plans to restructure the operations for which the asset belong,
  - internal reports that indicate that the economic performance of an asset is, or will be, worse than expected.

13.1 Movements in the carrying amount of goodwill

In millions of euros	Net amount
AT DECEMBER 31, 2018	**17,809**
Impairment losses	(116)
Changes in scope of consolidation and Other	876
Translation adjustments	96
AT DECEMBER 31, 2019	**18,665**

Changes in the period were mainly attributable to (i) the impact of changes in the scope of consolidation primarily relating to the recognition of goodwill arising on the acquisition of Powerlines Group GmbH (€160 million), OTTO Luft-und Klimatechnik GmbH & Co (€137 million), Compañía Americana de Multiservicios (€78 million), CN'Air's Houat group (€77 million) and Pierre Guerin (€69 million), and to (ii) the recognition of an impairment loss amounting to €108 million relating to the disposal of coal-fired power plants in Germany and the Netherlands.

13.2 Goodwill CGUs

The table below shows “material” goodwill CGUs at December 31, 2019:

In millions of euros	Operating segment	Dec. 31, 2019
MATERIAL CGUs		
Benelux	Rest of Europe	4,260
GRDF	France Infrastructures	4,009
France Renewable Energy	France excl. Infrastructures	1,194
United Kingdom	Rest of Europe	1,115
OTHER SIGNIFICANT CGUs		
France BtoB	France excl. Infrastructures	1,052
France BtoC	France excl. Infrastructures	1,046
North America	USA & Canada	986
Northern, Southern and Central Europe	Rest of Europe	818
GRTgaz	France Infrastructures	614
Generation Europe	Rest of Europe	521
OTHER CGUs		**3,051**
TOTAL		**18,665**

13.3 Impairment testing of goodwill CGUs

All goodwill CGUs are tested for impairment based on data as of end-June, plus a review of events arisen in the second half of the year. In most cases, the recoverable amount of CGUs is determined by reference to a value in use that is calculated using cash flow projections drawn up on the basis of the 2020 budget and the 2021-2022 medium-term business plan, as approved by the Executive Committee and the Board of Directors, and on extrapolated cash flows beyond that time frame.

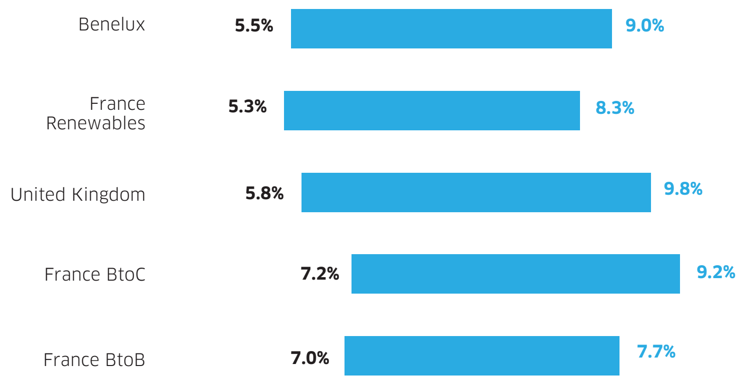
Cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price forecasts resulting from the Group’s reference scenario for 2023-2040. The forecasts that feature in the reference scenario were approved by the Executive Committee in December 2019. The forecasts and projections included in the reference scenario were determined on the basis of the following inputs:

- forward market prices over the liquidity period for fuel (coal, oil and gas), CO_2 and electricity on each market;
- beyond this period, medium- and long-term energy prices were determined by the Group based on macroeconomic assumptions and fundamental supply and demand equilibrium models, the results of which are regularly compared against forecasts prepared by external energy sector specialists. Long-term projections for CO_2 are in line with the 2050 targets of climate neutrality set by the European commission as part of the “green deal” published in December 2019. More specifically, medium- and long-term electricity prices were determined by the Group using electricity demand forecasting models, medium- and long-term forecasts of fuel and CO_2 prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

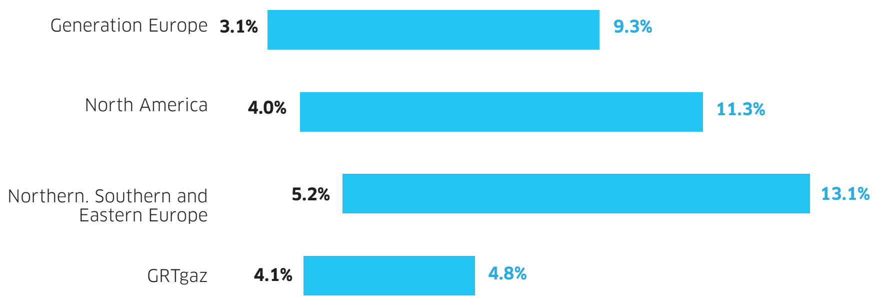
Discount rate

The discount rates used correspond to the weighted average cost of capital, which is adjusted in order to reflect the business, market, country and currency risk relating to each goodwill CGU reviewed. The discount rates used are consistent with available external information sources. The post-tax rates used in 2019 to measure the value in use of the goodwill CGUs for discounting future cash flows ranged between 3.1% and 13.1%, compared with a range of between 3.7% and 11.3% in 2018. The discount rates used for the main goodwill CGUs are shown below:

Significant CGUs



Other significant CGUs (1)



(1) The valuation methods used are the discounted cash flows (DCF) method and the discounted dividend model (DDM) method.

13.3.1 Material CGUs

This section presents the method for determining value in use, the key assumptions underlying the valuation, and the sensitivity analyses for the impairment tests on the Group's main goodwill CGUs at December 31, 2019.

13.3.1.1 Benelux CGU

The goodwill allocated to the Benelux CGU amounted to €4,260 million at December 31, 2019. The Benelux CGU includes the Group's activities in Belgium, the Netherlands and Luxembourg: (i) power generation activities using its nuclear power plants and wind farms, (ii) natural gas and electricity sales activities, and (iii) energy services activities, as well as drawing rights on the Chooz B and Tricastin power plants in France.

Key assumptions used for the impairment test

The cash flow projections for the Benelux CGU are based on a large number of key assumptions, such as the long-term prices for fuel and CO_2, expected trends in gas and electricity demand and in electricity prices, the market outlook, and changes in the regulatory environment (especially concerning nuclear capacities in Belgium and the extension of drawing rights agreements for French nuclear plants). The key assumptions also include the discount rate used to calculate the value in use of this goodwill CGU.

Cash flow projections for the period beyond the medium-term business plan were determined as described below:

Activities	Assumptions applied beyond the term of the business plan (1)
Nuclear power generation in Belgium	For Doel 1, Doel 2 and Tihange 1, cash flow projection over the residual useful life of 50 years. For the second generation reactors Doel 3 and Tihange 2, cash flow projection over the residual useful life of 40 years. For the second generation reactors Doel 4 and Tihange 3, extension of the operating life for a period of 20 years.
Drawing rights on Chooz B et Tricastin power plants	Cash flow projection over the remaining term of existing contract plus assumption that drawing rights will be extended for a further 10 years.
Energy retail and service activities	Cash flow projection over the duration of the business plan at mid-term, plus application of a terminal value based on a normative cash flow using a long-term growth rate of 1.9%

(1) Assumptions unchanged from December 31, 2018.

The most important assumptions concerning the Belgian regulatory environment relate to the operating life of existing nuclear reactors and the level of royalties and nuclear contributions paid to the Belgian State.

The impairment test took into account the 10-year extension (through 2025) of the operating life of Tihange 1, Doel 1 and Doel 2, annual royalties totaling €20 million in respect of said extension and the new conditions for determining the nuclear contribution that will apply to second-generation reactors (Doel 3 and 4, Tihange 2 and 3) through their 40th year of operation, as defined in the December 29, 2016 law.

As regards second-generation reactors, the principle of a gradual phase-out of nuclear power and the schedule for this phase-out, with the shutdown of the reactors Doel 3 in 2022, Tihange 2 in 2023 and Tihange 3 and Doel 4 in 2025, after 40 years of operation, were reaffirmed in the law of June 18, 2015 and by the energy pact approved by the government on March 30, 2018. The pact is supplemented by a federal energy strategy based on four objectives: the safeguarding of supplies, the impact on climate, the impact on energy prices, and the safety of power plants. A monitoring committee has been set up to evaluate the achievement of these objectives and, where applicable, make recommendations to policymakers so that corrective action may be taken.

However, in view of (i) the extension of the operating life of Tihange 1, Doel 1 and Doel 2 beyond 40 years, (ii) the importance of nuclear power generation in the Belgian energy mix, (iii) the lack of a sufficiently detailed and attractive industrial plan enticing energy utilities to invest in replacement thermal capacity, and (iv) CO_2 emissions reduction targets, the Group considers that nuclear power will still be needed to guarantee the energy equilibrium in Belgium after 2025. Accordingly, in calculating value in use, the Group assumes a 20-year extension of the operating life of half of its second-generation reactors, while taking into account a mechanism of nuclear contributions to be paid to the Belgian government. Should the circumstances described above change in the future, the Group may adapt its industrial scenarios accordingly.

In France, the Nuclear Safety Authority authorized a fourth 10-yearly inspection for the Tricastin nuclear power plants, allowing a 10-year extension of the operating life of these reactors. The Group therefore included an assumption that its drawing rights on the Tricastin and Chooz B nuclear plants expiring in 2021 and 2037, respectively, would be extended by 10 years. This extension assumption had also been taken into account in 2018 as the Group considered that extending the reactors' operating life was the most credible and likely scenario at this point in time. This was also consistent with the expected French energy mix featured in the Group's reference scenario.

Results of the impairment test

At December 31, 2019, the recoverable amount of the goodwill CGU was higher than its carrying amount. Furthermore, the Group recognized impairment losses of €1,022 million against nuclear reactors (see Note 9.1 "Impairment losses"), including €638 million on dismantling assets for nuclear facilities whose operating life may no longer be extended, the recognition of which follows the triennial review of nuclear provisions (*see Note 19.2 "Nuclear power generation activities"*).

Sensitivity analyses

A decrease of €10/MWh in electricity prices for nuclear power generation would lead to an additional impairment loss of around €0.5 billion. Conversely, an increase of €10/MWh in electricity prices would have a positive impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU.

An increase of 50 basis points in the discount rates used would have a negative 54% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 57% impact on the calculation.

Various transformational scenarios were considered concerning nuclear power generation in Belgium:

- the disappearance of the entire nuclear component from the portfolio in 2025 after 50 years of operation in the case of Tihange 1, Doel 1 and Doel 2, and 40 years of operation for the second-generation reactors would have a strongly adverse impact on the results of the test, with the recoverable amount falling significantly below the carrying amount. In this scenario, the impairment risk would represent around €1.5 billion;
- if the life of half of the second-generation reactors were to be extended by ten years and the entire nuclear component subsequently disappear, the recoverable amount would fall below the carrying amount and the impairment risk would represent €0.6 billion.

13.3.1.2 GRDF CGU

The total amount of goodwill allocated to the GRDF CGU was €4,009 million at December 31, 2019. The GRDF CGU groups together the Group's regulated natural gas distribution activities in France.

The terminal value used to calculate the value in use corresponds to the expected Regulated Asset Base (RAB) with no premium at the end of 2025. The RAB is the value assigned by the French Energy Regulation Commission (CRE) to the assets operated by the distributor. It is the sum of the future pre-tax cash flows, discounted at a rate that equals the pre-tax rate of return guaranteed by the regulator.

The cash flow projections are drawn up based on the tariff for public natural gas distribution networks, known as the "ATRD 6 tariff", which will enter into effect for a period of four years on July 1, 2020, and on the overall level of investments agreed by the CRE as part of its decision on the "ATRD 5 tariff".

Given the regulated nature of the businesses grouped within the GRDF CGU, a reasonable change in any of the valuation inputs would not result in impairment losses.

13.3.1.3 France Renewable Energy CGU

The goodwill allocated to the France Renewable Energy CGU amounted to €1,194 million at December 31, 2019. The France Renewable Energy CGU groups together the development, construction, financing, operation and maintenance of all of the renewable power generation assets in France (hydraulic, wind and photovoltaic).

For the hydraulics business, the terminal value was determined to calculate the value in use by extrapolating the cash flows beyond that period based on the reference scenario adopted by the Group.

The main assumptions and key estimates relate primarily to discount rates, assumptions on the renewal of the hydropower concession agreements and changes in the sales prices of electricity beyond the liquidity period.

Value in use of the Compagnie Nationale du Rhône and SHEM was calculated based on assumptions including the extension or renewal of a tender process for the concession agreements, as well as on the conditions of a potential extension.

The cash flows for the periods covered by the renewal of the concession agreements are based on a number of assumptions relating to the economic and regulatory conditions for operating these assets (royalty rates, required level of investment, etc.) during this period.

A decrease of €10/MWh in electricity prices for hydropower generation would have a negative 73% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of €10/MWh in electricity prices would have a positive 71% impact on the calculation.

An increase of 50 basis points in the discount rates used would have a negative 48% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 65% impact on the calculation.

If the Compagnie Nationale du Rhône hydropower concession agreements are not renewed beyond 2023, this would have a strong adverse impact on the results of the test, with the recoverable amount falling significantly below the carrying amount. In this scenario, the impairment risk would represent around €1.3 billion.

13.3.1.4 United Kingdom CGU

The goodwill allocated to the United Kingdom CGU amounted to €1,115 million at December 31, 2019. The United Kingdom CGU includes activities in (i) renewable power generation (hydraulic, wind and solar), (ii) gas and electricity sales, and (iii) services to individual and professional customers in the United Kingdom.

The terminal value used to calculate the value in use of the services and energy sales businesses was determined by extrapolating the cash flows beyond that period using a long-term growth rate of 2% per year.

The main assumptions and key estimates relate primarily to discount rates and changes in price beyond the liquidity period.

An increase of 50 basis points in the discount rates used would have a negative 52% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 40% impact on the calculation.

A decrease of 10% in the margin captured by power generation assets would have a negative 21% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. An increase of 10% in the margin captured would have a positive 21% impact on this calculation.

13.3.2 Other significant CGUs

13.3.2.1 North America CGU

The goodwill allocated to the North America CGU amounted to €986 million at December 31, 2019. The North America CGU mainly comprises:

- Canada, which includes activities in (i) renewable power generation (wind and biomass), (ii) services to individual and professional customers;
- the United States, which includes activities in (i) gas and electricity sales, (ii) services to individual and professional customers and (iii) thermal power generation;
- Puerto Rico, which includes an investment in EcoElectrica, a key energy industry player in Puerto Rico's economy (*see Note 3.2 "Investments in joint ventures"*). Despite the difficult financial environment in Puerto Rico, ENGIE does not have any information at December 31, 2019 on the basis of which the Group would modify its valuation assumptions regarding its share in these assets.

The wind and solar energy production activities acquired in the United States in 2018 make up an independent goodwill CGU.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2020 budget and the 2021-2022 medium-term business plan. A terminal value was calculated for the services and energy sales businesses using EBITDA multiples as a basis.

The main assumptions and key estimates relate primarily to discount rates and changes in captured margins beyond the liquidity period.

An increase of 50 basis points in the discount rates used would have a negative impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive impact on the calculation.

A decrease of 10% in the margin on gas and electricity sales activities would have a negative 18% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of 10% in the margin on gas and electricity sales activities would have a positive 18% impact on the calculation.

A decrease of 10% in service activities would have a negative 8% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. Conversely, an increase of 10% in the margin on gas and electricity sales activities would have a positive 8% impact on the calculation.

13.3.2.2 Generation Europe CGU

The goodwill allocated to the Generation Europe CGU amounted to €521 million at December 31, 2019. The Generation Europe CGU groups together the thermal power generation activities in Europe.

The value in use of these activities was calculated using the cash flow projections drawn up on the basis of the 2020 budget and the 2021-2022 medium-term business plan. Beyond this three-year period, cash flows were projected over the useful lives of the assets based on the reference scenario adopted by the Group.

The main assumptions and key estimates relate primarily to discount rates, estimated demand for electricity and changes in the price of CO_2, fuel and electricity beyond the liquidity period.

Results of the impairment test

At December 31, 2019, the recoverable amount of the Generation Europe goodwill CGU was higher than its carrying amount.

Sensitivity analyses

An increase of 50 basis points in the discount rates used would have a negative 15% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. A reduction of 50 basis points in the discount rates used would have a positive 18% impact on the calculation.

A decrease of 10% in the margin captured by thermal power plants would have a negative 24% impact on the excess of the recoverable amount over the carrying amount of the goodwill CGU. However, the recoverable amount would remain above the carrying amount. An increase of 10% in the margin captured would have a positive 24% impact on this calculation.

13.3.2.3 Other significant goodwill CGUs

For the other significant goodwill CGUs, there is a considerable difference between their recoverable amount and their carrying amount at December 31, 2019.

13.4 Goodwill segment information

The carrying amount of goodwill can be analyzed as follows by reportable segment:

In millions of euros	**Dec. 31, 2019**
France excluding Infrastructures	3,705
France Infrastructures	5,006
Rest of Europe	6,713
Latin America	820
USA & Canada	1,103
Middle East, Asia & Africa	741
Others	576
TOTAL	**18,665**

NOTE 14 Intangible assets

Accounting standards

Initial measurement

Intangible assets are carried at cost less any accumulated amortization and any accumulated impairment losses.

Amortization

Intangible assets are amortized on the basis of the expected pattern of consumption of the estimated future economic benefits embodied in the asset. Amortization is calculated mainly on a straight-line basis over the following useful lives:

	Useful life	
Main depreciation periods (years)	**Minimum**	**Maximum**
Concession rights	10	30
Customer portfolio	10	40
Other intangible assets	1	50

Intangible assets with an indefinite useful life are not amortized but are tested for impairment annually.

Risk of impairment

In accordance with IAS 36, impairment tests are carried out on items of property, plant and equipment and intangible assets where there is an indication that the assets may be impaired. Such indications may be based on events or changes in the market environment, or on internal sources of information. Intangible assets that are not amortized are tested for impairment annually.

Impairment indicators

Property, plant and equipment and intangible assets with finite useful lives are only tested for impairment when there is an indication that they may be impaired. This is generally the result of significant changes in the environment in which the assets are operated or when economic performance is lower than expected.

Main impairment indicators used by the Group are described in Note 13 "Goodwill".

Impairment

Items of property, plant and equipment and intangible assets are tested for impairment at the level of the individual asset or cash-generating unit (CGU), as appropriate and, determined in accordance with IAS 36. If the recoverable amount of an asset is lower than its carrying amount, the carrying amount is written down to the recoverable amount by recording an impairment loss. Upon recognition of an impairment loss, the depreciable amount and possibly the useful life of the asset concerned is revised.

Impairment losses recorded in relation to property, plant and equipment or intangible assets may be subsequently reversed if the recoverable amount of the asset increases to exceed the carrying amount. The increased carrying amount of an item of property, plant or equipment following the reversal of an impairment loss may not exceed the carrying amount that would have been determined (net of depreciation/amortization) had no impairment loss been recognized in prior periods.

Measurement of recoverable amount

In order to review the recoverable amount of property, plant and equipment and intangible assets, the assets are grouped, where appropriate, into CGUs and the carrying amount of each CGU is compared with its recoverable amount.

For operating entities which the Group intends to hold on a long-term and going concern basis, the recoverable amount of a CGU corresponds to the higher of its fair value less costs to sell and its value in use. Value in use is primarily determined based on the present value of future operating cash flows including a terminal value. Standard valuation techniques are used based on the following main economic assumptions:

- market perspectives and developments in the regulatory framework;
- discount rates based on the specific characteristics of the operating entities concerned;
- terminal values in line with available market data specific to the operating segments concerned and growth rates associated with these terminal values, not to exceed the inflation rate.

Discount rates are determined on a post-tax basis and applied to post-tax cash flows. The recoverable amounts calculated on the basis of these discount rates are the same as the amounts obtained by applying the pre-tax discount rates to cash flows estimated on a pre-tax basis, as required by IAS 36.

For operating entities which the Group has decided to sell, the related recoverable amount of the assets concerned is based on market value less costs of disposal. Where negotiations are ongoing, this value is determined based on the best estimate of their outcome as of the reporting date.

In the event of a decline in value, the impairment loss is recorded in the consolidated income statement under "Impairment losses".

Intangible rights arising on concession contracts

IFRIC 12 – *Service concession arrangements* deals with the treatment to be applied by the concession operator in respect of certain concession arrangements.

For a concession arrangement to fall within the scope of IFRIC 12, usage of the infrastructure must be controlled by the concession grantor. This requirement is satisfied when the following two conditions are met:

- the grantor controls or regulates what services the operator must provide with the infrastructure, to whom it must provide them, and at what price; and

- the grantor controls any residual interest in the infrastructure at the end of the term of the arrangement, for example retains the right to take back the infrastructure at the end of the concession.

The intangible asset model according to paragraph 17 of IFRIC 12 applies if the operator receives a right (a license) to charge the users, or the grantor, depending on the use made of the public service. There is no unconditional right to receive cash as the amounts depend on the extent to which the public uses the service.

Concession infrastructures that do not meet the requirements of IFRIC 12 are presented as property, plant and equipment. This is the case of gas distribution infrastructures in France. The related assets are recognized in accordance with IAS 16, given that GRDF operates its network under long-term concession arrangements, most of which are mandatorily renewed upon expiration pursuant to French law No. 46-628 of April 8, 1946.

Research and development costs

Research costs are expensed as incurred.

Development costs are capitalized when the asset recognition criteria set out in IAS 38 are met. Capitalized development costs are amortized over the useful life of the intangible asset recognized.

14.1 Movements in intangible assets

In millions of euros	Intangible rights arising on concession contracts	Capacity entitlements	Others	Total
GROSS AMOUNT				
AT DECEMBER 31, 2018 [(1)]	**3,753**	**2,719**	**11,000**	**17,472**
IFRS 16 (*see Note 1*)	(12)	-	-	(12)
AT JANUARY 1, 2019 with IFRS 16	**3,741**	**2,719**	**11,000**	**17,460**
Acquisitions	152	-	1,120	1,271
Disposals	(13)	(17)	(135)	(165)
Translation adjustments	(3)	-	36	33
Changes in scope of consolidation	(26)	-	5	(21)
Transfer to “Assets classified as held for sale”	-	-	2	2
Other	(14)	160	(43)	103
AT DECEMBER 31, 2019	**3,838**	**2,862**	**11,984**	**18,684**
ACCUMULATED AMORTIZATION AND IMPAIRMENT				
AT DECEMBER 31, 2018 [(1)]	**(1,550)**	**(2,087)**	**(7,117)**	**(10,754)**
IFRS 16 (*see Note 1*)	5	-	-	5
AT JANUARY 1, 2019 with IFRS 16	**(1,545)**	**(2,087)**	**(7,117)**	**(10,749)**
Amortization	(138)	(65)	(741)	(943)
Impairment	(14)	-	(128)	(142)
Disposals	12	17	62	91
Translation adjustments	1	-	(20)	(19)
Changes in scope of consolidation	26	-	119	145
Transfer to “Assets classified as held for sale”	-	-	-	-
Other	2	-	(31)	(29)
AT DECEMBER 31, 2019	**(1,656)**	**(2,135)**	**(7,855)**	**(11,646)**
CARRYING AMOUNT				
AT DECEMBER 31, 2018 [(1)]	**2,204**	**632**	**3,883**	**6,718**
AT DECEMBER 31, 2019	**2,182**	**727**	**4,129**	**7,038**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 “Accounting framework and basis for preparing the consolidated financial statements”).

In 2019, the net increase in “Intangible assets” was mainly attributable to investments for a total of €1,271 million, partially offset by amortization for a total of €943 million. Changes in scope of consolidation of €124 million relate mainly to the acquisition of OTTO Luft-und Klimatechnik GmbH & Co for €26 million, of the energy services companies Conti in North America for €34 million and of Certinergy for €51 million.

14.1.1 Impairment

At December 31, 2019, this caption notably relates to impairment losses recognized on Customer relationship in France following the adoption of the law enacting the end of regulated sales tariffs and rising rates of portfolio attrition for €111 million.

14.1.2 Capacity entitlements

The Group has acquired capacity entitlements from power stations operated by third parties. These power station capacity rights were acquired in connection with transactions or within the scope of the Group's involvement in financing the construction of certain power stations. In consideration, the Group received the right to purchase a share of the production over the useful life of the underlying assets. These rights are amortized over the useful life of the underlying assets, not to exceed 50 years. The Group currently holds entitlements in the Chooz B and Tricastin power plants in France and in the virtual power plant (VPP) in Italy.

14.1.3 Other

At December 31, 2019, this caption mainly relates to software and licenses for €1,218 million, as well as intangible assets in progress for €636 million and intangible assets (client portfolio) acquired as a result of business combinations and capitalized acquisition costs for customer contracts for €2,007 million.

14.2 Information regarding research and development costs

Research and development activities primarily relate to various studies regarding technological innovation, improvements in plant efficiency, safety, environmental protection, service quality, and the use of energy resources.

Research and development costs, excluding technical assistance costs, totaled €189 million in 2019, of which €23 million in expenses related to in-house projects in the development phase that meet the criteria for recognition as an intangible asset as defined in IAS 38.

NOTE 15 Property, plant and equipment

Accounting standards

Initial recognition and subsequent measurement

Items of property, plant and equipment are recognized at historical cost less any accumulated depreciation and any accumulated impairment losses.

The carrying amount of these items is not revalued as the Group has elected not to apply the allowed alternative method, which consists of regularly revaluing one or more categories of property, plant and equipment.

Investment subsidies are deducted from the gross value of the assets concerned.

In accordance with IAS 16, the initial cost of the item of property, plant and equipment includes an initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, when the entity has a present, legal or constructive obligation to dismantle the item or restore the site. A corresponding provision for this obligation is recorded for the amount of the asset component.

Borrowing costs that are directly attributable to the construction of the qualifying asset are capitalized as part of the cost of that asset.

Leases

Until December 31, 2018, only leases classified as finance leases for which the Group acts as a lessee, were recorded as an asset in the balance sheet in accordance with the principles of IAS 17 – *Leases*. A lease qualifies as a finance lease when all the risks and rewards incidental to the ownership of the related asset are substantially transferred to the lessee.

As indicated in Note 1.1.1 "IFRS Standards, amendments or IFRIC interpretations applicable in 2019" from January 1, 2019 the Group applies IFRS 16 – *Leases* to account for lease contracts where the Group acts as a lessee.

In accordance with IFRS 16, the Group recognizes a right-of-use asset and a corresponding lease liability with respect to contracts considered as a lease in which the Group acts as lessee, except for leases with a term of 12 months or less ("short-term leases"), and leases for which the underlying asset is of a low value ("low-value asset"). Payments associated with these leases are recognized on a straight-line basis as expenses in profit and loss. The lease contracts in the Group mainly concern real estate, vehicles and other equipment.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The lease liability is initially measured at the present value of the remaining lease payments, discounted using the lessee's incremental borrowing rate. This rate is calculated based on the Group's incremental borrowing rate adjusted in accordance with IFRS 16, taking into account (i) the economic environment of the subsidiaries, and in particular their credit risk, (ii) the currency in which the contract is concluded and (iii) the duration of the contract at inception (or the remaining duration for contracts existing upon the initial application of IFRS 16). The methodology applied to determine the incremental borrowing rate reflects the profile of the lease payments (duration method).

The lease term is assessed, including whether a renewal option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised, on a case-by-case basis. The lease term is reassessed if a significant event or a significant change in circumstances that is within the control of the lessee occurs and may affect the assessment made. In determining the enforceable period of a lease, the Group applies a broad interpretation of the term penalty and takes into consideration, not only contractual penalties arising from termination, but also ancillary costs that could arise in case of an early termination of the lease.

Cushion gas

"Cushion" gas injected into underground storage facilities is essential for ensuring that reservoirs can be operated effectively, and is therefore inseparable from these reservoirs. Unlike "working" gas which is included in inventories (*see Note 24.2 "Inventories"*), cushion gas is reported in other property, plant and equipment.

Depreciation

In accordance with the components approach, each significant component of an item of property, plant and equipment with a different useful life from that of the main asset to which it relates is depreciated separately over its own useful life.

Property, plant and equipment is depreciated mainly using the straight-line method over the following useful lives:

	Useful life	
Main depreciation periods (years)	**Minimum**	**Maximum**
Plant and equipment		
• Storage – Production – Transport – Distribution	5	60 (*)
• Installation – Maintenance	3	10
• Hydraulic plant and equipment	20	65
Other property, plant and equipment	2	33

(*) Excluding cushion gas.

The range of useful lives is due to the diversity of the assets in each category. The minimum periods relate to smaller equipment and furniture, while the maximum periods concern network infrastructures and storage facilities. In accordance with the law of January 31, 2003 adopted by the Belgian Chamber of Representatives with respect to the gradual phase-out of nuclear energy for the industrial production of electricity, the useful lives of nuclear power stations were reviewed and adjusted prospectively to 40 years as from 2003, except for Tihange 1, Doel 1 and Doel 2 for which the operating lives have been extended by 10 years.

Fixtures and fittings relating to hydro plants operated by the Group are depreciated over the shorter of the contract term and the useful life of the assets, taking into account the renewal of the concession period if such renewal is considered to be reasonably certain.

The right-of-use asset related to leases is depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term. In that case the right-of-use asset is depreciated over the useful life of the underlying asset, which is determined on the same basis as that used for property, plant and equipment mentioned above.

Risk of impairment

See Note 14 "Intangible assets".

Impairment indicators

See Note 13 "Goodwill".

15.1 Movements in property, plant and equipment

In millions of euros	Land	Buildings	Plant and equipment	Vehicles	Dismantling costs	Assets in progress	Right of use	Other	Total
GROSS AMOUNT									
AT DECEMBER 31, 2018 (1)	**671**	**5,676**	**81,615**	**419**	**2,444**	**5,469**	**-**	**1,015**	**97,309**
IFRS 16 (*see Note 1*)	-	(230)	(1,161)	(2)	-	-	3,402	223	2,233
AT JANUARY 1, 2019 with IFRS 16	**670**	**5,446**	**80,455**	**417**	**2,444**	**5,469**	**3,402**	**1,239**	**99,541**
Acquisitions/Increases	6	26	596	55	1,124	4,801	539	102	7,250
Disposals	(18)	(61)	(371)	(19)	-	(18)	(78)	(47)	(611)
Translation adjustments	1	29	73	1	1	51	22	7	186
Changes in scope of consolidation	2	(308)	(3,924)	17	(56)	(41)	(43)	21	(4,332)
Transfer to "Assets classified as held for sale"	(2)	-	(100)	-	-	(276)	-	-	(378)
Other	38	357	5,129	(4)	(17)	(5,815)	40	94	(178)
AT DECEMBER 31, 2019	**698**	**5,490**	**81,857**	**467**	**3,496**	**4,172**	**3,882**	**1,417**	**101,478**
ACCUMULATED DEPRECIATION AND IMPAIRMENT									
AT DECEMBER 31, 2018 (1)	**(130)**	**(3,175)**	**(42,270)**	**(290)**	**(1,418)**	**(367)**	**-**	**(742)**	**(48,392)**
IFRS 16 (*see Note 1*)	-	83	222	-	-	-	(356)	(33)	(85)
AT JANUARY 1, 2019 with IFRS 16	**(130)**	**(3,092)**	**(42,049)**	**(289)**	**(1,418)**	**(367)**	**(356)**	**(775)**	**(48,476)**
Depreciation	(8)	(124)	(2,630)	(49)	(161)	-	(468)	(114)	(3,554)
Impairment	(2)	(12)	(729)	(1)	(662)	(35)	(91)	(1)	(1,532)
Disposals	3	53	273	16	-	2	65	42	455
Translation adjustments	-	(3)	(49)	(1)	(1)	-	(3)	(1)	(58)
Changes in scope of consolidation	2	302	3,077	(5)	38	1	7	(8)	3,414
Transfer to "Assets classified as held for sale"	-	-	7	-	-	-	-	-	7
Other	-	(119)	377	9	(19)	43	(22)	(44)	225
AT DECEMBER 31, 2019	**(134)**	**(2,995)**	**(41,722)**	**(320)**	**(2,223)**	**(357)**	**(868)**	**(901)**	**(49,520)**
CARRYING AMOUNT									
AT DECEMBER 31, 2018 (1)	**541**	**2,501**	**39,345**	**129**	**1,026**	**5,102**	**-**	**273**	**48,917**
AT DECEMBER 31, 2019	**564**	**2,495**	**40,135**	**147**	**1,273**	**3,815**	**3,014**	**515**	**51,958**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

In 2019, the net increase in "Property, plant and equipment" essentially takes into account:

- maintenance and development investments for a total amount of €5,587 million mainly related to the construction and the development of wind and solar farms in the United States, in Latin America and in India, as well as the extension of the transportation and distribution networks in the France Infrastructure segment;
- changes in the scope of consolidation amounting to a negative €918 million, predominantly related to DBSO [(1)] activities relating to wind farms in the United States (negative €234 million), in Mexico (negative €137 million) and in France (negative €195 million), the disposal of the active solar installations of the company Langa (negative €256 million), and the disposal of the coal-fired power plants in Germany and the Netherlands (a negative €280 million), partially offset by the acquisition of a biomethane project in France (positive €92 million);
- positive net translation adjustments of €128 million, mainly resulting from the US dollar (positive impact of €129 million), the pound sterling (positive impact of €87 million) and the Brazilian real (negative impact of €75 million);
- partly offset by depreciation for a total negative impact of €3,554 million;
- the classification under "Assets held for sale" of solar fields in Mexico (negative €285 million) and assets in the renewable energies in France (negative €87 million);
- impairment losses amounting to €1,532 million mainly related to:
  - Belgian nuclear power assets for a negative €1,022 million (*see Note 9.1.1 "Impairment losses recognized in 2019"*),
  - the disposal of various coal-fired power plants in the Netherlands and in Germany for a negative €148 million, €108 million of which charged to the entire goodwill allocated to "assets held for sale" and €40 million to property, plant and equipment,
  - the coal-fired power plants in Latin America for a negative €165 million due to the planned disconnection and discontinuation of operations of two coal-based energy generation units in Chile combined with the commitment to gradually decommission of coal-fired plants in Chile,
  - the gas-steam turbines in the Middle-East, Asia & Africa reportable segment for which a permanent mothballing strategy is adopted due to the poor economic context for a negative €135 million.

15.2 Pledged and mortgaged assets

Items of property, plant and equipment pledged by the Group to guarantee borrowings and debt amounted to €2,261 million at December 31, 2019 compared to €1,298 million at December 31, 2018.

The increase mainly relates to thermoelectric and wind assets in Brazil for €950 million and renewable assets in France for €46 million.

15.3 Contractual commitments to purchase property, plant and equipment

In the ordinary course of their operations, some Group companies have entered into commitments to purchase, and the related third parties to deliver, property, plant and equipment. These commitments relate mainly to orders for equipment, and material related to the construction of energy production units and to service agreements.

Investment commitments made by the Group to purchase property, plant and equipment totaled €1,384 million at December 31, 2019 compared to €1,415 million at December 31, 2018.

15.4 Other information

Borrowing costs for 2019 included in the cost of property, plant and equipment amounted to €106 million at December 31, 2019 compared to €134 million at December 31, 2018.

(1) *Develop, Build, Share & Operate.*

NOTE 16 Financial instruments

16.1 Financial assets

Accounting standards

In accordance with the principles of IFRS 9 – *Financial Instruments*, financial assets are recognized and measured either at amortized cost, at fair value through equity or at fair value through profit or loss based on the following two criteria:

- a first criterion relating to the contractual cash flows characteristics of the financial asset. The analysis of contractual cash flow characteristics makes it possible to determines whether these cash flows are "only payments of principal and interest on the outstanding amounts" (known as "SPPI" test or Solely Payments of Principal and Interest);
- a second criterion relating to the business model used by the Group to manage its financial assets. IFRS 9 defines three different business models. A first business model whose objective is to hold assets in order to collect contractual cash flows (hold to collect), a second model whose objective is achieved by both collecting contractual cash flows and selling financial assets (hold to collect and sell) and other business models.

The identification of the business model and the analysis of the contractual cash flows characteristics require judgment to ensure that the financial assets are classified in the appropriate category.

Where the financial asset is an investment in an equity instrument and is not held for trading, the Group may irrevocably elect to present the gains and losses on that investment in other comprehensive income.

Except for trade receivables, which are measured at their transaction price in accordance with IFRS 15, financial assets are measured, on initial recognition, at fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to their acquisition.

At the end of each reporting period, financial assets measured using the amortized cost method or at fair value through other comprehensive income (with a recycling mechanism) are subject to an impairment test based on the expected credit losses method.

Financial assets also include derivatives that are measured at fair value in accordance with IFRS 9.

In accordance with IAS 1, the Group presents current and non-current assets and current and non-current liabilities separately in the statement of financial position. In view of the majority of the Group's activities, it was considered that the criterion to be used to classify assets is the expected time to realize the asset or settle the liability: the asset is classified as current if this period is less than 12 months and as non-current if it is more than 12 months after the reporting period.

The following table presents the Group's different categories of financial assets, broken down into current and non-current items:

		Dec. 31, 2019			Dec. 31, 2018		
In millions of euros	Notes	Non-current	Current	Total	Non-current	Current	Total
Other financial assets	16.1	7,022	2,546	9,567	6,193	2,290	8,483
Equity instruments at fair value through other comprehensive income		*921*	*-*	*921*	*742*	*-*	*742*
Equity instruments at fair value through income		*377*	*-*	*377*	*365*	*-*	*365*
Debt instruments at fair value through other comprehensive income (1)		*1,072*	*77*	*1,149*	*1,108*	*840*	*1,947*
Debt instruments at fair value through income		*871*	*397*	*1,268*	*600*	*233*	*832*
Loans and receivables at amortized cost		3,782	2,072	5,854	3,378	1,218	4,596
Trade and other receivables	7.2	-	15,180	15,180	-	15,613	15,613
Assets from contracts with customers	7.2	15	7,816	7,831	-	7,411	7,411
Cash and cash equivalents (1)		-	10,519	10,519	-	8,700	8,700
Derivative instruments	16.4	4,137	10,134	14,272	2,693	10,679	13,372
TOTAL		**11,174**	**46,194**	**57,369**	**8,886**	**44,692**	**53,578**

(1) *In 2019, the Group modified the accounting of certain financial assets deducted from net financial debt to reflect the Group's management policy regarding investments and liquidity risk of the Group, and thus reclassified these assets as cash and cash equivalents for an amount of €619 million at December 31, 2019. This change had no impact on net financial debt.*

16.1.1 Other financial assets

16.1.1.1 Equity instruments at fair value

Accounting standards

Equity instruments at fair value through other comprehensive income (OCI)

Under IFRS 9 an irrevocable election can be made to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument that is not held for trading. This choice is made on an instrument-by-instrument basis. Amounts presented in other comprehensive income should not be transferred to profit or loss including proceeds of disposals. However, IFRS 9 authorizes the transfer of the accumulated profits and losses to another component of equity. Dividends from such investments are recognized in profit or loss unless the dividend clearly represents the recovery of a portion of the cost of the investment.

The equity instruments recognized under this line item mainly concern investments in companies that are not controlled by the Group and for which OCI measurement has been selected given their strategic and long-term nature.

Upon initial recognition, these equity instruments are recognized at fair value, which is generally their acquisition cost, plus transaction costs.

At each reporting date, for listed securities, fair value is determined based on the quoted market price at the reporting date. For unlisted securities, fair value is measured using valuation models based primarily on the latest market transactions, the discounting of dividends or cash flows and the net asset value.

Equity instruments at fair value through profit or loss

Equity instruments that are held for trading or for which the Group has not elected for measurement at fair value through other comprehensive income are measured at fair value through profit or loss.

This category mainly includes investments in companies not controlled by the Group.

Upon initial recognition, these equity instruments are recognized at fair value, which is generally their acquisition cost.

At each reporting date, for listed and unlisted securities, the same measurement method as described above should be applied.

In millions of euros	Equity instruments at fair value through other comprehensive income	Equity instruments at fair value through income	Total
AT DECEMBER 31, 2018	**742**	**365**	**1,107**
Increase	226	170	396
Decrease	(111)	(24)	(135)
Changes in fair value	92	(23)	69
Changes in scope of consolidation, translation adjustments and other	(28)	(112)	(140)
AT DECEMBER 31, 2019	**921**	**377**	**1,297**
Dividends	65	7	72

Equity instruments break down as €222 million of listed equity instruments and €1,075 million of unlisted equity instruments. This amount mainly includes shares held by the Group as a minority interest in Nord Stream AG for an amount of €478 million.

16.1.1.2 Debt instruments at fair value

Accounting standards

Debt instruments at fair value through other comprehensive income

Financial assets that are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and for which the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the outstanding amount (SPPI), are measured at fair value through OCI (with a recycling mechanism). This involves a measurement through profit or loss for interest (at amortized cost using the effective interest method), impairment and foreign exchange gains and losses, and through OCI (with a recycling mechanism) for other gains or losses.

This category mainly includes bonds.

Fair value gains and losses on these instruments are recognized in other comprehensive income, except for the following items which are recognized in profit or loss:

- interest income using the effective interest method;
- expected credit losses and reversals;
- foreign exchange gains and losses.

When the financial asset is derecognized, the cumulative gain or loss that was previously recognized in other comprehensive income is reclassified from equity to profit or loss.

Debt instruments at fair value through profit or loss

Financial assets whose contractual cash flows do not consist solely of payments of principal and interest on the amount outstanding (SPPI) or that are held in view of an "other" business model are measured at fair value through profit or loss.

The Group's investments in UCITS are accounted for in this caption. They are considered as debt instruments, according to IAS 32 – *Financial Instruments: Presentation*, given the existence of an obligation for the issuer to redeem units, at the request of the holder. They are measured at fair value through profit or loss because the contractual cash flows characteristics do not meet the SPPI test.

In millions of euros	Debt instruments at fair value through other comprehensive income	Liquid debt instruments held for cash investment purposes at fair value through other comprehensive income	Debt instruments at fair value through income	Liquid debt instruments held for cash investment purposes at fair value through income	Total
AT DECEMBER 31, 2018	**1,025**	**922**	**525**	**307**	**2,779**
Increase	647	10	430	197	1,284
Decrease	(617)	(306)	(269)	-	(1,193)
Changes in fair value	102	-	75	3	181
Changes in scope of consolidation, translation adjustments and other (1)	(20)	(614)	-	-	(634)
AT DECEMBER 31, 2019	**1,138**	**11**	**761**	**507**	**2,417**

(1) Of which €619 million of financial instruments deducted from net financial debt and reclassified from "Other financial assets" to "Cash and cash equivalents" (see Note 16.1 "Financial assets").

Debt instruments at fair value at December 31, 2019 include bonds and money market funds held by Synatom for €1,846 million and liquid instruments deducted from net financial debt for €518 million (respectively €1,492 million and €1,229 million at December 31, 2018).

16.1.1.3 Loans and receivables at amortized cost

Accounting standards

Loans and receivables held by the Group under a business model consisting in holding the instrument in order to collect the contractual cash flows, and whose contractual cash flows consist solely of payments of principal and interest on the principal amount outstanding (SPPI test) are measured at amortized cost. Interest is calculated using the effective interest method.

The following items are recognized in profit or loss:

- interest income using the effective interest method;
- expected credit losses and reversals;
- foreign exchange gains and losses.

The Group enters into services or take-or-pay contracts that are or contain a lease and under which the Group acts as lessor and its customers as lessees. Leases are analyzed in accordance with IFRS 16 in order to determine whether they constitute an operating lease or a finance lease. Whenever the terms of the lease transfer substantially all the risk and rewards of ownership of the related asset, the contract is classified as a finance lease and a finance receivable is recognized to reflect the financing deemed to be granted by the Group to the customer.

Leasing security deposits are presented in this caption and recognized at their nominal value.

Please refer to Note 17 "Risks arising from financial instruments" regarding the assessment of counterparty risk.

	Dec. 31, 2019			Dec. 31, 2018		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total
Loans granted to affiliated companies	2,293	172	2,465	1,498	121	1,619
Other receivables at amortized cost	302	1,697	1,998	675	940	1,614
Amounts receivable under concession contracts	588	65	653	544	68	612
Amounts receivable under finance leases	599	138	738	661	89	750
TOTAL	**3,782**	**2,072**	**5,854**	**3,378**	**1,218**	**4,596**

"Loans and receivables at amortized cost" includes notably the €311 million loan granted to Neptune Energy as part of the sale of the exploration-production business. This item also includes the financing of the Nord Stream 2 pipeline project for a nominal amount of €298 million (excluding capitalized interest and expected credit losses) for the first tranche and €433 million for the second tranche.

Impairment and expected credit losses against loans and receivables at amortized cost stood at €139 million at December 31, 2019 (€319 million at December 31, 2018). This amount includes notably the impairment on the Argentine State receivable related to the concessions granted to Aguas Provinciales de Santa Fe, attributable to SUEZ (*see Note 25.4.1 Concessions in Buenos Aires and Santa Fe*).

Net gains and losses recognized in the income statement relating to loans and receivables at amortized cost break down as follows:

		Post-acquisition measurement	
In millions of euros	Interest income	Foreign currency translation	Expected credit loss
At December 31, 2019	233	(38)	4
At December 31, 2018	263	(21)	(41)

No material expected credit losses were recognized against loans and receivables at amortized cost at December 31, 2019 and December 31, 2018.

Amounts receivable under finance leases

These contracts refer to lease contracts in which ENGIE acts as lessor, classified as finance leases in accordance with IFRS 16. They concern (i) energy purchase and sale contracts where the contract conveys an exclusive right to use a production asset; and (ii) certain contracts with industrial customers relating to assets held by the Group.

The Group has recognized finance lease receivables, notably for cogeneration plants for Wapda and NTDC (Uch – Pakistan) and Lanxess (Electrabel – Belgium).

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Undiscounted future minimum lease payments	878	919
Unguaranteed residual value accruing to the lessor	8	27
TOTAL GROSS INVESTMENT IN THE LEASE	**886**	**946**
Unearned financial income	**94**	**170**
NET INVESTMENT IN THE LEASE (STATEMENT OF FINANCIAL POSITION)	**792**	**777**
Of which present value of future minimum lease payments	*787*	*758*
Of which present value of unguaranteed residual value	*6*	*19*

Undiscounted minimum lease payments receivable under finance leases can be analyzed as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Year 1	118	182
Years 2 to 5 inclusive	470	420
Beyond year 5	290	317
TOTAL	**878**	**919**

16.1.2 Trade and other receivables, assets from contracts with customers

Information on trade and other receivables and assets from contracts with customers are provided in Note 7.2 “Trade and other receivables, assets and liabilities from contracts with customers”.

16.1.3 Cash and cash equivalents

Accounting standards

This item includes cash equivalents as well as short-term investments that are considered to be readily convertible into a known amount of cash and where the risk of a change in their value is deemed to be negligible based on the criteria set out in IAS 7.

Bank overdrafts are not included in the calculation of cash and cash equivalents and are recorded under “Short-term borrowings”.

Cash and cash equivalent items are subject to impairment tests in accordance with the expected credit losses model of IFRS 9.

Cash and cash equivalents totaled €10,519 million at December 31, 2019 (€8,700 million at December 31, 2018).

This amount included funds related to the green bond issues, which remain unallocated to the funding of eligible projects (*see section 5 of the Universal Registration Document*).

At December 31,2019, this amount also included €86 million in cash and cash equivalents subject to restrictions (€121 million at December 31, 2018), including €63 million of cash equivalents set aside to cover the repayment of borrowings and debt as part of project financing arrangements in certain subsidiaries.

Gains recognized in respect of “Cash and cash equivalents” amounted to €76 million at December 31, 2019 compared to €73 million at December 31, 2018.

16.1.4 Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material

As indicated in Note 19.2 “Obligations relating to nuclear power generation activities”, the Belgian law of April 11, 2003, amended by the law of April 25, 2007, granted the Group’s wholly-owned subsidiary Synatom responsibility for managing and investing funds received from operators of nuclear power plants in Belgium and designed to cover the costs of dismantling nuclear power plants and managing radioactive fissile material.

Pursuant to the law, Synatom may lend up to 75% of these funds to nuclear power plant operators provided that certain credit quality criteria are met. The funds that cannot be lent to nuclear operators are invested in assets to cover the liabilities.

Following the triennial review of nuclear provisions carried out by Belgium’s Commission for Nuclear Provisions (*see Note 19.2 “Obligations relating to nuclear power generation activities”*), Electrabel undertook not to take out any further loans in respect of provisions for the back-end nuclear fuel cycle and to repay all of the loans taken out for that purpose by 2025. Over the next five years, therefore, Synatom will invest in financial assets to cover future costs of managing radioactive fissile material, up to the amount of the corresponding provisions, i.e., about €6 billion more than the assets set aside to cover those provisions at December 31, 2019, plus the annual recurring charge arising from the unwinding of the discount on those provisions and the additional quantities of fuel consumed.

The financial assets covering future costs of dismantling nuclear facilities and managing radioactive fissile material are either loans to legal entities that meet the credit quality criteria required by law or other external assets with sufficient diversification and spread to minimize the risk. The Commission for Nuclear Provisions issues an opinion on the asset classes in which Synatom may invest. Synatom has also undertaken to develop an Investment Department, appoint two outside directors to its Board and set up an Audit Committee.

Loans to entities outside the Group and other cash investments are shown in the table below:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Loans to third parties	**467**	**512**
Loan to Eso/Elia	453	454
Loan to Ores Assets	-	40
Loan to Sibelga	14	18
Others loans and receivables at amortized cost	**85**	**163**
Debt instruments – restricted cash	85	163
Equity and debt instruments at fair value	**2,054**	**1,539**
Equity instruments at fair value through other comprehensive income	207	47
Debt instruments at fair value through other comprehensive income	1,138	1,025
Debt instruments at fair value through income	709	467
TOTAL	**2,606**	**2,214**

Loans to entities outside the Group and the cash subject to restriction held by money market funds are shown in the statement of financial position as "Loans and receivables at amortized cost". Bonds and money market funds held by Synatom are shown as "equity instruments at fair value through other comprehensive income", "debt instruments at fair value through other comprehensive income" or "debt instruments at fair value through income" (*see Note 16.1 "Financial assets"*).

16.1.5 Transfer of financial assets

At December 31, 2019, the outstanding amount of transferred financial assets (as well as the risks to which the Group remains exposed following the transfer of those financial assets) as part of transactions leading to either (i) all or part of those assets being retained in the statement of financial position, or (ii) their full deconsolidation while retaining a continuing involvement in these financial assets, was not material in terms of the Group's indicators.

In 2019, the Group carried out disposals without recourse to financial assets as part of transactions leading to full derecognition, for an outstanding amount of €944 million at December 31, 2019.

16.1.6 Financial assets and equity instruments pledged as collateral for borrowings and debt

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Financial assets and equity instruments pledged as collateral	4,471	3,447

This item mainly includes the carrying amount of equity instruments pledged as collateral for borrowings and debt.

16.2 Financial liabilities

Accounting standards

Borrowings and other financial liabilities are measured at amortized cost using the effective interest rate method.

On initial recognition, any issue or redemption premiums and discounts and issuing costs are added to/deducted from the nominal value of the borrowings concerned. These items are taken into account when calculating the effective interest rate and are therefore recorded in the consolidated income statement over the life of the borrowings using the amortized cost method.

As regards structured debt instruments that do not have an equity component, the Group may be required to separate an "embedded" derivative instrument from its host contract. When an embedded derivative is separated from its host contract, the initial carrying amount of the structured instrument is broken down into an embedded derivative component, corresponding to the fair value of the embedded derivative, and a financial liability component, corresponding to the difference between the amount of the issue and the fair value of the embedded derivative. The separation of components upon initial recognition does not give rise to any gains or losses.

The debt is subsequently recorded at amortized cost using the effective interest method while the derivative is measured at fair value, with changes in fair value recognized in profit or loss.

Financial liabilities are recognized either:

- as "Amortized cost liabilities" for borrowings, trade payables and other creditors, and other financial liabilities;
- as "Liabilities measured at fair value through profit or loss" for derivative financial instruments and for financial liabilities designated as such.

The following table presents the Group's different financial liabilities at December 31, 2019, broken down into current and non-current items:

		Dec. 31, 2019			Dec. 31, 2018 (1)		
In millions of euros	Notes	Non-current	Current	Total	Non-current	Current	Total
Borrowings and debt		30,002	8,543	38,544	26,434	5,745	32,178
Trade and other payables	16.2	-	19,109	19,109	-	19,759	19,759
Liabilities from contracts with customers	7.2	45	4,286	4,330	36	3,598	3,634
Derivative instruments	16.4	5,129	10,446	15,575	2,785	11,510	14,295
Other financial liabilities		38	-	38	46	-	46
TOTAL		**35,213**	**42,383**	**77,596**	**29,301**	**40,612**	**69,913**

(1) *Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").*

16.2.1 Trade and other payables

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Trade payables	18,683	19,192
Payable on fixed assets	426	568
TOTAL	**19,109**	**19,759**

The carrying amount of these financial liabilities represents a reasonable estimate of their fair value.

16.2.2 Liabilities from contracts with customers

Information on liabilities from contracts with customers are provided in Note 7.2. "Trade and other receivables, assets and liabilities from contracts with customers".

16.3 Net financial debt

16.3.1 Net financial debt by type

In millions of euros	Dec. 31, 2019			Dec. 31, 2018 (1)		
	Non-current	Current	Total	Non-current	Current	Total
Borrowings and debt						
Bond issues	23,262	2,753	26,015	21,444	1,202	22,645
Bank borrowings	4,229	1,063	5,292	4,272	349	4,620
Negotiable commercial paper		3,233	3,233		2,894	2,894
Lease liabilities (2)	1,935	578	2,512	262	118	380
Other borrowings (3)	576	668	1,244	456	718	1,174
Bank overdrafts and current account	-	247	247	-	464	464
BORROWINGS AND DEBT	**30,002**	**8,543**	**38,544**	**26,434**	**5,745**	**32,178**
Other financial assets						
Other financial assets deducted from net financial debt (4)	(213)	(1,289)	(1,502)	(288)	(1,694)	(1,982)
Cash and cash equivalents						
Cash and cash equivalents (5)	-	(10,519)	(10,519)	-	(8,700)	(8,700)
Derivative instruments						
Derivatives hedging borrowings (6)	(521)	(83)	(604)	(419)	24	(395)
NET FINANCIAL DEBT	**29,267**	**(3,348)**	**25,919**	**25,727**	**(4,625)**	**21,102**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

(2) At December 31, 2018, lease liabilities corresponds to liabilities under finance leases.

(3) This item corresponds to the revaluation of the interest rate component of debt in a qualified fair value hedging relationship.

(4) This item notably corresponds to assets related to financing, liquid debt instruments held for cash investment purposes and margin calls on derivatives hedging borrowings - carried in assets.

(5) Of which €619 million of financial instruments deducted from net financial debt and reclassified from "Other financial assets" to "Cash and cash equivalent". (see Note 16.1 "Financial assets"), with no impact on net financial debt.

(6) This item represents the interest rate component of the fair value of derivatives hedging borrowings in a designated fair value hedging relationship. It also represents the exchange rate and outstanding accrued interest rate components of the fair value of all debt-related derivatives irrespective of whether or not they qualify as hedges.

The fair value of gross borrowings and debt (excluding lease liabilities) amounted to €38,893 million at December 31, 2019, compared with a carrying amount of €35,057 million.

Financial income and expenses related to borrowings and debt are presented in Note 10 "Net financial income/(loss)".

16.3.2 Reconciliation between net financial debt and cash flow from (used in) financing activities

In millions of euros	Dec. 31, 2018 [(1)]	Cash flow from financing activities	Cash flow from operating and investing activities and variation of cash and cash equivalents	Change in fair value	Translation adjustments	Change in scope of consolidation and others	Dec. 31, 2019
Borrowings and debt							
Bond issues	22,645	3,210	-	-	170	(10)	26,015
Bank borrowings	4,620	705	-	-	13	(46)	5,292
Negotiable commercial paper	2,894	317	-	-	22	-	3,233
Lease liabilities[(2)]	380	(551)	-	-	9	2,674	2,512
Other borrowings	1,174	133	-	66	19	(147)	1,244
Bank overdrafts and current account	464	(150)	-	-	(2)	(65)	247
BORROWINGS AND DEBT	**32,178**	**3,664**	**-**	**66**	**231**	**2,405**	**38,544**
Other financial assets							
Other financial assets deducted from net financial debt [(3)]	(1,982)	(135)	-	(8)	2	620	(1,502)
Cash and cash equivalents							
Cash and cash equivalents [(3)]	(8,700)	-	(1,306)	-	(34)	(479)	(10,519)
Derivative instruments							
Derivatives hedging borrowings	(395)	(75)	-	25	(155)	(5)	(604)
NET FINANCIAL DEBT	**21,102**	**3,454**	**(1,306)**	**83**	**45**	**2,542**	**25,919**

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

(2) Lease liabilities: the amount of 551 million included into column "Cash flow from financing activities" corresponds to lease payments, excluding interest (total cash outflow for leases amounted to €590 million of which €39 million relating to interest). The amount included in the column "Changes in scope of consolidation and others" mainly correspond to the first-time application of IFRS 16.

(3) Cash and cash equivalents: the amount in column "Changes in scope of consolidation and others" mainly corresponds to the reclassification of financial assets amounting to €619 million from "Other financial assets" to "Cash and cash equivalents" (see Note 16.1 "Financial assets").

16.3.3 Main events of the period

16.3.3.1 Impact of changes in the scope of consolidation and in exchange rates on net financial debt

In 2019, changes in exchange rates resulted in a €45 million increase in net financial debt, including a €88 million increase in relation to the US dollar, which was offset by a €36 million decrease in debt denominated in Brazilian real and €20 million in pounds sterling.

Changes in the scope of consolidation (including the cash impact of acquisitions and disposals) led to a €78 million increase in net financial debt, reflecting:

- disposals of assets over the period, which reduced net financial debt by €3,094 million, notably including the disposal of the interest in GLOW, of coal-fired power plants in Germany and the Netherlands and assets held by Langa in France (*see Note 4.1 "Disposals carried out in 2019"*);
- the classification of renewable energy assets in Mexico and green gas production assets in France under "Assets held for sale" (*see Note 4.2 "Assets held for sale"*) which reduced net financial debt by €26 million;
- acquisitions carried out in 2019 which increased net financial debt by €3,198 million mainly due to the acquisition of a 90% interest in Transportadora Associada de Gás S.A. (TAG) in Brazil, of Conti in the North America and OTTO Luft-und Klimatechnik GmbH & Co in Germany (*see Note 4.3 "Acquisitions carried out in 2019"*).

16.3.3.2 Financing and refinancing transactions

The Group carried out the following main transactions in 2019:

- on June 21, 2019, ENGIE SA issued €1.5 billion worth of bonds:
  - a €750 million tranche maturing in June 2027 with a 0.375% coupon,
  - a €750 million tranche maturing in June 2039 with a 1.375% coupon;
- on September 4, 2019, ENGIE SA issued €750 million worth of bonds maturing in March 2027 with a 0% coupon;
- on October 24, 2019, ENGIE SA issued €1.5 billion worth of bonds:
  - a €900 million tranche, a green bond maturing in October 2030 with a 0.5% coupon,
  - a €600 million tranche maturing in October 2041 with a 1.25% coupon;
- ENGIE SA redeemed the €775 million worth of bonds that matured on January 24, 2019 with a 6.875% coupon;
- on December 5, 2018, ENGIE SA gave notice that it had exercised the annual prepayment option for the GBP 300 million tranche of deeply-subordinated notes (representing a total amount of €352 million including the accrued coupon) that had previously been recognized in equity in a net amount of €340 million with a 4.625% coupon. ENGIE SA redeemed the bonds on January 10, 2019;
- on May 21, 2019, ENGIE Brasil Energia carried out a bond issue of BRL 2,500 million (€547 million) maturing in November 2020;
- on July 15, 2019, ENGIE Brasil Energia carried out the following refinancing transactions :
  - a BRL1,596 million (€360 million) worth of bonds including two tranches of BRL952 million maturing in July 2026 and two tranches of BRL644 million maturing in July 2029,
  - a partial redemption of the bond issued on May 21, 2019 for an amount of BRL1 500 million (€338 million) maturing in November 2020;
- on May 17, 2019, ENGIE Brasil Energia took out three bank loans totaling €252 million maturing in May 2022 including two bank loans totaling USD 150 million and a bank loan of BRL 534 million;
- on November 26, 2019, ENGIE Brasil Energia took out 18 bank loans totaling BRL 1,197 million (€263 million) maturing in December 2038;
- on November 30, 2019, ENGIE Brasil Energia took out a bank loan of BRL 795 million (€176 million) maturing in January 2036.

16.4 Derivative instruments

Accounting standards

Derivative financial instruments are measured at fair value. This fair value is determined on the basis of market data, available from external contributors. In the absence of an external benchmark, a valuation based on internal models recognized by market participants and favoring data directly derived from observable data such as OTC quotations will be used.

The change in fair value of derivative financial instruments is recorded in the income statement except when they are designated as hedging instruments in a cash flow hedge or net investment hedge. In this case, changes in the value of the hedging instruments are recognized directly in equity, excluding the ineffective portion of the hedges.

The Group uses derivative financial instruments to manage and reduce its exposure to market risks arising from fluctuations in interest rates, foreign currency exchange rates and commodity prices, mainly for gas and electricity. The use of derivative instruments is governed by a Group policy for managing interest rate, currency and commodity risks (*see Note 17 – Risks arising from financial instruments*).

Derivative financial instruments are contracts (i) whose value changes in response to the change in one or more observable variables, (ii) that do not require any material initial net investment, and (iii) that are settled at a future date.

Derivative instruments therefore include swaps, options, futures and swaptions, as well as forward commitments to purchase or sell listed and unlisted securities, and firm commitments or options to purchase or sell non-financial assets that involve physical delivery of the underlying.

For purchases and sales of electricity and natural gas, the Group systematically analyzes whether the contract was entered into in the "normal" course of operations and therefore falls outside the scope of IFRS 9. This analysis consists firstly in demonstrating that the contract is entered into and continues to be held for the purpose of physical delivery or receipt of the commodity in accordance with the Group's expected purchase, sale or usage requirements.

The second step is to demonstrate that the Group has no practice of settling similar contracts on a net basis and that these contracts are not equivalent to written options. In particular, in the case of electricity and gas sales allowing the buyer a certain degree of flexibility concerning the volumes delivered, the Group distinguishes between contracts that are equivalent to capacity sales considered as transactions falling within the scope of ordinary operations and those that are equivalent to written financial options, which are accounted for as derivative financial instruments.

Only contracts that meet all of the above conditions are considered as falling outside the scope of IFRS 9. Adequate specific documentation is compiled to support this analysis.

Embedded derivatives

The main Group contracts that may contain embedded derivatives are contracts with clauses or options potentially affecting the contract price, volume or maturity. This is the case primarily with contracts for the purchase or sale of non-financial assets, whose price is revised based on an index, the exchange rate of a foreign currency or the price of an asset other than the contract's underlying.

An embedded derivative is a component of a hybrid (combined) instrument that also includes a non-derivative host contract – with the effect that some of the cash flows of the combined instrument vary in a way similar to a stand-alone derivative.

If a hybrid contract contains a host that is an asset within the scope of IFRS 9, the Group applies the presentation and measurements requirements described in paragraph 17.1. to the entire hybrid contract.

Conversely, when a hybrid contract contains a host that is not an asset within the scope of IFRS 9, an embedded derivative shall be separated from the host and accounted for as a derivative if, and only if:

- the economic characteristics and risks of the embedded derivative are not closely related to the economic characteristics and risks of the host;
- a separate instrument within the same terms as the embedded derivative would meet the definition of a derivative; and
- the hybrid contract is not measured at fair value with changes in fair value recognized in profit or loss (i.e., a derivative that is embedded in a financial liability at fair value through profit or loss is not separated).

If an embedded derivative is separate from the host contract, it shall be measured at fair value and fair value changes are recognized in profit or loss (except if the embedded derivative is documented in a hedge relationship).

Hedging instruments: recognition and presentation

Derivative instruments qualifying as hedging instruments are recognized in the consolidated statement of financial position and measured at fair value. However, their accounting treatment varies according to whether they are classified as (i) a fair value hedge of an asset or liability; (ii) a cash flow hedge or (iii) a hedge of a net investment in a foreign operation.

Fair value hedges

A fair value hedge is defined as a hedge of the exposure to changes in fair value of a recognized asset or liability such as a fixed-rate loan or borrowing, or of assets, liabilities or an unrecognized firm commitment denominated in a foreign currency.

The gain or loss from remeasuring the hedging instrument at fair value is recognized in income. The gain or loss on the hedged item attributable to the hedged risk adjusts the carrying amount of the hedged item and is also recognized in income even if the hedged item is in a category in respect of which changes in fair value are recognized through other comprehensive income. These two adjustments are presented net in the consolidated income statement, with the net effect corresponding to the ineffective portion of the hedge.

Cash flow hedges

A cash flow hedge is a hedge of the exposure to variability in cash flows that could affect the Group's income. The hedged cash flows may be attributable to a particular risk associated with a recognized financial or non-financial asset or a highly probable forecast transaction.

The portion of the gain or loss on the hedging instrument that is determined to be an effective hedge is recognized directly in other comprehensive income, net of tax, while the ineffective portion is recognized in income. The gains or losses accumulated in equity are reclassified to the consolidated income statement under the same caption as the loss or gain on the hedged item – i.e., current operating income for operating cash flows and financial income or expenses for other cash flows – in the same periods in which the hedged cash flows affect income.

If the hedging relationship is discontinued, in particular because the hedge is no longer considered effective, the cumulative gain or loss on the hedging instrument remains recognized in equity until the forecast transaction occurs. However, if a forecast transaction is no longer expected to occur, the cumulative gain or loss on the hedging instrument is immediately recognized in income.

Hedge of a net investment in a foreign operation

In the same way as for a cash flow hedge, the portion of the gain or loss on the hedging instrument that is determined to be an effective hedge of the currency risk is recognized directly in other comprehensive income, net of tax, while the ineffective portion is recognized in income. The gains or losses accumulated in other comprehensive income are transferred to the consolidated income statement when the investment is liquidated or sold.

Hedging instruments: identification and documentation of hedging relationships

The hedging instruments and hedged items are designated at the inception of the hedging relationship. The hedging relationship is formally documented in each case, specifying the hedging strategy, the hedged risk and the method used to assess hedge effectiveness. Only derivative contracts entered into with external counterparties are considered as being eligible for hedge accounting.

Hedge effectiveness is assessed and documented at the inception of the hedging relationship and on an ongoing basis throughout the periods for which the hedge was designated.

Hedge effectiveness is demonstrated both prospectively and retrospectively using various methods, based mainly on a comparison between changes in fair value or cash flows between the hedging instrument and the hedged item. Methods based on an analysis of statistical correlations between historical price data are also used.

Derivative instruments not qualifying for hedge accounting: recognition and presentation

These items mainly concern derivative financial instruments used in economic hedges that have not been – or are no longer – documented as hedging relationships for accounting purposes.

When a derivative financial instrument does not qualify or no longer qualifies for hedge accounting, changes in fair value are recognized directly in income under (i) current operating income for derivative instruments with non-financial assets as the underlying, and (ii) financial income or expenses for currency, interest rate and equity derivatives.

Derivative instruments not qualifying for hedge accounting used by the Group in connection with proprietary commodity trading activities and other derivatives expiring in less than 12 months are recognized in the consolidated statement of financial position in current assets and liabilities, while derivatives expiring after this period are classified as non-current items.

Fair value measurement

The fair value of instruments listed on an active market is determined by reference to the market price. In this case, these instruments are presented in level 1 of the fair value hierarchy.

The fair value of unlisted financial instruments for which there is no active market and for which observable market data exist is determined based on valuation techniques such as option pricing models or the discounted cash flow method.

Models used to evaluate these instruments take into account assumptions based on market inputs:

- the fair value of interest rate swaps is calculated based on the present value of future cash flows;
- the fair value of forward foreign exchange contracts and currency swaps is calculated by reference to current prices for contracts with similar maturities by discounting the future cash flow spread (difference between the forward exchange rate under the contract and the forward exchange rate recalculated in line with the new market conditions applicable to the nominal amount);
- the fair value of currency and interest rate options is calculated using option pricing models;
- commodity derivatives are valued by reference to listed market prices based on the present value of future cash flows (commodity swaps or commodity forwards) and option pricing models (options), for which market price volatility may be a factor. Contracts with maturities exceeding the depth of transactions for which prices are observable, or which are particularly complex, may be valued based on internal assumptions;
- exceptionally, for complex contracts negotiated with independent financial institutions, the Group uses the values established by its counterparties.

These instruments are presented in level 2 of the fair value hierarchy except when the evaluation is based mainly on data that are not observable; in which case they are presented in level 3 of the fair value hierarchy. Most often, this is the case for derivatives with a maturity that falls outside the observability period for market data relating to the underlying or when certain inputs such as the volatility of the underlying are not observable.

Except in case of enforceable master netting arrangements or similar agreements, counterparty risk is included in the fair value of financial derivative instrument assets and liabilities. It is calculated according to the "expected loss" method and takes into account the exposure at default, the probability of default and the loss given default. The probability of default is determined on the basis of credit ratings assigned to each counterparty ("historical probability of default" approach).

Derivative instruments recognized in assets and liabilities are measured at fair value and broken down as follows:

	Dec. 31, 2019						Dec. 31, 2018					
	Assets			Liabilities			Assets			Liabilities		
In millions of euros	Non-current	Current	Total	Non-current	Current	Total	Non-current	Current	Total	Non-current	Current	Total
Derivatives hedging borrowings	705	124	829	183	41	225	678	42	720	259	66	325
Derivatives hedging commodities	2,484	9,993	12,476	3,011	10,360	13,371	1,409	10,608	12,018	1,311	11,405	12,716
Derivatives hedging other items [(1)]	949	17	966	1,934	45	1,980	606	28	634	1,215	38	1,254
TOTAL	**4,137**	**10,134**	**14,272**	**5,129**	**10,446**	**15,575**	**2,693**	**10,679**	**13,372**	**2,785**	**11,510**	**14,295**

(1) Derivatives hedging other items mainly include the interest rate component of interest rate derivatives (not qualifying as hedges or qualifying as cash flow hedges) that are excluded from net financial debt, as well as net investment hedge derivatives.

16.4.1 Offsetting of derivative instrument assets and liabilities

The net amount of derivative instruments after taking into account enforceable master netting arrangements or similar agreements, whether or not they are set off in accordance with paragraph 42 of IAS 32, are presented in the table below:

		Dec. 31, 2019				Dec. 31, 2018			
In millions of euros		Gross amount	Net amount recognized in the statement of financial position (1)	Other offsetting agreements (2)	Total net amount	Gross amount	Net amount recognized in the statement of financial position (1)	Other offsetting agreements (2)	Total net amount
Assets	Derivatives hedging commodities	13,121	12,476	(7,704)	4,772	12,588	12,018	(8,409)	3,609
	Derivatives hedging borrowings and other items	1,795	1,795	(399)	1,397	1,354	1,354	(384)	970
Liabilities	Derivatives hedging commodities	(14,015)	(13,371)	9,872	(3,499)	(13,285)	(12,716)	10,449	(2,267)
	Derivatives hedging borrowings and other items	(2,204)	(2,204)	899	(1,305)	(1,579)	(1,579)	601	(978)

(1) Net amount recognized in the statement of financial position after taking into account offsetting agreements that meet the criteria set out in paragraph 42 of IAS 32.
(2) Other offsetting agreements include collateral and other guarantee instruments, as well as offsetting agreements that do not meet the criteria set out in paragraph 42 of IAS 32.

16.5 Fair value of financial instruments by level in the fair value hierarchy

16.5.1 Financial assets

The table below shows the allocation of financial instruments carried in assets to the different levels in the fair value hierarchy:

	Dec. 31, 2019				Dec. 31, 2018			
In millions of euros	**Total**	**Level 1**	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**
Other financial assets (excluding loans and receivables at amortized cost)	3,714	2,069	-	1,645	3,887	1,554	-	2,332
Equity instruments at fair value through other comprehensive income	*921*	*222*	*-*	*698*	*742*	*62*	*-*	*680*
Equity instruments at fair value through income	*377*	*-*	*-*	*377*	*365*	*-*	*-*	*365*
Debt instruments at fair value through other comprehensive income	*1,149*	*1,138*	*-*	*11*	*1,947*	*1,025*	*-*	*922*
Debt instruments at fair value through income	*1,268*	*709*	*-*	*559*	*832*	*467*	*-*	*365*
Derivative instruments	14,272	8	12,993	1,270	13,372	38	12,912	422
Derivatives hedging borrowings	*829*	*-*	*829*	*-*	*720*	*-*	*720*	*-*
Derivatives hedging commodities - relating to portfolio management activities (1)	*3,521*	*-*	*2,928*	*593*	*2,075*	*-*	*2,036*	*39*
Derivatives hedging commodities - relating to trading activities (1)	*8,955*	*8*	*8,271*	*677*	*9,943*	*38*	*9,522*	*383*
Derivatives hedging other items	*966*	*-*	*966*	*-*	*634*	*-*	*634*	*-*
TOTAL	**17,986**	**2,077**	**12,993**	**2,916**	**17,259**	**1,593**	**12,912**	**2,754**

(1) Derivative financial instruments relating to commodities classified in level 3 mainly include long-term gas supply contracts and a power contract that are measured at fair value and relate to trading activities.

A definition of these three levels is presented in Note 16.4 "Derivative instruments".

Other financial assets (excluding loans and receivables at amortized cost)

Changes in level 3 equity and debt instruments at fair value can be analyzed as follows:

In millions of euros	Equity instruments at fair value through other comprehensive income	Debt instruments at fair value through other comprehensive income	Equity instruments at fair value through income	Debt instruments at fair value through income	Other financial assets (excluding loans and receivables at amortized cost)
AT DECEMBER 31, 2018	**680**	**922**	**365**	**365**	**2,332**
Acquisitions	43	10	170	231	455
Disposals	(73)	(306)	(24)	(42)	(446)
Changes in fair value	76	-	(23)	5	58
Changes in scope of consolidation, foreign currency translation and other changes (1)	(28)	(614)	(112)	-	(755)
AT DECEMBER 31, 2019	**698**	**11**	**377**	**559**	**1,645**
Gains/(losses) recorded in income relating to instruments held at the end of the period					51

(1) Of which €619 million of financial instruments deducted from net financial debt and reclassified from "Other financial assets" to "Cash and cash equivalents" (see Note 16.1 "Financial assets").

Derivative instruments

Changes in level 3 derivative instruments commodities can be analyzed as follows:

In millions of euros	Net Asset/(Liability)
AT DECEMBER 31, 2018	**(99)**
Changes in fair value recorded in income	178
Settlements	(10)
Transfer out of level 3 to levels 1 and 2	(29)
Net fair value recorded in income	**40**
Deferred Day-One gains/(losses)	49
AT DECEMBER 31, 2019	**89**

6

16.5.2 Financial liabilities

The table below shows the allocation of financial instruments carried in liabilities to the different levels in the fair value hierarchy:

In millions of euros	Dec. 31, 2019				Dec. 31, 2018			
	Total	**Level 1**	**Level 2**	**Level 3**	**Total**	**Level 1**	**Level 2**	**Level 3**
Borrowings used in designated fair value hedges	6,510	-	6,510	-	5,358	-	5,358	-
Borrowings not used in designated fair value hedges	32,382	22,763	9,620	-	28,293	19,028	9,265	-
Derivative instruments	15,575	102	14,292	1,181	14,295	26	13,764	505
Derivatives hedging borrowings	*225*	-	*225*	-	*325*	-	*325*	-
Derivatives hedging commodities – relating to portfolio management activities [(1)]	*4,136*	-	*3,697*	*440*	*2,124*	-	*2,075*	*49*
Derivatives hedging commodities – relating to trading activities [(1)]	*9,234*	*102*	*8,391*	*741*	*10,592*	*26*	*10,110*	*456*
Derivatives hedging other items	*1,980*	-	*1,980*	-	*1,254*	-	*1,254*	-
TOTAL	**54,468**	**22,865**	**30,422**	**1,181**	**47,946**	**19,054**	**28,387**	**505**

(1) *Derivative financial instruments relating to commodities classified in level 3 mainly include long-term gas supply contracts and a power contract that are measured at fair value and relating to trading activities.*

A definition of these three levels is presented in Note 16.4 “Derivative instruments”.

Borrowings used in designated fair value hedges

This caption includes bonds in a designated fair value hedging relationship, which are presented in level 2 in the above table. Only the interest rate component of the bonds is remeasured, with fair value determined by reference to observable inputs.

Borrowings not used in designated fair value hedges

Listed bond issues are included in level 1.

Other borrowings not used in a designated hedging relationship, are presented in level 2 in the above table. The fair value of these borrowings is determined on the basis of future discounted cash flows and relies on directly or indirectly observable data.

NOTE 17 Risks arising from financial instruments

The Group mainly uses derivative instruments to manage its exposure to market risks. Financial risk management procedures are set out in Chapter 2 "Risk factors" of the Universal Registration Document.

17.1 Market risks

17.1.1 Commodity risk

Commodity risk arises primarily from the following activities:

- portfolio management; and
- trading.

The Group has identified primarily two types of commodity risks: price risk resulting from fluctuations in market prices, and volume risk inherent to the business.

In the ordinary course of its operations, the Group is exposed to commodity risks on natural gas, electricity, coal, oil and oil products, other fuels, CO_2 and other "green" products. The Group is active on these energy markets either for supply purposes or to optimize and secure its energy production chain and its energy sales. The Group also uses derivatives to offer hedging instruments to its clients and to hedge its own positions.

17.1.1.1 Portfolio management activities

Portfolio management seeks to optimize the market value of assets (power plants, gas and coal supply contracts, energy sales and gas storage and transportation) over various time frames (short-, medium- and long-term). Market value is optimized by:

- guaranteeing supply and ensuring the balance between physical needs and resources;
- managing market risks (price, volume) to unlock optimum value from portfolios within a specific risk framework.

The risk framework aims to safeguard the Group's financial resources over the budget period and smooth out medium-term earnings (over three or five years, depending on the maturity of each market). It encourages portfolio managers to take out economic hedges on their portfolio.

Sensitivities of the commodity-related derivatives portfolio used as part of the portfolio management activities as at December 31, 2019 are detailed in the table below. They are not representative of future changes in consolidated earnings and equity, insofar as they do not include the sensitivities relating to the purchase and sale contracts for the underlying commodities.

SENSITIVITY ANALYSIS [1]

		Dec. 31, 2019		Dec. 31, 2018	
In millions of euros	Changes in price	Pre-tax impact on income	Pre-tax impact on equity	Pre-tax impact on income	Pre-tax impact on equity
Oil-based products	+USD 10/bbl	40	234	60	-
Natural gas	+€3/MWh	225	471	961	1
Electricity	+€5/MWh	82	(47)	65	(26)
Coal	+USD 10/ton	(2)	-	9	2
Greenhouse gas emission rights	+€2/ton	(89)	19	37	1
EUR/USD	+10%	(25)	(99)	67	(2)
EUR/GBP	+10%	33	-	87	-

(1) The sensitivities shown above apply solely to financial commodity derivatives used for hedging purposes as part of the portfolio management activities.

The sensitivity of shareholders' equity to changes in gas and oil product prices is due to the application of cash flow hedge accounting to certain supply hedges within marketing operations since 2019.

17.1.1.2 Trading activities

The Group's trading activities are primarily conducted within:

- ENGIE Global Markets and ENGIE Energy Management. The purpose of these wholly-owned companies is to (i) assist Group entities in optimizing their asset portfolios; (ii) create and implement energy price risk management solutions for internal and external customers;
- ENGIE SA for the optimization of part of its long-term gas supply contracts, of a power exchange contract and of part of its gas sales contracts with retail entities in France and Benelux and with power generation facilities in France and Belgium.

Revenues from trading activities totaled €684 million at December 31,2019 (€526 million at December 31, 2018).

The use of Value at Risk (VaR) to quantify market risk arising from trading activities provides a transversal measure of risk taking all markets and products into account. VaR represents the maximum potential loss on a portfolio over a specified holding period based on a given confidence interval. It is not an indication of expected results but is back-tested on a regular basis.

The Group uses a one-day holding period and a 99% confidence interval to calculate VaR, as well as stress tests, in accordance with banking regulatory requirements.

The VaR shown below corresponds to the global VaR of the Group's trading entities.

VALUE AT RISK

In millions of euros	Dec. 31, 2019	2019 average (1)	2019 maximum (2)	2019 minimum (2)	2018 average (1)
Trading activities	12	14	26	6	10

(1) Average daily VaR.
(2) Maximum and minimum daily VaR observed in 2019.

17.1.2 Hedges of commodity risks

HEDGING INSTRUMENTS AND SOURCES OF HEDGE INEFFECTIVENESS

The Group enters into cash flow hedges, using derivative instruments (firm or option contracts) contracted over the counter or on organized markets, to reduce its commodity risks which relate mainly to future cash flows from contracted or expected sales and purchases of commodities. These instruments may be settled net or involve physical delivery of the underlying.

Sources of hedge ineffectiveness are mainly related to uncertainty regarding the timing and potential mismatches in settlement dates and indices between the derivative instruments and the associated underlying exposures.

The fair values of commodity derivatives are indicated in the table below:

	Dec. 31, 2019				Dec. 31, 2018			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivative instruments relating to portfolio management activities	2,484	1,037	(3,011)	(1,125)	1,409	666	(1,311)	(813)
Cash flow hedges	*1,893*	*292*	*(1,953)*	*(557)*	*46*	*56*	*(61)*	*(129)*
Other derivative instruments	*591*	*746*	*(1,058)*	*(568)*	*1,364*	*610*	*(1,249)*	*(684)*
Derivative instruments relating to trading activities	-	8,955	-	(9,234)	-	9,943	-	(10,592)
TOTAL	**2,484**	**9,993**	**(3,011)**	**(10,360)**	**1,409**	**10,608**	**(1,311)**	**(11,405)**

The fair values shown in the table above reflect the amounts for which assets could be exchanged, or liabilities settled, at the end of the reporting period. They are not representative of expected future cash flows insofar as positions (i) are sensitive to changes in prices; (ii) can be modified by subsequent transactions; and (iii) can be offset by future cash flows arising on the underlying transactions.

17.1.2.1 Cash flow hedges

The fair values of cash flow hedges by type of commodity are as follows:

	Dec. 31, 2019				Dec. 31, 2018			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Natural gas	1,814	235	(1,937)	(550)	20	15	(1)	(3)
Electricity	14	35	(9)	(5)	1	3	(44)	(120)
Coal	-	1	(1)	-	7	3	-	-
Oil	51	-	-	-	-	-	-	-
Other (1)	14	21	(6)	(2)	18	35	(16)	(6)
TOTAL	**1,893**	**292**	**(1,953)**	**(557)**	**46**	**56**	**(61)**	**(129)**

(1) Includes mainly foreign currency hedges on commodities.

Notional amounts (net) [1]

Notional amounts and maturities of cash flow hedges are as follows:

	Unit	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019
Natural gas	GWh	212,024	123,387	23,887	4,827	2,147	-	366,272
Electricity	GWh	(4,461)	(3,787)	(1,384)	-	-	-	(9,632)
Coal	Thousands of tons	60	45	20	-	-	-	125
Oil-based products	Thousands of barrels	-	(12,476)	(12,476)	(12,476)	(12,476)	-	(49,902)
Forex	Millions of euros	21	20	4	-	-	-	45
Greenhouse gas emission rights	Thousands of tons	150	-	-	-	-	-	150

(1) Long/(short) position.

Effects of hedge accounting on the Group's financial position and performance

	Dec. 31, 2019				Dec. 31, 2018	
	Fair Value			Nominal	Fair value	Nominal
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Cash flow hedges	2,184	(2,510)	(325)	4,967	(88)	(244)
TOTAL	**2,184**	**(2,510)**	**(325)**	**4,967**	**(88)**	**(244)**

The fair values represented above are positive for assets and negative for liabilities.

In millions of euros		Nominal amount	Fair Value	Change in fair value used for calculating hedge effectiveness	Change in the value of the hedging instrument recognized in equity [1]	Ineffective portion recognized in profit or loss [1]	Amount reclassified from the hedge reserve to profit or loss [1]	Line item of profit or loss
Cash flow hedges	Hedging instruments	4,967	(325)		(781)	-	-	Current operating income including operating MtM
	Hedged items			(744)				

(1) Gains/(losses).

Hedge inefficiency is calculated based on the change in the fair value of the hedging instrument compared to the change in the fair value of the hedged items since inception of the hedge. The fair value of the hedging instruments at December 31, 2019 reflects the cumulative change in the fair value of the hedging instruments since inception of the hedges.

Maturity of commodity derivatives designated as cash flow hedges

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Dec. 31, 2019	Dec. 31, 2018
Fair Value of derivatives by maturity	(266)	-	(26)	(18)	(16)	-	(326)	(88)

6

AMOUNTS PRESENTED IN THE STATEMENT OF CHANGES IN EQUITY AND THE STATEMENT OF COMPREHENSIVE INCOME

The following table provides a reconciliation of each component of equity and an analysis of other comprehensive income:

	Cash flow hedge
In millions of euros	**Derivatives hedging commodities**
AT DECEMBER 31, 2018	**(71)**
Effective portion recognized in equity	(781)
Amount reclassified from hedge reserve to profit or loss	-
Translation differences	-
Changes in scope of consolidation and other	1
AT DECEMBER 31, 2019	**(837)**

17.1.2.2 Other commodity derivatives

Other commodity derivatives include:

- commodity purchase and sale contracts that were not entered into or are no longer held for the purpose of the receipt or delivery of commodities in accordance with the Group's expected purchase, sale or usage requirements;
- embedded derivatives; and
- derivative financial instruments that are not eligible for hedge accounting in accordance with IFRS 9 or for which the Group has elected not to apply hedge accounting.

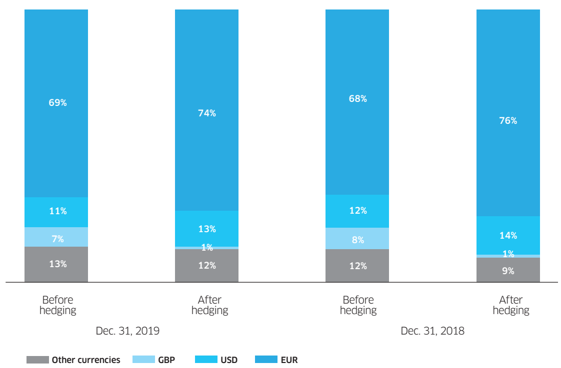
17.1.3 Currency risk

The Group is exposed to currency risk, defined as the impact on its statement of financial position and income statement of fluctuations in exchange rates affecting its operating and financing activities. Currency risk comprises (i) transaction risk arising in the ordinary course of business, (ii) specific transaction risk related to investments, mergers and acquisitions or disposal projects, and (iii) translation risk arising from the conversion into euros of income statement and statement of financial position items from subsidiaries with a functional currency other than the euro. The main translation risk exposures correspond, in order, to assets in US dollars, Brazilian real and pounds sterling.

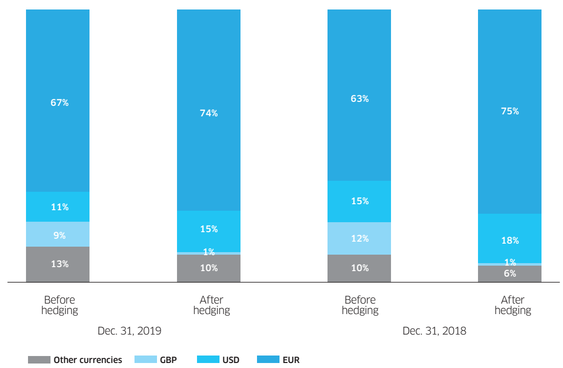
17.1.3.1 Financial instruments by currency

The following tables present a breakdown by currency of outstanding borrowings and debt and net financial debt, before and after hedging:

OUTSTANDING BORROWINGS AND DEBT



NET FINANCIAL DEBT



17.1.3.2 Currency risk sensitivity analysis

A sensitivity analysis to currency risk on financial income/(loss) – excluding the income statement translation impact of foreign subsidiaries – was performed based on all financial instruments managed by the treasury department and representing a currency risk (including derivative financial instruments).

A sensitivity analysis to currency risk on equity was performed based on all financial instruments qualified as net investment hedges at the reporting date.

For currency risk, sensitivity corresponds to a 10% rise or fall in exchange rates of foreign currencies against the euro compared to closing rates.

	Dec. 31, 2019		
	Impact on income		Impact on equity
In millions of euros	+10% (1)	-10% (1)	+10% (1)
Exposures denominated in a currency other than the functional currency of companies carrying the liabilities on their statements of financial position (2)	(20)	20	NA
Financial instruments (debt and derivatives) qualified as net investment hedges (3)	NA	NA	216

(1) +(-)10%: depreciation (appreciation) of 10% of all foreign currencies against the euro.
(2) Excluding derivatives qualified as net investment hedges.
(3) This impact is countered by the offsetting change in the net investment hedged.

17.1.4 Interest rate risk

The Group seeks to manage its borrowing costs by limiting the impact of interest rate fluctuations on its income statement. The Group's policy is therefore to arbitrate between fixed rates, floating rates and capped floating rates for its net debt. The interest rate mix may shift within a range defined by the Group Management in line with market trends.

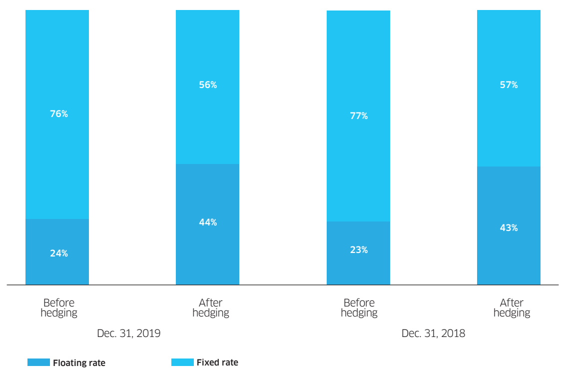
In order to manage the interest rate structure for its net debt, the Group uses hedging instruments, particularly interest rate swaps and options. At December 31, 2019, the Group had a portfolio of interest rate options (caps) protecting it from a rise in short-term interest rates for the euro.

The Group has a portfolio of 2020 and 2021 forward interest rate pre-hedges with respective 10- and 20/21-year maturities to protect the refinancing interest rate on a portion of its debt.

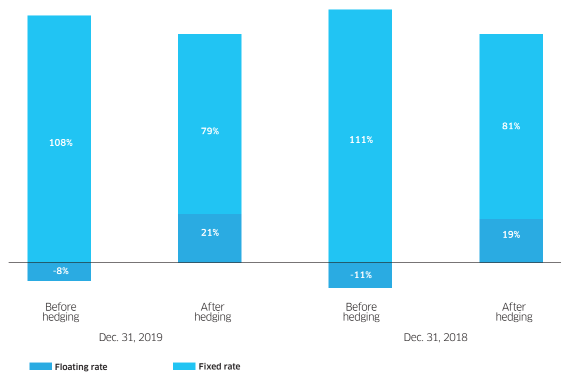
17.1.4.1 Analysis of financial instruments by type of interest rate

The following tables present a breakdown by type of interest rate of outstanding borrowings and debt and net financial debt before and after hedging.

OUTSTANDING BORROWINGS AND DEBT



NET FINANCIAL DEBT



6

17.1.4.2 Interest rate risk sensitivity analysis

Sensitivity was analyzed based on the Group's net debt position (including the impact of interest rate and foreign currency derivatives relating to net debt) at the reporting date.

For interest rate risk, sensitivity corresponds to a 100-basis-point rise or fall in the yield curve compared to year-end interest rates.

	Dec. 31, 2019			
	Impact on income		Impact on equity	
In millions of euros	+100 basis points	-100 basis points	+100 basis points	-100 basis points
Net interest expense on floating-rate net debt (nominal amount) and on floating-rate leg of derivatives	(49)	48	NA	NA
Change in fair value of derivatives not qualifying as hedges	78	(98)	NA	NA
Change in fair value of derivatives qualifying as cash flow hedges	NA	NA	403	(513)

17.1.5 Currency and interest rate hedges

17.1.5.1 Currency risk management

Foreign currency exchange risk (or "FX" risk) is reported and managed based on a Group-wide approach, reflected in a dedicated Group policy that is approved by Group Management. The policy distinguishes between the three following main sources of currency risk:

- Regular transaction risk

  Regular transaction risk corresponds to the potential negative financial impact of currency fluctuations on business and financial operations denominated in a currency other than the functional currency.

  The management of regular transaction risk is fully delegated to the subsidiaries for their scope of activities, while the risks related to central activities are managed at corporate level.

  FX risks related to operational activities are systematically hedged when the related cash flows are certain, with a hedging horizon that corresponds at least to the medium-term plan horizon. For cash flows that are not certain, in their entirety, the hedge is initially based on a "no regret" volume. Exposures are monitored and managed based on the sum of nominal cash flows in FX, including highly probable amounts and related hedges.

  For FX risks related to financial activities, all significant exposures related to cash, financial debts, etc. are systematically hedged. Exposures are monitored based on the net sum of balance sheet items in FX.

- Project transaction risk

  Specific project transaction risk corresponds to the potential negative financial impact of FX fluctuations on specific major operations such as investment projects, acquisitions, disposals and restructuring projects, involving multiple currencies.

  The management of these FX risks includes the definition and implementation of hedging transactions, taking into account the likelihood of the risk (including probability of project completion) and its evolution, the availability of hedging instruments and their associated cost. Management's aim is to ensure the viability and the profitability of the transactions.

- Translation risk

  Translation risk corresponds to the potential negative financial impact of FX fluctuations concerning consolidated entities with a functional currency other than the euro. It relates to the translation of their income and expenses and their net assets.

  Translation risk is managed centrally, with a focus on securing the net asset value.

  The pertinence of hedging this translation risk is assessed regularly for each currency (as a minimum) or set of assets in the same currency, taking into account notably the value of the assets and the hedging costs.

Hedging instruments and sources of hedge ineffectiveness

The Group principally uses the following risk management levers for mitigating currency risk:

- derivative instruments: these mostly correspond to over-the-counter contracts and include FX forward transactions, FX swaps, currency swaps, cross currency swaps, plain vanilla FX options or combinations (calls, puts or collars);
- monetary items such as debt, cash and loans.

Sources of hedge ineffectiveness are mainly related to uncertainty regarding the timing and in some cases the amount of the future cash flows in foreign currency that are being hedged.

17.1.5.2 Interest rate risk management

The Group is exposed to interest rate risk through its financing and investing activities. Interest rate risk is defined as a financial risk resulting from fluctuations in base interest rates that may increase the cost of debt and affect the viability of investments. Base interest rates are market interest rates, such as EURIBOR, LIBOR, etc., that do not include the borrower's credit spread.

As part of the interest rate benchmark reform, the Group has elected to apply the transition reliefs permitted by the IASB in the amendments of IFRS 7 and IFRS 9 (Phase 1) which allow the uncertainties caused by the interest rate benchmark reform not to be taken into account in the "highly probable" requirement. The Group is following the status of the project prepared by the IASB in order to assess the impact of the interest rate reform (Phase 2). The Group's risk exposure is mainly related to the highly probable requirement in transactions for which the interest rate is based on US LIBOR.

A Group-wide approach on interest rate risk management is reflected in a dedicated Group policy that is approved by Group Management. This policy distinguishes between the two following main sources of interest rate risk:

- Interest rate risk relating to Group net debt

  Interest rate risk relating to Group net debt designates the financial impact of base rate movements on the debt and cash portfolio from recurring financing activities. This risk is mainly managed centrally.

  Risk management objectives are, by order of importance:

  - to protect the long term viability of assets;
  - to optimize financing costs and ensure competitiveness; and
  - to minimize uncertainty on the cost of debt.

  Interest rate risk is managed actively by monitoring changes in market rates and their impact on the Group's gross and net debt.

- Project interest rate risk

  Specific project interest rate risk corresponds to the potential negative financial impact of base rate movements on specific major operations such as investment projects, acquisitions, disposals and restructuring projects. Interest rate risk after the closing of an operation is considered as regular (see "Interest rate risk" above).

  Interest rate risk is managed for specific project transactions in order to protect the economic viability of projects, acquisitions, disposals and restructuring initiatives against adverse changes in interest rates. It may include the implementation of hedging transactions, depending on a number of factors including the likeliness of completion, the availability of hedging instruments and their associated cost.

Hedging instruments and sources of hedge ineffectiveness

The Group uses principally the following risk management levers for mitigating interest rate risk:

- derivative instruments: these mostly correspond to over-the-counter contracts that are used to manage base interest rates. Such instruments include:
  - swaps, to change the nature of interest payments on debts, typically from fixed to floating rates or vice versa, and
  - plain vanilla interest rate options;
- caps, floors and collars that allow the impact of interest rate fluctuations to be limited by setting minimum and/or maximum limits on floating interest rates.

Sources of hedge ineffectiveness are mainly related to changes in the credit quality of the counterparties and related charges, as well as potential gaps in settlement dates and in indices between the derivative instruments and the related underlying exposures.

17.1.5.3 Currency and interest rate hedges

The Group has elected to apply hedge accounting whenever possible and suitable for currency risk and interest rate risk management and also manages a portfolio of undesignated derivative instruments, corresponding to economic hedges relating to net debt and foreign currency exposures.

The Group uses the three hedge accounting methods: cash flow hedging, fair value hedging and net investment hedging.

In general, the Group does not frequently reset hedging relationships, does not designate specific risk components as a hedged item and does not designate credit exposures as measured at fair value through income.

The Group qualifies interest rate or cross currency swaps transforming fixed-rate debt into floating-rate debt as fair value hedges.

Cash flow hedges are mainly used to hedge future cash flows in foreign currency, floating-rate debt as well as future refinancing requirements.

Net investment hedging instruments are mainly FX swaps and forwards.

The fair values of derivatives (excluding commodity instruments) are indicated in the table below:

	Dec. 31, 2019				Dec. 31, 2018			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Derivatives hedging borrowings	705	124	(183)	(41)	678	42	(259)	(66)
Fair value hedges	*530*	*81*	*(54)*	*(1)*	*521*	*1*	*(29)*	*(1)*
Cash flow hedges	*55*	*-*	*(93)*	*(7)*	*24*	*-*	*(191)*	*-*
Derivative instruments not qualifying for hedge accounting	*120*	*43*	*(36)*	*(34)*	*133*	*42*	*(39)*	*(65)*
Derivatives hedging other items	949	17	(1,934)	(45)	606	28	(1,215)	(38)
Cash flow hedges	*25*	*-*	*(571)*	*(4)*	*21*	*1*	*(284)*	*(4)*
Net investment hedges	*33*	*-*	*(6)*	*-*	*1*	*-*	*(5)*	*-*
Derivative instruments not qualifying for hedge accounting	*891*	*17*	*(1,357)*	*(41)*	*583*	*27*	*(927)*	*(34)*
TOTAL	**1,654**	**142**	**(2,118)**	**(86)**	**1,283**	**71**	**(1,474)**	**(105)**

The fair values shown in the table above reflect the amounts relating to the price that would be received for the sale of an asset or paid for the transfer of a liability between market participants in the normal course of business. They are not representative of expected future cash flows insofar as positions (i) are sensitive to changes in prices or to changes in credit ratings, (ii) can be modified by subsequent transactions, and (iii) can be offset by future cash flows arising on the underlying transactions.

AMOUNT, TIMING AND UNCERTAINTY OF FUTURE CASH FLOWS

The following tables provide a profile of the timing at December 31, 2019 of the nominal amount of hedging instruments:

In millions of euros

Buy/Sell	Interest rate type	Derivative instrument type	Currency	Total	2020	2021	2022	2023	2024	Beyond 5 years
Buy	Fixed	CCS	EUR	(561)	(288)	(271)	(2)	-	-	-
			USD	(3,010)	(1,549)	(1,371)	(45)	(45)	-	-
			GBP	(14,518)	(2,146)	(2,146)	(1,881)	(1,881)	(1,293)	(5,172)
			HKD	(1,212)	(263)	(263)	(263)	(263)	(160)	-
			JPY	(902)	(369)	(369)	(164)	-	-	-
			PEN	(882)	(273)	(262)	(218)	(130)	-	-
			CHF	(737)	(415)	(161)	(161)	-	-	-
			AUD	(535)	(125)	(125)	(125)	(53)	(53)	(53)
			Others	(152)	(51)	(51)	(51)	-	-	-
	Floating	CCS	USD	(413)	(340)	(73)	-	-	-	-
Sale	Fixed	CCS	EUR	17,561	3,138	2,865	2,568	2,277	1,497	5,216
			USD	908	291	265	221	131	-	-
			GBP	545	272	270	2	-	-	-
			Others	158	80	78	-	-	-	-
	Floating	CCS	EUR	2,277	1,180	953	144	-	-	-
		CCS	BRL	1,256	706	550	-	-	-	-

In millions of euros

Buy/Sell	Interest rate type	Derivative instrument type	Currency	Total	2020	2021	2022	2023	2024	Beyond 5 years
Buy	Fixed	CAP	EUR	2,000	1,000	1,000	-	-	-	-
			Other currencies	-	-	-	-	-	-	-
		IRS	EUR	37,331	6,295	8,933	7,246	4,986	3,758	6,112
			USD	3,252	999	1,236	299	259	212	248
			GBP	12	4	4	2	1	-	-
			Other currencies	407	111	106	88	64	33	5
		FRA	EUR	1,650	1,650	-	-	-	-	-
	Floating	IRS	EUR	44,229	13,536	11,648	7,387	4,820	3,080	3,758
			BRL	687	379	308	-	-	-	-

The tables presented above exclude currency derivatives (except for cross currency swaps – CCS). These hedges are mainly short term, with maturity dates aligned with those of the hedged items.

Pursuant to the FX and interest rate risk management policy, FX sensitivity is presented in Note 17.1.3.2 “Currency risk sensitivity analysis” and the average cost of debt is 2.70% as presented in Note 10 “Net financial income/(loss)”.

Effects of hedge accounting on the Group's financial position and performance

CURRENCY DERIVATIVES

	Dec. 31, 2019				Dec. 31, 2018	
	Fair value			Nominal amount	Fair value	Nominal amount
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Cash flow hedges	77	(381)	(305)	3,814	(335)	3,268
Net investment hedges	33	(6)	27	3,027	(3)	1,114
Derivative instruments not qualifying for hedge accounting	70	(77)	(6)	8,985	(23)	10,996
TOTAL	**180**	**(464)**	**(284)**	**15,827**	**(361)**	**15,379**

INTEREST RATE DERIVATIVES

	Dec. 31, 2019				Dec. 31, 2018	
	Fair value			Nominal amount	Fair value	Nominal amount
In millions of euros	Assets	Liabilities	Total	Total	Total	Total
Fair value hedges	611	(55)	556	6,089	491	4,846
Cash flow hedges	-	(290)	(290)	3,649	(98)	1,434
Derivative instruments not qualifying for hedge accounting	998	(1,391)	(393)	21,487	(257)	25,216
TOTAL	**1,609**	**(1,736)**	**(126)**	**31,224**	**136**	**31,496**

The fair values shown in the table above are positive for an asset and negative for a liability.

In millions of euros		Nominal and outstanding amount	Fair value [1]	Change in fair value used for calculating hedge ineffectiveness	Change in the value of the hedging instrument recognized in equity [2]	Ineffective portion recognized in profit or loss [2]	Amount reclassified from the hedge reserve to profit or loss [2]	Line item of the income statement
Fair value hedges	Hedging instruments	6,089	556	556	NA	(3)	NA	Cost of net debt
	Hedged items [3] [4]	6,034	353	1,152	NA		NA	
Cash flow hedges	Hedging instruments	4,702	(433)	(583)	320	(5)	(82)	Other financial income and expenses / Income/(loss) from operating activities
	Hedged items			580				
Net investment hedges	Hedging instruments	1,114	(3)	36	61	NA	(90)	Other financial income and expenses / Income/(loss) from operating activities
	Hedged items			(36)				

(1) The adjustment of the fair value of hedged items is presented as long term and short-term borrowings and debt for an amount of €353 million.
(2) Gains/(losses)
(3) The difference between the fair value used to determine the ineffective portion relating to hedging instruments and that relating to the hedged items corresponds to the amortized cost of borrowings and debt that are part of a fair value hedge relationship.
(4) Of which €126 million relating to hedging items that have ceased to be adjusted as a result of disqualification as a fair value hedge.

Hedge inefficiency is calculated based on the change in the fair value of the hedging instrument compared to the change in the fair value of the hedged items since inception of the hedge. The fair value of the hedging instruments at December 31, 2019 reflects the cumulative change in the fair value of the hedging instruments since inception of the hedges. For fair value hedges, the same principle applies to the hedged items.

FOREIGN CURRENCY AND INTEREST RATE DERIVATIVES DESIGNATED AS CASH FLOW HEDGES CAN BE ANALYZED AS FOLLOWS BY MATURITY

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Fair value of derivatives by maturity date	(9)	(10)	(21)	(27)	(17)	(510)	(594)	(433)

6

AMOUNTS PRESENTED IN THE STATEMENT OF CHANGES IN EQUITY AND THE STATEMENT OF COMPREHENSIVE INCOME

The following table provides a reconciliation of each component of equity and an analysis of other comprehensive income:

			Cash flow hedge	Net investment hedge
In millions of euros	Derivatives hedging borrowings – currency risk hedging (1) (3)	Derivatives hedging other items – interest rate risk hedging (1) (3)	Derivatives hedging other items – currency risk hedging (2) (3)	Derivatives hedging other items – currency risk hedging (2) (4)
AT DECEMBER 31, 2018	**46**	**(741)**	**(28)**	**(313)**
Effective portion recognized in equity	(293)		(27)	(61)
Amount reclassified from the hedge reserve to profit or loss	53		29	90
Translation differences	-	-	-	-
Changes in scope of consolidation and other	-	14	(1)	-
AT DECEMBER 31, 2019	**45**	**(1,010)**	**16**	**(284)**

(1) Cash flow hedges for given periods.
(2) Cash flow hedges for given transactions.
(3) Of which €-425 million of cash flow hedge reserves for which hedge accounting is no longer applied.
(4) All of the reserves relate to continuing hedging relationships.

17.2 Counterparty risk

Due to its financial and operational activities, the Group is exposed to the risk of default of its counterparties (customers, suppliers, EPC contractors, partners, intermediaries, and banks). Default could affect payments, goods delivery and/or asset performance.

The principles of counterparty risk management are set out in the Group counterparty risk policy, which:

- assigns roles and responsibilities for managing and controlling counterparty risk at different levels (Corporate, BU or entity), and ensures operational procedures are in place and consistent across the Group;
- characterizes counterparty risk and the mechanisms by which it impacts the economic performance and financial statements of the Group;
- defines indicators, reporting and control mechanisms to ensure visibility and to provide tools for financial performance management; and
- provides guidelines on the use of mitigating mechanisms such as collateral and guarantees, which are widely used by some businesses.

Depending on the nature of the business, the Group is exposed to different types of counterparty risk. As a result some businesses use collateral instruments – particularly the Energy Management business, where the use of margin calls and other types of financial collateral (standardized legal framework) is a market standard. In addition, other businesses may request guarantees from their counterparties in certain cases (parent company guarantees, bank guarantees, etc.).

Under the new standard IFRS 9, the Group has defined and applied a Group-wide methodology including the two different approaches:

- a portfolio approach, whereby the Group determines that:
  - coherent customer portfolios and sub-portfolios have to be considered (i.e., portfolios that have comparable credit risk and/or comparable payment behavior), taking into account different aspects:
    - public or private counterparties,
    - residential or BtoB counterparties,
    - geography,
    - type of activity,
    - size of the counterparty,
    - any other aspects the Group may consider relevant, and
  - impairment rates must be determined based on historical aging balances and, when correlation is proven and documentation possible, historical data must be adjusted by forward-looking elements;
- an individualized approach for significant counterparties, for which the Group has set rules for defining the stage of the concerned asset for Expected Credit Loss (ECL) calculations:
  - stage 1 covers financial assets that have not deteriorated significantly since initial recognition. The ECL for stage 1 is calculated on a 12-month basis,
  - stage 2 covers financial assets for which the credit risk has significantly increased. The ECL for stage 2 is calculated on a lifetime basis. The decision to move an asset from stage 1 to stage 2 is based on certain criteria such as:
    - a significant downgrade in the counterparty's creditworthiness and/or its parent company and/or its guarantor (if any),
    - significant adverse change in the regulatory environment,
    - changes in political or country-related risk, and
    - any other aspect the Group may consider relevant.

Regarding financial assets that are more than 30 days past due, the move to stage 2 is not systematically applied as long as the Group has reasonable and supportable information that demonstrates that, even if payments become more than 30 days past due, this does not represent a significant increase in the credit risk since initial recognition.

- stage 3 covers assets for which default has already been observed, such as:
  - when there is evidence of significant and ongoing financial difficulty of the counterparty,
  - when there is evidence of failure in credit support from a parent company to its subsidiary (in this case the subsidiary is the Group's counterparty at risk),
  - when a Group entity has initiated legal proceedings against the counterparty for non-payment.

Regarding financial assets that are more than 90 days past due, the presumption can be rebutted if the Group has reasonable and supportable information that demonstrates that even if payments become more than 90 days past due, this does not indicate counterparty default.

The ECL formula applicable in stages 1 and 2 is ECL = EAD x PD x LGD, where:

- for 12-month ECL, Exposure At Default (EAD) equals the carrying amount of the financial asset, to which the relevant Probability of Default (PD) and the Loss Given Default (LGD) are applied;
- for lifetime ECL, the calculation method consists in identifying changes in exposure for each year, especially the expected timing and amount of the contractual repayments, and then applying to each repayment the relevant PD and the LGD, and discounting the figures obtained. ECL is then the sum of the discounted figures; and
- probability of default: is the likelihood of default over a particular time horizon (in stage 1, this time horizon is 12 months after the reporting period; in stage 2 this time horizon is the entire lifetime of the financial asset). This information is based on external data from a well-known rating agency. The PD depends on the time horizon and of the rating of the counterparty. The Group uses external ratings if they are available; ENGIE's credit risk experts determine an internal rating for major counterparties with no external rating.

LGD levels are notably based on Basel standards:

- 75% for subordinated assets; and
- 45% for standard assets.

For assets considered to be of strategic importance for the counterparty, such as essential public services or goods, LGD is set at 30%.

The Group has decided that write-offs apply in the following situations:

- assets for which a legal recovery procedure is pending: should not be written off as long as the procedure is ongoing;
- assets for which no legal recovery procedure is pending: should be written off once the trade receivable is 3 years overdue (5 years overdue for public counterparties).

17.2.1 Operating activities

Counterparty risk arising on operating activities is managed via standard mechanisms such as third-party guarantees, netting agreements and margin calls, using dedicated hedging instruments or special prepayment and debt recovery procedures, particularly for retail customers.

Under the Group's policy, each business unit is responsible for managing counterparty risk, although the Group continues to manage the biggest counterparty exposures centrally.

The credit rating of large- and mid-sized counterparties with which the Group has exposures above a certain threshold is measured based on a specific rating process, while a simplified credit scoring process is used for commercial customers with which the Group has fairly low exposures. These processes are based on formally documented, consistent methods across the Group. Consolidated exposures are monitored by counterparty and by segment (credit rating, sector, etc.) using standard indicators (payment risk, mark-to-market exposure).

The Group's Energy Market Risk Committee (CRME) consolidates and monitors the Group's exposure to its main energy counterparties on a quarterly basis and ensures that the exposure limits set for these counterparties are respected.

17.2.1.1 Trade and other receivables, assets from contracts with customers

Total outstanding exposures presented in the tables hereafter do not include impacts relating to VAT or to any other item not subject to credit risk, which amounted to €2,898 million and €1 million respectively for "Trade and other receivables" and "Assets from contract with customers" at December 31, 2019 (compared to €2,547 million and €13 million at December 31, 2018).

INDIVIDUAL APPROACH

In millions of euros		Dec. 31, 2019 Individual approach	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade (1)	Other	Total by counterparty type
Trade and other receivables, net	Gross	9,395	8,300	802	294	9,395	7,814	1,581	9,395
	Expected credit losses	(318)	(64)	(66)	(187)	(318)	(172)	(146)	(318)
TOTAL		**9,077**	**8,235**	**735**	**107**	**9,077**	**7,642**	**1,436**	**9,077**
Assets from contracts with customers	Gross	2,896	2,672	196	28	2,896	1,782	1,115	2,896
	Expected credit losses	(15)	(13)	(1)	(1)	(15)	(10)	(6)	(15)
TOTAL		**2,881**	**2,659**	**195**	**27**	**2,881**	**1,772**	**1,109**	**2,881**

In millions of euros		Dec. 31, 2018 Individual approach	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade (1)	Other	Total by counterparty type
Trade and other receivables, net	Gross	10,339	9,694	422	222	10,339	9,161	1,178	10,339
	Expected credit losses	(323)	(109)	(71)	(145)	(323)	(205)	(118)	(323)
TOTAL		**10,016**	**9,586**	**352**	**77**	**10,016**	**8,956**	**1,060**	**10,016**
Assets from contracts with customers	Gross	3,052	2,730	261	61	3,052	2,358	694	3,052
	Expected credit losses	(7)	(6)	-	(1)	(7)	(4)	(3)	(7)
TOTAL		**3,045**	**2,725**	**261**	**59**	**3,045**	**2,354**	**691**	**3,045**

(1) *Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's.*

COLLECTIVE APPROACH

In millions of euros		Dec. 31, 2019 Collective approach	0 to 6 months	6 to 12 months	beyond	Total past due assets at Dec. 31, 2019
Trade and other receivables, net	Gross	4,019	875	113	293	1,281
	Expected credit losses	(754)	(24)	(29)	(159)	(213)
TOTAL		**3,265**	**851**	**83**	**134**	**1,068**
Assets from contracts with customers	Gross	4,953	486	4	2	492
	Expected credit losses	(2)	-	-	-	-
TOTAL		**4,951**	**485**	**4**	**2**	**492**

In millions of euros		Dec. 31, 2018 Collective approach	0 to 6 months	6 to 12 months	beyond	Total past due assets at Dec. 31, 2018
Trade and other receivables, net	Gross	3,804	730	146	368	1,243
	Expected credit losses	(762)	(18)	(19)	(243)	(281)
TOTAL		**3,042**	**711**	**126**	**125**	**962**
Assets from contracts with customers	Gross	4,381	43	3	4	51
	Expected credit losses	(1)	-	-	-	-
TOTAL		**4,379**	**43**	**3**	**4**	**51**

17.2.1.2 Commodity derivatives

In the case of commodity derivatives, counterparty risk arises from positive fair value. Counterparty risk is taken into account when calculating the fair value of these derivative instruments.

	Dec. 31, 2019		Dec. 31, 2018	
In millions of euros	Investment Grade (1)	Total	Investment Grade (1)	Total
Gross exposure (2)	9,849	12,466	9,325	12,027
Net exposure (3)	3,501	4,422	2,701	3,683
% of credit exposure to "Investment Grade" counterparties	79.2%		73.4%	

(1) Investment Grade corresponds to transactions with counterparties that are rated at least BBB- by Standard & Poor's, Baa3 by Moody's, or equivalent by Dun & Bradstreet. "Investment Grade" is also determined based on an internal rating tool that has been rolled out within the Group, and covers its main counterparties.
(2) Corresponds to the maximum exposure, i.e., the value of the derivatives shown under assets (positive fair value).
(3) After taking into account the liability positions with the same counterparties (negative fair value), collateral, netting agreements and other credit enhancement techniques.

17.2.2 Financing activities

For its financing activities, the Group has put in place procedures for managing and monitoring risk based on (i) the accreditation of counterparties according to external credit ratings, objective market data (credit default swaps, market capitalization) and financial structure, and (ii) counterparty risk exposure limits.

To reduce its counterparty risk exposure, the Group drew increasingly on a structured legal framework based on master agreements (including netting clauses) and collateralization contracts (margin calls).

The oversight procedure for managing counterparty risk arising from financing activities is managed by a Middle Office that operates independently of the Group's Treasury department and reports to the Finance division.

17.2.2.1 Loans and receivables at amortized cost

The total outstanding exposures presented in the tables hereafter do not include impacts relating to VAT or to any other item not subject to credit risk, which amount at December 31, 2019 to €899 million (compared to €809 million at December 31, 2018).

	Dec. 31, 2019						
In millions of euros	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade (1)	Other	Total by counterparty type
Gross	4,257	564	49	4,870	2,772	2,098	4,870
Expected credit losses	(53)	(56)	(30)	(139)	(36)	(104)	(139)
TOTAL	**4,204**	**508**	**19**	**4,731**	**2,736**	**1,995**	**4,731**

	Dec. 31, 2018						
In millions of euros	Level 1: low credit risk	Level 2: increased credit risk	Level 3: impaired assets	Total by risk level	Investment Grade (1)	Other	Total by counterparty type
Gross	3,402	466	233	4,100	2,003	2,098	4,100
Expected credit losses	(91)	-	(227)	(319)	(86)	(233)	(319)
TOTAL	**3,311**	**466**	**5**	**3,781**	**1,917**	**1,865**	**3,781**

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's.

6

17.2.2.2 Counterparty risk arising from investing activities and the use of derivative financial instruments

The Group is exposed to counterparty risk arising from investments of surplus cash and from the use of derivative financial instruments. In the case of financial instruments at fair value through income, counterparty risk arises on instruments with a positive fair value. Counterparty risk is taken into account when calculating the fair value of these derivative instruments.

	Dec. 31, 2019				Dec. 31, 2018			
In millions of euros	Total	Investment Grade (1)	Unrated (2)	Non-Investment Grade (2)	Total	Investment Grade (1)	Unrated (2)	Non-Investment Grade (2)
Exposure	10,686	85.7%	4.7%	9.6%	9,634	85.0%	6.0%	8.0%

(1) Investment Grade corresponds to counterparties that are rated at least BBB- by Standard & Poor's or Baa3 by Moody's.

(2) Most of these two exposures is carried by consolidated companies that include non-controlling interests, or by Group companies that operate in emerging countries, where cash cannot be pooled and is therefore invested locally.

Furthermore, at December 31, 2019, Crédit Agricole Corporate and Investment Bank (CACIB) is the main Group counterparty and represents 30% of cash surpluses. This relates mainly to a depositary risk.

17.3 Liquidity risk

In the context of its operating activities, the Group is exposed to a risk of having insufficient liquidity to meet its contractual obligations. As well as the risks inherent in managing working capital requirements (WCR), margin calls are required in certain market activities.

The Group has set up a quarterly committee tasked with managing and monitoring liquidity risk throughout the Group, by maintaining a broad range of investments and sources of financing, preparing forecasts of cash investments and divestments, and performing stress tests on the margin calls put in place when commodity, interest rate and currency derivatives are negotiated.

The Group centralizes virtually all financing needs and cash flow surpluses of the companies it controls, as well as most of their medium- and long-term external financing requirements. Centralization is provided by financing vehicles (long-term and short-term) and by dedicated Group cash pooling vehicles based in France, Belgium and Luxembourg.

Surpluses held by these structures are managed in accordance with a uniform policy. Unpooled cash surpluses are invested in instruments selected on a case-by-case basis in light of local financial market imperatives and the financial strength of the counterparties concerned.

The onslaught of successive financial crises since 2008 and the ensuing rise in counterparty risk prompted the Group to tighten its investment policy with the aim of keeping an extremely high level of liquidity and protecting invested capital and a daily monitoring of performance and counterparty risks for both investment types, allowing the Group to take immediate action where required in response to market developments. Consequently, 76% of cash pooled at December 31, 2019 was invested in overnight bank deposits and standard money market funds with daily liquidity.

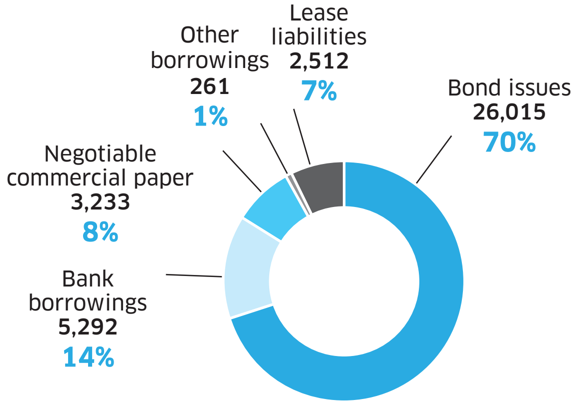
The Group's financing policy is based on:

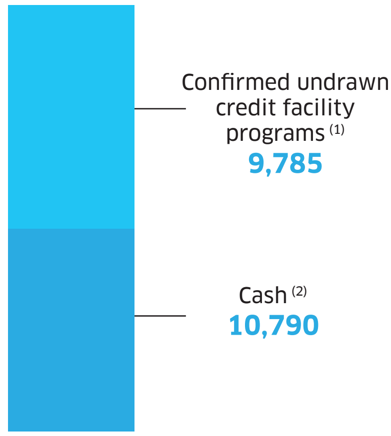
- centralizing external financing;
- diversifying sources of financing between credit institutions and capital markets;
- achieving a balanced debt repayment profile.

The Group seeks to diversify its sources of financing by carrying out public or private bond issues within the scope of its Euro Medium Term Notes program. It also issues negotiable commercial paper in France and in the United States. As negotiable commercial paper is relatively inexpensive and highly liquid, it is used by the Group in a cyclical or structural fashion to finance its short-term cash requirements. However, the refinancing of all outstanding negotiable commercial paper remains secured by confirmed bank lines of credit – mainly centralized – allowing the Group to continue to finance its activities if access to this financing source were to dry up. These facilities are appropriate for the scale of its operations and for the timing of contractual debt repayments.

DIVERSIFYING SOURCES OF FINANCING AND LIQUIDITY

In millions of euros





(1) Net amount of negotiable commercial paper.

(2) Cash corresponds to cash and cash equivalents, other financial assets deducted from net financial debt, net of bank overdrafts and current accounts, of which 64% was invested in the Eurozone.

At December 31, 2019, all the entities of the Group whose debt is consolidated complied with the covenants and declarations included in their financial documentation, except for some non-significant entities for which compliance actions are being implemented. None of these centralized facilities contain a default clause linked to covenants or minimum credit ratings.

17.3.1 Undiscounted contractual payments relating to financial activities

UNDISCOUNTED CONTRACTUAL PAYMENTS ON OUTSTANDING BORROWINGS AND DEBT BREAK DOWN AS FOLLOWS BY MATURITY

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Bond issues	2,753	1,805	2,628	2,600	1,156	15,074	26,015	22,645
Bank borrowings	1,063	465	694	368	233	2,469	5,292	4,620
Negotiable commercial paper	3,233	-	-	-	-	-	3,233	2,894
Lease liabilities	491	446	311	245	218	1,075	2,512	380
Other borrowings	33	19	155	6	6	41	261	191
Bank overdrafts and current accounts	247	-	-	-	-	-	247	464

Other financial assets and cash and cash equivalents deducted from net financial debt have a liquidity of less than 1 year.

UNDISCOUNTED CONTRACTUAL INTEREST PAYMENTS ON OUTSTANDING BORROWINGS AND DEBT BREAK DOWN AS FOLLOWS BY MATURITY

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Undiscounted contractual interest flows on outstanding borrowings and debt	1,023	798	703	613	508	6,227	9,872	9,335

UNDISCOUNTED CONTRACTUAL PAYMENTS ON OUTSTANDING DERIVATIVES (EXCLUDING COMMODITY INSTRUMENTS) BREAK DOWN AS FOLLOWS BY MATURITY

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Derivatives (excluding commodity instruments)	(215)	(136)	(124)	33	(11)	217	(237)	(138)

To better reflect the economic substance of these transactions, the cash flows linked to the derivatives recognized in assets and liabilities shown in the table above relate to net positions.

GROUP'S UNDRAWN CREDIT FACILITY PROGRAMS

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Confirmed undrawn credit facility programs	1,200	582	5,837	204	5,000	196	13,019	13,232

Of these undrawn programs, an amount of €3,233 million is allocated to covering commercial paper issues.

At December 31, 2019, no single counterparty represented more than 5% of the Group's confirmed undrawn credit lines.

17.3.2 Undiscounted contractual payments relating to operating activities

The table below provides an analysis of undiscounted fair values due and receivable in respect of commodity derivatives recorded in assets and liabilities at the statement of financial position date.

The Group provides an analysis of residual contractual maturities for commodity derivative instruments included in its portfolio management activities. Derivative instruments relating to trading activities are considered to be liquid in less than one year, and are presented under current items in the statement of financial position.

In millions of euros	2020	2021	2022	2023	2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Derivative instruments carried in liabilities								
relating to portfolio management activities	*(1,135)*	*(2,171)*	*(360)*	*(224)*	*(86)*	*(452)*	*(4,428)*	*(2,114)*
relating to trading activities	*(9,238)*	-	-	-	-	-	*(9,238)*	*(10,579)*
Derivative instruments carried in assets								
relating to portfolio management activities	*1,042*	*1,634*	*316*	*120*	*35*	*215*	*3,363*	*2,080*
relating to trading activities	*8,954*	-	-	-	-	-	*8,954*	*9,952*
TOTAL	**(376)**	**(537)**	**(43)**	**(104)**	**(51)**	**(237)**	**(1,349)**	**(661)**

17.3.3 Commitments relating to commodity purchase and sale contracts entered into within the ordinary course of business

Some Group operating companies have entered into long-term contracts, some of which include "take-or-pay" clauses. These consist of firm commitments to purchase or sell specified quantities of gas, electricity or steam as well as related services, in exchange for a firm commitment from the other party to deliver or purchase said quantities and services. These contracts were documented as falling outside the scope of IFRS 9. The table below shows the main future commitments arising from contracts entered into by Others (GEM BU) and Latin America (expressed in TWh):

In TWh	2020	2021-2024	Beyond 5 years	Total at Dec. 31, 2019	Total at Dec. 31, 2018
Firm purchases	(370)	(910)	(1,218)	(2,498)	(3,070)
Firm sales	480	613	480	1,573	1,329

NOTE 18 Equity

18.1 Share capital

	Number of shares			Value (in millions of euros)		
	Total	Treasury stock	Outstanding	Share capital	Additional paid-in capital	Treasury stock
AT DECEMBER 31, 2018	**2,435,285,011**	**(23,891,170)**	**2,411,393,841**	**2,435**	**32,565**	**(460)**
Dividend paid in cash	-	-	-	-	(1,096)	-
Purchase/disposal of treasury stock	-	1,737,451	1,737,451	-	-	29
Delivery of treasury stock (bonus)	-	-	-	-	-	-
Revaluation	-	-	-	-	-	128
AT DECEMBER 31, 2019	**2,435,285,011**	**(22,153,719)**	**2,413,131,292**	**2,435**	**31,470**	**(303)**

Changes in the number of shares during 2019 result solely from the disposal of for 1.7 million treasury shares, as part of bonus share plans.

18.1.1 Potential share capital and instruments providing a right to subscribe for new ENGIE SA shares

Since 2017, the Group no longer has any stock purchase option plan.

Shares to be allocated under the performance share award plans described in Note 21 "Share-based payments" are covered by existing ENGIE SA shares.

18.1.2 Treasury stock

Accounting standards

Treasury shares are recognized at acquisition cost and deducted from equity. Gains and losses on disposals of treasury shares are recorded directly in equity and do not therefore impact income for the period.

The Group has a stock repurchase program as a result of the authorization granted to the Board of Directors by the Ordinary and Extraordinary Shareholders' Meeting of May 17, 2019. This program provides for the repurchase of up to 10% of the shares comprising the share capital of ENGIE SA at the date of the said Shareholders' Meeting. The aggregate amount of acquisitions net of expenses under the program may not exceed €7.3 billion, and the purchase price must be less than €30 per share excluding acquisition costs.

At December 31, 2019, the Group held 22.2 million treasury shares. To date, 20.4 million shares have been allocated to cover the Group's share commitments to employees and corporate officers.

The liquidity agreement signed with an investment service provider assigns to the latter the role of operating on the market on a daily basis, to buy or sell ENGIE SA shares, in order to ensure liquidity and an active market for the shares on the Paris and Brussels stock exchanges. To date, the resources allocated to the implementation of this agreement amount to €150 million.

18.2 Other disclosures concerning additional paid-in capital, consolidated reserves and issuance of deeply-subordinated perpetual notes (Group share)

Total additional paid-in capital, consolidated reserves and issuance of deeply-subordinated perpetual notes (including net income for the fiscal year), amounted to €34,014 million at December 31, 2019, including €31,470 million in additional paid-in capital.

Consolidated reserves include the cumulative income of the Group, the legal and statutory reserves of ENGIE SA, cumulative actuarial gains and losses, net of tax and the change in fair value of equity instruments at fair value through OCI.

Under French law, 5% of the net income of French companies must be allocated to the legal reserve until the latter reaches 10% of share capital. This reserve can only be distributed to shareholders in the event of liquidation. The ENGIE SA legal reserve amounts to €244 million.

18.2.1 Issuance of deeply-subordinated perpetual notes

On January 28, 2019, ENGIE SA carried out an early refinancing of deeply-subordinated perpetual notes, resulting in:

- an issue of green deeply-subordinated perpetual notes for an amount of €1 billion offering a coupon of 3.25% with an annual reimbursement option from February 2025, accounted for in equity for a net amount of €983 million;
- notification of a partial early redemption proposal for the €1 billion tranche (coupon 3%) for a total amount of €839 million. The first reimbursement option for this hybrid debt was planned for June 2019. The Group made a squeeze-out for the balance of €161 million since it reimbursed more than 80% of this hybrid debt. ENGIE SA reimbursed the balance on March 12, 2019.

On July 8, 2019, ENGIE SA also carried out a second early refinancing of deeply-subordinated perpetual notes, resulting in:

- an issue of a green deeply-subordinated perpetual notes for an amount of €500 million offering a coupon of 1.625% with an annual reimbursement option from July 2025, accounted for in equity for a net amount of €495 million;

- notification of a partial early redemption proposal for €750 million (4.75% coupon) for a total amount of €337 million. The first reimbursement option for this hybrid debt was planned for July 2021.

In accordance with the provisions of IAS 32 – *Financial Instruments – Presentation*, and given their characteristics, these new instruments were accounted for in equity in the Group's consolidated financial statements for a total amount of €1,478 million.

At December 31, 2019 the nominal value of the deeply-subordinated notes amounted to €3,913 million.

In 2019, the Group paid €150 million to the owners of these notes, including €108 million relating to coupons and €42 million for early repayment compensation. This amount is accounted for as a deduction from equity in the Group's consolidated financial statements; the relating tax saving is accounted for in the income statement.

18.2.2 Distributable capacity of ENGIE SA

ENGIE SA's distributable capacity totaled €31,290 million at December 31, 2019 (compared with €33,320 million at December 31, 2018), after deducting the interim dividend paid on May 23, 2019 for a total amount of €1,833 million, including €31,470 million of additional paid-in capital.

18.2.3 Dividends

The table below shows the dividends and interim dividends paid by ENGIE SA in respect of 2018 and 2019.

	Amount distribute *(in millions of euros)*	**Net dividend per share** *(in euros)*
In respect of 2018		
Interim dividend (paid on October 12, 2018)	892	0.37
Remaining dividend for 2018 (paid on May 23, 2019)	917	0.38
Exceptional dividend for 2018 (paid on May 23, 2019)	893	0.37
Remaining additional dividend for 2018 (paid on May 23, 2019)	24	0.11
In respect of 2019		**-**
Interim dividend	-	-

The Shareholders' Meeting of May 17, 2019 approved the distribution of a total dividend of €1.12 per share in respect of 2018. In accordance with Article 26.2 of the bylaws, a dividend increase of 10% (€0.11 per share) has been allocated to shares registered in the name of the holder for at least two years at December 31, 2018, provided they are held in this form by the same shareholder until the payment date. This 10% increase may only apply, for any one shareholder, for a number of shares not representing more than 0.5% of the capital.

As an interim dividend of €0.37 per share was paid on October 12, 2018, for an amount of €892 million. ENGIE SA settled the remaining dividend balance of €0.75 per share in cash on May 23, 2019, for an amount of €1,810 million, for shares benefiting from an ordinary dividend, as well as the remaining €0.86 per share for shares benefiting from the bonus dividend for an amount of €24 million, i.e., a total dividend of €1,833 million.

Proposed dividend in respect of 2019

Shareholders at the Shareholders' Meeting convened to approve the ENGIE Group financial statements for the year ended December 31, 2019, will be asked to approve a dividend of €0.80 per share, representing a total payout of €1,931 million based on the number of shares outstanding at December 31, 2019. It will be increased by 10% for all shares held for at least two years on December 31, 2019 and up to the 2019 dividend payment date. Based on the number of outstanding shares on December 31, 2019, this increase is valued at €17 million.

Subject to approval by the Shareholders' Meeting of May 14 2020, this dividend, net of the interim dividend paid will be detached on May 18, 2020 and paid on May 20, 2020. It is not recognized as a liability in the financial statements at December 31, 2019, since the financial statements at the end of 2019 were presented before the appropriation of earnings.

18.3 Total gains and losses recognized in equity (Group share)

All items shown in the table below correspond to cumulative gains and losses (Group share) at December 31, 2019 and December 31, 2018, which are recyclable to income in subsequent periods.

In millions of euros	**Dec. 31, 2019**	**Dec. 31, 2018**
Debt instruments	76	28
Net investment hedges	(284)	(313)
Cash flow hedges (excl. commodity instruments)	(958)	(725)
Commodity cash flow hedges	(837)	(30)
Deferred taxes on the items above	505	244
Share of equity method entities in recyclable items, net of tax	(462)	(223)
TOTAL RECYCLABLE ITEMS BEFORE TRANSLATION ADJUSTMENTS	**(1,961)**	**(1,019)**
Translation adjustments	(1,098)	(1,130)
TOTAL RECYCLABLE ITEMS	**(3,060)**	**(2,149)**

18.4 Capital management

ENGIE SA seeks to optimize its financial structure at all times by pursuing an optimal balance between its net financial debt and its EBITDA. The Group's key objective in managing its financial structure is to maximize value for shareholders and reduce the cost of capital, while ensuring that the Group has the financial flexibility required to continue its expansion. The Group manages its financial structure and makes any necessary adjustments in light of prevailing economic conditions. In this context, it may choose to adjust the amount of dividends paid to shareholders, reimburse a portion of capital, carry out share buybacks (*see Note 18.1.2 "Treasury stock"*), issue new shares, launch share-based payment plans, recalibrate its investment budget, or sell assets in order to scale back its net debt.

The Group's policy is to maintain an "A" rating by the rating agencies. To achieve this, it manages its financial structure in line with the indicators usually monitored by these agencies, namely the Group's operating profile, financial policy and a series of financial ratios. One of the most commonly used ratios is the ratio where the numerator includes operating cash flows less net financial expense and taxes paid, and the denominator includes adjusted net financial debt. Net financial debt is mainly adjusted for nuclear provisions, provisions for unfunded pension plans and operating lease commitments.

The Group's objectives, policies and processes for managing capital have remained unchanged over the past few years.

ENGIE SA is not obliged to comply with any minimum capital requirements except those provided for by law.

NOTE 19 Provisions

Accounting standards

General principles related to the recognition of a provision

The Group recognizes a provision where it has a present obligation (legal or constructive) towards a third party arising from past events and where it is probable that an outflow of resources will be necessary to settle the obligation with no expected consideration in return.

A provision for restructuring costs is recognized when the general criteria for setting up a provision are met, i.e. when the Group has a detailed formal plan relating to the restructuring and has raised a valid expectation in those affected that it will carry out the restructuring by starting to implement that plan or announcing its main features to those affected by it.

Provisions with a maturity of over 12 months are discounted when the effect of discounting is material. The Group's main long-term provisions are provisions for the back-end of the nuclear fuel cycle, provisions for dismantling facilities and provisions for site restoration costs. The discount rates used reflect current market assessments of the time value of money and the risks specific to the liability concerned. Expenses with respect to unwinding the discount on the provision are recognized as other financial income and expenses.

Estimates of provisions

Factors having a significant influence on the amount of provisions, and particularly, but not solely, those relating to the back-end of the nuclear fuel cycle, to the dismantling of nuclear facilities and of gas infrastructures in France, include:

- cost estimates (notably the retained scenario for managing radioactive nuclear fuel consumed) (*see Note 19.2*);
- the timing of expenditure (notably, for nuclear power generation activities, the timetable for reprocessing radioactive nuclear fuel consumed and for dismantling facilities as well as the timetable for the end of gas operations regarding the main gas infrastructure businesses in France) (*see Notes 19.2 and 19.3*); and
- the discount rate applied to cash flows.

These factors are based on information and estimates deemed by the Group to be the most appropriate as of today.

Modifications to certain factors could lead to a significant adjustment in these provisions.

In millions of euros	Post-employment and other long-term benefits	Back-end of the nuclear fuel cycle	Dismantling of plant and equipment [(2)] and Site rehabilitation	Other contingencies	Total
AT DECEMBER 31, 2018 [(1)]	**6,371**	**6,170**	**6,303**	**2,969**	**21,813**
IFRS 16 & IFRIC 23 (*see Note 1*)	-	-	-	(301)	(301)
AT JANUARY 1, 2019 with IFRS 16 & IFRIC 23	**6,371**	**6,170**	**6,303**	**2,667**	**21,512**
Additions	285	1,362	72	467	2,187
Utilizations	(331)	(164)	(150)	(677)	(1,322)
Reversals	(1)	-	(1)	(47)	(48)
Changes in scope of consolidation	(41)	-	(73)	60	(54)
Impact of unwinding discount adjustments	123	220	213	24	580
Translation adjustments	-	-	5	2	6
Other	1,075	23	1,196	(40)	2,254
AT DECEMBER 31, 2019	**7,481**	**7,611**	**7,566**	**2,458**	**25,115**
Non-current	7,346	7,487	7,550	433	22,817
Current	135	123	15	2,024	2,298

(1) Published data at December 31, 2018 were not restated due to the transition method used for the application of IFRS 16 and IFRIC 23 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").
(2) Of which €6,573 million in provisions for dismantling nuclear facilities, compared to €5,337 million at December 31, 2018.

The impact of unwinding discount adjustments in respect of post-employment and other long-term benefits relates to the interest expense on the benefit obligation, net of the interest income on plan assets.

The "Other" line mainly comprises actuarial gains and losses arising on post-employment benefit obligations in 2019, which are recorded in "Other comprehensive income" as well as provisions recorded against a dismantling or site rehabilitation asset.

Additions, utilizations, reversals and the impact of unwinding discount adjustments are presented as follows in the consolidated income statement:

In millions of euros	Dec. 31, 2019
Income/(loss) from operating activities	(823)
Other financial income and expenses	(573)
TOTAL	**(1,397)**

The different types of provisions and the calculation principles applied are described below.

19.1 Post-employment benefits and other long-term benefits

See Note 20 "Post-employment benefits and other long-term benefits".

19.2 Obligations relating to nuclear power generation activities

In the context of its nuclear power generation activities, the Group assumes obligations relating to the management of the back-end nuclear fuel cycle and the dismantling of nuclear facilities.

19.2.1 Legal framework

The Belgian law of April 11, 2003 granted Group subsidiary Synatom responsibility for managing provisions set aside to cover the costs of dismantling nuclear power plants and managing spent nuclear fuel in those plants. The tasks of the Commission for Nuclear Provisions (CNP) set up pursuant to the above-mentioned law is to oversee the process of computing and managing these provisions.

To enable the Commission for Nuclear Provisions to carry out its work in accordance with the above-mentioned law, Synatom is required to submit a report every three years describing the core inputs used to measure these provisions. If any changes are observed from one triennial report to another that could materially impact the financial inputs used, i.e., the industrial scenario, estimated costs and timing, the Commission may revise its opinion.

Synatom submitted its triennial report to the Commission on September 12, 2019. The Commission issued its opinion on December 12, 2019 based on the opinion given by ONDRAF, the Belgian agency for radioactive waste and enriched fissile material. The CNP's findings take into account:

- the impact of the new baseline scenario for the long-term management of Class B and C radioactive waste (medium and high level) in Belgium, agreed by ONDRAF in June 2018, which is estimated at a gross amount of €10.7 billion;
- ONDRAF's recommendations as regards including various certain or probable costs;
- the scenario prepared ahead of the shutdown and dismantling of nuclear power plants based on industrial experience, and in particular the ongoing dismantling in Germany;
- the financial calculation based on lower discount rates to obtain a prudent estimate of the provisions required today to cover expenditure that will only be incurred in some cases in more than 70 years' time.

The CNP's decision includes a decrease in discount rates to reflect the current low interest rate environment. This means that Belgian nuclear plant owners will have to set aside larger amounts as of now. Discount rates, which were set at 3.50% at December 31, 2018, have been reduced at December 31, 2019 to 2.5% for dismantling, for which expenditure will begin as of next year, and 3.25% for spent nuclear fuel, for which expenditure will be incurred over the coming decades.

All in all, the opinion of the Commission for Nuclear Provisions and the obligations related to projects to dispose of nuclear waste have resulted in a €2.1 billion increase in the ENGIE Group's nuclear provisions, in addition to the recurring annual discount unwinding charge and provisions for additional quantities of fuel consumed during the year.

The provisions recognized by the Group were measured taking into account the prevailing contractual and legal framework, which sets the operating life of the Tihange 1 reactor and the Doel 1 and 2 reactors at 50 years, and the other reactors at 40 years.

The provisions set aside take into account all existing or planned environmental regulatory requirements on a European, national and regional level. If new legislation were to be introduced in the future, the cost estimates used as a basis for the calculations could vary. However, the Group is not aware of any planned legislation on this matter that could materially impact the amount of the provisions.

The estimated provision amounts include margins for contingencies and other risks that may arise in connection with dismantling and radioactive spent fuel management procedures. The contingency margins relating to the disposal of waste are determined by ONDRAF and built into its fees. The Group also estimates appropriate margins for each cost category.

The Group considers that, to the best of its knowledge, the provisions approved by the Commission take into account all currently available information to manage the contingencies and other risks associated with processes such as dismantling nuclear facilities and managing radioactive spent fuel.

19.2.2 Provisions for the back-end of the nuclear fuel cycle

Accounting standards

Allocations to the provisions for the back-end of the nuclear fuel cycle are computed based on the average unit cost of the quantities expected to be used up to the end of the operating life of the plants, applied to quantities used at the closing date. An annual allocation is also recognized with respect to unwinding the discount on the provisions.

When spent nuclear fuel is removed from a reactor and temporarily stored on-site, it requires conditioning and potentially reprocessing to separate the most active radionuclides, before being consigned to long-term storage.

ONDRAF proposed on February 9, 2018 that geological storage be adopted as the national policy for managing high-level and/or long-lived radioactive waste. The proposal is subject to the approval of the Belgian government after obtaining the opinion of the Federal Agency for Nuclear Control (*Agence Fédérale de Contrôle Nucléaire* – AFCN).

In addition, ENGIE considers that the "mixed" scenario adopted by the Commission for Nuclear Provisions continues to apply, whereby the fuel containing the most active radionuclides is reprocessed, and the rest disposed of directly without reprocessing.

The provisions booked by the Group for nuclear fuel processing and storage cover all of the costs linked to the "mixed" scenario, including on-site storage, transportation, reprocessing, conditioning, storage and geological disposal. They are calculated based on the following principles and inputs:

- storage costs primarily comprise the costs of building and operating additional dry storage facilities and operating existing facilities, along with the costs of purchasing containers;
- part of the radioactive spent fuel is transferred for reprocessing. The resulting plutonium and uranium is sold to a third party;
- radioactive spent fuel that has not been reprocessed is to be conditioned, which requires conditioning facilities to be built according to ONDRAF's approved criteria. ONDRAF's recommendations as regards the cost of these facilities have been fully taken into account;
- the reprocessing residues and conditioned spent fuel are transferred to ONDRAF; the cost of burying fuel in deep geological repositories is estimated by ONDRAF and evaluated not based on the amount of the fees set by ONDRAF in 2018 based on a total disposal facility cost of €8.0 billion$_{2017}$, but using a "virtual prudential tariff" established by ONDRAF at the request of the Commission for Nuclear Provisions, based on a total disposal facility cost of €10.7 billion$_{2017}$ excluding potential areas for optimization subject to appraisal. The estimated cost of the AFCN's preliminary recommendation as regards an additional well has also been included based on ONDRAF recommendations.
- the long-term obligation is calculated using estimated internal costs and external costs assessed based on offers received from third parties;
- the new baseline scenario includes ONDRAF's updated scenario, which is delayed by about 30 years compared with the scenario used in 2016, with geological storage beginning in about 2070 and ending in about 2135, and the intermediate reprocessing and conditioning storage delayed accordingly;
- the discount rate used is reduced to 3.25%. It takes into account (i) an analysis of trends in long-term benchmark rates and their historical and forecast averages, (ii) the extension of the life of the liabilities based on the new ONDRAF scenario, and (iii) the undertakings relating to the funding of those provisions made by Electrabel to Synatom (*see Note 16.1.4 "Financial assets set aside to cover the future costs of dismantling nuclear facilities and managing radioactive fissile material*");
- an inflation rate assumption of 2.0% (actual rate of 1.25%).

The costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment. In its opinion to the Commission for Nuclear Provisions, ONDRAF pointed out the uncertainty over some costs, which in principle are covered by the contingency margins, but for which the Commission will set up a work and further analysis program as of 2020. The provisions may be subsequently adjusted in line with changes in the above-mentioned inputs and related cost estimates. Belgium's current legal framework does not permit partial reprocessing and has not yet confirmed the adoption of geological storage as the policy for managing medium and high level nuclear waste.

As regards the partial reprocessing scenario, following a resolution adopted by the House of Representatives in 1993, reprocessing contracts that had not already begun were suspended and then terminated in 1998. The scenario adopted is based on the assumption that the Belgian government will allow Synatom to reprocess spent fuel and that an agreement will be reached between Belgium and France designating Orano (formerly Areva) as responsible for these reprocessing operations. A scenario assuming the direct disposal of waste without reprocessing would lead to a decrease in the provision compared to the provision resulting from the "mixed" scenario currently used and approved by the Commission for Nuclear Provisions.

The Belgian government has not yet taken a decision as to whether the waste should be buried in a deep geological repository or stored over the long term. On November 27, 2019, the European Commission sent a reasoned opinion to Belgium under the breach procedure provided for in Article 258 of the Treaty on the Functioning of the European Union, on the grounds that Belgium had not adopted a national program for managing radioactive waste in compliance with various requirements set out in the directive on spent fuel and radioactive waste (Council directive 2011/70/Euratom). At this stage, therefore, there is only one national program for the safe storage of spent fuel pending reprocessing or long-term storage. The scenario adopted by the Commission for Nuclear Provisions is based on the assumption that the waste will be buried in a deep geological repository at a site yet to be identified and classified in Belgium.

Sensitivity

Provisions for the back-end of the nuclear fuel cycle remain sensitive to assumptions regarding costs, the timing of operations and expenditure, as well as to discount rates:

- a 10% increase in ONDRAF fees above the virtual prudential tariff requested by the Commission for Nuclear Provisions for the removal of high-level and/or long-lived waste would lead to an increase in provisions of approximately €170 million based on unchanged contingency margins;
- a five-year advance in ONDRAF's expenditure on temporary storage, conditioning and long-term storage for high-level and/or long-lived radioactive waste would lead to an increase in provisions of approximately €165 million. A five-year delay in the payment schedule for these various expenses would lead to a decrease of less than €165 million;
- a change of 10 basis points in the discount rate used could lead to an adjustment of approximately €250 million in provisions for the back-end of the nuclear fuel cycle. A fall in discount rates would lead to an increase in outstanding provisions, while a rise in discount rates would reduce the provision amount.

These sensitivities are calculated on a purely financial basis and should therefore be interpreted with appropriate caution in view of the variety of other inputs – some of which may be interdependent – included in the evaluation.

19.2.3 Provisions for dismantling nuclear facilities

Accounting standards

A provision is recognized when the Group has a present legal or constructive obligation to dismantle facilities or to restore a site. The present value of the engagement at the time of commissioning represents the initial amount of the provision for dismantling with, as counterpart, an asset for the same amount, which is included in the carrying amount of the facilities concerned. This asset is depreciated over the operating life of the facilities. Adjustments to the provision due to subsequent changes in (i) the expected outflow of resources, (ii) the timing of dismantling expenses or (iii) the discount rate, are deducted from or, subject to specific conditions, added to the cost of the corresponding asset. The impacts of unwinding the discount are recognized in expenses for the period.

A provision is also recorded for nuclear units for which the Group holds a capacity right up to its share of the expected decommissioning costs to be borne by the Group.

Nuclear power plants have to be dismantled at the end of their operating life. Provisions are set aside in the Group's financial statements to cover all costs relating to (i) the shutdown phase, which involves removing radioactive spent fuel from the site and (ii) the dismantling phase, which consists of decommissioning and cleaning up the site.

The dismantling strategy is based on the facilities being dismantled (i) immediately after the reactor is shut down, (ii) on a mass basis rather than on a site-by-site basis, and (iii) completely, the land being subsequently returned to greenfield status.

Provisions for dismantling nuclear facilities are calculated based on the following principles and inputs:

- costs payable over the long term are calculated by reference to the estimated costs for each nuclear facility, based on a study conducted by independent experts under the assumption that the facilities will be dismantled on a mass basis;
- fees for handling Class A and B dismantling waste are determined using the 'virtual prudential tariff' established by ONDRAF at the request of the Commission for Nuclear Provisions and include the margins recommended by ONDRAF for waste reclassification risk given the uncertainty over the definition of the criteria for classification in those classes;
- for the various phases, margins for usual contingencies, reviewed by ONDRAF and the Commission for Nuclear Waste, are included;
- an inflation rate of 2.0% is applied until the dismantling obligations expire in order to determine the value of the future obligation;

- a discount rate reduced to 2.5% (including inflation of 2.0%) is applied to determine the present value (NPV) of the obligation. It is different from the rate used to calculate the provision for processing spent nuclear fuel due to the major differences in horizon of the two liabilities after taking into account ONDRAF's new scenario;
- the operating life is 50 years for Tihange 1 and Doel 1 and 2, and 40 years for the other facilities;
- the start of the technical shutdown procedures depends on the facility concerned and on the timing of operations for the nuclear reactor as a whole. The shutdown procedures are immediately followed by dismantling operations.

The costs effectively incurred in the future may differ from the estimates in terms of their nature and timing of payment. In its opinion to the Commission for Nuclear Provisions, ONDRAF pointed out the uncertainty over some costs, which in principle are covered by the contingency margins, but for which the Commission will set up a work and further analysis program as of 2020. The provisions may be subsequently adjusted in line with changes in the above-mentioned inputs. However, these inputs and assumptions are based on information and estimates which the Group deems reasonable to date and which have been approved by the Commission for Nuclear Provisions.

The scenario adopted is based on a dismantling program and on timetables that have to be approved by the nuclear safety authorities.

Sensitivity

Based on currently applied inputs for estimating costs and the timing of payments, a change of 10 basis points in the discount rate used could lead to an adjustment of approximately €60 million in dismantling provisions. A fall in discount rates would lead to an increase in outstanding provisions, while a rise in discount rates would reduce the provision amount.

This sensitivity is calculated on a purely financial basis and should therefore be interpreted with appropriate caution in view of the variety of other inputs – some of which may be interdependent – included in the evaluation.

19.3 Dismantling of non-nuclear plant and equipment and site rehabilitation

19.3.1 Dismantling obligations arising on other non-nuclear plant and equipment

Certain plant and equipment, including conventional power stations, transmission and distribution pipelines, storage facilities and LNG terminals, have to be dismantled at the end of their operational lives. This obligation is the result of prevailing environmental regulations in the countries concerned, contractual agreements, or an implicit Group commitment.

Based on estimates of proven and probable gas reserves through 2260 using current production levels, dismantling provisions for gas infrastructures in France have a present value near zero.

19.3.2 Hazelwood Power Station & Mine (Australia)

The Group and its partner Mitsui announced in November 2016 their decision to close the coal-fired Hazelwood Power Station, and cease coal extraction operations from the adjoining mine from late March 2017. The Group holds a 72% interest in the former 1,600 MW power station and adjoining mine, which was previously fully consolidated and has been consolidated on joint operation since September 2018.

At December 31, 2019, the Group's share (72%) of the provision covering the obligation to dismantle and rehabilitate the mine amounted to €280 million.

Dismantling and site rehabilitation work commenced in 2017 and focused on: managing site contamination; planning site-wide environmental clean-up; the demolition and dismantling of all of the site's industrial facilities, including the former power station; and ongoing aquifer pumping and designated earthworks within the mine to ensure mine floor and batter stability with a view to long-term rehabilitation into a pit lake.

Several laws that have a direct or indirect impact on mine rehabilitation and on the agencies that administer the laws are currently being reformed. Consequently, the ultimate regulatory obligations are likely to be revised during the life of the project and could therefore have an impact on provisions.

The average discount rate used to determine the amount of the provisions is 3.17%.

The amount of the provision recognized is based on the Group's best current estimate of the demolition and rehabilitation costs that Hazelwood is expected to incur. However, the amount of this provision may be adjusted in the future to take into account any changes in the key inputs.

19.4 Other contingencies

This caption includes essentially provisions for commercial litigation, tax claims and disputes (except income tax, under the rule of IFRIC 23) as well as provisions for onerous contracts relating to storage and transport capacity reservation contracts.

NOTE 20 Post-employment benefits and other long-term benefits

Accounting standards

Depending on the laws and practices in force in the countries where the Group operates, Group companies have obligations in terms of pensions, early retirement payments, retirement bonuses and other benefit plans. Such obligations generally apply to all employees within the companies concerned.

The Group's obligations in relation to pensions and other employee benefits are recognized and measured in compliance with IAS 19. Accordingly:

- the cost of defined contribution plans is expensed based on the amount of contributions payable in the period;
- the Group's obligations concerning pensions and other employee benefits payable under defined benefit plans are assessed on an actuarial basis using the projected unit credit method. These calculations are based on assumptions relating to mortality, staff turnover and estimated future salary increases, as well as the economic conditions specific to each country or entity of the Group. Discount rates are determined by reference to the yield, at the measurement date, on investment grade corporate bonds in the related geographical area (or on government bonds in countries where no representative market for such corporate bonds exists).

Pension commitments are measured on the basis of actuarial assumptions. The Group considers that the assumptions used to measure its obligations are relevant and documented. However, any change in these assumptions could have a significant impact on the resulting calculations.

Provisions are recorded when commitments under these plans exceed the fair value of plan assets. Where the value of plan assets (capped where appropriate) is greater than the related commitments, the surplus is recorded as an asset under "Other assets" (current or non-current).

As regards post-employment benefit obligations, actuarial gains and losses are recognized in other comprehensive income. Where appropriate, adjustments resulting from applying the asset ceiling to net assets relating to overfunded plans are treated in a similar way. However, actuarial gains and losses on other long-term benefits such as long-service awards, are recognized immediately in income.

Net interest on the net defined benefit liability (asset) is presented in net financial income/(loss).

20.1 Description of the main pension plans

20.1.1 Companies belonging to the Electricity and Gas Industries sector in France

Since January 1, 2005, the CNIEG (*Caisse Nationale des Industries Électriques et Gazières*) has operated the pension, disability, death, occupational accident and occupational illness benefit plans for electricity and gas industry (hereinafter "EGI") companies in France. The CNIEG is a social security legal entity under private law placed under the joint responsibility of the ministries in charge of social security and the budget.

Employees and retirees of EGI sector companies have been fully affiliated to the CNIEG since January 1, 2005. The main affiliated Group entities are ENGIE SA, GRDF, GRTgaz, Elengy, Storengy, ENGIE Thermique France, CPCU, CNR and SHEM.

Following the funding reform of the special EGI pension plan introduced by Law No. 2004-803 of August 9, 2004 and its implementing decrees, specific benefits (pension benefits on top of the standard benefits payable under ordinary law) already vested at December 31, 2004 ("past specific benefits") were allocated between the various EGI entities. Past specific benefits (benefits vested at December 31, 2004) relating to regulated transmission and distribution businesses ("regulated past specific benefits") are funded by the levy on gas and electricity transmission and distribution services (*Contribution Tarifaire d'Acheminement*) and therefore no longer represent an obligation for the ENGIE Group. Unregulated past specific benefits (benefits vested at December 31, 2004) are funded by EGI sector companies to the extent defined by Decree No. 2005-322 of April 5, 2005.

The special EGI pension plan is a legal pension plan available to new entrants.

The specific benefits vested under the plan since January 1, 2005 are wholly financed by EGI sector companies in proportion to their respective weight in terms of payroll costs within the EGI sector.

As this plan represents a defined benefit plan, the Group has set aside a pension provision in respect of specific benefits payable to employees of unregulated activities and specific benefits vested by employees of regulated activities since January 1, 2005. This provision also covers the Group's early retirement obligations. The provision amount may be subject to fluctuations based on the weight of the Group's companies within the EGI sector.

Pension benefit obligations and other "mutualized" obligations are assessed by the CNIEG.

At December 31, 2019, the projected benefit obligation in respect of the special pension plan for EGI sector companies amounted to €3.7 billion.

The duration of the pension benefit obligation of the EGI pension plan is 22 years.

20.1.2 Companies belonging to the electricity and gas sector in Belgium

In Belgium, the rights of employees in electricity and gas sector companies, principally Electrabel, Laborelec and some ENGIE Energy Management Trading and ENGIE CC employee categories, are governed by collective bargaining agreements.

These agreements, applicable to "wage-rated" employees recruited prior to June 1, 2002 and managerial staff recruited prior to May 1, 1999, specify the benefits entitling employees to a supplementary pension equivalent to 75% of their most recent annual income, for a full career and in addition to the statutory pension. These top-up pension payments provided under defined benefit plans are partly reversionary. In practice, the benefits are paid in the form of a lump sum for the majority of plan participants. Most of the obligations resulting from these pension plans are financed through pension funds set up for the electricity and gas sector and by certain insurance companies. Pre-funded pension plans are financed by employer and employee contributions. Employer contributions are calculated annually based on actuarial assessments.

The projected benefit obligation relating to these plans represented around 15% of total pension obligations and related liabilities at December 31, 2019. The average duration is nine years.

"Wage-rated" employees recruited after June 1, 2002 and managerial staff (i) recruited after May 1, 1999 or (ii) having opted for the transfer through defined contribution plans, are covered under defined contribution plans. Prior to January 1, 2017, the law specified a minimum average annual return (3.75% on wage contributions and 3.25% on employer contributions) when savings are liquidated.

The law on supplementary pensions, approved on December 18, 2016 and enforced on January 1, 2017 henceforth specifies a minimum rate of return, depending on the actual rate of return of Belgian government bonds, within a range of 1.75%-3.25% (the rates are now identical for employee and employer contributions). In 2019, the minimum rate of return stood at 1.75%.

An expense of €36 million was recognized in 2019 in respect of these defined contribution plans (€24 million in 2018).

20.1.3 Multi-employer plans

Employees of some Group companies are affiliated to multi-employer pension plans.

Under multi-employer plans, risks are pooled to the extent that the plan is funded by a single contribution rate determined for all affiliated companies and applicable to all employees.

Multi-employer plans are particularly common in the Netherlands, where employees are normally required to participate in a compulsory industry-wide plan. These plans cover a significant number of employers, thereby limiting the impact of potential default by an affiliated company. In the event of default, the vested rights are maintained in a special compartment and are not transferred to the other members. Refinancing plans may be set up to ensure the funds are balanced.

The ENGIE Group accounts for multi-employer plans as defined contribution plans.

The expense recognized in 2019 in respect of multi-employer pension plans was stable as compared to 2018 at €71 million.

20.1.4 Other pension plans

Most other Group companies also grant their employees retirement benefits. In terms of financing, pension plans within the Group are almost equally split between defined benefit and defined contribution plans.

The Group's main pension plans outside France, Belgium and the Netherlands concern:

- the United Kingdom: the large majority of defined benefit pension plans is now closed to new entrants and future benefits no longer vest under these plans. All entities run a defined contribution scheme. The pension obligations of International Power's subsidiaries in the United Kingdom are covered by the special Electricity Supply Pension Scheme (ESPS). The assets of this defined benefit scheme are invested in separate funds. Since June 1, 2008, the scheme has been closed and a defined contribution plan has been set up for new entrants;
- Germany: the Group's German subsidiaries have closed their defined benefit plans to new entrants and now offer defined contribution plans;
- Brazil: ENGIE Brasil Energia operates its own pension scheme. This scheme has been split into two parts, one for the (closed) defined benefit plan, and the other for the defined contribution plan that has been available to new entrants since the beginning of 2005.

20.2 Description of other post-employment benefit obligations and other long-term benefits

20.2.1 Other benefits granted to current and former EGI sector employees

Other benefits granted to EGI sector employees are:

Post-employment benefits:

- reduced energy prices;
- end-of-career indemnities;
- bonus leave;
- death capital benefits.

Long-term benefits:

- allowances for occupational accidents and illnesses;
- temporary and permanent disability allowances;
- long-service awards.

The Group's main obligations are described below.

20.2.1.1 Reduced energy prices

Under Article 28 of the national statute for electricity and gas industry personnel, all employees (current and former employees, provided they meet certain length-of-service conditions) are entitled to benefits in kind, which take the form of reduced energy prices known as "employee rates".

This benefit entitles employees to electricity and gas supplies at a reduced price. For retired employees, this provision represents a post-employment defined benefit. Retired employees are only entitled to the reduced rate if they have completed at least 15 years' service within EGI sector companies.

In accordance with the agreements signed with EDF in 1951, ENGIE provides gas to all current and former employees of ENGIE and EDF, while EDF supplies electricity to these same beneficiaries. ENGIE pays (or benefits from) the balancing contribution payable in respect of its employees as a result of energy exchanges between the two utilities.

The obligation to provide energy at a reduced price to current and former employees is measured as the difference between the energy sale price and the preferential rate granted.

The provision set aside in respect of reduced energy prices stood at €3.6 billion at December 31, 2019. The duration of the obligation is 23 years.

20.2.1.2 End-of-career indemnities

Retiring employees (or their dependents in the event of death during active service) are entitled to end-of-career indemnities, which increase in line with the length of service within the EGI sector.

20.2.1.3 Compensation for occupational accidents and illnesses

EGI sector employees are entitled to compensation for accidents at work and occupational illnesses. These benefits cover all employees or the dependents of employees who die as a result of occupational accidents or illnesses, or injuries suffered on the way to work.

The amount of the obligation corresponds to the likely present value of the benefits to be paid to current beneficiaries, taking into account any reversionary annuities.

20.2.2 Other benefits granted to employees of the gas and electricity sector in Belgium

Electricity and gas sector companies also grant other employee benefits such as the reimbursement of medical expenses, electricity and gas price reductions, as well as length-of-service awards and early retirement schemes. These benefits are not prefunded, with the exception of the special "*allocation transitoire*" termination indemnity, considered as an end-of-career indemnity.

20.2.3 Other collective agreements

Most other Group companies also grant their staff post-employment benefits (early retirement plans, medical coverage, benefits in kind, etc.) and other long-term benefits such as jubilee and length-of-service awards.

20.3 Defined benefit plans

20.3.1 Amounts presented in the statement of financial position and statement of comprehensive income

In accordance with IAS 19, the information presented in the statement of financial position relating to post-employment benefit obligations and other long-term benefits results from the difference between the gross projected benefit obligation and the fair value of plan assets. A provision is recognized if this difference is positive (net obligation), while a prepaid benefit cost is recorded in the statement of financial position when the difference is negative, provided that the conditions for recognizing the prepaid benefit cost are met.

Changes in provisions for post-employment benefits and other long-term benefits, plan assets and reimbursement rights recognized in the statement of financial position are as follows:

In millions of euros	Provisions	Plan assets	Reimbursement rights
AT DECEMBER 31, 2018	**(6,371)**	**108**	**168**
Exchange rate differences	7	(5)	-
Changes in scope of consolidation and other	96	(39)	8
Actuarial gains and losses	(1,142)	(7)	(18)
Periodic pension cost of continued operations	(427)	(66)	2
Asset ceiling	-	-	-
Contributions/benefits paid	356	63	1
AT DECEMBER 31, 2019	**(7,481)**	**53**	**161**

Plan assets and reimbursement rights are presented in the statement of financial position under "Other non-current assets" or "Other current assets".

The cost recognized for the period amounted to €492 million in 2019 (€525 million in 2018). The components of this defined benefit cost in the period are set out in Note 20.3.4 "Components of the net periodic pension cost".

The Eurozone represented 97% of the Group's net obligation at December 31, 2019, unchanged compared to December 31, 2018).

Cumulative actuarial gains and losses recognized in equity amounted to €4,594 million at December 31, 2019, compared to €3,472 million at December 31, 2018.

Net actuarial differences arising in the period and presented on a separate line in the statement of comprehensive income represented a net actuarial loss of €1,149 million in 2019 and of €231 million in 2018.

20.3.2 Change in benefit obligations and plan assets

The table below shows the amount of the Group's projected benefit obligations and plan assets, changes in these items during the periods presented, and their reconciliation with the amounts reported in the statement of financial position:

In millions of euros		Dec. 31, 2019 Pension benefit obligations (1)	Dec. 31, 2019 Other post-employment benefit obligations (2)	Dec. 31, 2019 Long-term benefit obligations (3)	Dec. 31, 2019 Total	Dec. 31, 2018 Pension benefit obligations (1)	Dec. 31, 2018 Other post-employment benefit obligations (2)	Dec. 31, 2018 Long-term benefit obligations (3)	Dec. 31, 2018 Total
A – CHANGE IN PROJECTED BENEFIT OBLIGATION									
Projected benefit obligation at January 1		**(7,713)**	**(3,794)**	**(499)**	**(12,006)**	**(7,653)**	**(3,739)**	**(539)**	**(11,931)**
Service cost		(291)	(63)	(43)	(397)	(308)	(62)	(42)	(412)
Interest expense		(173)	(76)	(9)	(258)	(165)	(73)	(8)	(245)
Contributions paid		(16)	-	-	(16)	(16)	-	-	(16)
Amendments		(1)	-	-	(1)	(3)	(5)	10	2
Changes in scope of consolidation		172	(5)	(1)	166	(37)	31	49	43
Curtailments/settlements		75	-	1	76	1	-	-	1
Non-recurring items		-	-	-	-	-	2	-	2
Financial actuarial gains and losses		(887)	(698)	(5)	(1,590)	(44)	(35)	(1)	(80)
Demographic actuarial gains and losses		(120)	57	(14)	(76)	101	1	1	103
Benefits paid		373	108	39	521	397	97	40	533
Other (of which translation adjustments)		10	-	-	10	16	(11)	(10)	(5)
Projected benefit obligation at December 31	**A**	**(8,570)**	**(4,470)**	**(531)**	**(13,572)**	**(7,713)**	**(3,794)**	**(499)**	**(12,006)**
B – CHANGE IN FAIR VALUE OF PLAN ASSETS									
Fair value of plan assets at January 1		**5,767**	**-**	**-**	**5,767**	**5,904**	**-**	**-**	**5,904**
Interest income on plan assets		133	-	-	133	128	-	-	128
Financial actuarial gains and losses		497	-	-	497	(253)	-	-	(253)
Contributions received		197	-	-	197	309	15	-	324
Changes in scope of consolidation		(109)	-	-	(109)	32	-	-	32
Settlements		(28)	-	-	(28)	-	-	-	-
Benefits paid		(282)	-	-	(282)	(341)	(15)	-	(357)
Other (of which translation adjustments)		(7)	-	-	(7)	(11)	-	-	(11)
Fair value of plan assets at December 31	**B**	**6,169**	**-**	**-**	**6,169**	**5,767**	**-**	**-**	**5,767**
C – FUNDED STATUS	**A+B**	**(2,402)**	**(4,470)**	**(531)**	**(7,403)**	**(1,945)**	**(3,794)**	**(499)**	**(6,239)**
Asset ceiling		(25)	-	-	(25)	(25)	-	-	(25)
NET BENEFIT OBLIGATION		**(2,427)**	**(4,470)**	**(531)**	**(7,428)**	**(1,970)**	**(3,794)**	**(499)**	**(6,263)**
ACCRUED BENEFIT LIABILITY		(2,480)	(4,470)	(531)	(7,481)	(2,078)	(3,794)	(499)	(6,371)
PREPAID BENEFIT COST		53	-	-	53	108	-	-	108

(1) Pensions and retirement bonuses.
(2) Reduced energy prices, healthcare, gratuities and other post-employment benefits.
(3) Length-of-service awards and other long-term benefits.

20.3.3 Change in reimbursement rights

The fair value of reimbursement rights relating to plan assets managed by amounted to €161 million at December 31, 2019 (€168 million at December 31, 2018).

20.3.4 Components of the net periodic pension cost

The net periodic cost recognized in respect of defined benefit obligations for the years ended December 31, 2019 and 2018 breaks down as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Current service cost	397	412
Actuarial gains and losses (1)	19	(1)
Plan amendments	-	(2)
Gains or losses on pension plan curtailments, terminations and settlements	(49)	(1)
Non-recurring items	-	(2)
Total accounted for under current operating income including operating MtM and share in net income of equity method entities	**368**	**407**
Net interest expense	125	117
Total accounted for under net financial income/(loss)	**125**	**117**
TOTAL	**492**	**525**

(1) On the long-term benefit obligation.

20.3.5 Funding policy and strategy

When defined benefit plans are funded, the related plan assets are invested in pension funds and/or with insurance companies, depending on the investment practices specific to the country concerned. The investment strategies underlying these defined benefit plans are aimed at striking the right balance between return on investment and acceptable levels of risk.

The objectives of these strategies are twofold: to maintain sufficient liquidity to cover pension and other benefit payments; and as part of risk management, to achieve a long-term rate of return higher than the discount rate or, where appropriate, at least equal to future required returns.

When plan assets are invested in pension funds, investment decisions are the responsibility of the fund management concerned. For French companies, where plan assets are invested with an insurance company, the latter manages the investment portfolio for unit-linked policies or euro-denominated policies, in a manner adapted to the risk and long-term profile of the liabilities.

The funding of these obligations at December 31 for each of the periods presented can be analyzed as follows:

In millions of euros	Projected benefit obligation	Fair value of plan assets	Asset ceiling	Total net obligation
Underfunded plans	(7,399)	5,616	(25)	(1,809)
Overfunded plans	(517)	553	-	36
Unfunded plans	(5,655)	-	-	(5,655)
AT DECEMBER 31, 2019	**(13,571)**	**6,169**	**(25)**	**(7,428)**
Underfunded plans	(5,648)	4,294	(23)	(1,377)
Overfunded plans	(1,375)	1,473	(2)	96
Unfunded plans	(4,977)	-	-	(4,977)
AT DECEMBER 31, 2018	**(12,000)**	**5,767**	**(25)**	**(6,258)**

The allocation of plan assets by principal asset category can be analyzed as follows:

In %	Dec. 31, 2019	Dec. 31, 2018
Equity investments	27	27
Sovereign bond investments	26	25
Corporate bond investments	27	27
Money market securities	3	4
Real estate	2	2
Other assets	15	15
TOTAL	**100**	**100**

All plan assets were quoted on an active market at December 31, 2019.

The actual return on assets of EGI sector companies stood at a positive 9% in 2019.

In 2019, the actual return on plan assets of Belgian entities amounted to approximately 3% in Group insurance and a positive 14% in pension funds.

The allocation of plan asset categories by geographic area of investment can be analyzed as follows:

In %	Europe	North America	Latin America	Asia – Oceania	Rest of the World	Total
Equity investments	58	26	3	10	3	100
Sovereign bond investments	76	1	22	-	2	100
Corporate bond investments	75	18	1	3	2	100
Money market securities	72	-	5	-	23	100
Real estate	86	-	7	-	6	100
Other assets	11	8	3	3	76	100

20.3.6 Actuarial assumptions

Actuarial assumptions are determined individually by country and company in conjunction with independent actuaries. Weighted discount rates for the main actuarial assumptions are presented below:

		Pension benefit obligations		Other post-employment benefit obligations		Long-term benefit obligations		Total benefit obligations	
		2019	2018	2019	2018	2019	2018	2019	2018
Discount rate	Eurozone	1.2%	2.0%	1.2%	2.1%	1.0%	1.6%	1.2%	1.9%
	UK Zone	1.7%	2.5%	-	-	-	-	-	-
Inflation rate	Eurozone	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
	UK Zone	3.4%	3.3%	-	-	-	-	-	-

20.3.6.1 Discount and inflation rate

The discount rate applied is determined based on the yield, at the date of the calculation, investment grade corporate bonds with maturities mirroring the term of the plan.

The rates were determined for each monetary area based on data for AA corporate bond yields. For the Eurozone, data (from Bloomberg) are extrapolated on the basis of government bond yields for long maturities.

According to the Group's estimates, a 100-basis-point increase or decrease in the discount rate would result in a change of approximately 17% in the projected benefit obligation.

The inflation rates were determined for each monetary area. A 100-basis-point increase or decrease in the inflation rate (with an unchanged discount rate) would result in a change of approximately 16% in the projected benefit obligation.

20.3.6.2 Other assumptions

The increase in the rate of medical costs (including inflation) was estimated at 2.8%.

A 100-basis-point change in the assumed increase in medical costs would have the following impacts:

In millions of euros	100-basis-point increase	100-basis-point decrease
Impact on expenses	-	-
Impact on pension obligations	4	(5)

20.3.7 Estimated employer contributions payable in 2020 under defined benefit plans

The Group expects to pay around €200 million in contributions into its defined benefit plans in 2020, including €121 million for EGI sector companies. Annual contributions in respect of EGI sector companies will be made by reference to rights vested during the year, taking into account the funding level for each entity in order to even out contributions over the medium term.

20.4 Defined contribution plans

In 2019, the Group recorded a €121 million expense in respect of amounts paid into Group defined contribution plans (€133 million in 2018). These contributions are recorded under "Personnel costs" in the consolidated income statement.

NOTE 21 Share-based payments

Accounting standards

Under IFRS 2, share-based payments made in consideration for services provided are recognized as personnel costs. These services are measured at the fair value of the instruments awarded.

The fair value of bonus share plans is estimated by reference to the share price at the grant date, taking into account the fact that no dividend is payable over the vesting period, and based on the estimated turnover rate for the employees concerned and the probability that the Group will meet its performance targets. The fair value measurement also takes into account the non-transferability period associated with these instruments. The cost of shares granted to employees is expensed over the vesting period of the rights and offset against equity.

A Monte Carlo pricing model is used for performance shares granted on a discretionary basis and subject to external performance criteria.

Expenses recognized in respect of share-based payments break down as follows:

	Expense for the year	
In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Employee share issues (1)	(1)	(31)
Bonus/performance share plans (2)	(48)	(46)
Other Group companies' plans	(2)	(3)
TOTAL	**(51)**	**(80)**

(1) Including Share Appreciation Rights set up within the scope of employee share issues in certain countries.
(2) Of which a reversal of €2 million in 2019 for failure to meet the condition of continuing employment within the Group.

21.1 Performance shares

21.1.1 New awards in 2019

ENGIE Performance Share plan of December 17, 2019

On December 17, 2019, the Board of Directors approved the award of 5 million performance shares to members of the Group's executive and senior management, breaking down into three tranches:

- performance shares vesting on March 14, 2023, subject to a one-year lock-up period;
- performance shares vesting on March 14, 2023, without a lock-up period; and
- performance shares vesting on March 14, 2024, without a lock-up period.

In addition to a condition requiring employees to be employed with the Group at the vesting date, each tranche is made up of instruments subject to three different conditions, excluding the first 150 performance shares granted to beneficiaries (excluding top management), which are exempt from performance conditions. The performance conditions, each of which accounts for one-third of the total grant, are as follows:

- a market performance condition relating to ENGIE's Total Shareholder Return compared to that of a reference panel of ten companies, as assessed between November 2019 and January 2023;
- two internal performance conditions relating to net recurring income Group share and to Return On Capital Employed (ROCE) in 2021 and 2022.

Under this plan, performance shares without conditions were also awarded to the winners of the Innovation and Incubation programs (18,000 shares awarded).

21.1.2 Fair value of bonus share plans with or without performance conditions

The following assumptions were used to calculate the fair value of the new plans awarded by ENGIE in 2019:

Award date	Vesting date	End of the lock-up period	Price at the award date	Expected dividend	Financing cost for the employee	Non-transferability cost	Market-related performance condition	Fair value per unit
December 17, 2019	March 14, 2023	March 14, 2024	14.7	0.75	4.3%	0.44	yes	11.03
December 17, 2019	March 14, 2023	March 14, 2023	14.7	0.75	4.3%	0.44	yes	11.55
December 17, 2019	March 14, 2023	March 14, 2023	14.7	0.75	4.3%	0.56	no	12.45
December 17, 2019	March 14, 2024	March 14, 2024	14.7	0.75	4.3%	0.44	yes	10.84
Weighted average fair value of the December 17, 2019 plan								**11.01**

21.1.3 Review of internal performance conditions applicable to the plans

In addition to the condition of continuing employment within the Group, eligibility for certain bonus share and performance share plans is subject to an internal performance condition. When this condition is not fully met, the number of bonus shares granted to employees is reduced in accordance with the plans' regulations, leading to a decrease in the total expense recognized in relation to the plans in accordance with IFRS 2. Performance conditions are reviewed at each reporting date.

NOTE 22 Related party transactions

This note describes material transactions between the Group and its related parties.

Compensation payable to key management personnel is disclosed in Note 23 "Executive compensation".

Transactions with joint ventures and associates are described in Note 3 "Investments in equity method entities".

Only material transactions are described below.

22.1 Relations with the French State and with entities owned or partly owned by the French State

22.1.1 Relations with the French State

The French State's interest in the Group at December 31, 2019 was unchanged from the previous year at 23.64%. This entitles it to three seats on the Board of Directors out of a total of 14 (compared to four out of a total of 19).

The French State holds 34.23% of the theoretical voting rights (34.47% of exercisable voting rights) compared with 34.51% at end-2018.

On May 22, 2019, the PACTE act ("Action plan for business growth and transformation") was passed, enabling the French State to dispose of its ENGIE shares without restrictions.

In addition, the French State holds a golden share aimed at protecting France's critical interests and ensuring the continuity and safeguarding of supplies in the energy sector. The golden share is granted to the French State indefinitely and entitles it to veto decisions taken by ENGIE if it considers they could harm France's interests.

Public service engagements in the energy sector are defined by the law of January 3, 2003.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, as well as rates for accessing the French LNG terminals and revenues from storage capacities are all regulated.

The Law on Energy and Climate passed on November 8, 2019 will put an end to regulated gas tariffs and will restrict regulated electricity tariffs for consumers and small businesses. The final date for the discontinuation of regulated gas tariffs is July 1, 2023.

22.1.2 Relations with EDF

Following the creation on July 1, 2004 of the French gas and electricity distribution network operator (EDF Gaz de France Distribution), Gaz de France SA and EDF entered into an agreement on April 18, 2005 setting out their relationship as regards the distribution business. The December 7, 2006 law on the energy sector reorganized the natural gas and electricity distribution networks. Enedis SA (previously ERDF SA), a subsidiary of EDF SA, and GRDF SA, a subsidiary of ENGIE SA, were created on January 1, 2007 and January 1, 2008, respectively, and act in accordance with the agreement previously signed by the two incumbent operators.

22.2 Relations with the CNIEG (Caisse Nationale des Industries Électriques et Gazières)

The Group's relations with the CNIEG, which manages all old-age, death and disability benefits for active and retired employees of the Group who belong to the special EGI pension plan, employees of EDF and Non-Nationalized Companies (*Entreprises Non Nationalisées* – ENN), are described in Note 20 "Post-employment benefits and other long-term benefits".

NOTE 23 Executive compensation

The executive compensation presented below includes the compensation of the members of the Group's Executive Committee and Board of Directors.

Their compensation breaks down as follows:

The Executive Committee had 14 members at December 31, 2019 (11 members at December 31, 2018).

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Short-term benefits	21	21
Post-employment benefits	10	6
Share-based payments	5	5
Termination benefits	-	0
TOTAL	**36**	**31**

The amount of pension benefit obligations in respect of members of the Group's Executive Committee stood at €37 million at December 31, 2019, being specified that this is an estimated amount as these obligations are, as a rule, not individualized. The Group has a policy of financing pension obligations through hedging assets, without these being specifically allocated to the retirement obligations of a dedicated population.

NOTE 24 Working capital requirements, inventories, other assets and other liabilities

Accounting standards

In accordance with IAS 1, the Group's current and non-current assets and liabilities are shown separately in the consolidated statement of financial position. For most of the Group's activities, the breakdown into current and non-current items is based on when assets are expected to be realized, or liabilities extinguished. Assets expected to be realized or liabilities extinguished within 12 months of the reporting date are classified as current, while all other items are classified as non-current.

24.1 Composition of change in working capital requirements

In millions of euros	Change in working capital requirements at Dec. 31, 2019	Change in working capital requirements at Dec. 31, 2018 (1)
Inventories	465	(268)
Trade and other receivables, net	802	(2,311)
Trade and other payables, net	(1,107)	2,177
Tax and employee-related receivables/payables	(36)	237
Margin calls and derivative instruments hedging commodities relating to trading activities	(981)	197
Other	(253)	117
TOTAL	**(1,110)**	**149**

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

24.2 Inventories

Accounting standards

Inventories are measured at the lower of cost and net realizable value. Net realizable value corresponds to the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

The cost of inventories is determined based on the first-in, first-out method or the weighted average cost formula.

Nuclear fuel purchased is consumed in the process of producing electricity over a number of years. The consumption of this nuclear fuel inventory is recorded based on estimates of the quantity of electricity produced per unit of fuel.

Gas inventories

Gas injected into underground storage facilities includes working gas, which can be withdrawn without adversely affecting the subsequent operation of the reservoirs, and cushion gas, which is inseparable from the reservoirs and essential for their operation (*see Note 15 "Property, plant and equipment"*).

Working gas is classified in inventories and measured at weighted average purchase cost upon entering the transportation network regardless of its source, including any regasification costs.

Group inventory outflows are valued using the weighted average unit cost method.

An impairment loss is recognized when the net realizable value of inventories is lower than their weighted average cost.

Certain inventories are used for trading purposes and are recognized at fair value less the estimated costs necessary to make the sale in accordance with IAS 2. Any changes in this fair value are recognized in the consolidated income statement for the year to which they occur.

Greenhouse gas emissions allowances

European Directive 2003/87/EC establishes a scheme for greenhouse gas (GHG) emissions allowance trading within the European Union. Under the Directive, each year the entities concerned must surrender a number of allowances equal to the total GHG emissions of their installations during the previous year. As there are no specific rules under IFRS dealing with the accounting treatment of GHG emissions allowances, the Group decided to apply the following principles:

- emissions allowances are classified as inventories, as they are consumed in the production process;
- emissions allowances purchased on the market are recognized at acquisition cost;
- emissions allowances granted free of charge are recorded in the statement of financial position for a value of nil.

The Group records a liability at the year-end in the event that it does not have enough emissions allowances to cover its GHG emissions during the year. This liability is measured at the market value of the allowances required to meet its obligations at the year-end or based on the price of future contracts concluded to hedge this lack of emissions allowances.

Energy savings certificates (ESC)

In the absence of current IFRS Standards or IFRIC Interpretations on accounting for energy savings certificates (ESC), the following principles are applied:

- in the event that the number of ESCs held exceeds the obligation at the reporting date, they are accounted for in inventories; otherwise, a liability is recorded;
- ESC inventories are valued at weighted average cost (acquisition cost for ESCs acquired or cost incurred for ESCs generated internally).

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Inventories of natural gas, net	1,104	1,274
Inventories of uranium	538	595
CO_2 emissions allowances, green certificates and energy saving certificates, net	682	654
Inventories of commodities other than gas and other inventories, net	1,294	1,635
TOTAL	**3,617**	**4,158**

24.3 Other assets and other liabilities

	Dec. 31, 2019				Dec. 31, 2018 [1]			
	Assets		Liabilities		Assets		Liabilities	
In millions of euros	Non-current	Current	Non-current	Current	Non-current	Current	Non-current	Current
Other assets and liabilities	384	10,216	(1,222)	(13,101)	474	9,337	(960)	(12,529)
Tax receivables/payables	*-*	*6,986*	*-*	*(7,750)*	*-*	*6,999*	*-*	*(7,449)*
Employee receivables/payables	*214*	*39*	*(6)*	*(2,594)*	*275*	*72*	*(5)*	*(2,461)*
Dividend receivables/payables	*-*	*21*	*-*	*(104)*	*-*	*12*	*-*	*(170)*
Other	*171*	*3,170*	*(1,215)*	*(2,653)*	*198*	*2,255*	*(954)*	*(2,449)*

(1) Published data at December 31, 2018, were not restated due to the transition method used for the application of IFRS 16 (see Note 1 "Accounting framework and basis for preparing the consolidated financial statements").

At December 31, 2019, other non-current assets also include a receivable towards EDF Belgium in respect of nuclear provisions amounting to €92 million (€74 million at December 31, 2018).

NOTE 25 Legal and anti-trust proceedings

The Group is party to a number of legal and anti-trust proceedings with third parties or with legal and/or administrative authorities (including tax authorities) in the normal course of its business.

The main disputes and investigations presented hereafter are recognized as liabilities or give rise to contingent assets or liabilities.

In the normal course of its business, the Group is involved in a number of disputes and investigations before state courts, arbitral tribunals or regulatory authorities. The disputes and investigations that could have a material impact on the Group are presented below.

25.1 France excluding Infrastructures

25.1.1 Withholding tax

In their tax deficiency notice dated December 22, 2008, the French tax authorities questioned the tax treatment of the non-recourse sale by SUEZ (now ENGIE) of a withholding tax (*précompte*) receivable in 2005 for an amount of €995 million (receivable relating to the *précompte* paid in respect of the 1999-2003 fiscal years). The Montreuil Administrative Court handed down a judgment in ENGIE's favor in April 2019, which led to the French tax authorities appealing the decision before the Versailles Court of Appeal in May 2019. Exchanges of pleadings between the parties are currently ongoing.

Regarding the dispute over the *précompte* itself, on February 1, 2016, the *Conseil d'État* dismissed the appeal before the Court of Cassation seeking the repayment of the *précompte* in respect of the 1999, 2000 and 2001 fiscal years, and the cases seeking the repayment of the *précompte* in respect of the 2002, 2003 and 2004 fiscal years are still pending before the courts of appeal.

Furthermore, after ENGIE and several French groups lodged a complaint, on April 28, 2016, the European Commission issued a reasoned opinion to the French State as part of infringement proceedings, setting out its view that the *Conseil d'État* did not comply with European Union law when handing down decisions in disputes regarding the *précompte*, such as those involving ENGIE. On July 10, 2017, the European Commission referred the matter to the Court of Justice of the European Union (CJEU) on the grounds of France's failure to comply. On October 4, 2018, the Court of Justice of the European Union ruled partially in favor of the European Commission. Following this decision, France must revisit its methodology in order to determine the *précompte* repayment amounts in closed and pending court cases.

25.2 France Infrastructures

25.2.1 Commissioning

In the dispute between GRDF and various gas suppliers, in a decision dated June 2, 2016, overturning a decision handed down in September 2014 by the Energy Regulatory Commission (*Commission de la Régulation de l'Énergie* – CRE)'s Standing Committee for Disputes and Sanctions (*Comité de règlement des différends et des sanctions* – CoRDiS), the Paris Court of Appeal ruled that the transmission services delivered to suppliers should be, and should have been since the market was opened up, delivered to end customers. Prior to these rulings, only distributors provided delivery services to end customers in exchange for payment from the suppliers for customer management services, as there was only one contract.

Because the supplier now also provides customer management services associated with natural gas transmission on the distributors' behalf, the supplier has become the intermediary between the distributor and the end customer for delivery and transmission services. The contractual relations have therefore been completely reorganized, and as a result (i) the risk of unpaid compensation for the "transmission" part of the agreement with the end customer would henceforth be borne by the grid manager and not the gas supplier; (ii) the compensation for customer management services related to transmission and distribution services provided by the supplier on behalf of the grid manager should be fair and commensurate with the grid manager's cost savings. The Paris Court of Appeal ordered GRDF to bring its transmission agreements into compliance with these principles and ordered the CoRDiS to evaluate the amount of the customer management services. GRDF appealed the decision handed down by the Court of Appeal before the Court of Cassation.

In March 2018, the Court of Cassation referred the case to the Court of Justice of the European Union (CJEU), asking it to rule as to whether the CoRDiS could apply these rulings retroactively under European law. The CJEU's attorney general submitted his conclusions in May 2019. The CJEU delivered its ruling on December 19, 2019, considering that the Gas Directive (Directive 2009/73/EC) does not prohibit dispute settlement authorities from making decisions with retroactive effects dating to before the date of the dispute. Following the ruling of the CJEU, the Court of Cassation has scheduled a hearing for April 2020. The Court of Cassation's ruling could be made before the end of first-half 2020.

In June 2018 the CoRDiS, which has been tasked by the Paris Court of Appeal with evaluating the amount of the customer management services, instructed GRDF to propose to Direct Energie and ENI a new addendum providing for compensation based on the pricing terms established by the CRE in its decisions of October 2017 and January 2018. Both GRDF on the one hand and Direct Energie and ENI on the other have appealed the ruling before the Paris Court of Appeal. GRDF disputes the compensation paid in the past, and in particular asserts that the supplier has already passed on the corresponding amounts to the end customers. On January 23, 2020, the Paris Court of Appeal handed down its decision in which it considered that the suppliers are the mandatory grid service providers for customer management and initiated further discussions on the amount of customer management for Direct Energie and ENI for the period 2005-2018.

Because in 2016 the Paris Court of Appeal considered that ENI had not requested retrospective compensation (its requests prior to 2016 referred only to the future), ENI lodged a claim with the CoRDiS in March 2017 seeking retroactive compensation (€87.8 million for the period from 2008 to 2016) for customer management services. The CoRDiS handed down its decision in July 2019 dismissing ENI's request. ENI has appealed this decision before the Paris Court of Appeal.

In May 2017, Direct Energie also lodged a claim with the Paris Commercial Court for abuse of a dominant position and material inequality in the contractual obligations provided for in the transmission agreements, initially seeking €89.5 million in damages for the period from 2009 to 2016. This claim has since been raised to €140 million. This is a claim for indemnification, unlike the claims before the CoRDiS, which are seeking compensation for customer management services in respect of distribution services.

The Paris Commercial Court handed down a decision in January 2019, ordering GRDF to pay Direct Energie €17 million.

GRDF and Direct Energie have appealed this decision and filed their preliminary submissions in June 2019.

In July 2019, ENI launched proceedings against GRDF before the Paris Commercial Court for abuse of a dominant position and material inequality on the grounds that GRDF had required ENI, without compensation, to perform customer management services in respect of distribution. ENI is seeking a little over €300 million.

Regarding the customer management services carried out on behalf of the grid manager in the electricity sector (in this case ERDF, now ENEDIS), following proceedings brought by ENGIE, in a decision of July 13, 2016, the *Conseil d'État* also ruled that the same principle whereby the grid manager pays compensation to the supplier should apply. In the same decision, the *Conseil d'État* denied the CRE the right to set a customer threshold beyond which the compensation would not be payable, which hitherto prevented ENGIE from receiving any compensation. In light of this decision, ENGIE brought an action against ENEDIS with the purpose of obtaining payment for these customer management services. The legislature has adopted a decision that retroactively validates the agreements entered into with ENEDIS. In a decision handed down on April 19, 2019, the Constitutional Court ruled that this provision was constitutional. The proceedings against ENEDIS are still underway. ENGIE had also brought action before the *Conseil d'État* against the CRE's decision of October 26, 2017 in respect of the compensation for customer management services in the electricity sector for the period prior to January 1, 2018, but has withdrawn from the proceedings.

25.3 Rest of Europe

25.3.1 Resumption and extension of operations at the nuclear power plants

Various associations have brought actions before the Constitutional Court, the *Conseil d'État* and the ordinary courts against the laws and administrative decisions authorizing the extension of operations at the Doel 1 and 2 and Tihange 1 reactors. The Brussels Court of Appeal dismissed Greenpeace's claims in a decision dated June 12, 2018. Greenpeace appealed this decision before the Court of Cassation. This appeal was rejected by a ruling of the Court of Cassation dated January 9, 2020, such that the decision by the Brussels Court of Appeal dated June 12, 2018 is now final. As for the action brought before the Constitutional Court, on June 22, 2017 the Court referred the case to the Court of Justice of the European Union (CJEU) for a preliminary ruling. In its decision of July 29, 2019, the CJEU ruled that the Belgian law extending the operating lives of the Doel 1 and Doel 2 reactors was adopted without having made the prior environmental evaluations required, but that the effects of the law extending the operating lives may be maintained temporarily in the event of a serious and significant threat of electricity shortage, and then only for the length of time that is strictly necessary to rectify this threat. The decision of the Constitutional Court is expected soon. In addition, the appeal before the *Conseil d'État* is still ongoing.

In addition, some local authorities and various organizations have challenged the authorization to restart operations at the Tihange 2 reactor. On November 9, 2018, the *Conseil d'État* rejected the action brought by some local German authorities seeking the annulment of this decision. Civil proceedings are still ongoing before the Brussels Court of First Instance.

25.3.2 Claim by the Dutch tax authorities related to interest deductibility

Based on a disputable interpretation of a statutory modification that came into force in 2007, the Dutch tax authorities refuse the deductibility of a portion (€1.1 billion) of the interest paid on financing contracted for the acquisition of investments made in the Netherlands since 2000. Following the Dutch tax authorities' rejection of the administrative claim against the 2007 tax assessment, action was brought before the Arnhem Court of First Instance in June 2016. On October 4, 2018, the court ruled in favor of the tax authorities. However, given that ENGIE Energie Nederland Holding BV considers the court's reasoning to be contradictory and disputable, both in light of Dutch and European law, it has appealed the decision.

25.3.3 Claim by the Dutch tax authorities related to power plant impairment losses

The Dutch tax authorities have disallowed the tax deduction of asset impairment losses reported by ENGIE Energie Nederland NV on its 2010-2013 tax returns. The authorities challenged both the period of coverage of the impairment losses and the amount. Accordingly, they added back the full amount of the accumulated asset impairment losses over the abovementioned period, i.e., an amount of €1.9 billion. ENGIE has contested the tax authorities position as regards both the period and the amount and filed an administrative appeal in November 2018, which was rejected in February 2019. ENGIE is considering whether to launch legal proceedings.

25.3.4 Transfer price of gas

The Belgian tax authorities' Special Tax Inspectorate has issued two tax deficiency notices in respect of taxable income for fiscal years 2012 and 2013 for an aggregate amount of €706 million, considering that the price applied for the supply of gas by ENGIE (then GDF SUEZ) to Electrabel S.A. was excessive. ENGIE and Electrabel S.A. are challenging this adjustment. Belgium and France have begun conciliation proceedings to settle the dispute.

25.3.5 Spain – Punica

In the Punica case (investigation into the awarding of contracts), 12 Cofely España employees, as well as the company itself were placed under investigation by the examining judge in charge of the case. The criminal investigation is in progress and is scheduled to be closed by June 6, 2020.

25.3.6 Italy – Vado Ligure

On March 11, 2014, the Court of Savona seized and closed down the VL3 and VL4 coal-fired production units at the Vado Ligure thermal power plant belonging to Tirreno Power S.p.A. (TP), a company which is 50%-owned by the ENGIE Group. This decision was taken as part of a criminal investigation against the present and former executive managers of TP into environmental infringements and public health risks. The investigation was closed on July 20, 2016. The case was referred to the Savone Court to be tried on the merits. The proceedings began on December 11, 2018 and will continue through 2020.

25.3.7 Italy – Tax dispute relating to excise duties and ENGIE Italia VAT (formerly GDF SUEZ Energie)

In 2017, the Italian tax authorities challenged the excise duty waiver for gas transfers carried out by ENGIE Italia for industrial customers in Italy on the grounds that it did not have a certificate for these customers. The authorities plan to issue a tax reassessment for a total amount of €126 million (excise duties, VAT, late payment penalties and interest). ENGIE Italia has challenged the legality of this procedure both in light of Italian and European law and in any event deems the sanction to be disproportionate compared to a formal requirement.

In 2018, ENGIE Italia launched an appeal with the Perugia Court of First Instance requesting the cancellation of the tax reassessment notice.

In October 2018, the Court of First Instance dismissed the cancellation request, simply applying an outdated ministerial decree and ignoring ENGIE Italia's legal arguments.

ENGIE Italia appealed the ruling in November 2018 and the Court of Appeal ruled in its favor in November 2019 on the grounds that the documents requested by the Italian tax authorities were not legal and that the authorities needed to take into account the factual situation of the taxpayer to determine its requirement to pay excise duties. The Italian tax authorities may refer the case to the Court of Cassation.

25.3.8 Italy – Competition procedure

On May 9, 2019, a fine of €38 million was jointly and severally imposed on ENGIE Servizi SpA and ENGIE Energy Services International S.A. by the Italian Competition Authority for certain alleged anti-competitive practices relating to the award of the Consip FM4 2014 contract. An appeal has been lodged with the Regional Administrative Court of Lazio (TAR Lazio). The TAR Lazio has suspended payment of the fine. The appeal proceedings are pending.

25.4 Latin America

25.4.1 Concessions in Buenos Aires and Santa Fe

In 2003, ENGIE and its joint shareholders, water distribution concession operators in Buenos Aires and Santa Fe, initiated two arbitration proceedings against the Argentinean State before the International Center for Settlement of Investment Disputes (ICSID). The purpose of these proceedings was to obtain compensation for the loss in value of investments made since the start of the concession, in accordance with bilateral investment protection treaties.

As a reminder, prior to the stock market listing of SUEZ Environnement Company, ENGIE and SUEZ (formerly SUEZ Environnement) entered into an agreement providing for the economic transfer to SUEZ of the rights and obligations relating to the ownership interests held by ENGIE in Aguas Argentinas and Aguas Provinciales de Santa Fe, including the rights and obligations resulting from the arbitration proceedings.

On April 9, 2015, the ICSID ordered the Argentinean State to pay USD 405 million in respect of the termination of the Buenos Aires water distribution and treatment concession contracts (including USD 367 million to ENGIE and its subsidiaries), and on December 4, 2015, to pay USD 225 million in respect of the termination of the Santa Fe concession contracts. The Argentinean State sought the annulment of these awards. By decision dated May 5, 2017, the claim for the annulment of the Buenos Aires award was rejected. The claim to annul the award in the Santa Fe case was rejected by a decision dated December 14, 2018. Consequently, the two ICSID awards, which are a step in the settlement of the dispute, are now final.

The Argentinean government and the various shareholders of Aguas Argentinas entered into and implemented a settlement agreement in accordance with the arbitral award of April 9, 2015, handed down in respect of the water distribution and treatment concession contracts in Buenos Aires. In accordance with the above-mentioned agreement concerning the economic transfer to SUEZ of ENGIE's rights and obligations, SUEZ and its subsidiaries received €224.1 million in cash. Furthermore, the December 14, 2018 ruling pertaining to the water distribution and wastewater treatment concessions granted to Aguas Provinciales de Santa Fe has yet to be applied.

25.4.2 Planned construction of an LNG terminal in Uruguay

GNLS SA, a joint subsidiary of Marubeni and ENGIE, was selected in 2013 to build an offshore LNG terminal in Uruguay. On November 20, 2013, GNLS contracted out the design and construction of the terminal to Construtora OAS SA. Following a number of problems and defects, GNLS terminated the contract in March 2015 and made use of its guarantees. OAS challenged the termination of the contract but did not take action against GNLS. OAS went bankrupt in Uruguay on April 8, 2015. In September 2015, GNLS and the authorities agreed to cancel the planned construction.

On May 24, 2017, OAS and GNLS appeared before the Uruguayan courts in a conciliation process at the request of OAS. The conciliation process was unsuccessful. OAS then threatened to call GNLS before the Uruguayan courts to claim damages.

Since GNLS had incurred significant losses as a result of the termination of the contract, it filed a request for arbitration on August 22, 2017 in accordance with the terms of the contract providing for dispute resolution in Madrid by the ICC International Court of Arbitration, claiming a principal amount of USD 373 million. OAS responded by summonsing GNLS before the Montevideo Commercial Court, claiming USD 311 million in damages. ENGIE was officially named as a party to the proceedings on December 5, 2018. Both proceedings are still pending.

25.4.3 Claim against sales tax adjustments in Brazil

On December 14, 2018, the Brazilian Tax Administration sent ENGIE Brasil Energia notices of tax assessment for the 2014, 2015 and 2016 fiscal years believing that the company was liable for PIS and COFINS taxes (federal value added taxes) on reimbursement of certain fuels used in the production of energy by thermoelectric plants. The adjustments amounted to a total of 492 million Brazilian reals, including 229 million Brazilian reals in taxes to which are added fines and interest.

ENGIE Brasil Energia disputes these notices of tax assessment and introduced tax claims in 2019, which the tax authorities have rejected, however. A final claim at administrative level (prior to possible appeals before tax courts at judicial level) was filed by ENGIE Brasil Energia in January 2020.

25.5 Other

25.5.1 Luxembourg – State aid investigation

On September 19, 2016, the European Commission announced its decision to open an investigation into whether or not two private rulings granted by the Luxembourg State in 2008 and 2010 covering two similar transactions between several of the Group's Luxembourg subsidiaries constituted State aid. On June 20, 2018, the European Commission adopted a final, unfavorable decision deeming that Luxembourg had provided ENGIE with State aid. On September 4, 2018, ENGIE requested the annulment of the decision before the European Courts, thereby challenging the existence of a selective advantage. As these proceedings do not have a suspensive effect, ENGIE paid a sum of €123 million into an escrow account on October 22, 2018 in respect of one of the two transactions in question, since no aid was actually received for the other. Following the proceedings before the European Courts, this sum will be returned to ENGIE or paid to the Luxembourg State depending on whether or not the Commission's decision is annulled.

25.5.2 Poland – Competition procedure

On November 7, 2019, a fine of 172 million Polish zloty (€40 million) was imposed on ENGIE Energy Management Holding Switzerland AG (EEMHS) for failing to respond to a request for disclosure of documents from the Polish Competition Authority (UOKiK) in a proceeding initiated by the UOKiK which suspected a potential failure to notify by EEMHS and other financial investors involved in the financing of the Nord Stream 2 pipeline. EEMHS filed an appeal with the Competition Protection Court. The appeal proceedings are pending.

NOTE 26 Subsequent events

On January 22, 2020, the Group announced a partnership with Edelweiss Infrastructure Yield Plus Fund (EIYP) to sell the majority of its stake in solar assets in India. The completion of this transaction is expected to occur during the first half of 2020 and will allow ENGIE to reduce its net debt by more than €400 million.

In addition, on January 23, 2020, the Group announced that it had won a competitive tender launched by Sterlite for the acquisition of a 30-year greenfield concession project. The project comprises the construction, operation and maintenance of a 1,800 km electric power transmission line, a new substation and the expansion of three additional substations in northern Brazil. All necessary installation licenses have been secured to start construction in 2020. The total investment cost of the project is expected to be €750 million.

NOTE 27 Fees paid to the Statutory Auditors and to members of their networks

Pursuant to Article 222-8 of the General Regulations of the French Financial Markets Authority (AMF), the following table presents information on the fees paid by ENGIE SA, its fully consolidated subsidiaries and joint operations to each of the auditors in charge of auditing the annual and consolidated financial statements of the ENGIE Group.

The Shareholders' Meeting of ENGIE SA of April 28, 2014 decided to renew the terms of office of Deloitte and EY as Statutory Auditors for a six-year period from 2014 to 2019.

	Deloitte			EY			
In millions of euros	Deloitte & Associés	Network	Total	EY & others	Network	Total	Total
Statutory audit and review of consolidated and parent company financial statements	**5.5**	**6.7**	**12.2**	**5.9**	**7.0**	**12.9**	**25.1**
• ENGIE SA	2.2	-	2.2	2.7	-	2.7	5.0
• Controlled entities	3.3	6.7	10.0	3.2	7.0	10.2	20.2
Non-audit services	**0.8**	**1.4**	**2.3**	**0.8**	**0.9**	**1.8**	**4.0**
• ENGIE SA	0.6	-	0.6	0.7	-	0.7	1.3
Of which services related to legal and regulatory requirements	*0.4*	-	*0.4*	*0.3*	-	*0.3*	*0.7*
Of which other audit services	*0.2*	-	*0.2*	*0.4*	-	*0.4*	*0.6*
Of which reviews of internal control	-	-	-	-	-	-	-
Of which due diligence services	-	-	-	-	-	-	-
Of which tax services	*0.0*	-	*0.0*	*0.0*	-	*0.0*	*0.0*
• Controlled entities	0.2	1.4	1.7	0.1	0.9	1.0	2.7
Of which services related to legal and regulatory requirements	-	*0.5*	*0.5*	*0.1*	*0.3*	*0.3*	*0.9*
Of which other audit services	*0.1*	*0.1*	*0.2*	*0.0*	*0.2*	*0.2*	*0.4*
Of which reviews of internal control	*0.0*	*0.0*	*0.1*	-	-	-	*0.1*
Of which due diligence services	*0.1*	*0.2*	*0.3*	-	*0.0*	*0.0*	*0.3*
Of which tax services	*0.0*	*0.6*	*0.6*	*0.0*	*0.5*	*0.5*	*1.0*
TOTAL	**6.4**	**8.1**	**14.5**	**6.8**	**7.9**	**14.7**	**29.2**

NOTE 28 Information regarding Luxembourg and Dutch companies exempted from the requirements to publish annual financial statements

Some companies in the Rest of Europe and Others reportable segments do not publish annual financial statements pursuant to domestic provisions in Luxembourg law (Article 70 of the Law of December 19, 2002) and Dutch law (Article 403 of the Civil Code) relating to the exemption from the requirement to publish audited annual financial statements.

The companies exempted are notably: ENGIE Energie Nederland NV, ENGIE Energie Nederland Holding BV, ENGIE Nederland Retail BV, ENGIE United Consumers Energie BV, Epon Eemscentrale III BV, Epon Eemscentrale IV BV, Epon Eemscentrale V BV, Epon Eemscentrale VI BV, Epon Eemscentrale VII BV, Epon Eemscentrale VIII BV, Epon International BV, Epon Power Engineering BV, ENGIE Portfolio Management BV, IPM Energy Services BV, Electrabel Invest Luxembourg, ENGIE Corp Luxembourg SARL, ENGIE Treasury Management SARL and ENGIE Invest International SA.

6.3 Statutory Auditors' report on the consolidated financial statements

Year ended December 31, 2019

To the Shareholders' Meeting of ENGIE,

Opinion

In compliance with the engagement entrusted to us by your Shareholder's Meeting, we have audited the accompanying financial statements of ENGIE ("the Company") for the year ended December 31, 2019.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as of December 31, 2019 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for opinion

Audit framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the "Statutory Auditors' Responsibilities for the Audit of the consolidated Financial Statements" section of our report.

Independence

We conducted our audit in compliance with independence rules applicable to us, for the period from January 1, 2019 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 or in the French Code of Ethics (*Code de déontologie*) for statutory auditors.

Emphasis of matter

We draw attention to the following matter described in Note 1 to the consolidated financial statements relating to the change in accounting method relating to the first-time application from January 1st, 2019 of IFRS 16 "Lease Contracts" and the impacts of IFRIC's March 2019 decision related to the "physical settlement of contracts to buy or sell a non-financial item".

Our opinion is not modified in respect of this matter.

Justification of Assessments - Key Audit Matters

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code (*Code de commerce)* relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon. We do not provide a separate opinion on specific elements, accounts or items of the consolidated financial statements.

Measurement of the recoverable amount of goodwill, intangible assets and property, plant & equipment

[notes 13, 14 and 15]

Key audit matter	Our response
As of December 31, 2019, the net carrying amount of fixed assets (goodwill, intangible assets and property, plant & equipment) amounted to €77.7 billion (after recognition of impairment losses of €1.8 billion), or 48.6% of total assets. Fixed assets are comprised of: • €18.7 billion of goodwill, mainly allocated to the Cash-Generating Units (CGU) Benelux (€4.3 billion), GRDF (€4 billion), France Renewable Energy (€1.2 billion), United Kingdom (€1.1 billion), France B to B (€1 billion) and France B to C (€1 billion); • €7 billion of intangible assets; • €52 billion of property, plant & equipment; For operating entities which your Group intends to hold on a long-term and going concern basis, the recoverable amount corresponds, in most cases, to the value in use, determined based on: • cash flow projections on the basis of the 2020 budget and 2021-2022 medium-term business plan approved by the Group's Executive Committee and the Board of Directors and, • beyond this time frame, extrapolated future cash flow projections determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price projections featured in the Group's reference scenario for 2023-2040 approved by the Executive Committee. These recoverable amounts are based on key assumptions relating to market outlook and changes in the regulatory environment of which any modification could have a material impact on the amount of impairment losses to be recognized. Concerning the goodwill of the main CGU, measurement is based on the following assumptions: – for the Benelux CGU, expected trends in the long-term electricity and gas demand, the price of CO_2, the price of electricity and fuel as well as changes in the regulatory environment for nuclear capacities in Belgium beyond 2025 and the extension of drawing rights agreements for French nuclear plants beyond their current legal terms; • for the Renewable Energy CGU, prospects and conditions of renewing the hydropower concession agreements in France; These measurements are sensitive to the applied macro-economic assumptions (inflation and discount rates). For operating entities which the Group has decided to sell, the related recoverable amount of the assets concerned is based on market value less costs of disposal. We considered the measurement of the recoverable amount of goodwill, intangible assets and property, plant & equipment to be a key audit matter due to their materiality in the Group's financial statements and because they require the use of assumptions and estimates to be assessed in a context which remains sensitive to trends in the energy market and whose consequences make the medium-term economic outlook difficult to anticipate.	We examined the definition of CGU as well as the allocation of goodwill to the different CGU. We assessed the Group's measures aiming to identify indications of impairment losses as well as Management's procedures for approving the estimates. We examined the data and the key assumptions used to determine the recoverable amount of assets, assessed the sensitivity of the measurements to these assumptions and verified the calculations performed by the Group with the support of our valuation experts. Our work mainly covered; • the assumptions of the Group's long-term reference scenario (trends in electricity and gas prices and demand, price of CO_2, coal and oil, inflation) for which we have assessed the consistency with external studies carried out by international organizations or energy experts; • the operational and regulatory assumptions used to prepare cash flow forecasts for which we assessed the consistency of the asset's operating conditions and their intrinsic performance as well as the applicable regulations to date and their expected changes; • methods for determining cash flow forecasts for which we assessed: – the consistency of the baseline data with the budget, the medium-term business plan and beyond, the Group's long-term scenario; – the consistency with past performances and market outlook; • the discount rates for which we have examined the determination methods and the consistency with the underlying market assumptions, using internal specialists; • Management's sensitivity analysis to the key price, operational and regulatory assumptions for which we assessed the relevance; • the assessment of the highly probable nature of disposals decided by the Group and the elements considered to measure the recoverable amount; • the appropriateness of the disclosure given in the notes, notably on sensitivity analyses carried out by the Group.

Measurement of provisions relating to the back-end of nuclear fuel cycle and to the dismantling of nuclear facilities in Belgium
[note 19 and 19.2]

Key audit matter	Our response
Your Group has obligations relating to the reprocessing and storage of radioactive nuclear fuel consumed and the dismantling of nuclear facilities operated in Belgium. Pursuant to the Belgian law of April 11, 2003, the management of corresponding provisions is entrusted to the Group's wholly-owned subsidiary Synatom which submits a report every three years to the Commission for Nuclear Provisions (CNP) describing the core inputs used to measure these provisions. The CNP issues its opinion based on the opinion issued by the Belgian agency for radioactive waste and enriched fissile material (ONDRAF) which reviews all of the characteristics and technical parameters of the report. The provisions, for the management of radioactive nuclear fuel and for the dismantling of nuclear facilities, are estimated from the current legal and contractual framework and on the basis of the opinion issued by the CNP on December 12, 2019. We considered the measurement of these provisions to be a key audit matter due to their amounts and their sensitivity to industrial scenarios used and estimates of related costs such as, in particular: • concerning provisions relating to the back-end of nuclear fuel cycle, the decisions will be ultimately made by the Belgian government relating to the management of radioactive spent fuel (reprocessing of a portion of spent fuel or direct removal, without prior reprocessing) and long-term management of fuel (cost of burying fuel in deep geological repositories or long-term on-site storage), • concerning the provisions for the dismantling of nuclear facilities, the dismantling program and the timetables approved, or not, by the nuclear safety authorities. This measurement is sensitive to the applied ecronomic assumptions (inflation and discount rates).	We analyzed the findings, observations and recommendations made in the opinions of the ONDRAF and the CNP. We examined the basis on which these provisions were measured and assessed the sensitivity of measurements to the technical assumptions and industrial scenarios, notably for the management of radioactive fuel, as well as assumptions relating to costs, operations timetable and discount rates applied to cash flows. Our work mainly consisted in assessing: • the consistency of industrial scenarios used with regard to the current legal and regulatory environment for the choice of nuclear policy remaining to be made in Belgium; • the consistency of forecasts of costs by nature and forecasts of cash outflows with available studies and quotes and, for dismantling, with a study of independent experts mandated by Synatom; • the level of margins for uncertainties and contingencies included in the provisions to take into account the degree of technical control over dismantling and management of radioactive fuel; • the consistency of the spent fuel volumes produced to date and the estimates of spent fuel volumes still to be produced with the Group's physical inventory and forecast data; • the methods for determining the discount rates used and their consistency with the underlying market assumptions. • the appropriateness of the disclosure given in the notes to the consolidated financial statements, notably on the sensitivity to measurement of the provisions to changes in key assumptions.

Valuation for provisions relating to commercial litigations, claims and tax risks

[notes 19, 19.4 and 25]

Key audit matter	Our response
Your Group is party to a number of legal and anti-trust proceedings with third parties or with legal and/or administrative authorities, including tax authorities, investigations before state courts, arbitral tribunals or regulated authorities, in the normal course of its business. The main disputes and investigations potentially having a significant impact on your Group are recognized as liabilities or give rise to contingent liabilities, as it is indicated in Note 25 to the consolidated financial statements. We have considered this topic as a key audit matter, provided the amounts at stake and the judgement required to determine the provisions for commercial litigations claims and tax risks, due to the regulatory context and the continuously changing market environment.	Our audit procedures consisted in: • investigating the procedures implemented by your Group in order to identify all the litigations and risk exposures; • corroborating these analyses with the confirmations received from the lawyers; • evaluating the analysis of the probability of occurrence performed by your Group, as well as the assumptions used, and the supporting documentation with, if any, consultations received by third parties. We have recourse to our experts for the most complex analysis; • appreciating the appropriateness of the disclosure given in the notes to the consolidated financial statements.

Estimate of gas and electricity unbilled and un-metered revenues ("energy in the meter")

[notes 7.1 and 7.2.1]

Key audit matter	Our response
Your Group uses an estimate in revenue, relating to the sales on networks generated from customers whose energy consumption is metered during the accounting period. Since the meter readings provided by the grid operators and their final allocations to the Group are sometimes only known several months down the line, this means that revenue figures are only an estimate. As of December 31, 2019, the receivables relating to the energy in the meter (gas and electricity un-metered and unbilled revenue) amount to €3.3 billion and mainly concern France and Belgium. These receivables are determined on the basis of a method that takes into account an estimate of customers' consumption based on the previous bill, or the last metering not yet billed, in line with the volume of energy allocated by grid managers, using measurement and modeling tools developed by your Group. The volumes are measured at the average energy price, which takes account of the category of customers and the age of the delivered unbilled energy in the meter. Considering the amount of revenue at stake and the sensitivity of the estimates to assumptions regarding volumes and the average energy price, we considered the estimate of the portion of un-metered revenue at the year-end to be a key audit matter.	Our work, both in France and in Belgium, mainly consisted in: • considering the internal control procedures implemented by the Group about the billing process, and the process enabling the reliability of the estimate about the energy in the metered revenue; • evaluating the models used by the Group and investigating the modality of the computation for the estimated volumes; we include a specialist in our audit team. We also: • compared the information about the volumes delivered and determined by the Group with the metering data provided by the grid operators; • examined that the modalities of the computation for the average price of the metered power take account of its anteriority and the different kinds of customers; • analyzed the coherence of the volumes delivered with the Energy Balance (which corresponds to the physical reality of the operations of allocations (revenues, injections and stocks) and resources (purchases, withdrawals and stocks) of energy on the networks) prepared by the Group; • assessed the regular clearance of the metered energy during the period; • assessed the age of the delivered but unbilled metered energy at the year-end.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations of the information pertaining to the Group presented in the Board of Director's management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

We attest that the consolidated non-financial performance statement provided for by Article L. 225-102-1 of the French Commercial Code (*Code de commerce*) is included in the information pertaining to the Group presented in the management report, it being specified that, in accordance with Article L. 823-10 of said Code, we have not verified the fairness of the information contained in this declaration or its consistency with the consolidated financial statements that has to be subject to a report by an independent third party.

Report on Other Legal and Regulatory Requirements

Appointment of the Statutory Auditors

We were appointed as statutory auditors of ENGIE by your Shareholders' Meeting held on May 19, 2008 for ERNST & YOUNG et Autres and on July 16, 2008 for Deloitte & Associés.

As of December 31, 2019, we were in their twelfth year of total uninterrupted engagement.

ERNST & YOUNG Audit was previously statutory auditor between 1995 and 2007.

Responsibilities of Management and those charged with Governance for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards as adopted by the European Union for implementing internal control it deems necessary for the preparation of the consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The consolidated financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Consolidated Financial Statements

Objective and audit approach

Our role is to issue a report on the consolidated financial statements. Our objective is to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As specified in Article L. 823-10-1 of the French Commercial Code (*Code de commerce*), our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control;
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the consolidated financial statements;
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the consolidated financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.
- Evaluates the overall presentation of the financial statements and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtains sufficient appropriate audit evidence regarding the financial information of the entities or business activities of the Group to express an opinion on the consolidated financial statements. Is responsible for the direction, supervision and performance of the audit of the consolidated financial statements as well as for the audit opinion.

Report to the Audit Committee

We submit to the Audit Committee a report which includes, in particular, a description of the scope of the audit and the relating audit program implemented, as well as the results of our audit procedures. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the consolidated financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) N° 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L. 822-10 to L. 822-14 of the French Commercial Code (*Code de commerce*) and in the French Code of Ethics (*Code de déontologie*) for statutory auditors. When appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

In Paris-La Défense, March 10, 2020

The Statutory Auditors

DELOITTE & ASSOCIÉS	ERNST & YOUNG et Autres
Olivier Broissand Patrick E. Suissa	Charles-Emmanuel Chosson Stéphane Pédron

6.4 Parent company financial statements

6.4.1 Parent company financial statements

Balance sheet

Assets

In millions of euros		Notes	Dec. 31, 2019 Gross	Dec. 31, 2019 Depreciation, amortization and impairment	Dec. 31, 2019 Net	Dec. 31, 2018 Net
NON-CURRENT ASSETS						
Intangible assets		3	1,842	1,288	554	503
Property, plant and equipment		3	1,018	637	381	384
Financial fixed assets		**4**				
Equity investments			74,853	7,288	67,564	68,302
Other financial fixed assets			139	64	75	79
TOTAL NON-CURRENT ASSETS	**I**		**77,851**	**9,277**	**68,574**	**69,268**
CURRENT ASSETS						
Inventories		5				
Gas reserves			550	-	550	1,005
Energy savings certificates			47	5	42	45
Other			311	-	311	161
Advances and downpayments given on orders			**45**	**-**	**45**	**26**
Operating receivables		**6**				
Trade and other receivables			4,145	351	3,794	6,487
Other operating receivables			667	-	667	641
Miscellaneous receivables						
Current accounts with subsidiaries			7,753	-	7,753	5,216
Other miscellaneous receivables			2,638	1	2,638	2,697
Marketable securities		**7**	**1,852**	**2**	**1,850**	**2,434**
Cash and cash equivalents			**288**	**-**	**288**	**382**
TOTAL CURRENT ASSETS	**II**		**18,297**	**359**	**17,938**	**19,094**
ACCRUALS	**III**	**8**	**1,416**	**-**	**1,416**	**2,252**
UNREALIZED FOREIGN EXCHANGE LOSSES	**IV**	**8**	**310**	**-**	**310**	**339**
TOTAL ASSETS	**(I TO IV)**		**97,874**	**9,636**	**88,237**	**90,953**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes.

Equity and liabilities

In millions of euros		Notes	Dec. 31, 2019	Dec. 31, 2018
EQUITY				
SHAREHOLDERS' EQUITY		**9**		
Share capital			2,435	2,435
Additional paid-in capital			31,470	32,565
Revaluation adjustments			39	41
Legal reserve			244	244
Other reserves			17	256
Retained earnings			-	289
Net income/(loss)			(196)	1,102
Interim dividend			-	(892)
Tax-driven provisions and investment subsidies		10.2	585	576
TOTAL SHAREHOLDERS' EQUITY	**I**		**34,594**	**36,616**
OTHER EQUITY	**II**		**6**	**9**
TOTAL EQUITY	**I+II**		**34,600**	**36,625**
PROVISIONS FOR CONTINGENCIES AND LOSSES	**III**	**10.1**	**2,472**	**2,424**
LIABILITIES		**11**		
BORROWINGS AND DEBT		**11**		
Borrowings			30,842	27,498
Amounts payable to equity investments			6,800	5,250
Current accounts with subsidiaries			1,051	2,749
Other borrowings and debt			541	583
TOTAL BORROWINGS AND DEBT	**IV**		**39,234**	**36,080**
CURRENT LIABILITIES				
Advances and downpayments received on orders			15	6
Trade and other payables			6,408	8,677
Tax and employee-related liabilities			1,206	1,225
Other liabilities			2,408	3,587
TOTAL CURRENT LIABILITIES	**V**		**10,038**	**13,495**
TOTAL LIABILITIES	**IV+V**		**49,272**	**49,575**
ACCRUALS	**VI**	**12**	**1,463**	**1,926**
UNREALIZED FOREIGN EXCHANGE GAINS	**VII**	**12**	**431**	**403**
TOTAL EQUITY AND LIABILITIES	**(I TO VI)**		**88,237**	**90,953**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes.

Income statement

In millions of euros	Notes	Dec. 31, 2019	Dec. 31, 2018
Energy sales		14,233	25,017
Other production sold		3,048	2,816
REVENUES	**13.1**	**17,282**	**27,833**
Production taken to inventory		-	-
Production for own use		18	13
TOTAL PRODUCTION		**17,300**	**27,846**
Energy purchases and change in gas reserves		(6,094)	(17,712)
Other purchases		(4,454)	(3,762)
Other external charges		(6,652)	(6,464)
VALUE ADDED		**100**	**(92)**
Subsidies received		62	70
Taxes and duties		(104)	(131)
Personnel costs	13.2	(470)	(651)
GROSS OPERATING INCOME/(LOSS)		**(412)**	**(804)**
Net additions to depreciation, amortization and impairment		(230)	(203)
Net additions to provisions	13.3	(91)	97
Expense transfers		30	39
Other operating income and expenses		(227)	(188)
NET OPERATING INCOME/(LOSS)		**(931)**	**(1,058)**
NET FINANCIAL INCOME/(LOSS)	**14**	**1,192**	**3,718**
NET RECURRING INCOME/(LOSS)		**262**	**2,660**
NET NON-RECURRING INCOME/(LOSS)	**15**	**(835)**	**(2,107)**
INCOME TAX BENEFIT/(EXPENSE)	**16.2**	**377**	**549**
NET INCOME/(LOSS)		**(196)**	**1,102**

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes.

Cash flow statement

In millions of euros		Dec. 31, 2019	Dec. 31, 2018
Cash flow from operations	**1**	**1,160**	**3,152**
Change in inventories		(308)	340
Change in trade receivables (net of trade receivables with a credit balance)		(2,604)	2,046
Change in trade payables		2,344	(1,784)
Change in other items		502	(918)
Change in working capital requirements	**2**	**(66)**	**(317)**
CASH FLOW FROM OPERATING ACTIVITIES	(1-2) = I	1,226	3,468
Property, plant and equipment and intangible assets		279	260
Financial fixed assets		379	4,544
Change in amounts payable on investments		-	-
Cash flow used in investing activities	**1**	**658**	**4,804**
Third-party contributions		8	7
Net proceeds from asset disposals		234	465
Decrease in financial fixed assets		18	114
Cash flow from investing activities	**2**	**260**	**587**
CASH FLOW FROM INVESTING ACTIVITIES	(1-2) = II	398	4,217
CASH FLOW AFTER OPERATING AND INVESTING ACTIVITIES	(I-II) = III	828	(749)
Increase/decrease in capital	**1**	**-**	**(15)**
Dividends and interim dividends paid to shareholders	**2**	**(1,834)**	**(1,740)**
Bonds		5,294	2,329
Group borrowings		2,300	850
Short- and medium-term credit facilities and other borrowings		345	191
Financing raised on capital markets	**3**	**7,939**	**3,370**
Bonds and short- and medium-term credit facilities		(3,254)	(2,729)
Repayments and redemptions	**4**	**(3,254)**	**(2,729)**
CASH FLOW FROM/(USED IN) FINANCING ACTIVITIES	(1+2+3+4) = IV	2,851	(1,114)
CHANGE IN CASH AND CASH EQUIVALENTS	(III+IV) = V	3,679	(1,862)

NB: Amounts in tables are generally expressed in millions of euros. In certain cases, rounding may cause non-material discrepancies in the totals or changes.

6.4.2 to the parent company financial statements

NOTE 1 Summary of significant accounting policies

The 2019 financial statements have been drawn up in euros in compliance with the general principles prescribed by the French chart of accounts, as set out in Regulation No. 2014-03 issued by the French accounting standards-setter (*Autorité des Normes Comptables* – ANC), as updated by all subsequent amending regulations.

Financial transactions involving equity investments, securities and the related receivables, especially impairment charges or reversals, are included in non-recurring items rather than financial items. In accordance with Article 121-3 of the French chart of accounts, ENGIE SA considers that although this classification diverges from French accounting standards, it gives a more faithful view of the income statement because all items of income and expenses relating to equity investments can be shown together with capital gains or losses on disposals under non-recurring items.

Use of estimates and judgment

The preparation of financial statements requires the use of estimates and assumptions to determine the value of assets and liabilities and contingent assets and liabilities at the reporting date, as well as income and expenses reported during the period.

The Company has taken the change in the economic environment and the significant market volatility into account in its business plans and in the various discount rates used to perform impairment tests. This environment led ENGIE SA to step up its risk oversight procedures and factor in a risk assessment process in its valuations.

Due to uncertainties inherent to the estimation process, ENGIE SA regularly revises its estimates in light of currently available information. Final outcomes could differ from those estimates.

The key estimates used in preparing ENGIE SA's financial statements relate mainly to:

- Measurement of equity investments

  The recoverable amount of equity investments is based on estimates and assumptions, regarding in particular the expected market outlook and changes in the regulatory framework, which are used for the measurement of cash flows, whose sensitivity varies depending on the activity, and the determination of the discount rate. Any changes in these assumptions could have a material impact on the measurement of the recoverable amount and could result in adjustments to the impairment losses to be recognized.

- Fair value of financial instruments

  To determine the fair value of financial instruments that are not listed on an active market, ENGIE SA uses valuation techniques that are based on certain assumptions. Any change in these assumptions could have a significant impact on the resulting calculations.

  In accordance with the principles reaffirmed by ANC Regulation No. 2015-05, derivative financial instruments used by ENGIE SA to hedge and manage its currency, interest rate and commodity risk, are disclosed in off-balance sheet commitments.

  Changes in the fair value of these derivatives that do not qualify for hedge accounting are recognized in the balance sheet. A provision is booked for unrealized losses, valued based on homogeneous groups of financial instruments with an equivalent underlying asset or liability, whether they are traded over-the-counter or exchange-traded.

  In the case of contracts that qualify as hedging instruments, gains or losses are taken to income symmetrically with the gain or loss on the hedged items.

  If the hedged item ceases to exist, the contract is unwound and any gains or losses taken to income.

  ENGIE SA uses internal models representative of market practices to value financial derivative instruments that are not listed on financial markets.

  Option premiums are deferred and recognized in income over the life of the hedge. The premium or discount on forward currency transactions is recognized in income in the initial value of the hedged item.

- Energy in the meter

  The amounts receivable in respect of delivered, unmetered and unbilled gas and electricity are calculated using mathematical models including estimated customer consumption and estimated selling prices. The amount of energy in the meter calculated at the closing date varies depending on the assumptions about volume and price (see section on "Other operating receivables" below).

- Measurement of provisions for contingencies and losses

  Provisions for contingencies and losses are estimated on the basis of various assumptions. A change in those assumptions could lead to a significant adjustment to the amount of the provisions.

- Measurement of off-balance sheet pension and other employee benefit obligations

  Pension commitments are measured on the basis of actuarial assumptions. Any change in the assumptions used by ENGIE SA could have a significant impact on the valuation of these commitments.

Intangible assets

This caption mainly comprises the purchase cost or production cost of software, amortized over its estimated useful life.

A useful life of between five and seven years is generally used to calculate software amortization.

Other development costs are capitalized provided they meet specific criteria, particularly as regards the pattern in which the intangible asset is expected to generate future economic benefits.

Research costs are expensed in the year in which they are incurred.

Property, plant and equipment

All items of property, plant and equipment are carried at purchase cost or production cost, including ancillary expenses, with the exception of assets acquired prior to December 31, 1976, which are shown at their revalued amount at that date.

Almost all items of property, plant and equipment are depreciated on a straight-line basis.

Assets are depreciated over their useful lives, based on the period over which they are expected to be used. The useful lives for the main asset classes are as follows:

- buildings: 20 to 60 years;
- other: 3 to 15 years.

Borrowing costs incurred in financing an asset are recognized as an expense and amortized over the financing period.

Components

When the components of a given asset cannot be used separately, the overall asset is recognized. If one or more components have different useful lives at the outset, each component is recognized and depreciated separately.

Financial fixed assets

Equity investments

Equity investments represent long-term investments providing ENGIE SA with control or significant influence over the issuer, or helping it to establish business relations with the issuer.

Newly-acquired equity investments are recognized at purchase price plus directly attributable external transaction fees.

Investments which ENGIE SA intends to hold on a long-term basis are written down if their value in use has fallen below their book value. Value in use is assessed by reference to (i) the intrinsic value, which corresponds to net assets plus unrealized gains, or (ii) the yield value, which corresponds to the average of the last 20 stock market prices of the year, or (iii) discounted cash flows or discounted dividends, taking into account any currency hedges.

Investments which ENGIE SA has decided to sell are written down if their estimated sale price is lower than their book value. If sale negotiations are ongoing at the end of the reporting period, the best estimate is used to determine the sale price.

Technical loss

In accordance with Article 9 of ANC Regulation No. 2015-06, the technical loss arising on a merger is allocated to the underlying assets, which, in this case, are equity investments.

The portion of the loss allocated to an underlying asset is written down if the value of the asset falls below its net book value plus the portion of the loss allocated to it. The write-down is first allocated to the portion of the loss.

In the event of a disposal, the portion of the loss relating to the assets sold is reversed through income.

Amounts receivable from equity investments

This caption consists of loans granted by ENGIE SA to equity investments.

They are recognized at face value. In line with the treatment adopted for equity investments, these amounts are written down if their value in use falls below their face amount.

Provisions for contingencies may be booked if the Company considers that the cost of its commitment exceeds the value of the assets held.

Other financial fixed assets

This caption mainly includes investments other than equity investments that ENGIE SA intends to hold on a long-term basis but which do not meet the definition of equity investments.

A write-down may be taken against other financial fixed assets in accordance with the criteria described above for equity investments.

Liquidity agreement and treasury stock

A liquidity agreement signed with an investment service provider assigns to the latter the role of operating on the market on a daily basis, to buy or sell ENGIE SA shares, in order to ensure liquidity and an active market for the shares on the Paris and Brussels stock exchanges.

The amounts paid to the investment services provider are included in “Other long-term investments”. An impairment loss is recognized against the shares when their average price for the month in which the accounts are closed is lower than their book value.

Inventories

Natural gas reserves

Gas injected into underground reservoirs is included in inventories. It is measured at average purchase cost including domestic and international freight costs upon entering the transportation network regardless of its source, and including any regasification costs. Outflows are measured on a monthly basis using the weighted average unit cost method.

An impairment loss is recognized when the net realizable value of inventories, representing the selling price less their costs directly and indirectly attributable to distribution, is lower than their weighted average cost.

Energy savings certificates (ESC)

ENGIE SA applies the provisions of Articles 616-1 to 616-18 of ANC Regulation No. 2014-03 (chart of accounts) on the accounting treatment of energy savings certificates covered by the “energy savings” model.

Energy sales generate energy savings obligations, which are settled by:

- the purchase of certificates; or
- expenditure on energy savings (classified as production cycle costs) that qualify for certificates; or
- payment to the French Treasury (*Trésor Public*) of the fines provided for in Article L. 221-4 of the French Energy Code (*Code de l’énergie*).

Energy savings certificates are accounted for as follows:

- Inventory inflows: certificates obtained from the French State in exchange for qualifying energy savings expenditure are recorded at acquisition or production cost. Certificates purchased are valued using the weighted average cost method.
- Inventory outflows: certificates are derecognized using the weighted average cost method as and when energy sales generate energy savings obligations or upon disposal, gains or losses on which are recognized in operating income.

At the closing date, the net position is recognized in the financial statements as follows:

- an asset (inventories) is recognized when energy savings obligations are lower than energy savings. Inventories correspond to certificates that have been acquired, obtained or are in the process of being obtained, and that will cover future energy savings obligations. They will subsequently be consumed when energy sales are made, which generate energy savings obligations, or on disposal;
- a liability is recognized when energy savings obligations are higher than energy savings and corresponds to the cost of measures required to settle the obligations related to energy sales made. The liability will subsequently be settled by purchasing certificates or incurring energy savings expenditure that qualify for certificates.

Capacity remuneration mechanism (CRM)

The capacity mechanism introduced by France's "NOME" (*Nouvelle organisation du marché de l'électricité*) law of December 7, 2010 came into effect on January 1, 2017. It aims to secure the supply of electricity in France on a sustainable basis, by ensuring a long-term balance between production and consumption.

For each calendar year:

- electricity suppliers have an obligation to hold capacity guarantees in an amount sufficient to cover their customers' peak-period consumption;
- capacity, production and curtailment operators commit to a certain level of availability during winter peak periods and in exchange receive capacity guarantees;
- capacity guarantees are traded on Epex Spot (auctions) or under over-the-counter contracts.

The French Energy Regulatory Commission (CRE) has set the Market Benchmark Price for Capacity Guarantee auctions at €19,458.3 per MW for 2020.

ENGIE SA markets curtailment offers that are inseparable from the supply of electricity to some customers and is also an obliged as an electricity provider.

In the absence of a specific ANC regulation on accounting for capacity certificates, ENGIE SA applies Regulation No. 2014-03 on operating inventories of energy savings certificates – energy savings model:

- Inventory inflows are measured based on the costs incurred during the relevant period to purchase or obtain guarantees, leading to the calculation of a weighted average unit cost of inventories;
- Inventory outflows upon derecognition are valued using the weighted average cost method.

Operating receivables

This caption includes all receivables arising on the sale of goods, and other receivables arising in the ordinary course of operations.

Energy delivered but unbilled

Receivables also include unbilled revenues for energy delivered, regardless of whether or not the meters have been read. This caption concerns customers not billed monthly (mainly residential customers) and customers whose billing period is not aligned with the consumption period of a given month.

The amounts receivable in respect of delivered, unmetered and unbilled gas and electricity ("energy in the meter") are calculated using a direct method taking into account estimated customer consumption based on the most recent customer bill or unbilled reading, in line with the allocation of the distribution grid manager over the same period. These amounts are measured at the average energy price, which takes account of the category of customer and the age of the delivered unbilled "gas in the meter". The estimated portion of unbilled revenue at the reporting date is sensitive to the average price and volume assumptions used.

Customers (mainly residential customers) can opt to pay on a monthly basis. In this case, the Company recognizes a monthly advance and a bill is issued at the anniversary date of the contract giving rise to the payment (or refund) of any difference between the amount billed and the advance payments already received.

Unbilled revenues in respect of delivered unbilled natural gas are netted against the advances already collected by the Company from customers billed monthly.

Impairment of trade receivables

Bad debt risk is analyzed on a case-by-case basis for the Company's largest customers.

Receivables from other customers are written down using rates that increase in line with the age of the related receivables.

The potential bad debt risk arising on amounts receivable in respect of delivered unbilled natural gas is also taken into account.

Other operating receivables

Other operating receivables include the current account with ENGIE Finance, as well as margin calls. Items for which there is a risk of non-collection are written down.

Marketable securities

Marketable securities are shown on the balance sheet at cost.

When the market value of securities at December 31 is lower than their book value, a write-down is recognized for the difference.

For listed securities, market value is determined based on the market price at the end of the reporting period.

Subordinated perpetual notes

Subordinated perpetual notes issued by the Company in euros and currency are recognized in accordance with Opinion No. 28 issued by the French association of public accountants (*Ordre des experts-comptables*) in July 1994, taking into account their specific characteristics.

Accordingly, they are classified as debt as their redemption is not perpetual.

Shareholders' equity

Additional paid-in capital

External costs directly attributable to capital increases are deducted from additional paid-in capital. Other costs are expensed as incurred.

Merger premium

External expenses directly attributable to the merger between Gaz de France SA and SUEZ in 2008 are deducted from the merger premium.

Revaluation adjustments

This caption results from the legal revaluation of non-amortizable assets not operated under concessions carried out in 1959 and 1976.

Tax-driven provisions

Accelerated depreciation

Accelerated depreciation is recognized whenever an asset's useful life (which is used in accounting for the depreciation of property, plant and equipment) differs from that used for tax purposes or when a different depreciation method is used.

Provision for price increases

The provision for price increases was introduced by Article 39-1-5 of the French Tax Code (*Code général des impôts*) to allow companies to temporarily deduct a portion of profits used for inventory replenishment from their tax base in the event of sharp price increases.

Provisions for contingencies and losses

A provision is recognized when the Company has a legal or constructive obligation resulting from a past event which is expected to result in an outflow of resources embodying economic benefits that can be measured reliably.

The provision represents the best estimate of the amount required to settle the present obligation at the end of the reporting period.

Provisions for rehabilitating land on which former gas production plants were located

A provision for site rehabilitation and cleanup costs for former gas production plants is set aside whenever the Company has a commitment to a third party, such as a binding agreement to sell such an asset. These provisions are assessed on an asset-by-asset basis and reflect the best estimate of the costs required to complete the rehabilitation work, based on current information relating to technical knowledge and regulatory requirements.

Movements in these provisions are shown under operating items.

Provision for employee bonus share awards and stock option plans

The provision for employee bonus share awards is recognized on a straight-line basis over the vesting period. The provision ultimately covers the disposal loss equal to the book value of treasury stock granted free of consideration to employees. Movements in this provision and any related costs are shown in personnel costs.

For stock options, a provision is set aside whenever the share price at the end of the reporting period is higher than the exercise price of the options granted. The provision is set aside on a straight-line basis over the vesting period, and ultimately covers the disposal loss equal to the purchase cost of the shares, less the exercise price paid by employees.

Pensions and other employee benefit obligations

Companies belonging to the electricity and gas industries sector

ENGIE SA employees qualify for the disability, pension and death benefits available under the special plan for companies belonging to the electricity and gas industries sector (see Note 18).

Accounting treatment

ENGIE SA recognizes provisions under liabilities for benefits granted to employees whose rights have already begun to vest (annuities for occupational accidents and illnesses, temporary incapacity or disability benefits), or benefits due during the employee's working life (long-service awards and exceptional end-of-career vacation).

As part of the 2008 merger between SUEZ and Gaz de France with retroactive effect from January 1, 2008, provisions for pensions and other employee benefits (pensions, retirement indemnities and healthcare) carried by SUEZ at December 31, 2007 were transferred to ENGIE SA.

In accordance with Opinion No. 2005-C of the CNC's Emerging Issues Taskforce and with the method applied by ENGIE SA and described above, no further amounts will be set aside to these provisions in respect of rights newly vested by employees or the unwinding of discounting adjustments on the provisions transferred within the scope of the merger. These provisions are written back in line with the settlement of the corresponding obligations.

No provisions are set aside in liabilities for other commitments. These are disclosed in Note 17 on off-balance sheet commitments.

Basis of measurement and actuarial assumptions

Benefit obligations are measured using the projected unit credit method. The present value of the obligations of ENGIE SA is calculated by allocating vested benefits to periods of service under the plan's benefit formula. When an employee's service in later years leads to a materially higher level of benefits than in earlier years, the Group allocates the benefits on a straight-line basis.

Future payments in respect of these benefits are calculated based on assumptions as to salary increases, retirement age, mortality and employee turnover.

The rate used to discount future benefit payments is determined by reference to the yield on investment grade corporate bonds based on maturities consistent with the benefit obligation.

Bond redemption premiums and issue costs

In accordance with the benchmark treatment prescribed by the French National Accounting Board (*Conseil National de la Comptabilité* – CNC), bond issue costs are recognized on a straight-line basis over the life of the instruments. These issue costs mainly consist of advertising expenses (for public issues) and fees due to financial intermediaries.

Bonds carrying a redemption premium are recognized in liabilities for their total amount including redemption premiums. The matching entry for these premiums is recorded in assets under accruals, and amortized over the life of the bonds pro rata to interest.

Derivative financial instruments

In accordance with the principles reaffirmed by ANC Regulation No. 2015-05 whose application has been mandatory as of January 1, 2017, financial instruments used by ENGIE SA to hedge and manage its currency, interest rate and commodity risk are disclosed in off-balance sheet commitments.

Unrealized gains on transactions that do not qualify for hedge accounting are not recognized. A provision is recognized for unrealized losses on these transactions however.

In the case of contracts that qualify for hedge accounting, gains or losses are taken to income symmetrically with the gain or loss on the hedged items.

If the hedged item ceases to exist, the contract is unwound and any gains or losses taken to income.

ENGIE SA uses internal models representative of market practices to value financial derivative instruments that are not listed on financial markets.

Foreign currency transactions

Income and expenses denominated in foreign currencies are recorded at their equivalent value in euros at the transaction date.

Foreign currency receivables, payables and cash and cash equivalents are converted at the exchange rate prevailing at year-end.

Translation differences are taken to income when they arise on cash and cash equivalents, or to the balance sheet under unrealized foreign exchange gains or losses when they arise on receivables and payables. A provision is set aside for unrealized losses after taking account of any associated hedging instruments.

Income tax

Since January 1, 1988, ENGIE SA has been part of the tax consolidation regime introduced by Article 68 of Law No. 87-1060 of December 30, 1987. ENGIE SA is head of a tax consolidation group within the meaning of Articles 223 A *et seq.* of the French Tax Code.

The contribution of subsidiaries in the tax consolidation group to the Group’s income tax expense equals the amount of tax for which they would have been liable if they had not been members of the tax consolidation group.

The impacts of tax consolidation are recorded under the income tax expense of ENGIE SA, as parent company.

ENGIE SA also records a provision for any tax savings generated by subsidiaries’ tax losses. These savings initially benefit ENGIE SA as parent company, and are recovered by the subsidiaries once they return to profit (hence the provision booked).

Article 66 of Amending Finance Law No. 2012-1510 of December 29, 2012 introduced a tax credit aimed at boosting employment and competitiveness in France (*Crédit d’impôt pour la compétitivité et l’emploi* – CICE). This tax credit is recognized as a reduction of income tax expense.

NOTE 2 Significant events during the year and comparability of periods presented

Significant events during the year

In 2019, the triennial review of provisions for dismantling nuclear power plants and managing radioactive fissile material in Belgium and the updated macroeconomic scenario had a significant adverse impact on the value of Electrabel shares, resulting in the recognition of an impairment loss of €1,581 million.

Comparability of periods presented

The same accounting methods were used in 2019 and 2018.

NOTE 3 Property, plant and equipment and intangible assets

3.1 Gross values

Changes in the gross value of these assets can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Increases	Decreases	Reclassifications	Dec. 31, 2019
Intangible assets	**1,660**	**223**	**(46)**	**5**	**1,842**
Software	1,089	-	(46)	233	1,276
Other	362	-	-	-	362
Intangible assets in progress (1)	209	223	-	(228)	204
Property, plant and equipment	**1,007**	**56**	**(40)**	**(5)**	**1,018**
Land	32	1	(3)	-	30
Dismantling assets	5	-	(2)	-	3
Buildings	486	1	(20)	6	473
Plant and equipment	265	1	(14)	14	266
General plant and equipment, and miscellaneous fixtures and fittings	111	-	(1)	13	123
Other	28	-	-	-	28
Property, plant and equipment in progress	80	53	-	(38)	95
Advances and downpayments	-	-	-	-	-
TOTAL	**2,667**	**279**	**(86)**	**-**	**2,860**

(1) *Intangible assets in progress essentially concern IT projects.*

3.2 Depreciation, amortization and impairment

Changes in depreciation and amortization were as follows:

In millions of euros	Dec. 31, 2018	Increases	Decreases	Dec. 31, 2019
Intangible assets	**975**	**159**	**(10)**	**1,125**
Software	818	139	(10)	947
Other	158	20	-	178
Property, plant and equipment	**597**	**39**	**(24)**	**613**
Land	-	-	-	-
Dismantling assets	5	-	(2)	3
Buildings	376	10	(16)	370
Plant and equipment	124	18	(6)	136
General plant and equipment, and miscellaneous fixtures and fittings	67	10	-	77
Other	26	1	-	27
Property, plant and equipment in progress	-	-	-	-
TOTAL	**1,573**	**198**	**(34)**	**1,738**

Changes in impairment were as follows:

In millions of euros	Dec. 31, 2018	Additions	Reversals	Dec. 31, 2019
Intangible assets	181	-	(18)	163
Property, plant and equipment	25	19	(21)	24
TOTAL	**207**	**19**	**(39)**	**187**

Movements in depreciation, amortization and impairment can be broken down as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Depreciation, amortization and impairment	**180**	**172**
Straight-line method	178	169
Declining-balance method	2	2
Depreciation of dismantling assets	-	1
Exceptional amortization	**18**	**18**
Reversals	**-**	**-**

3.3 Net values

The net value of intangible assets and property, plant and equipment breaks down as follows:

In millions of euros	Gross values	Accumulated amortization/ depreciation	Impairment	Net value at Dec. 31, 2019	Net value at Dec. 31, 2018
Intangible assets	**1,842**	**(1,125)**	**(163)**	**554**	**503**
Software	1,276	(947)	(4)	325	266
Other	362	(178)	(158)	26	28
Intangible assets in progress	204	-	(1)	203	209
Property, plant and equipment	**1,018**	**(613)**	**(24)**	**381**	**384**
Land	30	-	(1)	29	29
Dismantling assets	3	(3)	-	-	-
Buildings	473	(370)	(11)	92	88
Plant and equipment	266	(136)	-	130	141
General plant and equipment, and miscellaneous fixtures and fittings	123	(77)	(12)	34	43
Other	28	(27)	-	1	3
Property, plant and equipment in progress	95	-	-	95	80
Advances and downpayments	**-**	**-**	**-**	**-**	**-**
TOTAL	**2,860**	**(1,738)**	**(187)**	**935**	**887**

NOTE 4 Financial fixed assets

4.1 Gross values

Changes in the gross value of these assets can be analyzed as follows:

In millions of euros	Dec. 31, 2018	Increases	Decreases	Other	Dec. 31, 2019
Equity investments	**74,667**	**190**	**(4)**	**-**	**74,853**
Consolidated equity investments	74,040	175	-	-	74,215
Consolidated equity investments – technical loss (1)	285	-	-	-	285
Non-consolidated equity investments	342	15	(4)	-	353
Other financial fixed assets	**598**	**246**	**(705)**	**-**	**139**
Other long-term investments	42	-	-	-	42
Amounts receivable from equity investments	511	4	(458)	-	57
Loans	14	51	(52)	-	13
Other financial fixed assets	31	191	(195)	-	27
TOTAL	**75,265**	**436**	**(709)**	**-**	**74,992**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, involving SUEZ and Electrabel shares.

Movements in treasury stock are detailed in Note 9.1.

Equity investments and amounts receivable from these investments are detailed in Note 4.4.

The change in amounts receivable from equity investments is due to the settlement of the dispute in Argentina and the write-off of ENGIE SA's receivables from its Argentine subsidiaries for €458 million.

The year-on-year change in equity investments at December 31, 2019 is essentially attributable to the following transactions:

- subscription to the capital increase carried out by ENGIE New Business (€77 million);
- subscription to the capital increase carried out by ENGIE Information & Technologies (€50 million);
- subscription to the capital increase carried out by ENGIE China Investment Company (€28 million);
- subscription to the capital increase carried out by ENGIE New Ventures (€20 million).

As at December 31, 2019, "Other financial fixed assets" comprised:

- deposits paid (€17 million);
- shares held under liquidity agreements (€10 million).

4.2 Impairment

In millions of euros	Dec. 31, 2018	Additions	Reversals	Other	Dec. 31, 2019
Consolidated equity investments	5,846	1,638	(609)	-	6,875
Consolidated equity investments – technical loss (1)	284	-	(105)	-	179
Non-consolidated equity investments	235	1	(1)	-	235
Other long-term investments	8	-	-	-	8
Amounts receivable from equity investments	510	4	(458)	-	56
Loans	1	-	(1)	-	-
TOTAL	**6,884**	**1,643**	**(1,174)**	**-**	**7,353**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, involving SUEZ and Electrabel shares.

The change in impairment mainly reflects:

- provisions for impairment against equity investments:
  - Electrabel (€1,581 million),
  - ENGIE Information & Technologies (€50 million),
  - ENGIE China Investment Company (€6 million);
- reversals of impairment provisions against equity investments:
  - COGAC (€450 million),
  - SUEZ (€245 million),
  - ENGIE New Ventures (€13 million),
  - GENFINA (€6 million).

The value in use of the equity investments used to calculate impairment is assessed by reference to:

- for private equity firms, the intrinsic value, which corresponds to net assets plus unrealized gains;
- for listed companies (including SUEZ), the yield value, which corresponds to the average of the last twenty stock market prices of the year;
- for other operating subsidiaries, value in use, which corresponds to the cash flows or dividends (DCF or DDM model) expected to be generated by subsidiaries that directly or indirectly hold operating activities.

The projections on which these values are based were drawn from the 2020 budget and from the 2021-2022 medium-term business plan, as approved by the Group's Executive Committee and the Board of Directors, and on extrapolated cash flows beyond that time frame. Cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price forecasts resulting from the Group's reference scenario for 2023-2040. The price forecasts that feature in the Group reference scenario were approved in December 2019. The forecasts and projections included in the reference scenario were determined on the basis of the following inputs:

- forward market prices over the liquidity period for fuel (coal, oil and gas), CO_2 and electricity on each market;
- beyond this period, medium- and long-term energy prices were determined by the Group based on macroeconomic assumptions and fundamental supply and demand equilibrium models, the results of which are regularly compared against forecasts prepared by external energy sector specialists. Long-term projections for CO_2 prices are those presented in the "Canfin, Grandjean et Mestrallet" report published in July 2016 and the climate neutrality objectives for 2050 set by the European Commission in the "European Green Deal" presented in December 2019. More specifically, medium- and long-term electricity prices were determined by the Group using electricity demand forecasting models, medium- and long-term forecasts of fuel and CO_2 prices, and expected trends in installed capacity and in the technology mix of the production assets within each power generation system.

In particular, for Electrabel, whose carrying amount accounts for almost half of ENGIE SA's investment portfolio, the key assumptions used to assess its value in use concern changes in:

- the regulatory environment in every country in which Electrabel operates, and in particular the Belgian regulatory framework governing the operating life of existing nuclear reactors and the level of royalties and nuclear contributions paid to the Belgian State;
- gas and electricity demand;
- electricity prices;
- exchange rates; and
- discount rates.

Electrabel owns, either directly or through equity investments in Europe or outside Europe, the following main operating activities:

- power generation and sales activities including:
  - nuclear power plants in Belgium,
  - thermal power plants, mainly in Belgium, the Netherlands, Italy, Greece, Spain, Portugal, Australia, Singapore, Brazil, Puerto Rico, Chile, Mexico, Peru and the Middle East,
  - renewable power generation plants, mainly in Belgium, the Netherlands, Italy, Spain, Portugal, Germany, the United Kingdom, Brazil, Chile and Mexico;
- natural gas and power generation activities in Belgium, the Netherlands, Italy, the United Kingdom, Australia and Singapore;
- management and optimization of portfolios of physical and contractual assets.

4.3 Net values

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2019	Net value at Dec. 31, 2018
Equity investments	**74,853**	**(7,289)**	**67,564**	**68,302**
Consolidated equity investments	74,215	(6,875)	67,340	68,193
Consolidated equity investments – technical loss (1)	285	(179)	106	2
Non-consolidated equity investments	353	(235)	118	107
Other financial fixed assets	**139**	**(64)**	**75**	**79**
Other long-term investments	42	(8)	34	34
Amounts receivable from equity investments	57	(56)	1	1
Loans	13	-	13	13
Other financial fixed assets	27	-	27	31
TOTAL	**74,992**	**(7,353)**	**67,639**	**68,381**

(1) Technical loss arising on the 2008 merger of SUEZ with Gaz de France, involving SUEZ and Electrabel shares.

6

4.4 Subsidiaries and investments

Some of the data in the table are unaudited.

In millions of euros	Share capital as per latest available balance sheet	Other equity as per latest available balance sheet	% capital held at Dec. 31, 2019
Name			
A – Detailed information concerning subsidiaries and investments whose gross value exceeds 1% of ENGIE SA capital (i.e., €24,352,850)			
1. Subsidiaries (more than 50%-owned by ENGIE SA)			
Aguas Provinciales de Santa Fe (data in local operating currency)	1	(132)	64.19%
Celizan	-	-	100.00%
COGAC	1,287	(406)	100.00%
Ecometering	22	(16)	99.00%
Electrabel	4,640	12,911	99.13%
Electrabel France	532	(175)	100.00%
ENGIE Alliance	100	(49)	64.00%
ENGIE China Investment Company	43	(7)	100.00%
ENGIE Energie Services	699	239	100.00%
ENGIE Energy Services International	1,571	321	100.00%
ENGIE Finance	5,460	200	100.00%
ENGIE Information & Technologies	5	(47)	100.00%
ENGIE Management Company	63	(84)	100.00%
ENGIE New Business	167	(3)	100.00%
ENGIE New Ventures	69	8	100.00%
ENGIE Rassembleurs d'Energies	50	(13)	100.00%
GDF International	3,972	666	100.00%
GENFINA	392	173	100.00%
GRDF	1,801	1,779	100.00%
GRTgaz	620	3,644	74.78%
SFIG	55	9	100.00%
Sopranor	-	4	100.00%
Storengy SAS	2,733	15	100.00%
50Five	-	6	100.00%
2. Equity investments (less than 50%-owned by ENGIE SA)			
Aguas Argentinas	26	(543)	48.20%
SUEZ (formerly SUEZ Environnement)	2,485	5,937	32.06%
B – Information concerning other subsidiaries and investments			
1. Subsidiaries not included in section A			
French companies	-	-	-
Foreign companies (data in local operating currency)	-	-	-
2. Equity investments not included in section A			
French companies	-	-	-
Foreign companies (data in local operating currency)	-	-	-
3. Other long-term investments not included in section A			
French companies	-	-	-
Foreign companies (data in local operating currency)	-	-	-
TOTAL			

Book value of shares held at Dec. 31, 2019		Loans and advances granted by ENGIE SA	Sureties and endorsements given by ENGIE SA	Revenues for the latest available period	Net income (+) or loss (-) for the latest available period	Dividends received by ENGIE SA during the period	Year-end of last available period (unaudited provisional accounts)
Gross	Provisions						
39	(39)	-	-	-	65	-	12/2018
31	(31)	-	-	-	-	-	12/2019
2,434	(822)	-	-	-	66	-	12/2019
38	(34)	-	-	8	-	-	12/2019
34,148	(4,138)	-	-	11,077	(417)	-	12/2018
1,641	-	-	-	-	(65)	-	12/2019
62	-	-	1,000	-	(49)	-	12/2019
123	(87)	-	-	-	(7)	-	12/2019
2,933	-	-	-	2,394	(13)	524	12/2019
3,908	-	-	-	2	(12)	-	12/2019
5,567	-	7,295	-	-	103	181	12/2019
128	(128)	-	-	377	(45)	-	12/2019
115	(115)	-	-	172	(6)	-	12/2019
167	-	-	-	-	(3)	-	12/2019
92	-	-	-	-	1	-	12/2019
50	(7)	-	-	-	(2)	-	12/2019
3,972	-	-	-	-	294	39	12/2019
2,627	(1,326)	-	-	-	4	-	12/2019
8,405	-	-	-	3,486	306	589	12/2019
2,240	-	-	1	1,886	334	327	12/2019
58	-	-	-	2	13	-	12/2019
245	(240)	-	-	-	-	-	12/2019
2,733	-	-	-	62	22	-	12/2019
26	-	-	-	8	(7)	-	12/2018
145	(145)	-	-	-	(182)	-	12/2018
2,820	(148)	-	-	83	387	130	12/2018
57	(20)	-	-	-	-	1	
9	-	-	-	-	-	-	
21	(8)	-	-	-	-	49	
23	-	-	-	-	-	-	
48	(8)	-	-	-	-	2	
-	-	-	-	-	-	-	
74,905	**(7,296)**					**1,842**	

NOTE 5 Inventories

In millions of euros	Gross values at Dec. 31, 2018	Increases	Decreases	Gross values at Dec. 31, 2019
Natural gas (including butane/propane)	1,005	1,017	(1,473)	550
Energy savings certificates	50	372	(375)	47
Electricity capacity guarantees	161	154	(4)	311
TOTAL	**1,215**	**1,543**	**(1,851)**	**908**

5.1 Natural gas reserves

Gas reserves at end-December 2019 were €455 million lower than at end-December 2018.

A combination of price and volume effects led to a fall in the value of natural gas inventories, mainly in underground storage in France.

5.2 Energy savings certificates

Decree No. 2019-1320 of December 9, 2019 (amending Article R. 221-1 of the French Energy Code) extends the fourth period by a year and amends the volume of TWh of cumac required over the new period.

Consequently, the national energy savings target for that fourth period from January 1, 2018 to December 31, 2021 is now fixed at 2,133 TWh for all energy suppliers over four years. This includes 533 TWh of cumac to help households affected by fuel poverty, a target introduced by Article 30 of the Energy Transition for Green Growth act (*Loi relative à la Transition Energétique pour la Croissance Verte* – LTECV).

Pursuant to Decree No. 2017-690 of May 2, 2017, ENGIE SA's annual "traditional" Energy Savings Certificate (ESC) obligation is determined by applying the following coefficients to its sales: 0.278 kWh cumac/kWh sold for natural gas and 0.463 for electricity ("cumac" means updated cumulative kilowatt-hours (kWh) annualized over the lifespan of the equipment).

For the "fuel poverty" ESC obligation (533 TWhc), which serves to calculate the ESC obligation to be used for households living in fuel poverty conditions in addition to the "standard" ESC obligation, the coefficient is set at 0.333.

In addition, the National Agency for Energy Savings Certificates (PNCEE) decided to withdraw the issuance of 1 TWh of certificates. ENGIE SA is disputing this decision but recognized an impairment provision of €4.5 million against its energy savings certificates in 2018.

NOTE 6 Receivables

6.1 Maturity of receivables

In millions of euros	Gross amount at Dec. 31, 2019	Due: End-2020	Due: Between 2021 and 2024	Due: 2025 and beyond
Non-current assets	**139**	**5**	**2**	**132**
Amounts receivable from equity investments	56	4	-	53
Loans	13	1	2	10
Liquidity agreements	-	-	-	-
Other financial fixed assets	69	-	-	69
Current assets	**15,249**	**15,027**	**107**	**115**
Trade and other receivables (1)	4,145	4,113	32	-
Current accounts with subsidiaries	7,753	7,753	-	-
Other operating receivables	667	667	-	-
Other receivables	2,638	2,448	75	115
Advances and downpayments made on orders	45	45	-	-
TOTAL	**15,388**	**15,031**	**109**	**247**

(1) *Sales of energy in the meter net of advances from customers billed on a monthly basis totaled €664 million including tax at December 31, 2019 (€592 million at December 31, 2018).*

6.2 Impairment of receivables

In millions of euros	Dec. 31, 2018	Additions	Reversals	Other	Dec. 31, 2019
Amounts receivable from equity investments	510	4	(458)	-	56
Loans	1	-	(1)	-	-
Trade and other receivables	286	239	(174)	-	351
Other miscellaneous receivables	15	-	(14)	-	1
TOTAL	**813**	**243**	**(647)**	**-**	**409**

NOTE 7 Marketable securities

In millions of euros	Gross values	Impairment	Net value at Dec. 31, 2019	Net value at Dec. 31, 2018
Treasury shares held to cover bonus share plans	303	(2)	301	440
Money-market funds	1,047	-	1,047	1,522
Term deposits	502	-	502	473
TOTAL	**1,852**	**(2)**	**1,850**	**2,434**

The gross value of treasury shares held at December 31, 2019 was €303 million against which an impairment loss of €2 million has been recognized, giving a carrying amount of €301 million. The aggregate par value of treasury shares held was €22 million.

Treasury shares break down into two categories:

- shares not yet allocated to a future plan (€27 million). Since the average share price over the last twenty trading days of the year was lower than the purchase price, an impairment loss of €2 million was recognized against these shares;
- shares allocated to a plan (€275 million). These shares are measured at their price on the date of the Board of Directors' decision to set up the plan to which they are allocated. They are held at their carrying amount until delivery and impairment provisions are recognized in liabilities (see Note 10.1.2).

NOTE 8 Accruals (assets) and unrealized foreign exchange losses

In millions of euros	Dec. 31, 2018	Increases	Decreases	Dec. 31, 2019
Loan redemption premiums	143	51	(31)	163
Deferred loan issuance costs	48	14	(13)	49
Options contracts	227	2	-	229
Financial instruments	1,834	133	(993)	974
ACCRUALS (ASSETS)	**2,252**	**200**	**(1,037)**	**1,415**
UNREALIZED FOREIGN EXCHANGE LOSSES	**339**	**68**	**(97)**	**310**

Accruals

Accruals related to financial instruments comprise:

- premiums and issue costs to be amortized on ENGIE SA bonds;
- premiums on options intended to hedge commodity and/or interest rate and currency risk on debt;
- measurement at fair value of interest rate, currency and commodity derivatives not qualifying as hedges, and the currency portion of derivatives hedging the risk on debt denominated in foreign currencies.

Unrealized foreign exchange losses

Unrealized foreign exchange losses arise upon the translation at the year-end exchange rate of payables and receivables denominated in a currency other than the euro and upon the currency portion of derivatives hedging debt denominated in foreign currencies and/or commodity purchases and sales.

NOTE 9 Shareholders' equity

9.1 Share capital – shares issued and outstanding

The share capital is fully paid up. Each €1 share carries a single voting right.

Share capital	
Shares comprising the share capital at January 1, 2019	2,435,285,011
Total number of shares comprising the share capital	**2,435,285,011**

In 2019, a total of 12,455,417 shares were purchased and 12,455,417 shares were sold under the liquidity agreement, generating a net capital gain of €343,561. At December 31, 2019, ENGIE SA no longer held any treasury shares under the liquidity agreement.

At December 31, 2019, ENGIE SA held 22,153,719 shares in connection with bonus share awards (see Note 9.3).

9.2 Change in shareholders' equity

In millions of euros	
Shareholders' equity at December 31, 2018	**36,616**
Dividends and interim dividends paid and other	(1,833)
Revaluation adjustments	(2)
Tax-driven provisions and investment subsidies	9
Income	(196)
Shareholders' equity at December 31, 2019	**34,594**

In 2019, ENGIE SA paid:

- a dividend of €0.38 per share (net of the interim dividend paid in 2019) in respect of 2018, representing a total amount of €917 million, and an exceptional dividend of €0.37 per share, representing a total amount of €892.8 million, less the treasury shares held at the dividend payment date (€16.7 million). The total 2018 dividend payout was €2,718 million;
- a loyalty dividend of €0.112 per share, representing a total payout of €23.7 million.

9.3 Employee bonus share awards and stock option plans

Bonus share policy and stock option policy

Bonus share awards are intended to involve all employees more closely in the Group's growth and performance. They are awarded to employees upon a decision of the Board of Directors, in accordance with decisions taken by the Shareholders' Meeting, subject to a minimum seniority of two years and a number of performance conditions.

In 2019, ENGIE SA granted 5,344,889 bonus shares to ENGIE Group employees.

In 2019, ENGIE SA delivered 1,730,831 shares to Group employees.

Based on all existing share plans, the number of beneficiaries and staff turnover assumptions, at December 31, 2019 ENGIE SA considered that it had an obligation to deliver 20,384,268 shares.

In view of the shares delivered in 2019, the company holds 22,153,719 shares to cover its bonus share obligations at December 31, 2019, representing a total amount of €301 million net of provisions. The market value of these shares at end-2019 was €322 million.

Details of bonus share and stock option plans in force	Number of shares awarded	Number of shares delivered	Per share value	Expense *(in millions of euros)* 2019	2018
Bonus shares awarded					
ENGIE Plan of December 10, 2014	1,009,995	401,844	19.93	(8.66)	(58.55)
Link Abondement Plan of December 10, 2014	125,142	116,855	19.93	(1.78)	0.13
ORS 2015 Plan of December 10, 2015	86,437	-	19.88	0.32	0.11
ENGIE Plan of December 16, 2015	3,349,695	1,086,714	16.02	(46.50)	9.29
ENGIE Plan of February 24, 2016	66,265	58,928	19.93	(1.14)	(1.21)
ENGIE Plan of December 14, 2016	5,297,560	-	12.03	(6.21)	29.51
ENGIE Plan of March 1, 2017	149,178	66,490	11.65	(1.35)	1.01
ENGIE Plan of December 13, 2017	5,278,045	-	14.70	13.76	29.77
ENGIE Plan of March 7, 2018	135,583	-	12.65	0.35	0.86
Link Abondement Plan of August 2, 2018	301,816	-	13.44	0.60	0.46
ENGIE Plan of December 11, 2018	5,001,510	-	12.26	16.88	1.39
ENGIE Plan of February 27, 2019	187,674	-	13.90	0.85	-
ENGIE Plan of December 17, 2019	5,157,215	-	14.73	0.83	-
TOTAL	**26,146,115**	**1,730,831**		**(32.06)**	**12.76**

In 2019, ENGIE SA began to rebill Group entities for expenses incurred in respect of bonus share plans, leading to a revaluation of plans in the vesting period and a revaluation of provisions for losses. This change resulted in a provision reversal of €32 million.

6

NOTE 10 Provisions

10.1 Provisions for contingencies and losses

In millions of euros	Dec. 31, 2018	Additions	Reversals (used provisions)	Reversals (surplus provisions)	Other	Dec. 31, 2019
Provisions for site rehabilitation (Note 10.1.1)	10	12	(1)	-	-	21
Provisions relating to employees (Note 10.1.2)	266	49	(41)	(33)	-	241
Provisions for taxes (Note 10.1.3)	23	2	(1)	-	-	23
Provisions for tax consolidation (Note 10.1.4)	1,107	134	(172)	-	-	1,069
Risks arising on subsidiaries	53	20	(14)	-	-	59
Other provisions for contingencies and losses (Note 10.1.5)	965	752	(600)	(58)	-	1,059
TOTAL	**2,424**	**969**	**(829)**	**(91)**	**-**	**2,472**

10.1.1 Provisions for site rehabilitation

Provisions for site rehabilitation totaled €21 million at December 31, 2019 versus €10 million at end-2018. They chiefly relate to the rehabilitation of sites on which gas production plants were located and mainly cover safety requirements (ground water, air pollution, etc.) based on their current use. They also include refurbishment of the La Défense and Lyon (Monolyte) premises.

In 2015, ENGIE SA implemented a five-year national property asset disposal program (*Plan National de Cessions Immobilières* – PNC) covering 236 non-strategic sites.

Whenever a binding agreement is entered into to sell an asset, a provision for dismantling costs is recognized under liabilities with a matching entry to dismantling assets depreciated over their residual life.

In millions of euros	Dec. 31, 2018	Additions	Reversals (used provisions)	Matching entry to dismantling assets	Dec. 31, 2019
Provisions for site rehabilitation (excluding PNC assets)	4	12	-	-	15
Provisions for site rehabilitation (PNC assets)	6	-	(1)	-	5
TOTAL	**10**	**12**	**(1)**	**-**	**21**

At December 31, 2019, provisions for site rehabilitation broke down as follows:

- provisions with a matching entry to dismantling assets: €3.4 million;
- provisions for the prior year: €1 million.

A provision for contingency guarantees was recognized as part of the Campus project. Under the contract with the Greater Paris Metropolitan Area (*Métropole du Grand Paris* - MGP), ENGIE SA has agreed to bear the cost of works caused by a contingency ("contingency" meaning any unforeseen costs resulting from the presence in the ground or underground of buried structures or an exceptional source of pollution related to ENGIE SA's operations) in an amount of €14 million including tax (€11.7 million before tax).

10.1.2 Provisions relating to employees

Provisions for employee benefits

At December 31, 2019, pension obligations amounted to €5 million. Pension obligations are covered by insurance funds.

Other post-employment benefits amounted to €13 million.

Provisions have been set aside for the full amount of disability benefits, allowances for occupational accidents, illnesses of active employees at year-end, long-service awards and asbestos, representing a total amount of €85 million.

These provisions represented a total amount of €103 million at December 31, 2019. Note 18.4 analyzes changes in these provisions in the periods presented.

The full amount of end-of-career indemnities is partially covered by insurance funds; the shortfall amounted to €25 million at December 31, 2019.

Provisions for employee bonus share awards and stock option plans

At December 31, 2019, provisions for employee bonus share awards and stock option plans amounted to €131 million (end-2018: €164 million).

In 2019, ENGIE SA set aside a further €34 million to this provision to cover rights vested by employees. It also wrote back €66 million of the provision following the expiration of certain bonus share plans.

In addition to presence in the Group at the vesting date, eligibility for certain bonus share and performance share plans is subject to an internal performance condition. When this condition is not fully met, the number of bonus shares granted to employees is reduced in accordance with the plans' regulations.

10.1.3 Provisions for taxes

Following various tax audits, ENGIE SA set aside several provisions for tax risks.

At end-2019, the provision for income taxes amounted to €22 million, unchanged from end-2018. It is chiefly related to the transfer price of LNG.

At end-2019, other provisions for reassessments of other levies and taxes (VAT, construction effort, CVAE business value-added, etc.) amounted to €1.6 million.

10.1.4 Provisions for tax consolidation

ENGIE SA has chosen to file consolidated tax returns. As a result, it sets aside a provision reflecting its obligation to transfer back to subsidiaries any tax losses utilized. In 2019, ENGIE SA recognized a provision charge of €117.8 million and a reversal of €82 million, bringing the total provision to €524.5 million at the year-end.

At December 31, 2007, the capital gain on the disposal of the gas distribution activity had no impact on tax, since GRDF was part of the tax consolidation group. Since 2008, the subsidiary's statutory financial statements show tax savings relating to the amortizable component of the capital gain arising on the disposal of the gas distribution business. This excess amortization is canceled out at the level of the tax consolidation group. In accordance with the tax consolidation agreements signed with its subsidiaries, ENGIE SA recognized a provision for tax consolidation with respect to GRDF for a definitive amount of €1,938 million, based on the amortizable component. In 2019, the Company wrote back an amount of €90 million (€99 million in 2018), corresponding to the neutralization of the excess amortization on the amortizable component arising in the year. An additional provision was recognized for the impact of the change in the future tax rate (€16 million).

Provisions for tax consolidation amounted to €1,068.5 million at end-2019, including €544 million relating to the amortizable component of GRDF's intangible assets.

10.1.5 Other provisions for contingencies and losses

This item mainly includes provisions for contingencies arising on other third parties, provisions for disputes (commercial litigation and claims), and provisions for currency and interest rate risk. Movements in these provisions chiefly impact non-recurring and financial items.

Provisions for other contingencies and losses totaled €1,059 million at December 31, 2019 versus €965 million at end-2018.

Given structural changes in gas markets, ENGIE SA decided to overhaul the management model of its midstream gas business (excluding LNG). To this end, in 2017 a new organization was put in place aimed at changing the methods for managing long-term gas supply contracts, transport and storage capacity contracts, and a power exchange contract. These new methods are designed to permit the relevant contracts to be managed individually rather than as part of a portfolio. The initial accounting impact of this change was a negative €678 million. At December 31, 2018, the provision for onerous contracts amounted to €677 million. A net provision reversal was recognized in 2019 (€120 million). At December 31, 2019, the provision for onerous contracts amounted to €557 million.

The remaining balance at end-2019 chiefly concerns provisions for capacity reservation contracts classified as loss-making (€557 million), litigation (€103 million), restructuring (€50 million), foreign exchange losses (€27 million), interest rate risk (€107 million) and other risks (€216 million), which mainly comprise the provision for negative fair value adjustments (€197 million).

The provisions for subsidiaries' risk amounted to €59 million at December 31, 2019 (€53 million at December 31, 2018).

10.2 Tax-driven provisions and investment subsidies

In millions of euros	Dec. 31, 2018	Additions	Reversals	Transfer	Dec. 31, 2019
Tax-driven provisions	**566**	**317**	**(316)**	**-**	**567**
Accelerated depreciation and amortization	512	317	(293)	-	536
Provision for price increases	54	-	(23)	-	31
Investment subsidies	**10**	**8**	**-**	**-**	**18**
TOTAL	**576**	**325**	**(316)**	**-**	**585**

NOTE 11 Borrowings and debt

11.1 Summary of borrowings and debt

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Borrowings	**30,842**	**27,498**
Hybrid bonds	3,913	4,085
Bonds	22,550	19,377
Other loans	4,380	4,036
Amounts payable to equity investments	**6,800**	**5,250**
Current accounts with subsidiaries	**1,051**	**2,749**
Other borrowings and debt	**541**	**583**
Deposits received from customers	25	26
Tax consolidation	114	98
Current portion of interest due	364	409
Bank overdrafts	4	14
Miscellaneous	34	35
TOTAL	**39,234**	**36,080**

The €3,154 million increase in borrowings and debt chiefly reflects:

- a new long-term loan obtained from Electrabel (€1,800 million);
- a €2,975 million increase in bond issues;
- a €323 million increase in Negotiable European Commercial Paper (NEU CP) issues;
- partly offset by a decrease in the credit balance on current accounts with subsidiaries (€1,698 million) mainly concerning the ENGIE Global Markets current account.

11.2 Maturities of borrowings, debt and payables

In millions of euros	Dec. 31, 2019	Due End-2020	Due Between 2021 and 2024	Due 2025 and beyond
Borrowings and debt	**39,234**	**8,569**	**15,067**	**15,598**
Hybrid bonds	3,913	-	2,413	1,500
Bonds	22,549	2,477	6,354	13,718
Other loans	4,380	3,500	500	380
Amounts payable to equity investments	6,800	1,000	5,800	-
Current accounts with subsidiaries	1,051	1,051	-	-
Other borrowings and debt	541	541	-	-
Trade and other payables	**6,408**	**6,408**	**-**	**-**
Tax and employee-related liabilities	**1,206**	**1,206**	**-**	**-**
Other liabilities	**2,408**	**2,408**	**-**	**-**
Advances from customers	1,041	1,041	-	-
Other	1,367	1,367	-	-
Advances and downpayments received on orders	**15**	**15**	**-**	**-**
TOTAL	**49,272**	**18,607**	**15,067**	**15,598**

11.2.1 Breakdown of hybrid bonds

	Dec. 31, 2019	Issue date	Interest repricing date	Interest	Listing
Public issues					
In millions of euros	413	07/2013	07/2021	4.750%	Paris
In millions of euros	1,000	06/2014	06/2024	3.875%	Paris
In millions of euros	1,000	01/2018	04/2023	1.375%	Paris
In millions of euros	1,000	01/2019	02/2025	3.250%	Paris
In millions of euros	500	07/2019	07/2025	1.625%	Dublin

11.2.2 Breakdown of bonds

	Dec. 31, 2019	Issue date	Maturity date	Interest	Listing
Public issues					
In millions of euros	900	01/2009	01/2021	6.375%	Luxembourg
In millions of euros	693	10/2010	10/2022	3.500%	Paris
In millions of euros	300	03/2011	03/2111	5.950%	Paris
In millions of euros	424	11/2011	01/2020	3.125%	Paris
In millions of euros	742	06/2012	02/2023	3.000%	Paris
In millions of euros	410	07/2012	07/2022	2.625%	Paris
In millions of euros	1,200	05/2014	05/2020	1.375%	Paris
In millions of euros	1,300	05/2014	05/2026	2.375%	Paris
In millions of euros	750	03/2015	03/2022	0.500%	Paris
In millions of euros	750	03/2015	03/2026	1.000%	Paris
In millions of euros	500	03/2015	03/2035	1.500%	Paris
In millions of euros	700	03/2017	03/2024	0.875%	Paris
In millions of euros	800	03/2017	03/2028	1.500%	Paris
In millions of euros	500	09/2017	02/2023	0.375%	Paris
In millions of euros	750	09/2017	02/2029	1.375%	Paris
In millions of euros	750	09/2017	09/2037	2.000%	Paris
In millions of euros	750	06/2018	06/2028	1.375%	Paris
In millions of euros	500	09/2018	09/2025	0.875%	Paris
In millions of euros	500	09/2018	09/2033	1.875%	Paris
In millions of euros	750	06/2019	06/2027	0.375%	Paris
In millions of euros	750	06/2019	06/2039	1.375%	Paris
In millions of euros	750	09/2019	03/2027	0.000%	Paris
In millions of euros	900	10/2019	10/2030	0.500%	Paris
In millions of euros	600	10/2019	10/2041	1.250%	Paris
In millions of pounds sterling	500	10/2008	10/2028	7.000%	Luxembourg
In millions of pounds sterling	226	02/2009	02/2021	6.125%	Luxembourg
In millions of pounds sterling	700	10/2010	10/2060	5.000%	Paris
In millions of pounds sterling	400	10/2011	10/2060	5.000%	Paris
In millions of Swiss francs	275	10/2012	10/2020	1.125%	Zurich
In millions of Swiss francs	175	10/2012	10/2024	1.625%	Zurich
In millions of US dollars	750	10/2012	10/2022	2.875%	None
Private placements					
In millions of euros	100	10/2011	10/2023	CMS10YR+0.505%	Paris
In millions of euros	400	07/2012	01/2020	2.500%	None
In millions of euros	100	03/2013	03/2033	3.375%	None
In millions of euros	200	04/2013	04/2020	Euribor3M+0.58%	Paris
In millions of euros	81	04/2013	04/2038	3.703%	None
In millions of euros	50	10/2015	10/2027	1.764%	Paris
In millions of euros	50	10/2015	10/2027	1.764%	Paris
In millions of euros	100	11/2015	11/2045	2.750%	Paris
In millions of euros	50	11/2015	11/2045	2.750%	Paris
In millions of euros	100	06/2017	06/2032	1.625%	Paris
In millions of euros	100	10/2017	09/2037	2.000%	Paris
In millions of euros	50	07/2018	07/2027	1.157%	Paris
In millions of euros	75	07/2018	07/2038	CMS	Paris
In millions of Norwegian krone	500	04/2013	04/2024	4.020%	Paris
In millions of yen	15,000	12/2008	10/2023	3.180%	None
In millions of yen	10,000	07/2012	07/2022	1.260%	Paris
In millions of yen	20,000	09/2015	01/2024	0.535%	Paris
In millions of Hong Kong dollars	1,400	09/2017	09/2032	2.650%	Paris
In millions of Hong Kong dollars	900	10/2017	10/2027	2.630%	Paris
In millions of US dollars	50	11/2015	11/2021	2.681%	Paris
In millions of US dollars	50	01/2019	12/2029	3.593%	None
In millions of Australian dollars	115	11/2015	11/2025	4.235%	Paris
In millions of Australian dollars	85	07/2018	07/2033	3.780%	Paris

11.2.3 Other borrowings and amounts payable to equity investments

At December 31, 2019, other borrowings comprised mainly NEU CP (€2,351 million, including €896 million at fixed rates) and USCP (US Commercial Paper) at fixed rates (USD 991 million, equivalent value of €882 million). These borrowings all fall due in less than one year.

ENGIE SA also had a credit facility on which €877 million had been drawn and a USD 300 million bank loan (equivalent value of €267 million).

The long-term loan from ENGIE Finance decreased following a repayment made during the year and amounted to €3,650 million at end-2019.

The loan from ENGIE Alliance remained unchanged at €850 million.

In March 2019, ENGIE SA took out a €1,800 million long-term loan from ENGIE Global Developments, which was transferred to Electrabel in November 2019.

11.2.4 Other borrowings and debt

Other borrowings and debt (accrued interest on borrowings and debt, current accounts with a credit balance, deposits received from customers, bank overdrafts, bank facilities, etc.) are chiefly denominated in euros.

11.3 Analysis of borrowings and debt by currency and interest rate

11.3.1 Analysis by interest rate

	After hedging		Before hedging	
In millions of euros	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
Floating rate				
Bonds	6,469	7,210	375	378
Amounts payable to equity investments	6,300	5,250	6,300	5,250
Other loans	2,371	2,546	2,242	1,076
Current accounts with subsidiaries	1,051	2,749	1,051	2,749
Other borrowings and debt	256	583	176	583
Fixed rate				
Hybrid bonds	3,913	4,085	3,913	4,085
Bonds	16,081	12,170	22,175	19,002
Amounts payable to equity investments	500	-	500	-
Other loans	2,009	1,487	2,138	2,957
Other borrowings and debt	284	-	364	-
TOTAL	**39,234**	**36,080**	**39,234**	**36,080**

11.3.2 Analysis by currency

	After hedging		Before hedging	
In millions of euros	**Dec. 31, 2019**	**Dec. 31, 2018**	**Dec. 31, 2019**	**Dec. 31, 2018**
In euros				
Hybrid bonds	3,913	3,753	3,913	3,753
Bonds	22,550	19,377	18,425	15,450
Amounts payable to equity investments	6,800	5,250	6,800	5,250
Other loans	4,380	4,033	3,231	2,905
Current accounts with subsidiaries	854	2,356	854	2,356
Other borrowings and debt	540	522	492	522
In foreign currency				
Hybrid bonds	-	335	-	335
Bonds	-	-	4,125	3,927
Amounts payable to equity investments	-	-	-	-
Other loans	-	-	1,149	1,128
Current accounts with subsidiaries	197	393	197	393
Other borrowings and debt	-	61	48	61
TOTAL	**39,234**	**36,080**	**39,234**	**36,080**

NOTE 12 Accruals (liabilities) and unrealized foreign exchange gains

In millions of euros	Dec. 31, 2018	Increases	Decreases	Dec. 31, 2019
Options contracts	469	50	-	519
Financial instruments	1,457	-	(514)	943
ACCRUALS (LIABILITIES)	**1,926**	**50**	**(514)**	**1,463**
UNREALIZED FOREIGN EXCHANGE GAINS	**403**	**128**	**(100)**	**431**

Accruals

Accruals related to financial instruments comprise:

- premiums on options intended to hedge commodity and/or interest rate and currency risk on debt;
- measurement at fair value of interest rate, currency and commodity derivatives not qualifying as hedges, and the currency portion of derivatives hedging the risk on debt denominated in foreign currencies.

A contingency and loss provision is recognized in respect of unrealized foreign exchange losses on contracts that do not qualify for hedge accounting (see Note 10.1.5).

Unrealized foreign exchange gains

Unrealized foreign exchange gains arise upon the translation at the year-end exchange rate of payables and receivables denominated in a currency other than the euro and upon the currency portion of derivative financial instruments intended to hedge currency risk on debt and/or commodity purchases and sales.

NOTE 13 Net operating income/(loss)

13.1 Breakdown of revenues

Revenues by region

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Energy sales		
• France	11,197	9,034
• International	3,036	15,983
Works, research and services provided	2,669	2,345
Revenues from non-core activities and other	380	471
TOTAL	**17,282**	**27,833**

The decrease in total international revenues stemmed from a negative price effect on all trading operations, and an overall negative volume effect following a decrease in sales with ENGIE Energy Management and ENGIE Global Markets.

Revenues by business activity

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Energy sales		
• Natural gas	8,642	20,334
• Electricity	5,591	4,683
Other production sold		
• Works, research and services provided	2,669	2,345
• Revenues from non-core activities and other	380	471
TOTAL	**17,281**	**27,833**

At December 31, 2019, unbilled, unmetered revenues (energy in the meter) amounted to €1,626 million excluding tax.

13.2 Personnel costs

Change in headcount by category

In number of employees	Dec. 31, 2018	Change	Dec. 31, 2019
Operating staff	278	(52)	226
Senior technicians and supervisory staff	1,702	(63)	1,639
Managerial-grade staff	2,621	13	2,634
TOTAL	**4,601**	**(102)**	**4,499**

The average number of employees was 4,499 in 2019 and 4,601 in 2018.

Personnel costs break down as follows:

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Wages and salaries	(273)	(289)
Payroll expenses	(148)	(151)
Profit sharing	(21)	(21)
Other	(28)	(190)
TOTAL	**(470)**	**(651)**

Employee profit sharing

An employee profit-sharing agreement based on performance criteria was set up in compliance with the legal conditions prescribed by Order 86-1134 of October 21, 1986.

These profit-sharing mechanisms are treated as personnel costs.

13.3 Net additions to provisions

In millions of euros	Dec. 31, 2019	Dec. 31, 2018
Provision for capital renewal and replacement liabilities regarding concessions	(1)	-
Provision for site rehabilitation	11	(7)
Provisions relating to employees	(6)	(18)
Other contingency and loss provisions for operating items	88	(74)
TOTAL	**91**	**(97)**

Other contingency and loss provisions mainly comprised:

- net reversal of the provision for onerous contracts (€120 million);
- net addition to provisions for employee disputes (€14 million);
- net addition to provisions for negative fair value adjustments to swaps (€143 million);
- net addition to provisions for commercial litigation (€47 million);
- net addition to provisions for tax reassessments (€4 million).

13.4 Operating expense transfers

Expense transfers are included in other operating income and amounted to €30 million in 2019 and €39 million in 2018.

NOTE 14 Net financial income/(loss)

In millions of euros	Expenses	Income	Total Dec. 31, 2019	Dec. 31, 2018
Other interest income and expenses	(1,052)	565	(487)	(545)
Interest on current accounts and amounts receivable from equity investments	-	8	8	36
Foreign exchange gains/(losses)	(320)	338	19	59
Dividends received	-	1,840	1,840	4,259
Movements in provisions for financial items	(206)	19	(187)	(92)
TOTAL	**(1,577)**	**2,770**	**1,192**	**3,718**

NOTE 15 Net non-recurring income/(loss)

In millions of euros	Expenses	Income	Total Dec. 31, 2019	Dec. 31, 2018
Disposals of property, plant and equipment, and intangible assets	(52)	57	4	135
Disposals of financial fixed assets	(177)	177	-	13
Provision for price increases	-	23	23	19
Accelerated depreciation and amortization	(316)	293	(24)	(92)
Movements in provisions relating to equity investments	(1,663)	745	(918)	(2,189)
Other	(596)	676	80	8
TOTAL	**(2,804)**	**1,970**	**(835)**	**(2,107)**

“Other” mainly includes various indemnities on real estate restructuring operations, the sale of a supply contract in Azerbaijan to Shell, and expenditure incurred in settling the dispute in Argentina.

NOTE 16 Tax position

16.1 Tax consolidation

The current option to file consolidated tax returns is automatically renewed every five years.

16.2 Income tax benefit/(expense)

The income tax rate in 2019 was 34.43%, including the 3.3% social contribution.

	2019			2018		
In millions of euros	Income before tax	Income tax*	Net income/(loss)	Income before tax	Income tax*	Net income/(loss)
Income tax due by ENGIE SA for the period (excluding tax consolidation group)						
• on recurring income	261		261	2,660		2,660
• on non-recurring income	(834)		(834)	(2,107)		(2,107)
Income tax expense (income tax payable by subsidiaries/provision for transfer of tax savings to entities in the tax consolidation group)		**377**	**377**		**549**	**549**
• o/w Income tax relating to subsidiaries within the tax consolidation group		294			343	
• o/w Net change in provisions for income tax		38			124	
• o/w Other (mainly adjustments to research and CICE tax credits held in 2018/2019)		45			82	
TOTAL	**(573)**	**377**	**(196)**	**553**	**549**	**1,102**

** A positive figure signifies a tax benefit.*

In 2019 and 2018, ENGIE SA generated a tax loss on an individual company level. Dividends received from subsidiaries are eligible for "parent/subsidiary" tax treatment and are therefore exempt, subject to adding back a share of expenses equal to 1% or 5%, as applicable.

The income tax benefit amounted to €377.1 million in 2019 versus an income tax benefit of €549 million in 2018, chiefly reflecting:

- savings resulting from tax consolidation (€294.4 million in 2019 versus €342.7 million in 2018), attributable to the difference between:
  - the €293.3 million contribution to Group income tax due in 2019 to ENGIE SA by subsidiaries reporting a profit (€341.2 million in 2018),
  - tax credits relating to the tax consolidation group amounting to €1.1 million in 2019 versus €1.4 million in 2018, and
  - income tax due by the tax consolidation group, which was zero in 2019, as in 2018;
- a net reversal of €38.2 million from the income tax provision in 2019 compared with a reversal of €124 million in 2018, chiefly reflecting:
  - €35.8 million in net additions in respect of the utilization of tax losses by consolidated subsidiaries of ENGIE SA versus €36.1 million in net reversals in 2018,
  - €0.3 million reversal of provisions for tax risks chiefly related to the transfer price of LNG compared to an addition of €11.5 million in 2018,
  - €90.5 million in reversals of provisions relating to the excess amortization during the period of the amortizable component of the capital gain generated on the sale of gas distribution activities in 2007, less the €16.5 million addition for the impact of the change in future tax rates,
  - €0.3 million in corporate income tax due on loss carryforwards across an expanded base;
- other miscellaneous items representing a net tax credit of €44.5 million in 2019, mainly due to changes in research and CICE tax credits.

16.3 Deferred tax

Future tax liabilities as shown in the table below result from temporary differences between the treatment of income and expenses for tax and accounting purposes.

This takes into account the impact of the progressive decrease in the corporate income tax rate from 2020 to 2022 introduced in the 2018 finance act.

	2019			2018			
In millions of euros	32.02%	28.41%	25.82%	32.02%	28.92%	27.37%	25.83%
Year of reversal	**2020**	**2021**	**2022+**	**2019**	**2020**	**2021**	**2022+**
Deferred tax liabilities							
• Unrecognized deductible expenses	310	-	-	339	-	-	-
• Untaxed income recognized	30	27	109	32	30	27	109
Deferred tax assets							
• Temporary non-deductible expenses recognized	512	42	611	306	49	109	676
• Unrecognized taxable income	324	-	39	336	-	-	39
Net deferred tax base	**496**	**15**	**541**	**271**	**19**	**82**	**606**
• Theoretical impact of deferred tax	159	4	140	87	5	22	157

NOTE 17 Off-balance sheet commitments (excluding employee benefit obligations)

17.1 Financial commitments

The ENGIE Group's Finance Division is responsible for managing all financial risks (interest rate, currency, liquidity and credit risks).

17.1.1 Liquidity risk

The Group's financing policy is based on:

- centralizing external financing;
- diversifying sources of financing between credit institutions and capital markets;
- achieving a balanced debt repayment profile.

The centralization of financing needs and cash flow surpluses for the Group is provided by its financing vehicles (long-term and short-term) and its cash pooling vehicles.

Short-term cash requirements and cash surpluses for Europe are managed by dedicated financial vehicles in France (ENGIE Finance) and Luxembourg (ENGIE Treasury Management). These vehicles centralize virtually all of the cash requirements and surpluses of companies controlled by the Group, ensuring that counterparty risk and investment strategies are managed consistently.

The Group seeks to diversify its long-term sources of financing by carrying out public or private bond issues within the scope of its Euro Medium Term Notes program. It also issues NEU CP (Negotiable European Commercial Paper) as well as USCP (US Commercial Paper).

Long-term capital markets are accessed chiefly by ENGIE SA in connection with the Group's new bond issues, and in connection with commercial paper.

As commercial paper is relatively inexpensive and highly liquid, it is used by the Group in a cyclical or structural fashion to finance its short-term cash requirements. However, outstanding commercial paper is backed by confirmed bank lines of credit so that the Group could continue to finance its activities if access to this financing source were to dry up.

The Group's liquidity is based on maintaining cash and cash equivalents and access to confirmed credit facilities. ENGIE SA can therefore access facilities readily convertible into cash, enabling it to meet its cash requirements in the ordinary course of business or to serve as a bridge to finance external growth operations:

- ENGIE SA has credit facilities with various banks under which €12,435 million remains undrawn. These facilities include two syndicated credit lines, respectively for €5,500 million and €5,000 million, maturing in November 2022 and December 2024. At December 31, 2019, ENGIE SA had drawn €877 million on these facilities. These facilities are not subject to any covenants or credit rating requirements;
- ENGIE SA also has access to short-term debt markets through short-term debt issues: USCP for USD 4,500 million (of which USD 991 million (€882 million) had been drawn at end-2019), and NEU CP for €5,000 million (€2,351 million drawn at end-2019).

17.1.2 Counterparty risk

ENGIE SA is exposed to counterparty risk arising on its operating and financing activities.

To manage counterparty risk arising on operating activities, the Group has put in place monitoring procedures adapted to the characteristics of the counterparties concerned (private corporations, individuals, and public authorities). Customers representing a major counterparty for the Company are covered by procedures applicable to the financial activities described below, thereby providing broad-ranging oversight of the corresponding counterparty risk.

6

For its financing activities, ENGIE SA has put in place procedures for managing and monitoring risk based on (i) the accreditation of counterparties according to external credit ratings, objective market data (credit default swaps, market capitalization) and financial structure, and (ii) risk exposure limits. ENGIE SA also draws on a structured legal framework based on master agreements (including netting clauses) and collateralization contracts (margin calls) to reduce its exposure to counterparty risk. The oversight procedure for managing counterparty risk arising from financing activities is managed by a middle office that operates independently of the Group's Treasury department and reports to the Finance Division.

17.1.3 Interest rate risk

Based on its net debt position, ENGIE SA has adopted a policy for optimizing borrowing costs using a combination of financial instruments (interest swaps and options) according to market conditions.

ENGIE SA takes care to ensure that the difference between its floating-rate debt and its cash surpluses invested at a floating rate has a low degree of exposure to adverse changes in short-term interest rates.

Positions are managed centrally and are reviewed each quarter or whenever any new financing is raised. Management must approve in advance any transaction that causes the interest rate mix to change significantly.

	Notional amount at Dec. 31, 2019						
In millions of euros	Due in 1 year or less	Due in 1 to 5 years	Due in 6 to 10 years	Due after 10 years	Total	Fair value including accrued interest	Notional amount at Dec. 31, 2018
Interest rate swap							
Fixed-rate borrower/floating-rate lender	600	1,602	2,121	1,650	5,973	(1,592)	5,895
Floating-rate borrower/fixed-rate lender	1,898	4,159	4,304	3,075	13,436	1,333	13,552
Purchase of CAP							
Fixed-rate borrower/floating-rate lender	-	1,000	-	-	1,000	-	1,000
Purchase of FRA							
Fixed-rate borrower/floating-rate lender	2,450		-	-	2,450	(3)	6,050
Total EUR	**4,948**	**6,761**	**6,425**	**4,725**	**22,859**	**(262)**	**26,497**
Interest rate swap							
Fixed-rate borrower/floating-rate lender	455	570	-	72	1,097	(33)	1,045
Floating-rate borrower/fixed-rate lender	-	-	-	72	72	7	120
Total USD	**455**	**570**	**-**	**144**	**1,169**	**(26)**	**1,165**
TOTAL	**5,403**	**7,331**	**6,425**	**4,869**	**24,028**	**(288)**	**27,662**

In millions of euros	Due in 1 year or less	Due in 1 to 5 years	Due in 6 to 10 years	Due after 10 years	Total	Fair value including accrued interest	Notional amount at Dec. 31, 2018
	Notional amount at Dec. 31, 2019						
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	250	638	1,291	2,179	(301)	3,179
Fixed-rate borrower/floating-rate lender	-	-	-	-	-	-	-
Total GBP	**-**	**250**	**638**	**1,291**	**2,179**	**(301)**	**3,179**
Currency swap							
Floating-rate borrower/fixed-rate lender	-	229	-	-	229	9	229
Fixed-rate borrower/fixed-rate lender	-	149	-	-	149	(17)	149
Total JPY	**-**	**378**	**-**	**-**	**378**	**(8)**	**378**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	-	-	-	-	-
Floating-rate borrower/fixed-rate lender	227	144	-	-	371	56	742
Total CHF	**227**	**144**	**-**	**-**	**371**	**56**	**742**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	46	44	-	90	(1)	150
Fixed-rate borrower/floating-rate lender	274	-	-	-	274	(7)	274
Floating-rate borrower/floating-rate lender	-	-	-	-	-	-	122
Floating-rate borrower/fixed-rate lender	-	580	-	-	580	96	1,159
Total USD	**274**	**626**	**44**	**-**	**944**	**88**	**1,705**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	67	-	-	67	(19)	67
Total NOK	**-**	**67**	**-**	**-**	**67**	**(19)**	**67**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	75	54	129	2	54
Total AUD	**-**	**-**	**75**	**54**	**129**	**2**	**54**
Currency swap							
Fixed-rate borrower/fixed-rate lender	-	-	98	153	251	(1)	-
Total HKD	**-**	**-**	**98**	**153**	**251**	**(1)**	**-**
Currency swap							
Floating-rate borrower/floating-rate lender	-	-	-	-	-	-	5
Total MXN	**-**	**-**	**-**	**-**	**-**	**-**	**5**
TOTAL	**501**	**1,465**	**855**	**1,498**	**4,319**	**(183)**	**6,130**

Interest rate hedges outstanding at December 31, 2019 are described below:

- ENGIE SA entered into short-term swaps (maturing in less than six months) to hedge the interest rate risk on its short-term cash management transactions (NEU CP issues). These are floating-rate borrower (Eonia)/fixed-rate lender swaps with a notional amount of €896 million at December 31, 2019;
- ENGIE SA uses floating-rate borrower swaps when issuing bonds unless management decides otherwise. Interest rate risk is subsequently managed centrally through the use of interest rate swaps and options with due reference to market conditions;
- As part of the Group's interest rate risk management policy, in 2009 ENGIE SA set up macro-hedges fixing the interest rate on the Group's USD debt, for a nominal amount of €1,025 million at end-2019.

17.1.4 Currency risk

ENGIE SA is exposed to currency risk, particularly including:

- commercial transactions involving the purchase and sale of natural gas, since several gas purchase and sale contracts are indexed to the price of oil-based products, mostly listed in US dollars;
- specific transactional risks related to investment, merger-acquisition or disposal projects.

The exposure to currency risk on these transactions is managed and monitored as follows:

- pass-through mechanisms are applied in determining (i) sale prices for eligible customers, and (ii) regulated rates;
- the margin on fixed-price sale contracts or contracts indexed by financial swaps is hedged.

There is a time lag between the impact of fluctuations in the US dollar on procurement costs and their repercussion on sales prices, reflecting mainly the effect of rolling averages and the inventory cycle.

To manage its exposure to fluctuations in exchange rates, ENGIE SA uses forward currency purchase or sale contracts to hedge its gas purchases and its financing activities.

To limit the impact of translation risk on certain amounts receivable from equity investments and on future foreign currency purchases, and to hedge the net asset risk arising on consolidation, ENGIE SA has taken new positions or reinforced existing positions in forward currency transactions that allow it to cancel out or minimize translation adjustments on deposits and loans or other future operations.

At December 31, 2019, commitments under these contracts were as follows:

In millions of euros	Fixed portion of commitments at Dec. 31, 2019					
	Maturity					
Forward contracts	**2020**	**2021**	**2022 and beyond**	**Euro equivalent at Dec. 31, 2019**	**Exchange rate fluctuations at Dec. 31, 2019**	**Fixed portion of commitments at Dec. 31, 2018**
Long positions						
AUD	220	-	-	220	10	302
CNH	9	-	-	9	-	9
EUR	-	-	-	-	-	13
GBP	91	-	-	91	-	248
HUF	-	-	-	-	-	7
NOK	-	-	-	-	-	-
USD	1,079	-	-	1,079	(3)	1,408
Short positions						
AUD	4	-	-	4	-	4
CHF	202	-	-	202	2	180
CNH	9	-	-	9	-	9
EUR	-	-	-	-	-	113
GBP	520	-	-	520	(2)	266
HUF	-	-	-	-	-	-
NOK	-	-	-	-	-	-
USD	1,371	141	-	1,512	(7)	187

17.1.5 Other financial commitments given

In millions of euros	Total at Dec. 31, 2019	Maturity End-2020	Between 2021 and 2024	2025 and beyond
Market-related commitments				
Performance and other guarantees	88	34	38	16
Performance and other guarantees given on behalf of subsidiaries	8,738	606	4,660	3,472
Financing commitments				
Personal sureties given	5	5	-	-
Guarantees and endorsements given to subsidiaries	5,996	2,877	1,641	1,478
Collateral given	-	-	-	-
Credit lines	-	-	-	-
Other commitments given				
Contractual guarantees for sales of businesses	5,082	-	1,355	3,727
Operating lease commitments	378	67	244	67
Finance lease commitments	-	-	-	-
Commitments relating to LNG tankers	-	-	-	-

Market-related commitments totaling €8,826 million at end-2019 comprise performance and other guarantees given by ENGIE SA with respect to operating contracts, both on its own behalf and on behalf of its subsidiaries.

Guarantees and endorsements to subsidiaries totaling €5,996 million correspond to payment guarantees granted by ENGIE SA to third parties on behalf of its subsidiaries.

Contractual guarantees for sales of businesses totaling €5,082 million relate mainly to commitments given on the disposals of:

- ENGIE Exploration & Production (EPI), following the sale of the 30% minority interest to CIC in 2011, for an amount of up to €2,804 million expiring in 2026;
- 10% of train 1 of the Atlantic LNG facility in Trinidad and Tobago, for an amount of up to €757 million expiring in 2026;
- the LNG business to Elf Aquitaine (Total Group) expiring in 2021, for which ENGIE SA has given liability warranties of USD 200 million and specific indemnities of USD 1,490 million;
- six digital platforms and the Smart O&M platform to ENGIE Information & Technologies for a period of 36 months as of the second quarter of 2019. In the event of fines imposed by the competent authorities with regard to data protection, the commitment maturity dates are, respectively, January 9, 2020 and March 7, 2020.

Operating lease commitments totaling €378 million relate to the present value of lease payments outstanding through to maturity of the property leases within the scope of ENGIE SA's operations. As certain property lease expenses are rebilled to Group subsidiaries, the corresponding commitments are shown in commitments received.

Other commitments have been given in respect of performance and completion guarantees:

- to the Hong Kong authorities, in respect of contracts awarded to Sita (which became SUEZ Environnement and then SUEZ), which counter-guaranteed ENGIE SA for the same amounts. These contracts relate to:
  - the operation of the Nent landfill in partnership with the Newworld and Guandong groups until 2063,
  - the operation of various landfill sites, including Went and NWNT until 2033 and Pillar Point until 2036, initially in partnership with Swire Pacific Ltd. Since Swire Pacific sold its interest in its joint subsidiary in December 2009 to SUEZ Environnement – which now owns the entire share capital of the venture – these guarantees were reissued by ENGIE SA. However, if a guarantee is called in respect of the period during which the subsidiary was under joint control, Swire has pledged an indemnity ensuring that ultimate responsibility is split 50-50 between the two groups;
- to two Scottish companies, Ayr Environmental Services and Caledonian Environmental Services, for contracts for the construction of wastewater purification and sludge treatment plants awarded to the Degrémont SA/AMEC Capital Projects Ltd. group of construction companies;
- to the Lord Mayor, Aldermen and Burgesses of Cork, in respect of a contract for the construction and operation until 2024 of the Cork City wastewater purification plant awarded to a consortium comprising two ENGIE SA subsidiaries, Vinci subsidiary Dumez GTM, PJ Hegarty & Sons and Electrical & Pump Services. Each consortium member and Vinci agreed to counter-guarantee ENGIE SA;
- in 2008, SUEZ Environnement (which became SUEZ in 2016) undertook to counter-guarantee all of the guarantees given by ENGIE SA for the Environment business that it had not yet counter-guaranteed;
- as part of the spin-off of water and wastewater activities in 2000, a performance guarantee expiring in 2028 was granted by ENGIE SA in the context of its transfer of local public service franchise contracts to Lyonnaise des Eaux. There were 47 such contracts at end-2019.

In addition, following Société d'Infrastructures Gazières (SIG) July 2011 acquisition of a 25% stake in GRTgaz, ENGIE SA agreed to stand as guarantor for a period of 20 years and in proportion to its shareholding, against all losses incurred due to inaccurate representations regarding the non-pollution of the land owned or exploited by GRTgaz and the cost of the resulting clean-up work payable by GRTgaz not covered by the tariffs.

17.1.6 Other financial commitments received

In millions of euros	Total at Dec. 31, 2019	Maturity End-2020	Between 2021 and 2024	2025 and beyond
Market-related commitments				
Guarantees received	-	-	-	-
Financing commitments				
Undrawn credit facilities	12,435	950	10,985	500
Other financing commitments received	-	-	-	-
Other financing commitments received in relation to subsidiaries	-	-	-	-
Other commitments received				
Counter-guarantees for personal sureties	1,030	30	1,000	-
Counter-guarantees for trading commitments	-	-	-	-
Operating lease commitments	338	71	166	101
Finance lease commitments	-	-	-	-
Commitments relating to LNG tankers	-	-	-	-

ENGIE SA has negotiated two syndicated credit lines: (i) a €5,500 million line secured in May 2005 whose maturity has been extended from 2012 to November 2022, and (ii) a €5,000 million line secured in April 2014, whose maturity has been extended from 2019 to December 2024. The lending banks may opt out of the syndicate on an individual basis in the event of a change in the Company's controlling shareholder.

Counter-guarantees given on personal sureties concern guarantees received from members of GIE ENGIE Alliance.

Operating lease commitments totaling €338 million correspond to the rebilling of rent for premises occupied by Group subsidiaries.

17.2 Commodity-related commitments

17.2.1 Natural gas and electricity commitments

Gas supplies in Europe are based partly on long-term contracts, including "take-or-pay" contracts. These long-term commitments make it possible to finance costly production and transmission infrastructures. Under these contracts, the seller makes a long-term commitment to serve the buyer, subject to a commitment by the latter to buy minimum quantities regardless of whether or not it takes delivery of them. These commitments are combined with backup measures (*force majeure*) and flexible volume arrangements, making it possible to manage any uncertainties (primarily weather conditions) affecting demand as well as any technical contingencies that may arise.

These types of contracts can run up to 25 years and are used by ENGIE SA to meet the demands of its customers for natural gas in the medium and long term.

The contracts provide for reciprocal commitments regarding specified quantities of gas:

- a commitment by ENGIE SA to purchase quantities of gas above a minimum threshold;
- a commitment by suppliers to provide these quantities at competitive prices.

The appeal of these contracts is provided by indexed price formulas and price adjustment mechanisms. ENGIE SA makes the bulk of its purchases under such contracts.

At December 31, 2019, ENGIE SA had commitments to purchase a minimum of 338 TWh within one year, 1,344 TWh between two and five years, and 1,490 TWh after five years.

ENGIE SA also entered into forward purchases and sales of natural gas, primarily at maturities of less than one year, as part of its trading activities. These consist of purchases and sales on short-term markets and offers featuring engineered prices for other operators.

At December 31, 2019, commitments given by ENGIE SA totaled 62 TWh under forward purchase contracts and 227 TWh under forward sale contracts.

To meet its commitments to take delivery of specified volumes, ENGIE SA has entered into long-term contracts to reserve land and sea transmission capacities.

At December 31, 2019, commitments given by ENGIE SA totaled 98 TWh under forward electricity purchase contracts and 211 TWh under forward electricity sale contracts.

17.2.2 Commodity derivatives

As part of its energy brokerage activities, ENGIE uses energy derivatives to adjust its exposure to fluctuations in prices of natural gas, electricity and oil products.

Commodity derivatives (natural gas, oil and electricity) consist mainly of swaps, futures and options set up to manage price risk within the scope of the trading activities of ENGIE SA. These instruments are traded with third parties by the Company's specialized subsidiaries, ENGIE Global Markets and ENGIE Energy Management on organized or over-the-counter markets.

These derivatives are contracted to manage risks arising on:

- price engineering transactions designed to meet the growing demand among customers for tight controls on gas and electricity price risk. These products are primarily intended to guarantee a commercial margin regardless of trends in the commodity indexes included in the prices offered to customers, even when they differ from the commodity indexes to which ENGIE SA purchases are pegged. Options (calls and puts) are set up to guarantee maximum and minimum prices;
- measures taken to optimize procurement costs. Energy procurement costs, assets used in electricity production and reservations of available transmission and storage capacity not required to supply customers are systematically valued on the market.

The exposure to commodity price risk on these commercial transactions is managed and monitored as follows:

- pass-through mechanisms are applied in determining (i) sale prices for eligible customers, and (ii) regulated rates;
- the margin on fixed-price sale contracts or contracts indexed by financial swaps is hedged.

Depending on the nature of the hedged items, gains and losses on these transactions are recognized either in revenue or in energy purchase cost.

There is a time lag between the impact of changes in commodity prices on procurement costs and their repercussion on sales prices, reflecting mainly the effect of rolling averages and the inventory stocking/run-down cycle.

17.2.2.1 Instruments not recognized as hedges

	Notional amount at Dec. 31, 2019				Fair value at Dec. 31, 2019 in millions of euros	Notional amount at Dec. 31, 2018 in GWh
	In GWh by maturity					
	x < 1 year	1 year < x < 2 years	x > 2 years	In millions of euros		
SWAP (long position)						
Natural gas	207,378	10,074	957	3,947	(504)	651,743
Oil-based products	17,138	121	22	950	48	-
Electricity	521	-	-	21	(5)	4,332
CER EUA – CO_2 (1)	-	-	-	-	-	-
SWAP (short position)						
Natural gas	(181,229)	(9,568)	(432)	(3,412)	403	(554,738)
Oil-based products	(6,149)	-	-	(362)	(69)	-
Electricity	(3,013)	-	-	(121)	13	(3,918)
CER EUA – CO_2 (1)	-	-	-	-	-	-
OPTIONS (long position)						
Natural gas	33,871	-	-	620	14	100,998
Oil-based products	5,574	-	-	437	2	5,574
Electricity	-	-	-	-	-	-
OPTIONS (short position)						
Natural gas	(49,497)	-	-	(904)	(9)	(78,509)
Oil-based products	(5,574)	-	-	(334)	(72)	(5,574)
Electricity	-	-	-	-	-	-

(1) In kg of CO_2 quotas.

6

17.2.2.2 Instruments recognized as hedges

ENGIE SA does not have any hedging instruments.

17.2.2.3 Physical delivery contracts

	Notional amount at Dec. 31, 2019				Fair value at Dec. 31, 2019 in millions of euros	Notional amount at Dec. 31, 2018 in GWh
	In GWh by maturity					
	x < 1 year	1 year < x < 2 years	x > 2 years	In millions of euros		
FORWARD (long position)						
Natural gas	2,544,816	42,636	19,896	55,727	(14,067)	1,373,826
Oil-based products	-	-	-	-	-	-
Electricity	95,045	1	-	5,170	(503)	77,829
CER EUA – CO_2 (1)	-	-	-	-	-	24,480
FORWARD (short position)						
Natural gas	(2,484,165)	(43,747)	(23,555)	(55,017)	14,291	(1,219,234)
Oil-based products	-	-	-	-	-	-
Electricity	(53,727)	(192)	(415)	(2,749)	42	(44,251)
CER EUA – CO_2 (1)	-	-	-	-	-	-
OPTIONS (long position)						
Natural gas	25,363	238	714	266	(73)	139,170
Oil-based products	-	-	-	-	-	-
Electricity	1,603	-	-	81	(2)	9,374
OPTIONS (short position)						
Natural gas	(24,374)	(45)	-	(447)	(33)	(251,546)
Oil-based products	-	-	-	-	-	-
Electricity	(7,556)	-	-	(381)	15	(14,911)

(1) In kg of CO_2 quotas.

17.3 Insurance of eligible risks

ENGIE SA systematically transfers all material risks based on an identification of risks eligible for insurance – particularly relating to Company assets and damages caused to third parties. Insurance policies offer extensive coverage in order to limit the financial impact of any claims on the Group's accounts.

To ensure a consistent approach, insurance policies are managed at Group level. As a result, new projects developed by subsidiaries can be incorporated within existing policies to enable the parent company to fully assume its role for its majority-owned subsidiaries.

NOTE 18 Pensions and other employee benefit obligations

OVERVIEW OF OBLIGATIONS

In millions of euros	EGI sector plan Dec. 31, 2019 [(1)]	EGI sector plan Dec. 31, 2018	Non-EGI sector plan Dec. 31, 2019	Non-EGI sector plan Dec. 31, 2018	Total Dec. 31, 2019	Total Dec. 31, 2018
Pension benefits	**2,233**	**2,015**	**296**	**281**	**2,529**	**2,296**
Pension plan	2,233	2,015	296	281	2,529	2,296
End-of-career and other post-employment benefits	**283**	**276**	**27**	**27**	**310**	**304**
Reduced energy and water prices	157	163	5	5	162	168
End-of-career indemnities	52	48	-	-	52	48
Immediate bereavement benefits	59	51	-	-	59	51
Other [(2)]	15	14	22	22	37	36
Other employee benefits	**85**	**79**	**-**	**-**	**85**	**79**
Disability benefits and other	77	71	-	-	77	71
Long-service awards	8	8	-	-	8	8
TOTAL	**2,601**	**2,371**	**323**	**308**	**2,925**	**2,679**

(1) Including €103 million covered by a provision in the parent company financial statements (see Note 18.4).
(2) Indemnities for the partial reimbursement of educational expenses, exceptional end-of-career vacation and the former SUEZ supplementary healthcare plan.

ACTUARIAL ASSUMPTIONS

The actuarial assumptions were determined together with independent actuaries. Weighted discount rates for the main actuarial assumptions are presented below:

EGI sector plan	Pension benefit obligations 2019	Pension benefit obligations 2018	Other post-employment benefit obligations 2019	Other post-employment benefit obligations 2018	Long-term benefit obligations 2019	Long-term benefit obligations 2018	Total benefit obligations 2019	Total benefit obligations 2018
Discount rate	1.31%	2.06%	1.31%	2.07%	1.01%	1.75%	1.24%	2.06%
Inflation rate	1.78%	1.82%	1.78%	1.82%	1.78%	1.82%	1.78%	1.82%
Average remaining working years of participating employees	20 years	20 years	20 years	20 years	20 years	20 years	20 years	20 years

Non-EGI sector plan **Former SUEZ**	Pension benefit obligations 2019	Pension benefit obligations 2018	Other post-employment benefit obligations 2019	Other post-employment benefit obligations 2018	Long-term benefit obligations 2019	Long-term benefit obligations 2018	Total benefit obligations 2019	Total benefit obligations 2018
Discount rate	0.92%	1.50%					0.92%	1.50%
Inflation rate	1.78%	1.80%					1.78%	1.80%
Average remaining working years of participating employees								

Non-EGI sector plan **Former Cie Financière**	Pension benefit obligations 2019	Pension benefit obligations 2018	Other post-employment benefit obligations 2019	Other post-employment benefit obligations 2018	Long-term benefit obligations 2019	Long-term benefit obligations 2018	Total benefit obligations 2019	Total benefit obligations 2018
Discount rate	0.92%	1.50%		1.50%			0.92%	1.50%
Inflation rate	1.78%	1.80%		1.80%			1.78%	1.80%
Average remaining working years of participating employees		2 years						2 years

According to the Group's estimates, a 1% increase or decrease in the discount rate would result in a change of 17% in the projected benefit obligation.

18.1 Pensions

The main defined-benefit plans operated by ENGIE SA comprise:

- pensions falling within the scope of the special plan for companies belonging to the electricity and gas industries sector ("EGI");
- pension plans taken over following the merger of SUEZ into ENGIE SA:
  - the 1953 supplementary pension plan, closed since December 31, 1988,
  - plans operated by the former Compagnie de SUEZ (annuity plans based on end-of-career salaries),
  - supplementary pension plans for senior managers operated by all water companies (annuity plans based on end-of-career salaries).

Pension plan for electricity and gas utilities

Salaried employees and retirees of EGI sector companies have been fully affiliated to the *Caisse Nationale des Industries Électriques et Gazières* (CNIEG) since January 1, 2005. The CNIEG is a private welfare body placed under the joint responsibility of the ministries in charge of social security and the budget. The conditions for calculating benefit entitlements under the EGI plan are set out in the national statute for EGI sector employees (Decree of June 22, 1946) and determined by the government. By law, companies cannot amend any of these conditions.

Unregulated past specific benefits (at December 31, 2004) are funded by EGI sector entities to the extent defined by Decree No. 2005-322 of April 5, 2005. For ENGIE SA, this funding obligation represents 3.25% of the past specific benefit obligations of all EGI sector companies.

The specific benefits vested under the plan since January 1, 2005 are wholly financed by EGI sector companies in proportion to their respective share of the electricity and gas market as measured in terms of total payroll costs.

Calculation of pension obligations

ENGIE SA's pension obligations are calculated using a yield-to-maturity method in line with ANC Recommendation 2013-02 of November 7, 2013. The method used is known as the projected unit credit method and is based on assumptions regarding end-of-career salaries, retirement ages, changes in the population of retired employees and payment of benefits to surviving spouses.

The obligations are calculated as follows:

- based on the rights vested at the measurement date, under both the EGI plan and statutory pension plans;
- for all active and retired employees in the EGI sector, and all employees and eligible beneficiaries for former SUEZ plans;
- actuarial gains and losses are recognized immediately.

18.2 Other employee benefit obligations

Benefits payable to active and retired employees of EGI sector companies (excluding pensions) are described below:

- post-employment benefits:
  - reduced energy prices,
  - end-of-career indemnities,
  - exceptional end-of-career vacation,
  - death in service benefits (*régime des capitaux décès*),
  - assistance with educational expenses;
- long-term benefits:
  - allowances for occupational accidents and illnesses,
  - temporary and permanent disability allowances,
  - long-service awards,
  - asbestos benefit.

Retired employees of SUEZ are eligible for post-employment benefits consisting of a cash contribution to the costs of their water supply and complementary healthcare insurance.

The obligation is calculated using the projected unit credit method.

The Group's main obligations are described below.

18.2.1 Reduced energy prices

Under Article 28 of the national statute for EGI sector personnel, all current and former employees are entitled to benefits in kind which take the form of energy. This benefit entitles employees to electricity and gas supplies at a reduced price.

The amount of the obligation regarding gas supplied to ENGIE SA and EDF employees corresponds to the likely present value of the power (kWh) supplied to the employees or their dependents during the retirement phase, assessed based on the unit cost of the energy. The amount of the obligation also takes account of the likely value of the price of the energy exchange agreement with EDF.

18.2.2 End-of-career indemnities

As of July 1, 2008, retiring employees (or their dependents in the event of death during active service) are entitled to end-of-career indemnities which increase in line with the length-of-service within the EGI sector.

18.2.3 Allowances for occupational accidents and illnesses

Like other employees under the standard pension plan, EGI sector employees are entitled to compensation for accidents at work and other occupational illnesses. These benefits cover all employees or the dependents of employees who die as a result of occupational accidents or illnesses, or injuries suffered on the way to work.

The amount of the obligation corresponds to the likely present value of the benefits to be paid to current beneficiaries, taking into account any reversionary annuities.

18.3 Change in present value of benefit obligations

In millions of euros	EGI sector plan – Pension benefits 2019	EGI sector plan – Pension benefits 2018	EGI sector plan – End-of-career and other post-employment benefits 2019	EGI sector plan – End-of-career and other post-employment benefits 2018	EGI sector plan – Long-term benefits 2019	EGI sector plan – Long-term benefits 2018	Non-EGI sector plan – Pension benefits 2019	Non-EGI sector plan – Pension benefits 2018	Non-EGI sector plan – End-of-career and other post-employment benefits 2019	Non-EGI sector plan – End-of-career and other post-employment benefits 2018	Non-EGI sector plan – Long-term benefits 2019	Non-EGI sector plan – Long-term benefits 2018	Total 2019	Total 2018
Present value of benefit obligation at January 1	**2,015**	**2,156**	**276**	**298**	**79**	**89**	**281**	**267**	**27**	**29**	**-**	**-**	**2,679**	**2,839**
Impact of mergers and spin-offs	-	(6)	-	(2)	-	(1)	-	-	-	-	-	-	-	(9)
Past service cost: plan amendments	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Current service cost	26	33	7	7	12	11	-	-	-	-	-	-	44	52
Interest cost	39	41	6	6	1	1	4	4	-	-	-	-	51	53
Actuarial gains and losses on the obligation	242	(119)	(6)	(30)	-	(15)	10	26	1	-	-	-	247	(139)
Benefits paid under all plans (funded and unfunded) (1)	(89)	(89)	-	(3)	(7)	(7)	(9)	(16)	(2)	(2)	-	-	(106)	(116)
Other	-	-	-	-	-	-	9	-	-	-	-	-	9	-
Present value of benefit obligation at December 31	**2,233**	**2,015**	**283**	**276**	**85**	**79**	**297**	**281**	**26**	**27**	**-**	**-**	**2,924**	**2,679**

(1) The aggregate impact on income of benefits paid under all plans totaled €106 million in 2019 versus €116 million in 2018.

18.4 Provisions

At year-end, ENGIE SA sets aside provisions in respect of allowances for occupational accidents and illnesses, and temporary and permanent disability benefits for active employees, as well as for benefits due during employees' active working lives (long-service awards and exceptional end-of-career vacation). Provisions for pensions and other employee benefit obligations transferred by SUEZ at the time of the 2008 merger are also recognized by ENGIE SA in liabilities. These provisions are written back as and when the corresponding liabilities for which they were set aside at end-2007 are extinguished. No further amounts are set aside to these provisions in respect of rights newly vested or the unwinding of discounting adjustments.

At December 31, 2019, ENGIE SA booked provisions of €103 million compared to €98 million at end-2018, representing a decrease of €5 million in employee-related provisions.

CHANGES IN PROVISIONS FOR EMPLOYEE BENEFIT OBLIGATIONS

	EGI sector plan						Non-EGI sector plan							
	Pension benefits (1)		End-of-career and other post-employment benefits (2)		Long-term benefits (3)		Pension benefits (1)		End-of-career and other post-employment benefits (2)		Long-term benefits (3)		Total	
In millions of euros	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Present value of benefit obligation at January 1 (provisioned)	**-**	**-**	**12**	**13**	**79**	**80**	**6**	**7**	**1**	**3**	**-**	**-**	**98**	**103**
Impact of mergers and spin-offs	-	-				(1)	-	-	-	-	-	-	-	(1)
Current service cost	-	-	1	1	12	11	-	-	-	-	-	-	13	12
Interest cost	-	-			1	1	-	-	-	-	-	-	1	1
Actuarial gains and losses on the obligation	-	-	1		(1)	(5)	-	-	-	-	-	-	-	(5)
Benefits paid under all plans (funded and unfunded)	-	-	(1)	(2)	(7)	(7)	(1)	(1)	(1)	(2)	-	-	(10)	(12)
Other	-	-			1									-
Present value of benefit obligation at December 31 (provisioned)	**-**	**-**	**13**	**12**	**85**	**79**	**5**	**6**	**-**	**1**	**-**	**-**	**103**	**98**

(1) Excluding EGI sector companies in both 2019 and 2018.
(2) Exceptional vacation (€13 million), complementary health insurance for retired SUEZ employees (zero) and water bonus (zero).
(3) Allowances for occupational accidents and illness (€50 million), temporary and permanent disability allowances (€24 million), asbestos (€3 million) and long-service awards (€8 million).

18.5 Insurance contracts

ENGIE SA has taken out insurance contracts with several insurance firms to cover its obligations in respect of pensions and end-of-career indemnities. An amount of €83 million was paid to these insurance firms in 2019.

The value of these insurance contracts stood at €1,823 million at December 31, 2019 (€1,775 million at December 31, 2018).

18.6 Change in the fair value of plan assets

	EGI sector plan						Non-EGI sector plan							
	Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Total	
In millions of euros	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Fair value of plan assets at January 1	**1,544**	**1,696**	**22**	**27**	**-**	**-**	**209**	**214**	**-**	**-**	**-**	**-**	**1,775**	**1,937**
Impact of mergers and spin-offs	-	-	-	(1)	-	-	-	-	-	-	-	-	-	(1)
Expected return on plan assets	31	33	-	-	-	-	4	3	-	-	-	-	35	36
Premiums net of handling fees	-	-	-	-	-	-	1	1	-	-	-	-	1	1
Actuarial gains and losses on plan assets	84	(119)	1	(2)	-	-	39	6	-	-	-	-	124	(115)
Benefits paid out of plan assets	(65)	(66)	-	(2)	-	-	(16)	(15)	-	-	-	-	(81)	(83)
Fair value of plan assets at December 31	**1,594**	**1,544**	**23**	**22**	**-**	**-**	**237**	**209**	**-**	**-**	**-**	**-**	**1,854**	**1,775**

RETURN ON PLAN ASSETS

	EGI sector plan						Non-EGI sector plan					
	Pension benefits		End-of-career and other post-employment benefits		Long-term benefits		Pension benefits		End-of-career and other post-employment benefits		Long-term benefits	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Actual return on plan assets	**8.8%**	**-5.2%**	**8.8%**	**-5.2%**	**0.0%**	**0.0%**	**2.9%**	**2.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

The actual return on plan assets for 2019 is 8.79% in respect of pensions and in respect of other obligations for the EGI sector plan.

The expected actual return on plan assets for 2019 is 2.86% in respect of pensions for the non-EGI sector plan.

The allocation of plan assets by principal asset category can be analyzed as follows:

	EGI sector plan		Non-EGI sector plan	
	2019	2018	2019	2018
Equities	30%	28%	9%	8%
Bonds	65%	67%	82%	82%
Other (including money market securities)	5%	5%	9%	9%
	100%	**100%**	**100%**	**100%**

Collective life insurance policies contracted with insurers to cover employee-related liabilities under the EGI sector plan are unit-linked. These contracts are available to ENGIE SA and to Group subsidiaries belonging to the “Group employee benefits management agreement”. A small portion of these contracts may be invested in financial instruments issued by ENGIE SA, mainly equities.

Based on unit-linked contracts attributable to ENGIE SA, the portion of plan assets invested in financial instruments issued by ENGIE SA amounted to €3 million at December 31, 2019, representing less than 1% of the total value of the fund at that date. Plan assets are not invested in properties occupied by ENGIE SA or in other assets used by ENGIE SA.

18.7 Supplementary defined-contribution plan

Employees eligible for the EGI plan also benefit from an additional defined-contribution plan set up in 2009. Employer contributions paid in respect of this scheme totaled €4.8 million in 2019 and €5 million in 2018.

NOTE 19 Legal and anti-trust proceedings

19.1 Concessions in Buenos Aires and Santa Fe

In 2003, ENGIE and its joint shareholders, water distribution concession operators in Buenos Aires and Santa Fe, initiated two arbitration proceedings against the Argentinean State before the International Center for Settlement of Investment Disputes (ICSID). The purpose of these proceedings was to obtain compensation for the loss in value of investments made since the start of the concession, in accordance with bilateral investment protection treaties.

As a reminder, prior to the stock market listing of SUEZ Environnement Company, ENGIE and SUEZ (formerly SUEZ Environnement) entered into an agreement providing for the economic transfer to SUEZ of the rights and obligations relating to the ownership interests held by ENGIE in Aguas Argentinas and Aguas Provinciales de Santa Fe, including the rights and obligations resulting from the arbitration proceedings.

On April 9, 2015, the ICSID ordered the Argentinean State to pay USD 405 million in respect of the termination of the Buenos Aires water distribution and treatment concession contracts (including USD 367 million to ENGIE and its subsidiaries), and on December 4, 2015, to pay USD 225 million in respect of the termination of the Santa Fe concession contracts. The Argentinean State sought the annulment of these awards. By decision dated May 5, 2017, the claim for the annulment of the Buenos Aires award was rejected. The claim to annul the award in the Santa Fe case was rejected by a decision dated December 14, 2018. Consequently, the two ICSID awards, which are a step in the settlement of the dispute, are now final.

The Argentinean government and the various shareholders of Aguas Argentinas entered into and implemented a settlement agreement in accordance with the arbitral award of April 9, 2015, handed down in respect of the water distribution and treatment concession contracts in Buenos Aires. In accordance with the above-mentioned agreement concerning the economic transfer to SUEZ of ENGIE's rights and obligations, SUEZ and its subsidiaries received €224.1 million in cash. Furthermore, the December 14, 2018 ruling pertaining to the water distribution and wastewater treatment concessions granted to Aguas Provinciales de Santa Fe has yet to be applied.

19.2 Commissioning

In the dispute between GRDF and various gas suppliers, in a decision dated June 2, 2016, overturning a decision handed down in September 2014 by the Energy Regulatory Commission (*Commission de la Régulation de l'Énergie* – CRE)'s Standing Committee for Disputes and Sanctions (*Comité de règlement des différends et des sanctions* – CoRDiS), the Paris Court of Appeal ruled that the transmission services delivered to suppliers should be, and should have been since the market was opened up, delivered to end customers. Prior to these rulings, only distributors provided delivery services to end customers in exchange for payment from the suppliers for customer management services, as there was only one contract.

Because the supplier now also provides customer management services associated with natural gas transmission on the distributors' behalf, the supplier has become the intermediary between the distributor and the end customer for delivery and transmission services. The contractual relations have therefore been completely reorganized, and as a result (i) the risk of unpaid compensation for the "transmission" part of the agreement with the end customer would henceforth be borne by the grid manager and not the gas supplier; (ii) the compensation for customer management services related to transmission and distribution services provided by the supplier on behalf of the grid manager should be fair and commensurate with the grid manager's cost savings. The Paris Court of Appeal ordered GRDF to bring its transmission agreements into compliance with these principles and ordered the CoRDiS to evaluate the amount of the customer management services. GRDF appealed the decision handed down by the Court of Appeal before the Court of Cassation.

In March 2018, the Court of Cassation referred the case to the Court of Justice of the European Union (CJEU), asking it to rule as to whether the CoRDiS could apply these rulings retroactively under European law. The CJEU's attorney general submitted his conclusions in May 2019. The CJEU delivered its ruling on December 19, 2019, considering that the Gas Directive (Directive 2009/73/EC) does not prohibit dispute settlement authorities from making decisions with retroactive effects dating to before the date of the dispute. Following the ruling of the CJEU, the Court of Cassation has scheduled a hearing for April 2020. The Court of Cassation's ruling could be made before the end of first-half 2020.

19.3 Withholding tax

In their tax deficiency notice dated December 22, 2008, the French tax authorities questioned the tax treatment of the non-recourse sale by SUEZ (now ENGIE) of a withholding tax (*précompte*) receivable in 2005 for an amount of €995 million (receivable relating to the *précompte* paid in respect of the 1999-2003 fiscal years). The Montreuil Administrative Court handed down a judgment in ENGIE's favor in April 2019, which led to the French tax authorities appealing the decision before the Versailles Court of Appeal in May 2019. Exchanges of pleadings between the parties are currently ongoing.

Regarding the dispute over the *précompte* itself, on February 1, 2016, the *Conseil d'État* dismissed the appeal before the Court of Cassation seeking the repayment of the *précompte* in respect of the 1999, 2000 and 2001 fiscal years, and cases seeking the repayment of the *précompte* in respect of the 2002, 2003 and 2004 fiscal years are still pending before the courts of appeal.

Furthermore, after ENGIE and several French groups lodged a complaint, on April 28, 2016, the European Commission issued a reasoned opinion to the French State as part of infringement proceedings, setting out its view that the *Conseil d'État* did not comply with European Union law when handing down decisions in disputes regarding the *précompte*, such as those involving ENGIE. On July 10, 2017, the European Commission referred the matter to the Court of Justice of the European Union (CJEU) on the grounds of France's failure to comply. On October 4, 2018, the Court of Justice of the European Union ruled partially in favor of the European Commission. Following this decision, France must revisit its methodology in order to determine the *précompte* repayment amounts in closed and pending court cases.

19.4 Planned construction of an LNG terminal in Uruguay

GNLS SA, a joint subsidiary of Marubeni and ENGIE, was selected in 2013 to build an offshore LNG terminal in Uruguay. On November 20, 2013, GNLS contracted out the design and construction of the terminal to Construtora OAS SA. Following a number of problems and defects, GNLS terminated the contract in March 2015 and made use of its guarantees. OAS challenged the termination of the contract but did not take action against GNLS. OAS went bankrupt in Uruguay on April 8, 2015. In September 2015, GNLS and the authorities agreed to cancel the planned construction.

On May 24, 2017, OAS and GNLS appeared before the Uruguayan courts in a conciliation process at the request of OAS. The conciliation process was unsuccessful. OAS then threatened to call GNLS before the Uruguayan courts to claim damages.

Since GNLS had incurred significant losses as a result of the termination of the contract, it filed a request for arbitration on August 22, 2017 in accordance with the terms of the contract providing for dispute resolution in Madrid by the ICC International Court of Arbitration, claiming a principal amount of USD 373 million. OAS responded by summonsing GNLS before the Montevideo Commercial Court, claiming USD 311 million in damages. ENGIE was officially named as a party to the proceedings on December 5, 2018. Both proceedings are still pending.

NOTE 20 Information concerning related parties

All material transactions between ENGIE SA and related parties were carried out on an arm's length basis. Accordingly, no disclosures are required pursuant to the amending decree of Article R.123-198-11 of March 9, 2009.

The Law on Energy and Climate passed on November 8, 2019 will put an end to regulated gas tariffs and will restrict regulated electricity tariffs for consumers and small businesses. The final date for the discontinuation of regulated gas tariffs is July 1, 2023.

Relations with the French State

The French State's interest in the Group at December 31, 2019 was unchanged from the previous year at 23.64%. This entitles it to three seats on the Board of Directors out of a total of 14 (compared with four out of a total of 19 previously).

The French State holds 34.23% of the theoretical voting rights (34.47% of exercisable voting rights) compared with 34.51% at end-2018.

On May 22, 2019, the PACTE act ("Action plan for business growth and transformation") was passed, enabling the French State to dispose of its ENGIE shares without restriction.

In addition, the French State holds a golden share aimed at protecting France's critical interests and ensuring the continuity and safeguarding of supplies in the energy sector. The golden share is granted to the French State indefinitely and entitles it to veto decisions taken by ENGIE if it considers they could harm France's interests.

Public service engagements in the energy sector are defined by the law of January 3, 2003.

Transmission rates on the GRTgaz transportation network and the gas distribution network in France, as well as rates for accessing the French LNG terminals and revenues from storage capacities, are all regulated.

Relations with EDF

Following the creation on July 1, 2004 of the French gas and electricity distribution network operator (EDF Gaz de France Distribution), Gaz de France SA and EDF entered into an agreement on April 18, 2005 setting out their relationship as regards the distribution business. The December 7, 2006 law on the energy sector reorganized the natural gas and electricity distribution networks. Enedis SA (previously ERDF SA), a subsidiary of EDF SA, and GRDF SA, a subsidiary of ENGIE SA, were created on January 1, 2007 and January 1, 2008, respectively, and act in accordance with the agreement previously signed by the two incumbent operators.

Relations with the CNIEG (Caisse Nationale des Industries Électriques et Gazières)

The Group's relations with the CNIEG, which manages all old-age, death and disability benefits for active and retired employees of the Group who belong to the special EGI pension plan, employees of EDF and Non-Nationalized Companies (*Entreprises Non Nationalisées* – ENN), are described in Note 18 "Pensions and other employee benefit obligations".

NOTE 21 Compensation due to members of the Board of Directors and Executive Committee

Total compensation (gross salary, bonuses, profit-sharing incentives and benefits in kind, including related employer contributions) paid to the Chief Executive, and members of the Executive Committee came to €20 million for 2019.

Post-employment benefits accruing to these same people totaled €39 million at December 31, 2019.

Members of the Board of Directors elected by the Shareholders' Meeting, except for the corporate officers, the Directors from the public sector appointed on the proposal of the French State and the Director representing employees, received €0.8 million in attendance fees for 2019.

NOTE 22 Subsequent events

No significant subsequent events have occurred since the closing of the accounts at December 31, 2019.

6.4.3 Total and partial transfers of assets, subsidiaries, and equity investments requiring statutory disclosure

The thresholds presented in this Note are 10% and 50%, above which an entity becomes, respectively, an equity investment and a subsidiary according to the French Commercial Code (*Code du commerce*).

TOTAL AND PARTIAL TRANSFERS OF ASSETS

	% at Dec. 31, 2018	% at Dec. 31, 2019	Reclassification within the Group	Sale outside the Group	Net book value of shares sold *(in euros)*	Business sector
Subsidiaries (1)						
SPEED REHAB (ex ENGIE Invest 65)	100%	-		X	4,177,303	Real estate
ENGIE BIOGAZ	50%	-	X		18,500	Renewable energy
Equity investments (2)						
CAP VERT BIOENERGIE DE BREUILH	49%	-	X		49,000	Renewable energy
Ceren GIE	11%	-		X	12,193	Research firm

(1) More than 50%-owned by ENGIE SA.
(2) Less than 50%-owned by ENGIE SA.

TOTAL AND PARTIAL PURCHASES OF ASSETS

	% at Dec. 31, 2018	% at Dec. 31, 2019	Reclassification within the Group	Acquisition outside the Group	Net book value of shares held *(in euros)*	Business sector
Subsidiaries (1)	**-**	**-**			**-**	
Equity investments (2)						
L'Institut de l'Économie Positive	-	10.71%		X	300,005	Consulting

(1) More than 50%-owned by ENGIE SA.
(2) Less than 50%-owned by ENGIE SA.

6.4.4 Five-year financial summary

	2019	2018	2017	2016	2015
Capital at year-end					
Share capital *(in euros)*	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011
Number of ordinary shares issued and outstanding	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011	2,435,285,011
Maximum number of shares to be issued:					
• by converting bonds	-	-	-	-	-
• by exercising stock options	-	-	-	4,775,429	10,777,079
Results of operations for the year *(in millions of euros)*					
Revenues, excluding VAT	17,282	27,833	20,585	17,939	19,891
Income before tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	378	2,960	2,431	245	391
Income tax (negative figures = benefit)	(377)	(549)	(1,001)	(672)	(540)
Employee profit-sharing and incentive payments for the year	-	-	-	-	-
Income after tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	(196)	1,102	1,421	448	268
Total dividends paid (including on treasury shares)	1,948	2,718	1,700	2,416	2,414
Earnings per share *(in euros)*					
Earnings per share after tax and employee profit-sharing, but before depreciation, amortization, provisions and transfer of concession termination amortization	0.31	1.44	1.41	0.38	0.38
Earnings per share after tax, employee profit-sharing, depreciation, amortization, provisions and transfer of concession termination amortization	(0.08)	0.45	0.58	0.18	0.11
Dividend per share (1)	0.80	1.12	0.70	1.00	1.00
Headcount					
Average number of employees during the year (2)	4,534	4,400	4,873	5,182	5,461
Total payroll	273	289	317	332	343
Total employee benefit obligations paid (social security taxes and contributions to pension plans, welfare plans, etc.)	197	362	269	256	262

(1) Subject to approval by the Board of Directors.

(2) The average number of employees in 2019 was 4,534 (4,740 in 2018). Unlike 2018, the 2019 figure includes non-statutory permanent employees, fixed-term contract employees and employees on work/study contracts.

Shareholders at the AGM held to approve the 2019 financial statements will be asked to approve a dividend of €0.8 per share, representing a total amount of €1,948 million, based on the number of outstanding shares at December 31, 2019. The dividend of €0.80 per share will be increased by 10% for all shares held by the same person for more than two years as of December 31, 2019 provided they are still held on the dividend payment date.

6.5 Statutory auditors' report on the financial statements

Year ended December 31, 2019

To the Shareholder's Meeting of ENGIE,

Opinion

In compliance with the engagement entrusted to us by your Shareholder's Meetings, we have audited the accompanying financial statements of ENGIE for the year ended December 31, 2019.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the Company as at December 31, 2019 and of the results of its operations for the year then ended in accordance with French accounting principles.

The audit opinion expressed above is consistent with our report to the Audit Committee.

Basis for Opinion

Audit Framework

We conducted our audit in accordance with professional standards applicable in France. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Our responsibilities under those standards are further described in the *Statutory Auditors' Responsibilities for the Audit of the Financial Statements* section of our report.

Independence

We conducted our audit engagement in compliance with independence rules applicable to us, for the period from January 1, 2019 to the date of our report and specifically we did not provide any prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 or in the French Code of Ethics *(Code de déontologie)* for statutory auditors.

Justification of Assessments - Key Audit Matters

In accordance with the requirements of Articles L.823-9 and R.823-7 of the French Commercial Code *(Code de commerce)* relating to the justification of our assessments, we inform you of the key audit matters relating to risks of material misstatement that, in our professional judgment, were of most significance in our audit of the financial statements of the current period, as well as how we addressed those risks.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on specific items of the financial statements.

Estimate of the unbilled and un-metered revenues (energy in the meter)

[notes 1 and 13]

Key audit matter	Our response
Your Company uses an estimate in revenue, relating to the sales on networks generated from customers whose energy consumption is metered during the accounting period. Indeed, the final allocations are sometimes only known several months down the line, which means that revenue figures are only an estimate. As of December 31, 2019, the receivables relating to the energy in the meter (gas and electricity un-metered and unbilled revenue) amount to 1,626 million of euros. These receivables are calculated using a direct method, developed by your company, taking into account estimated customers' consumption based on the previous bill, or the last metering not yet billed. These estimates are in line with the volume of energy allocated by grid managers. The volumes are measured at the average energy price, which takes account of the category of customers and the age of the energy in the meter. Provided the amount at stakes and the sensitivity of the volumes and the average energy price, we have determined that the estimate of the energy in the meter revenue is a key audit matter.	Our procedures mainly consisted in: • considering the procedures implemented by your company about the billing process, and the process enabling the reliability of the estimate about the energy in the metered revenue; • assessing the models used by your company and investigate the modality of the computation for the estimated volumes; we include a specialist in our audit team. We also: • compared the information about the volume determined by your company with the metering data provided by the grid operators; • controlled that the modality of the computation for the average price of the metered power take its anteriority and the different kinds of customers; • analyzed the coherence of the volumes delivered with the Energy Balance (which corresponds to the physical reality of the operations of allocations (revenues, injections and stocks) and resources (purchases, withdrawals and stocks) of energy on the networks) prepared by your company; • assessed the regular clearance of the metered energy during the period; • assessed the anteriority of the metered energy at the closing date.

Measurement of equity investments

[notes 1 and 4]

Key audit matter	Our response
Equity investments totaled €74,853 million as of December 31, 2019 (€67,564 million in net value) and including the share of the technical loss arising from the 2008 merger of Suez with Gaz de France for which €285 million was allocated. Newly-acquired equity investments are recognized at purchase price plus directly attributable transaction fees. As indicated in the section « Financial fixed assets », Note 1 to the financial statements, equity investments which ENGIE intends to hold on a long-term basis are written down if their value in use has fallen below their book value. Value in use is determined by reference to the intrinsic value which corresponds to restated net assets plus unrealized gains, or the yield value which corresponds to the average of the last 20 stock market prices of the period or expected cash flows (« Discounted Cash Flow » or « Dividend Discount Model »), and by taking into account any currency hedges. As indicated in Note 4.2, expected cash flows are drawn from the 2020 budget and 2021-2022 medium-term business plan approved by the Executive Committee and the Board of Directors and beyond this period, extrapolated future cash flow projections are determined on the basis of macroeconomic assumptions (inflation, exchange rates and growth rates) and price projections featured in your Group's reference scenario for 2023-2040 approved by the Executive Committee in December 2019. As mentioned in Note 4.2, the impairment recognized in 2019 for €1,643 million mainly covers the equity investments in Electrabel (€1,581 million). The measurement of equity investments is considered a key audit matter given their importance on the balance sheet (77% of total assets) and due to the judgments necessary to estimate their value in use.	We assessed Management's procedures for approving estimates. We examined the main data and key assumptions used to determine the values in use, assessed the sensitivity of measurements to these assumptions and verified the calculations made by your company with, for the most complex topics, the support of our valuation experts. Our work mainly consisted in: • examining the measurement methods used to estimate values in use; • assessing the consistency of assumptions with your Group's long-term reference scenarios (trends in electricity and gas prices and demand, price of CO_2, coal and oil, inflation) with external studies carried out by international organizations or energy experts; • assessing the consistency of the operational and regulatory assumptions used to prepare cash flow forecasts for each of the entities in the scope; • examining the discount rates for which we have verified the determination methods and the consistency with the underlying market assumptions, using internal specialists; • assessing the appropriateness of the disclosure given in the notes to the financial statements. • Regarding the methods for determining cash flow forecasts, our work consisted in: – assessing the consistency of the basic data with the budget, the medium-term business plan and beyond, the Group's long-term scenario; – assessing the consistency with past performances and market outlook.

Valuation for provisions relating to commercial litigations, claims and tax risks

[notes 1, 10 and 19]

Key audit matter	Our response
Your company is party to a number of legal and anti-trust proceedings with third parties or with legal and / or administrative authorities, including tax authorities, investigations before state courts, arbitral tribunals or regulated authorities, in the normal course of its business. The main disputes and investigations are recognized as liabilities or give rise to contingent liabilities. We have considered this topic as a key audit matter, provided the amounts at stake and the judgement required to determine the provisions for commercial litigations, claims and tax risks, due to the regulatory context and the continuously changing market environment.	Our audit procedures mainly consisted in: • examining the procedures implemented by your company in order to identify all the litigations and risk exposures; • corroborating these analyses with the confirmations received from the lawyers; • assessing the analysis of the probability of occurrence performed by your company, as well as the assumptions used, and the supporting documentation with, if any, consultations received by third parties. We have recourse to our experts for the most complex analysis; • assessing the appropriateness of the disclosure given in the notes to the financial statements.

Specific verifications

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

Information given in the management report and in the other documents with respect to the financial position and the financial statements provided to the Shareholders

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the management report of the Board of Director and in the other documents with respect to the financial position and the financial statements provided to the Shareholders.

We attest the fair presentation and the consistency with the financial statements of the information relating to payment deadlines mentioned in article D. 441-4 of the French Commercial Code (*Code de commerce*).

Report on Corporate Governance

We attest that the Board of Directors' Report on Corporate Governance sets out the information required by Articles L. 225-37-3 and L. 225-37-4 of the French Commercial Code (*Code de commerce*).

Concerning the information given in accordance with the requirements of Article L. 225-37-3 of the French Commercial Code *(Code de commerce)* relating to remunerations and benefits received by the directors and any other commitments made in their favour, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your Company from controlling and controlled companies. Based on these procedures, we attest the accuracy and fair presentation of this information.

With respect to the information relating to items that your Company considered likely to have an impact in the event of a takeover bid or exchange offer, provided pursuant to Article L. 225-37-5 of the French Commercial Code (*Code de commerce*), we have agreed this information to the source documents communicated to us. Based on these procedures, we have no observations to make on this information.

Other information

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders and holders of the voting rights has been properly disclosed in the management report.

Report on Other Legal and Regulatory Requirements

Appointment of the Statutory Auditors

We were appointed as statutory auditors of ENGIE by the Shareholder's Meeting held on May 19, 2008 for ERNST & YOUNG et Autres and on July 16, 2008 for DELOITTE & ASSOCIES.

As of December 31, 2019, our firms were in the twelfth year of total uninterrupted engagement.

Previously, ERNST & YOUNG Audit was statutory auditor between 1995 and 2007.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with French accounting principles and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless it is expected to liquidate the Company or to cease operations.

The Audit Committee is responsible for monitoring the financial reporting process and the effectiveness of internal control and risks management systems and where applicable, its internal audit, regarding the accounting and financial reporting procedures.

The financial statements were approved by the Board of Directors.

Statutory Auditors' Responsibilities for the Audit of the Financial Statements

Objectives and audit approach

Our role is to issue a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with professional standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As specified in Article L.823-10-1 of the French Commercial Code *(Code de commerce)*, our statutory audit does not include assurance on the viability of the Company or the quality of management of the affairs of the Company.

As part of an audit conducted in accordance with professional standards applicable in France, the statutory auditor exercises professional judgment throughout the audit and furthermore:

- Identifies and assesses the risks of material misstatement of the financial statements, whether due to fraud or error, designs and performs audit procedures responsive to those risks, and obtains audit evidence considered to be sufficient and appropriate to provide a basis for his opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtains an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control.
- Evaluates the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management in the financial statements.
- Assesses the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. This assessment is based on the audit evidence obtained up to the date of his audit report. However, future events or conditions may cause the Company to cease to continue as a going concern. If the statutory auditor concludes that a material uncertainty exists, there is a requirement to draw attention in the audit report to the related disclosures in the financial statements or, if such disclosures are not provided or inadequate, to modify the opinion expressed therein.

- Evaluates the overall presentation of the financial statements and assesses whether these statements represent the underlying transactions and events in a manner that achieves fair presentation.

Report to the Audit Committee

We submit to the Audit Committee a report which includes in particular a description of the scope of the audit and the audit program implemented, as well as the results of our audit. We also report, if any, significant deficiencies in internal control regarding the accounting and financial reporting procedures that we have identified.

Our report to the Audit Committee includes the risks of material misstatement that, in our professional judgment, were of most significance in the audit of the financial statements of the current period and which are therefore the key audit matters that we are required to describe in this report.

We also provide the Audit Committee with the declaration provided for in Article 6 of Regulation (EU) N° 537/2014, confirming our independence within the meaning of the rules applicable in France such as they are set in particular by Articles L.822-10 to L.822-14 of the French Commercial Code *(Code de commerce)* and in the French Code of Ethics *(code de déontologie)* for statutory auditors. Where appropriate, we discuss with the Audit Committee the risks that may reasonably be thought to bear on our independence, and the related safeguards.

In Paris-La Défense, March 10, 2020

The Statutory Auditors

DELOITTE & ASSOCIES	ERNST & YOUNG et Autres
Olivier Broissand Patrick E. Suissa	Charles-Emmanuel Chosson Stéphane Pédron

7

Additional information

7.1 General information on ENGIE and its bylaws

7.1.1 Company name and trading name

The company name and trading name of the Company is: ENGIE.

7.1.2 Registration place and number and LEI

ENGIE is registered in the Nanterre Trade and Companies Register under number 542 107 651.

Its APE (principal activity) code is 3523Z.

Its legal entity identifier (LEI) is: LAXUQCHT4FH58LRZDY46.

The name of the stock is ENGIE and its ticker symbol is “ENGI”.

7.1.3 Date of incorporation and term

The Company’s term will end on November 17, 2103, unless it is dissolved early or the term is extended.

7.1.4 Registered office, legal form, legislation, address and website

The registered office is located at: 1 place Samuel de Champlain - 92400 Courbevoie, France.

Telephone number of registered office: +33 1 44 22 00 00

Website: www.engie.com

The information provided on the Company’s website does not form an integral part of this document, unless it is incorporated by reference.

ENGIE is a public limited company with a Board of Directors, governed by the legislative and regulatory provisions applicable to commercial limited companies, subject to specific laws governing the Company, and by its bylaws.

7.1.5 Corporate purpose

Pursuant to Article 2 of Articles of Association, ENGIE’s current purpose is the management and development of its current and future assets, in all countries, by all means and especially to:

- prospect, produce, process, import, export, buy, transmit, store, distribute, supply and market combustible gas, electricity and all other energy;
- trade in gas, electricity and all other energy;
- supply services related to the aforementioned activities;
- carry out the public service missions assigned to it under current law and regulations, in particular the Energy Code, the Electricity and Gas Nationalization Act No. 46-628 of April 8, 1946, the Gas and Electricity Markets and the Public Service of Energy Act No. 2003-8 of January 3, 2003, and the Public Service of Electricity, Gas and Electrical and Gas Companies Act No. 2004-803 of August 9, 2004;
- study, design and implement all projects and all public or private works on behalf of all local authorities and individuals; prepare and enter into all agreements, contracts and transactions related to the implementation of the said projects and works;
- participate directly or indirectly in all operations or activities of any kind that may be connected to one of the aforementioned objects or that are likely to further the development of the company’s assets, including research and engineering activities, by setting up new companies or undertakings, by contribution, subscription or purchase of securities or rights with respect to entities, by acquiring interests or holdings, in any form whatsoever, in all existing or future undertakings or companies, via mergers, partnerships or any other form;
- create, acquire, rent, take in lease-management all property, real estate and businesses, rent, install and operate all establishments, businesses, plants or workshops connected with one of the aforementioned objects;
- register, acquire, operate, grant or sell all processes, patents and patent licenses relating to the activities connected with one of the aforementioned objects;

- obtain, acquire, rent and operate, mainly via subsidiaries and holdings, all concessions and undertakings relating to the supply of drinking water to towns or water to industry, the evacuation and purification of waste water, drainage and wastewater treatment operations, irrigation and transport, protection and pondage structures as well as all sales and service activities to public authorities and individuals in the development of towns and the management of the environment;
- and in general to carry out all industrial, commercial, financial, personal property or real estate operations and activities of any kind, including services, in particular insurance intermediation, acting as an agent or delegated agent in a complementary, independent or research position; these operations and activities being directly or indirectly related, in whole or in part, to any one of the aforementioned objects, to any similar, complementary or related objects and to those that may further the development of the Company’s business.

It seemed necessary to update the corporate purpose so that it better reflects the Company’s current activities and is directed towards the energy transition.

An amendment of Article 2 on the Company's corporate purpose will therefore be proposed to the Combined Shareholders’ Meeting of May 14, 2020.

In the same Article 2, subject to approval by the Shareholders’ Meeting, ENGIE’s fundamental purpose will be inserted (in this regard, see Section 4.1.2.3 in particular).

7.1.6 Fiscal year

The Company’s fiscal year lasts for 12 months, starting on January 1 and ending on December 31 of each year.

7.2 Material contracts

The Group's main contracts, other than contracts concluded in the ordinary course of business, are as follows:

Contracts finalized in 2018:

- Neptune Energy Exploration-Production Divestiture Agreement - see the 2018 Registration document, Section 6.2Consolidated Financial Statements, Note 5.1.2.
- Liquefied Natural Gas Business Transaction Agreement to Total - see the 2018 Registration document, Section 6.2 Consolidated Financial Statements, Note 5.1.4.

Contracts in progress at the end of fiscal year 2018 and finalized in 2019:

- Contract for the sale of ENGIE's stake in Glow in Thailand to Global Power Synergy Public Company Ltd. - see Section 6.2 Consolidated financial statements, Note 4.1.1.

Contracts finalized in 2019:

- Contract to acquire a 90% interest in Transportadora Associada de Gás S.A. (TAG) in Brazil – see Section 6.2 Consolidated financial statements, Note 4.3.1.

Contracts in progress at the end of fiscal year 2019:

- Contract to acquire, via a consortium in partnership with Crédit Agricole Assurances and Mirova (a subsidiary of Natixis Investment Managers), the hydroelectric portfolio of 1.7 GW of EDP in Portugal – see Section 6.2 Consolidated financial statements, Note 4.3.2.

Contracts signed post-closing 2019:

Nothingness.

Borrowing and financing contracts:

See Section 6.4 Parent company financial statements, Notes 11-11.2.1 & 11.2.2 and Section 6.2 Consolidated financial statements, Notes 16.3 and 18.2.

7.3 Litigation, arbitration and investigative procedures

In the course of its operations, the Group is engaged in a certain number of legal disputes and arbitration procedures and is also subject to investigations and procedures under competition law. The principal investigations and proceedings are described in Note 25, Section 6.2 "Consolidated financial statements" and Note 19, Section 6.4 "Parent company financial statements".

Below is an update on the date of this universal registration document for information contained in note 25:

- Concerning in the resumption and extension of the operation on nuclear unit (note 25.3.1), the Belgian Constitutional Court delivered its ruling on March 5, 2020, annulling the Belgian law extending the lifetimes of the Doel 1 and Doel 2 nuclear power plants, as it had been passed without carrying out the pre-requisite environmental assessments. However, the Court agreed that the effects of the law should be maintained until 2022 to ensure the security of the country's supply. The Doel 1 and Doel 2 plants can therefore continue to operate until the situation has been resolved. The Belgian government is now responsible for resolving the situation within this time period.
- Otherwise on February 29, 2020, the European Commission announced the launch of an investigation relating to state aid into the gas storage regulation mechanism established on January 1, 2018 to ensure the security of France's gas supply. The decision to launch the procedure is not yet available. Both the French government and Storengy are contesting this decision and will engage in dialogue with the Commission to put forward their arguments, as part of the in-depth investigation that it is conducting in order to formulate a final decision. The opening of this procedure in no way prejudges the outcome of the investigation, the outcome of which cannot be assessed at this stage.

7.4 Public documents

The documents relating to ENGIE that must be made available to the public (bylaws, reports, historical financial information on ENGIE, as well as on the Group subsidiaries included or mentioned in this Universal Registration Document and those relating to each of the two years prior to the filing of this Universal Registration Document) may be consulted at ENGIE's corporate headquarters for as long as this Universal Registration Document remains valid. These documents may also be obtained in electronic format from the ENGIE website (www.engie.com) and some of them may be obtained from the AMF website (amf-france.org).

The ENGIE Universal Registration Document is translated into English. In case of contradiction, the original French version shall prevail.

As well as this Universal Registration Document, which is filed with the AMF, the Group publishes an integrated report each year.

The documents published on the website are available free of charge from ENGIE, 1 place Samuel de Champlain – 92400 Courbevoie, France.

7.5 Party responsible for the Universal Registration Document

Party responsible for the Universal Registration Document

Claire Waysand, Chief Executive Officer.

Declaration by the party responsible for the Universal Registration Document containing the Annual Financial Report

"I hereby certify, after having taken all reasonable measures to this effect, that the information contained in this Universal Registration Document is, to my knowledge, in accordance with the facts and makes no omission likely to affect its import.

I hereby certify that, to the best of my knowledge, the financial statements have been prepared in accordance with the applicable accounting standards and give a true and fair view of the assets and liabilities, financial position and profit or loss of the Company and all the undertakings included in the consolidation, and that the management report, whose items are mentioned in Chapter 7 of this Universal Registration Document, presents a fair review of the development and performance of the business and financial position of the Company and all the undertakings included in the consolidation as well as a description of the main risks and uncertainties to which they are exposed."

Courbevoie, March 18, 2020

The Chief Executive Officer

Claire Waysand

7.6 Conversion table, units of measurement and short forms and acronyms, and glossary

CONVERSION TABLE

1 kWh	0.09 m^3 of natural gas (i.e. 1 m^3 of gas = 11 kWh)
1 GWh	91,000 m^3 of natural gas
1 TWh or 1 billion kWh	91 million m^3
1 billion m^3 of gas	6.2 million barrels of oil equivalent (Mboe)

The units of conversion mentioned above are those routinely used by professionals in the energy sector. In this document they are provided solely for information purposes.

UNITS OF MEASUREMENT

A	Ampere
Bar	Unit of measurement of fluid pressure, particularly for natural gas (1 bar = 105 Pascal)
BOE	Barrel of oil equivalent (1 barrel = 159 liters)
G	Giga (billion)
GBq	Giga becquerel
Gm^3	Giga m^3 (billion cubic meters)
GW	Gigawatt (billion watts)
GWh	Gigawatt-hour (million kilowatt-hours)
GWheeq	GWh electric equivalent
J	Joule
k	Kilo (one thousand)
kW	Kilowatt (one thousand watts)
kWh	Kilowatt-hour (one thousand watt-hours)
m	Meter
m^2	Square meter
m^3	Cubic meter
M	Mega (million)
Mboe	Million barrels oil equivalent
Mtpa	Million metric tons per annum
MW	Megawatt (million watts)
MWp	Megawatt-peak (unit of measurement for the power of solar photovoltaic installations)
MWe	Megawatt electric
MWh	Megawatt-hour (thousand kilowatt-hours)
T	Tera (thousand billion)
TBq	Terabecquerel
t/h	Metric tons per hour
TWh	Terawatt-hour (billion kilowatt-hours)
V	Volt
W	Watt
Wh	Watt-hour

SHORT FORMS AND ACRONYMS

ACP	Autorité de Contrôle Prudentiel des établissements bancaires (French prudential control authority for banking institutions)
AGM	Combined Shareholders' Meeting
AMF	Autorité des marchés financiers (French Financial Markets Authority)
BtoB	Business to Business
BtoC	Business to Consumer
BtoT	Business to Territories
BU	Business Unit
Capex	Capital expenditure
CCGT	Combined Cycle Gas Turbine
CEE	Certificat d'Économie d'Energie (Energy Saving Certificate)
CER	Certified Emission Reduction – see Glossary
CNIL	Commission Nationale de l'Informatique et des Libertés (French national data protection and privacy commission)
CO_2	Carbon dioxide
CRE	Commission de Régulation de l'Énergie (French energy regulator) – see Glossary
CSR	Corporate Social Responsibility
DBSO	Design, Build, Sell Operate - see Glossary
DBpSO	Design Build partial Sell Operate - see Glossary
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization – see Glossary
E&P	Exploration & Production of hydrocarbon
EGI	Electric and Gas Industries – see Glossary
EIG	Economic Interest Group (Groupement d'intérêt économique)
EM	Entities consolidated by the equity method
EMAS	Eco Management and Audit Scheme – see Glossary
EMTN	Euro Medium Term Notes
ERM	Enterprise Risk Management
EU	European Union
EUA	European Union Allowance
EWC	European Works Council
FC	Full Consolidation
FM	Facility management - see Glossary
GHG	Greenhouse Gases – see Glossary
HR	Human Resources
IAS	International Accounting Standards, drawn up internationally by the IASB until 2002
IASB	International Accounting Standards Board
IFRS	International Financial Reporting Standards, drawn up internationally by the IASB since 2002
INCOME	Internal Control Management and Efficiency (ENGIE program)
IoT	Internet of Things
LPG	Liquefied Petroleum Gas – see Glossary
IPP	Independent Power Producer – see Glossary
ISO	International Standards Organization – see Glossary
ISP	Investment Services Provider – see Glossary
NGO	Non-governmental organization
NGV	Natural Gas Vehicle – see Glossary
NOx	Nitrogen oxide
NRE	New and renewable energy sources: wind, solar, hydro, etc.
OECD	Organization for Economic Cooperation and Development
OPEX	Operating expenses
PC	Proportional Consolidation
PEG	Plan d'Épargne Groupe, Group Employee Savings Plan
PPA	Power Purchase Agreement (often long-term)
PPE	Programmation Pluriannuelle de l'Energie (Multi-Year Energy Schedule)
PV	Photovoltaic

RAB	Regulated Asset Base – see Glossary
R&D	Research and Development
ROCE	Return on capital employed
ROE	Return on equity
SEC	Social and Economic Committee
SME	Small and medium-sized enterprises
SO_2	Sulfur dioxide
SRV	Shuttle Regasification Vessel (LNG carrier fitted with onboard regasifiers that can connect to an underwater buoy. This enables the regasified LNG to be directly injected into a pipeline network.)
TMO	Taux mensuel obligataire – a monthly bond yield measured on the basis of the gross yield-to-maturity on fixed-rate bonds with at least 7 years to maturity issued on the French market in a given month.
TPA-d	Third Party Access to the distribution network – see Glossary
TSR	Total Shareholder Return – see Glossary
UCITS	Undertakings for Collective Investment in Transferable Securities (mutual funds)
VaR	Value at Risk – see Glossary
VPP	Virtual Power Plant – see Glossary

GLOSSARY

Afep-Medef Code	Code of corporate governance for listed companies (in France), in the version published by Afep-Medef in January 2020
Balancing area	The set of entry points, delivery points and a trading point of gas within which the consignor must achieve a balance.
Biogas	All gases, such as methane and carbon dioxide, resulting from the fermentation of organic waste in a depleted air environment such as landfills, wastewater treatment plants, etc. Such fermentation is the result of a natural or controlled bacterial activity. As such, biogas is classified as a renewable energy source.
Biomass	Mass of non-fossil organic matter of biological origin. A part of this deposit may be used as an energy source.
Branch	Transmission installation ensuring delivery between the transmission grid and one or more delivery points, and aimed exclusively or primarily at supplying a customer or a distribution network. Connections are components of the network.
Certified Emission Reduction (CER)	Certificate issued to industries that have invested in developing countries to reduce greenhouse gas emissions there. CERs cannot be directly traded, but may be used in place of CO_2 quotas, with one CER equal to one quota.
Cogeneration	A technique that uses a single fuel, which may be natural gas, to simultaneously produce thermal energy (steam or overheated water or a mixture of air and combustion products) and electricity.
Combined steam cycle plant	A power plant comprising a gas turbine generator, the exhaust gases of which power a steam boiler. The steam produced in the boiler drives a turbo-generator.
Commission de Régulation de l'Électricité et du Gaz – CREG (Belgium)	The Belgian Gas and Electricity Regulation Commission is an independent body that advises public authorities on the organization and operation of the deregulated electricity and gas markets. CREG also monitors and supervises the enforcement of related laws and regulations. A General Council, composed of federal and regional government representatives, representatives of labor organizations, employers and the middle classes, environmental associations and producers, distributors and consumers, supervises this body's operations.
Commission de Régulation de l'Énergie – (French energy regulator)	The French Energy Regulation Commission is an independent administrative authority. It was created by the Act of February 10, 2000 to regulate electricity and its scope was extended to include the gas sector with the Act of January 3, 2003. Its main mission is to ensure the effective, transparent and non-discriminatory implementation of access to electricity and gas infrastructures. More generally, its role is to ensure that the gas and electricity markets operate properly.
Compression station	Industrial facility that compresses natural gas to optimize the flow of fluids in the pipes.
Connection structures	All the structures that connect a consumption site or distribution network to the transmission grid. Connection structures are made up of one or more distribution lines and one or more substations.
Corporate Power Purchase Agreement (Corporate PPA)	A corporate Power Purchase Agreement or corporate PPA is a long-term electricity supply agreement between an electricity producer and an electricity end-purchaser.
Cushion gas	Quantity of gas stored underground that cannot be fully retrieved after it has been injected.

Dark spread	Gross margin of a coal plant, equal to the difference between the sale price of electricity and the purchase price of the fuel needed to produce it. The dark spread must cover the aggregate of other costs (including operation, maintenance, cost of capital, financial charges, etc.).
DBSO	Design, Build, Sell, Operate: Project development process whereby the Group takes charge of design, building, sale and operation. In practice, it can be complicated for the developer to obtain the operation if it sells all the assets; in this case, the term DBpSO is used, with "pS" standing for "partial Sell".
Desalination	A process used to reduce the salt concentration of sea water in order to make it fit for human or animal consumption as well as for other uses, especially industrial uses.
Distribution	Distribution networks are groups of physical structures consisting mainly of medium or low-pressure pipes. They route natural gas to consumers who are not directly connected to the main network or to a regional transmission network.
EBITDA	EBITDA is often used to refer to the revenues of a business before the deduction of interest, taxes, depreciation, amortization and provisions.
EBITDA at Risk	EBITDA at Risk measures the potential loss of EBITDA, at a given probability, under the impact of various prices and volatilities over a given time horizon. This indicator is especially well-suited for measuring market risks for portfolio management activities. If the time horizon provided is one calendar year, and the confidence interval is 95%, an EBITDA at Risk of €100 million indicates that there is a 5% probability of losing more than €100 million in EBITDA between January 1 and December 31 due to fluctuations in commodities prices.
Eco Management and Audit Scheme (EMAS)	Based on ISO 14001 certification and an environmental statement certified by European auditors accredited and published by the European Commission.
Electric and Gas Industries (EGI)	All the companies that produce, transmit or distribute electricity or gas in France and which meet the requirements of the Nationalization Act of April 8, 1946. The EGI sector includes all companies with employees that fall under the status of EGI employees
Facilities Management	All the outsourced service and utility management services that accompany the supply of energy to an industrial client. These services concern the management of the client's environment. They include guard services, waste and hygiene, operation and maintenance of technical equipment, project management for construction work, management of safety equipment and telephone and reception services.
Gas Exchange Point	Virtual hub attached to a balancing area where a consignor can sell gas to another consignor.
Gas hub	Point of entry (connection point of a gas transmission network supplied from several sources. It enables operators to exchange gas physically between these sources and end users).
Gas pipeline	A pipeline that conveys fuel gas.
Green electricity	Certified electricity produced from renewable energy sources.
Greenhouse Gases (GHG)	Atmospheric gas that contributes to the retention of solar heat. Industries, automobiles, heating systems, livestock farming and other activities produce gases, some of which heighten the greenhouse effect. The greenhouse gas build-up produced by human activity is one of the causes of global warming and its impacts on the ecosystem.
Green Power Purchase Agreement (green PPA)	A green Power Purchase Agreement or green PPA is a long-term agreement for the supply of electricity produced from renewable energy sources between an electricity producer and an electricity purchaser.
Hydrogen BU	Entity responsible for designing zero-carbon energy solutions based on renewable hydrogen.
Independent Power Producer (IPP)	An electricity production company independent of public sector control. IPPs are classified exclusively on the basis of the projects developed outside the country of origin.
International Standards Organization (ISO)	Organization that defines reference systems (industrial standards used as benchmarks).
Investment Services Provider (ISP)	Investment services provider approved by the Committee of European Bank Supervisors to transmit and process market orders.
ISO 14001	An international standard that verifies a company's organizational procedures and methods, as well as the effective implementation of environmental policy and objectives.
ISO 9001	An international standard establishing quality criteria for work procedures. It applies to product design, control of the production and the manufacturing process and the quality control of the end product.
Joint venture	A term commonly used to describe a project in which two or more entities take part. For the consolidation principles and methods applicable to the different types of partnership under IFRS, please see Note 1 in Section 6.2 Consolidated financial statements.
Liquefied Natural Gas (LNG)	Natural gas put into the liquid phase by lowering its temperature to -162°C, which makes it possible to reduce its volume by a factor of 600.

LNG terminal	Industrial facility that receives, unloads, stores, regasifies LNG and sends natural gas in the gaseous state to the transmission grid. Harbor facility with additional facilities, intended to receive ships that transport liquefied natural gas (LNG).
Load-matching	Term referring to the discrepancy between the actual conditions of a customer's gas consumption and those corresponding to standard purchases over the year of their average daily consumption. Variations (daily, weekly or seasonal) in consumption are generally covered by underground storage, to which customers and their suppliers may have access, either directly (in countries where third-party access to the facilities – regulated or negotiated – is provided) or via a load-matching service (as in the US).
Main network	All the high-pressure and large-diameter structures for transmitting natural gas that link the interconnection points with neighboring transmission grids, storage facilities and LNG terminals. These structures are connected to regional networks as well as certain industrial consumers and distribution networks.
Marketer	Seller of energy to third parties (end customer, distributor, etc.).
Natural Gas for Vehicles (NGV)	Entirely composed of natural gas, NGV is primarily used in urban transportation and waste treatment vehicles.
Natural gas liquefaction	Transformation of natural gas from gaseous form to liquid form to be transported by ship and/or stored.
Public-Private Partnership (PPP)	The PPP is a contractual arrangement whereby the public sector authority assigns certain tasks to a private operator and specifies objectives. The public sector partner defines the service objectives for the private operator, while retaining ownership of the infrastructure and regulatory control. Local authorities are increasingly resorting to PPP agreements in managing their water services.
Pumping station	Power plant or facility that operates by moving water between reservoirs at different elevations. When electricity prices are low, typically overnight, electricity from the grid system is used to pump water into a raised reservoir and then at times of peak demand, when electricity prices are higher, the water is released back into the lower reservoir through a turbine.
Qmax	A ship of Qmax size is 345 meters (1,132 feet) long, 53.8 meters (177 feet) wide and 34.7 meters (114 feet) high, with a draft of approximately 12 meters (39 feet). It has an LNG capacity of 266,000 cubic meters (9,400,000 cubic feet), equal to 161,994,000 cubic meters (5.7208×10^9 cubic feet) of natural gas.
Regional network	All the high-pressure and large-diameter structures that link the interconnection points with neighboring transmission grids, storage facilities and LNG terminals. Regional networks, distribution networks and certain industrial consumers are connected to them.
Regulated Asset Base (RAB)	The regulated asset base is the economic value, recognized by the regulator, of assets utilized by an operator of regulated infrastructures.
Rights in kind of licensor	The "Rights in kind of licensor" line item is an item specifically pertaining to companies that are utility operators. It offsets "fixed assets held under concession" on the balance sheet. Its valuation expresses the operator's obligation at the end of the contract to assign to the licensor, at no cost, the fixed assets assigned to the licensed utilities, such that at the end of a given contract, the value of the "Rights in kind of licensor" is equal to the carrying amount of fixed assets that are to be returned to the licensor.
Smart energy	An economically efficient, durable and secure energy system in which production of renewable energy, infrastructure and consumption are integrated and coordinated locally through energy services, active users and digital technologies.
Spark spread	Gross margin of a natural gas plant, equal to the difference between the sale price of electricity and the purchase price of the fuel needed to produce it. The spark spread must cover all other costs (including operation, maintenance, cost of capital and financial costs).
Spot market	A market for the short-term purchase and sale of energy (for the day or up to three years).
Storage	Facility that allows natural gas to be stored in the summer when consumption is at its lowest and to take natural gas out of storage in winter when consumption is higher. Gas storage is an industrial facility, mainly underground, that enables natural gas suppliers to have a natural gas reserve.
Stress test	Test performed in order to assess resistance to a disaster scenario.
Take-or-Pay	Long-term contract where the producer guarantees the supply of gas to an operator and the operator guarantees payment, regardless of whether or not the operator takes delivery.
Thermal power plant	Facility in which the chemical energy contained in solid, liquid, or gaseous fossil fuel is transformed exclusively into electricity using boilers and steam turbines.
Third Party Access to the distribution network	The recognized right of each user (eligible customer, distributor, producer) to access a transmission or distribution network in return for payment for access rights.
Tolling	Contract for the transformation of a fuel (e.g. natural gas) into electricity on behalf of a third party.

Total Shareholder Return (TSR)	Return of a share over a given period that includes dividends paid and capital gains realized.
Transmission capacity	The highest permissible continuous load of the transmission equipment with respect to the stability of its operating parameters and voltage drop.
Treasury stock (in subsidiaries)	Shares of a company owned by subsidiaries controlled by the Company. They do not carry voting rights.
Treasury stock	Shares of the Company purchased by the latter, by virtue of authorization given by the General Shareholders' Meeting. These shares do not have voting rights attached.
Underground storage	Use of porous geological formations, natural or artificial cavities (saline or aquifer) to store liquid or gaseous hydrocarbons.
Upstream PPAs	An upstream Power Purchase Agreement or upstream PPA is a long-term electricity supply contract between two parties, generally an electricity producer and an electricity purchaser.
Working volume	Gas available in underground storage and capable of being tapped.

7.7 Comparison table

Regulation (EU) 2017/1129 of June 14, 2017 and Delegated Regulation 2019/980 of March 14, 2019

This comparison table enables the information required by Annex 1 (referred from Annex 2) of Delegated Regulation (EU) 2019/980 of March 14, 2019, supplementing Regulation (EU) 2017/1129 of the European Parliament and of the Council, according to the URD layout, to be identified and cross-referenced to the sections of the 2019 Universal Registration Document:

Information provided for in annexes 1 and 2 of Regulation (EU)		Chapter of the 2019 Universal Registration Document		Page
1.	Parties responsible, information from third parties, expert reports and approval of competent authority			
1.1	Name and position of parties responsible	7.5	Party responsible for the Universal Registration Document	402
1.2	Declaration by the parties responsible	7.5	Party responsible for the Universal Registration Document	402
1.3	Declaration or report attributed to a person acting as an expert	NA		NA
1.4	Third party certification	NA		NA
1.5	Declaration without prior approval by the competent authority		AMF insert	1
2.	Statutory Auditors			
2.1	Name and address of Statutory Auditors	4.5.7	Statutory Auditors	175
2.2	Resignation, dismissal or non-renewal of Statutory Auditors	NA		NA
3.	Risk factors	2	Risk factors and control	41
4.	Information about the issuer			
4.1	Company name and trading name	7.1.1	Company name and trading name	398
4.2	Registration place and number and LEI	7.1.2	Registration place and number and LEI	398
4.3	Date of incorporation and term of the issuer	1.1.2	History and evolution of the Company	7
		7.1.3	Date of incorporation and term	398
4.4	Registered office and legal form of the issuer, legislation governing its activities, country of origin, address and telephone number of registered office, website with disclaimer	1.1.1	General presentation	6
		7.1	General information on ENGIE and its bylaws	398
5.	Business overview			
5.1	Principal activities	1.1.1	General presentation	6
		1.1.3	Strategic priorities	8
		1.1.4	Organization	10
		1.3	Description of the Group's activities	17
5.2	Main markets	1.1.1	General presentation	6
		1.1.3	Strategic priorities	8
		1.3	Description of the Group's activities	17
5.3	Significant events	1.3	Description of the Group's activities	17
5.4	Strategy and objectives	1.1.3	Strategic priorities	8
5.5	Degree of dependence of the issuer on patents or licenses, business, commercial or financial contracts or new manufacturing processes	1.1.5	Innovation and Research & technologies	12
		2.2	Risk factors	45
5.6	Declaration on competitive positioning	1.1.1	General presentation	6
5.7	Investments			
5.7.1	Principal investments	6.1.1.4.2	Net investments	209
5.7.2	Major investments in progress	1.1.3	Strategic priorities	8
		1.3	Description of the Group's activities	17
5.7.3	Joint ventures and commitments for which the issuer holds a significant proportion of the share capital	6.2	Financial statements – Note 2 (Main subsidiaries at December 31, 2019) and Note 3 (Investments in entities accounted for using the equity method)	231 237
5.7.4	Environmental issues potentially affecting the use of tangible fixed assets	3.5	Environmental information	98

Information provided for in annexes 1 and 2 of Regulation (EU)			Chapter of the 2019 Universal Registration Document		Page
6 Organizational structure					
6.1	Brief description of the Group		1.1.4	Organization	
6.2	List of significant subsidiaries		6.2	Financial statements – Note 2 (Main subsidiaries at December 31, 2019)	10
7. Operating and financial review			6.1.1	Management report	231
7.1	Financial position		6.1.1.4	Changes in net financial debt	196
			6.1.1.5	Other items in the statement of financial position	208
	7.1.1	Evolution of results and financial position including key performance indicators of a financial and, if applicable, non-financial nature	6.1.1	Management report	196
	7.1.2	Forecasts of future development and research and development activities	1.1.5	Innovation and Rresearch & Technologies	12
			6.2	Consolidated financial statements – Note 14.2 (Information regarding research and development costs)	278
7.2	Operating results				
	7.2.1	Important factors, unusual and infrequent events or new developments	6.1.1.1	ENGIE 2019 results	196
			6.1.1.2	Business trends	201
			6.1.1.3	Other income statement items	207
	7.2.2	Reasons for major changes in net revenues or net income	6.1.1.1	ENGIE 2019 results	196
			6.1.1.2	Business trends	201
			6.1.1.3	Other income statement items	207
8. Capital resources					
8.1	Information on capital		6.1.1.5	Other items in the statement of financial position	211
			6.2	Consolidated financial statements – Note 16.3 (Net debt)	289
				Note 18 (Equity)	317
				Note 5.4 (Industrial capital employed)	249
8.2	Cash flow		6.1.1.4	Changes in net financial debt	208
8.3	Financing requirements and financing structure		6.1.2.1	Borrowing conditions and financial structure applicable to the issuer	216
			5.1.5	Non-equity securities	182
			6.2	Consolidated financial statements – Note 16 (Financial instruments)	282
8.4	Restrictions on the use of capital		6.1.2.2	Restrictions on the use of capital	216
8.5	Expected sources of financing		6.1.2.3	Expected sources of financing to honor commitments relating to investment decisions	216
9. Regulatory environment			1.3	Description of the Group's activities	17
			2.2.2	Risk deriving from climate and environmental issues	49
10. Information about trends					
10.1.	a) Significant recent trends in production, sales and inventory, and costs and selling prices b) any significant change in the Group's financial performance or provide appropriate negative declaration		1.1.3	Strategic priorities	8
			6.1.1.2	Business trends	201
10.2	Information that are reasonably likely to have a material effect on the issuer's prospects		6.1.1.1.2	Financial targets	199

Information provided for in annexes 1 and 2 of Regulation (EU)		Chapter of the 2019 Universal Registration Document		Page
11. Earnings forecasts or estimates				
11.1	Earnings forecast or estimate	6.1.1.1.2	Financial targets	199
11.2	Statement setting out main assumptions	6.1.1.1.2	Financial targets	199
11.3	Statement relating to the bases for establishing and developing profit details and estimates	6.1.1.1.2	Financial targets	199
12. Administrative, management, and supervisory bodies and general management				
12.1	Information concerning the members of the corporate governance bodies and general management	4.1	Corporate governance bodies	122
		4.3	General Management	149
12.2	Conflicts of interest	4.1.1.4	Absences of conflict of interest or conviction	138
13. Compensation and benefits				
13.1	Amount of compensation paid and benefits in kind	4.4	Compensation and benefits paid of members of the administration and management bodies	150
13.2	Total amounts set aside or accrued to provide pension, retirement or similar benefits	4.4.1.4	Pensions plans	152
		4.4.2	Compensation of executive who are not corporate officers	164
14. Corporate governance and management bodies practices				
14.1	Expiry date of terms of office	4.1.1	Composition of the Board of Directors	150
14.2	Service contracts binding members of corporate governance bodies	4.5.3	Service contracts binding members of corporate governance bodies	172
14.3	Information on the Audit Committee and Compensation Committee	4.1.2.4	Standing committees	144
14.4	Compliance with applicable corporate governance regime	4.1.2	Functioning of the Board of Directors	141
		4.6	Corporate Governance Code	176
14.5	Potential significant impacts on corporate governance	4.2.2	Shareholders' Meeting of May 14, 2020 – Composition of the Board of Directors	149
15. Employees				
15.1	Number of employees	3.4.7	Social data	85
15.2	Shareholding and stock options	4.1.1.1	Experience and expertise of the Directors in office	123
		4.4	Compensation and benefits of members of the administration and management bodies	150
15.3	Arrangements for involving employees in the capital of the issuer	3.4.4	Remuneration, employee savings plans and employee shareholding	82
16. Major shareholders				
16.1	Shareholders with more than 5% of the share capital or voting rights	5.1.1	Share capital and voting rights	180
		5.2.3	Statutory disclosure thresholds	192
16.2	Existence of different voting rights	5.1.1.3	Voting rights	180
		5.2.4	Golden share	192
16.3	Control of the issuer	5.2.2	Breakdown of share capital	191
		5.2.4	Golden share	192
16.4	Agreements relating to change of control	5.2.4	Golden share	192
17. Related party transactions				
		4.5.2	Regulated agreements and related party agreements	171
		4.7	Statutory Auditors' special report on related party agreements	177

Information provided for in annexes 1 and 2 of Regulation (EU)	Chapter of the 2019 Universal Registration Document		Page
18. Financial information concerning the issuer's assets and liabilities, financial position and profits and losses			
18.1 Historical financial information	6.2 6.3 6.4 6.5	Consolidated financial statements Statutory Auditors' report on the consolidated financial statements Parent company financial statements Statutory Auditors' report on the financial statements	217 340 347 392
18.2 Interim financial information	6.2	Consolidated financial statements	217
18.3 Auditing of historical annual financial information	6.3 6.5	Statutory Auditors' report on the consolidated financial statements Statutory Auditors' report on the financial statements	340 392
18.4 Pro forma historical financial information	NA		NA
18.5 Dividend distribution policy	5.2.5	Dividend distribution policy	193
18.6 Legal and arbitration proceedings	6.2 7.3	Consolidated financial statements – Note 25 (Legal and anti-trust proceedings) Litigation, arbitration and investigative procedures	334 400
18.7 Significant change in the issuer's financial position	6.2	Consolidated financial statements – Note 26 (Subsequent events)	338
19. Additional information			
19.1 Share capital	5.1	Information on the share capital and non-equity instruments	180
19.1.1 Amount of subscribed capital, number of shares issued and fully paid up and nominal value per share, number of authorized shares	5.1.1 5.1.2 4.5.4	Share capital and voting rights Potential capital and share equivalents Authorizations relating to share capital and share equivalent and their utilization	180 180 172
19.1.2 Shares not representing capital	5.1.5	Non-equity securities	182
19.1.3 Number, book value and nominal value of shares held by the issuer	5.1.4.3	Book value and nominal value	182
19.1.4 Convertible securities, exchangeable securities or securities with warrants	NA		NA
19.1.5 Vesting rights and/or obligations attached to authorized but unissued capital or an undertaking to increase the capital	NA		NA
19.1.6 Options on the capital of members of the Group	5.2.4	Golden share	192
19.1.7 History of share capital	5.1.3	Five-year summary of changes in the share capital	181
19.2 Memorandum and Articles of Association			
19.2.1 Register and corporate purpose	7.1.2 7.1.5	Registration place and number and LEI Corporate purpose	398 398
19.2.2 Rights, privileges and restrictions attached to shares	5.2.4 4.5.5	Golden share Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings	192 174
19.2.3 Provisions having an effect of delaying, deferring or preventing a change in control of the issuer	5.2.4 4.5.5	Golden share Provisions in the bylaws on the participation of shareholders at Shareholders' Meetings	192 174
20. Material contracts	7.2	Material contracts	400
21. Available documents	7.4	Public documents	401

Information relating to the management report

This Universal Registration Document includes all items of the management report that are required under current laws and regulations (article L. 225-100-1 of the French Commercial Code).

The following table presents items from the ENGIE Management Report as at December 31, 2019 :

Legislative or regulatory reference	Items required	Chapter of the Universal Registration Document		Page
I – Activity				
L. 232-1-II of the French Commercial Code	Company's situation over the past fiscal year	6.1.1	Management report	196
		6.2	Consolidated financial statements	217
	Foreseeable developments and future outlook	6.1.1.1.2	Financial targets	199
	Significant events, which have occurred between the date the fiscal year ended and the date on which the Management Report was drawn up	6.2	Consolidated financial statements – Note 26 (Subsequent events)	338
	Research and development activities	1.1.5	Innovation and Research & Technologies	12
		6.2	Consolidated financial statements – Note 14.2 (Information regarding research and development costs)	278
L. 233-6, para. 2 of the French Commercial Code	Activities and results of the Company and its subsidiaries by business line	6.1.1.2	Business trends	201
		6.1.1.3	Other income statement items	207
L. 225-100-1 of the French Commercial Code	Information relating to business trends, results and financial situation of the Company and the Group (particularly debt situation)	6.1.1	Management report	196
		6.1.2.1	Borrowing conditions and financial structure applicable to the issuer	216
	Key indicators of financial and non financial natures	1.2	Key figures	15
	Description of the main risks and uncertainties and indications as to the use of financial instruments, for the Company and the Group	2	Risk factors and control	41
		6.2	Consolidated financial statements – Note 17 (Risks arising from financial instruments)	299
	Financial risks related to the effects of climate change and description of the measures taken to reduce them by implementing a low-carbon strategy	2.2.2	Risk deriving from climate and environmental issues	49
		3.3	Analysis of CSR risks	68
		3.5.4.1	Climate change	101
	Main features of the internal control and risk management procedures relating to the preparation and processing of accounting and financial information	2.1	Risk management process	44
		2.3.3	Internal control relating to financial information	61
	Objectives and policy of the Company for the hedging of each main category of transactions	6.2	Consolidated financial statements – Note 16 (Financial instruments) and Note 17 (Risks arising from financial instruments)	282 299
L.441-14 of the French Commercial Code	Information on suppliers and customers payment terms	6.1.1.7	Adjustment of comparative information	214
II – Financial information				
L. 233-13 of the French Commercial Code	Breakdown of and changes in shareholding structure	5.2.2	Breakdown of share capital	191
		5.2.3	Disclosure thresholds	192
		5.2.4	Golden share	192
	Names of controlled companies with a stake in the Company's treasury stock and proportion of capital thereby held	NA		NA
L. 233-6, para. 1 of the French Commercial Code	Significant equity stakes over the fiscal year in companies with their head office in France	6.2	Consolidated financial statements – Note 4 (Main changes in Group structure)	245
R. 225-102 of the French Commercial Code	Table showing the Company's results for each of the last five fiscal years	6.4.4.	Five-year financial summary	391

Legislative or regulatory reference	Items required	Chapter of the Universal Registration Document		Page
L. 225-211 of the French Commercial Code	Purchase and sale by the Company of its own shares	5.1.4	Stock repurchase	181
		6.2	Consolidated financial statements – Note 18 (Equity)	317
L. 225-102, para. 1 L. 225-180 of the French Commercial Code	Employees' stake in share capital	5.2.2	Breakdown of share capital	191
		3.4.4	Compensation, employee savings plans and employee shareholding	82
L. 225-102, para. 2 of the French Commercial Code	Equity acquired by employees in an employee buyout	NA		NA
R. 228-90 and R. 228-91 of the French Commercial Code	Any adjustments for share equivalents in the event of share buybacks or financial transactions	NA		NA
III – Legal and tax information				
Article 243 (a) of the French Tax Code	Amount of dividends distributed for the previous three fiscal years	5.2.5	Dividend distribution policy	193
L. 464-2, I, para. 5 of the French Commercial Code	Injunctions or financial sanctions for anti-trust practices	6.2	Consolidated financial statements - Note 25 (Legal and anti-trust proceedings)	334
		7.3	Litigation, arbitration and investigative procedures	400
L. 225-101 of the French Commercial Code	Information on control and risk management procedures	2.3	Internal control procedures	59
IV – Information relating to corporate officers				
L. 621-18-2 of the French Monetary and Financial Code Article 223-26 of the AMF General Regulations	Information on transactions by directors and related parties involving the Company's shares	4.4.6	Summary of transactions disclosed by executive management and corporate officers in fiscal 2019	171
V – Environmental and Social information				
L. 225-102-1, para. 5 and R. 225-105 of the French Commercial Code	Environmental information	2.2.5	Industrial risks	53
		2.2.2	Risk deriving from climate and environmental issues	49
		3.5	Environmental information	98
L. 225-102-1, para. 3 and R. 225-104 of the French Commercial Code	Social Information	3.4	Social Information	77
L. 225-102-2 of the French Commercial Code	Specific information for companies operating at least one site classified as "high threshold" Seveso	2.2.5	Industrial risks	53
		3.5	Environmental information	98
L. 225-102-4 of the French Commercial Code	Vigilance Plan	3.9	Vigilance Plan	112

Information relating to the Annual Financial Report

This Universal Registration Document includes all items of the Annual Financial Report, as mentioned in Articles L. 451-1-2 of the French Monetary and Financial Code and as required by Article 222-3 of the AMF's General Regulations.

The following table summarizes items in the Annual Financial Report:

Items required	Chapter of the Universal Registration Document	Page
Parent company financial statements	6.4 Parent company financial statements	347
Consolidated financial statements	6.2 Consolidated financial statements	217
Management report	See specific comparison table above	
Declaration by the parties responsible for the Annual Financial Report	7.5 Party responsible for the Universal Registration Document	402
Statutory Auditors' report on the parent company financial statements	6.5 Statutory Auditors' report on the financial statements	392
Statutory Auditors' report on the consolidated financial statements	6.3 Statutory Auditors' report on the consolidated financial statements	340
Statutory Auditors' fees	6.2 Consolidated financial statements – Note 27 (Fees paid to Statutory Auditors and members of their networks)	338

The present document was produced by an eco-responsible printer on paper of certified origin. It is available on the website www.mediastore.engie.com, where all the Group's publications can be viewed, downloaded or ordered.

This document is printed in compliance with ISO 14001:2018 for an environmental management system.

ISO 14001
BUREAU VERITAS
Certification

Designed & published by LABRADOR INFORMATION DESIGN +33 (0)1 53 06 30 80

A public limited company
with a share capital of 2,435,285,011 euros
Corporate headquarters: 1 place Samuel de Champlain
92400 Courbevoie - France
Tel.: +33 (0)1 44 22 00 00
Register of commerce: 542 107 651 RCS NANTERRE
VAT FR 13 542 107 651

engie.com