



# 2017 Integrated Report

Committed to  
the energy transition



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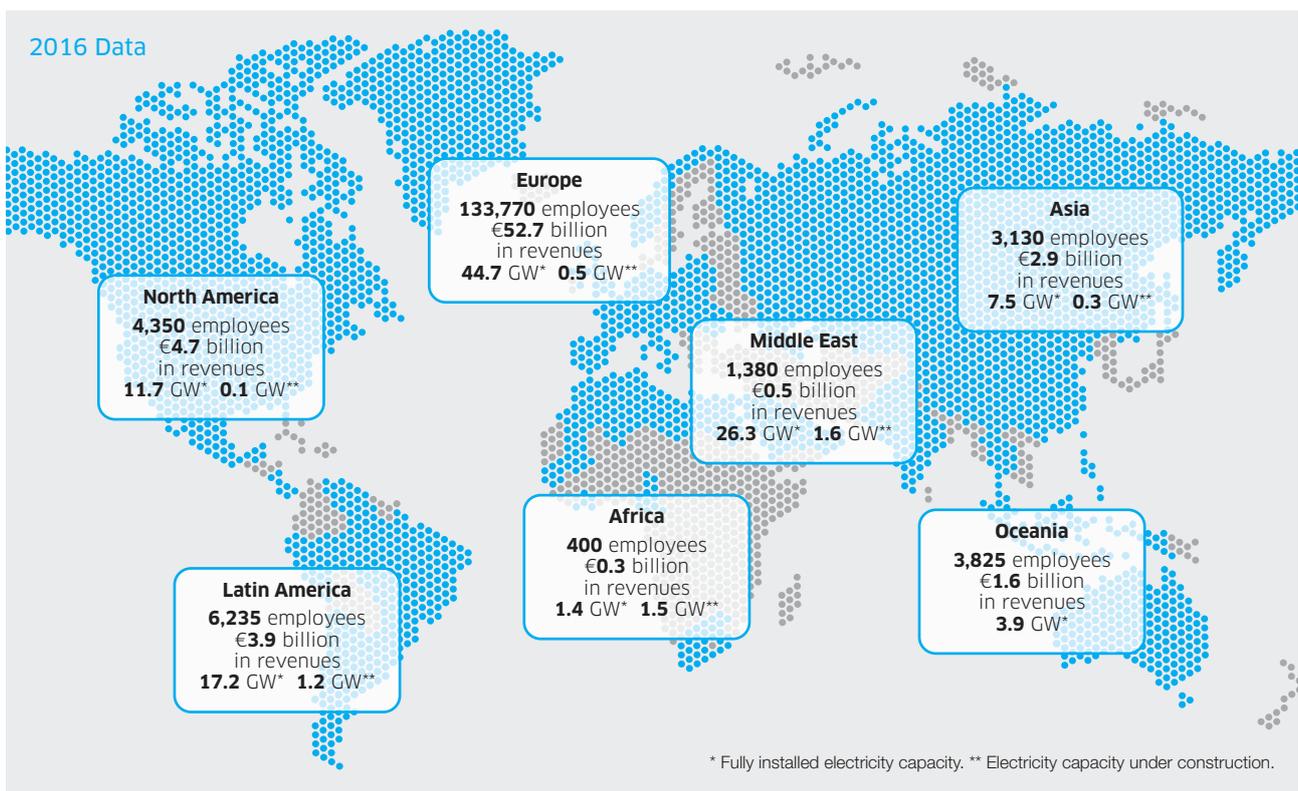
# Group Profile

ENGIE puts responsible growth at the heart of its businesses (electricity, natural gas and energy services) to rise to the major challenges of the energy transition in the direction of a low-carbon economy: access to sustainable energy, alleviating and adapting to climate change and the rational use of resources.

The Group develops effective and innovative solutions for residential and business customers, cities and companies, drawing in particular on its expertise in four key sectors: renewable energies, energy efficiency, the gas chain and digital technologies.

ENGIE has 153,090 employees worldwide and achieved revenues of €66.6 billion in 2016. Listed in Paris and Brussels (ENGI), the Group is represented on the major international indices: CAC 40, BEL 20, DJ Euro Stoxx 50, Euronext 100, FTSE Eurotop 100, MSCI Europe, DJSI World, DJSI Europe, Euronext Vigeo Eiris (World 120, Eurozone 120, Europe 120 et France 20) and Euronext Vigeo Eiris CAC 40 governance.

- Activities in**  
70 countries
- 153,090  
 employees  
 worldwide
- €66.6 billion  
 in revenues  
 in 2016
- €22 billion  
 in investments between  
 2016 and 2018
- 1,100  
 researchers and experts  
 in 11 R&D centers



# Editorial

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## Gérard Mestrallet

Chairman of the Board of Directors

A stylized, handwritten signature in black ink, consisting of several loops and a long, sweeping tail that extends to the right.

### *“An energy revolution with a wealth of challenges and opportunities”*

The energy world is experiencing a far-reaching revolution under the influence of new technologies, increasingly varied consumption patterns as well as more decentralized production methods, underpinned by the growing role of renewable energies.

These profound changes are set to continue, while others are yet to occur. They create as many challenges to be faced as opportunities to be developed for an energy group such as ENGIE that aims to respond to the needs of its customers around the world, as a leading proponent of this energy transition.

The COP22 gathering in Marrakesh focused on the implementation of the Paris Agreement and appropriate funding solutions for combating global warming. Green finance will play a major role in funding this energy transition. ENGIE is committed within the Magritte Group and among the authorities to making sure that the price of CO<sub>2</sub> is high enough to promote low-carbon technologies and energy efficiency in energy production.

The energy sector will face multiple challenges during this transition; however, regardless of the nature of these challenges (whether financial or non-financial), they will ultimately translate into economic performance. To meet these financial and pre-financial challenges, it is now essential to think on a global level, integrating all issues and involving all of our stakeholders.

It is with this in mind that the 2017 Integrated Report is presenting the aim, ambition and strategy of ENGIE over the years ahead in a changing world.



## Isabelle Kocher

Chief Executive Officer

### “ENGIE ahead of its transformation plan”

Around the world, the energy revolution is gaining pace. More than ever, our Group has decided to position itself at the forefront of this major tectonic shift, which is good news for the planet, for humanity and for ENGIE.

From early 2016, we have been speeding up our strategy by taking on an ambitious three-year transformation plan. It aims to align our activities with the business lines of this new energy world we are helping to build, and to prepare ENGIE for tomorrow's world in terms of technological and digital innovations, leadership and management style.

Our Group has taken the lead with this plan and its *24 Business Units*, which truly focus on their customers by taking into account new consumption patterns and their relationship with energy and the environment. Deeply rooted within their regions, our teams reflect the development of the Group by adopting increasingly decentralized, digital and low-carbon solutions.

To prepare for the future, our Group will speed up the development of its core business lines: i.e. production of low-carbon electricity, networks, including gas networks, and integrated solutions for customers. It also intends to develop renewable energies by increasing their capacity to 25% by 2020.

We have achieved more than 50% of our disposals plan and over 75% of our investments plan, and this much faster than expected and on very good conditions. We have more than halved our coal capacities and restated our goal to move away from this most polluting energy.

We are developing many natural gas and infrastructure projects, as well as power generation plants. Natural gas is the lowest carbon fossil fuel. With its environmental benefits and flexible usage and storage, which compensates for the intermittent nature of renewable energies, it will retain a strong role in the global energy landscape. We are also developing renewable gas, which is a new response to the environmental challenges of our century. As for solar energy, supported by organizations such as *Terrawatt Initiative* that was set up to attain the global target of reaching 2.5 TW by 2030, it remains one of the Group's priority development areas.

Please share this 2017 Integrated Report. Our aim is to showcase the performance of our teams who implement an enlightened strategy that creates value for our stakeholders and shareholders, in an energy world undergoing profound change. By focusing on financial and CSR targets that fully comply with the United Nations Sustainable Development Goals, ENGIE will be better able to respond to the financial, environmental and social challenges of both today's and tomorrow's world.

# Customers at the heart of our activities

## Market positions

### Energy Services

1<sup>st</sup>

energy efficiency services provider worldwide

3<sup>rd</sup>

seller of natural gas in Europe

7<sup>th</sup>

electricity supplier in Europe

### Electricity

1<sup>st</sup>

independent electricity producer in the world

### Natural gas/LNG <sup>(1)</sup>

1<sup>st</sup>

seller of gas storage capacity in Europe

2<sup>nd</sup>

gas transmission network in Europe

1<sup>st</sup>

gas distribution network in Europe

5<sup>th</sup>

LNG portfolio in the world

1<sup>st</sup>

importer of LNG in Europe

2<sup>nd</sup>

largest gas terminal operator in Europe

ENGIE is **present throughout the entire energy value chain**: from the production of a low-carbon energy mix to the supply of solutions and services aimed at helping customers manage energy more responsibly and sustainably.

250

urban heating and cooling networks in 13 countries

23 million

residential and business customers

112.7 GW

of installed electricity production capacity

22 GW

of installed renewable energy production capacity, i.e.

5.2 GW

of electricity production capacity under construction

19.5%

of Group facilities

A supply portfolio of

1,082 TWh

319

exploration and/or production licenses in 12 countries

An LNG supply portfolio of

16.4 million

metric tons per annum from 6 countries

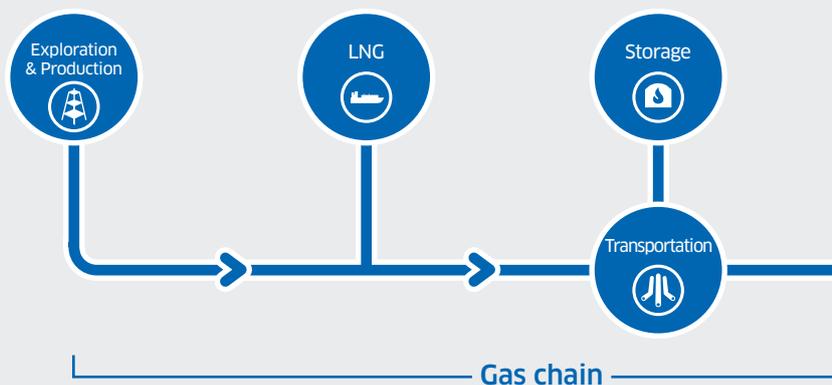
672 Mboe

of proven and probable reserves

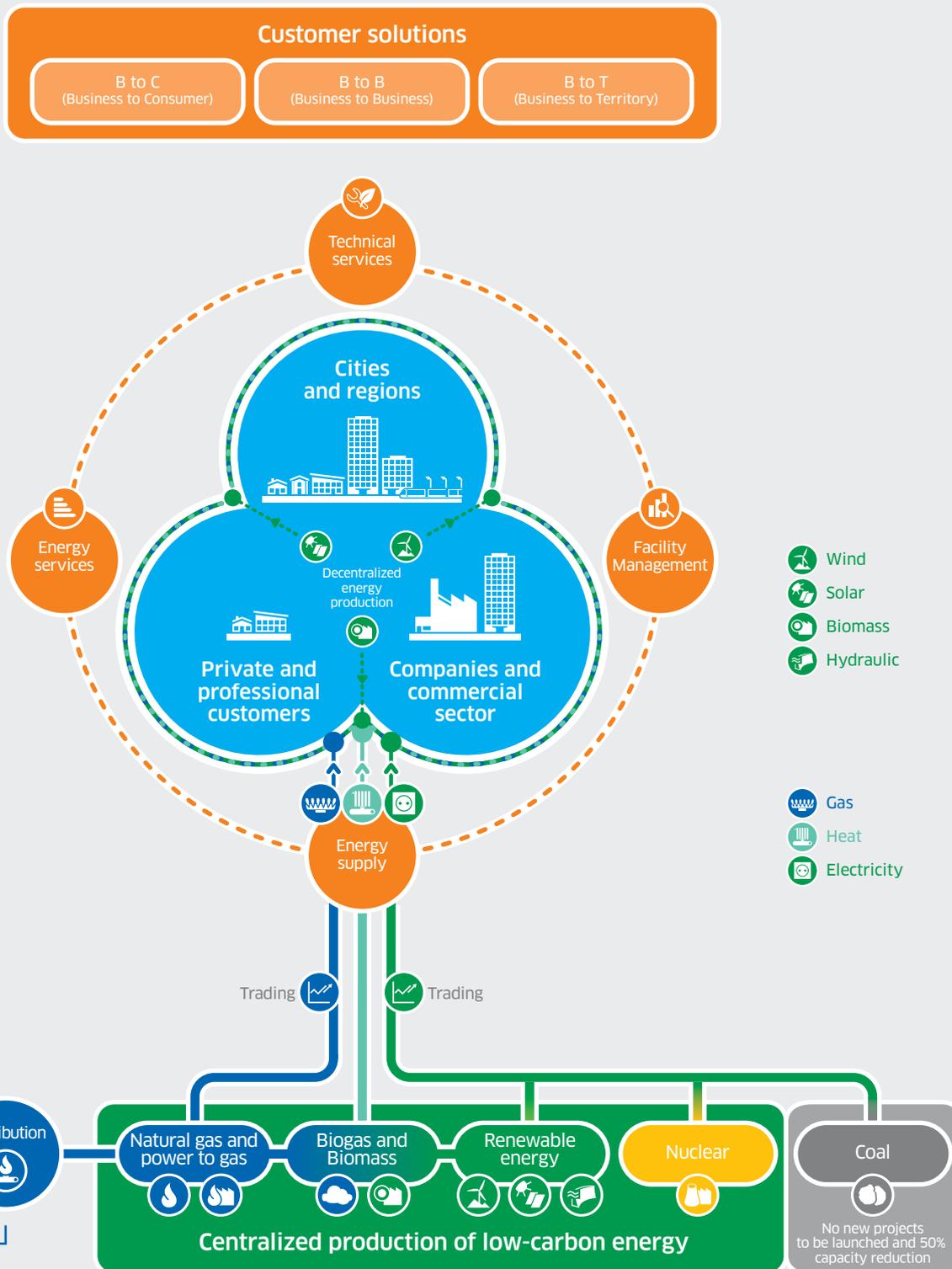
A fleet of

12 gas terminals

including 2 regasification vessels



(1) LNG: Liquefied Natural Gas.





# Our vision of the market

## The energy revolution is gaining momentum and has become global

*A real revolution is taking shape, driven by multiple challenges and resulting in a far-reaching change in production methods and energy consumption patterns.*

### An unprecedented mobilization for the climate

The relationship with energy is undergoing profound change massively with global awareness of the environmental and social challenges involved. **Combating global warming** is now a major challenge for humanity, as witnessed by the historic agreement reached on December 12, 2015 in Paris by 196 countries at the COP21 Summit – and ratified by China and the United States, two countries that account for 50% of the planet's CO<sub>2</sub> emissions. This agreement is a real challenge for governments and operators in the energy sector, as the

intention is to limit global warming to 2°C and reinvent the energy world by using renewable energies and low-carbon transport.

Behind the energy transition, a real energy revolution is taking shape, driven by a transition to a lower carbon, more decentralized and increasingly digitized system, where the intensity of demand will drop as a result of energy-efficiency systems. This represents a **profound transformation in energy production and consumption procedures.**

### Three trends that are shaping the energy revolution



**A market undergoing major change**



**Decarbonization of the energy mix**



**Decentralization of energy production**



**Digitization of energy solutions**

### A new energy world

These changes to the energy landscape foreshadow a **mixed world** – one that is faster and more technological, linking associating major energy infrastructures with small, local structures, and combining renewable energies, energy storage and micro-networks.

The globalization of the energy transition could result in a new geopolitical reality since renewable resources are spread more evenly across the planet than fossil energies. It is represented differently depending on geographical and economic contexts: stable or even lower consumption, energy production overcapacities and strong awareness of climate challenges in

OECD countries<sup>(1)</sup>; increased consumption, need for infrastructure, major concerns relating to local resources and access to energy outside the OECD.

Stepping up the energy transition involves a **shift in the value of the sector** to more environmentally-friendly activities and services that are closer to the end customer. It also creates a need to provide **answers appropriate to each region** based on a good grasp of local situations and resources.

(1) OECD: Organization for Economic Cooperation and Development.

**Decarbonization of the energy mix**

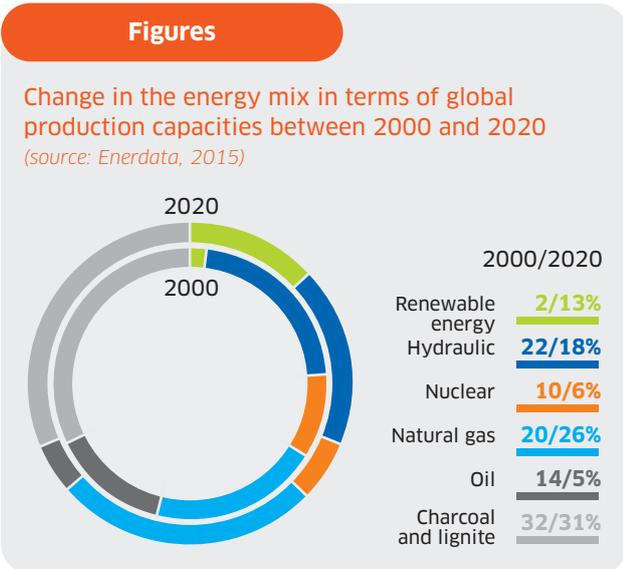
**Background**

The momentum of investments has reversed in favor of low-carbon assets. In 2016, more than 90% of new electricity capacity installed in Europe was renewable. Changing technology and extra investments mean that **production costs are becoming increasingly competitive**. Consequently, solar and wind installation costs have decreased significantly – in fact, over the last ten years the cost of solar power has dropped tenfold.

**Growth drivers for ENGIE**

The International Energy Agency (IEA) projects a **steady increase** in renewable capacities worldwide between 2014 and 2020 (+5.8% per year).

Gas, which will become increasingly greener with the development of biogas and hydrogen, is set to play a key role by allowing an effective management of the problem of the intermittency of renewable production while emitting significantly less CO<sub>2</sub> and fewer particles than competing energy sources.



**Decentralization of energy production**

**Background**

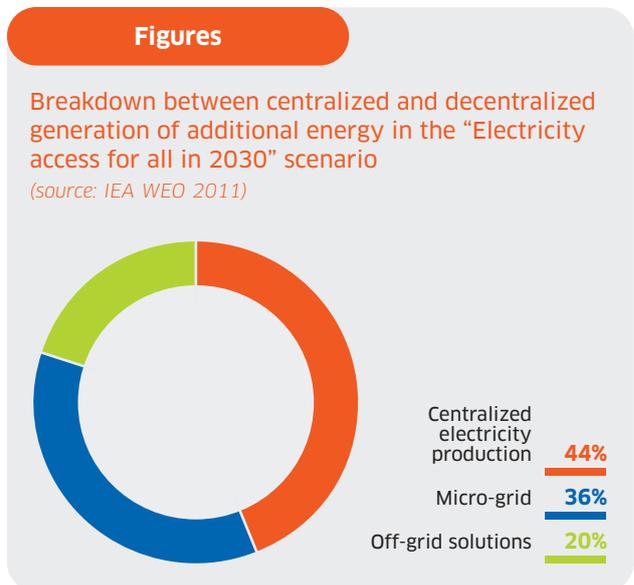
For the last few decades, the operation of energy systems has relied on large electricity production plants and transport and distribution networks. From now on, some of the energy needs will also be covered by **production at the consumption site** (individual housing, companies, industrial sites, local authorities).

**Growth drivers for ENGIE**

The revolution of storage and production technologies for renewable energies facilitates the development of a new generation of infrastructure that is smaller and more competitive and decentralized, such as photovoltaic panels or fuel cells. These technological breakthroughs are changing **business models** and require infrastructure and offerings to be adapted to the coexistence of centralized and decentralized production systems.

Individual consumers, both private and industrial, may become energy producers. In this context, electricity storage systems also need to be developed, to overcome the problems of intermittency encountered when producing renewable energy.

The emergence of **energy management platforms** mean that energy can be provided at a local level. Investments in local smart networks are required to attain this goal.





### Digitization of energy solutions

#### Background

With the widespread rollout of digitization, the energy sector is facing an **unprecedented technological upheaval**. Digital technologies are completely changing the way we use things, particularly energy. They are changing interactions between people and their relationships with objects.

#### Growth drivers for ENGIE

The use of digital acts is an accelerator of solutions. It will allow the **development of new offers** by proposing a range of energy services in a one-stop shop: diagnosis and installation of equipment, production and storage of renewable energies, and even the financing and monitoring of consumption.

Digital will be the driver for **operational excellence** through the remote monitoring and optimization of equipment and predictive maintenance over the Internet of Things to capture in real time all data relating to these systems.

#### Figures

The global market in connected objects in 2020  
(source: *Usine Digitale*, January 2015)

**50 billion**  
objects will be connected,  
representing 15% of all objects

This market should reach  
**\$7,100 billion**

Expenditure will grow  
**3 times faster**  
than for information technologies

See also

[engie.com](http://engie.com)

Publication "A world of energy 2016"



## Expectations of our customers and stakeholders

### An energy transition co-constructed with the regions

*The world is changing and our relationship with energy has evolved. Our customers – residential, business, local authorities – are changing their use of energy. They are becoming aware of the urgency and significance of environmental and social challenges. “Consum’actors”, even “prosumers”, are taking an increasingly responsible and proactive approach – sometimes even a professional approach – in terms of their energy consumption. ENGIE is strengthening its local approach to propose solutions tailored to the needs of the regions in order to succeed in the energy transition.*

### Engaging with our stakeholders

ENGIE has set itself the goal of ensuring that 100% of its industrial activities are covered by a stakeholder dialogue process by 2020. More generally, this resolution is part of a **necessary corporate transition process** taking place within large companies. This transition is backed by the gradual shifting of international recommendations (ISO 26 000, AA 1000, etc.) towards increasingly binding regulations, such as the 2014 European Directive on the publication of non-financial information by large companies and, in France, the law on the duty of care of companies that came into force in March 2017.

Dialogue brings real added value to the company and creates new commercial opportunities that meet both the company's business objectives and sustainable development goals, while also aligning them to customers' expectations.

Using existing procedures, the Group has started to **support its business units** in further expanding and structuring their practices, from setting up of dialogue strategies to their operational deployment. The aim is to optimize performance and increase value creation while improving engagement with

stakeholders throughout the Group's activity cycle. The methods used are:

- **raising the awareness** of decision-makers to the concepts and benefits that dialogue offers to business;
- **workshops** for all employees on Stakeholder Engagement adapted to the context, the needs and constraints on the ground, in order to professionalize stakeholder engagement across all business lines and processes;
- developing dialogue **action plans** based on mapping and analyses of stakeholders for a specific business line or a project in the region where it is set up (particularly for responses to calls to tender);
- helping conduct **corporate and environmental feasibility analyses** taking into account various international non-financial criteria in the due diligence processes;
- improving **relations and transfers of knowledge** between operators of the various Group entities by setting up communities of practices to identify and capitalize on good practices.

### Customers at the heart of a new business model

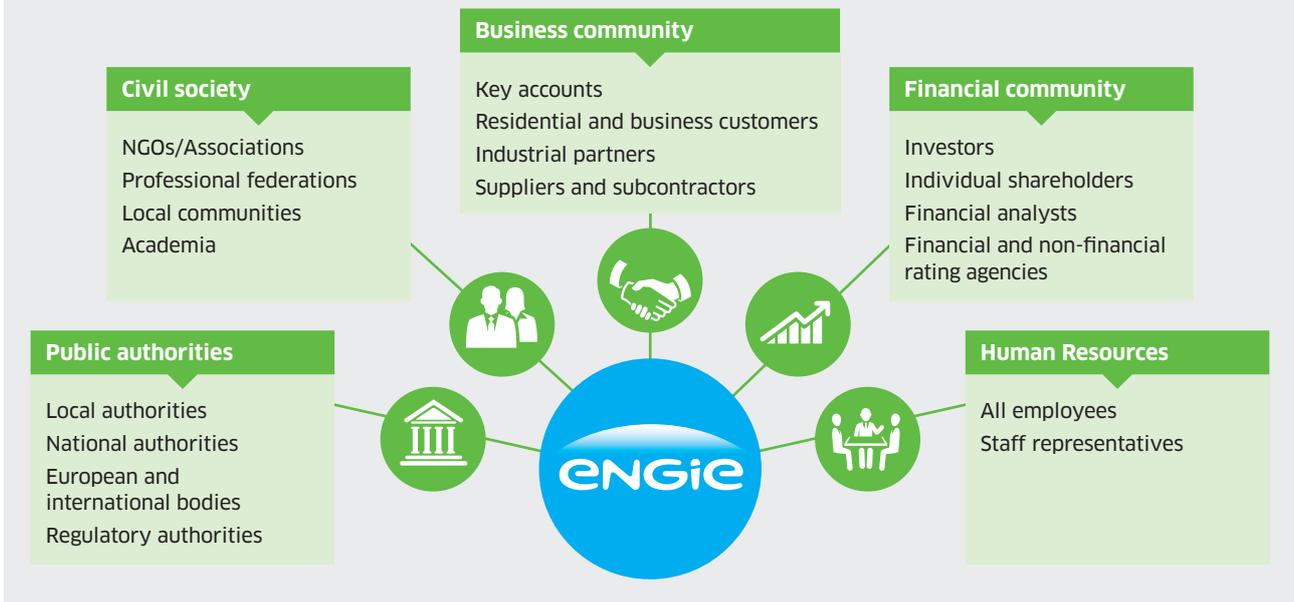
The profile and expectations of consumers – and therefore the relationship with customers – are undergoing a complete transformation in all economic sectors. **Customers play an active role and, in expectation of personalized and innovative services**, want to control their future and their consumption within a participatory strategy. Faced with climate change and the increasing scarcity of resources, “consum’actors” are looking for ways of saving money and are expecting personalized solutions to reduce their environmental footprint, sometimes even becoming producers of green energy themselves. They are therefore looking for energy products and services in keeping with their lifestyle and values.

With the gradual distribution of investments between centralized infrastructure (heavily regulated by states) and decentralized infrastructure (managed by local authorities, manufacturers and

even private individuals), ENGIE is committed to **involving its customers** by raising their awareness and working with them to achieve the energy transition.

At a time when new operators from the digital sector are attempting to enter the market, it is essential that ENGIE places its customers at the heart of its business model, by redefining its strategic position: shifting from its traditional role as an energy supplier to that of a **provider of integrated solutions** and, more broadly, innovative services in the areas of convenience and energy management/production. More than security of supply, today the added value of ENGIE's offering is structured around the customer experience, and ENGIE's ability to help them control their energy consumption and price competitiveness. ENGIE should also help its customers face the challenges of the growth and increasing complexity of the urban phenomenon.

### Main ENGIE stakeholders



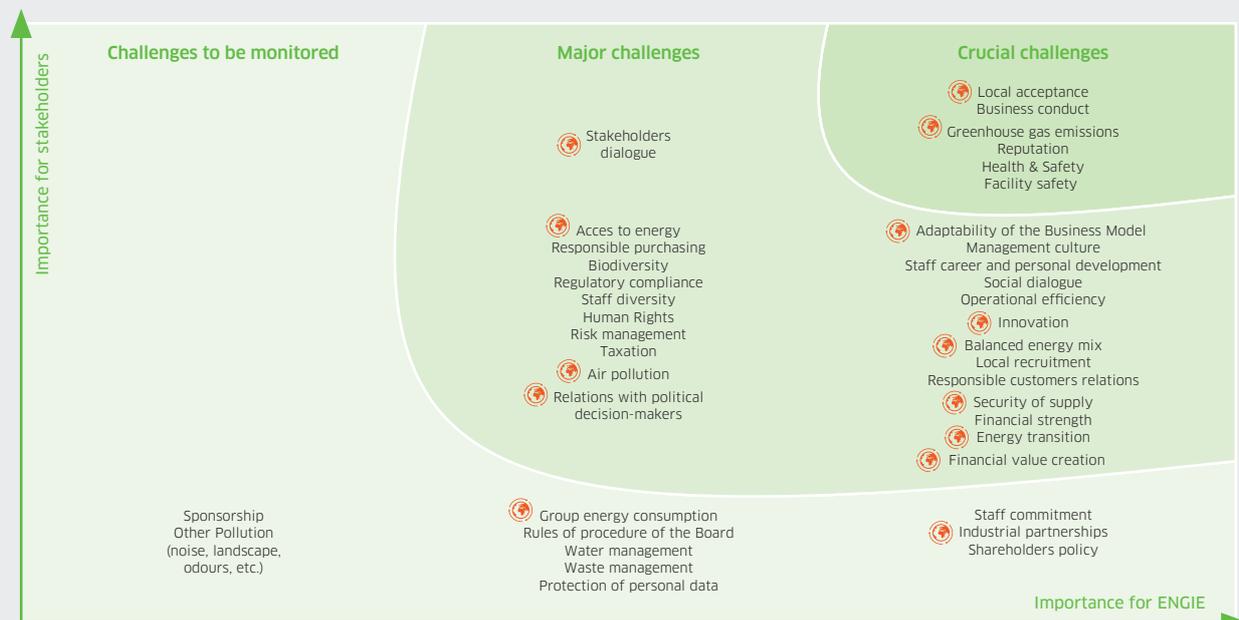
### Local presence

The company's ability to **connect with its local ecosystem** in all the regions where it operates is a fundamental competitive advantage. As a lever of acceptability for the Group's activities, **long-term commitment to stakeholders** is essential for supporting the energy transition. This commitment is expressed through the close attention paid to the company's diverse range of partners and the jointly constructed solutions that meet their expectations. In fact, not only is the company responsible for providing a technical response to its customers, but it should

also ensure that the beneficiaries and all stakeholders adopt and accept the services offered.

The **map of challenges** (materiality matrix) identifies the challenges deemed to be priorities by ENGIE and its stakeholders. It has shown strong, convergent expectations concerning ENGIE's ambitions about their implementation in terms of energy transition.

### Map of ENGIE's challenges and its stakeholders (materiality matrix)



Challenges linked to the energal revolution

See also

[engie.com](http://engie.com)

Publication "Materiality Matrix"

## Long-term social and environmental partnerships

In order to strengthen dialogue with stakeholders on an ongoing basis, ENGIE maintains a **strong relationship with civil society representatives**.

The Group relies on various partnerships, particularly the one with GRET – which was formed through the FARIM project (improved cooking stoves in Mauritania) – with Emmaüs and also with ONE Foundation (Ocean, Nature and the Environment) in the context of **developing new methods of dialogue** with civil society representatives, particularly in terms of renewable marine energies.

In terms of the **protection of biodiversity**, since 2008 the Group has based its approach on partnerships with France Nature Environnement – a federation of 3,000 associations for nature conservation and environmental protection – and the French Committee of the IUCN (International Union for the Conservation of Nature).

ENGIE also promotes NGOs – internal and external to the Group – that work in the area of **providing access to energy**, in particular the “ENGIE Volunteers Program”. Similarly, the Group defines and adopts actions to combat energy poverty, through its partnership with *Observatoire National de la Précarité Énergétique* (National Fuel Poverty Monitoring Center).

### “Rely on CSR to gain customers and markets”

The brochure “Rely on CSR to gain customers and markets” is available to the teams at ENGIE and it shows how CSR can be both a differentiating factor as well as a factor for performance.

### 230 projects supported by the ENGIE Foundation

The ENGIE Foundation funds projects organized by general-interest associations in the areas of:

- child and youth integration through education, employment, sport, culture and the environment;
- access to energy for all and emergency aid.

In this way, the “Schools, Lights & Rights” program – which distributes solar lights in particular – gave access to energy, education and integration to 5,000 needy children in seven countries.

## Solutions tailored to each type of customer

Despite the fact that the world of energy is changing, new needs are emerging on a daily basis for ENGIE’s customers, whether they are individuals, professionals, companies or businesses, or are located in cities or regions. Increasingly **aware of the major challenges involved in the energy transition**, they wish to take part, jointly determine and design and often even jointly manage the solutions being developed.

In order to be better able to respond to their expectations and anticipate specific needs, ENGIE has developed **three customer approaches**, with the aim of offering – for each of them – appropriate, innovative, tailored and integrated solutions based on its four core activities: i.e. technical services, energy services, *facility management* and the provision of energy.

### Digitizing the customer approach

As a real driver for change, ENGIE is making **digitization a key part of its transformation plan**. From the design to the rollout of solutions, the aim is to rethink the **customer experience** using new opportunities offered by the digital age and create new offers and innovative services.

For this reason, the Group has implemented an action plan, with the support of Fjord, Accenture’s design and innovation studio, to create breakthrough digital services – ones likely to revolutionize the market. This collaboration is speeding up the transformation of traditional marketing services (such as the supply of electricity and gas) and is designing new services to allow the company to stand out and seize new opportunities for geographical expansion.

### Solutions for companies

In over thirty countries worldwide, the **ENGIE B to B** (*Business to Business*) units help customers to optimize their energy choices, by co-constructing integrated tailored solutions for energy efficiency. B to B activities cover the selling of energy, engineering studies and installation work, energy-efficiency services and integrated services, in response to the specific expectations of industrial and major infrastructure customers, public and private tertiary sector companies and social housing providers.

The major areas of ENGIE’s strategy in terms of its B to B customers are:

- a strengthening of its **leadership positions** in Europe;
- **reinforced deployment internationally** based on the expertise gained on its traditional European markets;
- a fast-paced program to develop **innovative offers, particularly digital solutions**, in the context of the digital transformation of companies;
- the implementation of **close and long-term partnerships** with more than 80 major key accounts worldwide, but also with local operators.

In 2016, this program resulted in a number of specific projects such as the Energy Performance Contract [*Contrat de Performance Énergétique (CPE)*] agreed with 140 schools in the City of Paris, in partnership with Artelia Bâtiment & Industrie, the creation of the first Performance Contract – CPU Building®, and ENGIE’s acquiring holdings in the North American company Green Change Networks.

**A flagship facility management contract: Athens cultural center**



To improve the performance and efficiency of buildings, in January 2017, ENGIE Hellas, a fully owned subsidiary of ENGIE, signed a facility management contract for the new Stavros Niarchos Foundation Cultural Center (SNFCC) in Athens. The contract includes a large number of services: technical maintenance, energy services, security, cleaning and also waste management and landscaping services. This partnership will ensure the highest levels of energy efficiency at the cultural center, the buildings of which have been awarded a platinum LEED certification – the highest possible rating for environmentally-friendly and sustainable buildings. Through this contract – which should help create 250 new jobs, including jobs for subcontractors – ENGIE will offer the Greek cultural center the benefit of its considerable track record in facility management throughout the world at some of the most renowned cultural centers, namely: Milan’s La Scala in Italy, the Paris Opera and Sydney Opera House in Australia.

**80**  
key accounts monitored by the Group’s management bodies

**Solutions for individuals and professionals**

In a dozen or so countries, the ENGIE B to C (*Business to Consumers*) units help their customers, both residential and business, to be better consumers and save energy. They therefore respond to their main concerns: reducing bills, improving comfort and reducing the environmental impact. ENGIE’s major areas of strategy are structured around:

- **growth of B to C activities**, by developing the portfolio of customers and setting up in new regions, particularly in emerging countries;
- development, in close conjunction with the Business units, of **integrated and innovative solutions** focusing on the provision of energy (gas/electricity) as well as services, based on the digital revolution;
- Support for **improving operational and commercial performance** of the Business units, while guaranteeing excellence in the customer relationship and adaptation to a local context.

ENGIE offers a **wide range of solutions** around a global ecosystem. Alongside the long-standing “traditional” solutions in the area of energy (maintenance, energy-efficiency work, etc.), the Group is accelerating the development of **innovative services** by using partnerships with recognized technological operators (Nest, Netatmo, Tesla, etc.) for the local and decentralized production of energy (photovoltaic solutions, batteries, solar communities); **smart services** focusing on the connected home to improve comfort (combined with connected energy/thermostat offers to monitor and control energy consumption, predictive maintenance services, management of photovoltaic production management, management of connected objects); and digital experiences (e-commerce and e-services platforms, websites such as manouvellechaudiere.fr in France, etc.).

**Rollout of renewable B to C energy in countries where ENGIE is established**



ENGIE’s offers wherever the Group is established reflect the expectations expressed by our customers to limit their impact on the environment: in many countries, green electricity offers are made to customers (Germany, Italy, Belgium, USA, etc.); in France, the “*Elec Verte*” [green electricity] offer, marketed since 2016, is made to all new residential and business customers; in the Netherlands, the “*Opgewekt*” offer allows customers to choose their source of energy (wind, water, solar) and the place where it is produced (local/non-local). At the same time, new individual decentralized solutions are gradually being rolled out: new photovoltaic/battery panels in Australia, solar community in the United States, a self-consumption offer (“MyPower”) in France and the installation of mini-networks and solar kits in some African countries.

**81%**  
customer satisfaction rate in 2016

**23**  
million contracts in the portfolio

**Renewal in 2016 for a period of 3 years of the CSR quality guarantee for Private and Professional Contracts for B to C business units in France**



This quality guarantee<sup>(1)</sup> recognizes the commitment of companies to social responsibility with respect to their service providers and employees, and highlights their aim to strive for excellence in customer relations.

(1) Under the aegis the French Ministry of Labor, Employment and Social Cohesion, the French Association for Customer Relations (AFRC) and the Syndicat des Professionnels des Centres de Contacts (SP2C) (association of professional contact centers), in partnership with the main national unions and the DGEFP (Directorate for Labor, Employment and Training).

## Decentralized solutions for cities and regions

Energy transition is truly local. Cities – covering 2% of the land area but accounting for 75% of global energy consumption – are facing different problems to those encountered on islands, in the countryside or in other regions. However, the basic challenges are the same: how do you respond to complex need using integrated, smart and local solutions?

For ENGIE, B to T (*Business to Territories*) covers four offer profiles:

- **urban heating and cooling networks:** we are already operating over 250 low-carbon urban heating and cooling networks worldwide. It is a key driver in the decarbonization of cities and in improving air quality;
- **decentralized solutions:** we design, install and operate local decentralized and renewable electricity production solutions, in islands, villages and also in developing countries;
- **mobility:** as an engaged operator, we design and produce transportation infrastructures equipped with the most advanced technologies by connecting transport methods, offering simple and practical tools to facilitate travel, and encouraging the use of more environmentally-friendly fuels;
- finally, our **pivotal partnerships with cities** worldwide – in the United Kingdom, France, Brazil, etc. – enable us to improve public lighting, help the regions to optimize their resources by steering their “back-office”, or by rolling out ambitious energy-efficiency programs.

In all these activities, from town planning to the construction and maintenance of infrastructure, we constantly strive to innovate **to make cities smarter**. ENGIE considers that cities and regions are “smart” when they use digital tools to become more effective, safer, more sustainable and more attractive. This is why we incorporate the generalization, analysis and visualization of data in our infrastructure activities and services, as well as in the new digital services ENGIE is developing.

**250**  
heating and cooling  
networks managed  
by ENGIE

## Installation of 3,000 charging terminals

To make it easier to charge electrical vehicles and expand their use in cities, Rotterdam has entrusted ENGIE and EV Box, a specialist in charging infrastructure for electrical vehicles (and one of Group’s recent acquisitions), with the installation of a network of around 3,000 terminals. The two companies also provide the management, maintenance and operation of these terminals. This installation is carried out in two phases. A preliminary network of 1,000 terminals has already been rolled out since 2014. An additional 1,800 terminals will gradually be installed by 2020. These terminals are all EV Box models and can be recognized by the LEDs surrounding the charging lead.

## Acquisition of SIRADEL

SIRADEL, an internationally renowned French operator in the field of 3D modelling of cities and a software publisher for the roll-out of telecommunications networks and Smart Cities, is optimizing the radio “connectivity” between inhabitants, objects and infrastructures, and provides town-planning solutions for the most collaborative and sustainable cities. These tools shed light on the decision-making in many areas: mobility, production of renewable energy, security, etc. and SIRADEL has produced 3D models using geo-spatial data for several thousands of cities.

## Strategic strengthening of ENGIE activities in the United States

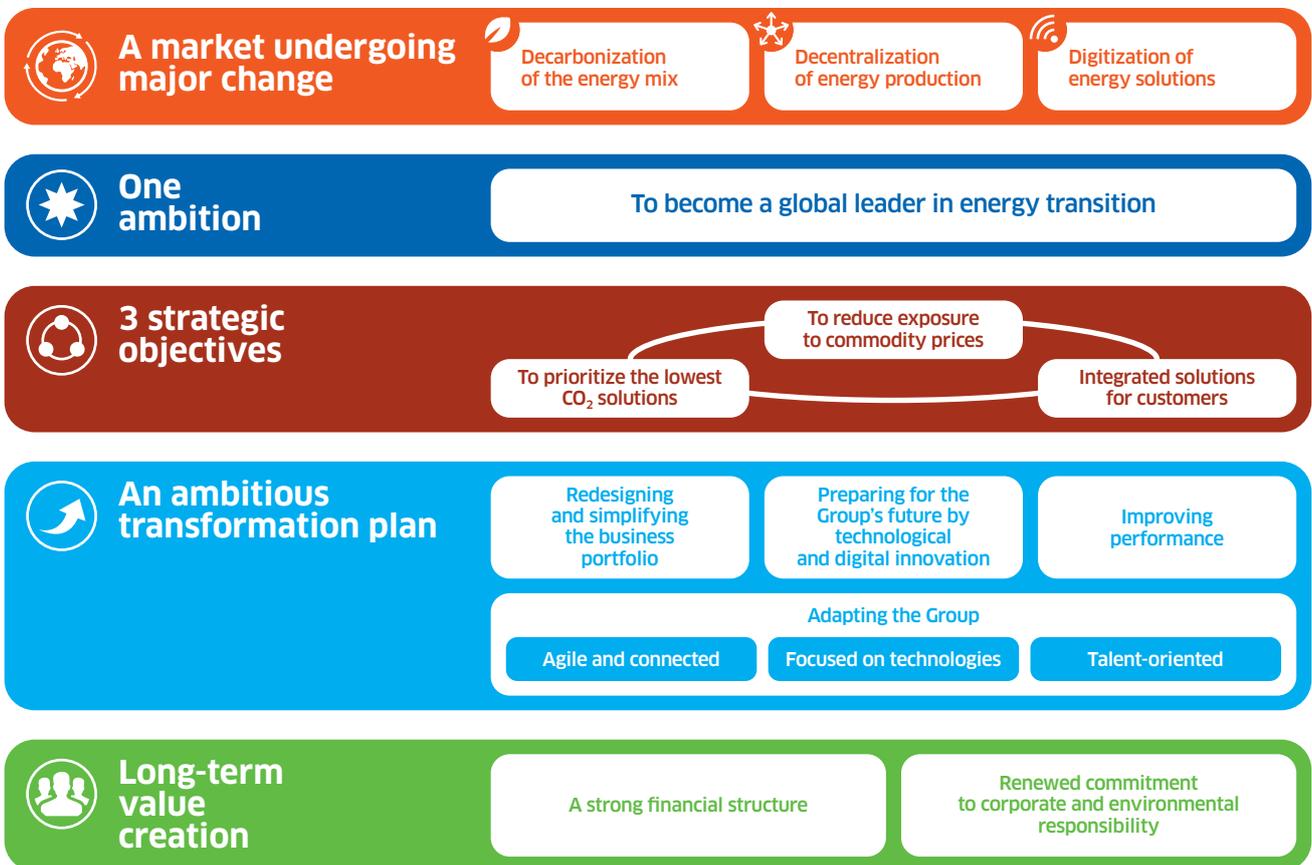
ENGIE acquired OpTerra Energy Services, which is headquartered in Oakland, California, and helps thousands of customers control their energy consumption. OpTerra Energy Services optimizes energy performance in schools, colleges, universities, municipalities, commercial and industrial companies in the healthcare and telecommunications sector by offering a range of technology solutions ranging from energy efficiency to renewable energies, water preservation systems and even micro-grids. This acquisition highlights ENGIE’s objective of offering its customers in the United States innovative and differentiating energy services.

# 3 Our strategy

## ENGIE, a global leader in energy transition

ENGIE has decided to respond to the climate challenge, to these profound changes and to the tensions that are disrupting the energy system by acting as the driving force behind this revolution and to take the best possible advantage of it. The Group is making good progress with its three-year transformation plan, which runs from 2016 to 2018.

### ENGIE's strategy to become a global energy transition leader



This pictogram, which represents the Group's strategic ambitions, will be reproduced throughout this report in order to display the link between the information presented and the components of ENGIE's strategy.

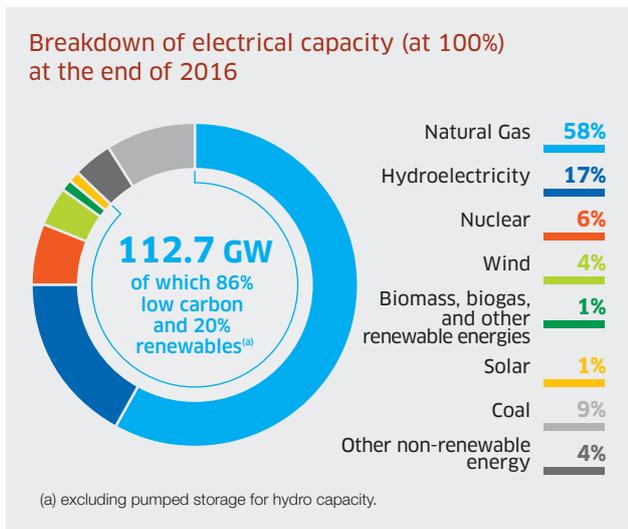
## One ambition

Faced with a fast-changing energy market that is shifting towards a more environmentally-friendly production model, ENGIE intends to be a **global leader in energy transition**. To achieve this aim, the Group has established a three-year transformation plan, which is currently well underway.

## 3 strategic objectives

The Group is focusing its new developments on **three growth drivers**, around which it structures its strategic objectives: low-carbon activities, integrated solutions for its customers, and activities not exposed to commodity prices.

By the end of 2018, **low-carbon activities** will represent more than 90% of Group EBITDA.



In an increasingly decentralized world, the Group wishes to strengthen its downstream activities on the value chain. The contribution of **customer solutions** to EBITDA will increase by over 50% by 2018.

Finally, in an environment that will continue to be volatile, the Group is going to turn **to activities that are not as exposed to wholesale market prices** to ensure more stable performance. By the end of 2018, the proportion of regulated activities, or activities under contract to EBITDA, will represent more than 85%.

See also IR 2017 *Objectives and monitoring of the three strategic objectives: p. 19*  
*Actions and results 2016: p. 20 and 21*

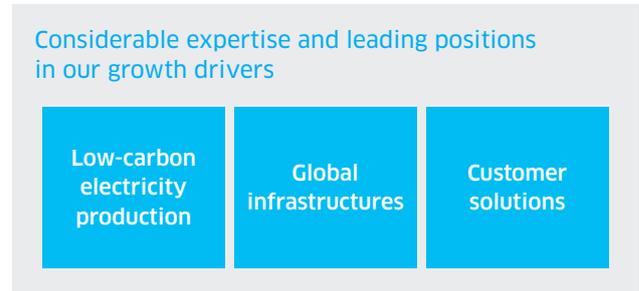
## An ambitious transformation plan

To step up its strategic shift, adapt its business portfolio to its long-term vision and implement its development work, ENGIE launched an ambitious three-year transformation plan in 2016.

The aim of the **first pillar** of this plan is to redesign and simplify the portfolio. It is based on:

- a €15-billion, three-year **asset rotation program** to reduce the Group's exposure to activities that are sensitive to commodity prices through disposals and/or site closures;
- a €16-billion, three-year **growth investment program** (excluding maintenance), including a €1-billion investment in innovation and digital.

This investment program will result in the development of three business lines which will prioritize the growth of the Group: low-carbon electricity production, particularly from gas and renewable energies, global infrastructures, particularly gas, and integrated solutions for customers.



The **second pillar** consists of investing in a new generation of solutions in order to improve the Group's growth potential beyond 2018. To this end, the aim will be to prepare for the future according to three levers: investment in innovation, structuring of a positive internal ecosystem and creation of a strategic partnership portfolio with the main global technological players. ENGIE plans to invest €1 billion in emerging technologies – particularly in decentralized technologies – and in digital technologies between now until 2018.

ENGIE's operational efficiency and competitiveness are core components of the **third pillar** of the transformation plan. The aim of Lean 2018, the new performance program, is to obtain recurring OPEX savings with a net aggregate impact of €1.2 billion on EBITDA by the end of 2018.

Overall, this plan is based on a profound internal transformation of the Group, its technology, culture and operating methods. This is the purpose of the **fourth and final pillar** of the transformation plan. To turn ENGIE into a Group that is more agile and more connected, it needs to attract tomorrow's talents and create an environment conducive to the development of employees in this new context.

See also

IR 2017

*Objectives and monitoring of the transformation plan indicators: p. 19  
Actions and results 2016: p. 22 to 27*



## Long-term value creation

ENGIE is targeting **three value creation levers** with its transformation plan. First of all, ENGIE intends to re-design and simplify its activity portfolio and therefore improve its risk profile. At the same time, the Group will improve profitability and its return on capital invested. It will optimize its growth potential through investments in emerging and digital technologies.

Despite a challenging gas and electricity market, which will continue to affect its results – ENGIE is projecting that **recurring attributable net income will be resilient** in 2017 compared with 2016 at between €2.4 and 2.6 billion<sup>(1)</sup>. For the 2017-2018 period, the Group is also projecting a net debt/EBITDA ratio net not exceeding 2.5 and maintaining an “A” credit rating.

During the 2016-2018 transformation phase, ENGIE wishes to provide shareholders with visibility by implementing **a clear dividend policy**. The Group has thus confirmed the distribution of a dividend of €1 per share and per year with respect to the 2016 results. It has undertaken to pay a dividend of €0.70 per share per year for 2017 and 2018 results, payable in cash.

See also

IR 2017

*Objectives and monitoring of financial indicators: p. 19  
Actions and results 2016: p. 27 to 28*

## Renewed ambition with respect to CSR

The Group's transformation is based on a **renewed determination with respect to corporate social responsibility (CSR)**, in order to share the value created with its stakeholders. ENGIE has set itself six CSR objectives to be achieved by 2020 – objectives that are closely linked to the Group's strategy and transformation plan. The CSR functional line has been structured to adapt to the reorganization rolled out on January 1, 2016, and monitor the achievement of objectives with a direct impact on the Group's reputation and stakeholder trust.

CSR governance involves three departments: the Environmental and Societal Responsibility Department, which oversees a network of 24 CSR Directors in BUs and the *Rassembleurs d'Énergies* (environmental and social impact fund), the Ethics and Compliance Department and the Human Resources Department for areas involved with health and safety and social responsibility.

The Group must monitor its CSR in the same way as it does its technical and financial performance. CSR has evolved from a formal legal risk management system to one that takes the sustainability of activities into account. ENGIE strives to integrate CSR in terms of competitiveness to stand out from its competitors and maximize the overall value of the company.

The remit of the Group's CSR is to contribute actively to:

- developing **responsible offers** in line with its customers' expectations;
- improving **relationships with its stakeholders** to deliver sustainable projects and boost its integration in the regions;
- **controlling** operational, environmental, regulatory and legal risks and its reputation across the entire value chain, including supply;
- **giving a sense of direction** through the commitment of its employees and attracting new talent;
- improving its **processes** and optimizing overall costs; and
- facilitating access to **financing** by providing regular information to its stakeholders (including customers, suppliers, NGOs, investors and banks).

See also

IR 2017

*Objectives and monitoring of CSR indicators: p. 19  
Actions and results 2016: p. 29 to 34*

(1) This objective is based on assumptions of average temperatures in France, the full carry-over of supply costs on regulated gas prices in France, the absence of a substantial change in regulations and the macro-economic environment, commodity price assumptions based on market conditions at the end of December 2016 for the unhedged portion of production and the following average exchange rates for 2017: €/£: 1.07; €/BRL: 3.54.

# 4 Our organization

## A more agile Group, resolutely connected to its customers

To take up the challenge of the global energy revolution and to be as close as possible to its customers, on January 1, 2016 ENGIE implemented a simplified organization based on a local, decentralized approach. The Group is made up of 24 Business Units (BUs) and 5 business lines (métiers) brought together around a single brand: ENGIE.

### Local and regional network

In a constantly changing world, connection to the ecosystem is a critical challenge. By interacting with stakeholders, the Group understands and supports the local challenges of energy transition.

ENGIE's new structure is a **simplified organization**, the center of gravity of which is closer to its customers and regions, with shorter reporting lines to promote local roots and the synergy of its business lines. It is now adapted to the challenges of a world of decentralized energy.

The Group is now structured into **24 operational entities called Business Units (BUs)**, mostly created at the level of a country or group of countries depending on the density of activities identified in the geographical areas concerned. The BUs bring together the Group's activities to meet customer expectations in a given area. **Five business lines, or "métiers"**,

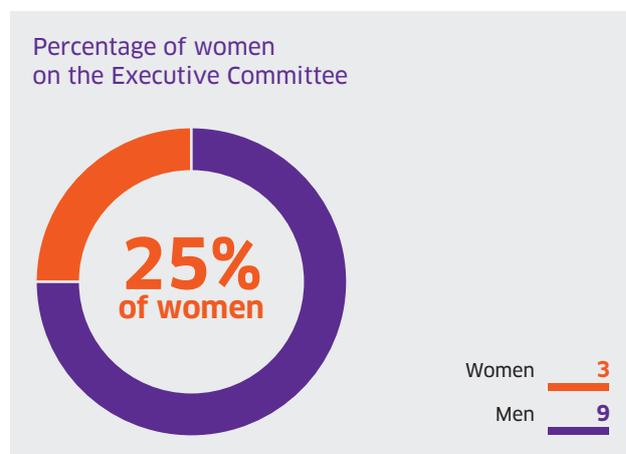
**complete this geographical organization.** They are responsible for expertise in each area of activity and for supporting the development of BUs.

**Corporate** (general management, operational and functional departments of the Group) is the guarantor of collective interest and consistency within the Group. It needs to be more agile, simplify its processes and continue cutting costs.

To this end, an internal procedure was launched to conduct an organizational diagnosis. This procedure is based on a participatory approach using workshops that employees attend on a voluntary basis and it forms part of the European Social Agreement signed in April 2016. It should result in a new organizational structure in 2018 to be approved by the management and is communicated to staff representatives via an information/consultation procedure.

### An Executive Committee close to the regions

The Executive Committee is made up of twelve members whose term of office was renewed in 2016. Seven Deputy Chief Executive Officers oversee one or more *Business units*, which allows them to remain close to the ground and close to customers (see Chapter 7 "Composition of the Executive Committee").



New organization of ENGIE since January 1, 2016

24 BUs as close as possible to customers



Including 8 BUs in France



And 5 global BUs



Accompanied by 5 business lines with a structuring impact



(1) Independent companies.

# 5 Our performance 2016 results in line with the Group's objectives

## Objectives and monitoring indicators

To step up its strategy, ENGIE has set itself new operational, financial and non-financial objectives, along with two new objectives for 2020: B to C customer satisfaction and the implementation of an integrated dialogue approach with stakeholders at all its industrial sites. All these objectives mean that the Group will achieve the 17 Sustainable Development Goals (SDG) set by the UN by 2030. The inserts presented in this chapter highlight the value created by ENGIE and the contribution of the Group to SDGs, in terms of its objectives.

Strategy	KPI	Objectives	2016 results
 <b>3 strategic objectives</b>			
Prioritizing the most low-carbon solutions	Share of low-carbon activities <sup>(1)</sup> in Group EBITDA	> 90% in 2018	81%
Integrated solutions for customers	Share of integrated solutions for customers in Group EBITDA	50% between 2016 and 2018	+2%
Reducing exposure to commodity prices	Share of regulated or contracted activities <sup>(2)</sup> in Group EBITDA	> 85% in 2018	75%
 <b>An ambitious transformation plan</b>			
Redesigning and simplifying the business portfolio	Growth investment program	€16 bn between 2016 and 2018	€12 bn <sup>(3)</sup>
	Portfolio rotation program	€15 bn (net debt impact) between 2016 and 2018	€8 bn <sup>(4)</sup>
Preparing for the Group's future by technological and digital innovation	Expenditure in emerging and digital technologies	€1.5 bn between 2016 and 2018	€0.5 bn
Improving performance	Efficiency program (Lean 2018) aimed at making recurring savings on operating expenses	Net aggregate impact of €1.2 bn on EBITDA by 2018	€0.53 bn
Adapting the Group	% of women in the Group workforce	25% in 2020	21.9%
	Internal occupational accident frequency rate	≤ 3 by 2020	3.6
 <b>Long-term value creation</b>			
A strong financial structure	Net recurring income, Group share	€2.4 to 2.7 bn <sup>(5)</sup> in 2016	€2.5 bn
	Net debt/EBITDA ratio	≤ 2.5 x between 2016 and 2018	2.3 x
	Financial rating	Category "A" for the period 2016-2018	A-/A2
	Dividends (per share and per year, in cash)	2015 and 2016: €1 2017 and 2018: €0.7	€1
Renewed commitment to corporate and environmental responsibility	Satisfaction rate of B to C customers	≥ 85% by 2020	81%
	Percentage of industrial activities covered by an appropriate dialogue and consultation mechanism	100% in 2020	20%
	Share of renewable energy in the production mix	25% in 2020	19.5%
	CO <sub>2</sub> emission reduction rate for power generation compared with 2012	-20% in 2020 <sup>(6)</sup>	-11.3%

(1) Generation of low-carbon electricity, gas and LNG infrastructures, downstream.

(2) Activities other than merchant electricity generation, E&P and LNG purchase/sale.

(3) Includes €4.7 billion invested and €7.3 billion committed.

(4) Includes €7.2 billion agreed and €0.8 billion announced.

(5) This objective is based on assumptions of average temperatures in France, the full carry-over of supply costs on regulated gas prices in France, the absence of a substantial change in regulations and the macro-economic environment, commodity price assumptions based on market conditions at the end of December 2015 for the unhedged portion of production and the following average exchange rates for 2016: €/\$. 1.10; €/BRL: 4.59.

(6) Resulting in an absolute emission rate of 354.4 kg of CO<sub>2</sub> equivalent per MWh of energy generated.



### 3 strategic objectives

Prioritizing the most low-carbon solutions

Prioritizing the most low-carbon solutions

Integrated solutions for customers

## 2016 operations in line with the Group's strategic direction

In 2016, ENGIE announced that it was restructuring its activities in three strategic directions: low-carbon activities, activities not exposed to commodity prices and integrated solutions for customers. The Group carried out major acquisitions and developed many new projects.

### Developing low-carbon activities

ENGIE is committed to developing **low-carbon activities** with the aim that they will make up 90% of its EBITDA in 2018. In 2016, the Group further increased its initiatives and projects for the purpose of developing these activities: **at the end of 2016, they already represented 81% of its EBITDA.**

#### ► In the solar sector:

- we won several projects: 140 MW and 75 MW in India, 180 MW in Mexico, 40 MW in Peru, 78 MW in France;
- construction work started on the 100 MW Kathu solar park in South Africa;
- inauguration of the largest plant of solar shade structures in France (13.5 MW in Perpignan);
- investment in Heliatek, a pioneering organic photovoltaic company;
- agreement on the development of renewable energies in Senegal, the first component of which consists of the development of solar energy (January 2017);
- 30% stake acquired in the capital of UNISUN, a specialist Chinese solar photovoltaic company (April 2017).

#### ► In the wind sector:

- we won several projects: 52 MW in Mexico, a pilot floating wind farm in the Mediterranean carried out by a joint venture between ENGIE, EDP Renewables, Caisse des Dépôts, Eiffage, Principle Power and GE;
- strengthening the partnership with Crédit Agricole Assurances for an onshore wind farm in France;
- acquisition of 100% of Compagnie du Vent (April 2017).

#### ► In the hydropower sector:

- inauguration of the Jirau plant in Brazil, the largest hydropower project of the Group in the world: capacity of 3,750 MW, equivalent to the consumption of 10 million homes.

#### ► In the geothermal and other energies sector:

- inauguration of Thassalia, the first French marine geothermal plant (Marseille);
- construction by the consortium PT Supreme Energy Muara Laboh, of which ENGIE is a member, of the world's first electricity production plant from geothermal sources in Indonesia (January 2017);
- start up of the Az-Zour North One Independent Water & Power Plant Project (desalination of sea water) in Kuwait;

- Fadhilli independent power plant project (cogeneration) in Saudi Arabia (1507 MW) (January 2017);
- signing of a memorandum of understanding with Schneider Electric to explore and deploy new digital solutions for the operational efficiency of wind and photovoltaic farms (February 2017).

ENGIE's decision not to build any new coal-fired power plants, announced in October 2015, is also in line with the strategic shift taken by the Group. During the course of the year, ENGIE **divested a large part of its highest CO<sub>2</sub>-emitting activities**; it finalized the sale of its coal-fired plant in Meenakshi, India, decided to close down the coal-fired plant in Hazelwood, Australia, at the end of March 2017 and sold its coal-fired plant in Polaniec, Poland.

### Developing gas infrastructure

The Group is committed to having **regulated activities and/or activities under contract** to make up 85% of EBITDA by the end of 2018. In 2016, **the percentage was 75%.**

- stronger presence in Ukraine and signing of an agreement on gas transportation and storage;
- innovative green gas production method green by conversion of dry biomass in Europe: cooperation with Gothenburg Energi in Sweden for the industrialization of the process, and development of the AMBIGO project in the Netherlands;
- inauguration of the first floating LNG import terminal in Turkey;
- agreement the price revision of long-term gas supply contracts with Gazprom and Statoil;
- in Panama, signing of a reliable and competitive LNG supply contract in the Caribbean;
- in China, ENGIE and Beijing Gas Group strengthen their strategic partnership on the security of supply with a delivery of 10 LNG cargoes to Beijing.

### Developing integrated solutions for our customers

ENGIE is committed to increasing by more than 50% – by 2018 – **the percentage of integrated solutions for customers** in its EBITDA. **At the end of 2016**, several investments increased this percentage by **2%**.

#### ► Energy storage solutions:

- electrical charging terminals: roll-out by ENGIE of 4,000 charging terminals in Rotterdam and The Hague, association with Powerdale to provide 800 terminals in Luxembourg;
- signing of a memorandum of understanding with SUSI Partners to finance large-scale energy storage projects;
- 80% stake acquired in Green Charge Networks, a leading battery storage company based in California;
- acquisition of EV Box, a European market leader in electric vehicle charging solutions (40,000 terminals in operation) (March 2017).

► **Electricity offer for customers:**

- launch of 100% green electricity offers for all new residential and business contracts in France;
- new offers in France (March 2017): Elec Weekend, My Power: a self-consumption photovoltaic offer, Elec'Car offer and Elec'Charge offer to charge electric and hybrid vehicles at home.

► **Green mobility solutions:**

- in Europe, ENGIE plans to help create a new “green gas” recycling network, Bio-LNG (Liquefied Biomethane), and in France has entered into a partnership with La Poste to develop green mobility and intends to invest €100 million in gas fuel stations (LNG or CNG – compressed natural gas);
- ENGIE is joining forces with Michelin to invest in Symbio FCell to accelerate the development of hydrogen mobility solutions.

► **Tomorrow's cities:**

- acquisition of Siradel, French company working in the area of 3D urban modelling;
- overall refurbishment offer to provide better connected tertiary buildings, oriented towards usage performance: Novaldi and CPU-Building;
- investment in StreetLight data, a leading mobility analytics company;
- initiative with IBM to improve the management of cities (real-time analysis of data, etc.);

- joint project with Thales on the train railway system linking Dakar to its new airport (Senegal);
- acquisition of Keepmoat Regeneration, a leading provider of regeneration services for local authorities in the United Kingdom (March 2017).

► **Heating networks:**

- inauguration in Saint-Ouen (France) of the conversion of a biomass heating plant by CPCU;
- public service delegation contract won for the geothermal heating network in the Plaine Rive Droite area of Bordeaux (France).

In 2016, ENGIE set itself a new objective: achieving a satisfaction rating of over 85% among its B to C customers by 2020. In 2016, it worked to harmonize the **methods used to monitor customer satisfaction** in the countries where it offers solutions to residential and business customers. Customer satisfaction is measured by positive responses to a question targeting their overall experience with ENGIE. The first results for **2016 revealed an 81% satisfaction score**, with a representative response rate.

Alongside its customers, ENGIE takes all of its stakeholders into account – including in its industrial and operational activities – by implementing and monitoring a **dialogue and consultation mechanism**. The Group intends to cover 100% of its industrial activities by this mechanism; in 2016, this figure was 20% (see Chapter 2).

**Group's objectives for “Stakeholders & Customers”**

- 50% increase between 2016 and 2018 of EBITDA generated by integrated solutions for customers
- €1 billion invested between 2016 and 2018 in emerging and digital technologies
- Over 85% of B to C customers satisfied by 2020
- by 2020, 100% of industrial activities covered by an appropriate dialogue and consultation mechanism

**Contribution to 8 challenges of the materiality matrix including 3 crucial challenges**

- |   |                                  |
|---|----------------------------------|
| – Stakeholders dialogue                     | – Innovation                     |
| – Local acceptance                          | – Responsible customer relations |
| – Reputation                                | – Energy transition              |
| – Adaptability of the <i>business model</i> | – Financial value creation       |

**Contribution to 6 Sustainable Development Objectives**



**Value creation**

For **ENGIE**, these objectives contribute to the sustainability of the offers and services marketed by the Group, to the local rooting of its activities, to the quality of its projects and the relevance of its investment choices by reducing the risk of controversy and any related corrective expenditure.

For **the environment**, the Group intends that these objectives should promote the emergence of innovative digital technologies to meet the upcoming challenges of energy efficiency and the fight against climate change while adapting to new consumption patterns brought about by today's customer habits.

For **all of its customers**, the Group prioritizes innovative offers to be better able to respond to their needs:

- for **B to B and B to T customers**, offers that integrate various commercial techniques and approaches to address their multiple challenges, to reduce the percentage of their energy costs permanently and share with them the creation of value via a privileged and long-lasting relationship using a collaborative approach;
- for **B to C customers**, offers that will satisfy them and turn them into loyal customers and make them participants in the energy transition, or even local energy producers. Customer satisfaction means that new commercial offers are communicated more widely, including our after-sales consumption monitoring services. Finally, the Group offers solutions tailored to customers threatened by energy poverty.

For **the Company**, these objectives contribute to positioning ENGIE as a company concerned by its environment and one that listens to its external stakeholders, including its customers.



## An ambitious transformation plan

Redesigning and simplifying the business portfolio

## An investment and asset turnover program already well underway

As part of its transformation plan, ENGIE has announced a €22 billion **investment program** for 2016-2018, including €7 billion for maintenance, financed mainly through the generation of cash flow from operations.

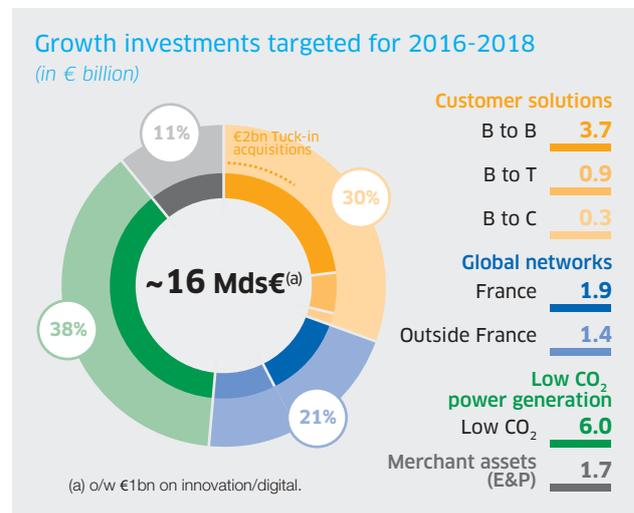
The Group has therefore put in place a €15 billion growth investment program, plus €1 billion earmarked for digital and innovation investments. In fact, the Group has allocated a €1.5 billion envelope for expenses in these areas (including investments of €1 billion and operating expenses of €0.5 billion). From the €16 billion of growth investments, **€12 billion had already been earmarked** for our three strategic activities (i.e. 75%) at the end of 2016.

The transformation plan is also based on a €15 billion **portfolio rotation program** between 2016 and 2018 to reduce the Group's exposure to activities sensitive to commodity prices. The main sales and closures of coal assets are: Paiton (Indonesia), Meenakshi (India), Rugeley (UK), Gelderland (Netherlands), Vado Ligure (Italy) and Polaniec (Poland).

At the end 2016, the Group decided to sell and close down assets totaling **€8 billion** and representing a total capacity of 17 GW – 8 GW for coal assets and 9 GW for assets exposed to fluctuations in the price of commodities, primarily in the United States. Thus, **more than 50% of the program** was achieved at the end of 2016.

Elsewhere, in March 2017, the Group closed the coal plant at Hazelwood in Australia, representing an installed capacity of 1.6 GW (100%).

These sales and closures have helped halve the installed capacity of electricity produced from coal compared with the end of 2015.



## An ambitious transformation plan

Preparing for the Group's future by technological and digital innovation

## Innovation and digital technology: catalysts of the Group's transformation

In 2016, around **€191 million** were committed to technological R&D. To improve its growth potential, ENGIE has decided to invest €1 billion between now and 2018 in emerging and digital technologies, and **€0.5 billion was spent in this area in 2016**.

### Innovative ecosystem

ENGIE's overall innovation approach, "**ENGIE Fab**", aims to **devise tomorrow's solutions jointly with all innovation parties**: start-up companies, innovative companies, inventors, etc. ENGIE Fab is a platform that allows ideas, skills, patents, etc. to be offered in order to benefit from ENGIE's support as part of a support and collaboration package.

To promote this *Open innovation*, ENGIE has created various levers:

- an investment fund, **ENGIE New Ventures**, offers **€115 million** to acquire a minority stake during the development phase of startups, the activities of which are related to those of the Group;
- organization of events open to the ecosystem of innovation operators: marketplace start-ups, competitions, hackathons, innovation day-long events, attendance at fairs in Europe and worldwide;
- calls for projects relating to the six strategic areas defined to boost innovation within the Group: sustainable mobility, decentralized energy, connected buildings, land, hydrogen and energy storage.

In 2016, ENGIE launched approximately 50 calls for projects aimed at startups. Around 1,000 projects were received. ENGIE also relies on an internal network “**innov@ENGIE**” to promote collaborative innovation. It now has **10,000 members** and has generated some 560 ideas. Twenty-one teams of employees incubate their projects in external incubators.

### Investment fund

At the end of 2016, the portfolio of **ENGIE New Ventures** had 14 holdings with investments in Heliatek (Germany: organic photovoltaic), Symbio FCell (France: range extender for hydrogen batteries) and Serviz (United States: service platform for individuals).

### Tomorrow’s technologies

Medium to long-term innovation (R&D) is managed by the Research and Technologies Department, which is tasked with bringing the technologies of tomorrow to maturity. To this end, it manages ENGIE’s prospective research programs (e.g. renewable energy, smart energy and environment, transport and

storage of CO<sub>2</sub>). In 2016, it continued its globalization and developed pilot projects focusing on **hydrogen technologies**, biomethane and energy storage.

**ENGIE Digital, staying close to the grass roots**

To accelerate its transformation, in June 2016 ENGIE created “ENGIE Digital”, which is a skills center for operational entities to support their digital transformation and help them prepare their future offers.

This structure accommodates partnerships reached with industry leaders in their respective fields: C3IoT<sup>(1)</sup>, Kony<sup>(2)</sup>, Thales, IBM and Fjord, Accenture’s design and innovation studio’.

(1) Industry leader in the area of Big Data and data analyses.  
 (2) Industry leader in mobile applications for smartphones and tablets.

See also **RD 2016** [engie.com](http://engie.com) Section 1.5 Publications “*Innovation and the energy transition*” and “*Research and technology*”



## New performance program

In 2016, ENGIE launched a performance program called “Lean 2018”. The program aims to obtain recurring OPEX savings with a net aggregate impact of €1 billion on EBITDA by 2018. The

2016 objective of the program was exceeded by **+6%**, that is **€530 million**, and the 2020 objective of the program was revised upwards and is now €1.2 billion.

### “Operational” objectives of the Group

- ▶ Over 85% of the Group EBITDA generated by regulated or contracted activities in 2018
- ▶ Growth investment programs of €16 billion and €15 billion asset rotation between 2016 and 2018
- ▶ “Lean 2018” program targeting €1.2 billion recurring OPEX savings between 2016 and 2018

### Contribution to 11 challenges of the materiality matrix including 1 crucial challenge

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>– Energy transition</li> <li>– Greenhouse gas emissions</li> <li>– Air pollution</li> <li>– Balanced energy mix</li> <li>– Innovation</li> <li>– Responsible customer relations</li> </ul> | <ul style="list-style-type: none"> <li>– Adaptability of the <i>business model</i></li> <li>– Operational efficiency</li> <li>– Staff commitment</li> <li>– Creation of financial value</li> <li>– Financial strength</li> </ul> |
|---|--|

### Contribution to 5 Sustainable Development Objectives



### Value creation

**For ENGIE**, these objectives are intended to stabilize and sustain results by reducing their exposure to market prices. The Group is aiming to increase its energy production portfolio and shift to low-carbon assets in association with the energy transition, which should significantly reduce its greenhouse gas emissions. “Lean 2018” aims to increase the day-to-day operational efficiency of the Group by improving its margins and recurring results, without watering down its commitments.

**For the Environment**, these objectives are part of the Group’s commitment to combatting climate change by reducing CO<sub>2</sub> emissions and developing low-carbon production capacities.

**For the Company**, these objectives contribute to the response to growing demand, while also ensuring the sustainable development of infrastructures.



## An ambitious transformation plan

Adapting the Group

## The Group's HR commitment, a transformation lever

With over 153,000 employees and more than 21,200 recruitments worldwide in 2016, ENGIE is **a leading employer**. The Group's Human Resources (HR) commitment contributes to the consolidation of its transformation and the success of the energy revolution by specifically working in favor of the Group's adaptation, to make it even more agile and connected, focused on innovation, entrepreneurial and fostering a team spirit.

### Health and safety at work, a critical component

The health and safety policy, developed with managers and employees and based on a Group-wide agreement with the trade union federations, is aimed at **preserving the integrity of people** (employees, service providers and third parties) **and property, as well as promoting quality of life in the workplace**. It is supplemented by the Group Health and Safety Rules that define the requirements applicable to all entities. With a managerial system comprising a 2016-2020 action plan, training courses, internal controls and audits, external certifications, benchmarks and feedback, ENGIE has succeeded in reducing the frequency of occupational accidents involving its employees (down 56% since 2008 and down 3% compared with 2015). These results make the Group one of the sector's leaders, with **a frequency rate of 3.6 in 2016**, below the maximum target of 3.7. With respect to occupational health, the number of new cases of occupational diseases has dropped sharply from 122 in 2015 to **100 in 2016** while the number of hours of absence for medical reasons per employee and per year has stabilized at around 66 hours.

The Group has always invested massively in **health and safety training and awareness-raising of its employees**. In 2016, **1,100 managers** attended the "*Leadership in healthcare*" course conducted by ENGIE University at which the concluding speech is always given by one of the Group's senior managers. A six-month follow-up with managers who have attended this training was instituted in 2015 and short "*perspectives*" documentaries were made available to illustrate how the correct use of key management components (team meetings, site visits, recognition, etc.) can help transform the Group's health and safety culture.

In 2016, **the annual internal health and safety awareness-raising campaign** focused on preventing falls from heights. Many tools relating to this issue (openings in floors, use of scaffolding and ladders) were made available to employees across a range of different formats including videos, witness statements, feedback and activity kits.

### Industrial security, an ongoing challenge to boost our professionalism and our performance

To make energy a source of progress and sustainable development, **operational excellence in the control of processes and in the security of facilities** is a key factor for success. The security of facilities is the subject of a structured and thorough approach based on the assessment of operational risks, and on the identification and monitoring of equipment, operating parameters and key skills.

Audits are performed regularly, and the management of industrial accident risks forms part of the internal control program. The Group has updated its map of risks.

Since industrial security is closely linked to safety in the workplace, many initiatives have been implemented in order to protect the people's safety (employees, service providers and third parties) and assets. The **"zero fatal accident" action plan** continued and was intensified in 2016. This innovative approach requiring the involvement of all employees and subcontractors aims to eradicate fatal accidents by adopting **"9 life-saving rules"**. It specifically provides for reviewing the main management drivers for complying with and ensuring compliance with these rules using feedback from any serious accident reported. The practice of "Management Safety Inspections", which aims to increase initiative taking and cautious behavior, has been extended and generalized, across all management levels. In 2016, members of the Executive Committee conducted management safety inspections, which demonstrated the Group's commitment to this issue and also its intention to increase safe behavior among employees, through a dialogue with their managers.

More specifically, where **industrial safety** is concerned, the in-depth initiatives already undertaken were broadened in 2016, including initiatives such as the regular review of studies on the hazards posed by the most sensitive industrial assets, the continuation of the specific action program launched to secure our industrial assets from cyberattacks, the drawing up and sharing of operational excellence guidelines and standards for the management of major industrial risks, and support in the implementation of the internal control guidelines for industrial projects or acquisitions of industrial projects (IND1) as well as the Group Rule concerned.

Other new actions are currently being implemented, including identifying and dealing with 100% of the events that are potentially very serious and developing predictive approaches. At the same time, it is important to strengthen the health & safety and risk assessment culture, to develop communities of practice and tools for sharing and discussing issues between the BUs and the Métiers (Business Lines), and to increase the professionalism of managers. A **specific awareness-raising module** lasting half a day, *Health & Safety Leadership*, was prepared in 2016 **for members of the Management Committees**

**of the BUs.** It began to be rolled out in 2016, and will involve all BUs from 2017 onwards.

The particular attention paid to industrial security has led the Group to set up a Group Industrial Security Committee, primarily to encourage sharing between the BUs and the business lines, and to sponsor the implementation of cross-divisional initiatives.

The operation of nuclear power stations in a totally safe manner is and remains an absolute priority for ENGIE. In 2014, the Group collaborated with the resistance tests performed in order to reassess nuclear power plants' safety margins when dealing with extreme circumstances, as part of the policy to improve nuclear safety on an ongoing basis. In addition, ENGIE has drawn up an action plan that sets out the investments and measures required to extend the useful life of its nuclear power plants in Belgium for a period of ten years.

**See also** **RD 2016** *Section 2.4 Publication "Ensure the industrial security and the safety of facilities"*  
*Section 3.2.6 Publication "Health and safety"*

## Employees at the heart of our transformation

In 2016, the Group's strategy, its new organization and its new governance method meant that HR had to change the way it viewed human resources and relations and strengthen the coordination of communities and managers, by placing itself at the center of the *business*.

The Group's success involves the implementation of **new working methods and management, which are more cross-functional and decompartmentalized**, at all reporting levels. For example, the ENGIE 50 Committee, set up in 2016, is showing a new way to mobilize and involve the *top management*. Experiments on the new working methods (teleworking, dynamic workspaces, etc., co-development, *mentoring*, communities of practices, etc.) were conducted in various Group entities. The HR department plays a fundamental role in the communication of this new culture and the involvement of the management and key communities for the Group, such as:

- the YPN (*Young Professional Network*), an international network of over 900 members set up by young employees, who contribute to the Group's strategic thought processes via *créativ'lab*;
- the *digital reverse mentoring* program promoting personalized support to top managers from young volunteer employees conversant with the new digital technology. In 2016, 110 two-person teams benefited from this system;
- the community of *data scientists* (200 members), the community of entrepreneurs (200 members), of managers (30,000 employees) and the WIN women's network (1,800 women in 20 countries).

The members of these networks are present across the Group.

ENGIE is committed to improving the diversity of its workforce with a target of employing 25% of women by 2020. **In 2016, this percentage was 21.9%**. The Group received two significant accolades at the first Prix de la Mixité des Entreprises (Corporate Diversity Prize).

The revolution in the energy world and the strategic choices of ENGIE are having a profound impact on our Group's needs and skills, and will significantly change our business lines and jobs.

In view of this situation, three major initiatives have been implemented:

- a European Social Agreement with significant commitments in terms of social dialogue and enhancing the employability skills of employees;
- a skills anticipation and management system (ENGIE Skills) to provide better visibility on our changing needs to all stakeholders;
- a mobility management system (ENGIE Mobility) based on regional networks and gateways providing access to business lines undergoing expansion.

Across the board, **the individual development of employees** is a key lever of the Group's performance and development. Special attention is paid to training, particularly via internal training schools and our portal "e.campus" and ENGIE University. In addition, targeted talent development policies are used at all levels of the Group (executives, experts, managers, technicians, etc.).

More than **7,000** employees took advantage of mobility in 2016

**10,000** employees received training or went on an e-learning course

**"One HR"** 

In 2016, ENGIE opted for a cross-functional and digitized HR management system. The Group is gradually rolling out a common and single system, called "One HR", to all BUs and entities. It will:

- optimize, standardize and simplify all HR processes through a common tool;
- facilitate the analysis of data for employee development;
- improve the visibility of talent and talent-monitoring by managers and HR.

## From youth employability...

The social commitment of the Group and its employees is contributing to ENGIE's transformation.

In 2016, the Group renewed its commitment in France vis-à-vis the Ministry for the City, Youth Affairs and Sports through the "Entreprise et Quartiers" (Companies and Neighborhood) charter to develop working-class neighborhoods economically and socially. Thus, ENGIE is committed through targeted actions to promoting education, training, inclusion and employment.

In fact, beyond its economic role, ENGIE is taking action, throughout the regions, in the area of youth employability, as a quarter of young people are unemployed in France. And yet, **these young people are tomorrow's players**, the company's future talents and the creators of its performance. They are a breeding ground for innovations, new skills, entrepreneurship and new ideas at a time when the Group needs to ensure its energy transition and technological transformation. ENGIE recruited **more than 6,300 young people under the age of 34 as permanent employees in 2016**.

ENGIE recruits people from all backgrounds with **the promotion of diversity** (disability, young people from priority neighborhoods, European exchange programs, etc.). In France, we work specifically with the agency Mozaik RH to attract people with talent from diverse backgrounds.

Among the various areas of action for professional inclusion, the Group prioritizes work-study programs, reconfirming its commitment to training and the qualified recruitment of young people at all levels (from vocational diplomas to graduate degrees). At the end of 2016, the Group had **more than 4,000 work-study trainees worldwide**. It also prepares young people from neighborhoods deemed to be a priority by the city to start working at the company under a work-study program through the Employment/Mobility/Sport scheme (*Emploi Mobilité Sport* or PEMS) initiated in 2016. For six months, the young people follow a program designed around digital workshops, individualized support, sponsorship, training in the company, as well as immersion in the army and sports workshops. From the first intake from the Ile-de-France region, 75% had a positive outcome.

Youth employability also involves **close collaboration between the company and education**. ENGIE develops relations with the French education system, particularly through the education scheme called “*J’apprends l’Énergie*” (I’m learning about energy): teaching resources, serious game, awareness-raising about the world of energy in schools and colleges, work placements to help students discover the corporate world, etc. **More than 400 ENGIE ambassadors** are involved in this system. “*Ma Caméra Chez les Pro*” (my camera on the professionals) and “*Je filme le métier qui me plaît*” (I’m filming the job I like) are other initiatives allowing young people to discover the Group’s various business lines proactively.

### European pro-youth commitments

On a European level, the Group’s commitment to promoting youth employability takes the form of membership of intercompany initiatives:

- the “*Pact Youth For*”, promoted by CSR Europe, encourages a dialogue between companies and the world of education for presenting joint proposals to the European Commission, to reduce youth unemployment in Europe;
- the “*Alliance For Youth*”, the first pan-European private movement, initiated by Nestlé, which brings together 200 companies that carry out joint initiatives to prepare young people for their entry into the professional world (CV coaching, forums, awareness-raising about the world of work, etc.);
- the trial “*Erasmus apprentices*” program, overseen by the French Ministry for Foreign Affairs and supported by the Ministry of Labor, Employment, Vocational Training and Social Dialogue, offers young people an option to carry out their apprenticeship in France and Germany.

### ... to the commitment of employees

The commitment of employees, including their social commitment, is in line with the Group’s shared values and is therefore encouraged. It is a factor for social cohesion, corporate performance and support for innovation capacities.

It is expressed particularly through:

- a policy that encourages a work/life balance: an “aide aux aidants” (care assistance) scheme in France, caretaking services, daycare places, new ways of working, etc.;
- the option of investing time carrying out volunteer work or providing skills, as stated in the Group’s policy on making skills available, initiated in 2016, and the “ENGIE Volunteers Program” promoting access to energy;
- donations to the Group’s partner associations or foundations, such as FAPE ENGIE, which supports job creation projects in the regions.

### Global reflection for social innovation

ENGIE, through the International Social Observatory (OSI), contributes to global reflection on social innovation.

In 2016, international activities increased with the organization of symposia dedicated to corporate social responsibility, especially in Brazil (conference on professional inclusion of people with disabilities, at the opening of the Paralympics Games in Rio), in China (the first Sino-European forum on CSR, 1st driver of economic change) and in Chile (seminars on productivity and regional dialogue). While in Africa conferences focused on the role of women and young people in the economic development of the continent.

In France, analyses have focused on occupational health, the role of the company faced with geopolitical and religious challenges, managers of tomorrow, new forms of wage earning, human development and sustainable performance.

**€1 million**  
donations paid to  
FAPE ENGIE since  
it was set up in 2013

**80**  
projects supported  
by the ENGIE FAPE  
program since 2013

See  
also

engie.com  
RD 2016

Publication “Our commitments and HR policies”  
Section 3.2

### Group “Employee” objectives

- ▶ 3 or fewer frequency rate accident per year by 2020
- ▶ 25% of the Group workforce made up of women by 2020

#### Contribution to 4 materiality matrix challenges, including 1 critical challenge

- Health and safety
- Staff diversity
- Management culture
- Staff career and personal development

#### Contribution to 3 Sustainable Development Goals



#### Value creation

For ENGIE, these objectives are intended to guarantee employee safety, to improve working conditions and to embrace talent and diversity. The progress made in the area of health and safety has helped to reduce absenteeism, social security contributions, employee replacement costs and insurance policies and, more generally, to preserve the Group’s structure and productivity. ENGIE has also started tracking the net savings made in several countries and vigorously promotes its health and safety approach via additional internal objectives.

The Company, mindful of its gender balance and the need to reflect the wider society, is building credibility in the area of human capital management. Better gender balance promotes a wide variety of talents and skill sets, improves awareness of customer needs and, therefore, helps to keep our commercial offering relevant.

The Group has set internal objectives for improved gender balance in recruitment and among its executives.

The Group has also established internal diversity, training and staff motivation objectives in order to maintain the attractiveness of the ENGIE brand for new generations – generations that have a keen awareness of their employability and the reciprocal relationships between companies and employees.



## 2016 results in line with guidance

In a particularly challenging environment, the strength of ENGIE’s economic model and financial structure has enabled the Group to achieve results in line with our guidance, with the Group’s share of net recurring income totaling €2.5 billion<sup>(1)</sup> in 2016.

Accounting impairments (€3.8 billion) in particular weighed heavily on the Group’s share of net income, which amounted to €-0.4 billion. These impairment losses stem primarily from: the electricity generation activities on the European wholesale markets (€1.9 billion), which were affected by falling prices; the review of Belgian nuclear provisions (€1 billion), caused by a cut in the discount rate; and the market environment for some of the Group’s global business lines (E&P, LNG, GTT) (€0.6 billion).

Cash generation was stable compared with 2015, at €9.7 billion. At the end of December 2016, the Group had €17.3 billion in liquid assets, including €10 billion in cash.

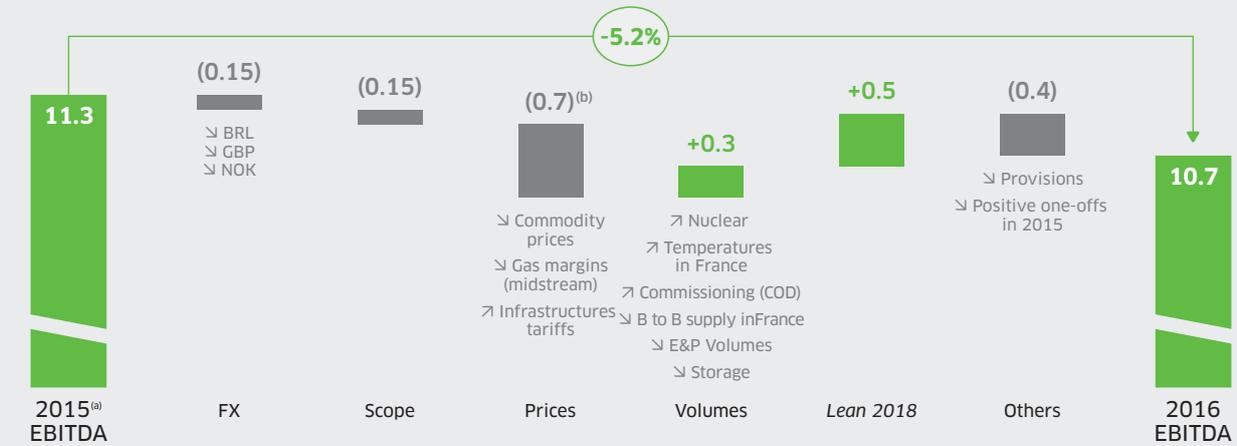
### Consolidated management report

The revenue of €66.6 billion recorded in 2016 represented a gross decrease of -4.6% compared with 2015 and an organic decrease of -4%. This decline is explained by unfavorable currency fluctuations, particularly on the pound sterling, Norwegian krone and Brazilian real, and the drop in commodities prices, which impacted the sale and purchase of gas and LNG, the marketing of electricity and gas, and production exploration. This decrease was partially offset by the positive impact of temperatures in France, which were slightly cooler in 2016.

Group EBITDA, which amounted to €10.7 billion, experienced a -5.2% gross reduction and a -2.7% reduction in organic terms. EBITDA was impacted by the same issues as those affecting revenue although these were offset somewhat by the resumption of operations at the Belgian nuclear power plants Doel 1 & 3 and Tihange 2, the positive impact of the colder temperatures in France, and the early effects of the “Lean 2018” performance program.

(1) After deducting the share of net income of equity-consolidated companies.

**Changes in EBITDA (2016 compared with 2015) by primary impact**  
(in €billion)



The **current operating income** after deduction of share in net income of equity-consolidated companies amounted to €6.2 billion, a gross decrease of -2.4% and an organic increase of +1.6%.

The **Group's share of net income**, which stood at €-0.4 billion, was negatively impacted by impairment losses of €-3.8 billion and was down €-4.9 billion from 31 December 2015. The 2016 income figures benefitted from lower depreciation and amortization expenses resulting from the impairment losses recorded at the end of 2015, and the recognition of wholesale generation assets in the United States as "Assets held for sale".

The **Group's share of net recurring income**, €2.5 billion, represents a decrease of €-0.1 billion from 31 December 2015.

The **net debt** stood at €24.8 billion at the end of December 2016, down €-2.9 billion from the end of 2015. This significant improvement is due to the amount of operational cash flow generated for the year (€9.7 billion) and the initial effects of the portfolio turnover program (€4 billion). These items were only partially affected by the investments over the period (€7.3 billion) and the payment of dividends (€2.9 billion).

The **net debt/EBITDA ratio** stood at 2.32 x on December 31, 2016, still below the target of ≤2.5 x.

The Group saw its Standard & Poor's rating drop to "A-" and its Moody's rating fall to "A2".

The Group confirmed the payment of a cash dividend of €1 per share in 2016 and a cash dividend of €0.7 per share respectively on the 2017 and 2018 results.

**Group "Financial stability" objectives**

- ▶ Group share of recurring net income of between €2.4 and €2.7 billion in 2016, and €2.4 and €2.6 billion in 2017
- ▶ Net debt/EBITDA ratio below or equal to 2.5 for the 2016-2018 period
- ▶ Financial rating of A for the 2016-2018 period
- ▶ Dividends of €1 per share on the 2015 and 2016 results, and €0.7 on the 2017 and 2018 results

**Contribution to 3 materiality matrix challenges**

- Financial value creation
- Financial strength
- Shareholders policy

**Value creation**

**For ENGIE**, these objectives are guarantors of good financial health. They enable it to implement its innovation policy and to make sure that its investments are in line with its strategy, while providing its shareholders and financial stakeholders with a satisfactory reward.

**For the Environment**, the good financial health of the Group is a gauge of the sustainability of its commitment to the energy transition towards low-carbon generation activities – something that benefits all its stakeholders and its ecosystem in general.

**For Shareholders**, the transparency of and compliance with the remuneration policy helps retain shareholders and ensures their long-term support for the Group's strategy of leading the energy transition.

**Contribution to 2 Sustainable Development Goals**



## The Green Bond – green financing for the energy transition: the second Green Bond was issued successfully on 15 March 2017 for €1.5 billion

Building on good practices and making significant progress:

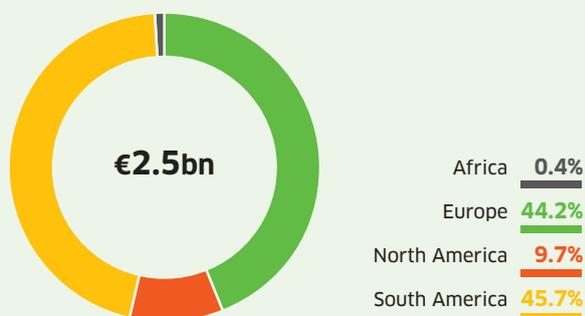
- **greater selectivity** in choosing projects, specifically in the hydroelectricity and biomass industries;
- openness to **R&D OPEX and projects within the *Rassembleurs d'Énergies* social and environmental impact investment fund**;
- committed to **transparency** in the event of a controversy;
- improved **governance** when selecting projects, by setting up the Green Bond Committee.

As in 2014, Vigeo Eiris issued a second opinion on our framework document and allocations will be audited each year by the Statutory Auditors.

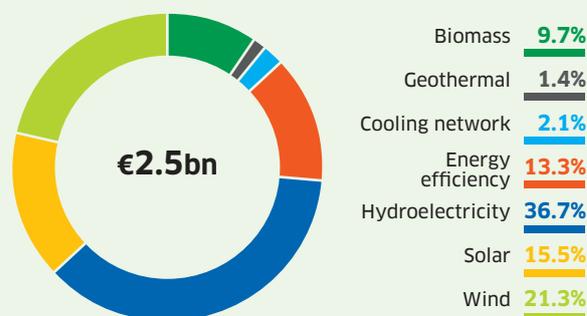
The Group closely monitors the progress of green financing, has signed up to the Green Bond Principles and participates in the Paris Europlace Green Financial Center Initiative.

Following the €2.5 billion 2014 Green Bond issue, **77 green projects** have been launched in the areas of renewable energy and energy efficiency, primarily in South America and Europe.

Allocation of the 2014 Green Bond by geographical area



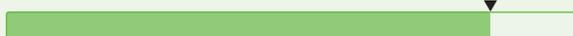
Allocation of the 2014 Green Bond by technology



## CSR performance rewarded – and improving – in 2016



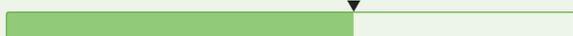
85/100



- Leader in the Multi-Utilities and Water sector (MUW)
- Listed on the Dow Jones Sustainability World & Europe indices
- Gold Class Sustainability 2017 Award



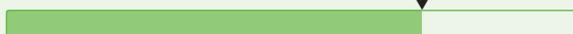
61/100



- Advanced category
- Listed on the Euronext Vigeo Eiris indices: World 120, Europe 120, Eurozone 120 and France 20
- In the top 10 of the CAC 40 Governance index



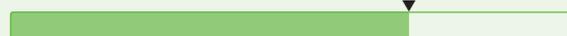
70/100



- Medium level (2017 rating)



73/100



- Advanced level
- CSR rating Gold 2016



- Climate CDP: A
- Water CDP: A-



- 100% of Group BUs in France are covered by the Diversity Label (next audits in 2017).
- **Grand Prize for Gender Diversity** in the CAC category and **Prize for Gender Diversity in the Energy and Utilities Sector** awarded by the Observatoire Ethics & Boards (Ethics & Boards monitoring center) and the Institut du Capitalisme Responsable (Institute for responsible capitalism) in January 2017.



Long-term  
value  
creation

Renewed commitment  
to corporate and environmental  
responsibility

## Environmental conservation, a key requirement

In the light of the major energy and social challenges we are facing, ENGIE has placed environmental conservation at the heart of its strategy. The **Group's transformation** and the sustainability of its business model are inextricably linked in combatting climate change, the environmental performance of its businesses and facilities and the sustainable use of natural resources.

### Combatting climate change

A major player in the energy transition movement, **ENGIE is backing calls for an equitable global agreement to limit global warming to 2°C** by 2050, and is actively working to increase awareness among Company stakeholders and taking steps to reduce its emissions. To this end, the Group is taking action throughout its entire value chain. It is developing a low-emissions energy mix that promotes the growth of renewable energies, designing energy-efficiency solutions, building awareness of energy savings measures among its customer base, and investing in the solutions of the future, such as "smart grids".

As an energy supplier, ENGIE is also making changes to its own energy generation and transportation facilities, in addition to its property assets. The Group has set itself the objective of **reducing its CO<sub>2</sub> emissions by -20% per kWh of energy generated between 2012 and 2020**. This objective covers its entire electricity and heat generation infrastructure. At the end of 2016, we were on track to meet our objective, with a **fall of -11.3% compared with 2012**.

To optimize the consumption of raw materials, the Group is improving the performance of its electricity generation facilities and, therefore, their energy efficiency. The replacement of old plants, especially coal-fired plants – where the share in the ENGIE energy mix fell from 12.9% (15.1 GW) to 9.4% (10.6 GW) in 2016 – with new, better performing plants, and the development of projects to improve energy efficiency has also helped to optimize the existing energy facilities. ENGIE continued to roll out its green property policy in France and Belgium. This policy was launched in 2014, with the aim of reducing energy consumption in its commercial properties by **-40% by 2020**. Thanks to these initiatives, the Group was awarded a rating of A by the Carbon Disclosure Project (CDP).

The Group actively lobbies for the **standardization of carbon pricing**, as demonstrated by the work undertaken by Mr Mestrallet under the auspices of the Carbon Pricing Leadership Coalition and the recommendations made in the Canfin-Grandjean-Mestrallet report to the Minister of the Environment, Energy and the Sea. In 2016, ENGIE changed the internal carbon pricing method within its investment decision process, incorporating analyses of sensitivity to various price scenarios.

### The "Pascal Canfin – Alain Grandjean – Gérard Mestrallet" mission assigned by Ségolène Royal, President of the COP 21

This initiative was responsible for :

- analyzing and developing proposals for a price corridor for the European carbon market;
- developing proposals to accelerate France's coal phase-out with the introduction of a floor price for carbon in the electricity sector;
- contributing ideas to expand the scope of carbon pricing throughout the world.

The initiative heard from more than 80 experts (researchers, civil society stakeholders and representatives from companies and governments in France, Belgium and Germany).

It submitted its report containing 10 proposals in July 2016.

### The law on energy transition, a catalyst for transformation within the Group

The French law on energy transition of 17 August 2015 has entered into force. It requires companies to identify their climate risks and to provide more details on their GHG emissions.

Energy generation is subject to climate fluctuations (variations in temperature, wind, drought), which may change both the demand for energy and the energy offering. These fluctuations, therefore, have a direct effect on Group profits.

ENGIE manages the fluctuations in annual demand through its optimized asset portfolio. In terms of gas, it is able to modify the amount supplied and to take advantage of the flexibility provided by its underground stores. In terms of electricity, it benefits from a diversified electricity generation base.

In the longer term, the potential impacts of climate change give rise to other risks, such as the increased scarcity of water resources, changes to seasonal or regional energy needs, or simply the obligation to reduce CO<sub>2</sub> emissions.

ENGIE manages these risks by:

- **lobbying** for the standardization of carbon pricing to create a level playing field for all stakeholders;
- **launching targets** or measures designed to reduce emissions;
- **investing** in low-carbon technologies, renewable energies, and energy-efficiency services;
- **planning** for extreme weather events by drawing up adaptation plans for industrial sites.

In order to monitor the progress of these objectives, ENGIE has launched an environmental reporting campaign which measures performance annually. In terms of GHG emissions, this report is used to calculate scopes 1, 2 and 3 - each level designating a scope within which the company’s GHG emissions are assessed. This GHG emissions accounting and reporting approach is based on the GHG Protocol Corporate Standards (intended for companies) and ISO 14064 (supplemented by ISO 14069). These standards constitute an internationally recognized reference framework.

In 2016, direct emissions (scope 1) amounted to 120 Mt CO<sub>2</sub>-eq, down **-9.5%** from 2015 (132.8 Mt CO<sub>2</sub>-eq) while specific emissions, corresponding to the ratio of emissions per amount of energy generated, fell from 445.5 to 393 kg CO<sub>2</sub>-eq/MWh, down -11.8% from 2015 and **-11.3% from 2012**.

Indirect emissions relating to electricity, steam, heat and air conditioning consumption (scope 2) amounted to 3.9 Mt CO<sub>2</sub>-eq.

In terms of other indirect emissions (scope 3), ENGIE has analyzed several categories of emissions to identify and quantify the most relevant.

To date, the three categories below have been identified and quantified and amount to a total of 191 Mt CO<sub>2</sub>-eq.:

Emissions relating to the upstream fuel chain	16.5 Mt CO <sub>2</sub> -eq.
Emissions from equity-consolidated companies	32.0 Mt CO <sub>2</sub> -eq.
Emissions relating to the use of products sold – natural gas	142.5 Mt CO <sub>2</sub> -eq.

In addition to the items outlined above, ENGIE has also launched an assessment of the following items, the results of which will be published in 2018: Procurement of products and services; Real estate; Use of products sold – other.

**Recommendations of the Task Force on Climate-Related Financial Disclosure (TCFD)**

The *Financial Stability Board (FSB)*, a group of international economic stakeholders created in 2009 by the G20, launched this Task Force at the end of 2015 to issue recommendations on the financial impacts and opportunities relating to climate change. ENGIE has closely examined these recommendations, which were published at the end of 2016, in conjunction with its main financial partners.

### Group “Climate” objectives

- ▶ More than 90% of Group EBITDA generated from low-carbon emission activities by 2018
- ▶ More than 25% of the energy mix made up of renewable energies by 2020
- ▶ A -20% reduction in the CO<sub>2</sub> emission ratio per unit of energy generated in 2020 compared with 2012

**Contribution to 8 materiality matrix challenges, including 2 critical challenges**

<ul style="list-style-type: none"> <li>– Greenhouse gas emissions</li> <li>– Reputation</li> <li>– Air pollution</li> <li>– Adaptability of the business model</li> </ul>	<ul style="list-style-type: none"> <li>– Financial value creation</li> <li>– Energy transition</li> <li>– Balanced energy mix</li> <li>– Innovation</li> </ul>
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**Contribution to 4 Sustainable Development Goals**



3 GOOD HEALTH AND WELL-BEING



7 AFFORDABLE AND CLEAN ENERGY



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION

**Value creation**

**For ENGIE**, these objectives are intended to optimize the value of its energy generation portfolio, by adapting it to respond to future environmental regulatory constraints and shifts in the preference of investors and financial stakeholders towards low-carbon energy. These objectives represent an investment in the Group’s long-term reputation and help to secure its value for the future.

**For the Environment**, these objectives, by reducing the carbon footprint of the Group’s activities through greater use of renewable energies, help to reduce pollution and global warming and to conserve natural resources more effectively.

**For Civil Society**, these objectives are the manifestation of the Group’s corporate responsibility, sustainable development and the provision of clean, affordable energy thanks to economies of scale in the generation of renewable energies.

## Improving the environmental performance of its activities and facilities

A new, non-financial objective was adopted by the Group to take into account environmental performance and dialogue with stakeholders. A **collaborative and integrated environmental performance management process** will be implemented in “target” sites (approximately 1/3 of the 600 or so Group industrial sites across the world) for the first time: integrated, because this management approach takes into account air, water and soil quality, biodiversity (capitalizing on ENGIE’s performance with regard to its 2015 EU biodiversity objective) and adaptation to climate change; and collaborative, because stakeholders are involved in drawing up the plan. **By the end of 2016, 14% of the target sites had an integrated environmental management plan in place.**

Aside from this management system, which is currently being developed, the Group is formulating a process for adapting its activities and facilities in response to climate change and is making use of innovative technologies – such as the plant and fungus biomonitoring initiative launched by Storengy at pilot sites prior to wider rollout.

Environmental performance can also be measured by the number of convictions and fines for non-compliance with environmental regulations. In 2016, there were 24 complaints and convictions relating to environmental damage and 2 relating to damaged to human health. Monetary compensation paid in relation to these was negligible (€4,500). The Group actively monitors these figures and takes action to reduce them.

## Sustainable management of natural resources

To ensure the sustainability of its activities, ENGIE has taken steps to manage water resources more effectively and to reduce the impact of its activities on biodiversity.

In order to optimize its energy efficiency, ENGIE analyses the **risks posed to water supplies** by its activities. Each year, the water stress risk is assessed for the Group’s industrial sites. In addition, since 2013, the Group has been calculating its water footprint as part of its analysis of the life cycles of 1 kWh of electricity and, since 2016, that of 1 kWh of gas. A process has been put in place for sites located in **areas of extreme water stress** to draw up local action plans in consultation with stakeholders. The Group has reduced **the freshwater withdrawal associated with its electricity generation activity by -24%** since 2012. In recognition of its commitment to water resource management, ENGIE has been awarded a rating of “A-” by the Water Disclosure CDP.

Keenly aware of the impact of its business lines on **biodiversity**, in 2012 ENGIE launched a voluntary project recognized by the French government as contributing to the National Biodiversity Strategy. In this context, the Group undertook to provide each of its priority sites in Europe with an action plan to address the biodiversity conservation challenges identified at the site and/or by its local stakeholders, depending on the activity in question. At the end of 2015, a total of 98.3% of these sites had an action plan. These biodiversity action plans are also being implemented outside Europe. In March 2017, the French government once again recognized ENGIE in the second phase of the National Biodiversity Strategy.

## Commitment to developing the circular economy

For many years, ENGIE has been committed to **reducing its waste production and improving waste recycling**. This commitment has helped ENGIE to achieve recycling rates of **87.3%** and **10%** for non-hazardous waste and hazardous waste respectively. This is just the first step: -in addition to reducing the volume of waste produced and increasing the amount of waste recycled, ENGIE is now committing to a more ambitious goal: the circular economy.

Therefore, as part of the AFEP initiative to get **100 commitments from French companies** in this field, ENGIE has undertaken to develop biomethane subsidiaries, to invest in heat and energy recovery in its industrial and retail processes, and to provide decision-making tools for manufacturers in specific regions.

## Promoting access to energy

In 2016, ENGIE extended its **Tarif Spécial de Solidarité (Special Solidarity Rate)** for gas to more than 924,000 of its customers and its **Tarif de Première Nécessité (basic needs rate)** for electricity to more than 201,000 of its customers. During the year, the Group also continued to provide support to the Fonds de Solidarité pour le Logement (solidarity housing fund), allocating €6 million, in line with the commitments it signed up to in its Public Service Contract. Nearly 80,000 individual ENGIE customers benefited from these subsidies provided through French county councils.

Since 2011, the Group has been working with public authorities as part of the national “**Live Better**” program. Under the new agreement signed in December 2014, ENGIE reaffirmed its commitment to the program and will contribute €53 million over the 2014-2017 period to help renovate 185,000 homes.

ENGIE has created a network of **mediation partners**, which, by the end of 2016, had more than 200 drop-in centers located across France. The mediators in these partner companies have been trained by ENGIE to support customers in difficulty, to help them understand their bills, to advise them on how to manage their energy costs and to help put in place payment plans or direct them to social services to submit an application for support.

The ENGIE **solidarity energy agents** build relationships within municipalities, départements and associations. There are also 120 ENGIE solidarity counselors dedicated to processing requests from social workers. In 2016, these advisers processed 144,000 requests from social services.

In the same year, the **ISIGAZ** (Information Sécurité Intérieure GAZ) program, which raises awareness among disadvantaged customers about energy conservation and the safety of their domestic natural gas systems, reached 17,500 homes in around twenty French towns in 2016. Since the launch of ISIGAZ in 2006, 311,000 families in around 100 towns have received this advice.

In 2016, ENGIE renewed its partnerships with **GRET** (Groupe de Recherche et d’Échanges Technologiques), the French technology and exchange group, and **Emmaüs France** as part of its contribution to improving access to energy and its commitment to combating fuel poverty.

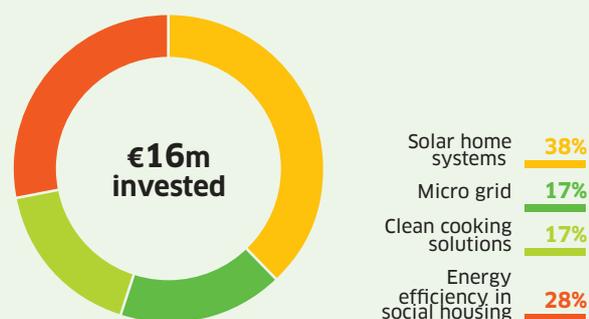
**Rassembleurs d'Énergies: ENGIE's social and environmental impact fund is endowed with €50 million**



Over the past 5 years, the *Rassembleurs d'Énergies* initiative has invested €16 million in 18 companies in more than 15 countries, of which €8 million was invested in 2016. The

companies in the portfolio have helped bring electricity to more than 1.2 million people and have created more than 1,300 jobs around the world.

**Investments by technology**



**Investments by geographical area**



**-11.3%**  
reduction in the GHG emissions ratio associated with energy generation

**-24%**  
reduction in the freshwater withdrawal ratio associated with electricity generation between 2012 and the end of 2016

## A special focus on the whole value chain

### A duty of care

The **law on the duty of care** for parent companies and main contractors was enacted in France on 28 March 2017. Companies with more than 5,000 employees in France or 10,000 employees globally, including their subsidiaries, have an obligation to draw up, make public and implement a monitoring plan. This **monitoring plan** will identify risks and put in place the measures required to prevent any breaches of human rights or fundamental freedoms or threats to health and safety and the environment, which could result from the activities of the parent company, the companies it controls and its providers and subcontractors, in France and abroad.

ENGIE has established a **cross-functional working group** with representatives from the departments in charge of CSR, ethics, health and safety, procurement, commercial relations, local authority relations, legal affairs, internal audit and risk management in order to propose a Group-wide methodology for drawing up these monitoring plans, which will reinforce ENGIE's control over its value chain throughout the world.

### Cultivating responsible procurement

Suppliers are an essential part of the ENGIE value chain. Beyond simply negotiating prices, they contribute to the Group's development and reputation.

The ENGIE Procurement division has defined **its objectives** based on its 2018 goals:

- to contribute to the operating performance of the Group;
- to ensure the fulfillment of the Group's commitments to its suppliers;
- to be a key player in the Group's CSR approach;
- to act as a springboard for career development.

The Procurement policy details ENGIE's commitments and requirements with regard to its relationship with suppliers, and in particular:

- the commitment to find competitive offerings and **innovative and sustainable solutions**;
- the requirement for suppliers to meet **health and safety** commitments;
- suppliers' commitment to run their businesses **ethically**.

Meanwhile, **Procurement Governance**, an internal document which defines the external expenses management principles for the whole Group, details the operating rules that apply to the Procurement division's activities. It aims to delineate the tasks of the buyer and the procurement consultant clearly, while fostering cooperation between the two to select the best offerings and establish spending commitments to suppliers, in accordance with the delegations and powers granted to the business units.

These documents provide a structured framework to help ensure that the Procurement function takes a **responsible approach to procurement**, particularly in order to:

- ensure that external supplies comply with quality and economic performance requirements;
- meet commitments and maintain balanced relations with suppliers, 64% of which must be SMEs, with a key focus on the settlement of invoices within contractual and legal deadlines;

- select and categorize suppliers according to multiple criteria, including social, environmental and ethical factors and those related to human rights and health and safety. These principles are specified in the operational processes for the function in question. Within the supplier base, the Group encourages the use of the panel of preferential and strategic suppliers (approximately 250 suppliers) **that have met a specific classification requirement** in terms of category management, which is reviewed periodically;
- ensure that any agreement with a supplier is detailed in a written document that must include the **ethics, corporate and environmental responsibility clause**.

Building on the *Passeport Achats* (Procurement Passport) training initiative that was launched in 2014 and completed in 2015, a training program on ethics and supplier relations was launched in 2015 to train all buyers in the Procurement division by the end of 2017. Furthermore, a **new training program on CSR in procurement** to be launched in 2017 also aims to train the same group by 2019.

800

buyers targeted by the  
"CSR in procurement"  
training program

64%

of ENGIE suppliers  
are SMEs

€18,8 billion

in external expenditure  
in 2016 (including  
€4 billion to SMEs)

# 6 Our risk management

## Managing risk better to improve performance and transform the Group

The diversity of ENGIE’s activities and facilities, combined with the current energy revolution, exposes the Group to a wide range of risks that could have a significant impact on its income, its image and its share price. ENGIE has defined a global risk management policy to support the implementation of its strategy and, ultimately, its long-term performance.

### Risk management

Risks are monitored by the **Board of Directors** and managed by the Executive Committee and the Management Committees of individual entities, which decide on the measures to take following a risk review. The *Chief Risk Officers* oversee the management of risks at each level (Centre – *Business unit*), and lead the overall risk management process (ERM – Enterprise Risk Management). All the Group’s business lines and functional divisions contribute to the management of risks by defining Group policies and, for market risk and ethical risks, by monitoring these policies via a specific committee.

To bolster its own risk assessment, the Group takes into account studies carried out by external monitors of macroeconomic, emerging or sector risks. At the very highest level of the company, ENGIE has created **bodies that include external stakeholders** to anticipate social and technological changes, such as the Sustainable Housing Monitoring Center, the City of Tomorrow Committee, the Fuel Poverty and Water Scarcity Monitoring Center and the ENGIE-HEC Chair in Business and Sustainability.

See also **RD 2016** Section 2.1

### The main risks affecting the Group

The Group strategy takes into account and manages the risks detailed below.

	Strategic sector transformation risks	Risk linked to the external environment	Operational risks linked to the Group’s activities
Priority risks	<ul style="list-style-type: none"> <li>✓ Change in the natural gas market</li> <li>✓ Change in the electricity market</li> </ul>	<ul style="list-style-type: none"> <li>✓ Country-specific and regulatory risks</li> </ul>	<ul style="list-style-type: none"> <li>✓ Projects</li> <li>✓ Industrial safety &amp; nuclear security</li> <li>✓ Human resources and transformation challenges</li> <li>✓ Digitization &amp; Cyber</li> <li>✓ Security</li> </ul>
Other risks		<ul style="list-style-type: none"> <li>✓ Economic context</li> <li>✓ Climate change</li> <li>✓ Financial risks</li> </ul>	<ul style="list-style-type: none"> <li>✓ Reputational risk linked to ethics and corporate and environmental responsibility</li> </ul>
	Page 36	Page 37	Page 38 to 39

## Strategic sector transformation risks

Risk and link with strategy	Description of the risk	Actions taken by ENGIE
<p><b>Change in the natural gas market</b></p> <ul style="list-style-type: none"> <li> To reduce exposure to commodity prices</li> <li> Redesigning and simplifying the business portfolio</li> </ul>	<p>There is still a surplus of natural gas production capacity throughout the world, and the growth of renewable energies has accelerated the fall in demand for natural gas for electricity generation. In contrast, the global geopolitical context could lead to a supply deficit.</p> <p>In fact, the stagnation in the demand for natural gas may also lead to overcapacities in the gas infrastructures in Europe.</p>	<p>ENGIE manages this risk by diversifying its assets (storage, liquefied natural gas, regasification) and through its long-term supply contracts or on the markets.</p> <p>The Group regularly renegotiates its long-term supply contracts in Europe, in order to maintain its competitiveness and to adapt to changes in demand.</p> <p>The Group is gradually developing new solutions, such as biogas or power to gas (hydrogen production).</p> <p><b>See also</b> <b>IR 2017</b> <i>Our vision of the market: p. 6 to 8</i> <b>RD 2016</b> <i>Sections 2.2.1.1 &amp; 2.3.1.1</i></p>
<p><b>Change in the electricity market</b></p> <ul style="list-style-type: none"> <li> To prioritize the lowest CO<sub>2</sub> solutions</li> <li> Integrated solutions for customers</li> <li> Preparing for the Group's future by technological and digital innovation</li> </ul>	<p>The electricity sector is changing rapidly: new technologies (solar, wind, electricity storage); competition (new players from the digital or manufacturing sectors); customer expectations; digitization of offerings and services.</p> <p>In the OECD, the fall in demand combined with the success of decentralized renewable generation has impacted the Group's centralized generation portfolio and its profitability.</p> <p>The extension of nuclear power plants and the financing of waste processing and decommissioning initiatives are the subject of several debates in Belgium and other European countries.</p>	<p>In the short term, the Group is transforming its generation facilities via the sale of coal-fired power plants and the acquisition of companies like Solairedirect, for example.</p> <p>ENGIE is strongly committed to the development of RES by diversifying its partnerships and adapting them to local conditions and technological advances.</p> <p>The Group is continuing to develop its energy services, particularly in the field of energy efficiency.</p> <p>The Group is a key player in the low-emissions nuclear electricity generation sector in Belgium and in nuclear engineering.</p> <p>The Group has put in place a structure dedicated to innovation and new business lines, in order to propose solutions that meet the new expectations of its various customers, and to prepare the growth drivers of the future.</p> <p><b>See also</b> <b>IR 2017</b> <i>Our vision of the market: p. 6 to 8</i> <b>RD 2016</b> <i>Section 2.2.1</i></p>

## Risk linked to the external environment

Risk and link with strategy	Description of the risk	Actions taken by ENGIE
<p><b>Country-specific and regulatory risks</b></p> <ul style="list-style-type: none"> <li>To prioritize the lowest CO<sub>2</sub> solutions</li> <li>Redesigning and simplifying the business portfolio</li> </ul>	<p>The Group's activities are exposed to legal and regulatory changes, particularly the mechanisms of the CO<sub>2</sub> market, support for renewable energies and the regulation of sale or purchase prices. In the longer term, energy policies aim to spearhead change in organizing the sector through climate and renewable energy objectives, particularly in Europe.</p> <p>Due to its international development, the Group is exposed to country risks, which include, in addition to changes in regulation, any factors arising from political instability that may affect the licenses and the value of assets or activities carried out locally.</p>	<p>ENGIE defends its interests to legislators and regulators, taking the interests of its stakeholders into account.</p> <p>The Group seeks to diversify its operations in countries with a promising future. Attention thresholds afford control over the Group's geographical exposure. ENGIE also manages these risks within partnerships and contracts adapted to each location.</p> <p>See also <b>RD 2016</b> <i>Section 2.2.2</i></p>
<p><b>Economic impetus</b></p> <ul style="list-style-type: none"> <li>To reduce exposure to commodity prices</li> <li>Redesigning and simplifying the business portfolio</li> <li>Improving performance</li> </ul>	<p>Economic impetus affects demand for electricity, natural gas and services. The weakness of growth in Europe and uncertainties over trends in growth countries lead to a risk of a decline in Group revenue and margins.</p>	<p>In order to limit these uncertainties, ENGIE is diversifying its portfolio of projects and customers in each of its activities, as well as in development zones. It is also developing new activities.</p> <p>See also <b>IR 2017</b> <i>Our strategy: p. 14 to 16</i> <b>RD 2016</b> <i>Section 2.2.1</i></p>
<p><b>Climate change</b></p> <ul style="list-style-type: none"> <li>To prioritize the lowest CO<sub>2</sub> solutions</li> <li>Preparing for the Group's future by technological and digital innovation</li> </ul>	<p>In the short-term, weather-related events (mild or cold winters, wind, drought) have an impact on energy generation and on demand for gas and electricity.</p> <p>In the longer term, climate change could have a wider impact on the Group's activities: changes to regional or seasonal energy needs, obligation to reduce CO<sub>2</sub> emissions, scarcity of water resources, etc.</p>	<p>In order to manage fluctuations in annual demand, ENGIE actively balances supply and demand by changing its portfolio of assets, gas and power generation resources and fixed-term hedging on commodity markets.</p> <p>Upstream of COP21, the Group made a strong commitment to an ambitious international climate agreement, specifically targeting investment in low-carbon technologies and the reduction of GHG emissions.</p> <p>The expansion of its fleet of renewable energies and the development of service offerings are major themes of ENGIE's strategy in favor of energy transition.</p> <p>See also <b>IR 2017</b> <i>Our performance: p. 29 to 34</i> <b>RD 2016</b> <i>Section 2.2.3</i></p>
<p><b>Financial risks</b></p> <ul style="list-style-type: none"> <li>To reduce exposure to commodity prices</li> <li>Improving performance</li> </ul>	<p>The Group is chiefly exposed to two kinds of commodity market risk: price risk relating directly to fluctuating market prices and volume risk (weather risk and/or risk depending on economic activity).</p> <p>The economic environment also affects monetary policies and exchange rates, as well as the solvency of counterparties.</p>	<p>The Group's risk-hedging policies specifically cover commodity price, counterparty, credit and interest rate risks.</p> <p>See also <b>RD 2016</b> <i>Section 2.5</i></p>

## Operational risks linked to the Group's activities

Risk and link with strategy	Description of the risk	Actions taken by ENGIE
<p><b>Projects</b></p> <p> Redesigning and simplifying the business portfolio</p> <p> Renewed commitment to corporate and environmental responsibility</p>	<p>ENGIE's growth is based on various projects to acquire or build industrial assets, such as gas or electricity infrastructures, for which the Group is the owner/operator which can span one or more decades.</p> <p>The profitability of these assets depends in particular on monitoring construction, relations with partners, natural phenomena, regulatory and fiscal uncertainties and changes in the long-term competitive environment. These factors could adversely affect profitability or impair value.</p>	<p>The Group has strengthened the monitoring of its portfolio of projects and how it reacts to uncertainties, for instance by developing its facilities with local partners to ensure acceptance and profitability.</p> <p>In addition, ENGIE is incorporating environmental and social criteria at the upstream phase of projects as part of its tender responses and when choosing its strategic suppliers, who are encouraged to respect the 10 Global Compact principles.</p> <p><b>See also</b> <a href="#">RD 2016</a> <i>Section 2.3.2</i></p>
<p><b>Industrial Safety &amp; Nuclear Safety</b></p> <p> Renewed commitment to corporate and environmental responsibility</p>	<p>The Group, which is a player in the energy sector, operates or works on industrial sites where accidents are likely to cause injury or loss of life, damage to property or the environment, as well as interruptions to work and operating losses (nuclear sites, Seveso classified sites, hydrocarbon operation facilities, customer sites operated by the Group on their behalf, etc.).</p>	<p>The Group performs its industrial activities in strict compliance with safety regulations, as well as through a safety management system based on prevention and continuous improvement.</p> <p>Most of these risks are covered by insurance policies, but in the event of a major disaster, the Group's liability could be sought beyond the guaranteed ceilings or for events that are not covered.</p> <p>Nuclear risk is managed in a specific manner, under the supervision of the Safety Authorities and subject to the monitoring of international associations such as the World Association of Nuclear Operators (WANO). ENGIE is continuously strengthening nuclear safety (Nuclear Safety Plan 2016-2020).</p> <p><b>See also</b> <a href="#">IR 2017</a> <i>Our performance: p. 24</i> <a href="#">RD 2016</a> <i>Section 2.4</i></p>
<p><b>Human Resources and Transformation Challenges</b></p> <p> Adapting the Group</p>	<p>The Group's transformation comes with challenges in terms of adapting human resources: changes in business lines and skills, employee commitment and motivation, prevention of psycho-social risks, change management, high-quality social dialogue, compliance with social commitments .</p>	<p>The Group anticipates future needs thanks to the Skills and Capabilities Observatory. The adjustment of jobs and skills is performed with particular attention to respect for people, particularly with the deployment of ENGIE Mobility.</p> <p>With "ENGIE Management Way", the Group promotes behavior encouraging employee development as part of the Group's transformation.</p> <p>Particular attention is paid to local management, in charge of relaying the Group's messages and accompanying change. This ensures the vision and strategy are communicated with close attention paid to transformation projects, ensuring that they are properly deployed.</p> <p><b>See also</b> <a href="#">IR 2017</a> <i>Our performance: p. 24 to 26</i> <a href="#">RD 2016</a> <i>Section 2.3.5</i></p>

## Operational risks linked to the Group's activities (continued)

Risk and link with strategy	Description of the risk	Actions taken by ENGIE
<p><b>Reputational risk linked to ethics and corporate and environmental responsibility</b></p> <div data-bbox="150 510 448 584" style="background-color: #4CAF50; color: white; padding: 5px; border-radius: 5px;">  <span style="font-size: 0.8em; margin-left: 5px;">Renewed commitment to corporate and environmental responsibility</span> </div>	<p>Reputation is one of ENGIE's intangible assets and can be affected in the event of a breach of ethics or a challenge to the Group's values, operational excellence or operating legitimacy.</p>	<p>Through its policies, organization, procedures and governance, the Group endeavors to prevent operational failures and smear attacks that might affect its reputation. For instance, the Group is developing a responsible purchasing policy, to fight fraud and corruption and works with its stakeholders to ensure local acceptance of its activities.</p> <p>Ethical risks are subject to a zero-tolerance policy within the Group. "Corruption" and "human rights" risks must be considered for all investment projects.</p> <div data-bbox="975 730 1390 786" style="display: flex; align-items: center; gap: 5px;"> <div style="background-color: #4CAF50; color: white; padding: 2px 5px; font-size: 0.7em;">See also</div> <div style="background-color: #4CAF50; color: white; padding: 2px 5px; font-size: 0.7em;">IR 2017</div> <div style="background-color: #4CAF50; color: white; padding: 2px 5px; font-size: 0.7em;">RD 2016</div> <div style="font-size: 0.7em;">Our performance: p. 29 to 34 Sections 2.3.4 and 2.2.4</div> </div>
<p><b>Digitization &amp; Cyber Security</b></p> <div data-bbox="150 920 448 1014" style="background-color: #0070C0; color: white; padding: 5px; border-radius: 5px;">  <span style="font-size: 0.8em; margin-left: 5px;">Preparing for the Group's future by technological and digital innovation</span> </div>	<p>New digital technologies are major sources of innovation and development, but they potentially expose ENGIE to new risks, particularly competition risks. Computer attacks and attempted intrusion are increasingly targeted and may lead to the loss, theft or leakage of information, delays or additional costs that could harm the Group.</p> <p>The emergence of big data, personal data retention and the development of decentralized management of energy generation all hold new risks.</p>	<p>The Group integrates digital tools to develop new approaches to customer relations, new energy services such as smart cities and to improve its operational performance.</p> <p>Safety measures are regularly strengthened and subject to permanent checks, test campaigns and awareness-raising campaigns. These measures are specifically reinforced in relation to new laws in force.</p> <div data-bbox="975 1126 1262 1182" style="display: flex; align-items: center; gap: 5px;"> <div style="background-color: #4CAF50; color: white; padding: 2px 5px; font-size: 0.7em;">See also</div> <div style="background-color: #4CAF50; color: white; padding: 2px 5px; font-size: 0.7em;">RD 2016</div> <div style="font-size: 0.7em;">Section 2.3.7</div> </div>

## A solid internal control system

ENGIE's internal control objectives – underpinned by the Internal Control Management and Efficiency (INCOME) program, approved by the Executive Committee and submitted to the Audit Committee – are **to provide reasonable assurance concerning the control of operations** with regard to the following objectives:

- compliance with applicable laws and regulations;
- reliability of accounting and financial information;
- performance and optimization of operations.

This system, based on the model promoted by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and in line with the principles outlined by the AMF (*Autorité des Marchés Financiers*), specifically regarding reference in January 2007 and updated in terms of risk management in July 2010 – is part of a **process of continuous improvement** and is based on:

- managing of a program established in synergy with the other approaches to improve activities;
- some fifty internal control procedures made available to all partners;
- annual assessments of the general control environment and the accounting, financial and operational processes used;
- an annual review of internal control is submitted to the Executive Committee and the Audit Committee.

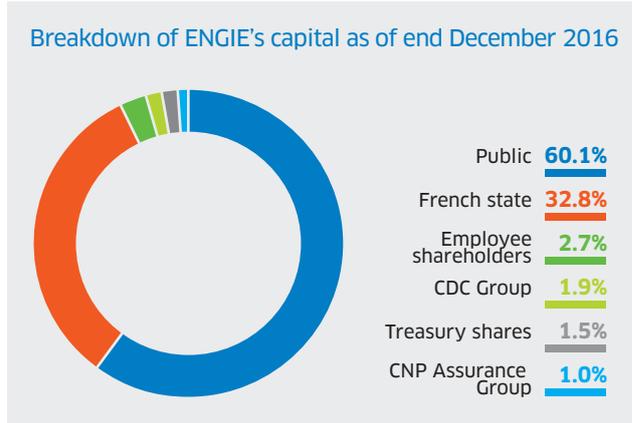
# 7 Our Governance

## Governance tailored to the new challenges facing ENGIE

*ENGIE's governance aims to set out and implement the Group's strategy so as to tailor it to the challenges of a fast-changing energy world, while protecting the interests of its stakeholders.*

2016 was marked by the separation as of May 3, 2016 of the positions of Chairman and Chief Executive Officer, with Gérard Mestrallet remaining Chairman and Isabelle Kocher becoming Chief Executive Officer.

ENGIE's governance, founded on its values and its Ethics Charter, is based on a set of rules and processes, in line with national and international best practice, including the Corporate Governance Code for Listed Companies published jointly by the AFEP (Association Française des Entreprises Privées) and the MEDEF (Mouvement des Entreprises de France). The governance structures and processes are regularly reviewed to ensure they are tailored to the Group's strategy.



## The Board of Directors, spearheading the Group's transformation

### Independence and experience of Directors

The Board of Directors sets the overall strategic direction of ENGIE's activities and ensures that it is implemented. It specifically oversees financial policy and corporate, social and environmental responsibility, meeting as often as the Group's interest so requires. The rights and duties of Directors and the rules relating to the performance of their office are described in the **Code of Conduct** and in the **ENGIE Director's Charter** (available on the website [engie.com](http://engie.com)).

At the end of the General Shareholders' Meeting (meeting on May 12, 2017) and subject to the approval of the resolutions, the Board of Directors of ENGIE will be composed of **19 members** including 3 Directors representing employees, 1 Director representing employee shareholders and 5 Directors representing or appointed on a proposal from the French State.

In accordance with the AFEP-MEDEF Code, eight Directors are considered independent, i.e. a ratio of 53%<sup>(1)</sup>. ENGIE also complies with the principle of gender balance on its Board: 10 of its members are women, or 63%<sup>(1)</sup>, a proportion of women that exceeds French legal requirements.

The French Government Commissioner and the representative of the Central Works Council each have an advisory vote and also attend Board meetings, along with the Chief Financial Officer, the Deputy Deputy Chief Executive Officer, the General Secretary and the Secretary of the Board of Directors.

Four Committees with additional expertise assist the Board of Directors.

**63%**  
of women on the Board of Directors<sup>(1)</sup>

**5**  
nationalities represented

**53%**  
Independent Directors<sup>(1)</sup>

**4-year**  
Term of Office for Directors

(1) In accordance with the AFEP-MEDEF Code, the five Directors representing employees and employee shareholders are not taken into account when assessing the rate of independence. In addition, by law, the four Directors representing the employees are not counted when assessing the proportion of women on the Board (data subject to the approval of resolutions by the General Shareholders' Meeting of May 12, 2017).

**Dynamic, hands-on governance in the transformation of the Group**

**Board of Directors**

**11 meetings with 86% average rate of participation <sup>(1)</sup>**

**Main work:**

- activities, strategy and risk-mapping of the Group;
- Group transformation plan;
- financial matters;
- corporate governance;
- situation regarding nuclear power;
- health and safety update;
- policy in terms of professional and wage equality.

Additionally, a strategic reflection seminar of the Board of Directors was held on the following topics: situation, strategic vision and progress made in terms of the transformation plan, challenges and positions put forward on the three main areas represented by challenges in the gas value chain, nuclear projects and technological and digital innovations.

**Four Committees chaired by independent Directors**

Review of recurring and topical issues Opinion, preparation of work and decisions of the Board

Audit	Strategy, Investments & Technologies	Appointments, Compensation & Governance	Ethics, Environment & Sustainable Development
<p style="text-align: center;"><b>8 meetings, 98% attendance <sup>(1)</sup></b></p> <ul style="list-style-type: none"> <li>▶ Review and monitoring of risk mapping and of the project to strengthen of risk management</li> <li>▶ Review of accounts and financial situation</li> <li>▶ Analysis of priority risks in terms of industrial safety and nuclear safety</li> <li>▶ Review of internal control and internal audit</li> <li>▶ Review of the blueprint for IT infrastructures and associated action plans</li> </ul>	<p style="text-align: center;"><b>9 meetings, 74% attendance <sup>(1)</sup></b></p> <ul style="list-style-type: none"> <li>▶ Changes in the demand for gas in Europe</li> <li>▶ Group strategy in Africa, situation in terms of exploration/generation, competitive watch on new activities</li> <li>▶ "Lean 2018" transformation plan</li> <li>▶ Group's digital aims</li> <li>▶ Development strategy in the solar energy sector</li> <li>▶ Investment and disinvestment</li> </ul>	<p style="text-align: center;"><b>8 meetings, 89% attendance <sup>(1)</sup></b></p> <ul style="list-style-type: none"> <li>▶ Separation of the functions of Chairman and Chief Executive Officer</li> <li>▶ Review of independence and qualification of Directors</li> <li>▶ Adoption of a performance share plan for 2016</li> <li>▶ Proposals for compensation of corporate executive officers</li> <li>▶ Executive compensation policy</li> <li>▶ Assessment of Board Operation</li> </ul>	<p style="text-align: center;"><b>5 meetings, 76% attendance <sup>(1)</sup></b></p> <ul style="list-style-type: none"> <li>▶ Review of ethics and compliance systems, summary of ethical incidents and ethics officer's report</li> <li>▶ Review of risk to reputation, ethical due diligence policy in investments</li> <li>▶ Employer's corporate social responsibility</li> <li>▶ Review of CSR performance and ratings, integrated report and work on COP22</li> <li>▶ 2°C scenario</li> </ul>
<p>Joint Review of medium-term business plan</p>			

See also **RD 2016** Section 4.1 **engie.com** Publication "Board Committees"

(1) 2016 data.



## An Executive Board that embodies the Group's vision

### The Executive Committee, at the forefront of strategic decisions

ENGIE's Executive Committee is composed of 12 members and is in charge of the Group's management. Meeting weekly in principle, the Committee determines the strategic decisions of ENGIE according to the guidelines set out by the Board of Directors.

Name	Position	BU supervised	Age	Nationality/ Gender	Date of appointment
Isabelle Kocher	Chief Executive Officer	—	50y	 	2016
Paulo Almirante	CEO* in charge of Corporate Environmental and Social Responsibility	Generation Europe, Brazil, Northern, Southern and Eastern Europe, Middle East, Central and South Asia, Turkey	52y	 	2016
Franck Bruel	Deputy CEO*	France B to B	54y	 	2016
Ana Busto	Deputy CEO* in charge of Communications and Branding	—	46y	 	2016
Pierre Chareyre	Deputy CEO* in charge of the Energy Market Risk Committee	Global Energy Management, LNG, Exploration & Generation International and Latin America	60y	 	2016
Pierre Deheunynck	Deputy CEO* in charge of Group Human Resources, Property and Safety and supervision of the Global <i>Business Services</i> shared service center	—	54y	 	2016
Judith Hartmann	Chief Financial Officer	United Kingdom and North America	47y	 	2016
Didier Holleaux	Deputy CEO* in charge of sourcing Strategy & Purchases, Industrial Projects and Nuclear Development	Elengy, GRDF, GRTgaz, Storengy, Asia-Pacific, China and GTT	56y	 	2016
Shankar Krishnamoorthy	Deputy CEO* in charge of Group business lines, Group strategy management and Business Development Oversight	Tractebel	56y	 	2017
Yves Le Gélard	Deputy CEO* in charge of Digital and Group Information Systems	—	57y	 	2016
Thierry Lepercq	Deputy CEO* in charge of Research & Technology and innovation	—	55y	 	2016
Pierre Mongin	Deputy CEO, General Secretary of the Group, in charge of coordinating nuclear safety	Africa, Benelux, France Networks, France Renewable Energies and France B to C	62y	 	2016

\* Deputy CEO: Deputy Chief Executive Officer.

## Compensation that promotes value creation in the short, medium and long term

### Compensation of executive management and corporate officers

Each year, the compensation of ENGIE executives is reviewed and set by the Board of Directors on the recommendation of the Appointments, Compensation and Governance Committee. Since 1 January 2017, in accordance with the “Sapin II Law”, the **compensation policy** is subject to the approval of the Annual Shareholders’ Ordinary General Meeting.

The annual compensation of the CEO comprises a fixed component, a variable component and a long-term incentive, defined according to accurate and stringent criteria, with regard to practices in comparable large international groups. These elements are established to reflect value creation in the short-term and long-term, in line with the Group’s strategy, its performance, its sustainable development commitments and the interests of its shareholders and stakeholders.

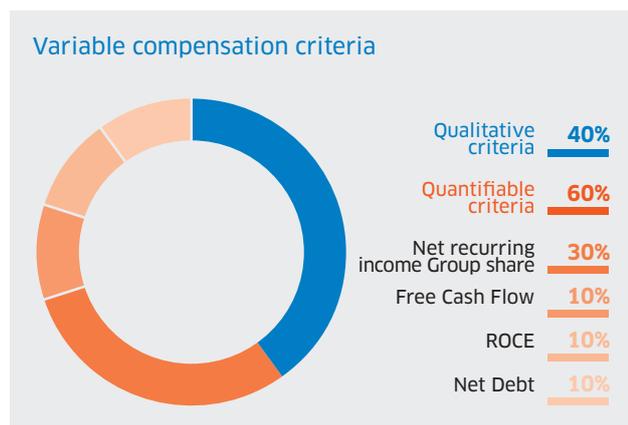
	Objectives	Features	2016 criteria	2017 criteria
<b>Fixed fee</b>	Reflects the executives’ responsibilities, experience and skills.	Reviewed each year.	Remains unchanged unless the Board of Directors decides otherwise, in particular with regard to the market context, any changes in ENGIE’s profile and changes in Group’s employee compensation.	
<b>Variable component</b>	Reflects the Director’s personal contribution to the Group’s development and results.	Balanced in relation to the fixed component and defined as a percentage of fixed compensation.	<b>Quantifiable Criteria (60%) :</b> Net recurring income, Group share, per share: 50% <i>Free Cash Flow</i> : 16.7% ROCE: 16.7% Net debt: 16.7%	<b>Qualitative criteria (40%) :</b> <i>The qualitative criteria for 2017 will be published in 2018 for confidentiality reasons.</i> – internal reorganization; – strategic repositioning in connection with the energy transition; – innovation and digitization; – corporate, social and environmental responsibility.
<b>Long-term incentive component (Performance Units)</b>	Encourages the executive to make a long-term commitment, increases loyalty and promotes the alignment of their interests with the Company’s corporate interests and the interests of shareholders.	Subject to performance conditions comparable to those of performance-based share plans, for which the Company’s executive corporate Directors are not eligible.  These performance conditions are alone quantifiable and include at least one external condition relating to the relative change in total shareholder return (stock market performance, reinvested dividend) and an internal condition relating to value creation.  This particular component may not account for more than 40% of the Director’s total compensation at the initial allocation.	Net recurring income, Group share: 1/3 ROCE: 1/3 TSR ENGIE/Panel of 6 peers (EDF, E.ON, RWE, ENEL, Iberdrola and Gas Natural): 1/3	Net recurring income, Group share: 1/3 ROCE: 1/3 ENGIE TSR/Panel of 8 peers (EDF, E.ON, Uniper, RWE, Innogy, ENEL, Iberdrola and Gas Natural): 1/3

Compensation subject to performance conditions and a vesting period of 3 years, followed by an exercise period of 3 years. In the event that the option is exercised, there is an obligation to reinvest, in ENGIE shares, 2/3 of the net amount paid (until the shareholding target, set at two years’ fixed compensation, has been met).

The payment of the variable and special compensation components for 2017 is contingent upon the approval of the General Shareholders' Meeting to be held in 2018.

The Chief Executive Officer continues to benefit from an additional retirement scheme in which the company does not guarantee the pension level, but pays an annual employer matching contribution.

The Chief Executive Officer is a member of the Board of Directors but does not receive any Directors' fees for attendance.



## Compensation in 2016

With effect from May 3, 2016, ENGIE separated the functions of Chairman of the Board and Chief Executive Officer, appointing Gérard Mestrallet and Isabelle Kocher respectively to those positions.

Gérard Mestrallet then announced that he did not wish to be compensated for his role as Chairman of the Board and therefore serves in this capacity free of charge for both 2016 and 2017. Consequently, the Board of Directors expressed its wish that the Company pay €350,000 per year to the ENGIE Corporate Foundation.

<i>(in euros)</i>	<b>January 1 to</b>		<b>May 3 to</b>	
	<b>May 3, 2016</b>		<b>December 31, 2016</b>	
<b>Gérard Mestrallet</b>	Chairman and Chief Executive Officer		Chairman of the Board	
Fixed	477,957		–	
Floating	136,789 <sup>(1)</sup>		–	
Benefits in kind	2,097		–	
Performance Units (assessed)	386,500		–	
<b>TOTAL</b>	<b>1,003,343</b>		<b>–</b>	

(1) The success rate was 94.71% for quantitative criteria and 98% for qualitative criteria.

<i>(in euros)</i>	<b>January 1 to</b>		<b>May 3 to</b>	
	<b>May 3, 2016</b>		<b>December 31, 2016</b>	
<b>Isabelle Kocher</b>	Deputy Chief Executive Officer		Chief Executive Officer	
Fixed	307,258		658,602	
Floating	215,350 <sup>(2)</sup>		445,837 <sup>(3)</sup>	
Employer matching contribution for retirement plan	130,652		276,110	
Benefits in kind	2,052		3,960	
Performance Units (assessed)	157,483		613,329	
<b>TOTAL</b>	<b>812,795</b>		<b>1,997,838</b>	

(2) The success rate was 94.71% for quantitative criteria and 97.50% for qualitative criteria.

(3) The success rate was 94.71% for quantitative criteria and 98.75% for qualitative criteria.

## Compensation in 2017 (application of the "Sapin II law")

Gérard Mestrallet reiterated his wish not to receive remuneration for his duties as Chairman of the Board.

Isabelle Kocher's remuneration, as Chief Executive Officer, remains unchanged from 2016.

<i>(in euros)</i>	<b>2017</b>	
<b>Isabelle Kocher</b>	Chief Executive Officer	
Fixed		1,000,000
Target variable (may be a maximum of €840,000 in the event of outperformance)		700,000
<b>TOTAL</b>		<b>1,700,000</b>
Performance Units		120,000 units

## Remuneration of senior Directors and executive officers

The remuneration of senior Directors and executive officers is comprised of a fixed component, depending on the responsibilities and experience of each Director, and a variable portion, which reflects their contribution to the Group's results. The variable portion paid in 2017 for fiscal year 2016 was calculated based on economic criteria (recurring net income, Group share per share, ROCE, free cash flow and implementation of the cost-saving program) (50%), and

qualitative criteria (50%). In addition to this remuneration, there is a long-term performance element in the form of Performance Share allocation plans, subject to performance conditions, which have been offered to more than 7,000 Group employees.

The Group incorporates a **health and safety objective** in the assessment of its executives and managers and a **corporate, social and environmental responsibility objective** in the assessment of its 600 executives worldwide.

(in euros)

	2016 11 members <sup>(a)</sup>	2015 19 members	2014 19 members
Fixed	4,973,691	8,101,391	7,007,822
Floating	4,798,609	8,062,252	7,121,667
<b>TOTAL</b>	<b>9,772,300</b>	<b>16,163,643</b>	<b>14,129,489</b>

(a) 19 members until May 3, 2016 and 11 members thereafter.

## Remuneration of Directors

On the recommendation of the Board of Directors, the General Shareholders' Meeting sets the total amount of Directors' fees allocated to Directors. This budget (€1.4 million, amount unchanged since 2008) is allocated according to an individual distribution system set by the Board, combining a fixed portion and a variable element weighted according to the presence of Directors at meetings of the Board and its Committees, in accordance with the AFEP-MEDEF Code.

Of the 19 Directors, 11 Directors are deemed not to be independent: the 2 corporate officers, the 5 Directors representing the State shareholder or put to a vote at the General Shareholders' Meeting by the State and the 4 Directors representing employees or employee shareholders. The 8 other Directors are deemed to be independent. In accordance with the AFEP-MEDEF Code, the degree of independence is calculated by discounting the 4 Directors representing employees or employee shareholders, giving a total of 8 Directors out of 15, i.e. 53%.

### Compliance with the AFEP-MEDEF Code

#### Compliance with the "Comply or explain" principle

Independence of Directors	E
Total directorships	A
Distribution of Directors' fees	A
Employees within the Compensation Committee	A
Say on pay	A

C: Comply – E: Explain.

See  
also

RD 2016

Section 4.1.6 and 4.6  
(for compliance with AFEP-MEDEF code)

## An ambitious, long-term commitment in support of ethics

ENGIE's commitment in terms of ethics is to act, everywhere and in all circumstances, in accordance with the fundamental ethical principles described in the **Group's Ethics Charter**. This commitment is communicated consistently, as is the **principle of zero tolerance** toward fraud and corruption, by the Group's Executive Board. It is also manifested through the Group's adherence to several multilateral international initiatives, in

particular the United Nations Global Compact, the French section of Transparency International and the EITI (Extractive Industries Transparency Initiative). ENGIE is constantly striving to strengthen the incorporation of ethics in its strategy, its management and its practices and has the means to measure compliance with its commitments.

### Ethical principles applicable in all circumstances

The Ethics Charter sets out the general framework within which rules of professional conduct must be established, defines ENGIE's fundamental ethical principles and describes the governance system with regard to ethics. It is supplemented by

a practical Guide to Ethics, detailing the methods of application of the Charter on a daily basis. Their content, updated in 2016, applies to all employees as well as to relations with customers and stakeholders.

## A structured reference framework

Reference frameworks support the implementation of ENGIE's fundamental ethical principles. The **"Integrity" guidelines**, dedicated to the prevention of fraud, corruption and insider influence, define the Group's stance in combating the risk of breaches of integrity. The **"Human Rights" guidelines** formalize the ethical commitments in support of internationally acknowledged human rights and provide operational processes to assist in their implementation. The **"Compliance Management" guidelines** specify how the Group is organized to support the

implementation of its ethics and compliance processes and the monitoring of compliance. It also includes the Group's policies with regard to complying with the rules relating to embargoes, the protection of personal data and competition. Finally, **codes of professional conduct** (e.g. supplier relationships, lobbying) provide a framework of professional practices in terms of ethics.

See also **RD 2016** *Section 3.1.4*  
 engie.com *Publications "Ethics and compliance" and "Governance and ethics"*

### Investments and major contracts subject to due diligence



In 2015, the Group adopted a policy requiring stakeholders involved in its investment projects and its major contracts to be subject to a preliminary ethical due diligence procedure. In 2016, the Group developed its own capacity to perform this due diligence and have better control over any use of service providers in this area.

### Lobbying activities subject to a dedicated Code of Conduct



The Group strengthened its ethics policy in 2017 by improving the transparency of lobbying activities and further established the standards of integrity described in the practical Guide to Ethics for these activities. The provisions of the Code of Conduct concerning lobbying apply to anyone, whether internal or external, undertaking lobbying activities on the Group's behalf.

## An extensive control system

The compliance and control system is deployed within the Group by the Ethics and Compliance Department, reporting to the General Secretariat under the supervision of the Chief Executive Officer. Led by the Group's managers with the support of a network of more than **250 ethics officers** and ethics representatives in 2016, this system is based on:

- monitoring the implementation of the Group's ethics policy, based on an annual compliance procedure and a dashboard comprised of some fifteen indicators (specifically: distribution of the ethics documentation, training, implementation of ethical procedures, etc.). The resulting annual report is submitted to the Group Executive Committee and the Ethics, Environment and Sustainable Development Committee of the Board of Directors;
- a confidential tool for reporting issues, **"INFORM ethics"**, available to ethics officers and certain authorized employees, who are obliged to report any presumed ethics incident in the system;

- assessing ethical risks as part of the Group's ERM approach. The assessment of risks of corruption and of the failure to respect human rights is carried out using a common analysis methodology within the Group;
- incorporating adherence to ethics and compliance policies into the "INCOME" internal control program;
- an ethics e-mail address, [ethics@engie.com](mailto:ethics@engie.com), an **alert system** for "whistleblowing", allowing any employee as well as any person outside the Group to report any unethical conduct;
- Raising awareness among and training **14,000 employees in 2016**, including through web conferences and webinars, e-learning programs and specific training attended by **84% of ENGIE executives** since 2012;
- incorporating ethics in the **annual assessment** of executives and managers;
- **internal and external audits** to assess the effective implementation of policies. The Group's anti-corruption policy was certified by Mazars and Adit in 2015.

See also **RD 2016** *Section 4.1.7 and 4.1.6*

# Indicators

## Operational indicators

	2014	2015	2016
Installed electricity generation capacity (GW) <sup>(1)</sup>	115.3	117.1	112.7
Capacity under construction (GW) <sup>(1)</sup>	10.5	8.1	5.2
Installed renewable capacity (%) <sup>(1)</sup>	17.4	18.3	19.5
LNG supply (TWh)	167	139	145
B2C customers' satisfaction rate (%)	-	-	81
R&D expenditure (€ million)	189	190	191
Gas sales (TWh) <sup>(2)</sup>	606 *	691	740
Electricity sales (TWh) <sup>(2)</sup>	160 *	385	394
Electricity generation (TWh) <sup>(1)</sup>	125 *	491	506
Combined cycle gas plants load factor (%)	25 *	33	40
Coal-fired power plants load factor (%)	48 *	54	52
Availability of nuclear plants (%)	62	51	80
Production of hydrocarbons (MBOE)	55.5	59.1	56.3
External sales of LNG (TWh)	119	81	81
Distribution RAB (€ billion) <sup>(3)</sup>	14.3	14.2	14.1
Transmission RAB (€ billion) <sup>(3)</sup>	7.2	7.6	8
Storage capacity sold (TWh)	99	104	102
Services – Net business development (€ million/year)	205	197	224
Facilities – Order book (€ million)	5,519	5,240	5,720
Engineering – Order book (€ million)	619	807	818

## Financial indicators

	2014	2015	2016
Revenues (€ billion)	74.7	69.9	66.6
EBITDA (€ billion)	12.1	11.3	10.7
Current operating income (€ billion) <sup>(4)</sup>	7.2	6.3	6.2
Net recurring income, Group share (€ billion) <sup>(5)</sup>	2.7	2.6	2.5
Gross investments (€ billion)	7.1	7.2	7.3
Cash flow from operations (CFFO)	7.9	9.8	9.7
Net debt	27.5	27.7	24.8
Net debt/EBITDA	2.3	2.5	2.3
Dividend (€/share)	1	1	0.7

## Environmental indicators

	2014	2015	2016
Total GHG emissions – scope 1 (t CO <sub>2</sub> eq.)	131,154,736	132,757,296	120,150,104
Total GHG emissions – scope 2 (t CO <sub>2</sub> eq.)	-	-	3,855,133
Total GHG emissions – scope 3 (t CO <sub>2</sub> eq.)	-	-	191,083,656
Average rate of CO <sub>2</sub> emissions – energy production (kg CO <sub>2</sub> eq./MWh eq.)	434.2	445.5	392.8
Reduction in the CO <sub>2</sub> emission ratio for energy production compared with 2012 (%)	- 2	+0.6	- 11.3
NO <sub>x</sub> emissions (t)	149,401	143,253	136,895
SO <sub>2</sub> emissions (t)	246,448	237,031	192,213
Particulate matter emissions (t)	14,672	12,919	11,353

Environmental indicators (suite)	2014	2015	2016
Primary energy consumption – total (excluding auto consumption) (GWh)	468,867	479,560	450,350
Total consumption – fresh water and salt water (Mm <sup>3</sup> )	135.4	138.8	156.2
Reduction in fresh water abstraction/MWh electricity generation ratio compared with 2012 (%)	-	- 16	- 24
Environmental risk prevention plan (% of relevant revenues)	85.1	84.5	82.7
Environmental expenditure (€K)	1,008,105	634,722	699,835
Environment-related claims (no.)	478	173	24
Environment-related fines (no.)	1	4	2
Amount of compensation (€K)	27.9	1.5	4.5
Non-hazardous waste recovery rate (%)	89.2	89.3	87.3
Hazardous waste recovery rate (%)	13.6	13.3	10
Certified environmental management system (% of relevant revenues)	84.2	84.2	81.0

Social indicators	2014	2015	2016
Number of employees	152,882	154,935	153,090
Internal occupational accident frequency rate	4.1	3.6	3.6
Accident severity rate (%)	0.2	0.17	0.18
Intermediaries (incl. sub-contractors) trained in “Life-Saving Rules” (%)	-	-	70
Identification & management of potentially serious events by BU (%)	-	-	80
Absenteeism for medical reasons (time/employee/year)	63	65	66
Women in the workforce (%)	21.6	21.6	21.9
Women in managerial positions (%)	21.9	22.0	22.8
Women appointed to executive positions (%)	32.6	26.0	33.3
Workforce attending at least one training course (%)	68.1	66.0 <sup>(6)</sup>	65.6
Hours of training (no.)	2,997,908	2,971,607	3,039,026
Work-study students in the workforce (%)	2.6	2.6	2.8
Total employment rate of disabled employees in France	4.36	4.61	4.8
Management commitment (%)	-	-	78
Employee shareholding (% of capital held)	3.2	2.7	2.8

Societal indicators	2014	2015	2016
Industrial activities covered by an appropriate mechanism for dialogue and consultation with stakeholders (%)	-	-	20
Sensitive sites with a concerted and integrated environmental management plan (%)	72.4**	98.3**	14
Customers receiving the Tarif Spécial de Solidarité (TSS) (Special Solidarity Rate) for gas (no.)	824,000	857,000	924,000
Beneficiaries of access to sustainable energy programs at “the base of the pyramid” (million)	-	0.7	1.2

Governance indicators	2014	2015	2016
Attendance rate of the Board of Directors (%)	83	89	86
Gender mix on the Board of Directors (%)	43	63	63
Executives from abroad (excluding France, Belgium) (%)	19.8	19.5	19.9
Executives trained in anti-corruption measures (%)	82	77	84
Entities with a CSR process for managing their supply chain (%)	-	-	13

(1) Recognized at 100% regardless of the holding rate.

(2) The sales figures are consolidated in accordance with the accounting standards.

(3) Regulated asset base as at January 1.

(4) After share in net income of entities accounted for using the equity method.

(5) Excluding restructuring costs, MtM, impairment of assets, disposals, other non-recurring items and associated tax impacts and after incorporation of the expenses relating to the nuclear contribution following the agreement between the Belgian State, ENGIE and Electrabel signed on November 30, 2015.

(6) Excluding Cofely Workplace and Cofely Ltd (UK) subsidiaries acquired in 2014 and which have not yet implemented the Group's policy.

\* Europe scope. \*\* In the EU and for biodiversity

# About the Report

*The ENGIE Integrated Report presents an overview of the Group, its strategy and its activities, with regard to the environment in which it operates and with a view to creating short, medium and long-term value through its objectives and its performance.*

## Methodology

Taking inspiration from the reference framework published by the International Integrated Reporting Council (IIRC), of which ENGIE is a member, this Report is part of a voluntary progress strategy for the Group in the long term and the development of “integrated thinking”.

An internal working group, chaired by the Corporate and Environmental Responsibility Department and bringing together several functional departments, was consulted throughout the process, in order to collate the information.

The approach taken was for the Integrated Report to focus on ENGIE’s strategy and to select the most pertinent information with regard to this strategy in terms of educational value, rather than exhaustiveness.

This Report was presented to the Executive Committee meeting of April 18, 2017 and the Ethics, Environment and Sustainable Development Committee of the Board of Directors on April 25, 2017.

## Scope

The Report covers the year 2016 (from January 1, 2016 to December 31, 2016). It sets out the objectives for 2017 and includes medium and long-term projections, thereby offering a forward-looking vision of the Group in its environment.

## Changes to the Report for 2017

The 2017 Integrated Report is an update to the 2016 Integrated Report.

ENGIE has identified very specific changes for the 2017 Report as well as long-term areas for improvement. It was therefore decided that the inclusion of content concerning its customers and its stakeholders should be increased and that the “Performance” section should be expanded to demonstrate value creation and promote the links between the strategy, the Group’s objectives and the United Nations Sustainable Development Goals (SDG) outlined below.



For 2018, ENGIE is planning a complete overhaul of its Integrated Report.

# Our publications

## Targeted communication for each of our stakeholders

-  **Investors and analysts**
-  **Individual shareholders**
-  **Key accounts**  
(industrial sites and local authorities) **and private customers**
-  **Industrial partners and suppliers**
-  **Public authorities**
-  **NGOs and civil society**
-  **Employees**



Overview of the Group's capacity to generate short, medium and long-term value



Document compliant with French and European regulations including, specifically, the annual financial report, the Board of Directors' management report, and ENGIE's financial statements and corporate, social and environmental information relating to corporate governance



A summary of ENGIE's performance in 2016 in the form of key figures



Major landmarks and key figures relating to energy

# Glossary

## **B to B (Business to Business)**

Customer segment corresponding to business and service-sector customers.

## **B to C (Business to Consumer)**

Customer segment corresponding to professional and private customers.

## **B to T (Business to Territory)**

Customer segment corresponding to towns, cities and regions.

## **CO<sub>2</sub> equivalent**

Indicator measuring greenhouse gas emissions.

## **Cogeneration**

A technique for simultaneously producing heat (steam or superheated water or a mixture of air and combustion products) and electricity from a single fuel source that may be natural gas.

## **Commodities**

Raw materials (e.g. oil, gas, etc.).

## **Smart sensor**

Sensor equipped with technologies for the analysis or real-time (or near real-time) management of a customer's consumption of energy.

## **Impairment of assets**

Recognition of the likely and unexpected fall in the value of an asset, which may result from a change in the business, technological, or legal environment. An impairment reduces the income for the financial year in which it is recorded.

## **Facility Management**

All the 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 security services, waste management and hygiene, operation and maintenance of technical equipment, project management for construction work, management of safety equipment and telephone and reception services.

## **Greenhouse gases (GHG)**

Atmospheric gas that contributes to the retention of solar heat. Industries, cars, heating systems, animal husbandry and other activities that produce gases, some of which heighten the greenhouse effect. The significant build-up of greenhouse gases produced by human activity is one of the causes of global warming and its impacts on the ecosystem.

## **CNG (Compressed Natural Gas)**

Natural gas from the distribution network, compressed to 200 bar.

## **LNG (Liquefied Natural Gas)**

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.

## **Investment for development and growth**

Investments aimed at increasing the Group's total production capacity.

## **Maintenance investment**

Investments aimed at maintaining the production plant in good running order without increasing the Group's total production capacity.

## **IPP**

*"Independent power producer" whose activities are not regulated by government*

## **Energy mix**

Distribution of various sources of primary energy consumed for electricity or heat generation.

## **IFRS standards**

### **(International Financial Reporting Standards)**

International accounting standards that entered into effect in Europe in 2005. These standards require that the recognition of assets on the balance sheet reflect their actual value.

## **Off-grid**

Term used to describe a customer or area not connected to an energy distribution network.

## **Power to gas**

Process enabling renewable energy production to be stored in the form of hydrogen or synthesis gas

## **Energy poverty**

Status of a person, family or group without normal and regular access in their home or living space to the sources of energy required to meet their basic needs, for example, due to buildings poorly insulated against the cold or heat, or on account of the unsuitability or price of energy resources.

## **Financial rating**

Financial rating. This rating, which is issued by specialist agencies such as S&P, Moody's or Fitch, assesses a company's capacity to repay its debts.

## **Smart**

Term describing a "smart" system using digital or information technologies to ensure its optimization and efficiency.

## **Energy trading**

Trading of physical or financial contracts on the short-term energy markets (over-the-counter markets and stock exchanges).

## **Utilities**

Companies providing a public utility supply, distribution and/or delivery of fluids (water, gas, steam, etc.) or electricity.

This message includes forward-looking information and statements. These statements include financial projections and estimates, the assumptions on which they are based as well as statements about projects, objectives and expectations regarding future operations, profits, or services, or future performance. Although ENGIE's management believes that these forward-looking statements are reasonable, investors and ENGIE shareholders should be aware that such forward-looking information and statements are subject to many risks and uncertainties that are difficult to predict and generally beyond the control of ENGIE, and may cause the results and developments anticipated to differ significantly from those expressed, implied or predicted in the forward-looking statements and information. These risks include those explained or identified in the public documents filed by ENGIE with the French Financial Markets Authority (AMF), including those listed in the "Risk Factors" section of the ENGIE registration document filed with the AMF on March 23, 2017 (under number D.17-0220).

## **Acknowledgments**

The Corporate and Environmental Social Responsibility Department wishes to thank its stakeholders (customers, suppliers, employees, NGOs, investors, etc.) for their constructive feedback which has helped to improve this new Report.

It thanks all its contributors for their contributions to this fourth Integrated Report of the Group and, more specifically, the Business Lines, Finance, Strategy, Human Resources, Health and Safety, Ethics and Compliance, Strategic Sourcing & Purchasing, Internal Audit and Risk Management, Communication Departments and the General Secretariat.

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