35.5 million tonnes
We achieved an exceptional carbon performance in 2018. We moved forward in our plans to divest carbon assets, as I’d previously announced, and continued developing renewable energy and maintaining our low-carbon (nuclear and hydropower) assets to extend their useful life and improve availability. With the help of higher rainfall, we achieved 97% carbon-free electricity in France, and our worldwide emission performance is in a class of its own, at 57 g of CO\textsubscript{2}/kWh. And that’s not the only good news. Our technical and financial performance also turned around, making 2018 a very satisfactory year.

Jean-Bernard Lévy,
EDF Chairman & Chief Executive Officer
MAP OF OUR BUSINESSES
EDF group supplies electricity and gas to nearly 40 million residential, business and local authority customers worldwide. It is a major energy supplier in the key European markets: Belgium, France, Italy and the United Kingdom. To meet the needs of its customers, increasingly actively engaged with their consumption, EDF offers more and more digital, innovative and local products and solutions.

**Supply of electricity, gas and heating to 39.8 million customers** at 31/12/2018

**Europe**

**United Kingdom**
- EDF Energy: 5.1 M
- 1.9 M gas customers
- 4.9 M residential customers
- Electricity market: 3.0 M residential customers
- 0.2 M SME customers
- 2.1 TWh sold to SME
- 30.1 TWh sold to large industrial and business customers (a few thousand sites)

**France**
- EDF: 28.2 M
- SEI: 1.2 M
- Électricité de Strasbourg: 658,000
- Dalkia: around 31,000

**Belgium**
- Luminus: 1.7 M

**Italy**
- Edison: 1.6 M

**United States and Canada**
- EDF Energy Services: over 700 key accounts
- 32.3 TWh electricity sold (end-customers)
- 127.8 TWh gas sold (end-customers)

**Africa**
- BBOXX
- Senegal ERA
- Togo BBoxx
- Côte d’Ivoire ZECI
- Ghana ZEGHA
- South Africa KES

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

1. Including customer’s service activities.
2. Dalkia in France and excluding specialist subsidiaries.
4. Electricity mainly supplied through photovoltaic facilities and kits combined with a battery or solar electric power.

This map shows the number of customers by site. A customer may have several delivery points: one or more for electricity and another for gas.
Solutions to support customers in their energy transition

- Energy efficiency solutions
- Heating and cooling networks
- Decentralised low-carbon generation
- Recycling local resources
- Energy services construction
- Recycling of local resources

**France**

**Dalkia Smart Building (100% Dalkia)**

Design and construction of digital energy solutions; smart buildings, smart heating and electricity grids.

- **€102 million**: revenue
- **150 employees**
- **Market segments**: local authorities, service sector, green data centres
- **3,000 customers**
- **140 GWh of energy saved annually**
- **540 GWh of renewable energy recycled annually**
- **100,000 tonnes of CO₂ avoided annually**

**United Kingdom**

**Intechnet (50% EDF Energy/50% Dalkia)**

Climate engineering and energy consumption reduction solutions. Low-carbon solutions. Decentralised and renewable energy generation.

- **€460 million**: revenue
- **2,100 employees**
- **Market segments**: buildings, industry, service sector, local authorities

**Italy**

**Zephyre (100% Edison)**

Energy management and energy efficiency services.

- **€72 million**: revenue
- **250 employees**
- **Market segments**: public administrations
- **Breakdown of revenue by activity**
  - Residential: 34%
  - Public lighting: 29%
  - Other: 37%
- **Breakdown of customers**
  - IDEA customers: 15%
  - Other: 85%

**France**

**Dalkia group (100% EDF)**

Development, installation and management of energy solutions and services. Covers the entire value chain, from decentralised generation to managing energy demand.

- **€4.2 billion**: revenue
- **16,600 employees**
- **around 31,000 customers**
- **Market segments**: housing, service sector, industry, health, local authorities
- **4.2 million tonnes of CO₂ avoided in 2018**
- **38.2% Proportion of renewable or recycled energy**

**United Kingdom**

**Imtech**

Market segments: public administrations

- **€140 million**: revenue
- **140 employees**

**France**

**Dalkia Froid Solutions (100% Dalkia)**

Cooling solutions for industry and the commercial sector; climate engineering and air treatment.

- **€148 million**: revenue
- **1,050 employees**, including
  - 600 repair technicians
  - 12,000 customers
- **Breakdown of customers**
  - Residential: 31%
  - Service sector: 29%
  - Industry: 26%
  - Local authorities: 13%
- **Breakdown of energy services**
  - Heating and cooling networks: 26%
  - Energy services for industry: 13%
  - Energy services for buildings: 36%
  - Large and medium industrial: 13%

**France**

**EDF Renovables (100% EDF)**

Decentralised solar power generation solutions.

- **€69 million**: revenue
- **285 employees**
- **Market segments**: residential and small business customers; 25% share of residential customer market
  - 120 approved installation technicians
  - 200 MWp installed
  - 1,400 remotely managed solar power plants
- **Breakdown of customers**
  - Residential customers: 44%
  - Service sector: 15%
  - Industry: 10%
  - Large and medium industrial: 20%
  - Local authorities: 1%

**France**

**EDF Store & Forecast (100% EDF)**

Optimisation and smart management of local electricity systems using forecasting and storage.

- **€2.5 million**: revenue
- **22 employees**
- **Market segments**: renewable energy producers, network managers, aggregators and self-producers (service sector and industry)
  - 82 MW of capacity installed worldwide (up 121% relative to 2017)
  - 95 MW of storage capacity installed worldwide (up 239% relative to 2017)
  - 11,000 tonnes of CO₂ avoided

**France**

**Eiff Energy (100% EDF)**

Energy management: on-site digital energy audits; monitoring; senior installation and consumption optimisation.

- **€7 million**: revenue
- **55 employees**
- **Market segments**: industry, service sector and local authorities
  - 16,000 sites equipped
  - 46,000 energy measurement devices read each day

**France**

**Dalkia Wastenergy (100% Dalkia)**

Waste recycling to generate energy in the form of heat and electricity.

- **€222 million**: revenue
- **1,150 employees**
- **Market segments**: waste management or local authorities
  - 24 waste management authority customers
  - 3 million tonnes of waste treated
  - 2.7 TWh d’électricité et de vapeur vendus
  - 935,000 tonnes of CO₂ emissions avoided
  - 800,000 people supplied with energy annually

**France**

**Dalkia Biogaz (100% Dalkia)**

Design of biogas generation and recycling units.

- **€20 million**: revenue
- **59 employees**
- **Market segments**: industry, farms, non-hazardous waste storage facilities, local authorities
  - 120 GWp produced at 21 sites
  - 12,000 tonnes of CO₂ avoided

**France**

**Izivia (100% EDF)**

Electric mobility solutions.

- **€7.4 million**: revenue
- **55 employees**
- **Market segments**: service sector, local authorities, industry, general public
  - 25% share of EDF&BFG market
  - **€350 charging points managed and operated**
  - **200 Corri-Dor rapid charging stations located every 80 km on French motorways**
  - **300 additional stations currently being installed**

**France**

**Perfesco (100% EDF)**

Design, financing, installation, operation and maintenance of energy efficiency improvement solutions. Performance management and monitoring.

- **€2 million**: revenue
- **10 employees**
- **Market segments**: industry and service sector
  - 15 industrial customer sites, as well as 270 Eso Express service stations
  - Up to 90% reduction in energy consumption for certain sources

**France**

**Netsenergy (100% EDF)**

Energy management: on-site digital energy audits; monitoring; senior installation and consumption optimisation.

- **€7 million**: revenue
- **55 employees**
- **Market segments**: industry, service sector and local authorities
  - 16,000 sites equipped
  - 46,000 energy measurement devices read each day

**France**

**Citilum (100% EDF)**

Smart public lighting and urban equipment solutions. Management of connected objects via the Muse® digital platform for managing urban assets.

- **€318 million**: revenue
- **(75% generated outside France)**
- **2,500 employees**
- **Market segments**: local authorities, industry and service sector in Europe (Belgium, Denmark, Spain, France, Italy) and the Americas (Brazil, Chile, United States, Mexico)
  - 205 active contracts (public lighting, illumination, maintenance)
  - 3 million lighting points managed worldwide
  - 30 million people benefitting from lighting worldwide
  - 1.7 million connected objects and urban equipment (traffic light, cameras, sensors, etc.) managed by the Muse® platform
  - Up to 75% reduction in customers’ electricity consumption
  - Over 30 million kWh saved in 2018 through the design and upgrading of public lighting

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  - Up to 75% reduction in customers’ electricity consumption
  - Over 30 million kWh saved in 2018 through the design and upgrading of public lighting
EDF group’s net installed capacity by country (in MWe) at 31/12/2018

The Group is driving its transformation forward based on an energy mix that combines nuclear and renewable power. In France, it is implementing an industrial strategy of extending the operating life of nuclear power plants beyond 40 years by investing €45 billion in the Grand Carénage programme between 2014 and 2025 and preparing to roll out the Solar Power Plan. Internationally, the Group is developing its positions in wind (onshore and offshore), hydro and solar power in new markets: the Middle East, Brazil, Chile, India and China.

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Including small hydropower plants in France and assets in overseas France.

(2) Excluding EDF Renewables’ energy storage capacity and biogas generation.

Data consolidated according to EDF’s percentage ownership in Group companies, including associates and joint ventures.

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EDF group’s net generation by country (in GWhe) at 31/12/2018

The Group’s operating performance was marked mainly by an increase in nuclear generation in France, and very high rainfall in Europe. In the United Kingdom, the fall in nuclear output (4.8 TWh less than in 2017) was attributable for the most part to two extended shutdowns for graphite inspections and safety studies, as well as two additional scheduled shutdowns.

Data consolidated according to EDF’s percentage ownership in Group companies, including associates and joint ventures.

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Including small hydropower plants in France and assets in overseas France.
(2) Installed capacity sold in May 2018. January-May generation included in the 2018 figure.
(3) Excluding EDF Renewables’ energy storage capacity and biogas generation.

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**EDF group’s net generation by country (in GWhe) at 31/12/2018**

- **Europe 571,034**
  - **France** (1): 463,794
  - **United Kingdom**: 71,871
  - **Italy**: 19,709
  - **Belgium**: 7,467
  - **Switzerland**: 4,029
  - **Netherlands**: 1,799
  - **Poland**: 360
  - **Portugal**: 491
  - **Greece**: 499
  - **Germany**: 860
  - **Bulgaria**: 156
  - **Greece** (2): 339,176
  - **Netherlands** (3): 16,637
  - **France** (3): 13,809

- **Americas 35,210**
  - **USA**: 26,409
  - **Brazil**: 5,897
  - **Canada**: 1,874
  - **Mexico**: 659
  - **Chile**: 372
  - **Argentina**: 1,544
  - **Canada**: 1,874
  - **Mexico**: 659
  - **Chile**: 372

- **Asia 15,446**
  - **China**: 10,090
  - **Vietnam**: 2,529
  - **India**: 382
  - **Turkey**: 723
  - **Israel**: 251
  - **Egypt**: 183
  - **United Arab Emirates**: 183
  - **South Africa**: 131

- **Africa 449**
  - **Morocco**: 499
  - **South Africa**: 132
  - **United Arab Emirates**: 132

- **Middle East 1,157**
  - **United Arab Emirates**: 132
  - **Middle East**: 132

- **Europe 571,034**
  - **France**: 475,501
  - **United Kingdom**: 435,322
  - **Italy**: 363,968
  - **Belgium**: 339,176
  - **Switzerland**: 323,588

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Including small hydropower plants in France and assets in overseas France.
(2) Installed capacity sold in May 2018. January-May generation included in the 2018 figure.
(3) Excluding EDF Renewables’ energy storage capacity and biogas generation.
EDF group is the world’s leading nuclear operator, with 58 reactors in France and 15 in the United Kingdom. These facilities give France a considerable lead over its European neighbours in terms of limiting greenhouse gas emissions while keeping the price of electricity down. To maintain its position as leader in the generation of very low-carbon electricity, the Group is accelerating development of renewable energy capacity while also ensuring the safety, performance and competitiveness of its nuclear plants. It has started construction and commissioning of five EPRs in France, China and the United Kingdom.

EDF group’s nuclear facilities
at 31/12/2018

\In France

Net installed capacity: 63,130 MW

- 34 nuclear units each of 900 MW, average age of 37 years.
- 20 nuclear units each of 1,300 MW, average age of 30 years.
- 4 nuclear units each of 1,500 MW, average age of 18 years.

EDF’s first-generation plants (nine reactors) were gradually shut down and are now being decommissioned.

EDF has 12 reactors (totalling 1.5 GW), which it co-owns with EDF (17.5% of Flamanville 1 and 2; Agco Group (17.5% of Bugey 2 and 3; Engie Group (12.5% of Cattenom 1 and 2; and Axpo Group (10.2% or 419 MW of the Tihange 2 and 3.

Breakdown of nuclear facilities:

- 1,300 MW PWRs
- 1,293 MW PWRs
- 1,422 MW PWRs
- 1,408 MW PWRs
- 1,358 MW PWRs
- 1,331 MW PWRs
- 1,293 MW PWRs
- 1,230 MW PWRs
- 1,134 MW PWRs
- 1,050 MW PWRs
- 966 MW PWRs
- 900 MW PWRs

As part of a long-term nuclear power cooperation agreement with Electrabel, EDF holds 50% in undivided co-ownership of the Tihange 1 nuclear power plant through its wholly owned subsidiary EDF Belgium. The capacity attributed to EDF is 481 MW, i.e. 2% of Belgium’s total generation capacity. Luminus (EDF’s wholly owned subsidiary) owns 10.2% or 419 MW of the Tihange 2 and 3.

\In Belgium

Net installed capacity: 8,900 MW

- 50% in undivided co-ownership of the Tihange 1 nuclear power plant.
- 2% of Belgium’s total generation capacity.
- As part of a long-term nuclear power cooperation agreement with Electrabel, EDF holds 50% in undivided co-ownership of the Tihange 1 nuclear power plant.

\In the United Kingdom

EDF Energy (100%) owns and operates 15 nuclear reactors at eight power plants. Energy company Centrica has a 20% stake in the company that owns these generation assets.

Breakdown of facilities:

- Seven advanced gas-cooled reactors (AGR), designed for a nominal operating life of 25 years.
- One pressurised water reactor (PWR), designed for an operating life of 40 years.

Since EDF’s acquisition of British Energy, the operating life of AGR power plants has been extended by an average of eight years. The most recent extensions were announced in February 2016. The operating life of Hartlepool and Heysham 1 was extended by five years, and that of Heysham 2 and Torness by seven years.

EDF Energy has a 66.5% stake in the project to build two PWRs at Hinkley Point, with the remaining 33.5% held by China General Nuclear Power Corporation.

\In China

EDF holds 30% of the share capital of TNPPC (Taishan Nuclear Power Joint Venture Company Ltd), which was set up to build and operate two EPRs, each of 1,750 MW, in Taishan, Guangdong Province. One of these reactors was commissioned in December 2018, making it the world’s first EPR in commercial operation.

\In the United States

EDF group holds 49.99% of Constellation Energy Nuclear Group (CENG), a joint venture with Exelon Corporation, the leading US nuclear energy operator with five reactors at three plants for total capacity of 4,272 MW. The operating licenses for Units 1 and 2 at Calvert Cliffs, Units 1 and 2 at Nine Mile Point and for R.E. Ginna are valid for 60 years.

- 1,300 MW PWRs
- 1,293 MW PWRs
- 1,422 MW PWRs
- 1,408 MW PWRs
- 1,331 MW PWRs
- 1,293 MW PWRs
- 1,230 MW PWRs
- 1,134 MW PWRs
- 1,050 MW PWRs
- 966 MW PWRs
- 900 MW PWRs

Net installed capacity: 19,080 MW

- One pressurised water reactor (PWR), designed for a nominal operating life of 40 years.
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EDF group’s net renewable capacity by country (in MWe) at 31/12/2018

<table>
<thead>
<tr>
<th>Region</th>
<th>Hydropower</th>
<th>Wind</th>
<th>Solar</th>
<th>Biomass</th>
<th>Tidal</th>
<th>Geothermal</th>
<th>Renewable Heat (in MWh)</th>
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<td></td>
</tr>
<tr>
<td>Chile</td>
<td>188</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>India</td>
<td>182</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Turkey</td>
<td>267</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>China</td>
<td>113</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>250</td>
<td></td>
<td></td>
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<tr>
<td>Israel</td>
<td>193</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td>56</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Morocco</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United Arab Emirates</td>
<td>43</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.
(1) Including small hydropower plants in France and assets in overseas France.
(2) Excluding EDF Renewables’ energy storage capacity and biogas generation.
EDF group’s net renewable generation by country (in GWhe) at 31/12/2018

EDF group is an active player in the energy transition, with over 80 TWh produced in 2018, the largest producer of renewable energy in Europe and the leading producer of hydropower in the European Union. The very high rainfall in Europe in 2018 led to a record high output of more than 53 TWh (42 TWh in 2017). The share of wind and solar power in the Group’s generation mix now stands at 3%.

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Including small hydropower plants in France and assets in overseas France.

(2) Excluding EDF Renewables’ energy storage capacity and biogas generation.

76 | EDF
2018 Performance | 17

Europe

- France 52,107
- United States 13,809
- United Kingdom 1,258
- Brazil 4,523
- Germany 860
- Switzerland 1,555
- Turkey 723
- United Arab Emirates 183
- Morocco 132
- China 231
- India 382
- Chile 372
- Indonesia 231
- South Africa 317
- United States 9,772
- Brazil 1,133
- Mexico 659
- Chilé 372

Asia

- Laos 2,446
- Laos 2,446
- India 382
- Israel 251
- United Arab Emirates 183
- Morocco 132
- China 231
- Indonesia 231
- South Africa 317
- United States 9,772
- Brazil 1,133
- Mexico 659
- Chilé 372

Americas

- United States 13,809
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- Turkey 723
- United Arab Emirates 183
- Morocco 132
- China 231
- Indonesia 231
- South Africa 317
- United States 9,772
- Brazil 1,133
- Mexico 659
- Chilé 372
EDF group’s CO₂ emissions in 2018
An outstanding carbon performance

The reduction in EDF group’s direct greenhouse gas emissions between 2017 and 2018 (88 g/kWh produced in 2017 compared with 66 g/kWh in 2018) is mostly linked to the sale of EDF Polska’s coal-fired plants in Poland, as well as more favourable conditions, such as very high rainfall in Europe and a significant improvement in the availability of French nuclear plants. Although up in 2018, the average price of CO₂ would have made it possible to further reduce CO₂ emissions by modifying the Group’s merit order, and therefore the use of fuel oil and coal-fired plants.

Comparison of specific CO₂ emissions of EDF group and a panel of European electricity utilities

EDF group is one of the world’s leading energy producers, not only in terms of net installed capacity and electricity generation, but also in terms of carbon performance, with very low CO₂ intensity, currently at 66 g/kWh produced. This makes the Group the undisputed leader of the electricity sector, where average global emissions stand at around 450 g/kWh.

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Full consolidated, the Group’s specific CO₂ emissions, excluding those of equity-accounted companies, amounted to 57 g/kWh.

Comparison of specific CO₂ emissions of EDF group and a panel of European electricity utilities

EDF SA

EDF group in France

EDF group in Europe

EDF group worldwide

Iberdrola

58

66

RWE group

682

411

Enel

European average

293

32

Fortum

17

EDF

6.6 Mt

7.3 Mt

7.8 Mt

2.0 Mt

1.3 Mt

0.7 Mt

0.7 Mt

1.0 Mt

6.6 Mt

15.8 Mt

EDM(3) 0.1 Mt

EDF PEI 1.6 Mt

Dalkia 6.5 Mt

EDF 7.5 Mt

France(1)

Italy

United Kingdom

Other countries

Belgium

Netherlands

China

Vietnam

Brazil

Asia

Europe

Total: 42.9 Mt

(1) Including small hydropower plants in France and plants in overseas France.
(2) Enercal: electricity generation and distribution subsidiary in Nouméa, New Caledonia.
(3) EDM: Électricité de Mayotte.
(4) EDF sold its Polish companies but continues to operate in Poland through Dalkia and Edison.
(6) EDF generation and sale in mainland France, Corsica and overseas France.

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

(1) Direct emissions excluding the life cycle analysis of generating plants and fuel.
(2) Source: International Energy Agency, 2018 (2016 figure is the most recent).
(3) Ranking of generation facilities (nuclear, fossil-fired, hydro, wind, etc.) by availability and price, establishing the order in which their output is fed into the network.
(5) Including small hydropower plants in France and plants in overseas France.
(6) Enercal: electricity generation and distribution subsidiary in Nouméa, New Caledonia.
(7) EDM: Électricité de Mayotte.
(8) EDF sold its Polish companies but continues to operate in Poland through Dalkia and Edison.
FINANCIAL AND NON-FINANCIAL PERFORMANCE
2018, a rebound in financial and operating performance

The Group achieved the upper end of its EBITDA target range...

<table>
<thead>
<tr>
<th>2018 EBITDA in billions of euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017: 13.74</td>
</tr>
<tr>
<td>2018: 15.26</td>
</tr>
</tbody>
</table>

Double-digit growth in EBITDA for 2018.

This financial performance is mainly attributable to a 15-year high in hydropower generation in France...

<table>
<thead>
<tr>
<th>Hydropower generation(1) in TWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017: 37.1</td>
</tr>
<tr>
<td>2018: 46.5</td>
</tr>
</tbody>
</table>

Increase in hydropower generation.

...and a significant improvement in nuclear generation in France...

<table>
<thead>
<tr>
<th>Nuclear generation in TWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017: 379.1</td>
</tr>
<tr>
<td>2018: 393.2</td>
</tr>
</tbody>
</table>

Sharp increase in availability of nuclear power in France.

...with an unmatched level of safety.

<table>
<thead>
<tr>
<th>Automatic shutdowns of EDF reactors since 2013(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013: 34</td>
</tr>
<tr>
<td>2014: 31</td>
</tr>
<tr>
<td>2015: 38</td>
</tr>
<tr>
<td>2016: 28</td>
</tr>
<tr>
<td>2017: 22</td>
</tr>
<tr>
<td>2018: 18</td>
</tr>
</tbody>
</table>

All-time low number of shutdowns.

2018 cash flow up €1.1 billion(1) compared with a cash flow target of 0.

(1) Excluding Linky, New developments and Group asset disposal plan.

(2) Output after deducting pumping: 30.0 TWh in 2017 and 39.2 TWh in 2018.

(1) Excluding pumped storage systems, before deducting pumping.

(1) An automatic shutdown is a reactor safety and protection system; it is a key safety indicator that measures quality and diligence in reactor operation.
Continual commitment to low-carbon growth

Over 90% of the Group’s net investments contribute to reducing the energy system’s carbon intensity...

- Total net investments (excluding Group asset disposal plan)
in billions of euros

€14 billion

€12.7 billion

Net investments in:
- renewable and nuclear energy generation;
- electricity grids;
- energy services.

...financed partly by disposals, which help to reduce the Group’s carbon footprint.

- Performance plan: debt reduction and strategic refocusing, with €110 billion\(^{(1)}\) in disposals between 2015 and 2018

<table>
<thead>
<tr>
<th>Non-controlled assets</th>
<th>€4.3 billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO, intensive businesses and non-core markets</td>
<td>€1.6 billion</td>
</tr>
<tr>
<td>Gas infrastructure assets</td>
<td>€1.7 billion</td>
</tr>
<tr>
<td>Real estate assets</td>
<td>€1.6 billion</td>
</tr>
<tr>
<td>Other</td>
<td>€0.8 billion</td>
</tr>
</tbody>
</table>

\(\text{Total net investments (excluding Group asset disposal plan)}\)

Over €3 billion in disposals of carbon intensive assets between 2017 and 2018

95% of EDF’s research and development budget in France dedicated to decarbonising and transitioning energy systems.

- Innovative financing instruments.

| Funds raised (at 31/12/2018) | €4.5 billion |
| Funds allocated (at 31/12/2018) | €3.7 billion |

Financing of:
- 25 wind and solar projects worldwide.
- Over 400 programmes to renew, upgrade and develop existing hydropower facilities in France.

- Financing capacity of €30 million a year in startups with EDF Pulse Croissance

Four areas of focus

<table>
<thead>
<tr>
<th>Sustainable management of regions</th>
<th>Performance of generation tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decentralised energy systems</td>
<td>Services to the home</td>
</tr>
</tbody>
</table>

\(\text{(1)}\) The amount of €480 million corresponds to the operating expenditure (research activities) of EDF R&D, excluding financial investments and capital expenditure.
EDF group

€69 billion sales\(^{(1)}\)
4.0\% organic growth\(^{(2)}\)

€15.3 billion: EBITDA
11.3\% organic growth\(^{(2)}\)

39.8 million customer sites\(^{(3)}\)
(34.7 M electricity and 5.1 M gas)
165,790 employees\(^{(4)}\)
90\%: carbon-free generation\(^{(5)}\)

EBITDA by reporting segment in 2018
in M€

![EBITDA by reporting segment chart]

€15.3 bn

Total net investments, excluding disposal plan
in billions of euros

![Total net investments chart]

€14 bn

Fully consolidated Company data at 31 December 2018.

(1) IFRS 9 Financial Instruments is applicable as from 1 January 2018, but not retrospectively to 2017.
(2) Organic change at constant scope and exchange rates.
(3) The number of customers corresponds to the number of gas and electricity delivery points.
(4) Excluding employees of Polish companies sold on 30 November 2018 and including Framatome at 31 December 2018.
(5) Direct emissions excluding the life cycle analysis of generating plants and fuel.

Installed capacity
in GWe

![Installed capacity chart]

126.5 GWe

Electricity generation
in TWh

![Electricity generation chart]

584 TWh

Heat generation
in GWh

![Heat generation chart]

31,829 GWh

Fully consolidated Company data at 31 December 2018.

(1) Including marine energy: 0.24 GWe.
(2) Including marine energy: 0.5 TWh.
(3) Including marine energy: 0.5 TWh.
EDF group

**Net research and development expenses**
in millions of euros

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF group</td>
<td>612</td>
<td>711</td>
</tr>
</tbody>
</table>

**Breakdown of net research and development budget, EDF group**

- Energy solutions/services (including mobility 15%) 13%
- Networks 10%
- Renewables (including storage) 14%
- Nuclear 39%
- Market design 9%
- Group mandate 8%
- Digital and IT 5%

**EDF group carbon factor**
in g CO₂/kWh

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF group</td>
<td>82</td>
<td>57</td>
</tr>
</tbody>
</table>

Our outstanding performance was linked to:
- the high availability of French nuclear power plants;
- the very high rainfall in Europe;
- the higher average CO₂ price.

**EDF group low-carbon strategy**
Total direct CO₂ emissions (1) – in Mt CO₂

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2017</th>
<th>2018</th>
<th>2023</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF Polska</td>
<td>80.6</td>
<td>51.3</td>
<td>35.5(2)</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Electricity generation France(3)</td>
<td>0.8</td>
<td>0.47</td>
<td>21.4</td>
<td>9.9</td>
<td>4.3</td>
</tr>
<tr>
<td>Disposal of EDF Polska assets in November 2017</td>
<td>-10.8</td>
<td>-3.4</td>
<td>-1.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strong hydro conditions and improved availability of nuclear power plants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030 target: 30 Mt CO₂ (down 40% from 2017)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Assessment of EDF group greenhouse gas emissions in 2018**
in Mt CO₂ equivalent

<table>
<thead>
<tr>
<th>Scope 1</th>
<th>Scope 2</th>
<th>Scope 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>35.7(3)</td>
<td>0.47</td>
<td>110.8</td>
</tr>
</tbody>
</table>

- Scope 1: direct GHG emissions due to electricity and heat generation.
- Scope 2: indirect GHG emissions associated with the generation of electricity, heating and cooling for the Group’s own use.
- Scope 3: indirect GHG emissions from operations not included in scopes 1 and 2.

(1) Direct emissions excluding the life cycle analysis of generating plants and fuel.
(2) Including SEI and PEI emissions in non-interconnected regions (mainly islands).
(3) The 35.5 Mt CO₂ shown in the 2018 registration document (March 2019) includes, for some minor emission sources, an estimate based on the Group scope and data at the end of 2017. The actual value (35.7 Mt CO₂) reflects the change in scope between 2017 and 2018, in particular the integration of Framatome.

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

EDF group carbon factor (1)
in g CO₂/kWh

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF group</td>
<td>82</td>
<td>57</td>
</tr>
</tbody>
</table>

Scope 1: direct GHG emissions due to electricity and heat generation.
Scope 2: indirect GHG emissions associated with the generation of electricity, heating and cooling for the Group’s own use.
Scope 3: indirect GHG emissions from operations not included in scopes 1 and 2.

(1) Direct emissions excluding the life cycle analysis of generating plants and fuel.
France
EDF – Generation and supply activities

€6.3 billion EBITDA
29.2% organic growth\(^{(1)}\)
29.7 million customers\(^{(2)}\)
(28.2 M electricity and 1.6 M gas)

62,327 employees
98% carbon-free generation\(^{(3)}\)

Installed capacity
in GWe
89.4 GWe

Electricity generation
in TWh
450.7 TWh

Sales to end-customers 2017-2018\(^{(4)(5)}\)
in TWh

<table>
<thead>
<tr>
<th>Year</th>
<th>Local authorities, industry and small businesses</th>
<th>Residential customers – market prices</th>
<th>Residential customers – regulated tariffs</th>
<th>Residential customers at regulated tariffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>309.7</td>
<td>292.6</td>
<td>127.6</td>
<td>34.9</td>
</tr>
<tr>
<td>2018</td>
<td>145.4</td>
<td>137.4</td>
<td>46.6</td>
<td>0.4</td>
</tr>
</tbody>
</table>

\(^{(1)}\) Organic change at constant scope and exchange rates.
\(^{(2)}\) The number of customers corresponds to the number of gas and electricity delivery points.
\(^{(3)}\) Direct emissions excluding the life cycle analysis of generating plants and fuel.
\(^{(4)}\) Includes generation of wholly-owned subsidiary PEI, non-regulated activities.
\(^{(5)}\) Enedis, an independent EDF subsidiary, as defined in the French energy code.

France
EDF – Regulated activities (Enedis, ÉS\(^{(1)}\) and island energy systems)

€4.9 billion EBITDA
0.4% organic growth\(^{(2)}\)
1.8 million customers
(1.7 M electricity and 0.1 M gas)

43,270 employees
28% carbon-free generation\(^{(3)}\)

Installed capacity
in GWe
2.1 GWe

Electricity generation
in TWh
5.9 TWh

Equivalent outage time Enedis\(^{(5)}\)
in minutes (excl. exceptional and transport-related incidents)

<table>
<thead>
<tr>
<th>Year</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>64.2</td>
<td>65</td>
<td>64</td>
<td></td>
</tr>
</tbody>
</table>

\(^{(1)}\) Électricité de Strasbourg.
\(^{(2)}\) Organic change at constant scope and exchange rates.
\(^{(3)}\) Direct emissions excluding the life cycle analysis of generating plants and fuel.
\(^{(4)}\) Includes generation of wholly-owned subsidiary PEI, non-regulated activities.
\(^{(5)}\) Enedis, an independent EDF subsidiary, as defined in the French energy code.
United Kingdom
EDF Energy

€783 million EBITDA
–15.4% organic growth\(^{(1)}\)

5.1 million customers
(3.2 M electricity and 1.9 M gas)

12,300 employees
84% carbon-free generation\(^{(2)}\)

<table>
<thead>
<tr>
<th>Installed capacity in GWe</th>
<th>Electricity generation in TWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2 GWe</td>
<td>70.4 TWh</td>
</tr>
</tbody>
</table>

Gas\(^{(2)}\) 9%
Coal\(^{(4)}\) 28%
Nuclear\(^{(3)}\) 63%

76
34.2 SWE & IC
11.7 Centrica (20%)
12.8 Residential
17.4 Net wholesale market

64 59

Upstream/downstream electricity balance of EDF Energy

1,909
1,636
437 354

Gas in Italy\(^{(5)}\)
Gas excluding Italy

Fully consolidated Company data at 31 December 2018.
The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

\(^{(1)}\) Organic change at constant scope and exchange rates.
\(^{(2)}\) Direct emissions of EDF Energy excluding the life cycle analysis of generating plants and fuel.
\(^{(3)}\) Including 4,451 MW in generation and energy efficiency services to 166 MW customers.
\(^{(4)}\) Including 1,012 MW in generation and energy efficiency services to 2 MW customers.
\(^{(5)}\) Including 672 MW in generation and energy efficiency services to 3 MW customers.

Italy
Edison

€791 million EBITDA
–12.7% organic growth\(^{(1)}\)

5.3 million customers
(0.7 M electricity and 0.9 M gas)

5,372 employees
21% carbon-free generation\(^{(2)}\)

<table>
<thead>
<tr>
<th>Installed capacity in GWe</th>
<th>Electricity generation in TWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3 GWe</td>
<td>19.7 TWh</td>
</tr>
</tbody>
</table>

Gas\(^{(2)}\) 73%
Hydropower\(^{(4)}\) 16%
Other renewables\(^{(5)}\) 11%

64 59

Gas generation in millions of cubic metres

1,909
1,636
437 354

Gas in Italy\(^{(5)}\)
Gas excluding Italy

Fully consolidated Company data at 31 December 2018.
The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

\(^{(1)}\) Organic change at constant scope and exchange rates.
\(^{(2)}\) Direct emissions of EDF Energy excluding the life cycle analysis of generating plants and fuel.
\(^{(3)}\) The figures shown represent 100% of nuclear capacity and generation, which break down 80%/20% between EDF Energy and Centrica.
\(^{(4)}\) Coal capacity represents “connection input capacity”. Net power including biomass.
\(^{(5)}\) Gas capacity includes 1.35 MW from Barkantine CHP.

\(^{(9)}\) Includes part of the generation from Crea Sorbas (gas MWh) imported to Italy since 2014.
Belgium
Luminus and EDF Belgium(1)

€141 million EBITDA
–5.5% organic growth(2)
1.7 million customers
(1.1 M electricity and 0.6 M gas)

2,052 employees
72% carbon-free generation(3)

Installed capacity
in GWe

2.6 GWe

Nuclear 34%
Hydropower 3%
Other renewables 17%
Gas 47%

Electricity generation
in TWh

9 TWh

Nuclear 61%
Gas 28%
Other renewables 8%
Hydropower 2%

Framatome(1)

€202 million EBITDA
contributed to EDF
Organic growth not applicable
€261 million net investments in 2018

14,500 employees(2)

A major player in the nuclear sector

€3.3 bn Sales(2)
€13 bn Framatome backlog
56 industrial and commercial locations in 18 countries(2)

6 business units

Installed base: maintenance and engineering services for existing nuclear fleets and plants under construction.

Fuel: development, design, licensing and production of fuel assemblies.

Large projects: management and execution of new build projects.

Components: design and manufacture of heavy and mobile components for nuclear islands.

Instrumentation and Control: design and manufacture of nuclear safety instrumentation and control systems.

Engineering and Design Authority: development, design and licensing of steam supply systems and services.

(1) On 4 January 2018, Areva NP subsidiary New NP became Framatome, a company owned by EDF group (75.5%), Mitsubishi Heavy Industries (19.5%) and Assystem. See Framatome press release of 4 January 2018.

(2) Edvance, owned 80% by EDF and 20% by Framatome, was created in June 2017. It brings together the two companies’ nuclear island engineering (basic and detailed design) and construction (supply, assemblies and startup) activities.

(3) On 4 January 2018, Areva NP subsidiary New NP became Framatome, a company owned by EDF group (75.5%), Mitsubishi Heavy Industries (19.5%) and Assystem. See Framatome press release of 4 January 2018.

6 business units:

Installed base: maintenance and engineering services for existing nuclear fleets and plants under construction.

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Engineering and Design Authority: development, design and licensing of steam supply systems and services.
EDF Renewables

€856 million EBITDA(1)  
+4.1% organic growth(2)  
€903 M EBITDA Generation +15.0%

3,853 employees  
100% carbon-free generation(3)

International

Installed capacity in GWe

<table>
<thead>
<tr>
<th>Source</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>8.2 GWe</td>
</tr>
<tr>
<td>Wind</td>
<td>83%</td>
</tr>
<tr>
<td>Biomass</td>
<td>0.5%</td>
</tr>
<tr>
<td>Hydropower</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Electricity generation in TWh

<table>
<thead>
<tr>
<th>Source</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>14.8 TWh</td>
</tr>
<tr>
<td>Wind</td>
<td>85%</td>
</tr>
<tr>
<td>Biomass</td>
<td>2%</td>
</tr>
<tr>
<td>Hydropower</td>
<td>1%</td>
</tr>
</tbody>
</table>

Net capacity under construction in GWe

<table>
<thead>
<tr>
<th>Source</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar</td>
<td>1.5 GWe</td>
</tr>
<tr>
<td>Wind</td>
<td>51.6%</td>
</tr>
<tr>
<td>Other</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

Operation and maintenance capacity in TWh

<table>
<thead>
<tr>
<th>Region</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>10.8 TWh</td>
</tr>
<tr>
<td>Europe</td>
<td>4.4 TWh</td>
</tr>
<tr>
<td>Total</td>
<td>15.2 TWh</td>
</tr>
</tbody>
</table>

France

Growth of wind power in France in MWe

<table>
<thead>
<tr>
<th>Year</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>1,449.2 MWe</td>
</tr>
<tr>
<td>2018</td>
<td>1,536.0 gross(3)</td>
</tr>
<tr>
<td>+86.8 MWe</td>
<td></td>
</tr>
</tbody>
</table>

Onshore wind farms under construction at end 2018

- Les Taillades (27.2 MW)  
- Pays d’Anglure (21.6 MW)  
- Parc des Côteaux owned by Futuren (38 MW)

Offshore turbines in France

Three projects under development in Fécamp, Saint-Nazaire and Courseulles-sur-Mer

+1.4 GW aggregate capacity  
Investments: about 66 bn, in partnership with Enbridge.

Energy storage

EDF Store & Forecast  
Develops and markets software solutions to forecast and automatically control renewable energy generation in real time.

- 5 MWp of storage capacity (Toucan 1-French Guiana).
- Project  
- 5 MWp of storage capacity (Toucan 2-French Guiana).

Onshore wind farms commissioned in 2018

- Espiers (18 MW)  
- Guilleville (17.7 MW)  
- Clanlieu (13.2 MW)  
- Demange-aux-Eaux (19.8 MW)  
- Courant-Nachamps (21 MW)

---

(1) Fully consolidated Company data at 31 December 2018. 
The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.  
(2) 2018, sale by EDF Renouvelables of a 49% interest in 24 wind farms in the United Kingdom. This transaction had no impact on EBITDA as EDF Renouvelables has retained control.  
(3) Direct emissions excluding the life cycle analysis of generating plants and fuel.

---

2018 Performance
**Dalkia**

€292 million EBITDA
+12% organic growth\( ^{(1)} \)
16,017 employees

**NON-FINANCIAL RATING**

Breakdown of sales by activity

- **Energy services for industry**: 13%
- **Energy services for buildings**: 36%
- **Heating and cooling networks**: 26%
- **Installation (design, construction)**: 11%
- **Other**: 14%

**Net installed capacity**

*Electricity* in MWe and *Heat* in MWth

- Electricity: 22,600 MWe
- Heat: 6,587 MWth

**Net generation**

*Electricity* in MWe and *Heat* in MWth

- Electricity: 2,994 MWe
- Heat: 8,872 MWth

**Fully consolidated Company data at 31 December 2018.**

The values correspond to the expression to the first decimal or integer closest to the sum of the precise values, taking into account rounding.

\( ^{(1)} \) Organic change at constant scope and exchange rates. Fully consolidated Company data at 31 December 2018.

\( ^{(2)} \) Category including a share of heat generation from exploitation and recovery of heat and electricity from other industrial processes.

\( ^{(3)} \) Category including facilities running on landfill gas, gas from wastewater treatment plants and biogas.
Non-financial rating

EDF group confirmed its strong non-financial performance in 2018, with continued inclusion in the DJSI World index, STOXX ESG Leaders index and Euronext Vigeo Eiris indexes, and repositioning in the CDP Climate Change A List.

EDF group submits its performance data in response to requests from non-financial rating agencies and non-financial analysis departments working on behalf of investors. Using their own methodologies, the agencies assess and assign scores to companies based on their policies and results in the areas of sustainability development. They create and manage the indexes that are used by socially responsible investment (SRI) analysts to guide their investment choices.

CDP Climate Change
EDF made it back into the A List in 2018, once again meeting the standard’s rigorous criteria. The Group was first included in 2016. In 2017, EDF obtained the score of A– and the Leadership Level.

The Group also participates in CDP Water and was awarded a score of C in 2018 (B+, or Management Level), in 2015, 2016 and 2017, on a scale of A to D–.

In addition, EDF takes part in the CDP Supply Chain assessment every year. The Group’s key accounts in France and abroad request its response as a supplier for both the climate change and water-related risk sections of the questionnaire.

<table>
<thead>
<tr>
<th>CDP Climate Change ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (D– to A)</td>
</tr>
<tr>
<td>2018</td>
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<tr>
<td>2018</td>
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<tr>
<td>2016</td>
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<tr>
<td>2015</td>
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<tr>
<td>2014</td>
</tr>
</tbody>
</table>

EDF made it back into the A List in 2018, once again meeting the standard’s rigorous criteria. The Group was first included in 2016. In 2017, EDF obtained the score of A– and the Leadership Level.

<table>
<thead>
<tr>
<th>CDP Water ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (D– to A)</td>
</tr>
<tr>
<td>2018</td>
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<tr>
<td>2018</td>
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<td>2016</td>
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<td>2015</td>
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<td>2014</td>
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</tbody>
</table>

FTSE group has been included in the FTSE4Good Index since 2012. The criteria for inclusion are reviewed every six months.

In 2018, EDF obtained the score of 79/100, while the average sector score for Electric Utilities stood at 46/100. EDF is a member of the DJSI World index for the third year running since it was first included in 2016. EDF is one of the 478 Sustainability Leaders among the 2,479 companies assessed by RobecoSAM in 2018 and ranked eighth out of the 91 Electric Utilities (fifth out of 98 in 2017 and sixth out of 92 in 2016). In its 2018 Sustainability Yearbook, RobecoSAM was again awarded to EDF group with the bronze Class Distinction, meaning that it performs in the top 10% of its sector.

<table>
<thead>
<tr>
<th>RobecoSAM ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF overall score (0 to 100)</td>
</tr>
<tr>
<td>2018</td>
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<tr>
<td>2017</td>
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<td>2016</td>
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<td>2015</td>
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<td>2014</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
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<tr>
<td>2015</td>
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<tr>
<td>2016</td>
</tr>
<tr>
<td>2017</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Electric Utilities sector average</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2016</td>
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<tr>
<td>2015</td>
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<tr>
<td>2014</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic</td>
</tr>
<tr>
<td>Environmental</td>
</tr>
<tr>
<td>Social</td>
</tr>
<tr>
<td>2014</td>
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<tr>
<td>2015</td>
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<tr>
<td>2016</td>
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<tr>
<td>2017</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
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<tr>
<td>2015</td>
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<tr>
<td>2016</td>
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<tr>
<td>2017</td>
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</tbody>
</table>

Euronext Vigeo Eiris
In November 2012, Euronext and Vigeo jointly launched a range of indexes identifying listed companies demonstrating the best CSR performance. These indexes are updated twice a year, in May and November. At the end of November 2018, EDF was included in all the indexes that it could apply for: the Euronext Vigeo World 120, Europe 120, Eurozone 120 and France 20 indexes. In 2018, the Group scored 66 out of 100, 6 points higher than the previous score of 60/100 in 2016 (58/100 at the end of 2014), achieving Advanced Level for the second time. The Group ranked fifth among the 62 companies in the Electric & Gas Utilities sector.

<table>
<thead>
<tr>
<th>Vigeo Eiris ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
</tr>
<tr>
<td>Human resources</td>
</tr>
<tr>
<td>Human rights</td>
</tr>
<tr>
<td>Community involvement</td>
</tr>
<tr>
<td>Business behaviour</td>
</tr>
<tr>
<td>Governance</td>
</tr>
<tr>
<td>2012</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2018</td>
</tr>
</tbody>
</table>

Oekom
In 2018, EDF obtained the overall score of C+ and, for the second year running, B– in the Social and Governance category. Its overall rating has remained stable for the past five years: C+ in 2014, 2015, 2016 and 2017, and C in 2013, on a scale ranging from A+ to D-. Of the 104 companies in the Electric Utilities sector assessed in 2018, EDF came in among the top 20% and was one of the rare companies in its sector to score B– in the Social and Governance category.

<table>
<thead>
<tr>
<th>Oekom ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2018 – Trend</td>
</tr>
<tr>
<td>2017</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environment</td>
</tr>
<tr>
<td>Social and governance</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2017</td>
</tr>
</tbody>
</table>

FTSE group has been included in the FTSE4Good Index since 2012. The criteria for inclusion are reviewed every six months.

<table>
<thead>
<tr>
<th>FTSE ESG ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2014</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FTSE group ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDF overall score (D– to A+)</td>
</tr>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2017</td>
</tr>
<tr>
<td>2016</td>
</tr>
<tr>
<td>2015</td>
</tr>
<tr>
<td>2014</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESG criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute overall score (5 to 10)</td>
</tr>
<tr>
<td>Activity sector relative score (5 to 10)</td>
</tr>
<tr>
<td>Activity sector relative score (5 to 10)</td>
</tr>
<tr>
<td>Activity sector relative score (5 to 10)</td>
</tr>
<tr>
<td>Activity sector relative score (5 to 10)</td>
</tr>
</tbody>
</table>

Edenred
The assessments made by the main specialist rating agencies and managers of ethical funds indicate the Group’s CSR performance in its sector.
Non-financial rating

Edf

In November 2017, EDF scored 75/100 and Advanced Level, 3 points more than in 2016 (72/100) and 8 points more than in 2015. The Group ranked among the top 3% of companies in its business sector and the top 1% of companies across all sectors. It achieved the Gold Recognition Level, which is awarded to companies with a score of over 60/100.

Ecovadis ratings

<table>
<thead>
<tr>
<th>Year</th>
<th>EDF overall score (0 to 100)</th>
<th>Trend</th>
<th>2018 status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>72</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>75</td>
<td></td>
<td>Advanced</td>
</tr>
<tr>
<td>2018</td>
<td>70</td>
<td></td>
<td>Advanced</td>
</tr>
</tbody>
</table>

ESG criteria

<table>
<thead>
<tr>
<th>Year</th>
<th>Environment (0 to 80)</th>
<th>Social (0 to 80)</th>
<th>Ethics (0 to 60)</th>
<th>Supply chain (0 to 60)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>2016</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>2017</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>2018</td>
<td>80</td>
<td>70</td>
<td>60</td>
<td>70</td>
</tr>
</tbody>
</table>

Edf

For the past 16 years, CFIE, the French centre for information on companies, has been publishing an annual review of the quality of the labour and environmental information published in the annual reports of major French companies, with quality being assessed according to the completeness and accuracy of the information disclosed. In 2018, for the second consecutive year, the Group ranked first among the 22 companies assessed, with a score of 74.4/100 (77.3/100 coming in first out of 22 in 2017, 75/100 at second out of 36 in 2016, and 74/100 at second out of 36 in 2015).

CFIE ratings

<table>
<thead>
<tr>
<th>Year</th>
<th>EDF overall score (0 to 100)</th>
<th>Trend</th>
<th>2018 status</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>65.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>74</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>2016</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>77.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>74.4</td>
<td></td>
<td>A</td>
</tr>
</tbody>
</table>

ESG criteria

<table>
<thead>
<tr>
<th>Year</th>
<th>Environment (0 to 30)</th>
<th>Social (0 to 30)</th>
<th>Social Responsibility (0 to 30)</th>
<th>Organisation (0 to 10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>20</td>
<td>21.4</td>
<td>17.4</td>
<td>7</td>
</tr>
<tr>
<td>2015</td>
<td>21.4</td>
<td>21</td>
<td>19.8</td>
<td>9</td>
</tr>
<tr>
<td>2016</td>
<td>22.2</td>
<td>22.2</td>
<td>22.8</td>
<td>9.7</td>
</tr>
<tr>
<td>2017</td>
<td>21.7</td>
<td>21.7</td>
<td>21.6</td>
<td>9.4</td>
</tr>
</tbody>
</table>

BE THE ENERGY FOR CHANGE.

2018 SUSTAINABLE DEVELOPMENT INDICATORS

Available too