







SedF luminus

Sustainable Development at EDF Luminus

2012-2014 REPORT

Global Reporting Initiative references

This report contains general and sector Standard Disclosures from the GRI4 Sustainability Reporting Guidelines. Among them the following:

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Declaration rules

As a Belgian company producing and supplying gas and electricity, EDF Luminus is required to comply with all laws and regulations established by the federal, regional and local legislators, and regulatory bodies, such as CREG, VREG, CWaPE and Brugel.

As a subsidiary of the EDF Group, which is listed on the Paris stock exchange, EDF Luminus is subjected to certain obligations imposed by the Autorité des Marchés Financiers (AMF – Financial Markets Authority), with particular regard to access to information. An electronic version of this report is therefore available to all at www.edfluminus.be.

Period covered by the report

Unless otherwise indicated, the items included in this Sustainable Development Report relate to the period January 1, 2014, to December 31, 2014.

Measuring instruments used for the report

Our goal is to faithfully represent the achievements and performance levels of the company.

Some of the data included in this report was provided or assessed by external parties: The annual accounts of EDF Luminus are certified by KPMG Company Auditors and Boes & Co Company Auditors, and submitted to the National Bank of Belgium. The GHG emissions inventory presented in this report has been realized by Climact, a recognized Energy & Climate Change consulting firm (www.climact.com), in accordance with the GHG Protocol international standard. Several documents used for reporting to the Belgian authorities are used to present results, notably in environmental and social matters. Under Article 225 of the Grenelle II law of July 12, 2010, one of the EDF auditors must verify consolidated non-financial information presented in the EDF management report, which includes information from EDF Luminus. This data is therefore subject to periodic audits. | Some of the data published in this report were controlled by students from the University of Antwerp, as part of their theses. In particular, Karel Paternoster, Qian Zhang and Ramya Iyer, Master of Global Management students at the Antwerp Management School, verified the data regarding the production of electricity, CO₂ emissions, taxes and contributions, payment plans and staff motivation.

In this report, the figures corresponding to the production from the four nuclear power plants in which EDF Luminus has a 10.2% stake, are integrated in the energy mix (page 41) and the overall carbon footprint (page 21). However, as EDF Luminus is not the operator of these installations (ref. royal decrees of 19 December 2000), it is not entitled to communicate on the technical incidents that affected the availability of three of these plants in 2014.

3 Sustainable development report 2014

Dear reader,

Limiting this third sustainable development report to 52 pages was not an easy task. With so many changes affecting the energy sector, so many transformations implemented within the company to ensure sustainable development, it was necessary to make choices on what information to include.

We have, however, kept all of the indicators that were already included in the 2013 report, to allow everyone to follow the evolution of our results from an ethical, commercial, financial, environmental and social point of view, over the last three years. The context within which the activities of the company are carried out is again described in the first pages of the report. EDF Luminus' strategic priorities and perspectives are also presented, as are the main innovations.

The feedback from the jury of the competition for the best Belgian sustainable development report helped us to clarify a few points. The publication, for the second time, of our overall carbon footprint should contribute to a better understanding of the real issues of the sector. As of today, EDF Luminus remains the only player on the Belgian energy market to provide such information.

As in the previous years, we have striven to remain objective and accessible in all our declarations, and we aimed to present the company's activities in a clear, honest and balanced wav.

Finally, we have endeavoured to integrate within this report audio-visual elements that will supplement the information for our readers.

This report is intended for all stakeholders: customers, staff, business and social partners, public authorities, opinion leaders, the media, NGOs, etc. You can use the address csr@edfluminus.be to convey any new questions, comments or suggestions for improvement.

> Pascale-Marie Barriguand Senior Advisor, Corporate Social Responsibility, EDF Luminus

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A slightly increasing market share

Reduced revenues and net result, still slightly positive

In 2014, the turnover for EDF Luminus reached **3.17 billion euro**. Net profit was slightly positive (10.4 million euro), or 0.3% of turnover. The total amount of taxes and contributions paid by EDF Luminus in 2014 was **49.2 million euro**, **almost 5 times the net profit**.

Number 2 in the market

The company, which trades on the Belgian market under the 'Luminus' brand, supplies electricity and gas to **1.7 million** residential and industrial customers. This amounts to 25 TWh sold in 2014 – a **20 %** share of the electricity market and a **18 %** share of the gas market.





1,967 indirect jobs were generated by EDF Luminus purchases in 2014.

EDF Luminus stands at 963 employees, 42,16% of whom are women and 57,84% men.

A wind park in strong development, in the north and south of Belgium



A diversified energy mix for the second biggest Belgian energy generator

With an installed capacity of **1,954 MW** distributed across more than **30 sites** in Flanders and Wallonia at the end of 2014, EDF Luminus accounts for approximately **10%** of the electricity generation capacity available on the Belgian market.

At the end of December 2014, the renewable share of the installed generation base of EDF Luminus, mostly comprising wind turbines and hydroelectric power stations, amounted to **12.7%**. The CO_2 -free share amounted to **34.2%**.

EDF Luminus owns 10.2% of four Belgian nuclear power plants, Tihange 2 and 3 and Doel 3 and 4. This qualifies EDF Luminus as a nuclear "producer". However, the sole operator of these installations is Electrabel SA, under the terms of the Royal Decrees of December 19, 2000.

EDF Luminus power plants generated 4,272 GWh in 2014, of which **11.1%** was renewable energy (58% wind, 42% hydro). The share of electricity generated without producing CO₂ amounted to **53.6%**.

This map of EDF Luminus assets does not feature the drawing rights on the Chooz B power plant (100 MW).

The Seraing plant is no longer available for the market since it was selected as a strategic reserve (from 1 November through 31 March, over 3 years, including the winter of 2014).

2014: Key sustainable events in every area

21 March 2014 Installation of one of two new distributors of the Lixhe hydroelectric plant, upstream of the wheel. The renovation of this facility began in May 2013. Two of the four turbines were replaced by units with double settings, which allow the river flow to be managed in a way that's closer to natural conditions. The total cost of this 18-month project: 10 million euro.



Wind farm development

13 November 2014 Inauguration of three 3.4 MW wind farms, in the presence of Marie-Christine Marghem, Federal Minister of Energy, Environment and Sustainable Development. The three wind farms were built along the E42, near Spy. One of them is owned by WE-Power, a subsidiary of the Colruyt Group. These wind farms produce an output equivalent to the electricity consumption of 5,250 families, a savings of 15,000 tonnes of CO_2 compared to the emissions of a coal-fired plant.



Smoothing the flow of the Meuse

Summer 2014 Removal by barge of the metal parts (here, from the 35-ton distributor) from the dismantling of the Andenne hydroelectric plant. Those have been entirely recycled. Two of the generator sets of the Andenne plant will be replaced with double setting units during 2015. This renovation represents an investment of 9 million euro.



From left to right : Marie-Christine Marghem, Federal Minister of Energy, the Environment and Sustainable Development, Grégoire Dallemagne, CEO EDF Luminus and Stephan Windels, B.U. Manager WE-Power.



Smart cities

7 July 2014 | The EDF Group, EDF Luminus and the city of Genk sign a **partnership agreement** for the exchange of expertise and the development of specific, sustainable and innovative projects for Genk. Public lighting and a charging infrastructure for electric vehicles are two key themes of this partnership.

From left to right: Rudi Haeck, General Secretary of Genk, Wim Dries, Mayor of Genk, Dallemagne Gregory, CEO EDF Luminus.

New services

23 September 2014 | EDF Luminus acquires a 50% stake in Rami Services NV, to launch new services: a contract for regulatory maintenance of residential gas or oil boilers, and a contract including boiler repair. Rami technicians can also install smart thermostats that allow customers to manage heating remotely.



Energy efficiency

Ham plant, 9 December 2014 Annemie Turtelboom, Flemish Minister for Energy, and Daniel Termont, Mayor of Ghent, inaugurate the **two new cogeneration engines** that will sustainably supply the largest urban heating network in the country. On this occasion, a cooperation agreement was signed between the EDF Group, EDF Luminus and the city of Ghent, to develop specific and innovative projects for Ghent, in particular in the area of energy efficiency.



Building a sustainable future while facing an unprecedented crisis in the energy sector



Paul De fauw

A message from the Chairman of the Board of Directors

The barely positive net result of EDF Luminus in 2014 reflects the persistent difficulties facing the energy sector, in Belgium and elsewhere.

Despite the extended unplanned outages of three nuclear plants in 2014, the price of electricity on the wholesale markets remained moderate, and thermal plants are most often uncompetitive. Hardly ever used to answer market needs, those plants struggle to cover their fixed costs. However, the flexibility and reliability of gas-fired power plants represent a key asset for coping with the significant variations in renewable energy production, which continues to grow.

The transformation program launched by EDF Luminus in 2011 has therefore become a major asset in order to overcome difficulties.

EDF Luminus continues to invest in modernising its generation capacities, in order to improve yields and reduce environmental impact. Two new, more efficient cogeneration engines have been installed in Ghent to supply urban heating. The Lixhe hydroelectric plant has undergone a major renovation. The renovation of the Andenne plant is underway. Wind farms account for the largest share of the investments: more than 85 million euro in 2014. Meanwhile, EDF Luminus is enriching the range of services offered to customers. Individuals can now call upon Luminus to maintain or repair their boilers. Companies that produce their own electricity can leverage their flexibility in real time. Cities and municipalities, as well, can benefit from partnerships to optimise their energy consumption, the positioning of charging stations for electric vehicles, or even the intensity of their public lighting.

These new offers should help to improve the financial performance of the company, as margins remained under strong competitive pressure.

Personally, I find that the crisis in the sector raises new questions. But taking on the challenge of this adventure is quite stimulating. And to see how the people of EDF Luminus are engaging in the transformation of the company is quite impressive. Congratulations!

In 2014, the Board of Directors devoted more than half of its meetings to the investments and acquisitions that are meant to accelerate the development of EDF Luminus in Belgium.

The decision to invest in four new wind farms - Kluizendok, Meer-Hoogstraten, Oevel and Berloz - was approved by the Board.

Two companies sold four wind farm licenses to EDF Luminus. The acquisition of two companies with existing parks was also approved.

In energy services, EDF Luminus bought a share in two companies, Rami Services SA, the largest network of Belgian installers, and Dauvister, a company specialising in the installation of efficient heating systems that integrate renewable energy.

Composition of the Board of Directors

The Board of Directors is composed of 15 directors, 7 of whom are proposed by Belgian shareholders and 8 by the EDF Group. It is chaired by Paul De fauw.

At the end of 2014, the Board was made up as follows:

Directors representing the Belgian shareholders

- Defada bvba, represented by Paul De fauw, Chairman of the Board
- Tom Balthazar
- Dominique Drion
- André Gilles
- Stéphane Moreau
- Nubis bvba, represented by Jo Geebelen
- Ome sprl, represented by Jacques Vandebosch

Directors representing EDF

- **Denis Lépée** (Secretary to the Executive Committee of EDF)
- Bernard Lecomte (Advisor to the President of Dalkia)
- Magali Viandier (Accounting Director, Group Consolidation)
- **François Driesen** (General Counsel Europe)
- Antoine Cahuzac (Chief Executive , EDF Energies Nouvelles)
- Nicole Verdier Naves (Director, Human Resources)
- Gérard Roth (Senior Executive Vice President, Continental Europe Division)
- Laurent Catenos (Head of coordination Central & Eastern Europe -Germany)

The Board of Directors defines the policy and general strategy of the company and oversees the operational management. It delegates the day-to-day management to the Executive Committee. It met 11 times in 2014. This elevated number of Board of Director meetings was due to the necessity of moving the industrial project of the company forward, and to accelerating its development in wind power and in energy services.

The internal audit department of EDF Luminus reports to the Board of Directors via the Audit and Risk committee. This reporting relationship promotes the independence of the department and assures adequate consideration of audit findings and recommendations carried out each

The Board of Directors' Committees

To exercise its statutory tasks, the Board of Directors has three specialized committees, whose members are directors selected by the Board. Each committee meets at least twice a year and whenever the interests of the company so require.

These committees are as follows:

- The Strategic Committee evaluates the company's strategic plan (e.g. investment or acquisition projects) and gives advice on key orientations.
- The Audit and Risks Committee oversees the reliability of financial information provided to shareholders and gives recommendations on the accounting policy, accounts assessment, budget management and the quality of internal control. It also gives recommendations on the policy to adopt with regard to major financial or operational risks.
- The Nomination and Remuneration Committee examines the company's remuneration policy and monitors, in particular, the appointment, performance and remuneration of the members of the Executive Committee.



year. In November 2014, an external evaluation by IFACI (Institut Français de l'Audit et du Contrôle Internes), the French representative of the Institute of Internal Auditors (IIA), established the overall compliance of the EDF Luminus organisation with the IIA standards.



A Franco-Belgian shareholding, unchanged in 2014

The EDF Group, via EDF Belgium, owns a **63,5** % share of the company. The Belgian shareholders of EDF Luminus, i.e. Publilec, Publilum, Socofe, Tecteo, VEH and Ethias, hold **36,5** % of the shares.

The shareholder agreement signed on 16 April 2010 defines a liquidity commitment for the shares held by EDF Luminus' Belgian shareholders, which could either result in disposal of their shares through an IPO, or in EDF buying their shares at a price determined by variable components. The agreement states that this commitment can be applied in two liquidity windows, one in 2015 and one in 2018.

In line with the steps and deadlines in the agreement, the minority shareholders triggered the preliminary phase of implementing the liquidity provision in 2014.

On 13 May 2015, the Board of Directors approved the decision to initiate the IPO process for these shares.

EDF Luminus speeds up its transformation to become a true energy partner

Two questions for the Chief Executive Officer

2014... a year to remember?

Definitely! In 2014, EDF Luminus invested 135 million euro to build its future: 31% more than in 2013. Wind parks alone accounted for more than 85 million euro – while renewable energy in total accounted for nearly 100 million euro. The EDF Luminus portfolio was strengthened with 28 wind farms – making us the number 2 in onshore wind energy in Belgium – and the number 1 builder. We completed the renovation of the Lixhe hydroelectric plant, for an amount of 10 million euro, and began renovating the Andenne plant, for a similar amount.

Regarding our customers, we launched new services for the residential and professional markets, and acquired holdings in two companies, Rami and Dauvister, accelerating our development in energy services. A growing number of Luminus customers are benefiting from services beyond the supply of energy. After the province of Liege, both Genk and Ghent placed their trust in us to help them better control their energy consumption or to develop a recharge infrastructure for electrical vehicles.

EDF Luminus has nonetheless not neglected its traditional businesses. More than 50,000 new customers have joined us. Our complaint rate has never been so low. Our combined cycle plant in Seraing, selected for the winter strategic reserve, contributes to the security of supply for the country. The labour accident severity rate is falling. Finally, we were elected Top Employer for the third consecutive year.

We are very proud that EDF Luminus staff have also multiplied the number of initiatives having a positive impact on customers, the environment and society. The product Ecofix (CO_2 compensated gas - ref page 26), the Lumibox (page 29), the Paperless program (page 26), the installation of bee hives on our greenest sites (page 23), the Saint Nicolas solidarity action (page 49) ... these are all projects coming from the 'front-lines', not the upper reaches of the company.

The dynamic clearly demonstrates our resilience in a difficult environment. EDF Luminus was able to end the year with a slight profit (10 million euro) despite the very significant costs related to the unavailability of three nuclear power plants in which we have a 10.2% stake. The wholesale prices and retail margins - both under pressure - as well as the mild climate also impacted the result.

What is your vision for the future of EDF Luminus?

At the end of 2014, we prepared the launch of a renewed ambitious strategic plan, called Power to Progress, which aims at clearly, driving progress for the company, its customers, its employees, and society.

We now affirm our desire to become the **number 1 energy partner**, bringing progress and comfort to all our customers through our **5-star service**, our innovative and sustainable solutions, EDF's global expertise and our strong local roots.

We want to play a key role in the fight against global climate change, by using a production mix that respects the environment, and by developing energy efficiency solutions. Those solutions will help our customers to reduce their energy consumption and will contribute to supply security.



We aim for **excellence**

EDF Luminus plans to invest 600 million euro between 2015 and 2018, primarily in the onshore wind park and energy services. This should allow us to double our wind energy park by 2018. The acquisition of a majority stake in the company ATS, announced in April 2015, is also in line with this strategy and represents an important step towards offering energy efficiency solutions to Belgian businesses.

To achieve our objectives, we are striving to develop a positive corporate culture marked by objectivity, openness and optimism, and to embed in the day-to-day our three core values: customer first, entrepreneurship, all together. We aspire to allow each person to progress and to achieve their potential, individually and collectively.

My teams and I are mobilising all our energy to make the company a driver of progress and to put ourselves firmly on the road to profitable and sustainable growth. It's an exciting challenge!

In 2014, EDF Luminus contributed to the security of the energy supply of the country through:

- The inclusion of its combined cycle Seraing plant in the strategic reserve
- The excellent availability of its gas-fired plants
- The periodic testing of the Seraing and Ham plants, which can start up without being supplied with electricity through an external source
- The provision of balancing services to the grid operator
- The flexibility of decentralised production: we can activate several dozens of cogeneration units located at our customers' premises.

The Executive Committee on 31 December 2014



Grégoire Dallemagne Chief Executive Officer



Agnès Butterlin Chief Financial Officer



Yann Baros Corporate Director Production



Jürgen Dennersmann, Corporate Director Trading & Supply Jürgen was named Corporate

Director, Optimisation & B2B on 1 May 2015.



Kris Vervaet, Chief Commercial Officer Kris became Sales Director Ile de France for EDF SA on 1 March 2015.



Henri Buenen Chief Commercial Officer Henri was appointed in March 2015, after 4 years as Director, Customer Service.



Patrick Pruvot Deputy General Manager





Véronique Vansteelandt General Counsel

An ever-more complex energy market

Little if any electricity can be stored, especially in Belgium. Yet, as an entity responsible for providing balancing services to the high-voltage transmission grid operator Elia, EDF Luminus must be able to provide a supply that is equal to the consumption of its customers at any moment.

Ensuring this balance at every moment implies the ability to:

- Make a good estimate of customers' consumption, in the long, medium and short term, in order to forecast the resources to cover needs in an optimal way (reliability, profitability, etc.).
- Adjust in real time "operable" production capacity (gas turbines, combined cycles, co-generation, etc.) to compensate for any renewable production deficit.
- Cover the financial risks associated with very large fluctuations in electricity and gas prices on the wholesale market. These can rise sharply, for example in the event of unplanned outages.

The configuration of the electricity market has changed drastically over the past few years due to:

- The installed capacity of photovoltaic panels in Belgium, now more than 3000 MW, the equivalent of three nuclear power plants; electricity generated by these panels is dependent on sunshine, which is very variable in Belgium, and, of course, nonexistent during winter evenings, when demand peaks occur;
- The power provided by windmills, also growing steadily, remains unpredictable: the amount produced can be very close to zero for several days each month, including in winter (absence of wind across all of Belgium, or too strong winds, especially offshore), but peaks of 2000 MW do occur;
- Hydraulic power remains marked by significant variations from one season and one year to another (ref page 36).

On the other hand, the French nuclear park usually exports significant volumes of electricity, except in the event of significant outages or extreme cold, while the decrease in the price of CO_2 allows Dutch and German coal-fired power plants to also export their production.

Under these conditions, thermal plants in Belgium operate mainly to provide balancing services to the network. This requires that they be selected by the grid operator, which issues calls for monthly or annual tenders. Therefore, thermal plants rarely cover their fixed costs.

For the gas market, as well, the balance must be assured, but at less frequent intervals (every hour, instead of every fifteen minutes). The main challenge for suppliers is to forecast end customer demand, which depends largely on outdoor temperatures, and to source the supply from the markets or through bilateral contracts at the lowest possible prices.

The increased risk of winter blackouts

Beginning of 2014, the estimates of Elia, responsible for the balance on the Belgian high-voltage grid, showed that in the event of extended cold weather, especially in France, the available production capacity would not be sufficient to cover consumption in Belgium during peak hours. Indeed, two of the seven Belgian reactors, Doel 3 and Tihange 2, were offline. Following the unexpected outage of Doel 4 in August 2014, the risks were revised

upwards. Elia then assessed the risk of power shortages in winter as between 5 and 29 hours if Doel 4 was restarted, and as between 49 and 116 hours if the reactor remained at standstill. Ultimately, the Elia power indicator remained green throughout the winter, due to the relatively mild temperatures and good availability from Belgian, French and Dutch production parks. In all, Belgian imports increased by 26.4%, with an import balance of 17.6 TWh, compared to 9.64 TWh recorded in 2013 (Source: Synergrid).

*The lower range calculates the situation in the event of a normal winter, while the upper range relates to an exceptional winter, such as happens every 20 years.



1 With the increased risk of load shedding and I or blackouts, the EDF Luminus teams strengthened their preparation for managing all types of crisis. Indeed, most production units require electricity to be started or operated.

Strategic reserve: the combined cycle power plant at Seraing selected

On 3 March 2014, the federal parliament voted a law which created a "strategic reserve" mechanism during the winter months (from the beginning of November through end-March). Elia then launched a tender for a total of 1200 MW.

On 12 September, EDF Luminus was informed that its offer was selected.

Concretely, this means that between 1 November and 31 March, for the next three winters, electricity transmission grid operator Elia can use Seraing's combined cycle gas and steam turbine should it identify a risk of a power shortage. The Seraing unit is thus paid for making its capacity available in winter. Multiple trials and a qualification test, validated by ELIA, were carried out in September and October 2014 to verify its ability to start-up within the deadlines and to produce the forecasted power when needed. From April to October, the production facilities are stopped and preserved to be ready for the next winter.

Checks and balances... provided by a dedicated team

To optimise the various available resources in order to meet its commitments to its customers as cost-effectively as possible, EDF Luminus relies on a local team, the Trading & Supply Department.

This team works to protect the company and its customers from the uncertainties related to the fluctuations in demand, the significant variations in market prices and any unforeseen unavailability of production assets. Its goal is to adjust its supply-demand balance for all time horizons via the wholesale markets. Indeed, any imbalance between the energy delivered to customers and that supplied to the grid by EDF Luminus leads to expensive penalties.

In the very short term, adjustments are made 24 hours a day, every day, in order to respond to all possible situations, mainly related to the weather (temperature, wind, sun). The development of intermittent energy sources requires constant monitoring of the portfolio, much nearer to real time. In this way, EDF Luminus contributes to the full efficiency of the grid operator's balancing system.

The EDF Group's support in optimizing the EDF Luminus portfolio

To access all the wholesale energy markets and to optimise its short-term portfolio, EDF Luminus relies on the support and expertise of EDF Trading.

EDF Trading is an industrial trader established in Europe, the USA and Asia, trading in all commodities (electricity, coal, gas, CO_2 , etc.). This subsidiary of EDF has both land and sea transport resources, as well as real shore assets allowing it to significantly reduce the risks associated with a trading activity.



2 The control room in the Seraing plant. This combined cycle is a "black-start" production unit, which can start up without any external electricity source, thanks to its diesel generators. These generators are regularly started up in order to test them.

A value chain with heavy constraints

The European context and global trends have a strong influence on the Belgian market. In accordance with the recommendations of ISO 26 000, EDF Luminus has identified the activities under its direct control and those that come within its sphere of influence.

The diagram opposite illustrates the EDF Luminus value chain. The company directly controls some elements of the chain; these are obviously the aspects on which it focuses its efforts.

However, most of the activities are impacted, upstream or downstream, by the functioning of energy markets at the European and global levels, by the decisions of public, governmental or regulatory authorities, and by consumer behaviour.

For example:

- EDF Luminus is dependent on world gas prices and on changes in the prices of the raw materials required to build and operate its generating facilities. This means that anticipating and mitigating industrial and financial risks is essential.
- Although EDF Luminus effectively controls its own energy mix, the latter depends to a great extent on the energy policy of each region, particularly with regard to the issuing of the permits and subsidies for renewable energy sources.
- EDF Luminus is an "Access responsible Party" for the grid operator, with a balancing responsibility regarding the volumes of energy to be provided to its clients. This means it must provide to the network in real-time the energy equivalent to that consumed and pay penalties in the event of an imbalance. These penalties can be very high. For example, in case of activation of the strategic reserve by Elia, the penalty would amount to € 4500 per MWh not supplied.
- Downstream, the quality of invoicing depends on a number of factors, some of which are external: the quality of data provided by the distributors, changes related to distribution tariffs, taxes and

exemptions, etc. Regulatory changes are sometimes retroactive, which does not help customers to understand their invoices. In addition, in the current market set-up, suppliers cover all the risks in the event of non-payment, as well as all of the resulting administrative costs. This "carrying" of costs and risks reduces the supplier's margin.

- The quality of the energy supplied, as with the security of customers' installations, is not within the purview of the supplier, who can also be impacted by quality failures or interruptions in the supply of electricity or gas. EDF Luminus customers can also have unfulfilled expectations and may want to find a partner that supports all energy-related aspects. This is one reason why EDF Luminus in 2014 invested in two companies that work at the customer's premises to provide them with high value-added energy services.
- EDF Luminus endeavours to help its customers to act responsibly by giving them advice on energy savings or suggesting adjustments to their monthly payments to bring them as close as possible to their actual consumption. However the day-to-day behaviour of the customers, on the one hand, and the distribution costs and taxes billed to customers on the other, are outside the company's control.



Sustainable development report **2014**

ETHICS AND DIALOGUE

Our Corporate Social Responsibility policy

In 2012, EDF Luminus introduced a Corporate Social Responsibility policy with five key commitment areas consistent with the company's strategy:



- ethics and sound governance, primary motivations;
- customer satisfaction, a permanent and absolute priority;
- enough profit to preserve the company's future, as an essential foundation;
- innovation, environment protection and biodiversity conservation:
- people with all their dimensions: health, safety, diversity, vulnerability, both internally and externally.

Significant progress in all areas

The implementation of the EDF Luminus Corporate Responsibility Policy has been a particular focus of the company's transformation plan since 2012.

Significant progress can be noted in all five areas:

on Progress » in November 2014.

brand received the 5-star label from

In terms of ethics and sound governance, EDF Luminus signed the United Nations Global Compact in 2013 and published its first «Communication



- In terms of profit levels, EDF Luminus was able to achieve the savings required to maintain a positive net result (ref page 33) and to keep debt low (ref page 35), in order to continue investing in its future.
- From the environmental perspective, EDF Luminus became the number 1 builder of on shore wind farms in Belgium in 2014, and the number 2 for installed wind power. Numerous innovations have had an impact on the environment: smart thermostats (ref page 27), boiler maintenance, flexible offers (ref page 29), CO, compensated gas (ref page 26), etc.
- From the "People" standpoint, the company successfully obtained the Top Employer label for the third consecutive year, and its employee engagement rate rose to 74% (ref page 46).

Ecovadis evaluation

Based on information collected at the end of 2014. Ecovadis ecovodis awarded EDF Luminus a "gold" rating for its CSR performance. EDF Luminus is in the top 11% of all evaluated suppliers. The overall score of EDF Luminus was 62/100, much higher than the average score (41.5/100) for the 20.000 companies evaluated each vear by Ecovadis.

Responsible purchasing: tangible actions

The EDF Luminus general purchasing terms include for human rights and the environment, and of

course, working conditions. In 2014, the purchasing 25 interviews with key suppliers and a dozen evaluations with its contractors. Two on-site evaluations resulted in the removal of a subcontractor of the supplier, for non-compliance with safety rules.

2015 **CSR** Rating

Online CSR policy





Listing our sustainable development challenges, the first step in materiality analysis

In 2014, the yearly "Social Responsibility" action plan enabled the launch of a compliance project with the GRI4 standard for reporting and - first and foremost - the realisation of a materiality grid. This grid should help to formalise dialogue with stakeholders and to more accurately identify the company's priority topics for reporting.

The list of challenges opposite was created using the materiality grid of the EDF Group, realised in 2014. The Group's grid was discussed with the members of the EDF Luminus Corporate Social Responsibility Committee, in order to adapt it to the Belgian context. This committee brings together key functions from the company relating to sustainable development, such as Purchasing, Health, Safety and Environment, Production, Marketing, Recruitment and Internal Audit.

The list of challenges to be prioritized by shareholders in 2015 was validated by the Executive Committee.

The challenges identified by EDF Luminus

The feedback received by the jury for the contest for Best Belgian Sustainable Development Report, about the 2012 and 2013 reports of EDF Luminus, has already helped to clarify the expectations of some stakeholders in terms of reporting.

For instance, while they appreciate the report structure as well as the clarity of graphs and explanations, jury members would like more information about incidents affecting Belgian nuclear power plants. This is an expectation that EDF Luminus is not able to meet, because this information together with the safe running of nuclear installations, is the responsibility of the operator Electrabel, under Belgian law.

"Ethics" axis

- Governance
- Respect for human rights
- Sub-contracting and sustainable procurement
- Commercial practices and sales techniques
- Stakeholder dialogue
- Protection of personal data
- Sponsoring and solidarity

"Customers" axis

- Customer service quality
- Customer service continuity
- The fight against fuel poverty
- Services linked to energy provision
- Managing consumption (control, reduce, efficiency, flexibility, etc.)
- Security of supply

"Prosperity" axis

- Sale price of energy
- Shareholder remuneration
- Local socio-economic development

"People" axis

- Health and safety
- Quality of life and well-being at work
- Development of skills
- Career management
- Social dialogue
- Diversity and the fight against discrimination
- Remuneration and social protection

"Planet" axis

- Energy mix
- Development of renewable energy
- Energy efficiency of the production park
- Safety of installations
- Carbon footprint/air pollution
- Water resource management
- Soil pollution
- Visual pollution
- Energy performance of EDF Luminus buildings
- Sound and odour nuisance
- Solid waste
- Biodiversity

Dialogue with stakeholders: security of supply in the forefront

As is the case each year, the dialogue with stakeholders regarding the development of EDF Luminus took various forms, more or less formalised. Quantitative measurements of customer concerns, public meetings with residents, visits and "open days", social media exchanges, participation in the advisory board of CREG, etc.

Energy bill amounts and the development of renewable energy are recurring themes. But the generation / consumption balance and security of supply became major topics throughout the second half of the year.

Customer expectations: noteworthy evolutions in the 2014 barometer

Since 2012, EDF Luminus has put in place a quantitative barometer to prioritise the customers' most important societal issues. This barometer shows remarkable changes in 2014, compared to the 2013 results.

Increase of ethics and stability

In 2014, the Corporate Social Responsibility barometer shows that the priority given to service quality dropped significantly. This drop in the list of concerns can be attributed to the increase of satisfaction amongst customers. Indeed, in 2014, EDF Luminus further improved with a historically low number of complaints end of 2014 (ref page 24).

Conversely, the fact that the supplier is an "honest and responsible" company has gained weight, to the point of overtaking service quality at the end of the year. The supplier's stability and the associated sense of security also gained weight. These changes in concerns may be attributed at least partially to the debate on supply security in Belgium, which was very present in the media as winter approached.



#noblackout : to inform and discuss without panic

As of summer 2014, given the forecasts of grid operator Elia, EDF Luminus had to mobilise its sales force to cope with the influx of questions from its customers, both companies and individuals, regarding supply security risks and ways to cope with them.

The #noblackout initiative was thus launched in order to facilitate dialogue and encourage citizens' initiative for reducing peak hour energy consumption.

More than 280 messages were posted with this hashtag. They were viewed 94,750,000 times by nearly 3,000 visitors.

The energy saving suggestions accessible on the site were developed by independent bodies, called in by EDF Luminus to ensure that the recommendations were 100% objective:

- Climact contributed advice for businesses;
- écoconso contributed advice to individuals.

Face-to-face meetings with residents

EDF Luminus regularly receives visitors at its industrial and commercial sites.

In 2014 :

- an "open day" was organised at the Hasselt site, on the occasion of the "Open Bedrijvendag"
- the Lixhe site welcomed visitors during Wallonia Water Days
- the European Commission visited the Ringvaart plant, a combined cycle turbine that provided the grid operator with "system services" during most of 2014.



Anne-France Fontaine, project chief engineer for the renovation of Lixhe, explains the work carried out to visitors.



Wind farm development: more information meetings in 2014

In 2014, two mandatory public information meetings were held within the context of the process for obtaining wind farm permits: the first in Wanze (12 May) and the second in Fleurus (4 June).

Other information meetings are occasionally held to inform residents or authorities about specific aspects. For example, on 18 June 2014, EDF Luminus presented the results of the environmental impact study by CSD in Lontzen. On July 2, the results of the impact assessment for Dinant 2 were presented to the Yvoir municipal advisory board for regional planning and mobility.

In Wallonia, the process of setting up wind turbines requires the mandatory organisation of a public information meeting before any application for permits or licences. Each project includes an impact study conducted by an independent firm. Residents' feedback is taken into consideration when developing the project.



The combined cycle plant of Ringvaart mostly ran in 2014 in order to supply R1 (primary reserve*) and R2 (secondary reserve) system services. The primary reserve (R1) is initiated very quickly and automatically (0–30 seconds) and is used to maintain the grid frequency. The secondary reserve can be initiated quickly (in under 15 minutes) on the instruction of the grid operator.

Carbon footprint: the impact of a mild winter

The emissions from EDF Luminus generation facilities must be declared when they exceed a certain threshold. This is the case in particular with carbon dioxide and nitrogen oxide in both Flanders and Wallonia (ref. emissions related to generation p. 43). These declarations are subject to periodical internal and external audits.

Above and beyond its legal obligations, EDF Luminus has measured its overall carbon footprint since 2011, in order to identify the most significant components and to prioritise actions undertaken to reduce it.

Overview of the GHG Protocol emissions scopes



A recognised methodology: the GHG protocol

The GHG (Greenhouse Gas) methodology was used to collect data and for the calculation itself. This was developed at the initiative of the WRI (World Resource Institute) and the WBCSD (World Business Council for Sustainable Development) in consultation with companies, NGOs and governments. This is the most widely recognised method internationally for carbon accounting.

The protocol covers the six greenhouse gases in the Kyoto Protocol: carbon dioxide (CO₂), methane (CH4), nitrogen oxide (N2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF6). The data are presented in tonnes of CO₂-equivalent (tCO₂e), with the other gases converted in accordance with their global warming potential.

The GHG Protocol classifies greenhouse gas emissions in three categories:

- scope 1, which groups direct emissions generated by the company's activity (emissions from power plants fired by oil or natural gas during the production of electricity; heating of buildings with in-house heating systems; emissions from company vehicles, etc.);
- scope 2, which includes emissions generated by the energy acquired externally for internal usage - i.e. in the case of EDF Luminus, only the electricity used in some of its own buildings;
- scope 3, which groups together the indirect emissions generated upstream and downstream: emissions related to the supply of fuel to the power plants (extraction, transport, etc.) or to the purchase of electricity and gas resold to end customers.

This distinction enables the identification of emissions for which the company is directly responsible (scope 1) and those generated indirectly, over which the company has more (scope 2) or less (scope 3) influence.

Footprint evolution since 2012

The balance of all emissions generated by EDF Luminus activities in Belgium amounts to 5 525 kilotonnes of CO_2 -equivalent in 2014.

On the graphs opposite we can see that:

- Nearly half of the indirect emissions of EDF Luminus derive from the combustion of natural gas sold to customers (or 49%, ref. scope 3). This figure, which had increased by 10% in 2013 due to the cold winter, dropped by 24% in 2014 due to the mild temperatures.
- 32% of the total emissions and 38% of the indirect emissions (scope 3) derive from purchases made directly from other energy producers or on wholesale markets, to supply the end customers.
- Emissions related to the generation of electricity in EDF Luminus power plants (scope 1) represent 17.6% of the total footprint. This low figure is due to the energy mix of EDF Luminus, a low emitter of greenhouse gas. Also, the proportion of electricity generated by gas power plants has fallen substantially since 2011.
- The other greenhouse gas emissions represent a low percentage of the total balance. They originate mainly from purchases of goods and services, upstream fuel and home-work travel.

The carbon footprint published in the 2013 report was updated for the years 2012 and 2013. This update was based on the adoption of new and more detailed emissions factors for certain categories and the adaptation of certain calculation methods, in accordance with the GHG Protocol reporting principles (e.g. Completeness, Relevance and Accuracy).

In particular, the emissions factor for upstream natural gas activities was modified. The factor used for the 2014 report is that of ADEME (the French Agency for the Environment and Energy Management). It is more complete for the activities represented (transport and distribution are included) and conforms to the methodology followed by the EDF Group. Other categories were adapted to use more precise emissions factors or more detailed figures available within EDF Luminus.

Details of emissions related to scopes 1, 2 and 3 [ktCO₂e]



Reducing global emissions

Measuring the global footprint of EDF Luminus facilitates the creation of action plans for reducing direct and indirect emissions.

Reducing scope 1 emissions



In November 2014, the administrative building of the Seraing site was equipped with a new condensing boiler for heating. The model chosen maximises the reduction of associated emissions. The exchanger is in stainless steel, which reduces corrosion and prolongs the lifespan of the installation. To encourage its customers to reduce their emissions through their energy usage, EDF Luminus has a range of innovative commercial offers (ref smart thermostats page 27, Lumiboxes page 29, ESCO contracts page 29).

To reduce the CO_2 emissions of its energy mix, the company has invested in modernising or renovating its production base (ref Gent Ham page 40) and building wind farms (ref page 37).

While low compared to total emissions, the direct emissions of buildings and car fleets are covered by voluntary reduction policies.

Steady decrease in car fleet emissions

The decision taken by the Executive Committee to lower the maximum emission rate of company vehicles by 4g/km each year, from 2012, is having an effect. In 2014, the average emissions decreased to 122g/km, a decrease of 3% compared to the previous year.

It should be noted that the average emissions for company vehicles registered in Belgium in 2014 was 118 g/km (source: FEBIAC) while the average emissions of EDF Luminus vehicles registered in 2014 was only 114 g/km.



Biodiversity: volunta

Preserving biodiversity is one of the requirements that confronts the company every day, because of the potential impact of its activities on the environment.

The request for or renewal of environmental permits instigates, in most cases, the realisation of impact studies and the evaluation of possible disturbances to the habitats of protected species.

Above and beyond these required actions, laid out in the 2013 Sustainable Development report (ref page 45), EDF Luminus wishes to contribute to protecting biodiversity, whenever possible.



ry actions

12 bee colonies on 4 sites: a 100% survival rate thanks to an expert partner

In 2014, EDF Luminus decided to partner with an expert, BeeOdiversity sprl, to contribute to the preservation of bees. BeeOdiversity monitors the mortality of honeybees for the whole of Belgium, in partnership with the universities of Ghent and Liège since 2004. This young company guarantees a mortality rate of less than 5%, thanks to a monitoring protocol based on preserving the bee rather than on honey production - while the Belgian mortality rate reached 32% in 2013.

For this project, it was necessary to:

- Choose sites well-placed for providing appropriate food, in sufficient quantities, from March to October, in a 3 kilometre radius;
- Identify with precision locations that would comply with the regulations on colony placement (more than 20 meters from public roads, or less than 10 meters if there is a screen at least 2 meters high);
- Inform staff about steps to take to avoid stings, and how to react in the event of a sting;
- Have the colonies inspected regularly to verify their health.





1 Four bee colonies were placed at the Floriffoux site, the smallest of the EDF Luminus hydraulic plants, with the agreement of the Société Wallonne de l'Eau. Two colonies were installed at the Ringvaart site, three at Seraing and three at Grands Malades.

Angleur: a test site for biodiversity in urban environments

Another initiative promoting biodiversity was launched in 2014. During the redevelopment of the area surrounding the Angleur plant, a collaboration with association Faune et Biotopes promoted biodiversity while reducing the maintenance costs of the green areas.

After examining the sites, a proposal including several options was formulated by Faune et Biotopes. Several actions promoting biodiversity were implemented:

- seeds for melliferous species (2);
- creation of a "limestone" meadow;
- installation of an insect hotel 3;
- planting of a gourmet hedge, including currant and raspberry vines 4.

An evaluation of the actions taken at this very urban site will be carried out during 2015 prior to possible extension to other sites.





CUSTOMERS AND INNOVATIONS

Two Caviar awards for the "One Call to Move" project

"When the One Call to Move project was launched, we knew that our progress margin was high," explains Nuria Van den Wyngaert, Manager, First-line Service. "At the beginning of 2012, our process for managing customer moves obtained a net promoter score of -42. In two years, we have turned that around, thanks to a small revolution in the way we work. Our goal was for the customer to have everything taken care of with a single call. In late December 2013, our score was once again positive. At the end of 2014, we achieved our best result yet: a net promoter score of +32!"

On 27 May 2015, EDF Luminus received two of the five "Caviar" prizes thanks to this project: Best Customer Experience and the public prize. These awards are given annually by Contactcenters.be, a professional federation that aims to reward the most outstanding projects.

"The competition by the other suppliers and other sectors was strong," highlights Nele Aendekerk, Manager Customer Experience. "The jury appreciated our file, and the fact that we provided proof of our progress."

"Luminus potentially takes up a trend setting role for a triple win regarding contact centres : better customer experience, more agile organisation, plus a more demanding and interesting work for employees" explains Seth Maenen, PhD in Organisational Science, Member of the jury of the Caviars.

*An "NPS" (Net Promoter Score) is calculated as the difference between Promoters and Detractors.

Customer satisfaction: results are up for all indicators

EDF Luminus measures customer satisfaction in a number of ways. This allows us to understand the reasons for any dissatisfaction and any changes in their expectations.

A first overall indicator is determined from the results of a quarterly survey conducted among 2,000 consumers. This indicator shows that the level of customer satisfaction again increased in 2014, to an average of 7.4 (7.3/10 in 2013).

Measuring customer satisfaction in the week following contact with the customer service department allows a precise follow-up of performance. The 2014 results show another significant increase. For the B2C segment, average satisfaction reached 8.1 (7.8 in 2013). On the B2B market, the average satisfaction score increased to 7.8 (7.5 in 2013). Customer satisfaction is also measured six months after a contact in order to check whether the short-term results have remained the same. In 2014, another increase was registered, with a result of 7.7/10.

5-star label Luminus does better than most competitors

Over the last three quarters of 2014, the EDF Luminus customer service department obtained one of the lowest complaint rates according to the Flemish regulator. A historic record was set in the last quarter: less than one complaint received per 5000 customers! EDF Luminus has thus retained its "5-star" label throughout the year.

It should be noted that the number of complaints registered in Wallonia and in the Brussels region is similar and that, as a result, EDF Luminus could have an equivalent label, were this type of certification available. Level of customer satisfaction within six months after contact with Customer Service Department



Number of complaints per 5000 customers -



■ Lampiris ■ ENI ■ Essent ■ Eneco ■ Electrabel ■ EDF Luminus

The VREG indicator classifies the energy suppliers into five groups, based on the number of admissible complaints sent to the Flemish regulator and to the federal mediation service for energy, in relation to the number of customers. The ranking is published on the Internet and changes every quarter. Level 5 corresponds to a maximum of three complaints received for every 5,000 customers.

Simplifying life for customers in need

Since 2012, as part of its social responsibility policy, EDF Luminus has made special commitments in order not to worsen the situation of vulnerable customers. The internal processes were modified so that:

- customers are contacted proactively when their annual bill is much higher than expected;
- applications from customers at risk of being cut off are given priority;
- contact between customers and social welfare centers is promoted.

In 2014, new initiatives were introduced.

For example, after a careful analysis of the costs of handling the certificates of customers receiving the social tariff, it was decided to simplify the process and reduce the number of reminders sent to customers who have not sent in their certificate in a timely manner. This resulted in only 12,000 reminder letters being sent, instead of the usual 85,000. "This change in process generates a greater number of manual adjustments, as customers have sometimes moved in the meantime, but it is better accepted by our customers," said Fernanda Pinnola, Team Manager, Billing Operations, who initiated the change. "Ultimately, our printing and mailing costs are lower and the environmental benefit is obvious - the whole team was motivated to continue! "

Payment plans granted following personalised contact

One of the ways to make things easier for our customers is to grant them a payment plan when they are in temporary difficulty. The situation of the customers making the request is studied by the customer service department, which strives to offer the most realistic payment plan possible.

In 2014, the number of payment plans granted to customers by the Customer Service department fell by 20%. The mild winter was the main cause of this decrease, which can also be attributed to a more accurate planning of monthly instalments, by customers who use the \in -Monitor application, accessible by internet or smartphone.



Number of payment plans granted in 2014 for bills outstanding for more than 30 days, not including collective debt settlement schemes.

Source: EDF Luminus.

Salon RECUPère: promoting energy savings

Under the multi-year partnership signed with the Resources Federation and écoconso at the end of 2011, EDF Luminus supported the work of the federation during its participation in the RECUPère fair in November 2014.

The Resources Federation brings together social economy enterprises involved in collecting, sorting and recycling all types of waste. The RECUPère eco-consumption, eco-design and re-use fair was hosted by Namur Expo from 28 to 30 November 2014. The project of the Resources Federation at the fair was to increase the awareness of the visitors about energy saving and to promote the electroREV label, a symbol of quality for second-hand domestic appliances.

The visitors were invited to participate in an online prize competition to discover the most astute actions to take for energy savings. Discount coupons were offered by Luminus to purchase an electroREV-labelled appliance.



At the Resources stand, Nono, the crazy washing machine, attracted the eye of passers-by. This work by the Horizon training workshop of the Petits Riens/Spullenhulp reminded visitors that buying a second-hand washing machine is a good way to reduce your environmental footprint.

Sustainable services for residential customers

There are a number of ways EDF Luminus customers can reduce the environmental impact of their energy consumption:

- by allowing payment by direct debit or electronic bills, which avoids printing out and sending paper bills by post
- by choosing an Ecofix product, which guarantees 100% green electricity or CO₂ compensated gas
- by installing a smart thermostat to better manage their gas or oil boiler
- by monitoring their real consumption compared to their expected consumption via the €-Monitor service
- by signing a maintenance contract for their boiler with Luminus, in order to optimise its consumption
- by seeking energy-savings advice on the Luminus website.

Over 2 jaar zal deze boom 90 cm gegroeid zijn. Uw Ecofix tarief, blijft echter onveranderd.





Rise in electronic billing

EDF Luminus regularly encourages its customers to accept electronic billing and to pay by direct debit in order to reduce the consumption of paper. At the end of 2014, 57% of monthly bills were paperless, compared to 50% in 2012.

Ecofix: Business innovation protecting customers and the environment

In spring 2014, Luminus launched a new product combining security and protection of the environment. Customers choosing this formula benefit from a fixed price for the energy they consume, for two years. The electricity is guaranteed renewable, and the gas is guaranteed 100% neutral in carbon thanks to the compensation of the CO_2 emissions. The success of this offer has already enabled EDF Luminus to offset 4.8% of the indirect emissions linked to the combustion of gas sold to customers in 2014.

Better maintained boilers with Rami Services

In June 2014, EDF Luminus acquired a 50% stake in the capital of Rami Services. This has resulted in the launch of new services for residential customers as early as September.

Rami Services has a network of some 250 independent technicians, spread throughout Belgium, who carry out the maintenance of heating systems and make quick home repairs.

For several years, Rami Services has provided Luminus' Comfort Service, which guarantees an urgent intervention by a qualified technician in 24 hours, 24/7. The customer satisfaction rate for this service is above 95%.

On this basis, Rami and EDF Luminus launched new services in September. Now Luminus can offer maintenance and / or repair contracts for gas and oil boilers. These new services combine comfort, economy and safety, thanks to the automatic system that notifies the client when it is time for boiler maintenance in order to comply with legal obligations.

Smart thermostats: optimising consumption, with full transparency

After several months of testing different products on the market, EDF Luminus decided in September 2014 to sign an exclusive partnership with Netatmo, a designer of smart, easy-to-use and high performance thermostats.

Patrick Robijns, Project Manager:

¹¹ We tested half a dozen different thermostats in all, over nearly a year. The thermostat designed by Netatmo offers more advantages than the competing products. It is truly smart, thanks to its very precise PID (proportional-integral-derivative)-type algorithm. This means that after two weeks of integrating the house's thermal characteristics (insulation, heating efficiency, etc.) the desired temperature is reached just in time – not after, nor before. The user receives a fully transparent report each month. From a practical point of view, there are two particularly strong points for the customers: the thermostats are wireless – no more wall attachment – and they are installed by professionals – the

Rami network. And the Philip Starck design does wonders! "





Interview with Pierre Hanet, CEO of Rami Services, and Grégoire Dallemagne, CEO EDF Luminus



In a fraction of a second, users can access and modify their heating program remotely, using their smartphone, tablet or computer. Compared to an unprogrammed system, the Netatmo smart thermostat enables substantial energy savings.

Companies: formulas that reduce environmental impact

Sales of guaranteed green contracts

The EDF Luminus Business offer enables businesses to select a supply contract accompanied by a guarantee of "100% green energy". This offer is available to large companies, public administrations, hospitals and educational establishments. The guarantees of origin specify the type of energy (wind, solar, hydroelectric or quality cogeneration), as well as the production site for each MWh produced.

EDF Luminus partly uses its own renewable production to provide guarantees of origin, but also makes additional purchases on international markets to meet the customers' needs.

The volume of electricity sold through this programme has fallen regularly since 2011, when the regulations became less favourable in terms of tax exemptions.





Source: Declarations to the regulators within the framework of the reporting system on guarantees of origin.

Buy back of "green" electricity produced by companies

One of the other services offered to businesses consists of buying the renewable electricity generated by their own installations when the amount generated exceeds their own consumption requirements.



The number of customers with a "Green Power" contract continues to rise, resulting in a reduction in the carbon footprint of EDF Luminus.



Photovoltaic production still represents the great majority of the energy acquired via "Green Power" contracts. The share from wind power has grown in 2013 and 2014, but the share from photovoltaic panels, which was 97% in 2012, was still 89.4% in 2014.

Flexibility of decentralised production: benefits for the environment, customers, the company and supply security

In 2014, EDF Luminus further developed the service offered to customers who produce significant volumes of energy with their cogeneration installations. Thanks to the web interface, these customers could already fix the price at which they were willing to sell or to buy energy. Now, EDF Luminus is offering to install a "Lumibox" on their site. This enables EDF Luminus to modulate the production capability of the customer in under 15 minutes, in order to balance its portfolio or to meet the needs of the grid operator. On 18 December 2014, a real-life test was carried out to qualify EDF Luminus to provide Elia's new "R3DP*" service.

"We launched the start signal at 14h00. In 15 minutes, all of the units had reached full power. Everything worked well. We were able to provide Elia with the power required," explains Yannick Soarès, Project Manager. For Frédérik Demaret, Origination Manager: "The Lumiboxes represent an additional step in providing flexibility to the network. We use them to meet Elia's tenders, but also for our own balancing needs. This technical innovation offers advantages for everyone: customers make the most of their flexibility, the environmental balance is positive, security of supply improves and the abundance of offers can contribute to reducing market prices."

Energy performance contracting: EDF Luminus pre-selected

In July 2014, EDF Luminus was pre-selected by the federal building authority within the context of an "energy performance and maintenance contract" tender. This was the first tender of this type submitted by EDF Luminus, with the collaboration of Eos and Ecotral, two subsidiaries of the EDF Group. Another candidature file was submitted in September 2014, as part of a tender launched by the city of Ghent.

The signing of an Energy Performance Contract aims at reducing energy consumption in a sustainable and profitable way. The implementation of this type of contract begins with an evaluation of the energy performance of the buildings. Ways to reduce consumption are identified and quantified, both in terms of cost and expected savings, which must be guaranteed in the long term.

At the end of 2014, EDF Luminus could activate dozens of cogeneration installations at its customers' sites within 15 min-

cogeneration installations at its customers' sites within 15 minutes. The Lumiboxes were one of the 30 projects nominated in December 2014 for an EDF Pulse prize in the category "Innovations and Customer Services".

*R3DP or "Tertiary Reserve Dynamic Profile": this tertiary reserve must be provided within 15 minutes, from decentralised units, on the request of the transmission grid operator.



Regions, cities and municipalities: "Smart City" par

Growth assumptions for the Belgian population indicate that it will continue to rise in towns, in both the medium- and long-terms. This trend represents a challenge for cities and municipalities, which must innovate in terms of building energy efficiency, mobility and energy supply for new neighbourhoods. These are subjects on which EDF Luminus can provide practical support to cities and municipalities, drawing on research and development teams of the EDF Group. In 2014, this support resulted in the signing of three new partnership agreements with the cities of Genk, Ghent and Mons.

Electric vehicles in the Provinces of Liège and Limburg

In 35 municipalities of the Province of Liege, as part of a partnership agreement signed in July 2012, local and elected officials were invited to test electric vehicles for a week. The test campaign began in May 2014 and ended in December.



Two other actions were carried out in 2014 as part of the partnership with the province:

- energy monitoring of the Haute Ecole Provinciale d'Ingénieurs engineering school ;
- a study on a very innovative heating solution based on a geothermal heat pump system, for the future library of Bavière. This study was carried out in collaboration with Enerbat, a Research and Development department of the EDF Group.

In the Province of Limburg, a study aiming at determining the best sites for charging stations for electric vehicles was carried out in 2014. The EVITA tool developed by the EIFER research centre of the EDF Group, in Germany, was used to define the e-mobility master plan for Infrax, in the province's 44 municipalities.

Optimisation of public lighting in Genk

On 7 July 2014, the EDF Group, EDF Luminus and the city of Genk signed a three-year partnership agreement. Under this partnership, an analysis of public lighting was carried out in order to increase the comfort of residents, optimise consumption and reduce light pollution.



Mobility Day at Chaudfontaine - Laurent Gilles answers the questions of the municipal councillor in charge of County Planning, Urbanism and Environment and the Mobility manager.
Cartography of Limburg realised with the EVITA tool, developed by the EDF research centre in Germany.

tners



3 Southern administrative centre of the city of Ghent.



Energy efficiency in Ghent and Hasselt

The measurement of the energy consumption of Ghent's southern administrative centre is one component of the partnership signed in December 2014 with the local authority (ref page 7). As of 1 September, meters and monitors were installed in the 20,000 m2 building in order to map the energy flows. These data will enable the analysis of the building's energy performance and the proposal of solutions for improvement.

In December 2014, a pilot project was launched to improve the energy performance of the public library of Kuringen, in Hasselt. A new controller for the heating, ventilation and air conditioning systems will be installed during 2015. The results will be monitored for a year.



FINANCIAL RESULTS

Reduced turnover

In 2014, the turnover of EDF Luminus fell by 15%. This significant drop was the result of the combined effects of:

- the particularly mild climate over the course of 2014 (whereas 2013 was colder than usual) in particular, volumes of gas sold to individuals fell by 20% (see next column)
- the significant decline in market prices (the average price on the Belpex spot market was 40.79 €/MWh in 2014, compared to 47.45 €/MWh in 2013)
- the extended outages of three nuclear plants (Tihange 2, Doel 3 and 4).



Source: Annual Report of the Board of Directors to the General Meeting of April 29, 2015.

Chiefly short-term causes



In 2014, end customer consumption was lower than ever before, due to the very mild temperatures, especially at the beginning of the year. In 2013, conversely, consumption was strongly increased, due to the cold and extended winter.

Perspectives

The acquisitions of Dauvister at the end of 2014 and of ATS in 2015 represent sources of growth for EDF Luminus.

In 2014, turnover for Dauvister reached 8 million euro, while that of ATS exceeded 100 million euro.

It should be noted that the EDF Group, a 63.5% shareholder since 2010, had to recognise an impairment loss of 586 million euro in 2014, due to the deterioration in long-term assumptions regarding market prices.





Further decrease in net profit, which remains positive

Since 2011, the net profit of EDF Luminus decreased significantly. In 2014, it represented 0.3% of turnover.

The net profit for 2014 (after tax earnings) was 10,427 k€, a decrease of 73%.

Several factors impacted the 2014 result:

- the unexpected shutdown of three nuclear plants, in which EDF Luminus holds a 10.2% share. The unavailability of the Belgian reactors represented a loss of revenue, while the nonfuel operational costs remained fixed;
- the amount of the nuclear contribution, which remains very high (the total amount to be paid by all of the producers was 469 million euro in 2014);
- the decrease in volumes sold due to the mild climate ;
- the low profitability of the infrequently used thermal power plants, outside of the ancillary services provided to the grid operator;
- the downward adjustment, since 2012, of the system for reimbursing the social rate to suppliers.

The net profit of the company nonetheless remained positive, as the savings plan initiated in 2013 had its full effect in 2014.



Source: Annual Report of the Board of Directors to the General Meeting of April 29, 2015.

Net income as % of turnover



The annual accounts of 31 December were drawn up on the basis of the restarting of Doel 3 and Tihange 2, as operator Electrabel expects the two plants to remain unavailable until 1 July 2015.

Financing the current and future costs of nuclear facilities

As the holder of a 10.2% share in four Belgian nuclear power plants, EDF Luminus is required to contribute to the operating and maintenance costs of these plants in proportion to its holdings.

The company also contributes to the provisions managed by Synatom, with regard to both the dismantling and management of the used fuel. Every three years, Synatom provides the Nuclear Provisions Commission with the methodology for the constitution of provisions, i.e. the "underlying strategic approach, the development and implementation programmes, an estimate of the funding required and the completion and payment schedules".

Investments and acquisitions: 86.3 million invested in wind power

In 2014, the total amount of investments, including acquisitions, was 135.3 million euro, an increase of 30% compared to 2013, already three times higher than the 2012 amount.

More than 60% of these investments, some 86.6 million euro, was dedicated to wind power.

The main investments outside of wind power concerned the renovation of the Lixhe and Andenne hydroelectric plants, the installation of new cogeneration engines on the Ghent Ham site and the modernisation of information technology systems.

In total, including the acquisitions in the wind park and the renovations of Lixhe and Andenne, the total amount of investments dedicated to renewable energy in 2014 was 94.9 million euro.



Several acquisitions supporting development

In 2014, the Board of Directors approved the acquisition of several companies, in order to speed up the development of the EDF Luminus wind park and energy services.

Regarding wind parks, EDF Luminus in particular:

- purchased three existing windmills on the Floreffe site, for a capacity of 6.9 MW, in February 2014
- took over a project for two windmills (4 MW), whose construction on the Tessenderlo site could begin as of June 2014
- acquired seven windmills, for a total of 14 MW, on the Bièvre site
- acquired the permits for two windmills of 2.3 MW on the Olen-Sluis site, which should be built by the end of 2015.

In energy services, EDF Luminus completed two acquisitions:

- 50% of the capital of Rami Services S.A., a company with a network of 250 independent technicians, to offer maintenance and repair contracts for gas and oil boilers (June 2014)
- 75% of the capital of Dauvister SA, a company specialising in the installation of heating systems that integrate renewable energy (end December 2014).

Construction of a wind farm on the Lammerdries industrial estate, located in the municipalities of Olen and Geel. This park with six wind farms was built in 2014, following the acquisition of the permit in 2013.



A still balanced financial situation

A healthy balance sheet

On 31 December 2014, the balance sheet total stood at 1,864 million euro, down 16 million euro compared to 2013. The amount of shareholder equity was 868.1 million euro, of which 490.8 million euro was capital.

Low debt

The financial situation of EDF Luminus enables it to finance its investment programme. The long-term debt in particular remains stable and limited to one hundred million euro.

In addition, in 2014 the company initiated an optimisation programme for its working capital.

This situation enables EDF Luminus to prepare its future in a very changeable market, by continuing its investments, particularly in the field of renewable energy and energy services.

Source: Annual accounts filed with the National Bank of Belgium

High taxes and contributions

In the past three years, the amount of corporate tax paid by EDF Luminus fell significantly due to a substantial decrease in the net profit.

The total amount of taxes and contributions paid by EDF Luminus nevertheless remains very high, due in particular to the nuclear contribution. This was set at a total of 469 million euro in 2014, whereas nuclear assets contributed negatively to the 2014 result, due to the extended outages of Doel 3, Tihange 2 and Doel 4. The total amount of taxes paid in 2012 was equivalent to the company's net profit. In 2014, this amounted to almost five times the net result.



Dividends: 70% of the profit distributed

The General Meeting of April 29, 2015 approved the allocation of the net profit after taxes and transfer to untaxed reserves for the 2014 financial year as follows:

- 521,000 euro (5% of 10.4 million euro) was allocated to the legal reserve, in accordance with the law;
- 70% of the balance was distributed as dividends paid to shareholders, for a total amount of 6.9 million euro (as opposed to 21 million euro in 2013);
- the balance was transferred to other reserves, for a total of 2.9 million euro.

Source: Annual Report of the Board of Directors to the General Meeting of April 29, 2014.

PRODUCTION AND THE ENVIRONMENT

Energy mix: growth of wind power

In 2014, the electricity production of EDF Luminus fell by 21% overall.

Renewable energy output fell slightly (-6%), due to the drop in hydraulic plant output (-30%). On the other hand, wind farm output rose sharply: +25%.

Output from natural gas-fuelled thermal plants also decreased by 11% compared to 2013.

Nuclear output fell the most (-32% compared to 2013) following the unexpected outages of Doel 3 and Tihange 2 from 25 March, then of Doel 4 from 5 August to 21 December.

Output from renewable sources rose to 11.1% of the total. The share of thermal power (natural gas-fuelled plants) reached 46.5% while that of nuclear plants represented 42.5% of the total. These developments show that the thermal plants continue to play their role of covering contingencies and consumption peaks, and providing much of the ancillary services required by Elia, all while running less than in previous years. For example, the combined cycle plant of Ham provided almost half of its annual output in December 2014, whereas it did not function for more than one third of the month.



Source: EDF Luminus. In accordance with the recommendations of the GHG Protocol, this graph and those that follow include the figures corresponding to the share of EDF Luminus in Belgian nuclear generation (10.2% of four power plants). These figures do not include production associated with drawing rights on Chooz B (100 MW).

Production of renewable energy: more wind power, less hydroelectricity



The year 2014 could be described as the exact opposite of the years 2013 and 2012, during which hydroelectric production benefitted from high levels of rainfall.

In 2014, two factors explain the drop in hydraulic production compared to the two previous years:

- a weaker runoff than in 2012 and 2013, due to climatic conditions,
- the partial shutdown of two hydroelectric plants for renovation

(replacement of two of the four turbines at the Lixhe plant through October, then the start-up of the corresponding works at Andenne, since August).

Wind power production, on the other hand, rose significantly, due chiefly to the increase in the number of operational wind farms.

Sustainable development report **2014**

The number 1 builder of onshore wind farms in Belgium

In 2014, the efforts launched as of 2012 to double the company's wind park bore their fruit. In total, 18 windmills were built and 10 acquired. Thanks to the investments carried out, EDF Luminus has become the number 2 producer of wind energy in Belgium.

A strongly growing wind park in 2014

To speed up the development of EDF Luminus' wind park, several paths were followed:

- The building of 15 windmills at the sites of Spy, Dendermonde, Lummen, Olen-Geel and Genk represent an additional installed power capacity of 35 MW.
- The acquisition of two companies brought an additional capacity of 6.9 MW (three windmills) and 14MW (seven windmills) to the existing wind park.
- Wind farm permits were also acquired, enabling the construction of five windmills on the sites of Olen, Beringen and Tessenderlo.

Phase 1

application.

Constantly preparing for the future

The share of renewable energy in the gross final consumption of Belgium has progressed well these past years, but the goal set by Europe (13% for 2020) is far from being achieved. EDF Luminus therefore is endeavouring to continuously identify new sites that are suitable for building wind farms.

In 2014, requests for permits were submitted regarding Tongeren, Dinant, Eupen, Lochristi-Laarne, Spy and Rieme Noord, for a total power capacity of 20 MW.

On the Tessenderlo, Beringen and Kluizendok sites, construction work could begin already in 2014, which will represent another 20 MW.





Constructing a wind farm: a process that takes at least 5 years

The average period for the development of a wind farm is at least five years, from the initial exploration phase until it is put into service. However, this period has become longer over recent years, mainly due to appeals having become systematic.

Phase 2

Procedure for the issue of a Initial studies and preparation of permit applications: thisphase permit: this phase lasts at least eleven months and is devoted includes the feasibility study, the purchase of the land, envito procedures at the regional or ronmental studies, as well as provincial administrative levels. the preparations for the electri-It may be extended in the event cal connections and the permit of an appeal to the Minister or the Council of State.

Technical and legal studies conducted after obtaining the permits. An invitation to tender must be made to allow an investment decision. This stage lasts at least five months.

Phase 3

Phase 4

Actual construction, i.e. the time from the decision to invest to commercial operation, reguires at least eleven months.

The construction of the Lummen wind park took only a few months, as a result of the efficient collaboration with the companies involved in the project. The three 50-meter long blades were mounted in a single operation, thanks to the open space of this industrial zone near the E313 highway. This result was highly appreciated by the Wind team, since this project began in 2009, more than five years ago.

Renovation of the Lixhe hydraulic plant: completion of an 18-month project

The renovation of the Lixhe hydroelectric plant, which began in May 2013, was completed on 11 August, with the first tests of the new turbines.





The reliability tests and trials before the restart ran perfectly between 23 August and 23 September. The first megawatt-hours were produced a month earlier than foreseen and the return to industrial service took place on 7 October.

10 million euro to smooth the flow of the Meuse and extend the plant lifetime

The Lixhe hydroelectric plant is now equipped with two new, more efficient 3.5 MW engines with double settings, which enable the river flow to be managed closer to natural conditions. This means that two of the four turbines, whose wheels are equipped with adjustable blades, can run on a wider range of flow conditions with a better yield. Despite the lower nominal power, the electricity production for this 16 MW plant is expected to remain close to 61 GWh, equivalent to the consumption of 15,000 families.

The renovation project also enabled all of the installations to be brought into electrical compliance.

The control system of the machines still in place was modernised.

Total expenses for the renovation of the plant were in line with the forecasted budget. For the preparation and implementation of the project, EDF Luminus benefitted from the support of the EDF Hydraulic Engineering Centre.



1 On-site delivery of one of the two new distributors for the Lixhe plant. 2 The downstream duct after its reconstruction. In total, 400 tonnes of concrete were used to adapt the site to the smaller diameter of the new machines. 3 For the installation of the two new turbines, significant portions of the building had to be demolished and rebuilt.

Andenne hydroelectric plant: Start of the deconstruction

The renovation of the Andenne hydroelectric plant, in service since 1980, began on 4 August 2014.







The objective is to give the plant two new, more efficient 2 MW engines with double settings. The new turbines have the advantage of being able to function when the flow of the Meuse is below 70 m3/S, without waiting for the filling of the forebay, allowing the river flow to be managed closer to natural conditions.

The amount allocated to this plant renovation, which is expected to be fully operational again at the end of 2015, is 9 million euro.

3 September: Removal of the stator
16 September: Loading of the stator on a barge. It will be cut up by a specialised company in order to recover and reuse the metals that it contains.
3 No December: Two breakers ("Montaberts") working in parallel in the pit of two units to prepare the installation of the new turbines.

4.6 million invested to reduce emissions at the Ham facility in Ghent

EDF Luminus invested nearly 5 million euro to modernise the district heating network of Ghent -the largest in the country, with a length of 22 kilometers. The modernisation of these installations, decided in 2013 by the Executive Committee of EDF Luminus, was implemented between January and October 2014.

Several modifications were implemented in 2014:

- the installation of two new high efficiency cogeneration engines, of 2.7 MWe each, enabling the production of 6 MWth
- the complete cessation of the use of fuel oil, by replacing two heavy fuel oil burners with two natural gas-fuelled burners on the relay-boilers.



Before the changes decided in 2013 by the Executive Committee, the urban network was fuelled by:

- a gas-fuelled combined cycle of 55 MWe, with an output of 102 MWth
- five boilers of 43 MWth each, used as an alternative to the combined cycle.

The modernisation of the urban heating contributes to the ecological goals of the city of Ghent

The modifications implemented at Ham will result in a very significant reduction in the emissions of the plant by kilowatt-hour produced. The new cogeneration engines alone will eliminate 5.8 kilotons of CO_2 emissions per year, thanks to their improved output. EDF Luminus thus realises a more than 35% reduction in CO_2 compared to classic gas-fuelled heating. It also provides greater comfort for customers at a competitive price.



The replacement of the two heavy fuel oil burners offers several advantages:

- a strong reduction in nitrogen oxide emissions, from 625 to 80 mg/Nm³
- the virtual elimination of sulphur dioxide emissions (35 mg/Nm³ instead of 1000 mg/Nm³)
- the elimination of fine dust (5 mg/Nm³ instead of 350 mg/Nm³).

The new burners will also simplify operations and enable increased efficiency, as the gas does not need to be preheated before burning, whereas the fuel oil had to be kept continuously at 60°C.



In all, the modifications of the plant will enable the savings of 29 GWh of primary energy each year.

Further decrease in atmospheric emissions due to thermal plants

EDF Luminus' thermal plants were less called upon in 2014, resulting in a further decrease in CO_2 emissions. Conversely, emissions per kilowatt-hours produced are rising, due to the extended outages (as of May for Doel 2 and Tihange 2, and from August to December for Doel 4) of three of the four nuclear energy plants in which EDF Luminus holds a 10.2% share.





Nitrogen oxide emissions: further decrease due to the evolution of the generation portfolio

EDF Luminus' nitrogen oxide (NOx) emissions again fell in 2014. This was because the Monsin thermal plant, which burns heavy oil fuel and which is to be closed on 1 April 2015, was not used.

The combustion systems of the Ghent (Ringvaart) plant, modified in 2011, also contributed to the fall in emissions (-30% with regard to nitrogen oxide).



In relation to the number of kilowatt-hours produced, nitrogen oxide emissions remained very low in 2014.



Decrease in emissions of sulphur dioxide

Sulphur dioxide emissions from the EDF Luminus generation portfolio remain below the reporting threshold. Only two of the EDF Luminus plants are still potential emitters of sulphur dioxide, with all others being fuelled by natural gas. The decrease observed in 2014 was due to the non-use of the Monsin plant, the 1 April 2015 closure of which was announced to the authorities in 2013. The replacement of the heavy oil fuel burners at the Ham plant, carried out at the end of 2014, will lead to further reductions in emissions in the coming years.





Solid waste: a return to normal after the "Lixhe" years

The industrial activities of EDF Luminus generate various types of solid waste. In a "normal" year, excluding exceptional renovations/deconstructions, the waste collected in the Meuse represents almost half of the waste "produced".



The volume of waste collected in the Meuse varies from one year to another, depending on the river flow and possible floodings. The volume of waste produced directly by EDF Luminus depends on the extent of the maintenance programmed (routine maintenance, major maintenance, renovation, etc.).

In 2014 :

The waste collected in the Meuse upstream of the hydro-electric plants was within normal limits (about 700 tonnes each year). All of this waste is sorted and recycled, at a cost of more than 80,000 euro in 2014.

- The volume of non-hazardous industrial waste fell, as the increase observed in 2013 was due in large part to the demolition, before renovation, of the Lixhe hydroelectric plant. The impact of the deconstruction of the Andenne hydroelectric plant is not visible yet, as the demolition began in December 2014.
- Hazardous waste volumes again fell, due to the low activity of the thermal plants.



- Waste extracted from the Meuse
- Conventional non-hazardous industrial waste
- Conventional hazardous industrial waste

Source : Reporting REGINE - Service Public de Wallonie, DGO3 -Soil and Waste Department. Reporting to OVAM, Openbare Vlaamse Afvalstoffenmaatschappij.



Source : Reporting REGINE - Service Public de Wallonie, DGO3 - Soil and Waste Department. Reporting to OVAM, Openbare Vlaamse Afvalstoffenmaatschappij.

96% of waste recycled

In 2012, EDF Luminus introduced a policy aimed at reducing the volume of waste sent to landfills. All of the waste extracted from the Meuse is sorted and recycled. The proportion of recycled waste has therefore risen significantly since 2012.

The figure achieved in 2014 is the highest to date (96%). In particular, all of the metallic waste from the dismantling of the Andenne plant was recycled in order to reuse the iron, copper, chrome steels, etc.

1 Every year, EDF Luminus collects hundreds of tonnes of waste from the Meuse, to maintain the flow upstream of the hydroelectric plants. The company bears the costs of collecting, sorting and recycling this waste.

Significantly reduced water intake (-67%)

In 2014, the volumes of water pumped upstream from some production units, for cooling, were significantly reduced. This reflects the low use of thermal plants over the year.

All of the liquid waste from the EDF Luminus power stations is continually sampled and/or tested to ensure that the limits imposed by the environmental permit are always adhered to. The used water must be returned in accordance with strict conditions concerning chemical composition and temperature.

Comparison between the pumped cooling water and the water released by the gas-fired power stations (millions of m³)



Source: Reporting Administratie Waterwegen & Zeewezen, Flanders. Reporting REGINE - Service Public de Wallonie, DGO3 – Environment and Water Department.

"Clean rivers" activities More than 15 tonnes of waste collected by 200 volunteers

As the producer for hydroelectric plants along the Meuse, EDF Luminus collects around 700 tonnes of waste each year. The participation of the company in the Wallonia Water Days was an opportunity to do even more.

Between 10 and 25 March, many people participated in the "Clean Rivers" activities coordinated by the Meuse-Aval river contract. Municipal workers, volunteers, youth groups ... more than 200 people mobilised. The result was impressive: in total, over those two weeks, 15 tonnes of waste (not including bulky waste) was collected.

On 25 March, for the second consecutive year, the Lixhe hydroelectric plant opened its door to welcome the volunteers. The EDF Luminus staff were also directly involved in the "collection".



1 Briefing the volunteers – there were 160 on 25 March! 2 Collecting waste requires focus and care. 3 Frédéric Cattareggia, Customer Service B2B in Liège, and Wouter Fransis, Operational Improvement Manager at the Hasselt customer centre, participate in the project. 4 Mission accomplished: the trucks are loaded, to transport the 4 tonnes of waste collected on 25 March to the sorting centre.



H U M A N R E S O U R C E S

Employment: new reduction in workforce

Efforts to reduce fixed costs

Since 2011, EDF Luminus has made every effort to reduce its fixed costs, in order to adapt to new market conditions. Several reorganisation plans were launched, the first in 2011, the second in 2013. In total, the reduction in workforce between 2012 and 2014 reached -8%. The recruitment level remained stable, to meet the requirements for new skills, particularly with regard to development activities (wind power, energy services).



The total workforce includes part-time and fixed-term contracts as well as employees who have accepted the voluntary special leave compensated by EDF Luminus.

Source: Social Balance Sheets 2012-2014

92% permanent contracts

The number of fixed-term contracts and temporary contracts remains low. At the end of 2014, there were no more than 6 fixedterm contracts, compared to 11 in 2013 and 33 in 2012. This decrease is due in large part to improvements in the operational procedures and the need to reduce the company's operating costs.

The average number of people hired on a temporary contract over the course of the exercise was 13.7, down from 37% in 2013 and 11% in 2012.

Long-term, full-time contracts
Fixed-term, full-time contracts
Long-term, part-time contracts
Interim workers: average headcount over the year, based on affidavits provided by temporary agencies



EDF Luminus re-elected Top Employer

For the third year in a row, EDF Luminus was the only energy producer and supplier to be awarded the Top Employer label.

The Top Employers Institute was founded as a joint initiative of people from the academic world, journalists, trade associations, researchers and international publishers. It aims to provide an independent assessment and recognition of corporate HR management.

To be eligible for the Top Employer label, each aspect of the human resources management is examined on the basis of five criteria: compensation practices, working conditions, training and professional development, career opportunities and company culture. Only organisations that meet these strict criteria receive the Top Employer label.

Training: 100% of employees trained in 2014



In 2014, after a year of reorganisation that was not favourable to the organisation of group training sessions, the percentage of hours devoted to training recovered to the levels generally seen in high technology companies.

Safety and the quality of relationships with customers remained priorities in 2014.

In 2014, the average per trained employee was four days of training per year. All employees followed at least one training session during the year, except for employees on voluntary special leave or employees with long-term illness.

Mobility: 44% of posts filled by internal promotion

Most vacant posts at EDF Luminus are published on the company intranet for two weeks before being advertised externally. The line manager of an employee selected for a vacant post can under no circumstances oppose the transfer. Only the transitional periods, up to a maximum of three months, can be discussed.

This policy contributes to a high level of internal promotions. In 2014, 44% of available posts were filled internally. 42 people thus changed post and developed their perspectives.

International opportunities

As a subsidiary of an international leader in the energy field, EDF Luminus is able to offer its employees career opportunities outside of Belgium. Since 2009, eight EDF Luminus managers have been selected for such posts, in France or elsewhere within the Group. There were also eight experienced expatriates working for EDF Luminus in Belgium at the end of 2014.

More than 4,000 hours of training devoted to safety in 2014

Specific training sessions focussing on safety are organised each year for Production staff as well as for first intervention teams. In 2014, these sessions involved 240 participants, over 3,133 hours, for a total of 447 days.

In addition to these formal training sessions, "tool box" meetings were organised in each department at least four times per year, so that the behaviour of all of the staff evolves. In total, the average number of training hours allocated to safety per employee rose to nearly 5 hours.



One of the training programmes launched by EDF Luminus in 2014 won one of the 13 "EDF Pulse" prizes, in the category "social and managerial innovation".

The internal EDF Pulse contest encourages teams to offer innovative solutions for the major challenges facing the group. The programme "I learn I lead", created by llse Matthijssens, Talent Manager, for Customer Services (represented here by Arlette Frédérix, Customer Service Manager B2B) was selected from among 139 projects proposed by 30 group entities, in a dozen countries. It is a programme of more than 50 hours of training over two years, intended for Customer Service managers. The objective of the training is to help them to better manage change and to give them the tools to better play a leadership role.

Safety: stable results

A complete system of health, safety and the environment has been in place at EDF Luminus since 2010. All of the EDF Luminus activities have been certified ISO 14001 and OSHAS 18001 since June 2013. This system is focused on the continuous improvement and systematic reporting of a number of indicators to the Executive Committee and the Board of Directors.

In 2014, the respect of the safety rules was particularly visible on two occasions:

- the decision to halt the works at the Ham powerplant after the detection of asbestos particles in the dust accumulated in a part of the production buildings (no asbestos particle was found in the air). The works were not restarted until a complete decontamination of the affected areas was conducted, and the absence of asbestos confirmed by new analyses.
- the termination of the contract of a sub-contractor that, despite several warnings, was not respecting the safety rules on the worksite of the Andenne hydroelectric plant renovation.

Frequency rate: stable number of accidents

The frequency rate registered by EDF Luminus in 2014 (3.2) is comparable to the frequency rate of the Belgian energy sector (3.15 in 2013).

In 2014 as in 2013, there were four accidents resulting in a work stoppage of more than one day. None of these accidents related to non-executive Production employee and none was linked to professional risks, which reflects a profound improvement in safety practices.

The causes of each accident are nevertheless analysed in detail to reduce risks related to the working environment or to individual behaviour.

Two accidents occurred involving sub-contractors, one during the construction phase of a wind farm in Dendermonde, the other during the periodic inspection of a wind farm in the Kluizendok park.

Frequency rate of accidents resulting in lost time

The frequency rate represents the number of accidents leading to incapacity per million hours worked.



Source: Annual report of the internal prevention and protection at work department. Occupational Accidents Fund.

Lower severity rate

The overall severity rate recorded by EDF Luminus is significantly lower than that for the energy sector in Belgium (0.28 in 2013), due to the low number of work stoppage days. The four accidents resulting in absence from work resulted in 151 days of incapacity to work. The severity rate consequently stands at 0.12 (0.14 in 2013).



Quality of life and well-being at work

Employee motivation is one of the human resources indicators monitored very closely by the company's executive committee. It is measured every year.

In 2013, due to a resource optimisation plan implemented throughout the company to reduce its cost structure, the measured engagement decreased from 72% to 70%.

An action plan was then launched in 2014 so that each team could contribute to improving this indicator. In particular, the evolution of the company's strategy was better explained to everyone – and the consequences were discussed in depth.

In September 2014, the internal survey carried out each year by an external entity showed that the plan had been effective, with employee motivation reaching 74%.

Nearly 20% of personnel work part-time

In 2014, the percentage of staff working part-time reached 19.2%, of which 12.5% were men, a slight increase.

Some staff members work part-time on a contractual basis (35.7%), while others do so on a voluntary basis (64.3%).

Since 1 December 2011, EDF Luminus has encouraged part-time work beyond legal provisions. The agreement on time credit signed in 2014 lays down a percentage of 8.5% of staff (instead of the 5% required by the law). Within the framework of this agreement on time credit, workers who care for a disabled child or a seriously ill member of the household or family are given priority. Other priority staff include single-parent households, or those with one or more children under 12 years, as well as staff aged 50 and over.



Alerts to confidential councillors: reassuring results in 2014

After an increase in people calling upon confidential councillors in 2013, linked to the major changes occurring then, in a very difficult economic and regulatory environment, the number of cases observed in 2014 dropped back below the historical trend.

For Véronique Vansteelandt, General Counsel, "It is reassuring to see that the efforts of management to better train managers, so that they can better listen to their colleagues and explain to them the constant changes impacting our activity, have borne fruit. The environment is still difficult, but the respect for people has progressed – as has the efficiency of the organisation."

Cases reported to confidential counsellors

Confidential counsellors, whose appointment must be approved by the social partners, play an important preventive and curative role. They can be called upon by simple request, by managers as well as employees, in case of psychosocial difficulties.



Source: Annual report of the internal prevention and protection at work department.

In 2014 as in 2013, no formal complaint was filed to the competent authorities.

An appeal was filed in the first quarter of 2014 to the Group's Ethics Committee by a union for a possible case of discrimination. After an investigation by the Committee, the case submitted was closed without further action.

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Diversity and solidarity: outstanding actions

Breakdown of employees by gender

Women make up 42% of EDF Luminus personnel. They represent 30% of management.

For several years, there has been an equivalence of employees at the level of salaried personnel. The mix is not systematic, as men are more represented in the Production departments whereas women are more numerous in Retail departments.

In 2014, the percentage of men in management positions rose. Detailed analysis shows this is due to recruitment actions carried out to develop the new activities of EDF Luminus, in fields with a high technical component (wind power development, energy services).



Eight nationalities

Eight nationalities were represented within the company as of December 31, 2014. The percentage of Belgian employees remained the same: 96%. French, Dutch and Italian employees each represent approximately 1%.

Disabled employees

At the end of 2014, EDF Luminus employed two people whose disabilities require an adaptation of the working environment. Individual measures are also put in place for people with specific difficulties (desktop configuration, type of vehicle, etc.). Since 2011, people with disabilities have been able to contact a

Correspondent in case of difficulty. EDF Luminus can thus be sure that these individuals feel welcome and that any problems they may encounter will be identified and dealt with in the most appropriate way. A specific action plan is drawn up each year and its progress monitored.

Collaboration with Passwerk: a successful experiment

In 2014, EDF Luminus worked with Passwerk to carry out functional tests on certain computer applications.

Passwerk is a cooperative company with a social goal (SCRL), whose profits go to improving the situation of persons with autistic disorders.

In all, the services provided by Passwerk on behalf of EDF Luminus amounted to almost 100,000 euro.

Created in 2008, Passwerk today counts some 50 employees. Its specialisation is to offer companies computer testing or quality assurance services carried out by people with an ASD (Autism Spectrum Disorder). These people are capable of continuing repetitive tasks long after their non-ASD colleagues have become discouraged. However, to ensure the highest quality work, it is important to adapt the environment to their specific situation. In particular, visual and auditory stimulation must be limited.

Tim Schampheleer, job coach: "For a company to welcome people with ASD, a preliminary training of the people who will work with our employees is necessary. Our employees need visual information and concrete examples rather than verbal interactions, especially if these are not planned in advance. It is also important to check working conditions: not all companies are able to provide the necessary openness to offer a suitable environment."

Dirk Rombaut, Sales Manager: "All of the people that we propose to companies have successfully completed a demanding recruitment process: they speak English as well as Dutch, they must be passionate about IT and they must be able to get around on public transportation. And finally, which is not always so easy, they have to accept their disability and welcome the related coaching. This process includes a number of tests adapted to ASD, because these people have often had difficulty in completing their education and passing exams, due to an environment that is not adapted."



Physical exercise and diabetes prevention: success for the Stelvio Pass climb and for the Globetrotters programme!

On 14 June 2014, a group of 12 people with diabetes or prediabetes climbed the Stelvio Pass, in Italy, with customers and around 50 EDF Luminus employees. Starting out at 8:30 in the morning, they had all reached the summit by 13:30. The goal of the operation was to promote physical exercise and to support the prevention of type 2 diabetes. This type of diabetes – or prediabetes – goes unnoticed too often. However, it is at this stage that it is still possible to reverse the trend, by adopting a healthier lifestyle and following an appropriate treatment. In addition to healthy eating, physical activity is an ideal way to prevent type 2 diabetes. EDF Luminus began supporting this project in 2013. In 2014, staff became involved. In addition to the opportunity to participate live in this athletic event, on bike or on foot, employees were encouraged to move more and to register their sport activities every day on the "Globetrotters" platform. The data was added up and converted to kilometres. In total, over 425 participants, nearly half the staff, travelled 120,225 kilometres, or three times around the world. For each time around the world, an electric bike was offered to a diabetes prevention association.



Saint-Nicolas in solidarity: a staff-initiative project

In autumn of 2014, several staff members mobilised to collect toys and clothes from their colleagues at the company's four sites. The communication, collection, sorting and organisation were all handled by these volunteers to facilitate the work of recipient organisations.

Four organisation benefitted from the collection: Sint Vincentius in Hasselt, Desk in Ghent, Assistance à l'Enfance in Liege and Petits Riens/Spullenhulp in Brussels.







The Stelvio Pass: a legendary cycling road
Former champion cyclist Lucien Van Impe, 68 years old, also conquered the Stelvio Pass, with the help of a Luminus electric bicycle. Souvenir photo with Pieter Neiss, Credit Risk Analyst at EDF Luminus.
4 Loading toys at the Hasselt site. Four cars and a trailer were necessary to transport everything!

The EDF Group Number 1 producer of renewable

With an installed power of **136,2 GWe** on 31 December 2014, for a **total production of 623,5 TWh**, the EDF Group has one of the largest generation portfolios in the world. Thanks to the nuclear, hydraulic and other renewable energies in its production mix, its park is the lowest emitter of CO2 per kilowatt-hour produced, among the 10 largest utilities globally.

At **25,2 GW**, renewable energy represented **21%** of the 2014 installed capacity of the group (compared to 19.9% in 2013), with **16%** hydraulic power. For four years, the EDF Group has devoted the greatest share of its gross operational investments for development to renewable energy (37% in 2014). Thanks to its continuous investments, the EDF Group is the European leader in terms of the quantity of electricity produced using renewable energy.¹

The Group covers the full range of activities: generation, transport, distribution, trading, gas and electricity sales and energy services.

 EDF is listed on the Paris stock exchange and is a member of the CAC 40 index.

The EDF Group: key figures

Turnover: 72,874 million euro

45.2% of turnover originating outside of France

37.8 million customers

Installed generation base: 136.2 GWe, of which 21% is renewable energy

EDF Energies Nouvelles (New Energies), a major player in solar and wind power

To develop its installed capacity in the wind and solar energy sectors, the Group relies primarily on EDF Energies Nouvelles (New Energies). Operating in 18 countries, EDF Energies Nouvelles is active along the entire value chain of renewable energy production. On 31 December 2014, the company had an installed capacity of 5,112 MW. The ambition of EDF Energies Nouvelles is to reach 12 GW by 2020, equalling double the current park.

EDF Energies Nouvelles made the strategic choice to develop industrial expertise internally, in order to operate and maintain the parks managed by the company or third parties. This control of industrial assets allows the optimisation of its generation assets and ensures a maximum lifespan. At the end of December 2014, EDF Energies Nouvelles was responsible for the operation and maintenance of more than 11.8 GW, 30% more than in 2013 (9 GW).



EDF EN Services Belgium: a joint subsidiary of EDF Luminus and EDF Energies Nouvelles

On 17 December 2014, EDF Luminus, together with the company EDF EN Services, created the company EDF EN Services Belgium SA. The purpose of this company is to provide operational, maintenance and engineering activities for wind and solar farms.

EDF EN Services Belgium offers owners of onshore wind and solar farms specific services for optimising the availability of their installations for the entirety of their lifespan. These services relate to performance analysis, inspection, preventative and corrective maintenance, as well as major component changing operations in order to improve performance and efficiency.

The EDF Group has introduced a group-wide Code of Ethics. It can be viewed by everyone on: https://www.edf.

fr/en/the-edf-group/responsible-andcommitted/ethics-and-corporate-responsibility/ethics-policy

An alert mechanism enables the identification and resolution of failures to comply with the Code.



1. Source: Le Facteur europeen, PWC study of December 2014.

energy in Europe



The Research and Development teams of the EDF Group include over 2,000 people and have an annual budget of more than 500 million euro. Research is focused on three major priorities: consolidating a low-carbon energy mix, anticipating the electricity system of the future and developing a flexible, low-carbon energy demand.

The Themis laboratory (Technology and Modelling of Electrical System Infrastructures) in Clamart (France) tested the eco-efficiency of running engines as part of a study on wind turbine alternators.

The French and Dutch version of the Sustainable Development report you are reading were printed using vegetable based inks on 100% recycled paper. This paper was awarded a number of environmental certificates: ISO 90001, ISO14001, OSHAS 18001, NAPM. It also carried the FSC label and the EU ecological label.

The CO_2 emitted during the production of this report was offset via the purchase of emission certificates within the framework of the forest protection project in the "Kasigau Wildlife Corridor" (in Kenya).

The project was set up to protect the existing dry forest and savannah over an area of almost 170,000 hectares. Each year, this project offsets the equivalent of 1,000,000 tonnes of CO_2 and provides work for more than 200 local inhabitants, giving them the opportunity to build themselves a sustainable future.

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Cover: 1. Photo taken during the inauguration of the Spy wind farm, on 13 November 2014 2. Image from the ad campaign launched to promote Luminus Home Solutions for residential customers 3. One of the two distributors of the Lixhe hydroelectric plant, renovated from May 2013 to October 2014 4. One of the two new cogeneration engines delivered to the Ham plant on 22 May 2014.

Record wind park construction in 2014

85 wind farms in service, equalling the consumption of nearly 100,000 families

- 5 stars for handling customer complaints
- More than 700 000 paperless invoices sent each month
- 135.3 million in investments, including 86 in wind power
- Number 1 in Belgian hydroelectricity with a 69MW base
- 96% of industrial waste

Top Employer 2014

- 41,5% female employees, 8 nationalities
- 4 days of training on average per year per employee
- 3,2 accidents resulting in lost time per million of working hours

