



ENERGY AS THE NEW ART

SPAIN
SUSTAINABILITY REPORT
2016

edp

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01

Letter from the Chairman



WIND
AS THE *NEW*ART

A professional portrait of Manuel Menéndez Menéndez, a middle-aged man with dark hair, smiling slightly. He is wearing a dark blue suit jacket over a light blue striped shirt and a blue tie. His arms are crossed over his chest. The background is dark and textured, possibly a curtain or wall. The lighting is soft, highlighting his face and suit.

Manuel Menéndez Menéndez
Chairman

01

Letter from the Chairman

In 2016, EDP faced a challenging environment in the different sectors in which it operates in Spain. On one hand, the values of gas and electricity demand were similar to those of 2005, the thermal gap for operating gas and coal-fired power plants at a value similar to that of 1999, the expansion of the gas and electricity networks was very low and the pool prices very volatile. However, the year was not completely beset by uncertainties. In 2016, we witnessed the consolidation of the regulatory regime and the sector deficit was eliminated; both of which are good news insofar as they can be interpreted as a new framework for regulatory stability.

EDP Spain has sought to anticipate, manage and control the risks inherent to the business, to strengthen its position on the market and optimise the return on its investments. Efficiency and flexibility in our power stations, deployment of smart grids, quality in the gas and electricity supplies, the good business response and the new services offered, the environmental investments made, and a pro-active attitude to regulation were fundamental to achieve our objectives.

Major challenges lie further ahead. The energy sector is undergoing a far-reaching transformation and regulatory management will continue to be fundamental, underpinned by two cornerstones that are already integrated in our sustainability strategy: our fight against climate change and energy management. The ratification of the Paris Agreement and the European policies have set the pace towards a more competitive, efficient, safe, and fully integrated market.

More and more people are now talking about a fourth industrial revolution. Digitalisation and big data analysis, or the Internet of Things, are new challenges and opportunities that will impact, internally, the processes, and externally, customer demands. Our way of relating to them will be completely different, with even more collaborative processes and more effective responses.

From the macro-economic point of view, changes are expected in the policies of the central banks, with an upward trend in interest rates, an aspect that is very important in a capital intensive sector such as the energy one. The market will be increasingly more demanding regarding financing investments and we will therefore need higher productivity from our facilities to offset the great financing cost envisaged.

In the exercising of our responsibility, we have successfully endeavoured to incorporate those challenges in the projects and initiatives that we have underway. I therefore invite you to learn more in that regard through this Sustainability Report.

On behalf of the Board of Directors that I chair, I wish to single out and thank the more than 1,500 people who work at EDP Spain for their effort and also thank the trust of General Supervisory Board and the Executive Management Board of the Group.

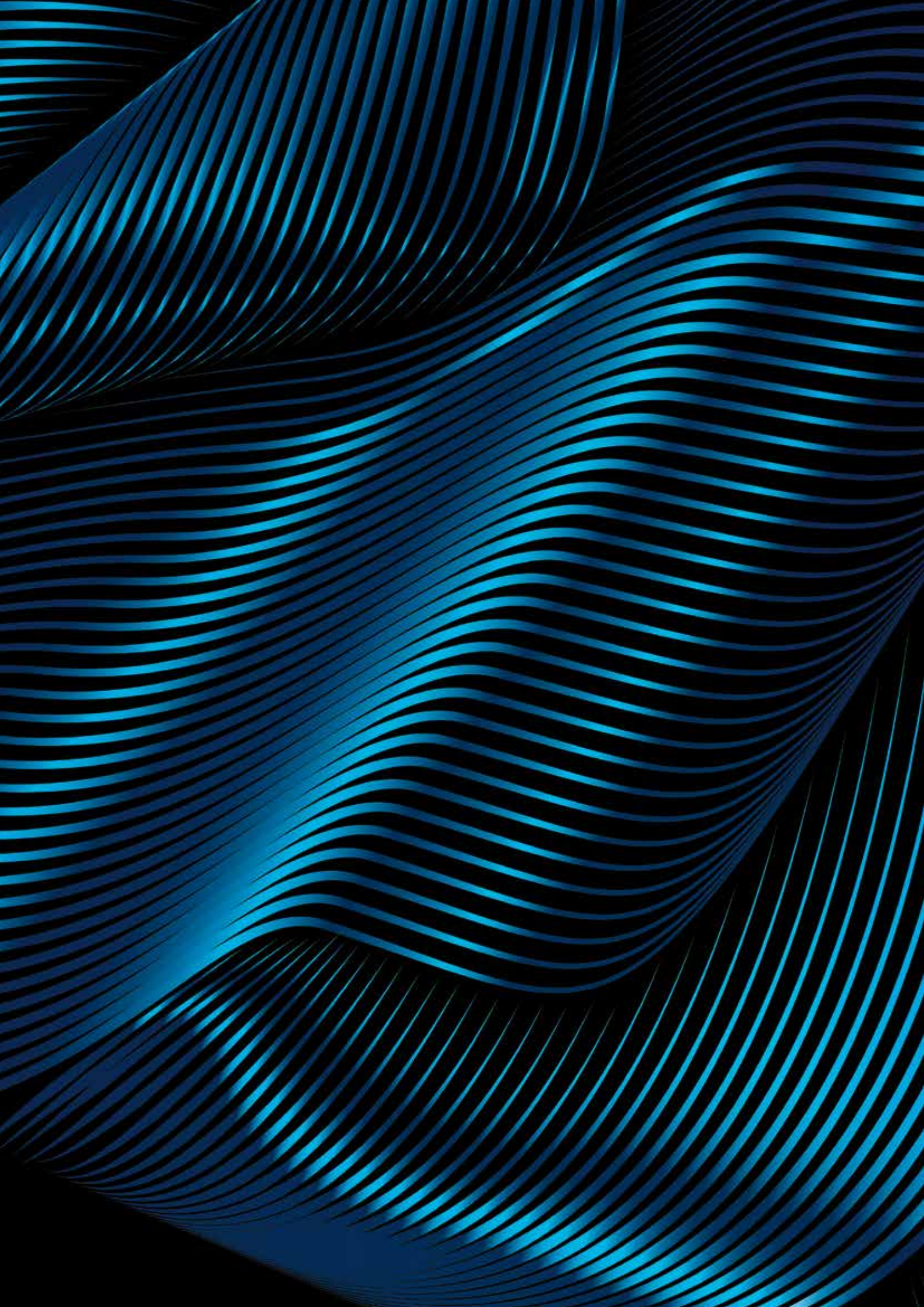


Manuel Menéndez Menéndez
Chairman

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02

Letter from the CEO



The background of the entire page is an abstract composition of numerous thin, wavy, blue lines. These lines flow from the top left towards the bottom right, creating a sense of movement and depth. The lines are more densely packed on the left side and become more spread out towards the right. The color of the lines is a vibrant blue, contrasting with the dark background.

WATER
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Miguel Stilwell d'Andrade
Chief Executive Officer

02

Letter from the CEO

Yet again this year, EDP Spain has published its sustainability report to reflect the company's environmental, social and economic performance in 2016.

From the economic perspective, EDP Spain posted a gross operating profit (EBITDA) for 2016 of EUR 500 million, 17% up on 2015, after discounting the positive effect of the sale of the gas distribution assets in that year.

The energy situation continues to be complicated. However, the flexibility of the EDP thermal plants has allowed them to operate over the national average, even taking into account the Aboño 2 service shutdown for 2 months. The demand on mainland Spain remained stagnant, with values similar to those of 2005 and 2006. This fact, together with greater hydraulic production, meant the conventional thermal generation ("thermal gap") fell nationally.

The electricity distribution business has beaten a new supply quality record. The TIEPI (Equivalent Interruption Time) was only 24 minutes, which consolidates EDP Spain as the leader of the sector. These results are due to the high degree of specialisation of the staff that operate and maintain the grids and to the significant investments made. In this regard, special mention should be made of the smartgrids, where we already account for over 78% of the remote managed meters and have over 5,400 meters installed that means that they can be connected to the company's headquarters.

As a gas distributor, in 2016, we retained our position as the second distributor national and we increased both the kilometres of network and the number of supply points. However, in March 2017, the EDP Group accepted a proposal to transfer those gas distribution assets to the investor consortium, whose members include Infrastructure Investment Fund, Abu Dhabi Investment Council and Swiss Life Asset Managers.

In the commercial area, EDP Spain leads the dual energy package (gas and electricity) in the areas where it operates (Asturias, the Basque Country and Cantabria). This package, along with the value added services, is the commercial flagship of the Group. With nearly 1.5 million electricity customers and over 850,000 gas customers, EDP is the retailer that is growing most in percentage terms on the free market. Furthermore, it has been recognised as the leader in terms of customer satisfaction regarding electricity supply among the more than 200 companies rated. In March, the first EDP Spain institutional campaign was launched in order to increase the visibility of the company. The campaign, whose slogan is "Imagine Your Energy", communicates the brand's values.

And to top off all this accomplishment, the continuous improvement Lean Programme celebrated its tenth anniversary. Since it was launched, over 3,500 initiatives have been implemented, impacting all the processes and businesses of the organisation, which has undoubtedly contributed to the aforementioned results. Furthermore, with respect to the Innovation area and as part of the EDP Starter cooperate programme, over 80 start-ups have been identified in Asturias and the Basque Country that could be of interest for the Group's activities.

The environmental performance was controlled by maintaining the certification of the management systems implemented in the gas, electricity and generation activities and at the head offices in Asturias and the Basque Country. In 2016, EDP Spain started up, at the Aboño Thermal Power Plant, the first denitrification plant (SCR) pursuant to the application of the Industrial Emissions Directive. This legislation has extended the adaptation period for Spanish coal-fired thermal plants until 2020. The Aboño SCR plant, along with the installation envisaged of another at the Soto de Ribera Thermal Power Plant, will involve an investment of nearly EUR 100 million for the environmental adaptation of the generation facilities. This will allow their future to be ensured from 2020 onwards.

As regards the social performance, different actions were run in 2016 to help enhance the employees' commitment to the company. Special mention should be made of the signing of an important Collective Bargaining Agreement for 227 employees, which means the standardisation of all EDP Spain workers. The introduction of new benefits for employees with the launch of the "*EDP is More Benefits*" [Edp es Beneficios Plus] portal and the "*EDP is Healthy*" [EDP es saludable]. As regards health and safety, in 2016, we continued to have the lowest accidents rates of the electricity sector for our employees. These results show that safety is embraced at EDP Spain as a company value, where safe habits and behaviour are put into practice.

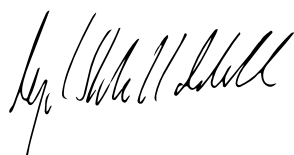
As regards activities with local communities, EDP has continued to sign agreements with public authorities that ensure supplies to vulnerable people and in situation of social emergency, currently reaching at 95% of our customers. Those agreements complement the work of

the EDP Foundation that, in addition to its routing activity, runs important social projects including EDP Solidarity or Energy Solidarity.

Overall, the business of EDP Spain represents 1.4 % of the GDP of the autonomous regions of Asturias, Cantabria and the Basque Country, and creation of induced, indirect and direct 10,000 jobs, which highlights the social, environmental and economic success of our company.

Looking forward to 2017, our main challenges will be to maintain the operating flexibility and the high availability of the production power plants. Special mention should be made of the commissioning of the Soto 3 denitrification plant. Furthermore, we will strive to remain a leader in electricity distribution supply quality and to increase the smart management of the grids. In the commercial area, progress will be made in strengthening the digital channels to relate with our customers.

I would like to end by thanking the whole human and professional team for their hard work, rigor and dedication in the performance of their duties, without which these results would not have been possible and with whose backing we can achieve our goals, and my thanks also go to the HC Board of Directors for its support during the year.



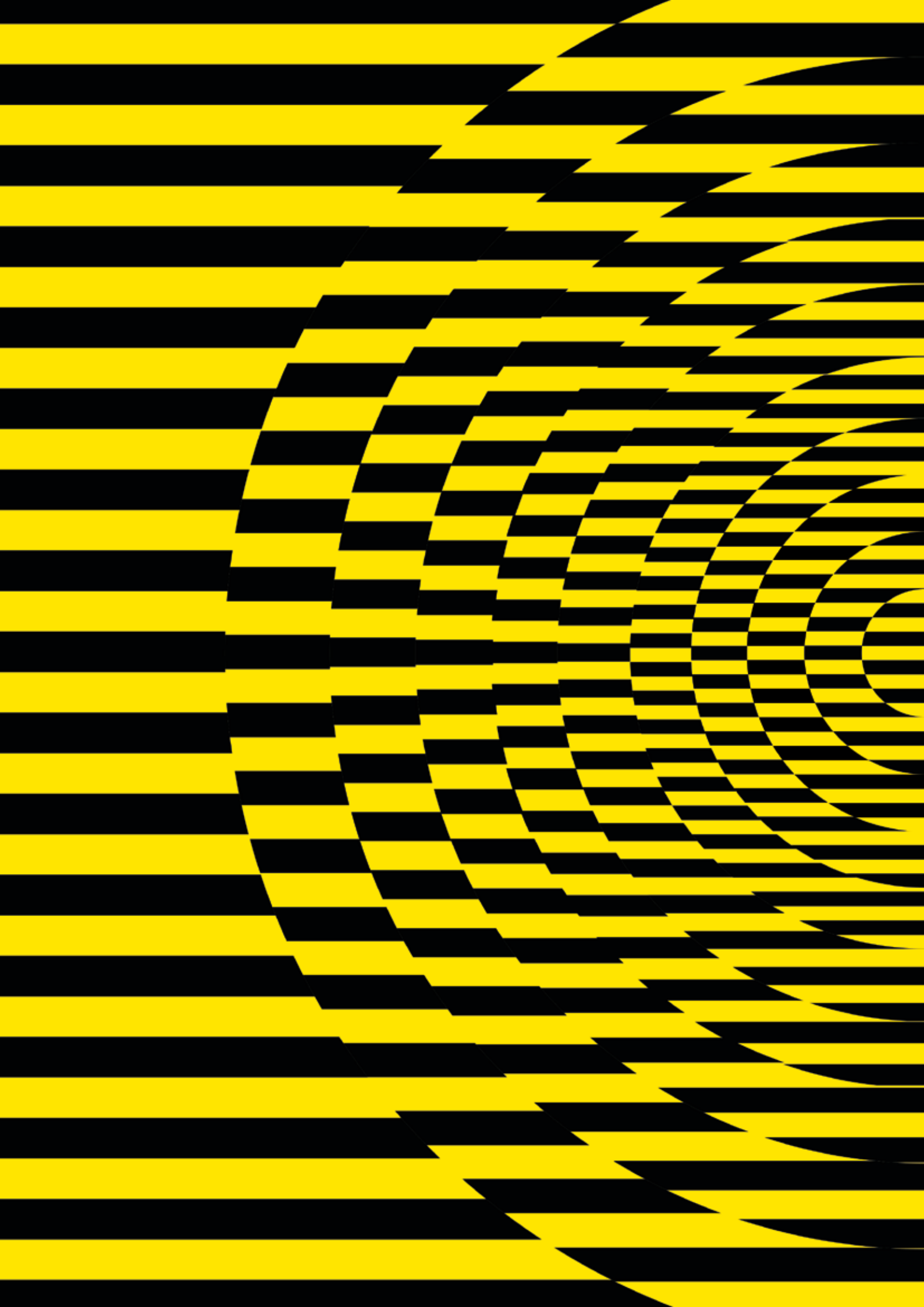
Miguel Stilwell d'Andrade
Chief Executive Officer

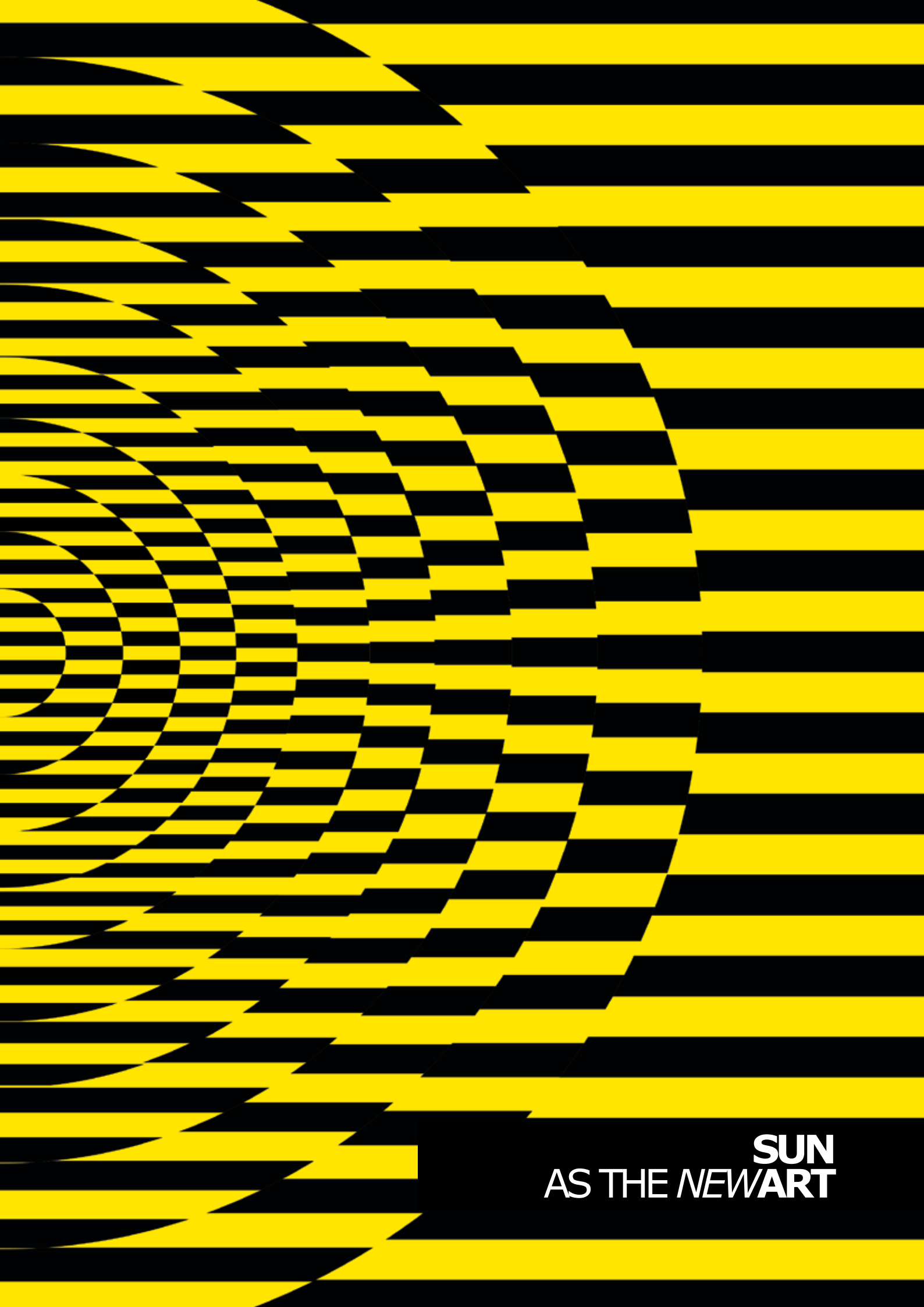
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03

The Challenges of the Electricity Sector

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03

The Challenges of the Electricity Sector

In the coming years, the electricity sector is facing a context of profound changes, conditioned by the following factors:

3.1. CLIMATE CHANGE

"The political target is to limit the planet's global warming by 1.5 °C, but the reality is that only 12 % of the world's CO₂ emissions currently have a cost."

Initiatives to fight climate change

On 12 December 2015, the first universal climate agreement, the Paris Agreement, was unanimously adopted (196 Parties).

This agreement seeks to keep warming under the 2°C limit and strive to progress towards 1.5°C with respect to pre-industrial levels. Therefore, the States have established the target to cut CO₂ emissions in order to reach the peak of world emissions as soon as possible and achieve zero net emission in the second half of the century.

For the first time ever, it includes all countries and even differentiates between developed and non-developed countries, and criteria are not established to include the countries in one or other group.

However, this global agreement will not come into force until 2020. There is currently only an extension of the Kyoto Protocol that sets reduction targets for the intermediate period: it came into force on 1 January 2013 and will expire at the end of 2019. The absence of countries such as the USA, Canada, Russia and Japan in this transitional agreement means that currently only 12 % of global CO₂ emissions are subject to a reduction commitment.

Yet, fortunately, the Kyoto extension is not the only tool to fight climate change; many developed and developing countries have assumed their own commitments to cut or limit their greenhouse gases, either by means of trading schemes similar to that of the European Union, or by means of implementing taxes on CO₂ emission.

Thus, Portugal and Mexico have introduced new CO₂ taxes, and Chile has also made progress in this area after the approval of a tax on this gas for 2018.

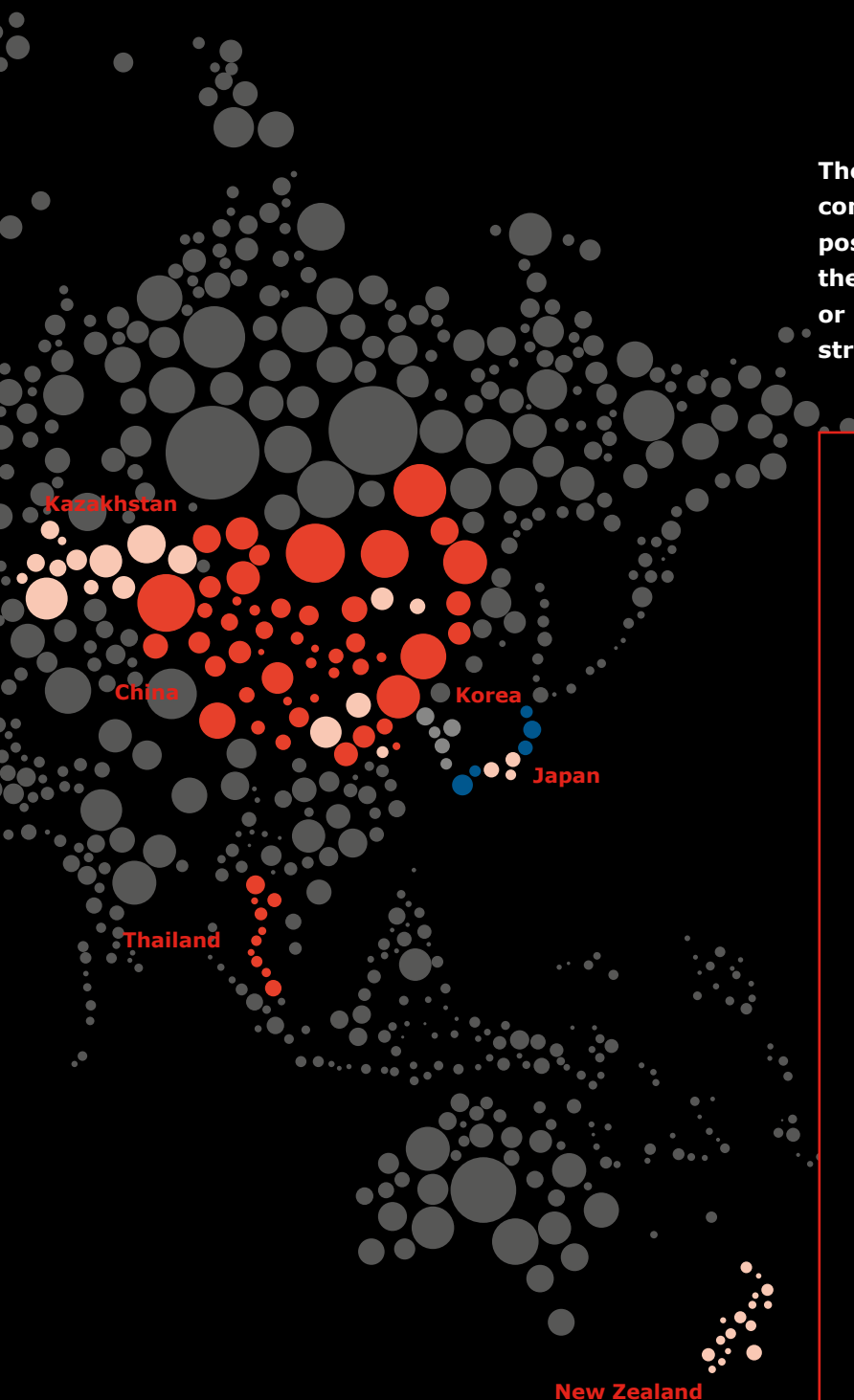
South Korea has implemented one of the largest emissions trading systems in the world, and in North America, California and Quebec have linked their trading systems, to which Ontario plans to sign up. China has had small pilot CO₂ markets since 2013, but in 2017, at a date still to be determined, it will put into operation the largest carbon dioxide market of the world, ahead of the European Union's market.

Cooperation between companies and governments will be vital for these initiatives to be developed even further, and it will be fundamental to comply with the targets set at the Paris Summit, and which will finally be a commitment to cut by 100 % global CO₂ emissions, much higher than the current 12 %. In this line, in 2015, EDP took part in the Sustainable Development Summit, in the Private Sector Forum, where it unveiled the Group's commitment to fight climate change. The invitation to EDP to present to the world its commitment was justified by the organisation as an example of the role that the private sector can play in the fight against one of the greatest threats for humanity.

The commitments unveiled by EDP envisage cutting CO₂ commission by 75 % by 2030; by contributing to increasing electricity production from renewable energy sources, with over 75 % of installed capacity by 2020; continuously offering customers products and services that contribute to greater efficiency in the final use of energy, achieving over 1 TWh of accumulated savings by 2020; driving co-operations in the research and development process for clean technologies, energy efficiency and smart grids, investing up to EUR 200 million up to 2020; and increasing the installation of smart meters to 90 % Low Voltage customers of the EDP Group in mainland Spain and Portugal by 2030, in the framework of the new operating paradigm of smart grids.



- Planned or implemented emission allowances market
- Planned or implemented CO₂ tax
- Emission allowances market under consideration
- Emission allowances market and CO₂ taxes implemented or planned
- Emission allowances market implemented or planned, taxes under consideration
- CO₂ taxes implemented or planned and emission allowances market under consideration



There are currently many states with commitments to cut CO₂ aside from the post-Kyoto agreement (2013 2019), where they have set up taxes on its emission or they have implemented own trading structures.

YOLANDA FERNÁNDEZ MONTES
Director for the Environment,
Sustainability, Innovation and Quality

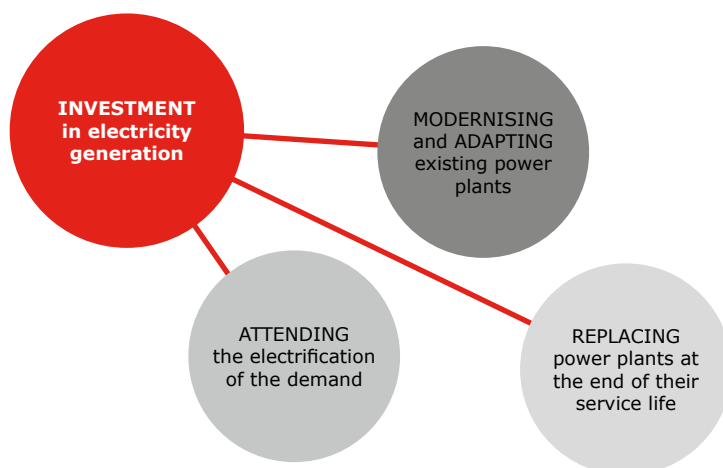
"In 2016, EDP Spain retained the environmental certification for 100 % of their gas, electricity distribution and electricity generation facilities. Furthermore, the Environmental Management Systems have begun to adapt to the requirements of the new ISO 14001:2015, by integrating the risk-based approach and with greater involvement of the stakeholders.

As regards the legal framework, special mention should be made of the passing of the Transitional National Plan by the Spanish Cabinet, while investment has been completed for the Aboño 2 denitrification plant and is underway for the one at Soto de Ribera 3. On the other hand, the Paris Climate Change Agreement came into force on 4 November and the Marrakesh COP22 ended with a reassertion of the commitments embraced in Paris.

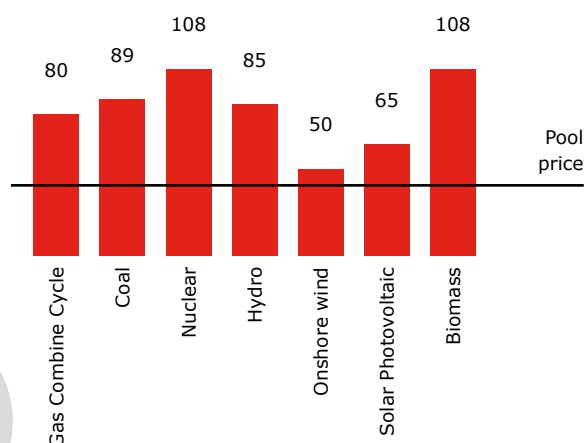
The contribution of EDP Spain to the sustainable development of the three autonomous regions where it has the greatest presence (Asturias, Cantabria and the País Vasco) can be measured in terms of the socio-economic impact that shows a contribution by the company to the joint GDP of these three regions of 1.4 % and job generation of over 10,000 jobs."

3.2. STRONG INVESTMENT IN ELECTRICITY GENERATION

Over the coming 20 years, Europe needs to invest over 2 billion dollars in electricity generation (over half in renewables).



Generation cost
€2016/MWh



The Spanish electric market

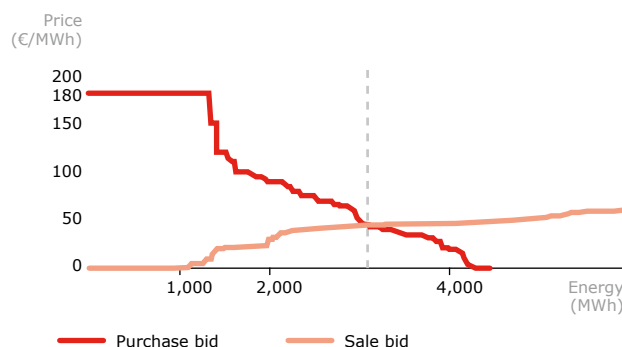
The aim of those markets is to allocate resources among the existing supply. In the case of electricity, the electricity market is the place where each country makes the daily purchase of the majority of energy that it is going to consume the following day; it continuously quotes the generators (supply) that need to sell the product that they produce (electricity) and the retailers (demand), that buy the energy to sell to the customers; at the same time, the international trading of electricity is optimised in order to bring closer, as far as possible, the prices of the whole of Europe.

Thus, every day, the aim is "to find" the most efficient generators (those that can produce at lower costs), that sell the electricity (scarce resource) and the retailers, that purchase at higher prices.

In Spain, this market has been operating since 1998, matching every day supply and demand to determine the price of electricity for each of the following 24 hours. It is a marginal auction market where all the technologies are necessary: the renewables and nuclear given their variable low cost and to progress in fighting climate change, and those that use fossil fuel (coal and natural gas) as support and to be able to meet electricity demand at those times when there is not sufficient sun and wind.

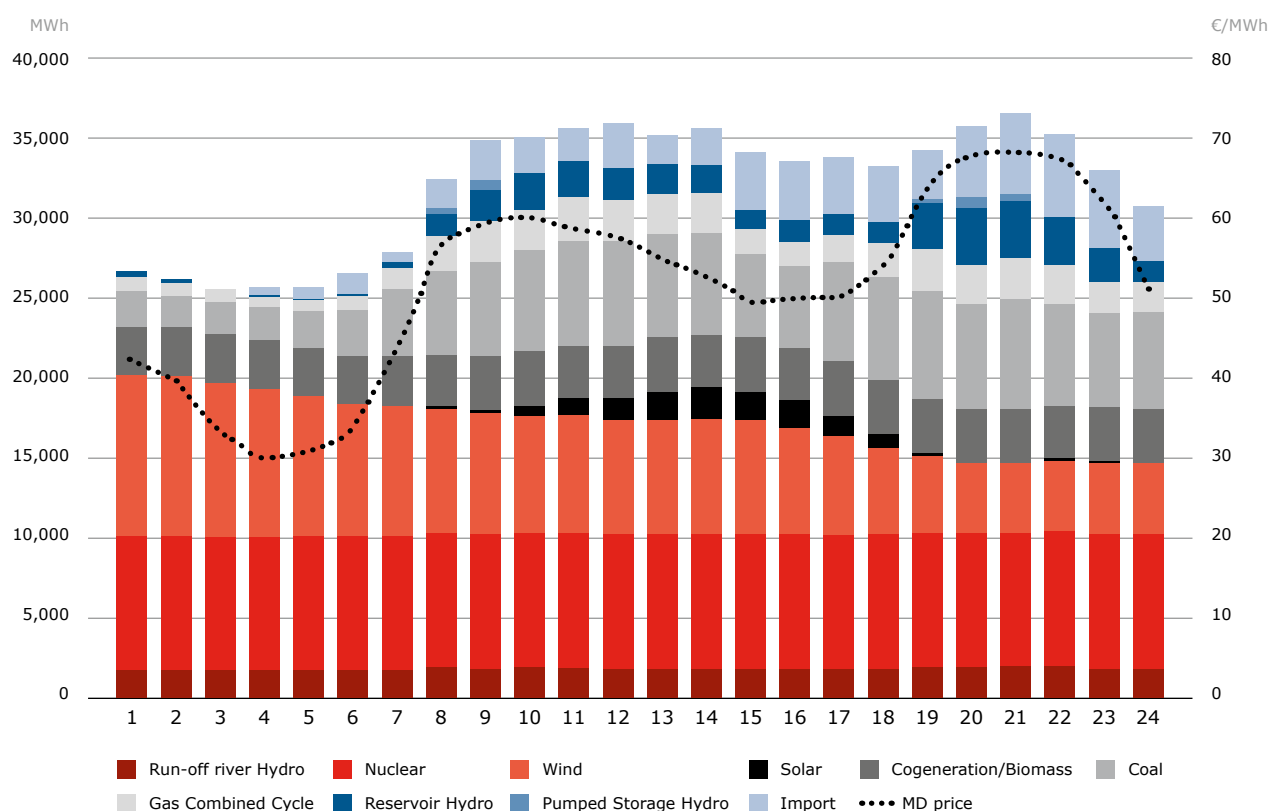
As it is a marginalist system, all the energy is traded at the price where the cut-off point between supply and demand occurs, in other words, all the energy is sold and is bought at the same price, a value that, after ordering the generation technologies from lower to greater cost (in other words, from greater to lower efficiency), is set by the most expensive technology that was necessary to cover 100% of the purchases. Thus, the most efficient power plants have a profit (difference between the marginal price that they charge and their variable cost) that must be sufficient to recover their investment (fixed cost).

Calculating the energy price in marginalist system

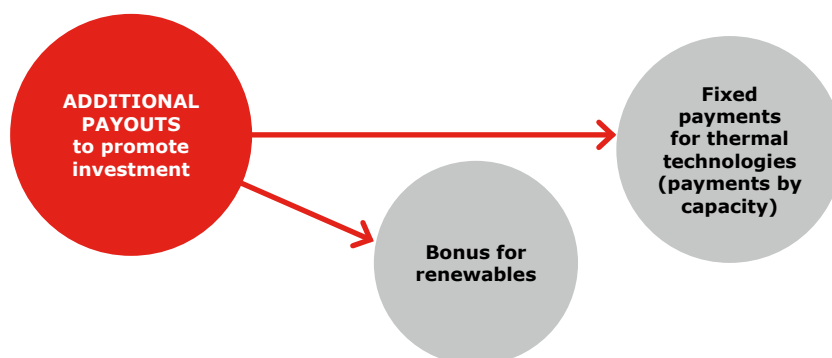


The prices resulting from this system vary greatly from hour to hour, and during the year, all the technology can have a gap, but the reality is that this method means that none of them is obtaining sufficient revenue to recover their fixed costs and investment made: this scenario jeopardises the feasibility of the future projects that Europe needs.

One day energy balance per type of technology and market price



To encourage investments in new generation, while guaranteeing security of supply, particularly in the medium term, Europe must consider additional payouts, such as bonus for renewables, fixed payments for thermal technologies (payment by capacity)... that allow additional revenues to that of the marginalist market. Since the liberalization of the electricity market, different and diverse mechanisms have existed in Spanish regulations to complement the market revenue from generation.



3.3. TAX AND REGULATORY PRESSURE

Since the financial crisis, the tax and regulatory measures in European have impacted the sector to the tune of EUR 11 billion a year. In Spain, the measures adopted by the government to contain the tariff deficit have meant cuts of over EUR 7 billion a year...

The effects of the 2012-2016 Spanish energy reform

The tariff deficit in the energy sector is caused by the gap between the regulated income of the sector -that mainly obtained by the tolls paid by the consumers- and the regulated costs - grid operating and investment costs and energy policy costs (renewables, cogeneration, extra cost of generating electricity on the islands, interruptibility and others). For over 10 years, the sector generated a deficit due to the tolls authorised by the Governments

between 2002 and 2013 not being designed to support the increase of regulated costs that were charged each year to the electricity and gas bill.

Between 2002 and 2012, an accumulated tariff deficit of EUR 22 billion was generated.

In 2012, the electricity accumulated deficit already had reached the figure of EUR 22 billion - nearly double the amount collected from tolls in 1 year - while more tariff deficit continued to be generated each year, and the electricity companies were legally required

to be financed nearly in full, with the ensuing risk and penalties to their balance sheets.

Until 2012, the only notable attempts by the Governments to control that deficit in the electricity sector were to:

- Increase control on the premiums on renewables in 2009 by means of a "pre-allocation" system - as it was not simply enough to construct the facility to be able to collect premiums, but it had to be previously registered.
- Impose a toll of 0.5 €/MWh on the generating companies in 2011, which barely collected 150 M€/year.

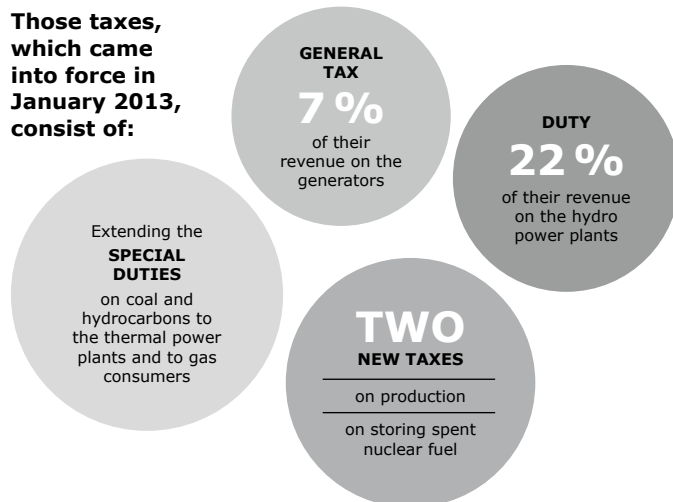
However, the new government in 2012 considered that the bulging tariff deficit was a huge risk for the public finances and it therefore proposed eliminating it once and for all and therefore embarked on a series of more dramatic measures.

Given that one of the main regulated cost items was premiums for renewables and cogeneration (which already stood at around 10,000 M€/year), in January 2012, the first measure was to avoid premiums being awarded to new facilities, which suspended the "pre-allocation" system; it did not prevent new renewable facilities from being constructed, but they were no longer just awarded subsidies, which meant that the market price of the electricity would be only obtained for their production. Undoubtedly, the consequence of this measure was to temporarily slow down the development of these facilities.

Several months later, in April 2012, an initial express reform of the remuneration of several activities was implemented which meant regulated costs being cut by up to 1,000 M€/year: distribution, transport, interruptibility, operating the system, national coal and payments by capacity to the generators were the main sectors affected. In tandem, the collection of the tolls to consumers was increased by EUR 1,600million. Some of these initial measures were permanent, while others were exceptional for 2012, pending a more far-reaching reform.

Thus, in September 2012, work began in Parliament on a **new Tax Measures Act** with the aim of **collecting** nearly **3,000 M€/year** to fund part of the renewable cost - and therefore, the tariff deficit - which would establish several taxes on electricity generation.

Those taxes, which came into force in January 2013, consist of:



In addition, it was established that the revenue that the State obtained from auctioning CO₂ emission allowances could also be used to finance the cost of the renewables.

In February 2013, a new legislative decree cut for the first time the revenue of the existing renewable generators when they were temporarily moved to the fixed tariff system, and eliminated the automatic updating of their revenue with the CPI.

Thanks to this set of measures, the Government managed to cut the new tariff deficit generation from 6,000 M€/year (EUR 4,400 million levied in the electricity sector with different measures, and EUR 1,600 million levied on the consumer with increased tolls).

The measures taken in 2012 and at the start of 2013 by the Government to cut the recognised regulated costs and increase taxes had a negative impact of EUR 4.4 billion per year for the Spanish electricity sector.

However, it was noted in 2013 that the gap between income and costs needed to be cut by an additional 4,500 M€/year, and that, if no further measure were taken, there would be an annual gap of 10,000 M€/year.

The measures that were taken in July 2013 to perform the last major adjustment of 4,500 M€/year were:

1

The Spanish Central Government undertook in the Budget to finance the extra-cost of generation on the island to the tune of **900 M€/year**.

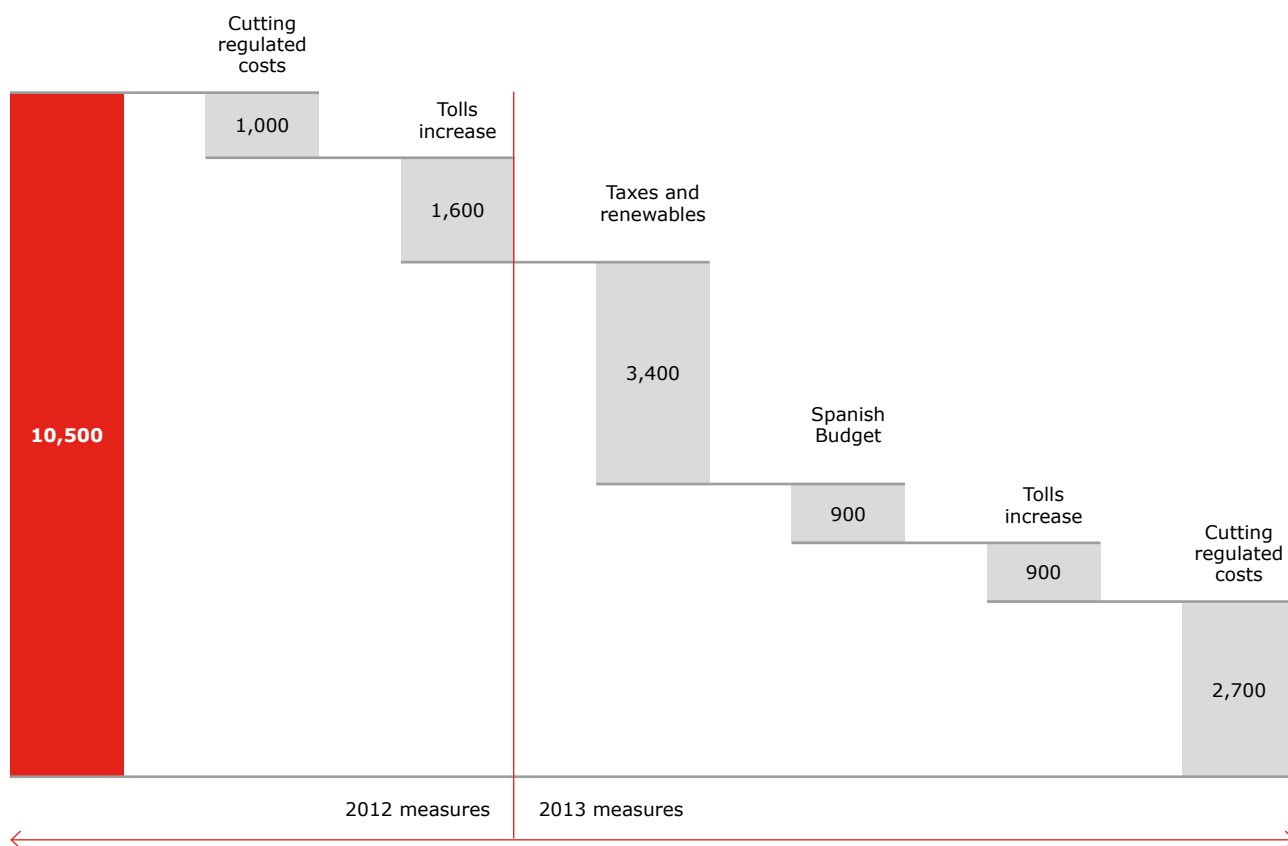
2

There was a new increase in the tolls paid by the consumers of **900 M€/year**.

3

A new adjustment to the companies occurred to the tune of EUR **2,700 million**, mainly in the remuneration of renewables and cogeneration -albeit by guaranteeing a pre-tax remuneration rate of 7.5%-, but also in the electricity distribution and transport -guaranteeing a remuneration rate of 6.5%-.

In short, the 2012 and 2013 measures prevented the generation of an additional annual deficit of 10.5 billion, which would have been added to the accumulated one in 2012 of 22 billion.



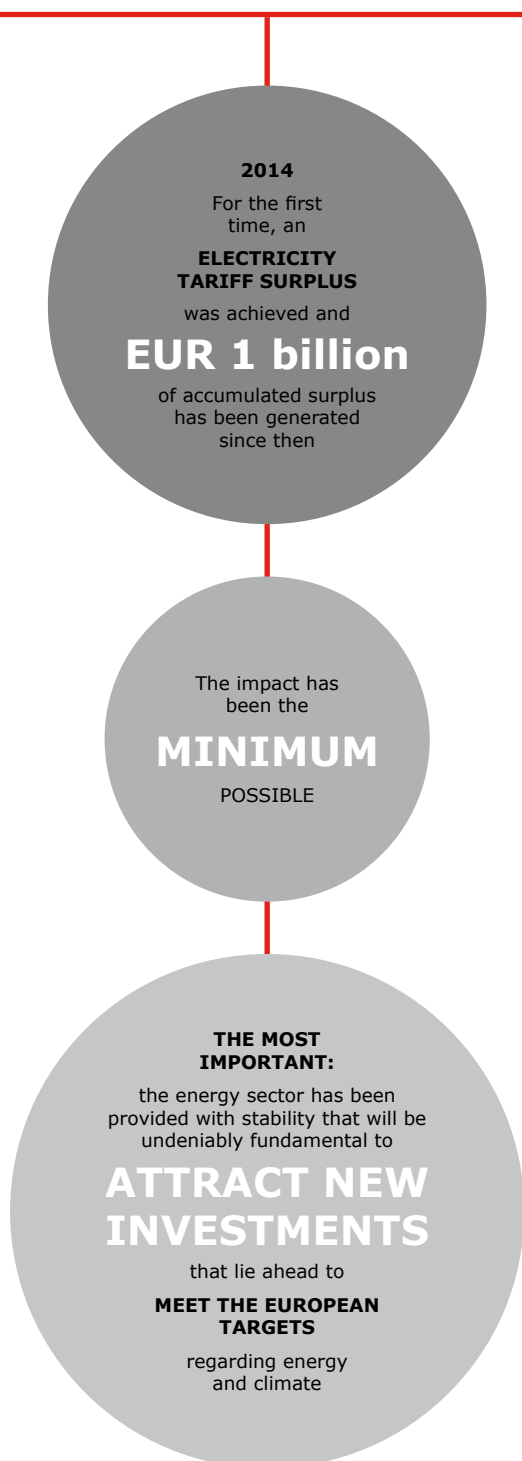
Meanwhile, a positive effect was a progressive placement by the companies of the accumulated deficit on the financial markets, meaning that their balance sheets were freed from the risk of defaulting on the tariff deficit.

In September 2013, a new Electricity Sector Act began to make its way through the parliamentary process. Its main new feature was the establishing of financial sustainability principles for the sector, which require the Government to take immediate measures in the case of new deficits occurring in the sector.

Between 2014 and 2016, the detailed regulatory implementation of the measures already taken occurred. Thus, in 2014, the reform of the renewables and cogeneration reform ended, setting the definitive remuneration values and establishing the future competitive auction system to set new premiums. That year also saw the start of a new competitive system to distribute the interruptibility discounts to major consumers. In 2016, the new remuneration system for electricity distribution was signed off.

A legislative body oversaw all those measures to prevent similar situations occurring in the future.

Despite the cuts implemented and even though the reform has not been completely signed off -there are still some disputes pending solution that may lead to some small readjustments- its positive result is undeniable as:



Since 2012, the adopted measures have eliminated the additional annual deficit generation; the accumulated amount existing in 2012, of EUR 22 billion, is recouped annually in instalments of around 3,000 M€/year through the tariff.

SANTIAGO BORDIÚ
CIENFUEGOS-JOVELLANOS
Regulation Director

"2016 was a year of certain regulatory stability after all the changes that happened in the previous 4 years, that, despite all the economic impacts that have occurred, can overall be seen as positive given their contribution to eliminating the tariff deficit. Even so, 2016 saw small adjustments to the reforms, some arising from court rulings, including the new regulation of the marketing margin of the benchmark retailers or the new legislative framework to finance the discount rate (*bono social*). In another area, work also continued to develop the new market and contracting framework in the gas system and the European Directive on the deployment of alternative fuels infrastructure was transposed.

As regards Europe, the contribution of the European legislation to the sector legislation is increasingly greater. At year end, a new wave of reforms could be seen from Europe, the so-called "Clean Energy Package", a series of Directive and Regulations prepared by the European Commission which are the seed of the legislative framework that we will have in the 2020-2030 decade. In that decade, the energy sector will have to overcome the challenges of the European targets regarding greater efficiency, increasing renewables and decarbonisation. We believe that to meet those challenges, it is essential to integrate the traditional generation, distribution and marketing businesses with the new businesses of auto-consumption, distributed generation, electric vehicle, batteries or smart grids."

3.4. DISTRIBUTED GENERATION

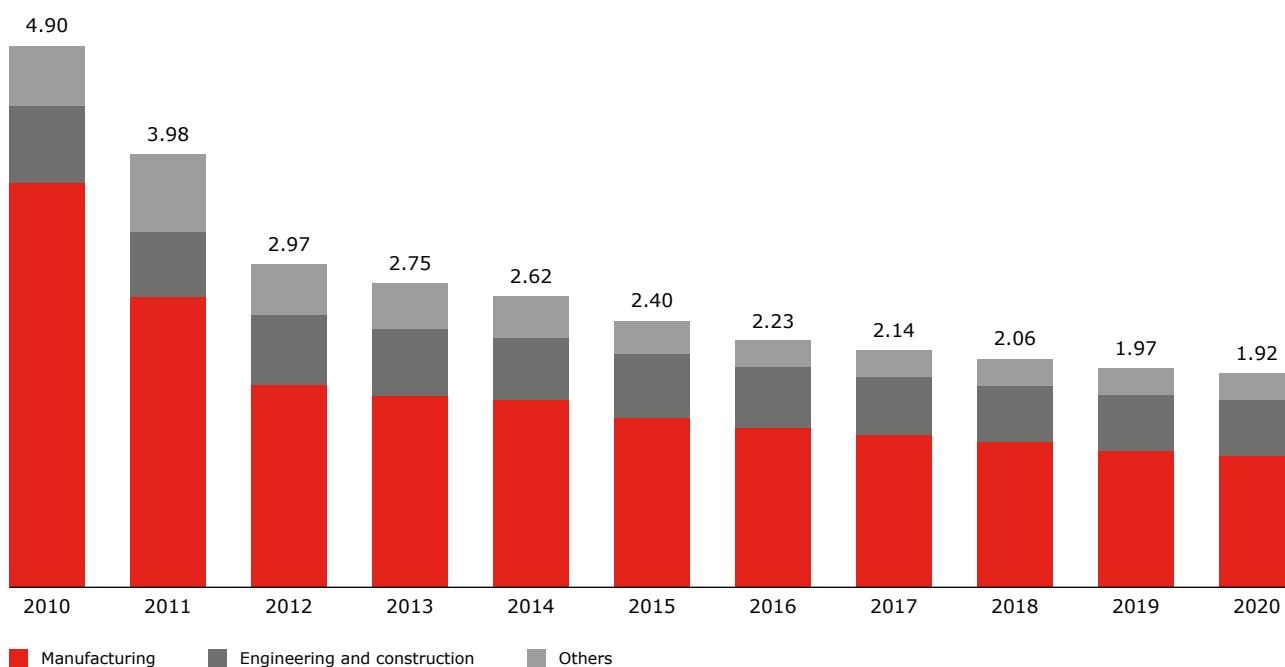
The cost of distributed solar energy has been cut by 70 % in the last 10 years, which has driven the decentralisation of electricity generation.

The future of distributed generation

For many years, solar energy has unsuccessfully strived to compete in the cost of energy with coal, oil and natural gas. However, the outlook has changed radically in the last decade and, in particular, during the last five years.

The International Renewable Energy Agency (IRENA) revealed in a study that the price of photovoltaic solar panels dropped between 65 % and 75 % between 2009 and 2013, and the price of energy by 80 % since 2008, with a downward trend forecast for the coming years.

Evolution of the solar energy costs
\$/watt



The key to this change lies in the evolution of the low-cost processes to manufacture polycrystalline silicon (which is the basic material), replacing glass with plastic in some elements, reducing the amount of silver, improving the manufacturing processes or making increasingly thinner panels.

Innovation plays a fundamental role in the cutting of solar energy costs: as the photovoltaic components become more efficiency, the economies of scale could in turn have an important impact on the support infrastructures, such as the cabling or support systems.

This cost cutting, along with the development of the smart grids will allow great challenges to be addressed, such as the integration of renewables and distributed generation, thus driving new business models.

The installation of smart meters is expected to constant increase globally until 2020, up to an accumulated total of 922 million meters installed by 2021 (GTM Research report). In tandem, the electricity companies are investing in improving the smart metering systems to harness the use of the meter data and communications in both directions; Europe is going to install the second largest amount worldwide of smart meters in the coming five years, partly driven by the mandate of the European Commission that set the target of converting 80 % meters into smart ones by 2020. However, many EU member countries will not meet their targets, with it being envisaged that only 60 % of the meters being smart by 2020, which is far behind the Commission's mandate. The targets are different in each state. Thus, Spain and the United Kingdom have a smart metering target of 100 %, and Germany, 80 %.

In 2016, EDP Spain surpassed the figure of 500,000 smart meters installed and over 5,500 concentrators (equipment that communicates with the meters to collect the information from them), which has enabled grid losses in the grid to fall by 10 % between 2014 and 2016, and cut the TIEPI by 6 %.

MASSIMO LUCIO ROSSINI
Chief Executive Officer

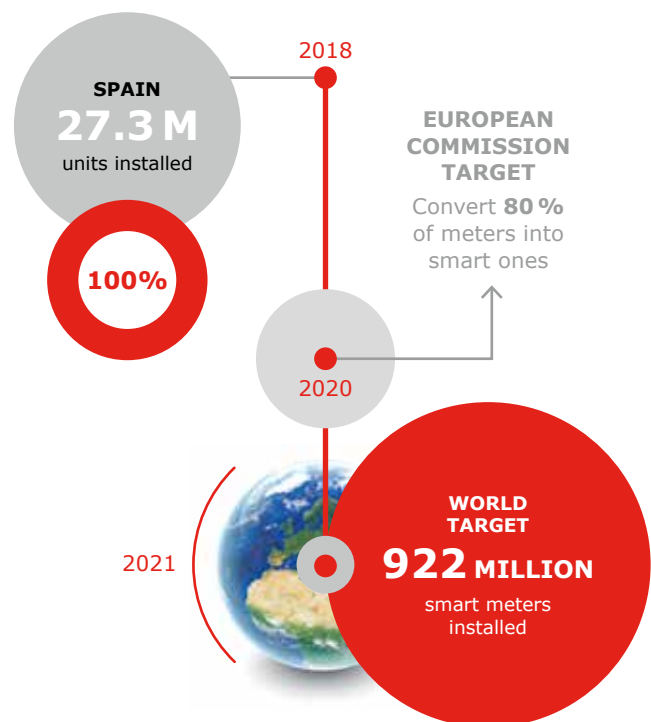
"In 2016, EDP Spain's distribution companies have managed to achieve their objectives in terms of economic results, without forgetting the quality of the supply, the great endeavour regarding prevention and the excellent relationship continuing with the regional governments and local councils.

I would like to highlight the following relevant facts:

- The review of the remuneration of our electricity distributor.
- The best performance, among all the distributors of mainland Spain and Portugal and an all-time record, of the result of the TIEPI.
- The implementation of the Inovgrid project and the continuous improvements obtained in the operating of our electricity grids.
- The acquisition of the customer portfolio and the LPG infrastructure from Repsol.
- The continuous activity to expand the gas network to new municipalities and the start of the new supply to Arcelor.

I would like to thank the employees of the gas and electricity distributors and of our service providers for their commitment and dedication that has helped to achieve such important results."

Spain will meet its target in 2018, with a total of 27.3 million units installed, when the mayor electricity distributors, including EDP HC Energía, will complete the smart meter installation process; the new information available will not only facilitate the integration of the distributed generation, but also the participation and access of the customer to the use of energy, optimisation of the maintenance and operating processes and other many new business opportunities.



3.5. ELECTRIFICATION OF THE DEMAND

Replacing all light vehicles by electric cars would cut CO₂ emissions by 30 %, without additional investments in the system being needed.

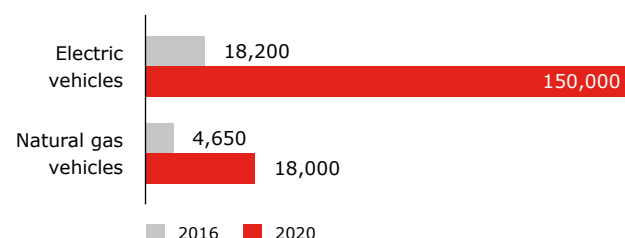
The future of sustainable mobility

For years now, EDP, as a benchmark operator in the energy sector, has been committed to sustainable mobility as a factor driving society, under a clear premise of sustainability.

The impetus to sustainable mobility lies in the need to reduce greenhouse gas emissions and improve air quality in cities, where over 30 % of pollution is attributable to transport.

The city of Madrid reflects this situation where there were different episodes in 2016 when the legal air quality levels were exceeded and which required traffic restrictions to be applied.

Ministry of the Economy, Industry and Competitiveness



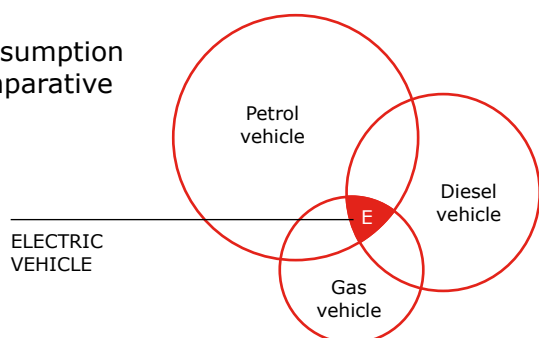
Yet there are challenges and myths to be overcome to speed up progress in sustainable mobility.

ECONOMIC CHALLENGE

On the one hand, there is an economic challenge, as the price continues to be "the signal that regulates traffic." Despite the public subsidies to help with the purchase, the consumers-drivers see that the prices of the new alternative vehicles are being higher than the average for conventional vehicles.

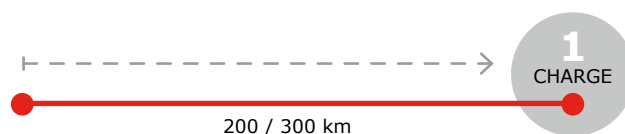
Yet they do not then take into consideration other economic advantages, given that for these new vehicles are more efficient and considerably reduce the maintenance costs. And what is more important, the charging cost is significantly lower and an electric vehicle can travel 100 kilometres for €1.5 compared to €6 in a petrol-driven vehicle. In the case of gas vehicles, the savings are around 40 % compared to petrol and 30 % compared to diesel.

Consumption comparative



TECHNOLOGICAL CHALLENGE

The second of the challenges is the technological one. The battery life has hindered the deployment of the electric vehicle and there are currently vehicles that can run for between 200 and 300 kilometres on one charge. The greater the battery life, the quicker the replacement of the stock of vehicles on the road will be.



REGULATORY CHALLENGE

Finally, there is a regulatory challenge based on the conditions that the charging points and the management of the infrastructures must meet in order for batteries to be charged.

In this context, EDP Spain is developing its commitment to sustainable mobility for domestic customers, companies and industries, by promoting the development and installation of charging infrastructures for their vehicles, the integration of smart systems to manage energy (the re:dy service) and the access to the network of points in public spaces under the best conditions.

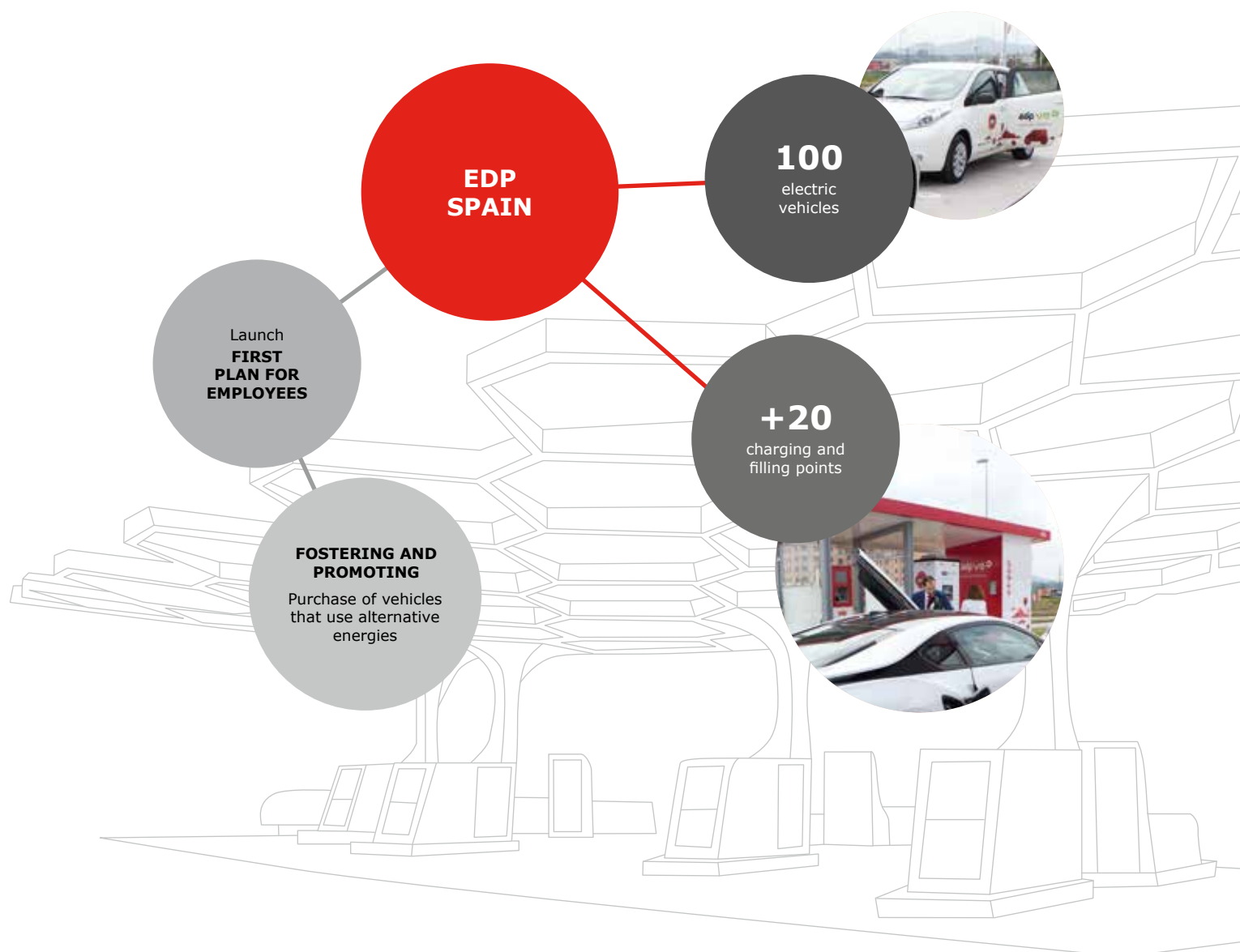
As regards the deployment of charging facilities in public spaces, EDP is expanding the eco-station model to strategic places of Asturias, Cantabria and the Basque Country,

edp re:dy

while agreements are also being signed with different public authorities to expand the electricity charging points.

The EDP strategy is also activity involved in the forums to define the regulatory framework, with associations, working groups and European Projects.

Within the organisation, EDP Spain already has over 100 vehicles that use these technologies and over 20 filling and charging points, and has launched the first plan for employees, which seeks to foster and promote buying vehicles that use alternative energies.



3.6. DIGITAL REVOLUTION

The number of users of the main social media is higher than the world population.

We are immersed in a digital transformation that has changed our personal life and that is associated to the application of the digital technology in all areas of society.

If we make an analogy between the human body and past revolutions, we can say that the steam engine powered us (improved our muscles), oil gave us energy (improved our circulatory and digestive system, apart from giving us new skin with plastics), Internet gave us the capacity to communicate (allowed us to speak and hear with any part of the planet instantaneously).



The digital transformation began when analogical technology was converted into digital format from the 1970s, making copies identical to the original possible (vinyl compared to CD/DVD), the possibility to amplify digital signals and transmit them without losing information in the signal (analogical TV compared to TDT), along with accessing it and distributing it remotely (Internet).

Something similar occurred in business organisations. Customer data and bills were digitalised to the detriment of paper records, with greater use of computers and the capacity to process the information. This information is now managed from the "cloud".

This digital transformation was expedited with the use of Internet, the World Wide Web (www). Thus, there is currently **a mass of information available due to the expansion of smartphones and social media, the digital interconnection of everyday things with Internet, also known as the IoT – Internet of Things, smart cities and all the information generated in the organisations both on their products and/or services and on the customers and users.**

This society-driven revolution has caused a technological change where the relationship model between people, customers, employees, etc. is increasingly more based on mobile appliances and cooperation and/or communication tools, which directly influences how organisations manage data to turn it into information that will subsequently be used for decision making.

Using current and past data to make better decisions for tomorrow

The processing of information has changed, we have moved from calculating historical data averages and means to **real time processing, discovering behaviour patterns for automatic learning and predictive analysis** (*data mining, cluster analysis...*). It is what we know as Big Data or, going even further, with the application of Artificial Intelligence where a machine imitates the "cognitive" functions to learn and solve problems.

Apart from adapting the new business models, the digital transformation is also an important challenge in managing technological risks to ensure the continuity of the essential services (cybersecurity of the systems). **This challenge means appropriately managing the balance between rapid progress and safe progress.**

EDP wishes to be in line with change process and is aware that this challenge is also a change in the way in which we work and we relate to customers, and in the products and services that we offer. EDP Spain has set up the Logical Security and Digital Processes Division to adapt the company to this digital transformation and head the cultural change and business vision.

JOSÉ NEGUERUELA Information Technologies Director

"In 2016, all the business units saw important evolution of their systems. Special mention should be made of the introduction of SIM (the Group's financial-economic system), the gas emergency system, the orthogonal representation of the HV/MV Grid for mobile devices, the interface between GIS and SCADA for LV, along with multiple developments for the Smart Meter Network.

In the area of Commercial Systems, a process is underway to boost and continuously improve the available digital channels for customers, incorporating new operations in the reserved area while improving the user experience and has implemented a new mobility platform to manage the field work relating to the Funciona Service, whose aim is to improve the service provided to the customers. In the area of the gas distribution commercial systems, processes have been developed to support the new gas periodic inspection model, incorporating a portal for the remote management of inspections by installers, the Installer One-Stop Scheme to manage new link-ups, and the LPG assets purchased from Repsol have been integrated. As regards the Electricity Distribution Commercial Systems, the whole infrastructure that supports the SITEL system has been overhauled and updated in order to prepare the system for the integration of the full stock of remote management meters, and work has continued with improving the My Consumptions application, by incorporating more information on consumptions, along with new features for customers and retailers.

Security has been one of the main challenges and we have managed to approve the Specific Protection of the Critical Infrastructure Plan that we have in Corredoria, along with developing the Security Operation Center (SOC).

The digital transformation in all industries is a reality. We have identified the barriers hindering the organisation's advancing in its adaptation to the digital revolution and this initial action is going to allow the efficiency of the information communication processes between people to be improved."

3.7. THE POWER OF THE CUSTOMERS

CUSTOMERS
check their
email using their
Smartphone
every

36
minutes

CUSTOMERS
aged between
18 and 34
interact using
digital devices
every

10
minutes





MIGUEL STILWELL
CEO EDP Spain

"Even though the energy sector is facing different challenges, our priority is to place the customer at the centre of our activity.

A specific and technological challenge, with two facets: the first, the **Smart Grids**, arising from the electronic meters, mean a change of paradigm in the management of the infrastructures and in the information that we can offer the customers. The second, the **Smart Home**: distributed solar generation, batteries, electric mobility and efficient management, which involves a change of business model, with new products and services.

The social challenge arising from society's growing need to have a sustainable world, which involves reconsidering the balance between security of supply, cost and the environment, so that those developments are not to detriment of future generations. Communication is a challenge that affects all sectors -the customer connected (24/365) by means of using digital resources, the introduction of new technologies (IOT, AI, Big Data)- allows data and tools to be available so that we can know our customers on a personalised basis, and requires us to adopt new methodologies to develop products and services that facilitate access from any place and device.

The entry of digital players has caused model changes, which can be disruptive in some sectors (Uber, AirBnB), but which affect everyone. An increasingly more demanding customer makes comparisons not only between competitors, but also between all companies. Therefore, the goal of being the best utility is not enough, but rather we must compete with the market's best companies in the customer experience. It all points towards a changing and global scenario, where companies must be customer oriented. The customer wishes, and must, be in the centre and actively participate in what they consume and how. This scenario requires continuous adaptation and business processes to be expedited: strategy, business plans, product creation, organisational structures, etc. Technological changes will be quicker and increasingly more complex, and will impact the whole business structure. Customers will only be offered value if the changes are embraced by the whole organisation.

Some developments change how data are managed and converted into information. Data are currently more accessible and numerous, but destructured. The analysis and synthesis capacity needs to be adapted. Making an analogy with the human body, it is like a fundamental function of the brain, processing stimuli in order to be able to decide. We would be facing another industrial revolution where the companies that have incorporated the key capacities of the new environment will survive. This will force today's companies to unlearn their business models and learn new ones, while the new players only have to learn the new models. People will be fundamental in this learning process: employees, customers and other stakeholders will continue to be the focus of the winning companies. Technology will be the facilitator, but there will be moments where successful interaction will be between people. This is the present of EDP and our path towards the future."

3.8. NEW BUSINESS MODELS

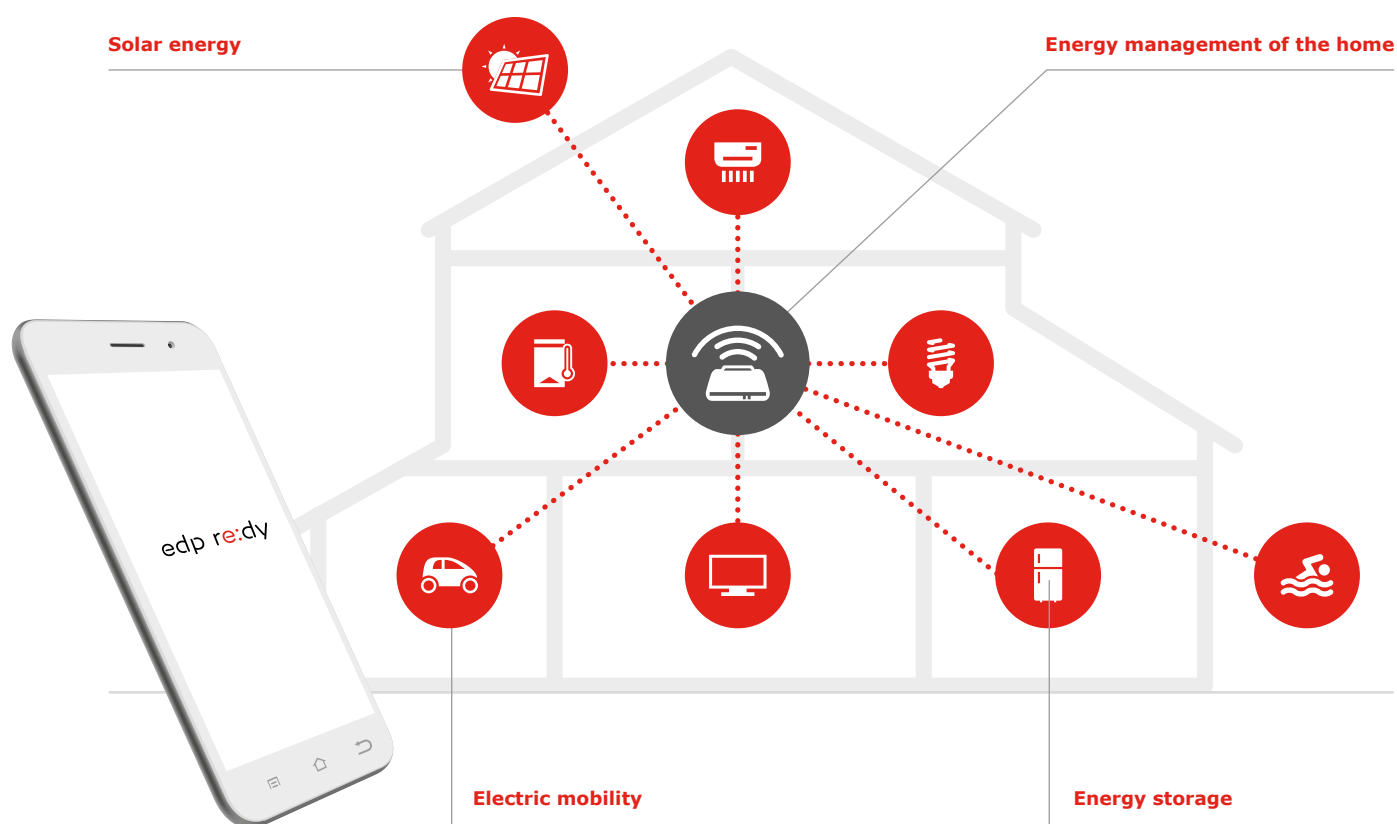
Companies without physical assets such as Airbnb or Uber are now worth 30 billion dollars and 68 billion dollars respectively. Compared to this type of companies, the electricity sector is capital intensive.

New EDP business opportunities

Current technological changes are irreversibly impacting organisations, both on their internal processes, which are being optimised by means of sensors and new control systems, and on their external processes, where access to information is changing the relationship with customers.

For energy utilities as EDP, the acceptance of this new reality implies their adaptation and the creation of new business opportunities, by “unlearning” the traditional business model, by means of innovation, the use of new technologies and **improving the experience of the customers.**

In this context of searching for new business models, EDP has developed a new product the **Smart Home**. It is based on applying energy-rated smart solutions to households. Up until 2016, EDP had been positioned in each of the main elements of the new downstream of the electricity sector: solar energy, electric mobility, energy storage and its management. **EDP Smart Home** involves uniting them all in a single concept.



edp re:dy

Energy is managed by **edp re:dy**, an innovative monitoring and active management service of electricity consumption that offers customers energy efficiency actions to manage their consumption and to control their equipment. In the world in which we live, we are connected to many goods and services including banks, schools and work; now with **edp re:dy** customers can also connect to their homes at any time and from anywhere.

This solution allows customers to control their homes remotely, online or from a smartphone, at any time and from anywhere. **edp re:dy** also allows solar production to be controlled so that the customer knows how much they are saving and also includes the batteries and consumption of electric vehicles.



MARCOS ANTUÑA
New Business and Projects Director

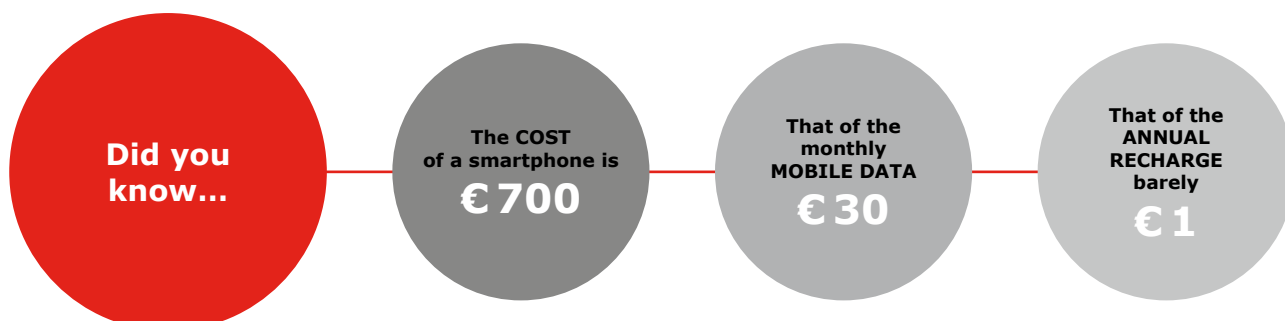
"In 2016, a new commercial concept - the **Smart Home** - was launched in Spain and in Portugal. Up until 2016, EDP had been positioned in each of the main elements of the new downstream of the electricity sector, namely: solar energy, electric mobility, energy storage and its management. **EDP Smart Home** means uniting them all in a single concept.

Household energy management is carried out by means of re:dy, an internal development for the automatic management of energy at home. As regards mobility, the most outstanding actions are the plan to development electricity and gas charging stations in our area of influence, the progressive replacement of our own fleet to gas and electricity vehicles, the plan to encourage sustainable mobility among our employees, the pilot car-sharing projects in Bilbao and Oviedo with a strong component of sustainable vehicles and the construction of both fast electricity and natural gas charging infrastructures at our own facilities for the fleet vehicles.

As regards solar energy, we have our own range of self-consumption photovoltaic facilities for B2C customers, with the goal being for the user to generate and consume their own energy, leading to a savings in the electricity bill; finally, as regards energy storage, we are focused on assessing technical solutions, by means of pilot testing using lithium batteries, in order to integrate the batteries in the solar system, with the underlying aim of launching a commercial range once the regulatory framework moves forward, as we hope, to encourage those new elements.

As regards Projects, special mention should be made of the work on the SCR denitrification projects in 2016, with the investment in the Aboño 2 power plant implemented within the envisaged time period and budget. Aboño was the first power plant in Spain to have that equipment operational, which will extend the life of the plant to 2030 and operate without emission limitations. The investment in the Soto 3 project, similar to that for Aboño, will be completed in 2017. The testing phase will begin in May and the project is expected to be concluded during the summer."

3.9. PERCEPTION OF THE VALUE OF ELECTRICITY



On the market, people have a wide variety of products and services to meet a specific need. Given this competitive situation, companies seek to influence the buying decision process with a wide range of options that range from the lowest price on the market to the best quality.

The electricity supply is a service that covers practically all the activities of people and of companies. It is called a “utility” to reflect that it is a general service that is essential and is thus differentiated from “commodities”, products or tangibles.

Both terms refer to basic products, that can be easily catalogued, easily accessed and, therefore, difficult to differentiate. The purchase decision on the market is nearly exclusively down to the price; therefore, the real service provided is not appreciated and yet its non-availability is greatly penalised.

The benefits of accessing and using electricity are assumed as right and the real value provided is not reflected in the price. In other words, there is no appropriate perception of the value of electricity and, by extension, the benefits and services that it provides to the end user.

How long could we live without electricity?

The **Mashlow** pyramid graphically shows the hierarchy of human needs, from physiological needs, at the base of the pyramid, to personal fulfilment, at the top.

If we take the impact of digital technologies into account, there are many authors who correct the Mashlow pyramid and place two new concepts at the base: energy and connectivity, embodied in a battery and wireless network. In other words, electricity is prioritised as a staple. Even so, its price is disassociated from the value...

Personal fulfilment

Recognition

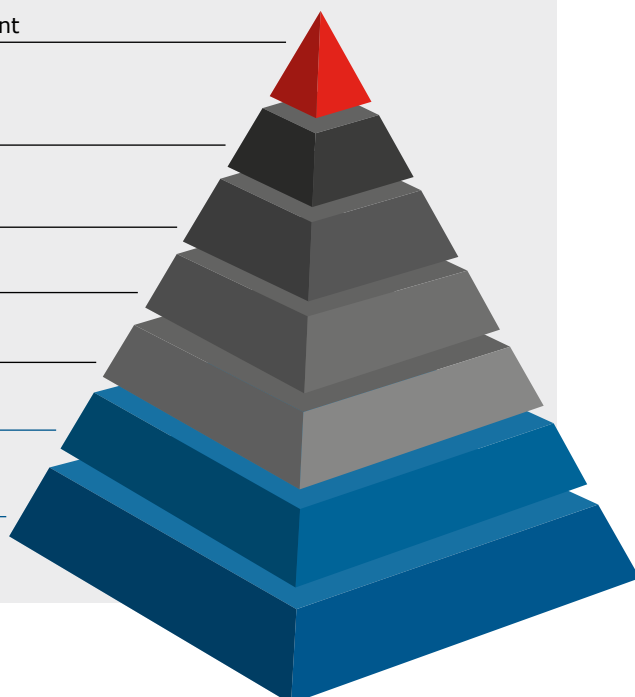
Social

Safety

Physiological

Wireless

Battery

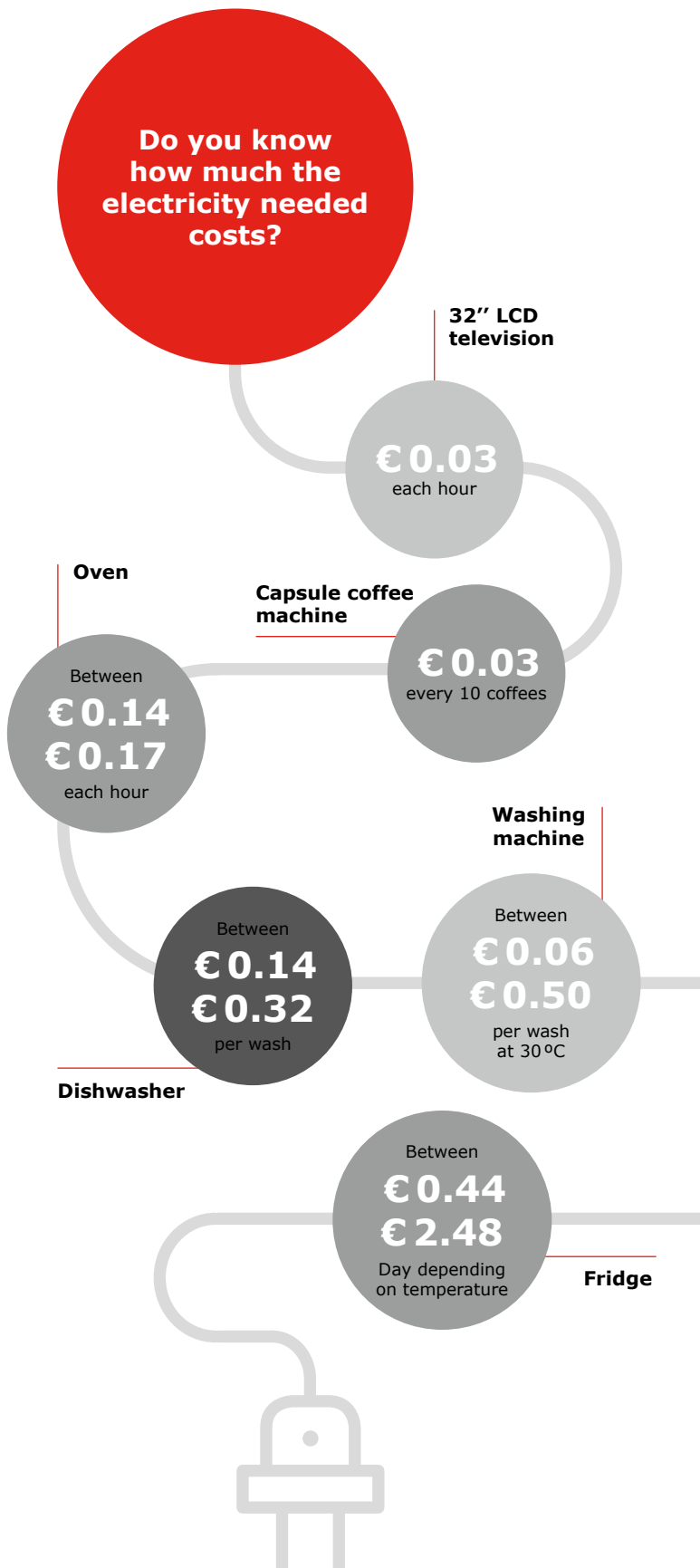


The European Commission has proposed a single energy labelling scale from "A" (maximum efficiency) to "G" (minimum).

RICARDO GONZÁLEZ SANTANDER
Marketing and B2C Sales Director

"The CNMC (National Markets and Competition Commission) reports indicate the EDP is the retailer that has attracted more electricity customers and the higher percentage of dual energy packages, and was the only one of the major operators with positive electricity and gas increases in all quarters of 2016. This result is thanks to the great loyalty shown by our customers in the traditional areas and the commercial focus on recruiting customers in all the mainland autonomous regions, including Andalusia and Galicia this year. Our dual energy package with the Funciona service is the most competitive on the market and is thus recognised by the main comparisons, which has resulted in great conversion success in our Leads and Telemarketing channels (selling opportunities identified online and who are subsequently contacted by telephone), where more connected customers have been signed up with an average of 2 products.

With the launch of our On line Edp @click package, we have repositioned our product in the most dynamic and digitalised segments, which already account for over 36% of our customers. Our challenge is to exploit the remote management information and its processing in Big Data, to consolidate a more personalised and differentiated package from the management of consumptions by means of time-scheduled products and the development of a **Smart Home** integral concept that includes our efficiency, electricity mobility and self-consumption generation services."



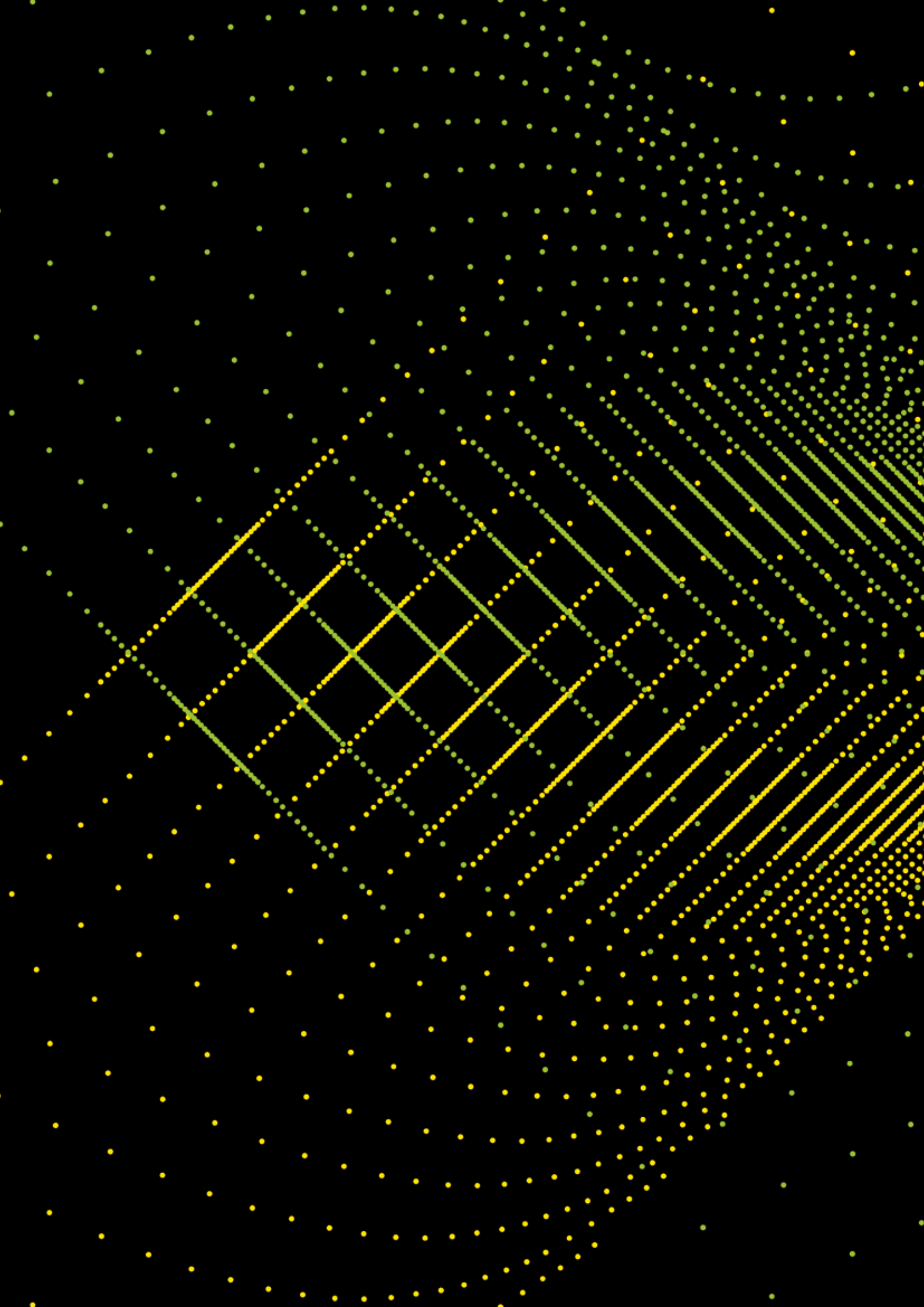
ENERGY
AS
THE
NEW
ART

04

Strategic Plan 2016-2020

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4.2. Contribution to the sustainable
development goals 58



The background is a black field filled with a pattern of small yellow dots. These dots are arranged in a way that creates a sense of depth and movement, with some dots forming distinct lines and others appearing as a scattered field. The lines of dots seem to converge towards the center, creating a perspective effect. The overall effect is reminiscent of a digital or scientific visualization, such as a particle simulation or a data visualization.

INNOVATION
AS THE *NEW*ART

ENERGY
AS
THE
NEW
ART

04 Strategic Plan 2016-2020

EDP Spain has designed a Business Plan based on four cornerstones: oriented growth, controlled risks, attractive returns and maximum efficiency, main approaches that underpin the EDP Group strategy. It is embodied in local measures based on the three aspects of sustainable development: environmental, social and economic, thus contributing to the compliance of the United Nation's Sustainable Development Goals (SDGs).

4.1. MAIN APPROACHES OF THE STRATEGIC PLAN

There are four main approaches underpinning the Group's Strategic Plan and which EDP Spain has adapted to the reality of its businesses: oriented growth, controlled risk, attractive returns and maximum efficiency.



JOSÉ JOAQUÍN LODARES GONZÁLEZ Management Information Director

"In 2016, the foundations were laid to develop the 2016-2020 Business Plan and when looking back at the events of the year, some examples of the strategic lines adopted can be clearly seen:

- **Oriented growth and controlled risk:** a new remuneration model for electricity distribution, which provides a recurring and robust business base with a low risk profile.
- **Attractive returns:** firm commitment to marketing, as a business with the greatest potential for growth and relaunching our generation positioning in the longer term.
- **Maximum efficiency:** proven cost control capacity, which is a benchmark within our group, and organisational flexibility to respond to complex change processes.

The Business Plan that we launched in 2016 envisages ambitious growth target, such as the challenge to exceed the figure of one million customers with gas supply, one million customers with electricity supply, and over 600,000 with value added services. Yet this customer orientation, the key to success of the modern company, does not mean abandoning the industrial heart that has brought us here; quite the contrary, over EUR 240 million is contemplated in generation investments, which include very important modernisation and environmental projects for our coal-fired plants (which will mean their life is guaranteed until the end of the next decade) and even expansion investments, such as a solution for energy recovery of the Arcelor waste gases from 2020 onwards.

On the other hand, given our position of a consolidated and mature business within the EDP portfolio, our mission is to obtain a higher return from the production resources available. In a rather more favourable sectoral and economic context, and with the frugality that has always been a traditional value of our business culture, we are committed over these five years to generate a recurring free cash flow (EBITDA investments) of over EUR 250 million a year on average."

4.1.1. Oriented growth on regulated markets

ELECTRICITY DISTRIBUTION STRATEGIC LINE: Service Quality and Operational Efficiency

PRIORITIES OF THE BUSINESS PLAN	1. Optimising investments.	2. Achieving greater efficiency in costs and ensuring operational profitability.	3. Developing smartgrids, smartmeters and <i>InovCity</i> .	4. Leadership in service quality in Spain.
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2016-2020 envisaged evolution

Gross Margin	9 %
EBITDA	9 %
CAPEX	3 %

LUIS ÁLVAREZ ARIAS DE VELASCO Electricity Distribution Director

"In 2016, EDP again obtained the best supply quality in Spain, with an all time TIEPI (Equivalent Interruption Time) record, which is the indicator that measures the supply quality of the distributors, of 24 minutes for its distribution grid overall. This result, sustained in time, is possible thanks to the high degree of specialisation of the employees that operate and maintain the grid and the important investments made by the company. In 2016, EUR 38.8 million were invested in improving the network, which included the integral reforms of the Corredoria and Villalegre sub-stations.

The figure of 504,000 smartmeters installed has been reached (79% of our stock). As challenges for 2017, we propose to continue investing in improving the facilities, continuing with the smartmeter replacement campaigns and classical analogue protections in substations, which are giving such good results in locating failures on MV overhead lines and continuing with the development and implementation of our new applications for the smart management of the LV grid, which will be combined with the existing ones and in operation (location LV failures, consulting the customer's meter, TPP monitoring, MV phase fault alarm, Alarm project, LV Flash project, neutral fault alarm, etc.)."

JUAN RAMÓN ARRAIBI DAÑOBEITIA Gas Distribution Director

"I would highlight the following milestones in 2016:

- The agreement with Repsol to purchase over 80,000 liquefied petroleum gas (LPG) supply points in our zones of influence (Asturias, Cantabria and the Basque Country), which is equivalent to the consolidation of EDP Naturgas Energía as the second natural gas distributor in Spain.
- The organic growth of the business in line with the sector, maintaining the levels of excellence in relation to supply security, and making important investments to extend the grid to new municipalities (Corvera de Toranzo in Cantabria and Colunga in Asturias) and industrial connections (Arcelor and Aleastur/Esalrod in Asturias).
- The adaptation to the new regulatory requirements regarding Periodic Inspections and the application of the New Grid Code in accordance with the European directive.

The most representative objective for 2017 is to consolidate the management of the new LPG supply business."

4.1.2. Controlled risk maintaining a low risk profile

REGULATION STRATEGIC LINE: Implementing proactive regulatory management

REGULATION PRIORITIES	1. Defending new market design in line with positions: payments by capacity, European market integration, renewable penetration...	2. Promoting the total liberalisation of the commercial sector.	3. Contributing to developing regulation for auto-consumption generation and energy efficiency.	4. Adjusting the social tariff in line with European directives.
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AZUCENA VIÑUELA HERNÁNDEZ Compliance and Internal Audit Director

"As regards the envisaged Internal Audit activities in 2016, the scheduled work plan was implemented based on the analysis of the business processes and consideration of the most important risks, contributing to value creation by means of the identified improvement opportunities.

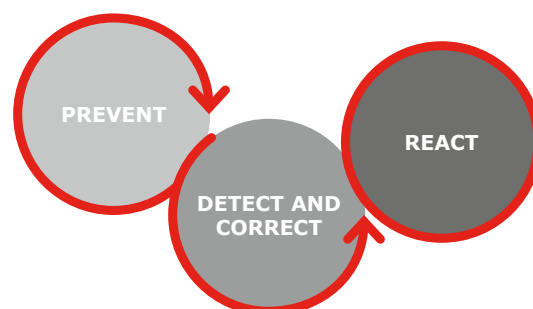
During the year, the structure of the Compliance function and the Compliance Management System of the EDP Group were approved, which include the principles to implement and develop the "Global Compliance Programme" of the Group. It includes a plan to address the most important regulatory groups, by means of deploying the specific Compliance programme. Thus, the main challenges for 2017 include the work to review the model in place regarding the criminal legal risk prevention and the diagnosis work to implement a specific data protection programme that adapts to the requirements established by the new Europe regulation in this area that will be effective applicable in May 2018."

In 2017, the Prevention of Criminal Legal Risks Model will be reviewed and an analysis will be conducted to implement a specific compliance programme regarding data protection.

WHAT IS COMPLIANCE?

Compliance is the continuous process deployed in an organisation to prevent, detect and ensure the appropriate fulfillment of legislation, regulations, internal rules, ethical codes, etc.

Appropriate management of the regulatory and legal obligations takes an special importance in a multinational and dynamic business environment such as that of the EDP Group. In this regard, Compliance is established as an essential aspect of corporate governance to ensure the maintenance and creation of value in the company, by means of consolidating the compliance culture from a proactive and fundamentally preventive perspective.



In 2016, the EDP Group formally adopted a Global Corporate Compliance System, with the aim of monitoring the main regulatory and legal compliance risks, in the area of the activities conducted by the Group, and of reinforcing and standardising the relevant management practices to comply with the obligations.

The EDP Executive Board is responsible for approving and implementing the "Global Compliance Programme", where it defines the operating of the Compliance management function and a set of corporate mechanisms and approaches, along with specific compliance programmes associated to specific regulatory areas considered relevant to be covered with specific management models.

The areas for which specific compliance programmes are defined may be very diverse in nature and include Sectoral Regulation, Personal Data Protection Legislation, the Environment, Criminal Liability of Legal Entities, Competition, Tax, etc.

There is a series of mechanisms to be implemented and developed in each specific Compliance programme, which include a model of roles and responsibilities, a risk assessment, the establishing of policies and procedures, training and communication at the different levels of the organisation, establishing incident management and reporting mechanisms, along with monitoring, testing, updating and continuous improvement of each specific programme.

In this context, the Compliance unit, integrated in the "Internal Audit and Compliance Division" seeks to

coordinate and develop the compliance activities of the Group, acting in different regulatory areas and intervening according to the relationship model approved with different roles, which may range from a proactive role in some specific Compliance programmes, along with a role of advising other areas responsible for managing compliance mechanisms to a role supervising the initiatives implemented by the respective managers in other programmes.

During 2016, specific initiatives were implemented aimed at setting up specific Compliance programmes. Special mention should be made of those relating to "Personal Data Protection", for which work is underway to diagnose, review and deploy the technical, operational and organisational measures to meet the requirements of the new European Regulation (EU) 2016/679, and with respect to the "criminal liability of legal entities" in order to review the prevention models already implemented in this regard.

Reinforcing the EDP corporate liability and compliance culture, along with the target compliance of the regulatory and legal obligations require the involvement and the commitment of the whole organisation and of its associates, based on the action of the Compliance unit.

JOSÉ LUIS MARTÍNEZ MOHEDANO
General Secretary and to the Board

"In 2016, particularly noteworthy were the company restructuring operations that culminated in December, which led to the total splitting up of Naturgás Energía Grupo SA, which has disappeared as a company and whose assets and liabilities have been assigned to Hidroeléctrica del Cantábrico SAU(HC) and to EDP Iberia SLU. Furthermore, HC absorbed Naturgás Energía Servicios SAU and EDP Cogeneración, S.L. Two new gas regulated companies, specifically EDP España Distribución Gas SAU and Naturgás Suministro GLP SAU, were set up.

Another matter to be highlighted was the approval of an implementation procedure in EDP Spain of the Service Orders (SO) of the BAC, by means of which the reception, analysis, transposition measures and dissemination to the organisation are regulated.

Finally, the process to review the Prevention of Criminal Legal Risks Model began.

In 2017, a rationalisation system of the electronic communications with the Public Administration is being designed to better comply with what is required by the new Common Administrative Procedure Act within security and effectiveness parameters."

PELAYO ECHEVARRÍA YBARRA
Legal Affairs Director

"The activity of the Legal Affairs Department in 2015 as regards the monitoring and control processes of procedural matters was reinforced. The quality of the external suppliers with respect to debt was analysed, which led to a call to tender being launched to replace one of the most important suppliers in this regard. The department was also successful in important legal disputes in the different business areas. Furthermore, and at a more corporate level, the purchase of Repsol assets was successfully completed, as was the corporate restructuring process of the Group in Spain. Finally, the legal cases were migrated to the EDP Juris tool, shared with the General Secretariat in Lisbon and which can be accessed by external suppliers, which will improve the monitoring of litigation and contingencies in 2017."

4.1.3. Attractive returns by means of participating in diversified markets and the development of competitive technologies

COMMERCIAL STRATEGIC LINE:

Optimising the commercial activity and building the loyalty of the customer portfolio

PRIORITIES OF THE BUSINESS PLAN

- | | | | | |
|--|---|---|---|--|
| 1. Expanding the portfolio of products and segments: indexed products and secure billing. | 2. Developing Value Added Services: auto-consumption, pre-payment, save2compete, re:dy, powerhome and Actir. | 3. Excellent Customer Experience: developing system and process infrastructure and improving the reputation and positioning. | 4. Optimising the management of integrated channels and partnerships: "Clickon-line" digital channel and optimising the face-to-face channels; Partnership with Carrefour. | 5. Increasing efficiency and risk control by means of managing energy and credit risk; improving the efficiency of the channels and outsourcing operations. |
|--|---|---|---|--|

Evolution according to be business plan 2016-2020

Gross Margin	16 %
EBITDA	200 %
CAPEX	0 %

JAVIER SÁENZ DE JUBERA ÁLVAREZ Board Member and General Manager

"Yet again in 2016, we were the energy sector leaders in Spain regarding everything related to customer satisfaction. Thus, for example, we continued to head the STIGA satisfaction index of electricity consumer, we were recognised as the best *Call Center* for B2B customers, and at regional level, the EDP website was considered as the best business and general sites.

As regards the project to improve the in-person customer service at our Commercial Offices, in 2016 we fully implemented the new model in Gijón, Avilés, San Sebastián, Murcia and Figueres, which includes extended opening hours into the evening and which has improved the service quality perceived by our customers.

As far as upcoming challenges are concerned, in 2017, during the first half of the year, we will complete the implementation of the new customer service model in all our Commercial Offices, we will open a new office in Getxo and we will assess whether an office should be opened in Madrid.

We will also advance in the boosting the digital channels, so that our customers can complete with us the same formalities and contacts regardless of the channel that they choose (offices, call center, digital channels).

During the coming year, we will allocate significant funds to increase the reputation of the EDP brand, which will focus on a press, radio and television campaign, along with sponsoring a dozen marathons and half-marathons nationally."

GENERATION STRATEGIC LINE:

Operating flexibility and high availability of the Power Plants

**PRIORITIES OF
THE BUSINESS
PLAN**

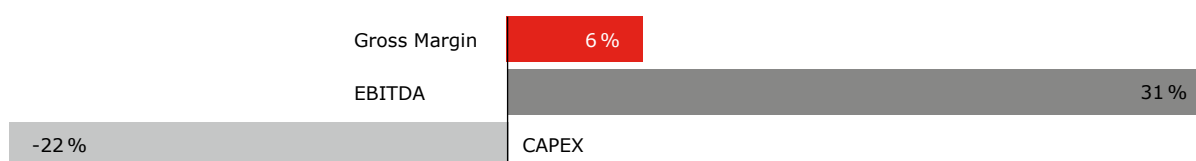
1. Compliance of the Emissions Transitional National Plan.

2. Long-term relationship with Arcelor Mittal for the energy use of the siderurgic waste gases.

3. Optimising our participation in complementary services by improving the flexibility of the plants.

4. Addressing new environmental challenges.

Evolution according to be business plan 2016-2020



MIGUEL MATEOS

Generation Director

"In 2016, the generation activity was conditioned by one-off events, such as the work to assemble the denitrification plants at the Aboño 2 and Soto 3 generators and the failure which occurred in the Aboño 2 high pressure turbine.

In May and June, the Aboño 2 generator logged a longer than usual shutdown as the general service work coincided with the work to assemble the reactor of the denitrification plant (SCR). This meant that over 1,000 workers were at the power plant for several weeks. Subsequently, in mid-September, there was a failure at that Aboño 2 unit due to the breakage of one of the blades of the drive wheel of the high pressure turbine, whose repair led to a two-month shutdown, which in turn impacted the commissioning date of the denitrification plant. The testing started on 20 November and the commissioning was completed on 28 December, the date on which it received the Operating Authorisation and thus became the first thermal power plant in Spain to operate with this system, the most efficient of the ones currently in use.

From the hydrological point of view, the year could be considered to have been moderately wet, but with the specific feature that the first half of the year was among the highest production historical data and, on the other hand, the second half of the year was very dry. This led to a higher operating level of the combined cycles, particularly at the end of the year, which yet again was proof of its commitment to guarantee power when it is required by the system operator.

Other outstanding events were: 1) the negotiating of a new maintenance contract with General Electric for Generator 1 of the Castejón Combined Cycle Power Plant, with a reduction in the scope and price, but maintaining the technical support commitment when it is necessary; b) the signing of a new contract with Arcelor Mittal to recover siderurgic waste gases at the Aboño Thermal Production Power Plant up to 2020; c) the integration of the two thermal power plants at Soto de Ribera, one of which is conventional and the other combined cycle, in a unique Soto de Ribera Thermal Power Plant, with a coal-fired generator and two natural gas ones; and d) the participation in the EDP Group's Spanish and Portuguese projects, including the Skills Centre and the LINK programme.

All those challenges, difficulties and uncertainties have been surpassed thanks to the effort and dedication of the EDP Group employees, as well as of the companies that work with us both in specific projects and the routine activity of the power plants."

4.1.4. Greater efficiency by means of cost control and rigorous analysis of the investments

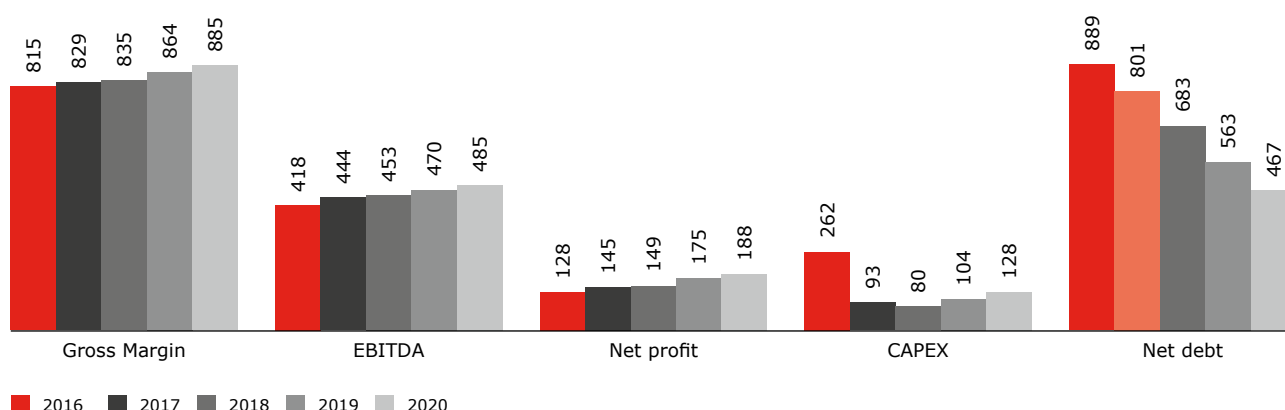
STRATEGIC LINE: Commitment to sustainable development

PRIORITIES	1. Retaining and consolidating the quality and environmental certification of different businesses.	2. Investing in R&D&i using the innovation ecosystem in line with the Group.	3. Driving continuous improvement as a lever to create value.
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STRATEGIC LINE: Adapting to the environment and people management

PRIORITIES	1. People management (Talent, Amplify, new work-life balance model, etc.).	2. Training (Customer 365, EDP Talks programme...).	3. Prevention management (Prosafety, Atlas, Scorecard).	4. Best practices and synergies with the Group (Lean, Priorit...).
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2016-2020 Business Plan (Millions of euros)



The 2016-2020 plan includes the gas distribution business which was sold in March 2017 to the investor consortium whose members included the Infrastructure Investment Fund, Abu Dhabi Investment Council and Swiss Life Asset Managers.

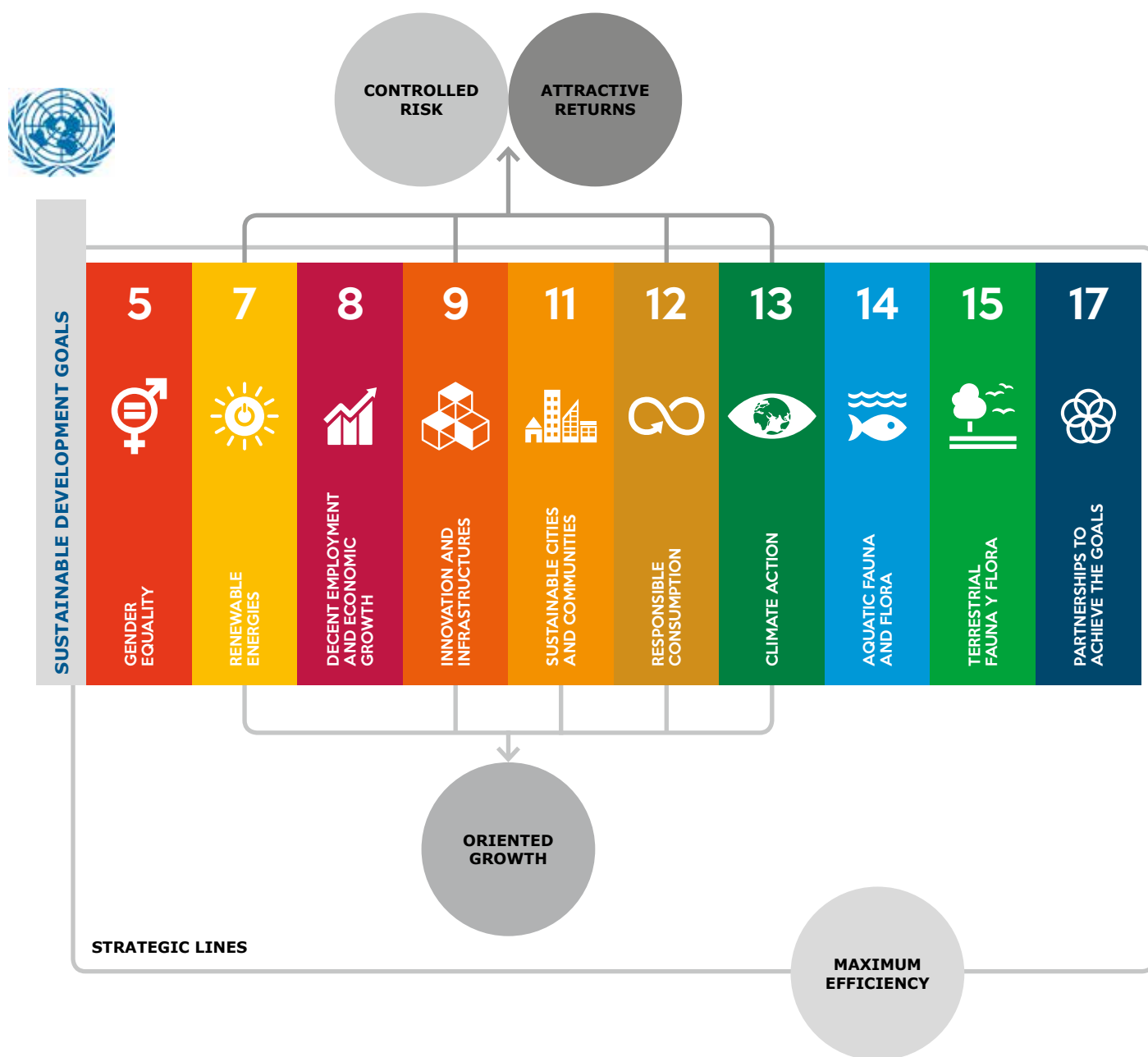
VALENTÍN VALCUENDE Administration Director

"In 2016, I would highlight the adaptation work to the new SIM F financial-economic platform so that it can be used in 2017; this platform will be unique for all the companies of the EDP group, with the ensuing advantages. Furthermore, an internal restructuring of EDP Spain was undertaken to optimise the organisation:

- On the one hand, a corporate structure was defined in accordance with the different legal systems that apply in the natural gas distribution areas where the EDP group operates (common system in Asturias and Cantabria compared to the chartered system of the Basque Country).
- On the other hand, from the financial and economic point of view, the restructuring allows the debt to be assigned in a way that is more in keeping with the reality of the EDP group and to adapt the financial structure of the distributors to a situation more in line with the market, taking the low risk profile of the distribution activity into account."

4.2. CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS

The development in EDP Spain of the main approaches of the Group's strategy can be aligned with the three facets of sustainable development to comply with the Sustainable Development Goals (SDGs), whose global agenda for 2030 may only be achieved if the companies contribute to them, by means of their activity and investments, and by means of their corporate practices and policies.



4.2.1. SDG 5: Achieve gender equality and empower all women and girls



Equality of opportunity and treatment benefits companies and organisations and requires the commitment of all socio-economic stakeholders. EDP Spain integrates those principles in all its management policies, collective bargaining agreement and code of ethics, among others.

Diversity Charter

EDP Spain, as part of its "Diversity and Inclusion" corporate initiative, signed the 2016-2018 Diversity Charter in April 2016. This Charter, endorsed by the European Commission and the Spanish Equality Ministry, is an undertaking that the companies and institutions from a single country sign on a voluntary basis to strengthen their commitment to the fundamental principles of equality in order to foster a workplace free of prejudice in terms of employment, training and promotion, and thus fostering a legally rigorous, economically sustainable and socially respectful environment. By signing up to this signature initiative, EDP Spain seeks to showcase its commitment to labour inclusion, in other words, the right of all people to have the same opportunities to entry, permanence and promotion at work, and ensuring a good work-life balance.

EDP Spain holds the "Family Responsible Company (EFR Model) certificate for all its activities.

4.2.2. SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all



This SDG aims to guarantee access to energy as a cornerstone of social development. EDP Spain, as an energy company, contributes to this goal with a commercial range that is a leader in customer satisfaction and in supply quality and security. Similarly, in order to ensure inclusive access, EDP Spain has signed agreements to protect vulnerable customers.

JAVIER FLÓREZ FERNÁNDEZ B2B Sales Director

"EDP is focused on advising its customers to help them to cut the cost of their energy bill. It therefore has personal commercial managers for each customer with advice on the way to contract their energy and the possible energy efficiency projects that the customer could undertake to cut their unit consumption. The ultimate goal is to maximise the loyalty and satisfaction of our customers. In 2016, we have consolidated the implementation of the "Save To Compete" Energy Efficiency Programme, by means of which the customers may implement efficiency projects financed by EDP and we have complemented it off with the "Cuota Ahorro" programme for SMEs. In addition, we have upgraded and complemented our gas and electricity indexed range of products, by expanding the training of the commercial managers in those products for better advice for the customers. The outcome has been that the EDP B2B customers are more satisfied with EDP than the customers of the competition.

In 2017, our main challenge is to maximise the commercial time that we dedicate to our customers to be able to advise them to a greater extent. We therefore have launched the MANAGERS 2017 [GESTORES 2017] project, which apart from the aforementioned challenge, aims to work on differentiation and personalisation of the EDP range to adapt to the needs of our customers."

Vulnerable Customer Agreements

EDP Spain has continued with its deployment of the commitment to protect the vulnerable consumers. Thus, in 2016, voluntary actions have been implemented that go beyond the legal requirements, by signing specific voluntary agreements with the Public Authorities that have expressed interest in stepping up the protection of the Vulnerable Consumers.

Those agreements seek to avoid the natural gas and/or electricity supply to those vulnerable consumers being cut off due to their failure to pay certain invoices, or if the supply has already been cut off, to try to get it reconnected as soon as possible, by means of the aid that the Administration will award to the Beneficiary to pay the bill or bills in question.

EDP currently has such annual agreements in force with the following authorities (in chronological order):



In accordance with the agreements signed so far and their characteristics, as of the date of this report, the “coverage rate”, in other words, the percentage of customers which may need help not to be disconnected in case of vulnerable situation, is around 95 %.

4.2.3. SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



According to the Global Compact and the Spanish Network of the Global Compact, SDG 8 is the goal of greatest potential for companies, as it pinpoints issues related to generating quality employment (direct and induced) and the contribution to the local economic development.

EDP Spain has implemented different initiatives with a clear impact in those areas, which seek to improve the work-life balance and the development of the employees (personal and professional), the working conditions and health and safety, including the suppliers, with whom long-term relations are established.

FÉLIX ARRIBAS

Human Resources, Finances and Administration Director

"Aware of the importance of people to achieve the results of the company, in 2016, we have focused on developing actions that helped to increase the commitment of the employees with EDP, including:

- An important Collective Agreement was reached for 227 workers involving putting into practice the standardisation of the working conditions for all EDP Spain employees.
- Increase of the benefits for employees, developing the " EDP is More Benefits" portal where employees can enjoy significant discounts, including for travel and technology, on the main brands of the market.
- Implementation of the "EDP is Healthy" portal, whose aim is to promote healthy ways of life to help improve the quality of life of the employees, through different initiative and activities in three fundamental core areas: nutrition, sport and wellbeing.
- Consolidation of the integrated vision of the EFR model for EDP Spain.
- Launch of a global leadership corporate programme aimed at all the EDP managers and which seeks to create a culture of meritocracy, transparency and continuous feedbacks.
- Identification and implementation of specific initiatives in all the Divisions, to improve the commitment and organizational support.
- Recognition of employees who had a positive impact for the Company, contributing to the development of its teams, its company and society.
- Clarification of the EDP Spain organisational structure.

At the end of 2016, a Climate Monitoring Survey was launched to check the efficiency of those actions, where we could see that the commitment of the EDP Spain workers had improved 3 percentage points. In 2017, we will repeat this survey with the goal of continuing to improving the results."

MARCOS ANTUÑA

New Businesses and Projects Director

"As regards Occupational Health and Safety, among the achievements in 2016, special mention should be made of obtaining OHSAS 18001 safety certification for all the companies that make up EDP Spain, the diagnosis of the safety culture along with defining priorities for intervention, the actions to disseminate the new Safety Policy of the EDP Group to our associate companies in Spain and the completion of the standardisation process of the assessment of the service provider companies, in order to provide an appraisal of the preventive performance of each of them to the sub-contracting process."

RAFAEL CAREAGA ARLUNDUAGA
General Services and Procurement Director

"In 2016, EDP Spain managed purchases, excluding fuels, to the tune of EUR 280 million mainly from national suppliers. The procurement procedures and processes have been consolidated, with a total alignment being achieved with the EDP Group policies. The integration platform, operational from the start of 2017, has likewise been developed with the important involvement and dedication of the people of the unit.

In our endeavour to discover the opinion of our key suppliers, 35 personal interviews were held with EDP Spain suppliers selected by managers of the different business units at the end of 2016. This qualitative information on important matters for suppliers is being analysed in 2017 and the conclusions will be reflected in the review of the action plans.

The EDPartners initiative aimed at all the suppliers of mainland Spain and Portugal was also run at the end of 2016 in order to award best ideas and practices (Customer relations, Innovation, Sustainable Development, Prevention and Safety). It is an initiative that EDP launched in 2012 and which was extended to EDP Spain in 2016. The prizes will be awarded at the end of the first quarter of 2017. The initiative attracted entries from 132 companies, 42 of which were Spanish, belonging to different fields of activity.

The General Services has driven the unification and centralization of services, obtaining important synergies and improved service provision."

4.2.4. SDG 9: Build resilient infrastructure, promote sustainable and inclusive industrialization and foster innovation



Research and innovation allow solutions to be developed for the global economic challenges, where improvements in energy efficiency are key for driving environmentally sustainable industrial processes and where new technological developments foster the inclusion of society through access to important.

EDP Spain drives continuous improvement through the LEAN programme, a culture attacking all forms of inefficiency, and fosters innovation through the EDP Starter programme, by supporting the development of new start-ups with energy products with development potential. Similarly, the digital transformation of the company has gone hand in hand with the employees being encouraged to develop new digital skills, a context in which special mention must be made of "The EDP Cloud" project.

YOLANDA FERNÁNDEZ MONTES
Director for the Environment, Sustainability, Innovation and Quality

"The LEAN programme, which is the tool for the continuous improvement of the activities by means of the participation of all the workers, celebrated its 10th anniversary in 2016. During that period, over 3,500 initiatives have been identified that impact all the processes and businesses of the organisation; 365 of which are environmental.

As regards innovation, and within the EDP Starter corporate programme, over 80 start-ups were identified in Asturias and the Basque Country in 2016, which, with different degrees of development, could be of interest for EDP activities."

The LEAN Programme has been up and running in Spain for 10 years

3,500 initiatives implemented and over 60 % of the workforce involved. These are the results of the LEAN continuous improvement programme after 10 years being up and running, with the participation of all the EDP Spain businesses and areas. Mainly management practices and efficiency initiatives have been implemented (44 %), but other important aspects such as health and safety (24 %) or environmental management (10 %) should not be overlooked.

The key to the success: the bottom-up participation of the employees, enhancing their operational knowledge and their involvement with the organisation.

EDP consolidates its support for *startups*

EDP is consolidating its backing and support for start-ups in line with its R&D&i goals and priorities through its EDP Starter platform (www.edpstarter.com).

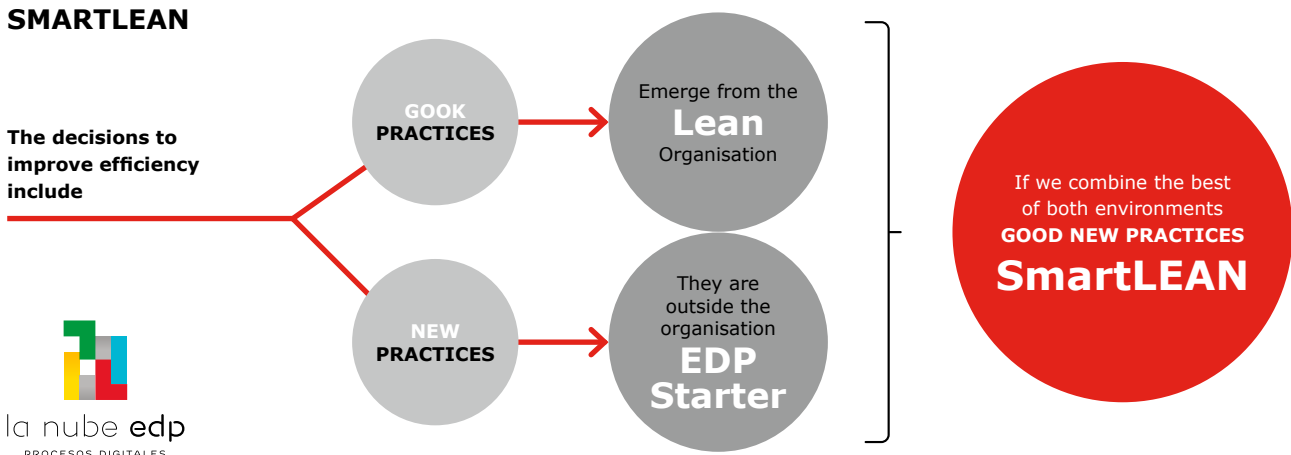
EDP Starter seeks to help start-ups to accomplish their innovative ideas, provided that they are within the Energy sector and with special focus on product development. Thus, mentoring and support are provided in the five stages of the process that range from identifying an initial idea to taking up a stake in a new company, and not forgetting the three middle stages: prototype creation, incubation and pilot project.

For the initial ideas identification phase, EDP set up the EDP Open Innovation awards and it has different support actions for the other phases. These include EDP Ventures, a corporate venture capital fund that invest in those project already considered mature and with a high potential.

EDP Acceleration Program

Another EDP support instrument is the short intensive "acceleration" programmes to train entrepreneurs in business development techniques and minimum viable product (MVP) creation. Those programmes end with a presentation session when the start-ups showcase the acquired skills-sets. Sessions of the EDP Acceleration Program will be held in Spain for the first time at Campus Google Madrid in April and May 2017 and eleven start-ups will be taking part.

SMARTLEAN



The current technological eco-system implies new business models coexisting with traditional models, and analogue processes coexisting with digital processes.

To adapt to this new reality, EDP Spain is driving advances towards the digital transformation of Persons, Processes and Technology, which means changes in the way of working and the use of digital tools, where special mention should be made of the Office 365 tools that allow people to work in a network with many more features than by email. A real system for team work and sharing information.

4.2.5. SDG 11: Make cities inclusive, safe, resilient and sustainable



Over half the world's population lives in cities and their environmental, social and economic development are the foundations of global sustainable development. Thus, achieving sustainable cities requires efficient and safe housing, services and means of transport to control the environmental impact of cities.

EDP Spain is committed to smartcities, where the electrification of the services is the base for development. One example is the Inovgrid project launched as a pilot scheme in Pola de Siero, where the electricity grid has been replaced by a more modern and advanced one, prepared for the incorporation of new agents, such as energy microgenerators or the electric vehicle. In this regard, EDP Spain's commitment to sustainable mobility includes both natural gas and electricity. In addition to developing charging stations in our area of influence and the progressive replacement of our own fleet of gas and electric vehicles, the group is actively present in consortiums to participate in European sustainable mobility projects, such as the *ECO GATE Connecting Europe Facility*, whose objective is to construct gas and electricity charging infrastructures for vehicles along the main European corridors and which, in the case of Spain, refer to the Atlantic and Mediterranean corridors. Another leading project in which EDP Spain is involved is the *BLUE CHANGE GO Connecting Europe Facility*, whose scope of action is focused on maritime ports.

4.2.6. SDG 12: Ensure sustainable consumption and production patterns



The key to foster new sustainable consumption and production models lies in fostering an efficient use of resources and energy. This allows costs to be reduced in the three facets of sustainability: social, environmental and economic. Therefore, the whole value chain must be integrated in the new circular economy concept, whose aim is for the value of the products, materials and resources (water, energy, etc.) to be kept in the production cycle during the longest possible time by means of reusing, reprocessing or recovering materials, and even driving changes in the behaviour of consumers.

EDP Spain has underway different lines of work aimed at increasing that efficiency for the use of resources and waste generation and management in the company itself to meet the targets set by the EDP Group for 2020: cutting waste production by 20 %, Our processes to include 20 % of recycled materials and 100 % recovery of recoverable waste.

CUTTING
-20 %
waste
production

INCORPORATING
20 %
recycled
materials

RECOVERING
100 %
recoverable
waste

TruequeLED: "Great changes are needed to achieve a more efficient world... What if we begin with light bulbs☺?"

This is the slogan of the TruequeLED [LED Swap] initiative run during the European Week for Waste Reduction where EDP Spain "swapped" 2 incandescent bulbs and/or halogen lamps for a maximum of 2 LED lamps. This improved the energy efficiency of the homes of the company's employees and ensured the process to replace and manage the discarded "light bulbs".



The initiative was run with the following objectives:

1. Ensure the appropriate management of incandescent light bulbs and halogen lamps as hazardous waste.
2. Improve the energy efficiency of the homes of the company's employees.
3. Raise awareness among the employees and, by extension, of their families and immediate circles, on the aspects of energy efficiency.
4. Speed up the process to replace the incandescent light bulbs and halogen lamps before the end of their useful life.

4.2.7. SDG 13: Take urgent action to combat climate change and its impacts



The impact of Climate Change is greatly due to the high amounts of carbon dioxide, CO₂, that is generated in any combustion of fossil fuels (coal, oil, natural gas, etc), as it is a greenhouse gas. It is thus an important variable in the development of the EDP Spain operations, mainly in electricity generation, and, therefore, the reduction of this climate change impact is part of the company's global strategy.

Different initiatives are thus being implemented to mitigate climate change. Special mention should be made of the transformation of the generator park with the addition of combined cycles, whose specific CO₂ emissions are around a third of those of a coal-fired plant.

Another global emissions mitigation initiative is the partnership with the siderurgic sector (Arcelor Mittal). Its integration into the electricity production cycle is a case of partnership between companies of different sectors that significantly minimises the environmental impacts of the facilities. This integration allows the waste gases produced by the siderurgic processes to be transferred to the electricity company to be used as an additional fuel in the boilers (such as the case of the Aboño Thermal Power Plant), or as a main fuel in a cogeneration process (Sigergas cogeneration).

Paradoxically, this environmental progress delivers emission figures in the thermal power plant that may seem wrong, as they will include as inherent to the facility the tons CO₂ transferred directly from the siderurgic complex in their waste gases, being the result of the steel-making and not the electricity process, but which are finally emitted to the air through the stack of the thermal plant along with the CO₂ really generated by the plant.

4.2.8. SDG14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development



The oceans and the sea are a clear regulator of all the environmental processes of the planet. The organisation therefore must define and apply an environmental policy that ensures their appropriate performance and the continuous improvement of all the processes, minimising the impacts and checking strict legal compliance.

EDP Spain's commitment to the environment is laid down in its environmental policy. As the Aboño Thermal Power Plant draws the cooling water from the sea and discharges it into the Aboño river estuary, special mention should be made of the study conducted along the coast in the vicinity of the facility in the sphere of this SDG.



Bionomic study of the coast in the vicinity of the Aboño Thermal Production Power Plant

The bionomic study of the coastal environment was conducted at the Aboño Thermal Power Plant in order to establish the distribution of the different marine habitats to be found there and their current status. The composition and physiological state of the sea beds were studied *in situ*, identifying the natural communities and species of interest to be found in the coastal aquatic environment between the Cabo Torres headland and Antromero island, and to the 10 metre isobath (line of equal depth). Particularly noteworthy were, for example, due to their extensive cover, seaweeds such as *Corallina officinalis* (calcareous red seaweed), *Codium spp* (spongweed) and *Cytoseira spp* (brown alga), crustaceans such as *Chthamalus spp* (Poli's stellate barnacle) and local populations of *Paracentrotus lividus* (sea urchin) and *Anemonia sulcata* (sea anemone).

The results of the study were presented at the IX National Environmental Impact Assessment Congress (Zaragoza, March 2017).

4.2.9. SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss



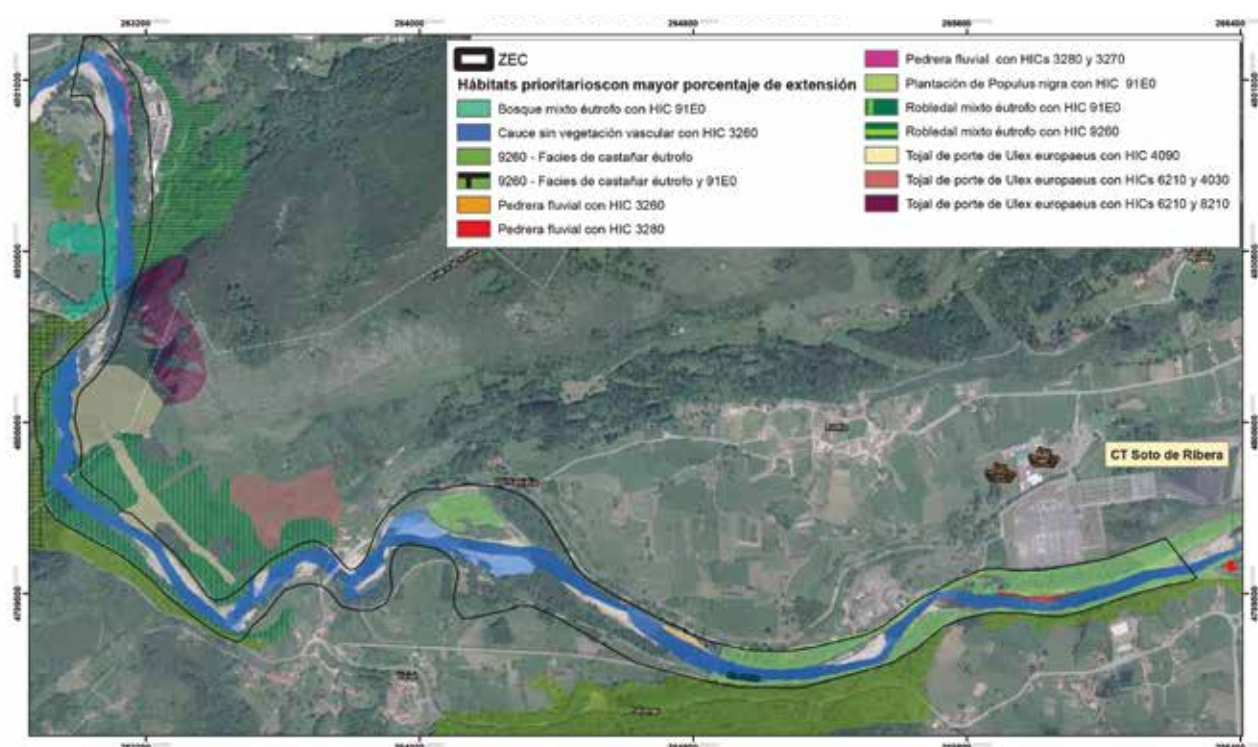
The international study known as the “Millennium Ecosystem Assessment” explains the consequences of the changes in ecosystems for human wellbeing, as they provide us with the goods and services on which society depends, the so-called “ecosystem services”. In this regard, EDP Spain conducted a study in the vicinity of the Soto de Ribera Thermal Power Plant.

River Nalón: study and monitoring of priority habitats and taxa in the area of influence of the Soto de Ribera Thermal Production Power Plant

The Soto de Ribera Thermal Power Plant borders the River Nalón Special Area of Conservation (SAC).

Given that its activity may cause environmental impacts on this natural area, a study and mapping of its current status was performed in order to control and minimise those risks. On the one hand, the riverbank woodland, the main habitat of community interest in the zone, was mapped. The degree of conservation of this habitat varies according to the sections studied and ranges from low-middle to high-very high.

On the other hand, the species of interest belonging to the Natura 2000 Network were monitored, and the presence of a kingfisher, grey heron, otter, mallard and cormorant was noted. Furthermore, invasive plant species, such as the black locust, the Japanese honeysuckle, the summer lilac and Pampas grass were identified as well.



All the field information mapped and inventoried has led to greater knowledge of the habitats and species present, whose future monitoring will allow their evolution to be established.

4.2.10. SDG 17: Revitalize the global partnership for sustainable development



As the UN established in the deployment of this goal, partnerships are needed between the different socio-economic stakeholders involved in order for the sustainable development agenda to be effective. Those partnerships will have to be built on the basis of principles and values, a shared view and common goals.

The deployment of the EDP Stakeholders Management Policy seeks to construct partnerships with all its stakeholders, by combining the internal approach of the organisation with the expectations of the stakeholders. This is all under the logic of the creation of shared value.

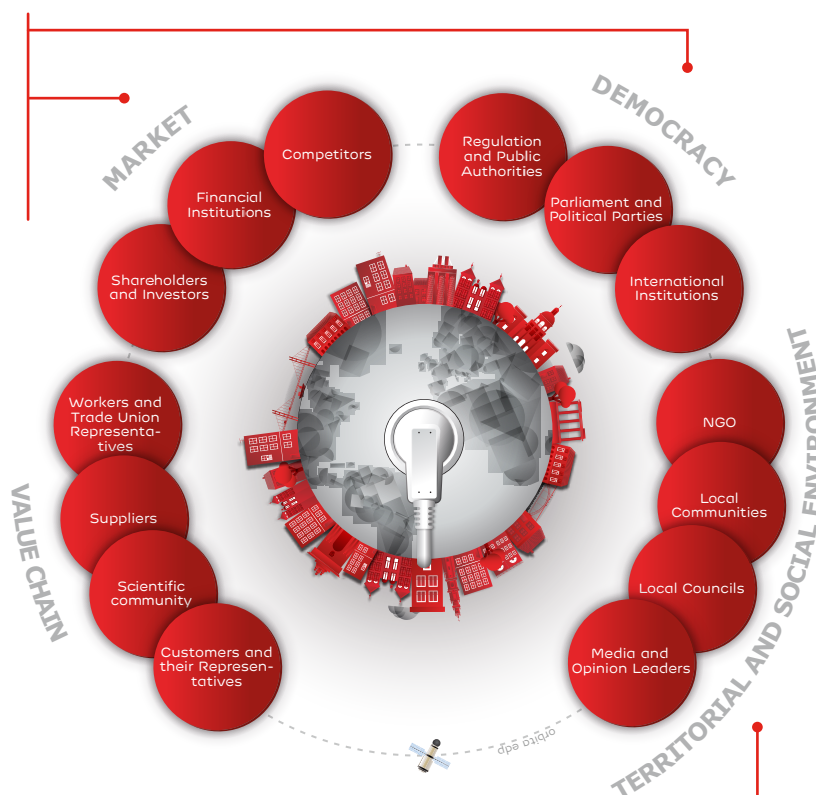
Relationship with the stakeholders

The publication of the 2016-2020 Strategic Plan has allowed the EDP Spain Stakeholders Map to be defined, combined the key issues for each of the stakeholders and their potential impact on any of the twenty-five strategic objectives defined for the different Business Units and Corporate Divisions.

Depending on the stakeholder and the degree of relationship and knowledge that exist in the organisation of its concerns and interests, specific actions have been implemented for each of them.

Therefore, for the MARKET and DEMOCRACY categories, an Iberian Alignment working group has been set up that analyses and establishes the positions of the Group in the strategic areas and answers queries from international bodies.

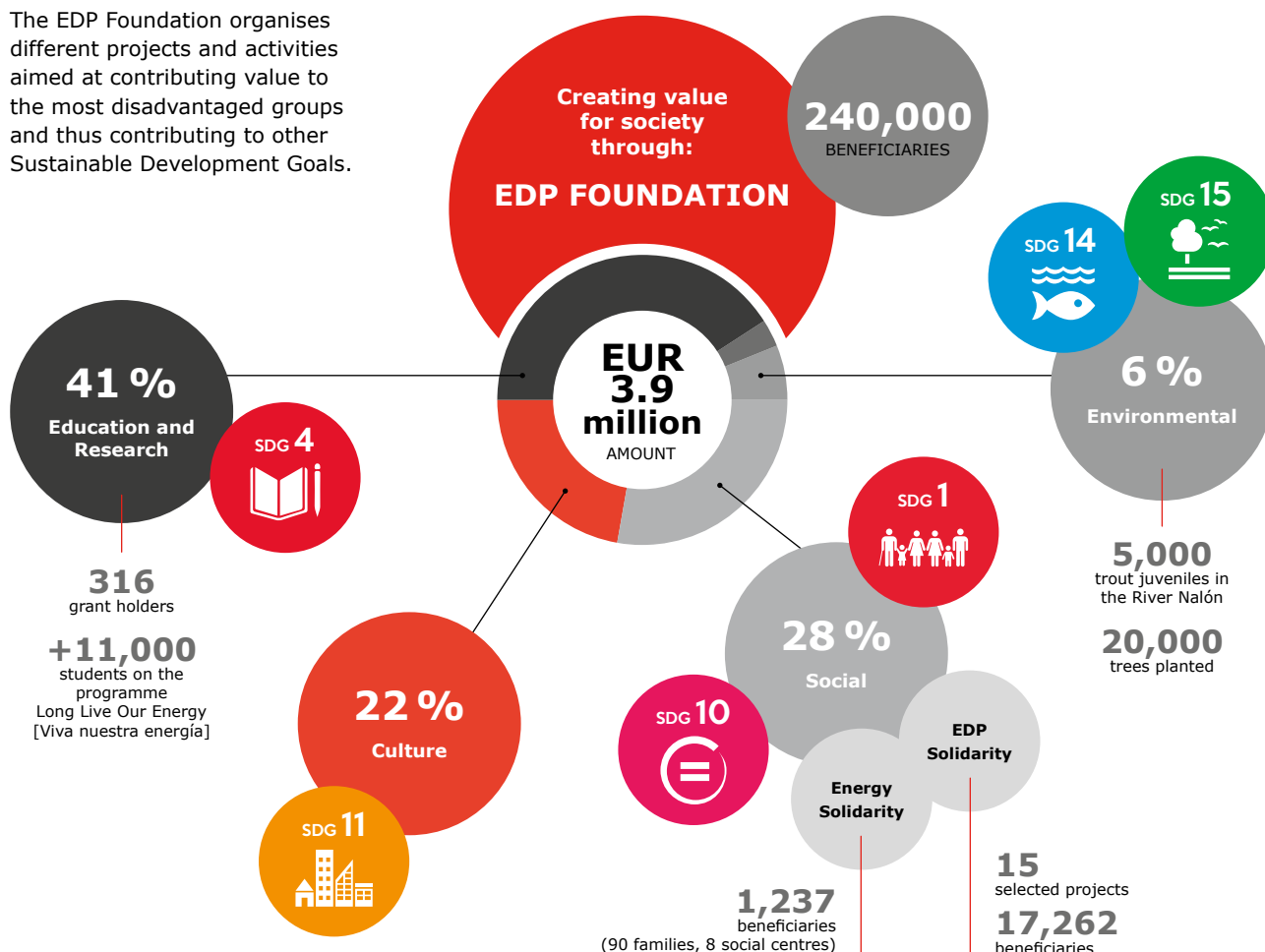
For the VALUE CHAIN category, a plan of action was prepared that includes defining the relationship model with these interested parties to effectuate communication and define the measures required to manage the relevant matters.



For the TERRITORIAL AND SOCIAL ENVIRONMENT category, the stakeholders have been identified in each of the municipalities where the generation facilities are located: traders, cultural, sport and neighbourhood associations, local media, environmental NGOs, etc. Group dynamics and personal interviews are used to discover their opinions and assessments of the impacts of the EDP activities on the environmental, economic and social development of the zone. The results will allow EDP to set up an interaction plan with these communities.

4.2.11. Contribution of the Foundation to the SDG

The EDP Foundation organises different projects and activities aimed at contributing value to the most disadvantaged groups and thus contributing to other Sustainable Development Goals.



VANDA MARTINS Executive Director of the EDP Foundation

"The actions run by the EDP Foundation foster environmental, social, cultural and educational projects in the geographical areas where EDP is present and which involved an investment of €3.9 million in 2016, which has benefitted over 240,000 people.

The EDP Foundation, in keeping with its approaches, continued with its social schemes in 2016: EDP Solidarity, whose objectives are to contribute to improving the quality of life and facilitating the integration of the most underprivileged, by means of supporting projects to respond to pressing social situations, and Energy Solidarity, which aims to increase the safety, wellbeing and energy efficiency of disadvantaged families.. These schemes were run in cooperation with the Business Units to drive sustainability, one of the values underpinning the EDP Group Strategy, and with the volunteers of the company, whose support has been essential to carry them out.

In 2017, we are going to continue with the strategy defined for 2015-2017, which is based on three cornerstones. First, fostering the current funding and initiatives; second, working with the business areas to drive sustainability; and, third, creating and consolidating a new programme to support social transformation. In this regard, we will work with B2B customers in EDP Solidarity as members of the jury and managers of the selected projects. Support is also going to be given to EDP Solidarity social entities to strengthen their skills-sets, so that they can be more efficient and create more value, by means of the "Integral Organisational Strengthening", with the participation of EDP volunteers (Skills-sets volunteers)."

ENERGY
AS
THE
NEW
ART

05
Year-on-year data

5.1. Financial indicators	75
5.2. Technical indicators	76
5.3. Environmental indicators	79
5.4. Social Indicators	80



The background of the entire page is a vibrant red. Overlaid on this are numerous thin, white, wavy lines that create a sense of movement and depth, resembling a liquid surface or a topographical map. In the upper right quadrant, there is a small, white, wireframe sphere that appears to be floating or interacting with the wavy lines.

TECHNOLOGY
AS THE *NEW*ART

ENERGY
AS
THE
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ART

05 Year-on-year data

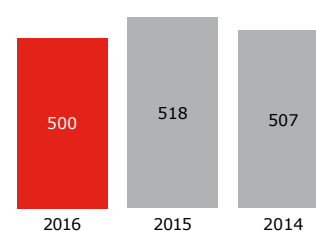
5.1. FINANCIAL INDICATORS

	UN	2016	2015	2014
FINANCIAL INDICATORS				
Turnover	MC	3,350	3,875	4,086
EBITDA	MC	500	518 ⁽¹⁾	507
Net profit (EAT)	MC	438	598	110
Operational investments	MC	150	121	96
Net debt	MC	1,213	865	2,017

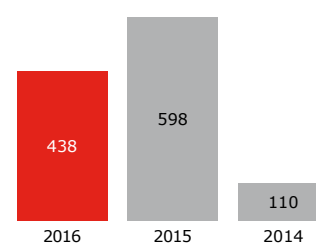
(1) These results include the positive impact of the sale of the Gas de Murcia assets and those beyond the Cantabrian coastal strip, along with the impact of the sale of the EDPR shares; if we discounted them, EBITDA would be EUR 429 million.

	UN	2016	2015	2014
ECONOMIC INDICATORS				
ENVIRONMENTAL EXPENDITURE AND INVESTMENTS	MC	79.2	56.4	28.9
Managing waste, wastewater and land protection	MC	17.2	19.4	17.8
Projects related to energy efficiency	MC	13.0	1.9	3.2
Environmental management and prevention	MC	45.7	32.0	4.6
Research projects related to the environment	MC	0.5	1.0	0.9
Others	MC	2.7	2.2	2.4

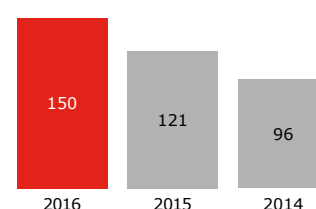
EBITDA (€ MILLION)



EAT NET PROFIT (€ MILLION)



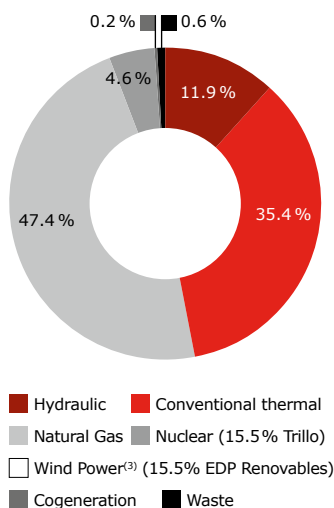
OPERATIONAL INVESTMENTS (€ MILLION)



5.2. TECHNICAL INDICATORS

ELECTRICITY GENERATION

INSTALLED GENERATING
CAPACITY BY TECHNOLOGY



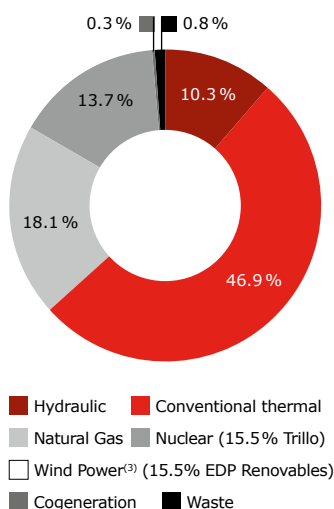
	UN	2016	2015	2014
INSTALLED PRODUCTION CAPACITY				
Hydraulic Total⁽¹⁾	Gross MW	432	433	433
Conventional thermal ⁽²⁾	Gross MW	1,283	1,535	1,535
Natural gas	Gross MW	1,721	1,721	1,721
Nuclear (15.5 % Trillo)	Gross MW	165	165	165
Thermal total	Gross MW	3,169	3,422	3,422
Overall total	Gross MW	3,601	3,854	3,854
Wind power ⁽³⁾ (15.5 % of EDP Renovables operational capacity)	Gross MW	0	1,494	1,401
Operational MW in Spain (15.5 %) ⁽³⁾	Gross MW	0	340	340
Cogeneration	Gross MW	5	5	5
Waste	Gross MW	20.4	20.4	20
Special Total	Gross MW	26	1,520	1,426
TOTAL	Gross MW	3,627	5,374	5,281

(1) At the end of 2014, the concession of the Caño hydraulic mini-power plant ended.

(2) As of 31.12.2015, the Soto 2 coal-fired generator was closed.

(3) Investments in wind power are through EDP Renovables; this stake was sold in December 2015.

NET ELECTRICITY GENERATION
BY TECHNOLOGY



	UN	2016	2015	2014
NET ELECTRICITY GENERATION				
Hydraulic Total	MWh	930,227	792,503	947,479
Conventional thermal	MWh	5,149,897	8,945,939	6,413,856
Natural gas	MWh	1,639,483	1,081,823	656,276
Nuclear	MWh	1,238,837	1,226,642	1,204,363
Thermal total	MWh	8,028,217	11,254,404	8,274,495
Overall total	MWh	8,958,444	12,046,907	9,221,974
Wind power ⁽¹⁾ (15.5 % of EDP Renovables operational capacity)	MWh	0	3,315,140	3,063,265
Operational MW in Spain (15.5 %)	MWh	0	751,285	802,280
Cogeneration	MWh	28,751	28,746	26,268
Waste	MWh	70,856	101,860	128,818
Special Total	MWh	99,607	3,445,745	3,218,351
TOTAL	MWh	9,058,051	15,492,652	12,440,325

(1) Investments in wind power are through EDP Renovables; this stake was sold in December 2015.

Net electricity generation = gross electricity generation – plant self-supply

GAS AND ELECTRICITY DISTRIBUTION

	UN	2016	2015	2014
INSTALLED PRODUCTION CAPACITY				
HV overhead lines (50/132 kV)	Km	1,273	1,274	1,270
MV overhead lines (5/10/16/20/22/24 kV)	Km	4,786	4,765	4,748
HV underground lines (50/132 kV)	Km	43.33	39.41	38.00
MT underground lines (5/10/16/20/22/24 kV)	Km	1,639	1,617	1,616
LV overhead grids ⁽¹⁾	Km	9,618	9,609	12,486
LV underground grids ⁽¹⁾	Km	3,167	3,112	3,233
Transformation centres	No.	6,726	6,719	6,719
Transformation centre installed capacity	MVA	2,289	2,281	2,278
Substations	No.	58	59	59
Transformers in substations	No.	121	123	124
Installed capacity in sub-stations	MVA	5,264	5,255	5,288

(1) Change of accounting criteria to mass capture in the quantification of line km.

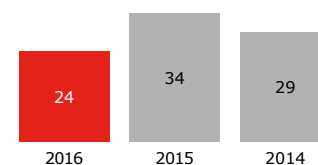
	UN	2016	2015	2014
GAS DISTRIBUTION NETWORKS				
Gas distribution networks ⁽¹⁾	Km	7,741	7,715	10,143

(1) Sale of Gas Distribución Murcia assets and geographical areas outside of Asturias, Cantabria and the Basque Country.

SUPPLY POINTS IN THE NETWORKS AND DISTRIBUTED ENERGIES

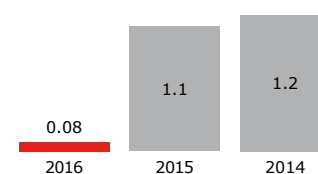
	UN	2016	2015	2014
ELECTRICITY DISTRIBUTION				
SUPPLY POINTS	No.	662,545	660,143	659,319
Low Voltage (<1 kV)	No.	661,409	659,004	658,182
Medium Voltage (>1 kV y <36 kV)	No.	1,112	1,116	1,114
High Voltage (>36 kV)	No.	24	23	23
DISTRIBUTED ENERGY	GWh	9,190	9,168	9,177
Low Voltage (<1 kV)	GWh	2,250	2,223	2,386
Medium Voltage (>1 kV y <36 kV)	GWh	1,297	1,307	1,288
High Voltage (>36 kV)	GWh	5,643	5,637	5,503
GAS DISTRIBUTION				
Supply points	No.	926,346	917,846	1,026,343
Energy transported	GWh	27,023	26,473	46,426

TIEPI (equivalent time interruption of installed power) EVOLUTION (minutes)

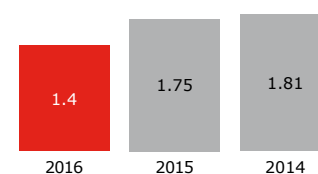


* Pending ruling on the discount of the January February 2015 storm effect; the TIEPI would therefore be 29 minutes.

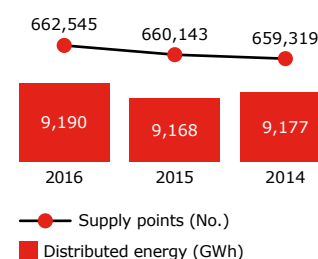
GAS NETWORK BREAKAGE INDEX (per 100 km)



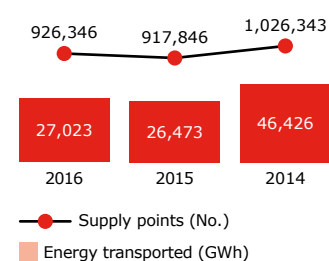
GAS SUPPLY CONTINUITY INDEX (minutes of interruption per supply point and year)



ELECTRICITY DISTRIBUTION

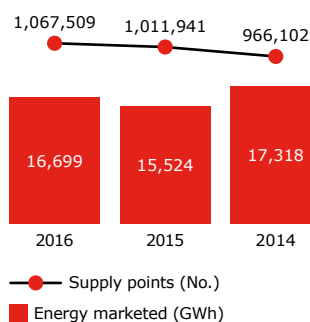


GAS DISTRIBUTION



MARKETING ELECTRICITY AND GAS

ELECTRICITY MARKETING

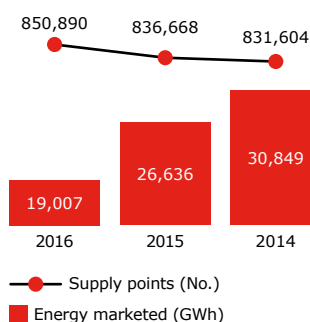


	UN	2016	2015	2014
ELECTRICITY MARKETING				
SUPPLY POINTS	No.	1,067,509	1,011,941	966,102
Last resort	No.	227,159	237,559	246,898
Free market ⁽¹⁾	No.	840,350	774,382	719,204
ENERGY MARKETED	GWh	16,699	15,524	17,318
Last resort	GWh	477	497	513
Free market ⁽²⁾	GWh	16,222	15,027	16,805
EDP Spain share	%	8	8	9.3

(1) The consolidation criteria were changed in 2014 and 50 % of CHC Energía have not been considered (in 2016, 215,324 supply points).

(2) The energy marketed by UN Generación to CHC is not included; in 2015, the criteria consolidation changed and 50 % of CHC Energía is not considered (747 GWh in 2016).

COMERCIALIZACIÓN DE GAS

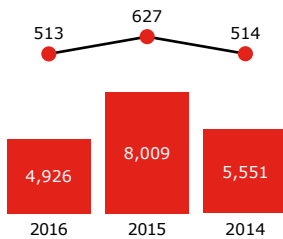
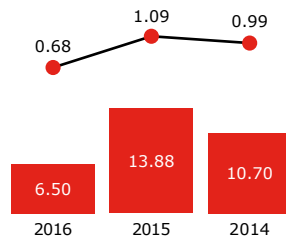
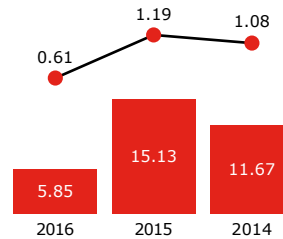


	UN	2016	2015	2014
GAS MARKETING				
SUPPLY POINTS	No.	850,890	836,668	831,604
Last resort	No.	54,485	58,772	67,845
Free market	No.	796,405	777,896	763,759
ENERGY MARKETED	GWh	19,007	26,636	30,849
Last resort	GWh	244	279	269
Free market	GWh	18,763	26,357	30,580

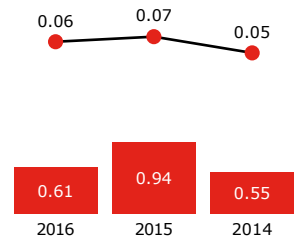
(1) The consolidation criteria were changed in 2014 and 50 % of CHC Energía have not been considered (in 2016, 215,324 supply points).

(2) The energy marketed by UN Generación to CHC is not included; in 2015, the criteria consolidation changed and 50 % of CHC Energía is not considered (747 GWh in 2016).

5.3. ENVIRONMENTAL INDICATORS

CO₂ EMISSIONS

SO₂ EMISSIONS

NO_x EMISSIONS


PARTICLE EMISSIONS

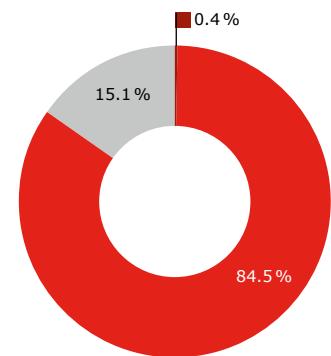


—●— Specific emissions (g/kWh)
■ Total emissions (kt)

	UN	2016	2015	2014
RESIDUOS Y SUBPRODUCTOS				
Total hazardous waste	Tons	887	2,224	1,244
Total non-hazardous waste	Tons	188,634	351,284	271,597
Total by-products	Tons	33,746	22,940	58,998
Total generated	Tons	223,267	376,448	331,839
Total recovered	Tons	173,946	266,727	235,808

WASTE AND BY-PRODUCTS

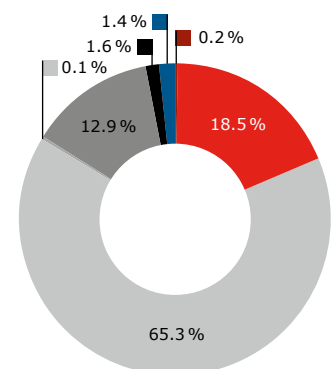
Recovered 78 %



■ Hazardous waste
■ Non-hazardous waste
■ By-products

	UN	2016	2015	2014
FUEL CONSUMPTION				
Fuel oil	TJ	116	131	193
Natural gas	TJ	12,756	9,904	7,071
Coal	TJ	45,156	85,305	58,635
Diesel	TJ	78	82	114
Furnace gas (GHA)	TJ	8,925	11,631	11,555
Coke Making Gas (GBC)	TJ	1,125	1,054	768
Steelwork Gas (GLD)	TJ	944	1,484	1,318

FUEL CONSUMPTION

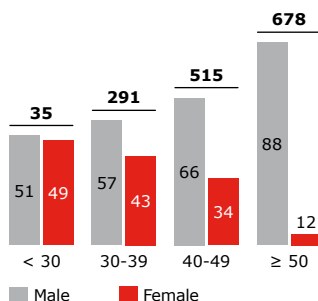


■ Fuel oil
■ Natural gas
■ Coal
■ Diesel
■ Furnace gas (GHA)
■ Coke Making Gas (GBC)
■ Steelwork Gas (GLD)

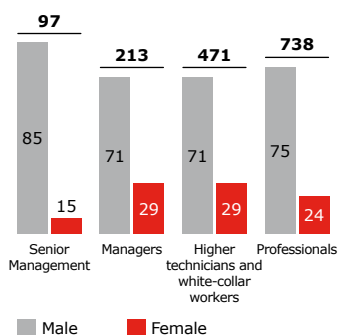
	UN	2016	2015	2014
WATER				
Cooling water	m ³ x10 ³	370,625	494,323	448,895
Electricity generation water	m ³ x10 ³	2,078	2,345	2,455
Recovered water out of abstracted water	%	98	94	98

5.4. SOCIAL INDICATORS

EMPLOYEE PROFILE BY AGE



EMPLOYEE PROFILE BY PROFESSIONAL CATEGORY

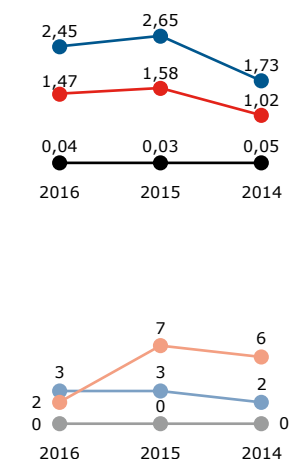


	UN	2016	2015	2014	2013
EMPLOYEES					
TOTAL	No.	1,519	1,510	1,566	1,612
Percentage of women	%	26	25	24	24
Average age of the workers	Years old	48	47	47	47
Absentee rate ⁽¹⁾	%	3.57	3.40	3.52	3.52
				3.49	3.49
Employee remuneration costs	EUR thousands	103,143	103,569	110,706	107,878
Contributions to Pension Plans	EUR thousands	3,023	2,978	3,145	3,675
TRAINING					
Total training hours ⁽²⁾	Hours	49,696	50,243	55,700	59,092
Participation rate	People	10,250	11,273	7,585	9,345
Training actions	No.	1,370	1,147	1,110	1,298

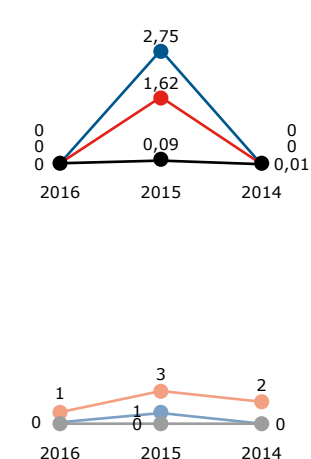
(1) The gas and electricity businesses were reported separately up until 2014.
(2) The Training Plan does not include Saltos del Navia.

ACCIDENT RATE OWN WORKFORCE

ELECTRICITY SECTOR

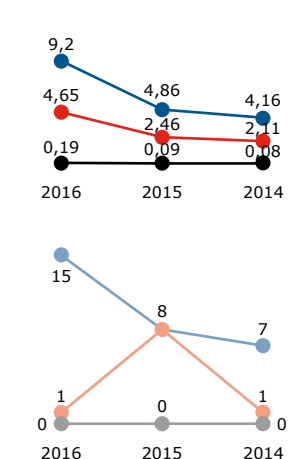


GAS SECTOR

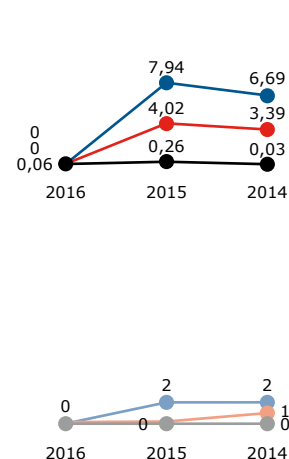


ACCIDENT RATE CONTRACTORS

ELECTRICITY SECTOR



GAS SECTOR



● Hazard index
 No. of accidents resulting in time off work/people exposed*10³

● Frequency index
 No. of accidents resulting in time off/hours worked*10⁵

● Severity index
 No. days lost/hours worked*10³

● Accidents resulting in sick leave

● Accidents not resulting in sick leave

● Fatal accidents

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