edp

EDP España Sustainability Report 2018







We love energy.

- This is the energy that moves us, unites us and brings us closer to the world.
- We love this energy, which is a universal language, that comes in all shapes and colours.
- An energy that impels us, motivates us and
- challenges us in this history of shared achievements. An energy that comes from the sun, the water, the wind and people.
- An energy that transforms, reinvents and creates an increasingly clean, sustainable and efficient future.
- A contagious energy that encourages us to explore, to amaze and to innovate in a world in constant change.
- This is the energy we love.

WE LOVE ENERGY

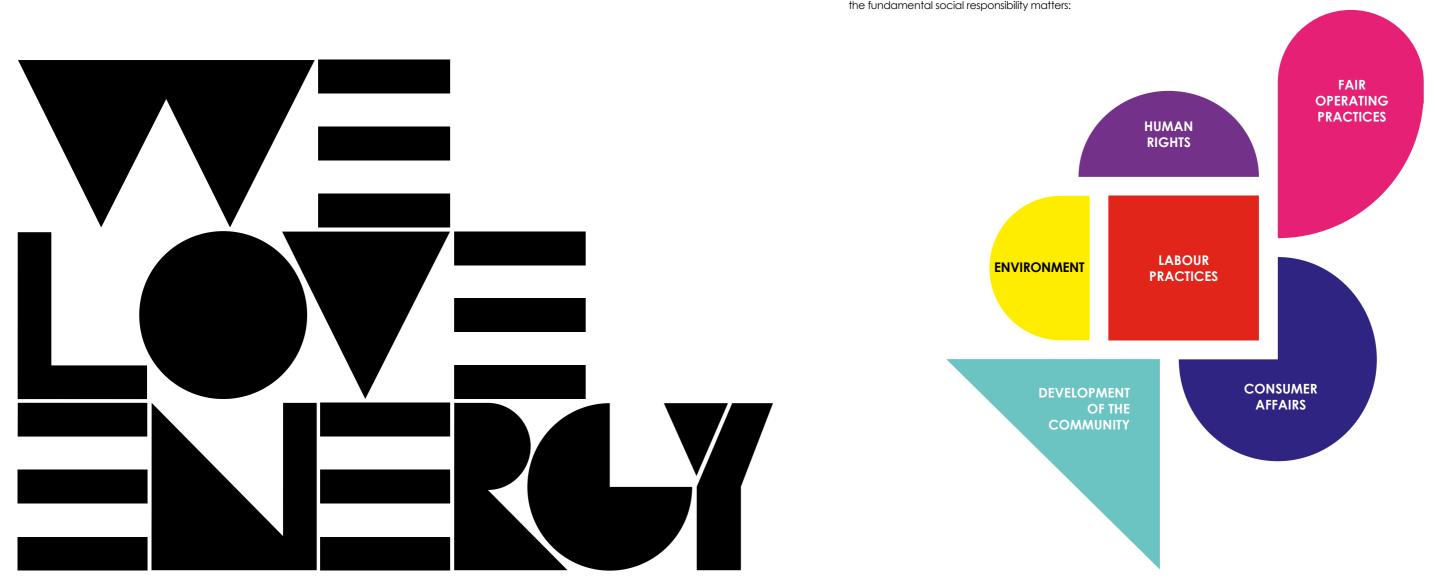


THIS REPORT

EDP is a global company with a strategy that integrates social responsibility, including social and environmental considerations in the decision-making process and identifying the relevant matters for the stakeholders.

In this sustainability report, we will go through the fundamental social responsibility matters, with regard to those topics that have been selected in the materiality study, highlighting the most important actions in financial year 2018.

Each chapter of the 'Performance' section will address each of the fundamental social responsibility matters:



EDP España Sustainability Report 2018



INDEX

01	EDP ESPAÑA	11
	1.1 Message from the Chairman and from the 1.2 EDP España's profile 1.3 Our year	e CEO 12 16 22
02	CONTEXT	31
	2.1 Energy global trends 2.2 Strategic priorities	33 38
03	PERFORMANCE	53
	 3.1 Labour practices 3.2 Environment 3.3 Human rights 3.4 Fair operating practices 3.5 Development of the community 3.6 Consumer affairs 	57 64 73 76 79 88
04	YEAR-ON-YEAR DATA	99



WE LOVE HUMANITY



01 EDP ESPAÑA

1.1. MESSAGE FROM THE CHAIRMAN AND FROM THE CEO 12 1.1.1. Letter from the Chairman 13 1.1.2. Letter from the CEO 15 1.2. EDP ESPAÑA'S PROFILE 16 1.2.1. Who are we? 1.2.2. Where are we? 1.2.3. Vision, values and commitments 22 1.3. OUR YEAR 1.3.1. Main events 23

- 1.3.2. Main indicators 1.3.3. Awards



1.1.1. LETTER FROM THE CHAIRMAN

Throughout 2018, I have been present in several forums sharing my opinion on the current energy transition and the decarbonisation, and, in all of them, I have stressed the need to tackle this transition in a fair and orderly way.

It is with good reason that, even though EDP is firmly committed to clean technologies, it deems necessary to maintain its traditional thermal power plants, given the fundamental role they play as backup energy in the system. It must be emphasised that, thanks to our investments in recent years, EDP's plants are the most efficient in the country as well as environmentally adapted; thus, they will continue in operation for as long as the market environment allows it. Consumes and sells, participating in energy-efficiency plans and flexibility markets. And EDP is ready for these new consumers. It is the company that is growing the most in the entire Spanish territory, thanks to its competitive products and services, an outstanding customer care service and its differentiation, which set dynamic, fair, friendly and responsible energy values.

This balance in the national energy mix not only must be viewed from the system's backup and safety approach, but its impact on the economic activity, the industry or the employment must be also appreciated. A study on the creation of value in EDP's plants has concluded that they contribute more than 200 million euros to the GDP of the Autonomous Regions in which they are present and they create direct, indirect and induced employment for more than 2,300 people.

Furthermore, energy distribution, with smarter and more efficient grids, is also key in the decarbonising process of the economy.

And EDP's grid is indeed tackling such future challenges: it is prepared to serve increasingly technological and demanding customers, while it operates and maintains its grid, from its leading position as regards quality of supply in Spain, making digitisation and automation a priority, supporting challenges as real as the electric vehicle or self-consumption. Likewise, it is essential to highlight that the future involves innovation and the digitisation of all the processes, putting customers always at the heart of the decisions. In the Clean Energy Package, the customer acquires a central role in the new transition, as an active consumer who consumes, selfconsumes and sells, participating in energy-efficiency plans and flexibility markets.

The activity of EDP España, as the rest of the companies in the EDP Group, is carried out under the Sustainable Development Principles framework, being governed by high ethical standards and promoting the guidelines of the UN Global Compact and the Agenda 2030, to which EDP has committed to contribute the success of nine Sustainable Development Goals (SDGs), after having recently approved a new declaration in which it commits to SDG 17, convinced of the need of partnerships to face these global challenges.

Finally, I would like to thank the General Supervisory Board and the Executive Board of Directors of the Group for their support to the development of the company in Spain.

Manuel Menéndez Menéndez Chairman



1.1.2. LETTER FROM THE CEO

In accordance with EDP's and my commitment to maintain constant communication with stakeholders, this report reflects the results of year 2018 in all the sustainability dimensions, together with the progress of the company and the future challenges which are already in our strategic agenda.

I deem that occupational health and safety management is fundamental for our entire business. In 2018, the accident rate has decreased thanks to the work of the whole team. We are on the correct road and we are all responsible for constantly reinforcing the available risk prevention aspects.

EDP has achieved to reach financial and operational results that are especially valuable in a difficult environment. And the prospects for 2019 show that the scenario will be still difficult, which is why we need everyone's commitment and a stable labour framework, such as the one provided by the Group Agreement that has just been signed.

In Generation, the situation of the coal plants is recurrent news, but it is essential to point out that EDP has executed the environmental adaptations that allow its continuance with the maximum respect for the environment, and we want the market to be the one dictating which are the plants that must continue in operation.

The quality of the service in Distribution has reached a new record in 2018, with a TIEPI (Equivalent Interruption Time) of only 17 minutes, excluding the force majeure episodes, in which we should highlight the exemplary display of staff and resources to re-establish the service in the shortest time possible despite the extreme difficulties, without any accident or incident.

The commercial portfolio increase encourages us to keep growing throughout the Spanish territory with new products and services. To date, we have the best customer care service in Spain, recognised by two Golden CRC (Customer Relationship Centre) awards in 2018, and we want to keep standing out from the rest. After the 2018 campaign, aimed at the recognition of the EDP brand, the Dicker project explores new sales channels. As regards New Businesses, B2B Services stand out as a priority, being focused on energy efficiency. In our Smart Home strategy, the main development cores will be electric mobility and solar self-consumption, in which we want to be the first ones to serve the customer.

I would like to take this opportunity to congratulate all the collaborators who have participated in LEAN over these more than 12 years of the programme. The award for the best implementation team conferred by the Lean Community stands out the quality and the commitment of the team that works on its continuous improvement. The Ágora project will set the pace of the new collaborative work paradigm in the organisation.

Undoubtedly, the motivation and organisational culture of the entire EDP España company are key in this road, and future challenges force us to conduct a critical revision on our processes, with digitisation as the cross-cutting core for executing the activities in an efficacious and efficient way.

Our business strategy is completely aligned with the Agenda 2030 (SDGs), and we will keep implementing social and environmental commitment activities with local communities and applying innovation both internally and externally, identifying energy start-ups. Initiatives such as open-day events in the plants, involving more than 1,200 participants, or the internships of Dual Vocational Training students in EDP guarantee this commitment.

All in all, I would like to thank all the people comprising EDP España for your commitment, because your dedication is what makes it possible for us to keep growing as an efficient company, as well as the support of the entire Board of Directors, which is vital for obtaining the achieved results and for facing future challenges.

Rui Teixeira CEO

1.2. EDP ESPAÑA'S PROFILE



EDP IS A VERTICALLY INTEGRATED ENERGY COMPANY

EDP España is the Spanish subsidiary of the Portuguese multinational EDP, world leader in the energy sector and one of the main operators in the Iberian Peninsula, present in 14 countries and 4 continents.

EDP has 11,657 employees, out of which 1,252 belong to EDP España, and is present in the entire electricity value chain and in the gas retail activity.



1. PRODUCTION

Electricity is generated from renewable or non-renewable energy sources. The energy produced through traditional sources comes mostly from coal, natural gas, nuclear energy and cogeneration. In the case of Investments in wind and solar energy are made through EDP Renovables

renewable sources, it comes essentially from water, wind and sun. The energy produced is sold to the wholesale market.

★ =

2. TRANSMISSION

In the **transmission activity** the owners of the grids allow the passage of the produced energy. The energy transmission grids are comprised by high-voltage power lines which subsequently channel energy to the distribution grids. EDP España has no transmission assets.

In Spain, the transmission activity is carried out by Red Eléctrica de España (REE)

ENERGY MANAGEMENT

The **energy management activity** comprises the global management of the volume and price risk, from the purchase of fuel to sales price for end customers.



 \diamond

3. DISTRIBUTION

In the **distribution activity** the owners of the grids allow energy to be channelled to the supply points. The electricity distribution grids are comprised by high-, medium- and lowvoltage lines. Substations and transformation centres are also an integral part of the distribution activity.

OVERHEAD AND UNDERGROUND LINES

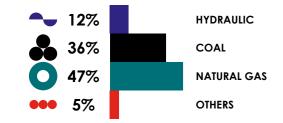




20,709 km OF OVERHEAD AND UNDERGROUND LINES

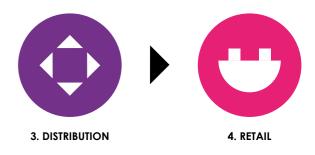
9,360 GWh OF DISTRIBUTED ELECTRICITY

3,666 MW INSTALLED CAPACITY



9,566 GWh NET ELECTRICITY PRODUCED







4. RETAIL

The **retail activity** includes the purchase of energy in the wholesale market, the payment of tolls or access tariffs for using transmission and distribution grids and the sale of electricity and gas to the end consumer.

ELECTRICITY CUSTOMERS



932,867 FREE-MARKET CUSTOMERS (supply points)

221,080 LAST-RESORT CUSTOMERS (supply points)

CLIENTES DE GAS



843,966 FREE-MARKET CUSTOMERS (supply points)

51.323 LAST-RESORT CUSTOMERS (supply points)



EDP España Sustainability Report 2018

DLAND	X	ŧ	32
AINAMO	X	ŧ	30
ALY	X	ŧ	31
NITED KINGDOM	X	ŧ	60
IGIUM	X	ŧ	2
ANCE	X	ŧ	78
REECE	X		
NGOLA		•••	
DISTRIBUTION 🖶	RETAIL •••		COLLABORATORS



VISIÓN

A GLOBAL ENERGY COMPANY, LEADER IN THE CREATION OF VALUE, INNOVATION AND SUSTAINABILITY.

WE LOVE ENERGY

1.2.3. VISION, VALUES & VISION & VISION

VALUES

INNOVATIVE

SUSTAINABLE

With the aim of creating value in the different areas in which we operate. With the aim of improving the quality of life of current and future generations.

COMMITMENTS

RESULTS

- We meet the commitments given to our shareholders.
- We are leaders thanks to our anticipation and execution capacity.
- We demand excellence in everything we undertake.

SUSTAINABILITY

- We assume the social responsibility resulted from our activity, contributing to the development of the communities in which we are present.
- We sustainably reduce specific greenhouse gas emissions resulting from the energy we produce.
- We actively promote energy efficiency.

HUMAN

Building true and trusting relationships with our customers, suppliers and local communities.

CUSTOMERS

- We put ourselves in our customers' shoes whenever we make a decision.
- We listen to our customers and reply them in a simple and transparent way.
- We surprise our customers, getting ahead of their needs.

PEOPLE

- We combine ethical conduct and professional rigour with enthusiasm and initiative, fostering team work.
- We promote the development of abilities and merits.
- We believe that balance between personal and professional life is essential to succeed.

1.3. OUR YEAR

1.3.1. MAIN EVENTS RAES ENTOS

19 MARCH

1st EDP seminar in the Polytechnic School of Engineering of Gijón of the University of Oviedo

20 MARCH

EDP launches the 2nd round of EDP Starter Acceleration Program Spain

27 APRIL Rui Teixeira, new CEO of EDP España

15 MAY Preliminary announcement of the takeover bid on EDP by CTG EDP participates in the 1st LEAN Congress of Innovation

19 MAY Open-day event in Castejón

22 MAY Open-day event in Soto de Ribera

7 JUNE 'Heritages', EDP's new all-embracing advertising campaign

19 JUNE Open-day event in Aboño

27 JUNE 3rd LEAN Iberian Balance of Production in Porto

29 JUNE

First fast charging point for electric vehicles in the Airport of Asturias

6 SEP 10th anniversary of Group 4 of Soto de Rib<u>era Combined-</u> Cycle Plant

10 SEP EDP Open Innovation

5 OCT

18 OCT Start of the Martín González del Valle Scholarship Programme

16 NOV 5th EDP Seminar in the School of Mining, Energy and Materials of the University of Oviedo

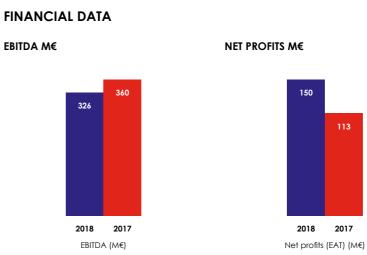
22 NOV 50th anniversary of Proaza

23 NOV Open-day event in Proaza

12 DEC Launch of 'In Sync', the first platform for female runners

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1.3.2. MAIN INDICATORS



Note: In 2017, EDP Naturgas Energía is not included. Data from the consolidated accounting results of EDP España.

OPERATIONAL DATA

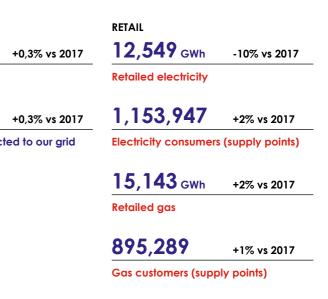
GENERACIÓN		DISTRIBUTION
3,666 мм	+1% vs 2017	9,360 GWh
Installed power		Distributed energy
9,565 GWh	-16% vs 2017	666,403

Net production

Supply points connected to our grid

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PEOPLE	39 h/p	training hours/employee
HUMAN	1, 247	employees
AND INCLUSIVE	25%	women
	17%	women in management positions
	5	own accidents
CUSTOMERS AND SUPPLIERS	440,309	customers with electronic bill
FOCUSED ON	77.5%	customer satisfaction
EFFICIENCY	17	GWh saved by customers in energy efficiency services
	23	no. of accidents in services with suppliers
COMMUNITY	600,000€	allocated to EDP Solidarity programme
ATTENTIVE TO	150,000€	allocated to Energy Solidarity programme
EXPECTATIONS	290	scholarships for students
	1,250	attendants at open-day events
INNOVATION	431,740€	investment in R&D&i in €
MORE DIGITAL	100%	no. of smart meters installed
MORE DIGITAL	5,049 h	no. of hours of video conference use
PLANET	532	
	93%	t/GWh of specific CO ₂ emissions
MORE SUSTAINABLE	100 %	recovered waste and by-products

100%

99%

recovered waste and by-products certified installed power recovered water out of abstracted water

1.3.3. AWARDS

9[™] ASOCAS AWARDS FOR INDUSTRIAL SAFETY

EDP winner in the 9th ASOCAS Awards for Industrial Safety

DIRCOM RAMÓN DEL CORRAL AWARDS

DIRCOM Ramón del Corral Award to the Annual Conference of Sales to Large Customers for the Best Internal Event under 500 Employees

FUNDACOM 2018 AWARDS

FUNDACOM 2018 Award to 'Share your energy' for the best CSR campaign

GOLDEN CRC

GOLDEN CRC to the Customer Experience Project and Face-to-face Customer Care

GLOBAL COMPACT BRONZE PRESCRIBING PARTNER

Recognition as a Bronze Prescribing Partner of the Global Compact

LEAN COMMUNITY AWARD

LEAN Community Award for the Best Implementation Team

NUMBER 2 OF THE INTEGRATED UTILITY COMPANIES IN THE DJSI

Best rated in DJSI's Social Dimension

LEADER IN QUALITY OF SUPPLY

LEADER in quality of Supply with the best TIEPI in History (17 min)







WE LOVE THE WATER



02 CONTEXT

.1.	ENERGY GLOBAL TRENDS	33
.2.	STRATEGIC PRIORITIES	38

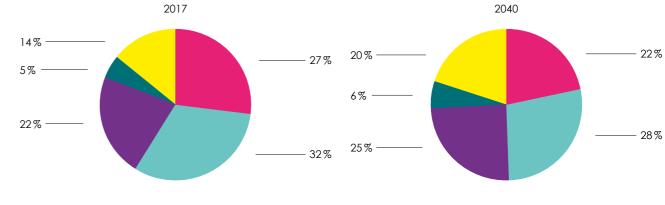


2.1. ENERGY GLOBAL TRENDS

After three years of stagnation, CO₂ emissions from the energy sector rose again in 2017, with a 1.6% growth. The International Energy Agency (IEA) estimates in its base scenario (New Policies Scenario) of the World Energy Outlook 2018 that, between 2017 and 2040, CO₂ emissions will rise by 10%. This growth would make impossible to limit the global temperature increase to 1.5 °C above pre-industrial levels, as defined in the Paris Agreement.

This rise in emissions would be resulted from the expected increase in primary energy consumption by 27% by 2040, mainly due to the growing use of natural gas and oil products in developing countries. In 2040, fossil fuels will keep representing 74% of primary energy consumption; renewable energy sources will represent 20% and nuclear energy, the remaining 6%.

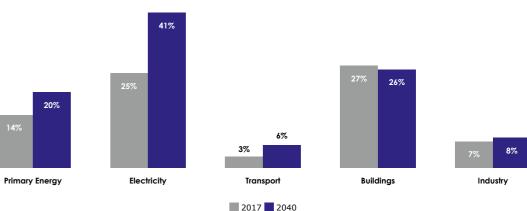
PRIMARY ENERGY SOURCES IN THE WORLD



📕 Coal 📕 Oil 📕 Gas 📕 Nuclear 📒 Renewables Source: IEA, World Energy Outlook 2018, New Policies Scenario

The low contribution of renewable energy sources in terms of primary energy contrasts with the participation of renewable energies in the electricity sector. In fact, it is expected that the contribution of renewable energy sources to electricity generation will increase from 25% in 2017 to 41% in 2040, with a special emphasis in the investments in wind and photovoltaic solar energy. The use of renewable energies combined with the growing electrification of consumption will allow contributing to the decarbonising effort of the global energy sector.

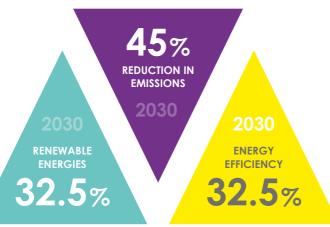
USE OF RENEWABLE ENERGIES IN THE WORLD



Source: IEA, World Energy Outlook 2018, New Policies Scenario

With the aim to assume a leading position and support the compliance with the Paris Agreement, the European Union established in 2018 a set of reforms aimed at guiding sustainable energy development in the next decade, and it assessed a series of scenarios representing its vision for 2050. The legislative pack 'Clean Energy for All Europeans' sets a 32.5% penetration of renewable energies and a 32.5% increase in energy efficiency by 2030 as targets. It is also expected that this package will lead to a 45% reduction in emissions by 2030 compared to 1990, which represents an increase of the European Union's ambition with regard to its 40% target.

CLEAN ENERGY FOR ALL EUROPEANSS





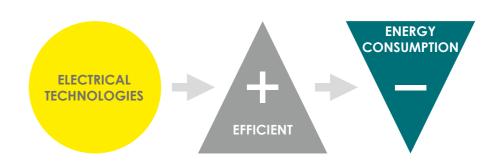
This vision of a carbon-neutral European Union by 2050 considers two key scenarios: one based on the contribution of all the available technologies, standing out the use of biomass and CO₂ capture and storage technologies, and a second scenario based on a change of lifestyles, with more sustainable consumers. Regardless of the strategy followed, both scenarios prove the need to reduce energy consumption and increase the use of renewable energy sources to approximately 61%.

ENVIRONMENTAL SUSTAINABILITY

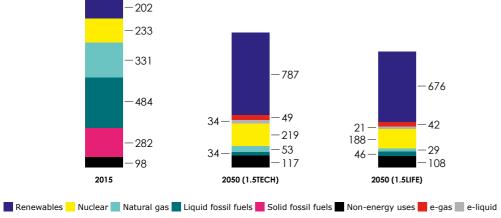
According to the International Energy Agency (IEA), the attainment of the Paris Agreement targets requires a transformation of the global energy system that leads to, approximately, a 50% reduction in CO₂ emissions by 2040 in comparison with the baseline scenario. The sustainable development scenario proposed by the IEA in the World Energy Outlook 2018 is based on three main pillars: increase in energy efficiency by 23%, increase in the electrification of the economy by 19% and rise in the share of consumed energy from renewable energy sources by 52%.



Energy efficiency is considered one of the keys to attain sustainability, resulting in environmental benefits, reductions in energy costs and reductions in the external energy dependence. According to the IEA, in order to achieve the Paris Agreement targets, it will be necessary to increase energy efficiency with the aim to stabilise the consumption of primary energy in the current levels and accelerate the electrification of the economy, since electricity currently represents 19% of the consumption of final energy and it should reach 28% by 2040.

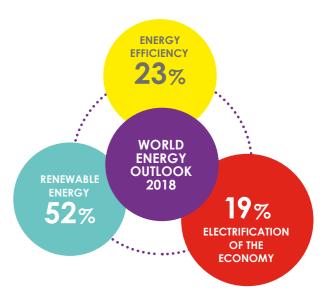


PRIMARY ENERGY IN THE EU (Mtep)

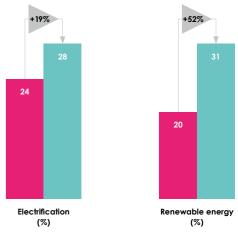


Source: European Commission

Other countries have also proven their commitment to reduce their environmental impact, such as China, which has assumed a leading position in the coordination of global efforts, and India, which has declared its goal to extend its environmental commitment for 2020. However, several regions in the world still need to take specific measures to contribute to the decarbonising efforts, and there are still concerns about the impact of the necessary energy transition on workers and their communities. Therefore, promoting the accelerated decarbonisation of the global energy system requires a paradigm shift that tackles sustainability in its three dimensions: economic, social and environmental.



TARGETS TO MEET THE PARIS AGREEMENT ACROSS THE WORLD BY 2040



Electrification in the transport and construction sectors is considered key to attain the decarbonisation targets electrification rates of 14% and 49% should be reached by 2040, together with a 6% reduction in final consumption.

However, these scenarios also highlight other matters related to sustainability. For example, the increase of biofuels from the current 3% to 13% by 2040 could entail a potential competition with other farming areas.

In line with what has historically happened, the electricity sector will still be the main responsible for the use of renewable energies. In order to reach the Paris Agreement targets, it will be necessary to increase their use in this sector from the current 25% to 66% by 2040, which represents a very significant additional effort in terms of installed capacity and technological development which will allow a better use of the available resources. This increase in the capacity will be supported by a paradigm shift in the electricity sector, involving the transition to a growingly decentralised system, in which consumers will play an increasingly active role.

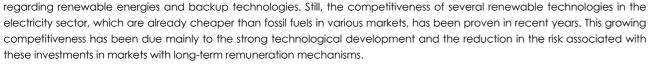
The electricity sector will remain the main responsible for the use of renewable <u>energies</u>

In order to guarantee the necessary integration of increasingly flexible electricity consumption and generation structures, there has been a growing digitisation throughout the value chain of the sector, as well as a higher demand of energy storage

systems. The introduction of the information, communication and energy storage technologies has several advantages, such as the efficiency increase in the operation of the systems, the reduction in costs and a higher decarbonisation through an improved integration of renewable energies into the system.

ECONOMIC SUSTAINABILITY

It is acknowledged that the two biggest obstacles for decarbonisation are the fear of the possible economic impacts that may occur in an energy transition process and the lack of clear price signals. In the case of the electricity sector, the introduction of renewable energies exerts a downward pressure on the wholesale market, which is characterised by being marginal, due to its low variable costs. This reduction has a direct impact on the remuneration of generation assets, questioning their economic viability, particularly,



KEY SECTORS IN THE DECARBONISATION 00 00 **ELECTRIFICATION** RATE 49% 14% REDUCTION IN FINAL CONSUMPTION 6%

The competitiveness of several renewable technologies in the electricity sector, which are already cheaper than fossil fuels in various markets, has been proved in recent years

The development of long-term remuneration mechanisms has been essentially focused on competitive auctions, to which the companies' energy sales contracts are increasingly contributing.

The fast growth of the renewable installed capacity has affected the economic viability of several existing generation assets necessary for providing a strong capacity and ancillary services (reserve and response rate), which supplement the natural variability and intermittence of renewable resources. In this context, and acknowledging the insufficiency of the marginal market, several countries (such as Germany, France, United Kingdom, Italy, several US markets, etc.) have opted for implementing capacity remuneration mechanisms that guarantee the power strength required in each moment for the proper operation of the electricity system.

The auction mechanism provides the necessary competition between agents, reduces the risk for investors by guaranteeing a long-term visibility of amounts and prices, and allows a better allocation of investments to the places with the best conditions

The internalisation of the environmental and social costs caused by CO₂ emissions in the energy markets, for example through a price associated with these emissions, provides the price signal necessary to boost investments in energy efficiency and technologies with low carbon emissions. The potential negative effect should be minimised through an efficient recycling of tax revenues, the creation of lines of credits for lowemission technologies and the reduction of other taxes. The possible loss of competitiveness for industries should be tackled by means of compensations (for example, fixed rents) or through the taxation of imported products based on the associated emissions.

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SOCIAL SUSTAINABILITY

A clear example of inefficient distribution of efforts is the financing of investments in renewable energy sources, which are currently paid mainly by electricity consumers. This effect punishes the electricity sector, which is the one that has contributed the most to the decarbonising efforts, and distorts the competition among the different energy vectors, jeopardising the electrification goals and punishing the consumers that depend the most on this energy vector.

The financing of building restoration and the purchase of efficient equipment, supported by the development of measures to educate the population, enables consumers to reduce their energy needs and <u>improve thermal comfort</u>

Plus, the cost structure of the electricity sector, which is mainly comprised of fixed costs, and the current rate structure, which is mainly comprised of variable costs, favour cross-subsidisation and reward the consumers with financial capacity to invest in decentralised generation, necessarily leading to a rise in costs for the remaining consumers, which mainly affects vulnerable consumers.

The fight against energy poverty must be carried out by creating specific credit lines for vulnerable customers, with a special emphasis on the implementation of energy efficiency measures and a rate reform guaranteeing that energy rates reflect the costs associated with the energy services provided. If necessary, the application of social rates must be carried out according to a principle of social solidarity, funded by the State budget or by other consumers.

Only through a holistic approach that takes into consideration environmental, economic and social impacts will it be possible to guarantee the collaboration of all the economic agents to successfully carry out the necessary reforms in order to attain the ambitious decarbonisation targets.

2.2. STRATEGIC PRIORITIES

EDP España, through its strategy 2016-2020, responds to these challenges of the sector not only in its traditional generation, distribution and retail businesses, but also with a proactive management of rules and people, and taking into account sustainability in its three dimensions: economic, social and environmental, all of which will be under a framework that puts special emphasis on the digitisation of all its processes.

The strategic lines of the Strategy 2016-2020 are:



Below, we expound the vision of EDP's directors regarding each strategic line, as well as the actions carried out in year 2018, which will be detailed in the following chapters of this report.

A.- GENERATION

OPERATIONAL FLEXIBILITY AND HIGH AVAILABILITY OF PRODUCTION CENTRES

MIGUEL MATEOS VALLES Generation Director

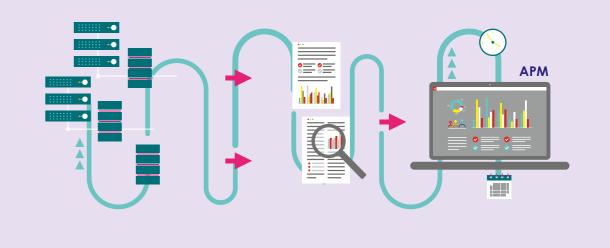
Throughout 2018, the generation activity in EDP España has kept its focus on the management of assets, in order to improve their efficiency and flexibility, allowing that our plants remain competitive in the generation market.

The replacement of the high-pressure turbine's internal rotating assembly in Aboño Unit 2 thermal power plant, between 22 January and 3 March, has been the most remarkable event, in which the schedule and the budget for the works were met with precision. At the same time, the turbine control valves were upgraded and new natural gas burners were installed, replacing the use of fuel oil or gas oil, which are no longer used in this group, neither in the start-up phase nor as stabilising fuel.

During the official 100-hour test at full load, which was conducted between 4 and 8 June, it was reached an average net power of 562 MW, 4.85% higher than the former power.

It should also be highlighted the celebration of the 50 Anniversary of the Proaza Hydro Power Plant, which took place on 22 November in an event held at the plant itself, featuring an audiovisual production about the architect Vaquero Palacios' designs, for whom the plant is one of his best exponents.

The following day, there was an open-day at that plant, to which EDP invited collaborators and neighbours from nearby



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villages, who were able to enjoy both the audiovisual show and the tour around the facility. This open day was not exclusive of this plant, since it was held too, with remarkable success, in the Castejón, Aboño and Soto thermal plants.

Lastly, it should be emphasised that digitisation has also been present in the generation activity in 2018, through the commissioning of the first applications of the Monitoring and Diagnostic Centre Project. Since the last quarter of the year, three APM applications have been implemented, which allow anticipating potential failures based on the analysis of thousands of process variables, including diagnosis capabilities, as well as Boiler Opt, an optimiser which seeks to maximise in real time the performance of the boiler in coal plants.

MARCOS ANTUÑA EGOCHEAGA **New Business and Project Director**

As regards EDP's generation strategy consisting in keeping our focus on the availability and flexibility of our plants, in financial year 2018, we concluded the study on the technical-economic feasibility of the full conversion from coal to blast furnace gas (BFG) of the thermal group Aboño 1. The study has included the adaptation of the boiler to burn BFG with the minimum required natural gas support, under acceptable conditions of efficiency and compliance with the mandatory emission limits.

Likewise, with the aim to extend as much as possible the options for using steel waste gases, in 2018, a new technical-economic feasibility study was initiated in order to assess the feasibility of burning the whole amount of such gases in Aboño 2 thermal group. The study includes the adaptation of the boiler in order to increase the BFG combustion capacity in Aboño 2. According to the decarbonisation scenario expected for the Spanish plants, the study has also taken into account the possibility to replace, in the future, coal for natural gas to keep the group in operation.

Following the measures implemented in recent years to reduce the environmental impact of its facilities and with the aim to increase the operational flexibility of Aboño 1 thermal group, EDP completed, in 2018, the construction and commissioning of new natural gas supply, regulation and measuring infrastructures to feed the new burners installed in the boiler, replacing the existing facilities for the transfer, regulation and combustion of liquid fuels (gas oil and fuel oil) which are currently used for starting up and stabilising the group.

The replacement of such fuels involves an environmental improvement which will allow reducing the atmospheric emissions, as well as reducing the risks associated with potential accidental spills of liquid fuels and reducing the potentially dangerous waste production.

from the steel production facility of Arcelor-Mittal in Avilés to use them in the production of electricity and steam for internal factory's use. The plant should be closed as the coke batteries in Avilés are planned to be phased out in the following years.



From that moment on, Sidergas will not have enough Sidergas cogeneration plant acquires excess waste gases supply of steelwork gases for electricity production, and therefore, some other options are being considered, including the adaptation of the existing boilers to the available fuels. For that purpose, in 2018, technical specifications have been developed to allow the use of a mixture of steel waste or natural gases in any proportion.

B.- DISTRIBUTION

QUALITY DISTRIBUTION AND OPERATIONAL EFFICIENCY

LUIS ÁLVAREZ ARIAS DE VELASCO **Electricity Distribution Director**

From the point of view of quality supply in 2018, it has been a rough year - there were two snowstorms, one at the beginning of February and another one at the end of October. Both affected our installations in the western area of Asturias and, although the number of affected customers did not exceed 15,000, the reset times were high, fundamentally as a result of the difficulty of travelling due to numerous road closures, caused either by fallen trees or by snow accumulation. During these snowstorms, there were more than 200 people working long hours and under adverse weather conditions and it is important to highlight that we have not had any accident or incident. Excluding these breakdowns caused by the mentioned snowstorms, which were declared force majeure, the TIEPI value for 2018 is 17 minutes, the lowest value historically recorded.

In the first quarter of the year, we have concluded the meter replacement campaign and we have continued with the development of the grid digitisation. During this year, we have put into operation the 'neutralfailure detection' and 'location of cut phase in LV' applications.

From the point of view of investments, we have commissioned installations for a gross amount of 50 M€, which will allow us to maintain the supply quality level, and we have made significant progress in the development of strategic initiatives: Simbo Project and Monitoring of power transformers and Implementation of the mobility platform.

C.- RETAIL

OPTIMISATION OF THE RETAIL ACTIVITY AND CREATION OF CUSTOMER LOYALTY

FRANCISCO JAVIER SAENZ DE JUBERA **Board Member and General Manager**

In an environment marked by fierce competition and the emergence of new incoming actors, in EDP we keep growing, maintaining our commitment to provide the best experience for our customers.

Our values drive our decisions in order to be a retailer that is:

Friendly We strive on a daily basis to offer the best customer care service. Throughout 2018, we have opened new offices in Valladolid and Getafe to be closer to our new customers. We keep strengthening our presence in the social media, with new channels on Twitter and Facebook. We promote the digital relationship with our customers, extending the functions of our online channel and making access easier via a new app.

In this sense, The Spanish Association of Experts in Relationships with Customers has distinguished EDP as the company that offers the best customer experience and the best face-to-face customer care in physical offices.



Dynamic We offer new products and innovative services, adapting to the needs of our customers and advising them so they can choose the best solution with the aim to guarantee the energy efficiency of our customers' industrial premises or businesses and to ensure the maximum comfort in the homes of our residential customers. Our service offer includes sustainable mobility solutions, energy advice, self-consumption plans, maintenance services and other services tailor-made for our customers.

Fair We propose good prices in our offers, standing among the most appealing proposals of the CNMC comparator. This year we have upgraded our bills, in order to make them clearer, easier and more transparent. We commit to solve problems and correct them, and we have adhered to consumer arbitrations.

Responsible We make sure that the electricity we supply to our customers' homes comes from a 100% renewable source. We are aware of our responsibility for building a better world; thus, we actively participate in social causes for the most vulnerable groups, signing agreements with the different public administrations and, through the EDP Foundation, carrying out many initiatives, among which the Energy Solidarity project stands out.

We promote sport values, being consolidated as a benchmark sponsor in the running sphere, offering our customers numbers for races and rewarding their participation with energy discounts. Furthermore, with the 'In Sync' initiative, we want to help women to feel safe when they go running, providing them with an online platform to create groups of runners at any time of the day and in any place.

Our challenge is to keep sharing our positive energy reinventing ourselves each year, convinced that our customers are and will remain the heart of our work and efforts.

D.- REGULATION

PROACTIVE REGULATORY MANAGEMENT

SANTIAGO BORDIÚ CIENFUEGOS-JOVELLANOS Regulation Director

In 2018, the electricity sector is expected to continue with The a rate surplus, which has been occurring since 2014. The box achieved financial stability of the sector, after the tough con measures applied by the Government in 2013 to tackle the be rate deficit, allows now to undo some of these measures in char order to reduce the price of electricity.

Thus, given the high prices of the electricity market caused by the prices of fuels and CO_2 in international markets, in October the tax on gas-based electricity production was removed and the tax on the value of electricity production (7%) was temporarily suspended. Plus, for industrial consumers, it was created the concept of the closed distribution grid, and a Statute for Intensive Electricity Consumers that will group the subsidies they are granted under one single framework will be passed.

The regulatory boost given to selfconsumption should be highlighted. The charges on selfconsumed energy have been removed and a door has been opened for the future development of shared self-consumption, which will be developed throughout 2019.

Besides, the availability service provided by coal and combined-cycle plants disappeared and the start-up of the intra-day continuous market on the MIBEL should be mentioned. The passing of the European 'Clean Energy Package' will involve more changes in the electricity market, since it contains a series of measures that will be

CLEAN

ENERGY

PACKAGE

implemented throughout the next years in the member countries aimed at meeting the energy and climate targets for 2030.

As regards the protection of vulnerable consumers, in 2018, the Government extended such protection by setting a higher amount of energy subject to the right to the social discount rate and a new system to avoid power cuts in

AZUCENA VIÑUELA HERNÁNDEZ Internal Audit Director

'Year 2018 was a challenging year for the internal audit activity, in which the audit work programme followed up an approach covering higher-risk processes and activities in all the areas of our business and aligned with the strategy of the EDP Group.

Throughout the year, the adaptation project to the new Personal Data Protection Regulations remained one of the main focuses of attention in the Compliance sphere. The implementation of the specific programme in this matter included, among others, the appointment of a Data Protection Officer, the approval of a specific governance model, and the development of a set of cross-cutting policies and procedures aimed at establishing the criteria to be considered by the business areas regarding the processing of personal data. The awareness effort and the training provided to the employees of the group, the model of relationship

PELAYO ECHEVARRÍA YBARRA Legal Advice Director

'During 2018, Legal Advice consolidated some high levels of quality regarding the monitoring and assessment of service suppliers within the debt recovery scope, which was also supported by a high recovery rate over the market benchmark. All in all, including residential-market and B2B debt, the total of files taken to court exceeded 9,500, which have been efficiently managed from the Iberian platform EDP Juris and in coordination with the General Secretary's Office. Likewise, we have continued providing advice to business in different fields: civil, commercial, labour, criminal and administrative litigation and, increasingly, in the area of cyber security, as well as in the implementation

the case of certain vulnerable consumers who cannot pay their bills, in addition to the current mechanism for customers at risk of social exclusion.

During the year, the adaptation project to the new Personal Data Protection Regulations remained one of the main focuses of attention in the Compliance sphere

with the service supplier with access to personal data and the adaptation of the information systems to the operational requirements and security measures were some of the most relevant milestones of the implementation process. With concern to the Legal and Criminal Risk Prevention model, we continued working on the reinforcement and maintenance of the compliance culture, including training and raising awareness in the groups with a greater exposure to criminal risks, as well as the monitoring of the adaptation of this programme of compliance with the best practices established by national and international criminal compliance standards.'

of the General Data Protection Regulations, which has entailed and keeps entailing the permanent activity of the Legal Advice Department in management of contacts and settlement of queries, not only regarding the business, but also the regular dialogue with the company's DPO with the aim to collaborate on the implementation of the appropriate policies and processes in this sphere. Furthermore, and from the Compliance Officer association of which the Legal Advice department is part, the latter has carried out an accompanying task regarding the monitoring and adoption of the best practices in criminal compliance matters.'

E.- PEOPLE

ADAPTATION TO THE ENVIRONMENT AND PEOPLE MANAGEMENT

FÉLIX ARRIBAS ARIAS

Human Resources, Finances and Administration Director

The most remarkable projects developed and milestones achieved during 2018 – a very intense year in terms of work and major challenges – have been the following:

COLLECTIVE BARGAINING

After an intense collective bargaining process which took 14 months, in December 2018, the 3rd Collective Agreement of the EDP España Group was signed. The Agreement has been signed for a validity longer than the usual, up to 2025, and it was signed for the first time by all the trade union bodies present in the Group. This is why the agreement strengthens Social Peace and allows maintaining the existing good labour relationships. The Agreement's main results are reaching a more efficient and flexible working day, the unification of the different groups' working hours, the creation of a clearer and more sustainable career and the improvement of the Assessment System.

efr AND ESR CERTIFICATION

During 2018, EDP España has kept working on the improvement of the quality of life of its employees. In this sense, in February 2018, the internal and external Audits will confirm the renewal and improvement in EDP España's certification as EFR (Family-Responsible Company). In April, EDP España was also awarded the ESR (Socially-Responsible Company with its staff) seal, which recognises the companies that put at the disposal of their employees and families services allowing them to have personal-professional life balance and meet their daily needs.

TRANSFORMATION OF ORGANISATIONAL CULTURE We have started taking steps towards an All-Round Shift in Mindset and Culture that pursues and is based on more intuitive, dynamic and sustainable ways of working based on the openness and flexibility of the different teams. In the framework of these initiatives, we are developing the 'Ágora Project' to promote a more collaborative and digital work environment, taking into account the wellbeing of collaborators and the Shared North project, whose goal is fostering, through training, the role of the Manager in the management of the Company's shift towards new ways of working.

HORIZON PROJECT

A required dimensioning analysis has been conducted on business areas, which has identified the ideal staff for each Director's office and each department in order to carry out the activities in an efficacious and efficient way, taking into consideration the foreseeable milestones and the ageing of the staff. Now we face the challenge to monitor the annual evolution of the staff in order to reach the optimum dimensioning defined in the project in the temporary horizon of the current Business Plan.

VOLUN	TEERING	The number of volunteers participative Volunteering Skills and Solidarity. The 'Teach by Experimenting' provolunteers, through two simple experimentians, through two simple experiments and acquitation and the Clobal geographical areas, with a new of volunteer and you, when will you made this year achieve a high provolunteers, 834 beneficiaries and material statements.
DIGITIS	ATION	The digitisation process of the H improvement in the processes relations the functions of labour relationship Resources Platform, in which more as the new applied ways of working
GENDE	R EQUALITY	During this year 2018, 48 new emp new recruitments have been wome target of 27% women presence by

JOSE LUIS MARTINEZ MOHEDANO General Secretary and to the Board of Directors

As regards the actions developed during 2018, I would highlight, in the first place, in the sphere of business ethics management, the continuation of the training activities, emphasising two projects: the online training 'versão residente', launched in November 2018 for new employees or those who never received ethical training, and 'The Honesty Project', a game about the fight against corruption and bribery, which is a novel and original e-learning programme that uses the gamification format, addressed to higher technicians, executives of the Macrostructure and leaders of all the Business Units of the Group and which has been developed, just like the former one, through the online campus of Universidade EDP.

Following these training activities, throughout 2018, we have been preparing the ethical training programme

ipating in the different initiatives that are developed in arity Actions is increasingly higher.

project was launched for the first time, which allowed experiments, to bring the energy world closer to their cquaintances. EDP España Volunteering reached more nvolved the participation of more than 2,000 children.

al Volunteering Platform, a common space for all v and unified image. Under the motto 'I dare to be a ou dare?' a total of 9 initiatives were developed and h participation with more than 300 participants, 126 d more than €7,000 in donations.

Human Resources Management has attained an elated to management, information and reporting of ships. We should highlight the creation of the Human are than 2,000 staff records have been digitised, as well king based on new technologies.

mployees have joined EDP España's team. 42% of the men, taking thus a significant leap to reach the Group's by 2020.

for EDP España's suppliers, the development of which is expected for the first quarter of 2019.

Regarding the Criminal Legal Risk Prevention Model, we should stress the ongoing operation of the new Control Associate Body ('Compliance Officer') and its contributions to the improvement of the Model.

Finally, it should also be mentioned the update of the organisational structure of EDP Sucursal en España, with the consequent amendment of its Internal Regulations, with the aim to adapt them to the new OS/CAE on 'Afectação das áreas de gestão' of the EDP Group.

F.- SUSTAINABILITY

COMMITMENT TO SUSTAINABLE DEVELOPMENT

YOLANDA FERNÁNDEZ MONTES

Director for the Environment, Sustainability, Innovation and Quality

Sustainability is no longer an option. In a world in which the awareness of the importance of sustainability is increasingly higher, it is essential to promote the social, economic and environmental dimension in a joint route. The publication of Law 11/2018 on Non-Financial Information and Diversity, which requires than an auditor verifies its contents, gives legal shape to the Sustainability Report that EDP has been issuing since 2003.

Companies are increasingly aware of the fact that it is as necessary as beneficial to adopt a socially-responsible behaviour, for which EDP takes into account the 7 principles of Social Responsibility: Accountability, Transparency, Ethical Behaviour, Respect for the stakeholders' interests, and Respect for the rule of law, the international regulations and Human Rights.

In order to achieve the integration of Social Responsibility throughout the organisation, EDP develops through different areas of the company the seven fundamental matters, the implementation of which will be detailed in this report:

- EDP has been working on sustainable development for some time, being internationally recognised through its 10-year continuance in the Dow Jones Sustainability Index and maintaining its leading position in the most relevant sustainability indexes globally: MSCI, ISS ESG, FTSE4Good, Sustainalytics, among others.
- EDP publicly assumed the commitment to align its business strategy with Agenda 2030, which gathers the 17 UN Sustainable Development Goals (SDGs), adopting 8 of the 17 sustainable development goals as part of its strategy, to which it has added, in 2018, SDG 17 'Partnerships for the Goals', aware that, for the improvement of the society and the world we live in, it is necessary to establish cooperation partnerships between the private sector, the public administrations and other agents.
- EDP's strategy is not limited to the 9 SDGs established as a priority, but its action extends to all SDGs to the extent in which we take into consideration the relevant matters for our stakeholders.



In 2018, it has been 3 years since the approval of the Agenda 2030 for Sustainable Development and, with it, the Sustainable Development Goals.

And EDP's commitment to this Agenda is firm. In the New York Summit in 2015, it signed the commitment to SDG 7, affordable and clean energy, and SDG 13, climate action, and in 2017 the Board of Directors extended this commitment to a total of 8 SDGs: SDG 5, gender equality; SDG 8, decent work and economic growth; SDG 9, industry, innovation and infrastructure; SDG 11, sustainable cities and communities; SDG 12, responsible production and consumption; SDG 15, life on land.

Communication and transparency as regards sustainability is very important for EDP España. In spite that all the relevant qualitative and quantitative information is included in the Sustainability Report issued by the EDP Group, EDP España has prepared its own report since financial year 2003. This is a relevant fact, since, under the new domestic legal regulations, this report will become mandatory starting this year 2018.

EDP España has been a signatory of the Global Compact since year 2004 and it annually issues its Communication on Progress Report, which is published both on the website of the Spanish Global Compact Network and on the UN Global Compact website, being accredited as 'advanced'.

Our collaboration with the Spanish Global Compact Network, the most important global initiative regarding social responsibility, is continuous. In this collaboration, it should be highlighted the recognition we have earned this year, coinciding with the General Meeting of the Network, as Bronze Prescribing Partner, an award conferred by Lise Kingo, CEO and Executive Director of the UN Global Compact.

EDP. CHOSEN WORLD LEADER IN THE SOCIAL **DIMENSION OF THE DOW JONES INDEX**

At the request of the **General Supervisory Board, in November** 2018, the commitment was extended to SDG 17, partnerships for the goals, assuming that this is a strategic goal that integrates the remaining 16

UNITED NATIONS GLOBAL COMPACT

In the social dimension of sustainability, EDP remained the best on a global level. We should highlight the Social Investment programmes and activities developed by EDP's **Foundations and** several companies of the Group in the communities in which they operate

G.- TRANSFORMACIÓN DIGITAL

LUIS ÁNGEL RODRÍGUEZ VILLALBA Information Technologies Director's Office

During 2018, EDP España has kept on progressing in the digitisation process, deepening in the adoption of digital tools by the different areas of the company and adopting new more efficient ways of working. We have also tackled different technological innovation initiatives applied to the challenges of the energy sector. DIGITISATION PROCESS



In the retail systems sphere, the technological update projects of the Retail System have been completed, the commercial offer has been reinforced with the development of new products for residential customers and we have addressed a relevant set of adaptations regarding the regulatory changes that have taken place during the year. The efforts for the improvement of the customer experience on the online channels continue, including ongoing improvements in EDP Online, both on its web and mobile versions, as well as a full redesign of Mis Consumos application in order to make it more dynamic and improve the customer experience. We have also undertaken the first projects for the use of Cloud technologies in data Analytics aimed at the mass processing of consumption information.

In the sphere of Distribution Technical Systems, we have implemented a fieldwork mobility system which allows improving the performance times of the brigades in case of breakdown, and we have continued the improvement of processes in the Inovgrid area with the aim to reduce response times in case of incidents. DISTRIBUTION TECHNICAL SYSTEMS

SECURITY MASTER PLAN In the Information Security aspect, we have created the Security Master Plan, which includes the action plan to be followed in the upcoming years, at the same time that we continue improving our capacities on a technical and organisational level, in order to efficaciously and proactively respond to the growing threat in this area.

DATA PROTECTION REGULATIONS

Besides, and as a consequence of the entry into force of the new Data Protection Regulations, we have undertaken several actions on the information systems in order to comply with it.



In the Transformation programmes sphere, it should be highlighted the start of the Reconquest Programme, whose main goal is the implementation of new processes and systems regarding customer relationships as well as the improvement of the digital experience. We have also kept on working on the identification of Digital transformation initiatives and on preparation activities for the migration to Cloud.





WE LOVE SUSTAINABILITY



03 PERFORMANCE

3.1.	LABC	OUR PRACTICES	57
	3.1.1.	Employment stability	57
	3.1.2.	Health and safety	57
	3.1.3.	Social benefits	58
	3.1.4.	Training	60
	3.1.5.	LEAN	61
3.2.	ENVI	RONMENT	64
	3.2.1.	Environmental management	64
	3.2.2.	Climate change	65
	3.2.3.	Pollution prevention	68
	3.2.4.	Sustainable use of resources	69
	3.2.5.	Protection of biodiversity	71
3.3.	HUM	AN RIGHTS	73
	3.3.1.	Human rights governance	73
	3.3.2.	Diversity / Equal opportunities	74
3.4.	FAIR	OPERATING PRACTICES	76
	3.4.1.	Code of Ethics	76
	3.4.2.	Personal data protection	76

78

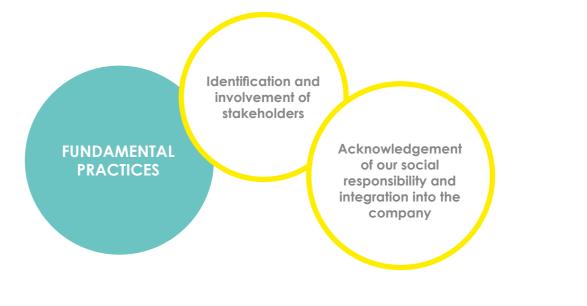
3.4.3. Sustainability in partner companies

3.5.	DEVE	LOPMENT OF THE COMMUNITY	79
	3.5.1.	Action plan for local communities	79
	3.5.2.	Innovation	84
	3.5.3.	Creation of value	87
3.6.	CON	SUMER AFFAIRS	88
	3.6.1.	Customer care	88
	3.6.2.	Vulnerable customer support	88
	3.6.3.	Smart grids	90
	3.6.4.	Sustainable mobility	92
	3.6.5.	Energy efficiency	94
	3.6.6.	Smart home	95



03 PERFORMANCE

Throughout this chapter, we will address the fundamental sustainability matters, taking into consideration the relevant issues identified by means of our open dialogue with the stakeholders and other indirect sources, which have resulted in our materiality study.



MATTERS

Labour practices	Environm
Fair operating practices	Community dev

Dialogue with the stakeholders

During 2018 we have kept working to contribute to an efficacious involvement of the different stakeholders. The principles governing our policy are:

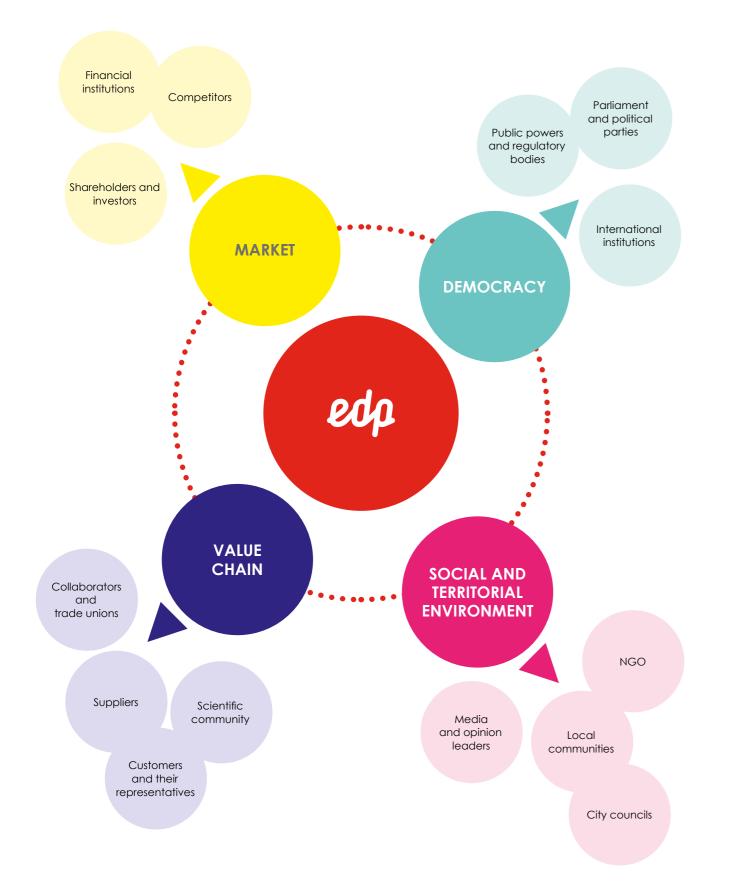


Thus, during 2018, we have maintained an open dialogue with all the stakeholders, especially: collaborators, suppliers, local communities, NGOs, the scientific community and city councils.

EDP España Sustainability Report 2018

nent Human rights evelopment Consumer affairs

SEGMENTATION OF EDP'S STAKEHOLDERS



3.1 LABOUR PRACTICES

3.1.1 EMPLOYMENT STABILITY

EDP has been included in the list of the 100 best companies to work for in Spain in 2018 issued by Actualidad Económica.

Each company has been assessed in six areas: talent management, remuneration and compensation, environment, Corporate Social Responsibility, training and employees.

3rd Collective Agreement of the EDP España Group

Year 2018 has been characterised by an intense Collective Bargaining Process which started on 19 October 2017 with the setting up of the Bargaining Table and ended after 14 months and 19 bargaining meetings with the signing of the Agreement on 20 December 2018.

The Bargaining was characterised by trade union unity, which remained as a trade union platform during the entire process, and by the absence of internal conflicts, strikes and pressure measures.

The 3rd Collective Agreement, with an 8-year validity, was signed for the first time in EDP by all the trade union forces present in the Group. The Agreement strengthens Social Peace and improves labour relationships, having as main goals the attainment of a more efficient and flexible working day, the unification of the different groups' working hours, the correction of the leaps in the salary scale, the removal of salary disparities and the improvement of the Assessment System.

3.1.2. HEALTH AND SAFETY

The organisation assumes occupational health and safety management based on people leadership, individual commitment, participation and effective communication as one of its values, aligning its practices with a management based on continuous improvement, in order to guarantee the health and wellbeing of all its workers, also seeking to extend this impact to the entire community.

Monitoring the different processes of occupational health and safety management is fundamental to the continuous improvement in health and safety management, which allows, through its indicators, to detect and correct deviations.

The value of EDP España's global health and safety management index has slightly improved in 2018 with respect to the value of the previous year, supported by a decrease in the total number of accidents in the group, both concerning the company itself and partner companies. The low accident rate in the electricity distribution area should be highlighted, taking into account the extreme situations in which works were carried out under extremely adverse weather conditions.

In this year, we should also emphasise the revision of the assessment model for the occupational health and safety management performance of our partner companies and the analysis of the impact this assessment must have on current contracts and future bidding processes. For this purpose, all the business areas and the Health and Safety Management Service have been involved.

In March 2018, ISO 45001:2018 'Occupational Health and Safety Management Systems' was published, the requirements of which include a high-level structure. This fact was the reason for another relevant action carried out by EDP, aimed at analysing and defining the necessary actions for the effective transition from our management system certified by OHSAS 18001 to the new standard, during the following year.



The value of EDP España's global health

slightly improved in 2018, supported by a

decrease in the total number of accidents

company itself and partner companies

and safety management index has

in the group, both concerning the



As for the Health Area, in 2018, the Spanish Association Against Cancer (AECC) and EDP España signed a Cooperation Agreement to jointly boost the development of actions based on health promotion, spreading of good habits and cancerprevention measures by means of campaigns, informative posters, etc.

Likewise, annual vaccination campaigns have been developed and medical recommendations have been made about dyslipidaemia especially regarding the working population aged between 45 and 65. Also, in this year, we have started to conduct tests on workers over 45 for early detection of macular degeneration and early detection of corneal opacities to prevent cataracts.

3.1.3. SOCIAL BENEFITS

In 2018, EDP España has maintained its commitment to **'EDP is Commitment to People'**, a portal that integrates the 'EDP is Work-Personal Life Balance', 'EDP is Healthy' and 'EDP is Plus Benefits' programmes, all of which are aimed at improving the quality of our collaborators' family and private life, through the promotion of healthy habits, benefits and measures regarding work-personal life balance.

EDP España was the first company based in Asturias to provide these services, being recognised as Socially Responsible Company with its Staff.

The positive impact of these measures is reflected on the results of the EFR survey conducted in 2018, in which collaborators have confirmed that 'the measures are satisfactory and they are going in the right direction' EDP España has also strengthened its commitment to the EFR (Family Responsible Company) model, a management model based on continuous improvement, which responds to a new work culture in corporate social responsibility. Collaborators may benefit from 86 measures, divided into 5 blocks and one additional block that distinguishes the measures that have a direct impact on Leadership and Management Styles.



VOLUNTEERING IN EDP ESPAÑA

Volunteering principles are part of EDP's culture and they are implemented by putting at the disposal of each employee four hours per month to perform volunteering actions within working hours in EDP Foundation's initiatives, EDP Volunteering's initiatives or even in the entity chosen by the volunteers themselves.

During 2018, a total of 19 initiatives promoted by EDP have been carried out, in which 130 volunteers have participated, which means a total of 1,400 volunteering hours.



One of the novelties to be highlighted, starting from 2019, is the new Corporate Volunteering Platform, common for all the geographical territories of the group, which allows knowing all the volunteering initiatives of the EDP Group, their details, their requirements and how to directly sign up for them.

ENERGY WEEK Teach by experimenting

EDP España Volunteering has evolved in recent years towards the development of initiatives increasingly participative in which Volunteering of Skills stands out. The Energy Week is especially remarkable with the initiative: 'Teach by experimenting', in which EDP volunteers imparted energy workshops in more than 34 education centres and 20 different cities across Spain. Plus, it was a great opportunity for parents to be the heroes in their children's classes for one day, which was a wonderful experience for parents, children and education centres.

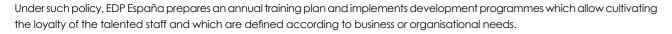
CHRISTMAS CAMPAIGN 2018/19 The Christmas Campaign 2018/19 has also stood out with different initiatives, from sport participations in charity tournaments to initiatives such as 'Let's get down to work', in which volunteers got involved in a special way to attain the goal to renovate a kitchen and a waiting room in the María Inmaculada Social Centre, adapting them for hosting educational workshops on cooking, housework and care of dependent people. The Christmas campaign ended with the children of that Centre receiving the visit of volunteers who, acting as Messengers for the Three Magic Kings, helped them to write their letters so on 6 January all these children could get the present they asked for. This is something natural for many kids, but extraordinary for them.

Thanks to all volunteers for their participation!



3.1.4. TRAINING

In accordance with EDP España's Policy on Training and Development of Human Resources, the development and update of the collaborators' expertise and individual skills is the essential condition to guarantee their satisfaction and professional fulfilment. Hence, they are fundamental for the maintenance of a smart, prosperous, innovative and extremely responsible business corporation.



In 2018, we should highlight that EDP España has committed to training and development programmes which go along the goal related to the change in mindset and work culture shift. This is why Shared North was created; this programme has been developed in the following initiatives:

LEAD NOW PROGRAMME FOR EDP ESPAÑA	We continued the development of the Lead Now Programme for EDP España , a corporate programme adapted by EDP España, started in 2017 and aimed at all the managers, whose goal is developing the management and leadership skills aligned with the Skill Model, thus implementing and standardising EDP's leadership style.
TALENT LEADING WORKSHOP	After having trained more than 220 managers in the Lead Now programme, we were able to obtain a road map to leadership development in EDP España , and in June we held a workshop on Talent Leading with the Management team in order to share the needs for talent development of the middle management, identifying the 'standard' profile of current leader and defining the 'standard' profile of ideal leader based on the needs of the company in upcoming years, reviewing global leadership trends and EDP's trends in Spain.
CULTURE LEADING	In July, we conducted a Leadership Culture Survey and, in September, the results were presented in a workshop aimed at the Management team, in which we identified strengths and weaknesses of the current culture, the trends of the desired/emerging culture and the urgent changes, which were used to define the strategic lines of change. A Culture Committee was created, comprised at the beginning by 10 people from different business areas and with different profiles, responsible for developing and implementing these strategic lines of change, which are: • Efficiency and nimbleness • Sustainable productivity • Improvement of the employee's experience
TOOLS FOR LEADING TEAMS	In order to accompany this process of change, we have held workshops on `Tools for Leading Teams in creativity and innovation. I drive transformation ', and specifically, in 2018, the following were imparted: • Team innovation through Design Thinking methodology • Workshop on Storytelling for human resources managers

EDP España is aware of the Digital Transformation process we are currently undergoing and, for this purpose, it has developed training programmes that seek to raise awareness of this culture shift, based on collaborative and nimble work, as well as to provide the necessary tools to EDP España's employees to face this process in a successful way.

3.1.5. LEAN

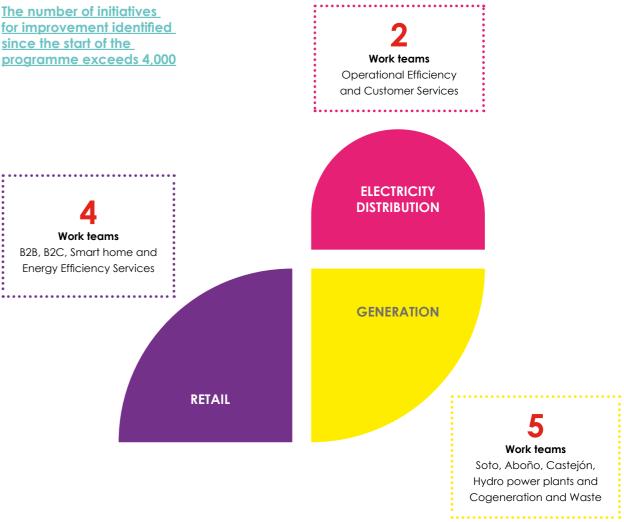
4 EDUCACIÓ DE CALIDA

LEAN is the continuous improvement methodology that EDP has been using since 2006. The success of this initiative stems from its own implementation process, through local improvement teams (in each work centre or business segment) which identify problems and opportunities, analyse causes and design and implement solutions, always seeking to create added value.

Likewise, these improvement teams aim to optimise processes, with an approach towards the efficiency of the organisation in all its aspects. This way, they lead to initiatives for improvement in operational efficiency and management practices, availability of equipment and installations, customer-focused initiatives or initiatives regarding occupational health and safety and environment.

There are currently 11 operating improvement teams with 123 collaborators directly involved:

The number of initiatives for improvement identified since the start of the programme exceeds 4,000



LEAN is implemented in EDP España by local teams, which means that each production centre and each business has its own team, whose mission is to channel initiatives for improvement in its area, both on a problem-solving level and regarding identification and implementation of opportunities for improvement.

Even though they are different production centres, areas or businesses, there are interchangeable key aspects: people development and excellence (in processes and in customer satisfaction). This is the reason why there are cross-cutting projects for the entire organisation - projects that 'go beyond LEAN': they are 'Meta-LEAN' projects.

EDP España Sustainability Report 2018



LEAN O2

LEAN O2 is the project that brings 'fresh air' into the programme, since it invites the interns who annually take their internships at EDP to participate and identify opportunities for improvement in the processes in which they collaborate.

Thus, in 2018, 129 interns (52%) have participated in Lean training events, and 4 work teams have been created including 20 'voluntary' interns. They have worked on 7 initiatives for improvement with an impact on Generation and Retail, out of a total of 80 proposed initiatives.

LEAN IBÉRICO

Lean Ibérico intends to go beyond our borders and seize the synergies that, without a doubt, exist between EDP's centres in Portugal and Spain. Lean Ibérico currently mobilises more than 100 collaborators from Spain and Portugal and, whereas 70 joint initiatives in Generation have been completed up to date, the 2018 portfolio includes 50 new initiatives, which proves the maturity of the programme.

In the Retail area, we should highlight the implementation of the 'kaizen newsletter' in commercial offices, which takes as reference the already consolidated Portuguese programme.

It should be stressed that the Senior Management is strongly committed to boost this programme as a way to integrate Iberian teams and improve the management processes common to both geographical territories, in an environment in which challenges are increasingly globalised.

LEAN+

In EDP España, the Continuous Improvement and R&D&i activities are coordinated through Lean+ initiatives. They are initiatives aimed at solving problems that, due to their complexity, require an external entity, such as a research centre or a university department, with the technological and scientific skills that Lean teams lack.

EDP España currently has 13 Lean+ initiatives in different stages of development, which aim to solve a varied range of problems such as the protection against surges in customers' installations, the simulation and optimisation of combined-cycle plants or the digital identification of customers for the signing of contracts.

13 INITIATIVES

LEAN COMMUNITY AWARD FOR THE 'BEST IMPLEMENTATION TEAM'

In the ceremony of the 5th anniversary of the LEAN Community, EDP España's LEAN Office received the award for the best implementation team, standing out for its capacity 'to carry out the implementation of a transformation project with perseverance and skills, both for leading projects and for transmitting its enthusiasm for continuous improvement'.

Since EDP España joined the Lean Community in May 2018, many activities have been jointly developed, actively participating in monthly benchmarking events with different partners, such as Siemens, Campofrío or Iberia, which were also attended by people from EDP's business.

In all the events, EDP España has been an example of good Lean practices, standing out in team work, involvement and people motivation, which has been undoubtedly the main reason for winning the award.

1st LEAN INNOVATION CONGRESS

Between 3 and 5 October, the First LEAN Innovation Congress was held in Asturias (http:// congresoinnovacionlean.com/). This congress, organised by InnovAsturias, which joined for the first time the Lean Institute and the Lean Community, had the support and remarkable participation of EDP.

Indeed, EDP was on the institutional table and put new energy into a multi-subject panel discussion which introduced the afternoon tables. The 'Lean and energy' table was exclusively in charge of EDP, and it involved the participation of different companies which discussed Lean as a model for continuous improvement in the sector. Other tables addressed topics related to Human Resources, Logistics, Services and Industry 4.0.

Likewise, the participants of the Congress took a tour in which they were able to assess how the Lean programme is implemented in the plants of La Malva and Aboño.



COLLABORATORS

INTERN

INITIATIVES



LEAN INNOVATION EVENT

In the month of March, the LEAN Community, national network of companies that stand out for the implementation of the LEAN methodology, visited the Soto de Ribera premises within the framework of a benchmarking event promoted by InnovAsturias. This event dealt with the innovative approach of LEAN implementation in EDP España, in the Generation, Distribution and Retail businesses, as focus of potential initiatives/innovation projects.

3.2 ENVIRONMENT

3.2.1. ENVIRONMENTAL MANAGEMENT

The environmental control of the installations is carried out according to EDP Group's Environmental Policy. In 2018, the Executive Board of Directors approved a new policy which was ratified by the Board of Directors of EDP España on 27 July 2018.



ENVIRONMENTAL POLICY OF THE EDP GROUP

EDP considers the environment a strategic management element; thus, and for the purpose of reducing the impacts of its activity, it has assumed a series of commitments guaranteed through the implementation and upkeeping of appropriate and efficacious environmental management systems which contribute to sustainable development:



The environmental effects of EDP España's activity are mainly caused by the Generation and electricity Distribution businesses.

Both the Generation and electricity Distribution activities have implemented an Environmental Management System (EMS) in accordance with ISO 14001 in all its premises and activities; the Retail area has also implemented an EMS for the maintenance of the corporate centre in Oviedo (Plaza del Fresno), which is the main impact associated with its activity.

The Distribution and Retail EMS were already adapted to the new ISO 14001:2015 in 2017, and the adaptation of the Generation EMS was completed in 2018, unifying procedures and operating instructions among the different premises, so this year all the businesses are already fully adapted to the new standard.

3.2.2. CLIMATE CHANGE

COP24

Following the global initiatives regarding climate change, between 3 and 14 December, the COP24, that is, the 24th Conference of the Parties to the Convention on Climate Change, took place in Katowice (Poland).

Its main goal was a technical goal key to implement the Paris Agreement: defining the rules for assessing the national commitments to emission reduction. This is how the 'Paris Rulebook' was approved, as a document defining the communication, control and revision criteria for these commitments.

As regards USA, it led, displaying a marked geopolitical attitude, a series of countries which showed their disagreement and withdrew from the Agreement.

NEW DIRECTIVE ON EMISSION TRADING

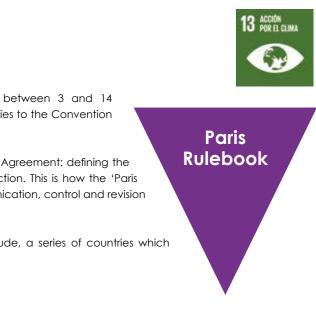
The European Union passed Directive (EU) 2018/410 in March 2018 which, following a continuity approach, maintains the emission trading system as the main tool to reduce greenhouse gas emissions and the compliance with the EU targets for 2030, but intensifies the cost-reduction mechanisms and facilitates investments in low-carbon technologies.

The main novelties of the new directive are:

- It sets an annual 2.2% linear reduction in emissions in the market (1.74% in the current period).
- Free-allocation mechanisms are substantially reformed, hardening the necessary requirements for obtaining free allowances.
- which basically consist of two new funds: Innovation and Modernisation.
- be withdrawn.

Besides, in May 2018, the European Commission presented the first communication on the total number of permits in circulation in 2017 for the purposes of the Market Stability Reserve Mechanism, which amounted to 1,655 Mt of CO₂. As a consequence, by virtue of the new ETS Directive and the Decision that established the MSR, during 2019, 265 Mt CO, will be withdrawn from the market.

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• The member states may exclude the installations that emit less than 2,500 t CO, without needing to propose equivalent

• The Commission will create supporting mechanisms to help the industry and the energy sectors in the energy transition,

• The MSR (Market Stability Reserve) mechanism is reinforced, allowing it a substantial increase in the allowances that may

LAW ON CLIMATE CHANGE AND ENERGY TRANSITION

The new Ministry for Ecological Transition presented in November 2018 the first draft of the bill on climate change and energy transition. As it is stated therein, this law aims to guarantee the compliance with the Paris Agreement on the fight against climate change and guarantee the total decarbonisation of the Spanish economy in the second half of the 21st century.

The main elements of the law are:

Emission of green-house gases

It establishes very ambitious targets regarding the reduction in greenhouse gas emissions, specifically a 20% reduction by year 2030 with respect to 1990 levels, which is equal to a 48% reduction with respect to year 2005, when the historical maximum of emissions was reached in Spain. By 2050, greenhouse gas emissions should be reduced by 90% with respect to 1990 levels.

Electricity system

It sets the goal that, by 2030, the electricity system should have a 70% generation from renewable energies and energy efficiency should have improved and, by 2050, the electricity system should be based exclusively on renewable sources.

In order to attain this goal, it intends to boost renewable energies and, for that purpose, it plans to promote, between 2020 and 2030, the establishment of a minimum of 3,000 megawatts of power per year in plants producing electrical energy from renewable energies (competitive).

Use of fossil fuels

The bill aims to put an end to the use of fossil fuels, hence it proposes that, when the law enters into force, no new authorisations for performing exploration activities, research permits, concessions for hydrocarbon exploitation or fracking activities will be granted. Likewise, it will prohibit the establishment of new subsidies or economic incentives favouring the consumption of fossil fuels, as well as the participation of the Central State Administration in any way in activities related to these fuels.

Fair transition strategy

The law will include a 'Fair transition strategy' which guarantees a 'fair and caring' treatment to the territories and workers of the sectors affected the most by the transition to a low-carbon economy, including measures to boost economic recovery in those places.

The law will come with two packages of measures: the National Energy and Climate Plan, which is expected to be presented before next 31 December, and the Low-Emission Strategy 2050. These documents will supplement the law and establish the specific measures that will allow attaining the climate goals contained therein, such as for example the definition of the energy mix for the upcoming years.

DEVELOPMENT OF THE CLIMATE CHANGE STRATEGY IN EDP ESPAÑA

In the context of the EDP Group's climate change strategy, EDP España has developed several initiatives among which those summarised below should be highlighted.

ADAPTATION TO CLIMATE CHANGE

The effects of climate change are already being felt in many sectors and regions worldwide, and it is therefore essential to develop actions aimed at reducing the negative consequences thereof. The Paris Agreement sets out the need to develop strategies to increase resilience and mitigate the effects of climate change, as well as to take advantage of opportunities that may arise.

Adaptation to climate change is thus becoming as important as mitigation, especially in a key sector such as the energy one, which is highly exposed to changes in climate variables which already affect all the different phases of activity: supply, production, distribution and demand.

In this context, EDP is carrying out a diagnosis of its adaptation needs in order to find out which regions and business lines could be most affected by climate change. Subsequently, on the basis of the diagnosis, an Adaptation Plan will be prepared with the actions to be implemented in the coming years.

The adaptation study employs the methodology developed by IHOBE (the Basque Environmental Management Company) that is aligned with the proposal of the last evaluation report from the Intergovernmental Panel on Climate Change and that has already been used by other companies in the energy sector.



The installations and activities included in the diagnosis were thermal power and cogeneration plants, hydraulic groups, electricity distribution activity (substations, transformation centres and overhead lines) and retail activity.

Although climate risks are established in the medium/long term, adaptation measures have to be taken in the short term because of the long implementation periods

Meanwhile, the weather factors taken into consideration have been the increase in temperature, the variation in rainfall and extreme weather events, for which climate forecasts produced by official sources, mainly the State Meteorology Agency (AEMET) and the Principality of Asturias, have been taken into account.

Data on extreme episodes recorded at EDP facilities such as reduced water availability, flooding events, discharge limitations due to increased water temperature and others have also been taken into account.

As for the temporal scope, simulations have been carried out for the years 2039 and 2100.

TCFD REPORT

In year 2015, the Financial Stability Board, after a specific request by the G20, created the Task Force on Climaterelated Financial Disclosures (TCFD) with the aim to tackle the impact of climate change on companies and on the global financial system, issuing a set of recommendations on transparency that facilitates a more informed decision-making process for investments, credit and insurance. In June 2017, the TCDF published the set of its recommendations with the initial support of big corporations and the subsequent backing of the European Commission. <u>The main conclusions of the report</u> <u>emphasise that the risks related to climate</u> <u>change are completely integrated into</u> <u>the risk identification, assessment and</u> <u>management process of the EDP Group and,</u> <u>in the specific case of EDP España, it has</u> <u>identified its own risks and opportunities, it</u> <u>has assessed the magnitude of its potential</u> <u>impact, it has prioritised them and it has</u> <u>defined specific actions to manage them.</u>

The TCDF report aims to become a mandatory requirement for quoted companies.

In 2018, a pilot project has been executed in EDP España for its subsequent escalation to other business units of the EDP Group, involving the participation of EDP's Sustainability and Risk Managements and KPMG's advice.

The methodology used includes a detailed analysis of Corporate Governance, Climate Strategy, Risk Management, the analysis of the different climate scenarios and the establishment of metrics and targets.

The risk and opportunities related to climate change are grouped into different categories

TRANSITION RISKS

requirements

The transition to a low-carbon

requirements in the spheres of

the mitigation and adaptation

policies, legislation, technological changes or market shifts to tackle

economy can imply major

PHYSICAL RISKS

The physical risks derived from climate change may be caused by extreme events (acute risks) or by changes in long-term climate patterns (chronic risks). Both involve financial impacts such as damage to assets or alterations in the supply chain

OPPORTUNITIES

LThe efforts to mitigate and adapt to climate change also create opportunities for companies, such as improvements in efficiency and cost saving, development of new products and services, access to new markets and increases in the resilience throughout the supply chain

3.2.3. POLLUTION PREVENTION

In August 2017, the European Commission published the Decision including the BREF for Large Combustion Plants (Best Available Techniques Reference Document). This date marks the start of the maximum 4-year period to review, once again, the Integrated Environmental Authorisations to incorporate the Best Available Techniques (BAT) and the associated emission levels (BAT-AEL).



During 2018, a diagnosis has been conducted on the position of EDP's thermal power plants with respect to the compliance with the best available techniques (BAT). The environmental investments made in recent years meet the main requirements. As for the rest, EDP has already started to project and execute new adjustment measures, some of them through the LEAN programme.

AIR QUALITY

As a consequence of the Air Quality Improvement Plans for the areas of Gijón and Central Asturias (approved by the Government of the Principality of Asturias in 2014), a Protocol has been prepared and approved for weather conditions that hinder the dispersion of pollutants in the atmosphere. The purpose of this Protocol is to establish the framework for action by Public Administrations in specific air pollution episodes and includes various measures in the areas of information, traffic, the industrial sector and others aimed at the service and institutional sectors.

The Protocol considers two types of air pollution scenarios (Level 1 and Level 2) and a preventive scenario (Level 0), which corresponds to a previous level that includes the monitoring and the adoption of preventive measures and recommendations aimed at preventing the conditions of an air pollution episode from being reached. The activation of the protocol obliges the plants to adopt certain measures to reduce fugitive particle emissions, such as increasing the irrigation of roads and coal parks, reducing transportation by trucks and the transfer of solid materials and in general, maximising preventive measures.

The Protocol was not activated for the Gijón agglomeration during 2018, while Level 0 (preventive) was established in the Oviedo area on 17, 18 and 19 November, forcing the Soto de Ribera plant to implement the preventive measures agreed in the plan and in the authorisations, with no direct consequences for the operation of the plant.

3.2.4. SUSTAINABLE USE OF RESOURCES

Since 2015, the European Commission has been actively working on measures to promote Europe's transition to a circular economy, where resources are used in a more sustainable way. At a state level, the Government continues to draw up the Spanish Circular Economy Strategy to improve the use of natural resources.

One of the main European initiatives to raise awareness about waste is the European Week for Waste Reduction, which this year took place between 17 and 25 November. The actions taking place during this week have a multi-R approach, which opens up multiple circular economy options: from reuse and recycling to redesign and remanufacturing.

This year has seen a focus on the prevention of hazardous waste under the slogan 'Time to Detox', with the aim of reducing the use of substances that are hazardous to the environment and health. EDP España presented the **'Sustainable Substations'** initiative, as an example of re-engineering that has produced the first substation (SS) without mineral oil and without SF6, two of the major factors behind the environmental footprint of these installations: the substations in Biedes (Asturias).





MINERAL OIL:

Mineral oil is a liquid that has been used since ancient times for its good insulating and cooling characteristics. In electricity distribution, it is used in transformers, switches and instrument transformers.

Vegetable oil is biodegradable (85% degrades in 28 days), non-toxic (no risk phrases on the label) and additionally, it has a higher flash point than mineral oil (330 °C).

SF6:

SF6 is a gas with very good insulating properties that has been widely used in electricity distribution since the 1990s. It was used as insulation to reduce the size of installations and as a means of extinguishing the electric arc in circuit breakers, replacing oil circuit breakers, but has a potential greenhouse effect 22,800 times greater than that of CO_2 .

This equipment is replaced by vacuum switches for medium voltage both for indoor and outdoor use.

These lines of work are being progressively transferred to other substations, as improvement or extension projects are undertaken.

Other environmental improvements that are being developed include aspects such as reducing the visual impact of the installations and collaborating in their integration into the surrounding landscape, both urban and rural. An example is the Lloreda substation, located in an industrial environment susceptible to vandalism (graffiti), which motivated the artistic work carried out in 2018, 'The influence of light in dark space', by the Asturian artist Israel Sastre. The mural measures 20 metres wide by 4 metres high, and uses different luminous paints, which vary according to natural lighting.



3.2.5. PROTECTION OF BIODIVERSITY

The EDP Group's Biodiversity Policy aims to take into consideration the potential impacts of activities on biodiversity, which is why knowing the natural resources in the areas of EDP España's plants is a priority.

Following the passing of the Environmental Responsibility legislation, three priority issues arose in EDP:



2ª AN CA

In order to be informed about the condition of the installations and the possibility of environmental incidents occurring, all EDP España's thermal generation plants have their respective Risk Analysis (RAs) according to the methodology developed for the electricity sector, and those corresponding to hydro power plants, of a voluntary nature, will be completed in 2019.

With regard to potential incidents and damage-measuring methodology, EDP has developed an environmental risk information and control system, which integrates all the environmental information required for this assessment and for responding to the Administration quickly and efficiently, if necessary.

This system collects georeferenced information relating to aspects such as surface and groundwater bodies, flora and fauna species, protected areas and habitats, and ecosystem services present. All this information is now available for all power plants, both thermal and hydraulic, together with documentation from official bodies, recognised scientific bodies and our own specific field work. EDP España Sustainability Report 2018



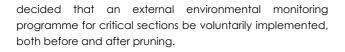


IN CASE OF AN INCIDENT, HOW CAN WE MEASURE THE DAMAGE CAUSED?

Finally, and in response to the third question, in order to finance the potential damage that may be caused to the environment, the EDP Group has taken out an insurance policy as a financial guarantee for all its facilities in all the regions in which it operates.

As specific work on the subject, in 2018, we should stand out the characterisation of the surroundings of the La Malva power plant in the vicinity of the Somiedo river, 4.5 km downstream to the La Riera power plant, all of which are included in the Somiedo Special Area of Conservation (SAC).

The conservation status of the alluvial forests of Alnus glutinosa and Fraxinus excelsior has been studied as a representative figure, together with the unique presence of the Portuguese oak (Quercus faginea subsp. faginea), and among the fauna, otter, golden eagle, Egyptian vulture, different passerines, smooth snake, slow worm, pine marten, shrew, common midwife toad, Iberian emerald lizard, common frog, gold-striped salamander, viperine snake, etc.



As a result of the implementation of these detailed monitoring activities, no incidents in this area were recorded in 2018.

Another aspect of biodiversity in Distribution is the protection of bird life, the applicable legal framework of which is not fixed since it requires the publication of the inventories of dangerous lines in each Autonomous Region, and the establishment of ways of financing adaptation projects through the State Budget.



3.3 HUMAN RIGHTS

3.3.1. HUMAN RIGHTS GOVERNANCE

EDP has assumed a public commitment to Human and Labour Rights through the 'Public Declaration of Commitment to Human Rights' approved by the Board of Directors in 2017, which completes the internal framework of conduct already established through other codes and policies, such as the Group's Code of Ethics, or the Principles for Sustainable Development and the Guiding Principles on Business and Human Rights (Ruggie Principles), both established by the United Nations.

Together with this public statement, the governance of Human and Labour Rights in EDP involves the assessment of potential impacts, from a context of due diligence, adoption of ethical regulations and supplier screening process (selection, assessment and audits).

Finally, for monitoring and reporting, there is a Human and Labour Rights Monitoring Programme, in effect since 2015, through which the degree of compliance with the Policy is verified annually and potential improvements to be implemented are identified.

In this way, all the Group companies report the progress of this monitoring in accordance with the following matters:

EMPLOYEES
Salaries in arrears or unpaid
Overtime excess
Excess of continuous working hours
Breach of the right to weekly rest/vacation
Salaries under the minimum legal/contractual salary
Prohibition of Collective Representation/Association rights
Child labour
Youth labour in risk activities
Lack of training/ protection and safety equipment
Breach of the right to medical leave
Breach of the right to family assistance

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OUR INTERNAL REGULATIONS ARE ALIGNED WITH THE RUGGIE PRINCIPLES

Forced	labour	

Hiring illegal workers

Use of workers without a contract

Inadequate conditions for seconded workers

Personal data breach

Gender discrimination in salaries and duties

Racial discrimination

Sexual harassment

Verbal harassment

Physical violence

SUPPLIERS	
Salaries in arrears or unpaid	Forced labour
Overtime excess	Hiring illegal workers
Excess of continuous working hours	Use of workers without a contract
Breach of the right to weekly rest/vacation	Inadequate conditions for seconded workers
Salaries under the minimum legal/contractual salary	Personal data breach
Prohibition of Collective Representation/Association rights	Gender discrimination in salaries and duties
Child labour	Racial discrimination
Youth labour in risk activities	Sexual harassment
Lack of training/ protection and safety equipment	Verbal harassment
Breach of the right to medical leave	Physical violence
Breach of the right to family assistance	

CUSTOMERS	
Undue power cuts	Trespassing
Power cuts to chronically ill people dependent on electricity	Physical violence
Personal data breach/privacy breach	

COMMUNITY	
Respect for the local communities' customs and habits	Non-reinstatement of rights
Misappropriation of private property	Physical violence

As regards EDP España, in 2018, there has not been any incidents related to employees or any local community.

With concern to suppliers, 9 incidents have been recorded; and in the case of customers, there have been 3 specific procedures regarding the data protection law and 61 undue powers cuts due to incorrect procedures. For all these cases, EDP carries out an exhaustive monitoring in order to solve them in the fairest possible way, and preventive measures are defined to prevent them from happening again.

In this respect, the Conduct Code for Suppliers, approved in May 2017, covers all the potential cases related to human and labour rights, guaranteeing that all their activities are performed without using violence or abuse, and rejecting any complicity with human right violations. This Code must be accepted by all EDP's suppliers, taking the principle of greatest exigency as reference point.

3.3.2. DIVERSIDAD / IGUALDAD DE OPORTUNIDADES

The EDP Group includes in its declaration of commitment to the Sustainable Development Goals its support to SDG 5, Gender Equality, convinced of the driving role that companies can play to achieve a fairer and more equal society.



In this sense, gender discrimination is envisaged in the Collective Agreement and in the Code of Ethics, among other documents, including specific measures regarding effective equality, work-personal-family life balance measures, psychological, physical, sexual or gender-based harassment, protection measures for victims of gender-based violence, or disability matters, being the equal treatment and the removal of barriers the main milestones.

EDP's Diversity 2018 goal, following the goal set in the previous year, is attaining '30% of women employment in the recruitment processes for senior positions or increasing the latter by 10% with respect to year 2017'. The goal has been attained, since 16 women were recruited, out of a total of 40 recruitments, which means 40%.

Likewise, the percentage of women in management positions has grown 3 points with respect to year 2017, and the percentage of women promoted to under-represented positions (IWRM 1-4) has almost reached 71%.

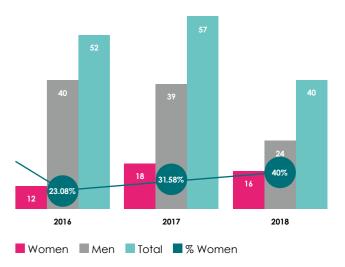
WOMEN IN MANAGEMENT POSITIONS



EDP ESPAÑA SPONSORS THE STEM TALENT GIRL PROGRAMME IN ASTURIAS

STEM Talent girl is a professional mentoring project addressed to 13-14-year-old girls with the aim to inspire and boost them to take STEM careers - careers with high potential for their future employability but which are currently under-represented in terms of female presence.

Through different training programmes and master classes given by women with successful



EQUAL ACCESS TO EMPLOYMENT

NUMBER OF WOMEN PROMOTED TO **UNDER-REPRESENTED POSITIONS IWRM 1-4**



stemtalent

professional careers in male-prevailing spheres, it aims to empower these girls and promote future female leaders.

The programme is developed in Asturias with (Automatismos y Sistemas de Transporte Interno), together with the CTIC as local partner, Technology, supported by, among others, the Principality of Engineering & Asturias and FADE.

STEM: Science, Technology, Engineering & **Mathematics**

3.4. FAIR OPERATING PRACTICES

3.4.1. CODE OF ETHICS



In 2018, EDP remains in the list of the world's most ethical companies, published each year by the Ethisphere Institut (https://www.worldsmostethicalcompanies. com/honorees/)

For ethics management purposes, we are provided with the EDP Group's Code of Ethics and its implementation Regulations, which regulate the organisation of the ethics channel as the main tool for communicating and reporting potential breaches, as well as for solving doubts.

Developing the ethical process and guaranteeing of impartiality and objectivity in the processing of all claims is the responsibility of the Ethics Supplier, in his/her capacity of independent person supervising the entire cycle of the process.

In order to support ethics management, in 2018, all the members of EDP's staff have taken the online course titled 'The honesty project'. It is the first online training experience in EDP regarding the fight against bribery and corruption, and it should be highlighted that it is set up in a gamification format, as a game that seeks to raise awareness about these matters through practical cases. The training was aimed at senior technicians, managers and executives, that is, all the people that might be in more risk of corruption or bribery.

3.4.2. PERSONAL DATA PROTECTION

The execution of the adaptation project to the new data protection regulations (hereinafter, GDPR) started in 2017 continued in 2018, with the aim to establish the technical and organisational measures necessary for the compliance with the obligations introduced by the GDPR and to guarantee the rights of data subjects.

WHICH WERE THE MAIN MILESTONES OF THE IMPLEMENTATION PROJECT IN EDP?

PROCESSING RECORD AND RISK ASSESSMENT We conducted a survey and gathered documentation regarding the personal data processing activities carried out in EDP España, as well as an assessment thereof according to the risk and impact for data subjects. The principle of self-regulation is one of the innovative aspects introduced by the New Data Protection Regulations. In this sense, the EDP Group developed its own methodology for privacy risk analysis, taking into consideration the guidelines and reference rules published by entities and organisations specialised in the matter.

APPOINTMENT OF THE DATA PROTECTION OFFICER BY EDP ESPAÑA

The EDP companies in Spain appointed in the month of May a data protection officer (hereinafter, DPO) in all the companies of the group, which is a role in charge of advising and monitoring the company with regard to this matter and guaranteeing an appropriate processing of personal data. Any interested party may contact EDP España's DPO to manage any issue related with personal data processing.

APPROVAL OF THE GOVERNANCE MODEL AND PERSONAL DATA PROCEDURES The Board of Directors of EDP España approved a governance model, as well as a series of cross-cutting procedures and mechanisms regarding data protection, which establish the different attributions and duties assigned to the business and corporate areas, which must be taken into consideration in the implementation, development, documentation and supervision of the compliance programme on this matter. This governance model is, together with the DPO, the main guarantor of EDP's commitment to personal data privacy.

DATA PROCESSORS The collaboration and involvement of EDP's suppliers to ensure the compliance with the new requirements introduced by the GDPR are a cornerstone of our compliance programme regarding privacy. In the project, a model for the relationship with our suppliers with access to personal data was implemented for the purposes of establishing the criteria to determine the criticality of the services provided, the specifications to be taken into consideration in the service agreements and the organisational and security measures that must be met to carry out a correct processing of personal data.

AWARENESS AND TRAINING REGARDING DATA PROTECTION Raising awareness and strengthening the privacy culture of all the employees of EDP España has been one of the main focus of our adaptation project. Throughout the year, we carried out several informative campaigns addressed to employees, through articles in the internal magazine 'edpon' and through the specific section dedicated to the GDPR of the corporate intranet, with the aim to inform them about the novelties introduced by the new GDPR, as well as the measures taken by EDP to face the new challenges introduced by the GDPR.

In the training area, we conducted a cross-cutting e-learning addressed to all the employees, dealing both with the changes in the requirements already set out in the former regulations (new rights, information and consent, etc.) and the new obligations and concepts introduced (privacy from a design approach and by default, security breaches, impact assessments, etc.)

Additionally, we developed several specific sessions addressed to the teams in charge of the implementation project in each of the businesses and corporate areas, as well as specific training addressed to the employees in the retail area.

INFORMATION SYSTEMS AND SECURITY MEASURES Ensuring the compliance with the requirements set by the GDPR required a detailed analysis of the information systems that process personal data in order to adapt them to the functional requirements and to the security measures defined by EDP in the project scope, both applicable on a cross-cutting and a specific basis according to the criticality and risks of the processing activities developed in each information system.

3.4.3. SUSTAINABILITY IN PARTNER COMPANIES

EDP acknowledges the importance of involving its partner companies in the sustainable management of the company.

The collaboration between EDP and its value chain fosters a reduction in environmental impacts, the search for more efficient products and the development of new opportunities for innovation.

By means of the acceptance and compliance with the Conduct Code, which is a contractual obligation, EDP's suppliers must adopt sustainability policies in their purchases and make everything in their power to guarantee equivalent stringency levels in their own supply chains.

During year 2018, audits have been conducted on 100% of EDP's critical suppliers. A total of 112 suppliers have been assessed according to sustainability criteria, and they have been communicated their performance, as well as the areas and aspects that need to be improved. The quality of the provided service has been assessed at 85% out of 100%, standing out the environment area, in which no significant incidents have occurred.





3.5. DEVELOPMENT OF THE COMMUNITY

3.5.1. ACTION PLAN FOR LOCAL COMMUNITIES

EDP España understands social responsibility as the control of the impact of the company's decisions and activities on society and the environment. In the exercise of social responsibility, EDP España considers stakeholder participation to be key to the process, paying close attention to stakeholder issues, concerns and expectations in order to identify and establish a full understanding of EDP España's impact. One of the priority stakeholders are Local Communities, for which EDP España approved an Action Plan in November 2017.



The priority scope of the plan is the Local Community in the area of the Generation plants.

In parallel, in March 2018, EDP España's Policy on Social Investment was approved, in accordance with EDP Group's Policy on Social Investment, which is based on the United Nations Sustainable Development Goals, the international good practices regarding Social Investment, the 2020 Sustainability Targets and EDP Group's Strategic Plan.

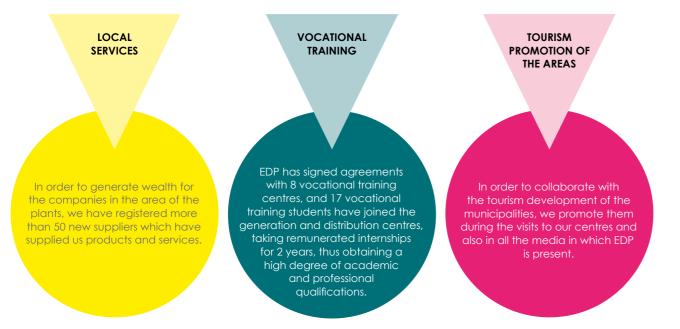
The initiatives developed in this Action Plan for Stakeholders are part of EDP España's Social Investment Plan.

Based on these premises, this Plan has been developed throughout 2018, and it has allowed us to progress and strengthen our stakeholder management model, helping us to establish a closer relationship between EDP and the local community near our production centres.



CREATION OF LOCAL EMPLOYMENT

The creation of employment is the main concern of the local community and during 2018, the following initiatives have been developed:



LOCAL ENVIRONMENT

Another main concern of the local community is the environment and the following initiatives have been carried out:

Local environmental projects:

EDP started in 2018 several projects, on a multi-annual basis, with the aim to promote the protection, study and development of the natural heritage and biodiversity. The following should be highlighted:

Cooperation agreement between the Fund for the Protection of Wildlife (FAPAS), the Oviedo Kayak Sports Club and EDP

For the identification and recovery of native animal and plant species and the identification of invasive species to carry out habitat conservation measures. The study and recovery area is located around the Soto de Ribera thermal power plant. The entities will pay special attention to endangered and protected species, and to the control of invasive species to facilitate the re-establishment of natural NALÓN RIVER IN communities. The three entities will THE THERMAL POWER work closely together over the next PLANT OF SOTO three years.

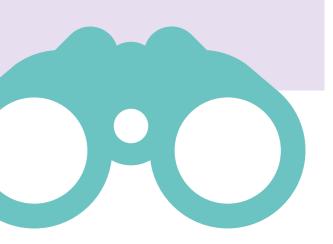
For the president of FAPAS, this agreement 'is very relevant because we are going to collaborate with other organisations such as Kayak and EDP, which will carry out environmental surveillance of the area and support the conservation of biodiversity. In addition, EDP will provide us with the electrical support necessary for the recovery of bats,

a species that is very endangered in urban areas." From the sports club, in the words of its president, 'this cooperation agreement with FAPAS and EDP will allow us to contribute to the recovery of species with which we are in contact in the river and the conservation of the riverside areas'.

DE RIBERA

FAPAS will train and advise the collaborators of the sports club and EDP to facilitate the identification of the species. They will also make available to them the necessary procedures for monitoring and inventorying the species, which will provide detailed information on their conservation condition.

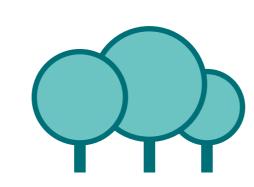
The results obtained in this first phase of monitoring and observation will make it possible to take direct intervention measures aimed at the preservation and recovery of native species, as well as the elimination of invasive species.



Agreement between EDP and BTT Areo

For the purpose of recovering a service for the inhabitants of the municipality, there is a planned intervention in the Areo Hill, located in the municipality of Carreño, very close to the Aboño Thermal Power Plant. This area has a huge cultural heritage of dolmens and it is the junction of historical roads, such as the Santiago Road by the Asturian cost or the Ruta de la Plata Road.

AREO HILL, IN THE MUNICIPALITY OF CARREÑO





In collaboration with BTT Areo, we will carry out a project to replace eucalyptus by native trees in the municipally-owned areas, as well as road clearing and cleaning works in order to recover ancient routes and fountains and promote the area for different cultural and sport activities.



Environment's Day

With the aim to raise environmental awareness in the local community and highlight the importance of environmental management in generation premises, throughout 2018, open-day events were held in the generation plants of Aboño, Soto, Castejón and Proaza, in which technicians thereof conducted guided tours and explained their history, operation and the environmental commitment to all the attendees. These tours, which were attended by more than 1,200 guests, were accompanied by musical performances of local groups and tastings of products served by local suppliers.



OPEN-DAY EVENT IN ABOÑO, SOTO, CASTEJÓN AND PROAZA

COMMITMENT TO THE LOCAL COMMUNITY

This programme has several initiatives to be implemented, among which the following stand out:

Local sponsorships

Through the different generation plants, several collaborations of different nature are carried out with non-profit organisations regarding local cultural, education, social and environmental aspects of the local communities, thus creating a closer bond between EDP and the communities near its plants.

Local services and products

Typical products from the areas nearby the facilities have been selected among local suppliers to treat the people that visit the plants.

Technological colonies

With the aim to promote digitisation among the young people of the local community, technology workshops promoted by EDP have been carried out. A total of 77 children, aged between 10 and 15, from Candás and Soto de Ribera, were able to benefit from this initiative in weekly sessions of 4 daily hours during school holidays.





They are developed through the following initiatives:

Contact point

Direct communication channels with the City Councils and the communities were established in order to provide direct news considered of general interest for the community.

Training actions

EDP, following its interest in promoting dialogue and participation with the local community, held several Awareness and Information Events on topics related to EDP.

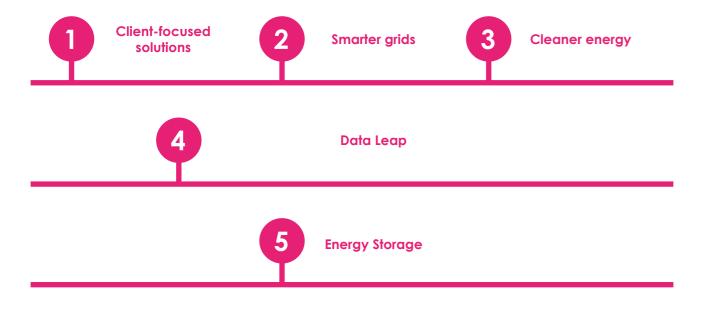
Among those actions, we should highlight the talks on the social discount in order to pass the information to the largest number of people and facilitate their processing, as well as the EDP Seminars imparted in the higher schools of engineering of the University of Oviedo.



3.5.2. INNOVATION

EDP España's R&D&i activities are structured by means of an Innovation strategy based on five strategic lines, out of which three are aligned with the retail, distribution and generation businesses and the other two tackle cross-cutting aspects common for all businesses.





Each line has been appointed an Innovation Coordinator, who works in close collaboration with the R&D Department on the identification and development of innovation projects.

CONSOLIDATION OF EDP STARTER IN SPAIN

EDP Starter is the programme through which EDP helps start-ups to accomplish their innovative ideas in the energy sector and it is particularly focused on product development. Thus, it supports entrepreneurs from the

identification of an initial idea up to taking up a stake in the new company, including the middle stages: prototype creation, incubation and pilot project. In 2018, EDP has consolidated in Spain the main actions of the programme.

EDP STARTER ACCELERATION PROGRAM

One of the EDP Starter actions is the Acceleration Program by means of which EDP helps start-ups to accelerate the development process of their entrepreneurial proposals. During May and June 2018, the second EDP Starter Acceleration Program took place in Spain, in which thirteen start-ups in the energy sector participated. The activities were carried out in Google Campus Madrid and resulted in the selection of five start-ups (DotGis, Koala, CARTO, e-SAVE and 4Securitas) with which EDP España has started executing pilot projects.

PILOT PROJECTS WITH START-UPS



SENTIMER CHATBOTS

The start-up that won the EDP Starter Acceleration Program 2017 developed in 2018 a chatbot for EDP which is operating on the EDP Carrefour Plan site and which allows customers to execute procedures with a virtual assistant.



DOTGIS

This specialist in applications and services based on Geographic Information Systems (GIS) is developing a pilot project to optimise the management of the cutting and pruning processes that are executed in the electricity distribution area.



KOALA LIFTER

It is promoting a project for the validation of an innovativeIn the information technologies sphere, the Irish start-uplifting system for the replacement of the wind turbine4Securitas executed a project based on the managementblades in a wind farm of EDP Renovables in Spain.of cyber-security events.

EDP OPEN INNOVATION 2018

Another EDP Starter action is the EDP Open InnovationEDP España participated in the selection process of the
ten start-ups that competed in the final session of the
presentation of proposals which was held in Lisbon on 30
October 2018.

PARTICIPATION IN SOUTH SUMMIT 2018

Between 3 and 5 October, EDP participated with a booth and a round table in South Summit 2018, one of the biggest events for the meeting of companies and start-ups in the South of Europe, which was held in Madrid.



CARTO

This benchmark for spatial analytics is implementing a solution to maximise the retail action, both regarding customer acquisition and loyalty creation.



e-SAVE

EDP España collaborates with e-SAVE to develop different automated information processing systems which allow optimising several internal processes and improving our customers' experience.



A total of 15,000 people attended it, among which there were 500 speakers and 750 investors (investment funds, venture capital and business angels) which held more than 2,500 meetings with entrepreneurs.

PARTICIPATION IN THE OPEN INNOVATION 4.0 PROGRAMME

Open Innovation 4.0 is a public-private collaboration initiative of the European Business and Innovation Centre within the framework of the Industry 4.0 programme, promoted by the Asturian Institute of Economic Development (IDEPA) and 7 leading companies with interests in Asturias. The EDP customers about their energy consumption using purpose of this initiative is that driving companies propose technological challenges in the industry 4.0 sector to new emerging companies in order to develop joint projects.

As a result of its participation in this programme, EDP, together with the Asturian start-up Energintel, executed in 2018 the first stage of the EnergyMate project for the development of a mobile application to inform natural language.

PARTICIPATION IN THE 'YES, WE ARE INNOVATION' PROGRAMME

The 'Yes, we are innovation' project, promoted by the University of Oviedo Foundation in collaboration with the Gijón City Council, during the months of March and April 2018, in which EDP took part, aims at fostering the creativity of university students by giving them the opportunity to face real challenges proposed by Asturian companies.

41 students participated, out of which 24 were women, organised in 8 teams, 2 of which were focused on responding to two of the challenges proposed by EDP.

SUPPORT TO MASTER'S THESIS OF THE UNIVERSITY OF OVIEDO

EDP España signed in 2018 an agreement with the University of Oviedo Foundation by virtue of which EDP España will financially support the students of the School of Mining, Energy and Materials of Oviedo and the Polytechnic School of Engineering of Gijón who write their master's thesis about the topics proposed by EDP

España. The company will propose at the beginning of the academic year the topics regarding which it is interested in supporting master's thesis and the maximum number of theses it will support. EDP will select the applicants of its interest. The amount of the financial support for each student adds up to €2,000.

EDP ESPAÑA, NEW MEMBER OF COTEC

In the meeting of November 2018, the board of COTEC España, a forum to promote Innovation in the Spanish ecosystem, approved the membership of EDP España. COTEC is established at an international level (Spain, Portugal, Italy) and EDP is already a member of COTEC Portugal. This new membership allows EDP España to access new trends in Innovation and the strategic approach of the rest of members, as well as to seek support for spreading concepts or initiatives in which EDP is interested.

EDP ESPAÑA, **NEW MEMBER OF ALASTRIA**

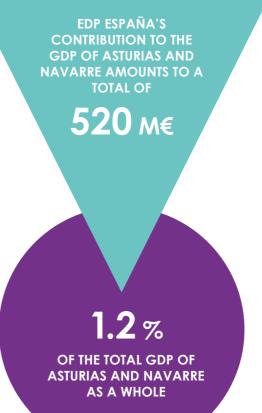
In January 2018, EDP España adhered to the Alastria Consortium, a Spanish association of entities for the promotion and standardisation of DLT (Distributed Ledger Technology, commonly known as Blockchain). The purpose of Alastria is creating an integrated community for all kind of public and private organisations, as well as individual experts, with the aim to favour the implementation, standardisation, protection and use of Blockchain technologies in España within the framework of its articles of association.

3.5.3. CREATION OF VALUE

In 2018, EDP España has measured its contribution to the economic growth of the main regions where it is located through its direct activity and through the ancillary activities needed for its operation, from which flows are generated that produce a multiplier effect in the economy, leading to economic effects in many other sectors.

The socio-economic impact study has been carried out for Asturias and Navarre, the communities where most of the assets are located, estimating direct, indirect and induced employment linked to EDP's activity, as well as the creation of wealth, measured through the contribution to the Autonomous Region's GDP.

To quantify this, EDP España's expenditure on suppliers of goods and services in Asturias and Navarre, the expenditure incurred by employees on their salaries and the taxes received by each community on EDP España's activity have been considered. These impacts have been translated into the contribution that EDP España makes to the GDP of Asturias and Navarre.



EDP España Sustainability Report 2018





3.6. CONSUMER AFFAIRS

3.6.1. CUSTOMER CARE

The Spanish Association of Experts in Customer Relationships has distinguished EDP with two awards in the CRC (Customer Relationships Centre) Golden Awards 2018. The company has been recognised with the seal of excellence for faceto-face customer care and for having the most outstanding customer experience strategic project.

The CRC Golden awards are the most relevant in the sector and confer the seal of excellence for customer care. The recognition for the best customer experience project reflects the commitment of all the areas of the company to meet the customers' needs.

As for the award for the best face-to-face customer care, EDP has gained once again this recognition, which strengthens the company's commitment to optimise the customer experience in its offices, which receive more than 200,000 visits per year.

The importance of these awards comes from the concurrence of companies from different sectors which compete under the same conditions, in a cross-cutting way, which strengthens EDP's policy on customer relationships even more. Companies from the main economic sectors, such as banking, e-commerce, energy and utilities, insurance or retail have participated.

3.6.2. VULNERABLE CUSTOMER SUPPORT

The Universidad Pontificia de Comillas Chair for Energy and Poverty, in which EDP is participating, has been created in Spain. It is a forum for dialogue for the different agents to design and implement solutions for the energy poverty problem. The chair accommodates all the social agents involved, including energy companies and social entities.

It currently has four lines of research (engineering, social work, law and business) and an interdisciplinary seminar which studies a cross-cutting approach of the problem.

The main novelties in year 2018 have been introduced following the publication of Royal Decree-law 15/2018, by virtue of which the electricity social discount model existing in Spain is modified and a new thermal bonus is created to help vulnerable customers to defray their heating expenses.



GLOBAL CUSTOMER SATISFACTION OF 77.5 %





Furthermore, a National Strategy against Energy Poverty, which will include new medium-term measures to tackle this social problem, has started to be drafted.

VULNERABLE CUSTOMERS

Vulnerable customers are those customers with an annual income level lower than or equal to the thresholds set by the IPREM (the index used in Spain as reference for granting aids, subsidies or unemployment benefits), according to the characteristics of the family unit and favouring the homes with disabled people, victims of gender-based violence or victims of terrorism. Single-parent families, pensioners receiving the minimum pension and large families are also considered vulnerable customers. Vulnerable customers have a 25% discount in their bill.

SEVERELY VULNERABLE CUSTOMERS

According to certain circumstances, they may be considered severely vulnerable customers and thus receive a 40% discount in their bill..

CLIENTES EN RIESGO DE EXCLUSIÓN SOCIAL

In the case of customers at risk of social exclusion (which are being assisted by the social services of a regional or local Administration which funds at least 50% of the amount of their bill), their discount is 100%.

EDP has 38,560 customers in Spain who are benefiting from the electricity social discount, out of which 18,844 are severely vulnerable and 25 are at risk of social exclusion.

SHARE YOUR ENERGY

'Share your energy' was created to join blind runners with other runners willing to guide them in training practices and races, and it gives away the race number to the couples stemmed from such platform who sign up for races sponsored by EDP. Furthermore, its ambassador is the world's marathon champion Martín Fiz. The platform www.compartetuenergia.com currently has 2,426 persons registered. This initiative has won a Fundacom Award in the Best Corporate Social Responsibility Campaign category.





IN SYNC

'In sync' is the meeting point for all the female runners ones to go running with who wish to practice this sport in a group. It is an online other women. The tool platform (www.sincronizadas.com) which joins all the allows filtering according women who want to go running in a group to feel safer, to different criteria, such as thus promoting female sports. According to the data from date, distance from the city a recent study conducted by Runner's World Magazine to the meet-up point, level España in collaboration with EDP, 9 out of 10 women feel thereof, etc. unsafe when they ao running on their own, while the fact of running accompanied makes almost half of them (44%) feel safer.

The website allows to create a runner profile based on geographical location and training areas, along with more Also, there will be other special meet-ups sponsored technical data such as personal times. From that moment by EDP with influencers and/or personalities, where on, runners can arrange 'meet-ups' and join other existing promotions or draws might be offered to the attendees.

There is also a chat for each meet-up via which runners can communicate or exchange information about it. A total of 6,994 runners have already registered.

6,994

IT IS A GRID THAT CAN BE ALREADY DEFINED AS SMART, INVOLVING CLEAR BENEFITS FOR THE FUTURE:



SNOWSTORMS IN 2018

'The EDP grid in Asturias was severely affected in February and October 2018 by two exceptional snow and ice storms, which forced the activation of the Principality of Asturias's Snowfall Plan in the emergency phase.

The greatest impact of the adverse weather events was concentrated in the areas of Oviedo, Valnalón and Cangas del Narcea, with the affected supply points accounting for 2% of the total EDP's distribution grid in Spain.

In view of the large number of damaged road, electricity the places where the incidents had been originated to



3.6.3. SMART GRIDS

The InovGrid project in Spain concluded in April 2018 with the replacement of meters by smart meters. This milestone not only has been reached before the deadline provided by the law, but it has also extended the range of customers from the legally established 15kW to 50kW, so it can be asserted that '100% of EDP HC Energía's customers are digitised'.

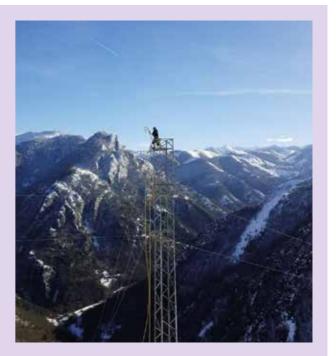
The exploitation of all the information is now executed through our new tools for grid management digitisation, such as real-time alarms, location of breakdowns in medium and low voltage and management of assets based on their real use. As regards customers, 'Mis Consumos' website offers them the possibility to manage their consumption by accessing the information on the platform.



For the first time, it has been achieved to integrate smart meters into the operating systems of the low-voltage grid.

The meters emit alarms when they detect problems in the supply to low-voltage customers... The operator is informed of the breakdown before the customer calls due to the lack of supply... We save around 20 minutes in the resolution of each incident...





and telephone infrastructures, and the inability to access repair the caused damages, the regional Emergency Service took charge of coordinating the work of opening roads and re-establishing supplies, even requiring the support of extraordinary means such as the Military Emergency Unit during the October storm.

All of this has led to consider the incidents arising during both storms, for the purposes of supply continuity, force majeure cases.

It should be noted that, even under the very adverse conditions in which the mobilised teams – up to 200 people including own personnel and collaborating companies worked, all the breakdowns were resolved without any relevant accident or incident having occurred'.

Measure and Operating Balance Integration System. SIMBO project

Integrating all the energy flow measures in the distribution grid, from the different source databases.

Checking and validating the quality of hour values.

Automatically calculating energy balances and technical and non-technical losses regarding hours, voltage, geographical area, line, transformation centre, fee period, etc.

Enabling a dynamic access to information, with the possibility of having graphics and analytical reports that can be customised on a user level.

50

NEW CHARGING

POINTS IN PUBLIC

SPACES

3.6.4. SUSTAINABLE MOBILITY

Sustainable mobility, and specifically the electric vehicle, is one of EDP's priorities. This is one of the areas that will have the greatest impact on the energy sector and will be essential for the decarbonisation of transport, representing a growing percentage of car sales in the world.

In 2018, EDP has installed 50 new charging points in public spaces, after an investment of more than one million euros, responding to the demand for these facilities from electric vehicle users. With this new infrastructure, EDP has already 57 charging points in Asturias, which last year were used by more than 700 users. 13 of these 57 points are fast charging points, of 50 kW, allowing car charging in approximately 15-20 minutes. EDP has also promoted electric mobility in the Valencian Community, where it already has 20 charging points; and in the Basque Country, where it has installed 2 fast charging points.

Over the twelve months, these users charged a total of 32,000 kWh. The company's

strategy is to provide users with a charging network in urban environments and on fast roads, covering the need for support demanded by users, who carry out the main charging of their vehicles at home.

To charge their cars at EDP points, users have two options: using the EDP sustainable mobility card, which they can apply for via the website www.edpmoveon. com, or a mobile device, with which they can manage their charging through that website or the innovative mobile application 'EDP moveon' (for Android and iOS). Through the website or the mobile application, they can also find the points, find out how far away they are, their availability and connector types, among other features.

> EDP is also part of the European project CIRVE (Iberian Fast Charging Infrastructure Corridors for Electric Vehicles), through which several companies will reinforce the charging network in Spain with 40 fast charging points.



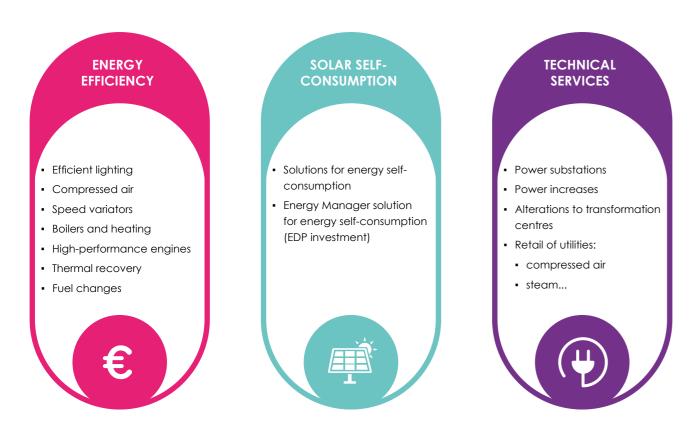
3.6.5. ENERGY EFFICIENCY

One of the major strategic commitments of the EDP Group signed at the New York Summit in 2015 relates to Energy Efficiency, 'to continually offer customers products and services that contribute to greater end-use energy efficiency, reaching more than 1 TWh of cumulative savings by 2020'; indeed, energy efficiency offers numerous advantages in the ongoing transition from the current energy model to a more sustainable model.

(0)

With regard to the B2B market, the Energy Services department continues to strengthen its activity. Therefore, progress has been made with the use of the Save to Compete 2.0 platform to serve the SME market, reformulating the offer with new products: electronic speed variators, efficient motors and Integra.

As a highlight, the solar self-consumption offer had its first sales in the last quarter of 2018, which reinforces the strategic importance of this product.



In figures, the savings derived from the activity in Spain of the Energy Efficiency Services department are estimated at approximately 17.5 GWh/year, which means avoiding the emission of approximately 4,534 tons of CO₂.

The main standard projects follow the line of previous years, standing out projects to reform transformation centres, installation of efficient lighting systems based on LED technology, power factor improvement and monitoring.

Other 'customised' projects are related to electricity self-consumption projects essentially due to the regulatory change that took place in the last quarter of 2018.



The INDUSTRIAS DOY project especially stands out, consisting in:

The installation of a flue gas treatment plant to reduce the sulphur content by means of a dry method, with cooling of the gases.

Finally, and with the intention of continuously improving building services, a project has been launched for the unification of the telecontrol systems within the facilities, in order to have online information on the operation of the boiler rooms, as well as to reduce response times in installations in case of customer requests or incidents involving the equipment.

3.6.6 SMART HOME



'The customer is the star'

EDP keeps working on the development of simple tools to allow its customers to become the real stars of the ongoing energy transition.

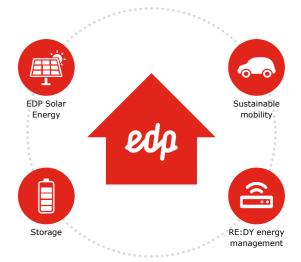
REDY, EDP's smart energy management system, has become a full home management platform, incorporating real-time consumption information, both on electricity and natural gas. It identifies all the saving possibilities. The connected and efficient remote management of any device is translated into efficiency and savings. The management of the heating boilers and air conditioning systems, through easy-to-install smart thermostats, especially stands out.

EDP keeps promoting the development of solar energy selfconsumption. In line with the latest regulatory changes that aim for the same goal, EDP Solar Energy keeps developing solutions to allow its customers to seize solar energy and become productors of part of the energy they consume. During 2018, some installations have been started up and, throughout 2019, the final launch will take place, including, as a novelty, shared self-consumption. This possibility will offer millions of customers in Spain the ability to become self-consumers.

The ongoing revolution towards a sustainable mobility will be electric. The new emission requirements for vehicles will make that, by 2025, one out of four vehicles registered in the EU will be electric.



An energy harvesting plant, through the surplus heat energy of the production process developed by the customer and its transformation into electric energy by a recovery boiler, turbine and a 3.4 MW air condenser.



EDP will play - and is already playing - a main role in this revolution, offering charging solutions to its customers, both at their homes and at their workplaces, as well as on public roads. During 2018, more than eighty public charging points have been installed, which are managed from a digital platform that can be accessed via mobile phone. Furthermore, we have successfully installed charging solutions both for single-family dwellings and for collective dwellings.



WE LOVE INNOVATION





04 YEAR-ON-YEAR DATA

4.1	FINANCIAL INDICATORS	101
4.2.	TECHNICAL INDICATORS	102
4.3.	ENVIRONMENTAL INDICATORS	105
4.4.	SOCIAL INDICATORS	107



4.1. FINANCIAL INDICATORS

INDICADORES FINANCIEROS Turnover

EBITDA⁽¹⁾ Net profit (EAT)

Operational investments

Net debt(1)

 $^{\scriptscriptstyle (1)}$ In 2017, it includes the positive effects of the sale of the gas distribution activity.

EBITDA M€



EBITDA

ECONOMIC INDICATORS

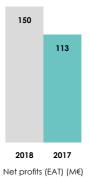
ENVIRONMENTAL EXPENDITURE AND INVESTMENTS

Managing waste, wastewater and land protection Projects related to energy efficiency Environmental management and prevention Research projects related to the environment Others

EDP España Sustainability Report 2018

U	2018	2017	2016	
M€	3,106	3,315	3,350	
M€	326	1,100	500	
M€	150	853	438	
M€	68	106	150	
M€	-392	-983	1,213	

NET PROFIT M€



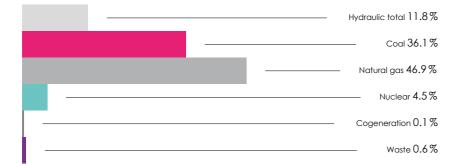
U	2018	2017	2016
M€	40.7	60.3	79.2
M€	24.6	17.1	17.2
M€	9.5	8.7	13.0
M€	4.5	32.0	45.7
M€	0.5	0.4	0.5
M€	1.6	2.1	2.7

4.2. TECHNICAL INDICATORS

ELECTRICITY GENERATION

POTENCIA PRODUCTORA INSTALADA	U	2018	2017	2016
Hydraulic total	MW Brutos	432	432	432
Coal	MW Brutos	1,322	1,283	1,283
Natural gas	MW Brutos	1,721	1,721	1,721
Nuclear	MW Brutos	165	165	165
Thermal total	MW Brutos	3,208	3,169	3,169
Overall total	MW Brutos	3,640	3,601	3,601
Cogeneration	MW Brutos	5	5	5
Waste	MW Brutos	20	20	20
Special total	MW Brutos	26	26	26
TOTAL	MW Brutos	3,666	3,627	3,627

Las inversiones en generación eólica se realizan a través de EDP Renovaveis.



NET ELECTRICITY GENERATION	U	2018	2017	2016
Hydraulic total	MWh	1,053,877	471,842	930,227
Coal	MWh	5,948,351	7,420,988	5,149,897
Natural gas	MWh	1,241,515	2,087,331	1,639,483
Nuclear	MWh	1,195,741	1,235,541	1,238,837
Thermal total	MWh	8,385,607	10,743,860	8,028,217
Overall total	MWh	9,439,484	11,215,702	8,958,444
Cogeneration	MWh	32,674	31,861	28,751
Waste	MWh	93,381	96,083	70,856
Total especial	MWh	126,055	127,944	99,607
TOTAL	MWh	9,565,539	11,343,646	9,058,051

Las inversiones en generación eólica se realizan a través de EDP Renovaveis.

	Hydraulic total 11 %
	Coal 62.2%
	Natural gas 13 %
	Cogeneration 0.3%
	Waste 1 %

ELECTRICITY DISTRIBUTION

INSTALACIONES DE DISTRIBUCIÓN ELÉCTRICA
HV overhead lines (50/132 kV)
MV overhead lines (5/10/16/20/22/24 kV)
HV underground lines (50/132 kV)
MV underground lines (5/10/16/20/22/24 kV)
LV overhead grids ⁽¹⁾
LV underground grids ⁽¹⁾
Transformation centres
Transformation centre installed capacity
Substations ⁽¹⁾
Transformers in substations
Installed capacity in substations

⁽¹⁾ It includes MV substations (MV/MV and Manoeuvre-Interconnection).

ELECTRICITY DISTRIBUTION	
SUPPLY POINTS	
Low voltage (< 1kV)	
Medium voltage (> 1 kV y <36 kV)	
High voltage (> 36 kV)	
DISTRIBUTED ENERGY	
Low voltage (< 1kV)	
Medium voltage (> 1 kV y <36 kV)	
High voltage (> 36 kV)	

TIEPI EVOLUTION IN EDP

TIEPI (Equivalent Interruption Time)

TIEPI EVOLUTION (minutes)

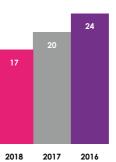


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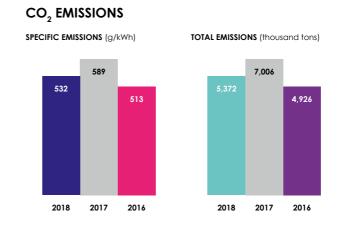
U	2018	2017	2016
km	1,269	1,272	1,273
km	4,819	4,805	4,786
km	43	43	43
km	1,677	1,658	1,639
km	9,635	9,618	9,618
km	3,265	3,217	3,167
No.	6,750	6,731	6,726
MVA	2,313	2,297	2,289
No.	148	146	58
No.	120	120	121
MVA	5,343	5,293	5,264

U	2018	2017	2016
No.	666,403	664,099	662,545
No.	665,252	662,960	661,407
No.	1,124	1,114	1,114
No.	27	25	24
GWh	9,360	9,331	9,190
GWh	2,250	2,222	2,244
GWh	1,317	7 1,309 1,30	
GWh	5,793	5,801	5,643

UN	2018	2017	2016
min	17	20	24

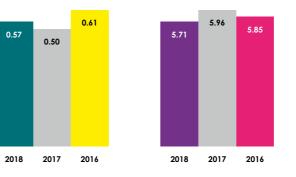


4.3. ENVIRONMENTAL INDICATORS



NO_x EMISSIONS SPECIFIC EMISSIONS (g/kWh)

TOTAL EMISSIONS (thousand tons)



WASTE AND BY-PRODUCTS
Total hazardous waste
Total non-hazardous waste
Total by-products
Total generated
Total recovered

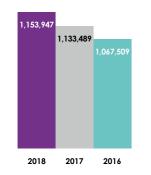
WASTE AND BY-PRODUCTS



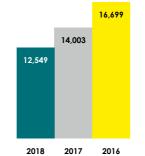
ELECTRICITY AND GAS RETAIL

ELECTRICITY RETAIL	U	2018	2017	2016
SUPPLY POINTS	No.	1,153,947	1,133,489	1,067,509
Last resort	No.	221,080	219,160	227,159
Free market	No.	932,867	914,329	840,350
RETAILED ENERGY				
Last resort	GWh	444	446	477
Free market	GWh	12,106	13,556	16,222

SUPPLY POINTS (No.)

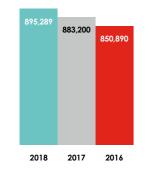


RETAILED ENERGY (GWh)

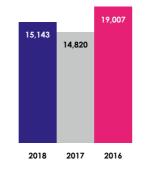


GAS RETAIL	U	2018	2017	2016	
SUPPLY POINT	No.	895,289	883,200	850,890	
Last resort	No.	51,323	51,740	54,485	
Free market	No.	843,966	831,460	796,405	
RETAILED ENERGY	GWh	15,143	14,820	19,007	
Last resort	GWh	261	236	244	
Free market	GWh	14,882	14,584	18,763	

SUPPLY POINTS (No.)



RETAILED ENERGY (GWh)

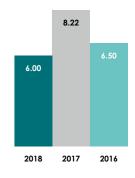


SO, EMISSIONS

SPECIFIC EMISSIONS (g/kWh)

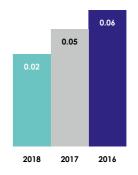


TOTAL EMISSIONS (thousand tons)

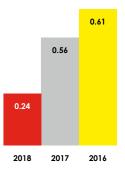


TSP EMISSIONS

SPECIFIC EMISSIONS (g/kWh)



TOTAL EMISSIONS (thousand tons)



U	2018	2017	2016
Tons	389	561	887
Tons	193,381	267,705	188,634
Tons	43,905	36,585	33,746
Tons	237,676	304,850	223,267
Tons	221,225	226,542	173,946

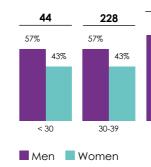
- Total non-hazardous waste 81.4%

Total by-products 18.5 %

Total hazardous waste 0.2%

ENDLOYEES	
EMPLOYEES	
Employees	
Percentage of women	
Average age of the employ	vees
Absenteeism rate	
Employee remuneration cos	sts
Contributions to Pension Pla	ns

EMPLOYEE PROFILE BY AGE



WATER	U	2018	2017	2016
Cooling water	m ³ x10 ³	416,132	509,326	370,625
Electricity generation water	m ³ x10 ³	2,050	2,464	2,078
Recovered water out of abstracted water (%)	m ³ x10 ³	99%	99%	98%

Total hours of training

Participation rate

Training actions

EMPLOYEE PROFILE BY PROFESSIONAL CATEGORY



Hombres Mujeres

Coal	TJ	50,757	65,276	45,156
Diesel	TJ	45	78	78
Furnace gas	TJ	12,356	12,897	8,925
Coke making gas	TJ	934	968	1,125
Steelwork gas	TJ	1,220	1,151	944
TOTAL		74,869	95,490	69,100

U

TJ

TJ

2018

32

9,526

2017

15,063

57

2016

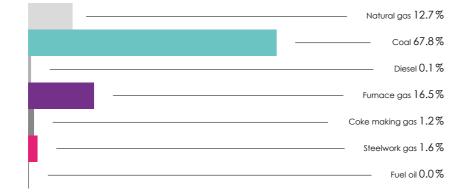
116

12,756

FUEL CONSUMPTION

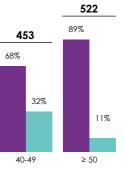
FUEL CONSUMPTION

Fuel oil Natural gas

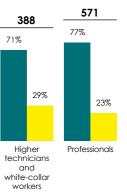


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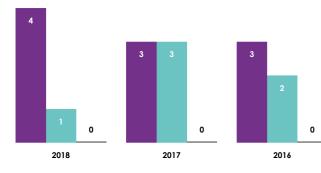
UN	2018	2017	2016
No.	1,252	1,280	1,519
%	25	24	26
Years	47	47	48
%	3.74	4.03	3.87
Thousands of €	94,588	95,463	103,143
Thousands of €	2,915	2,864	3,023



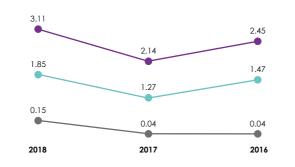
U	2018	2017	2016
Hours	48,599	42,609	49,696
Participants	9,242	7,013	10,250
No.	1,224	1,137	1,370



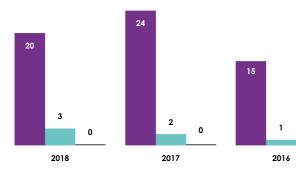
OWN WORKFORCE ACCIDENTS



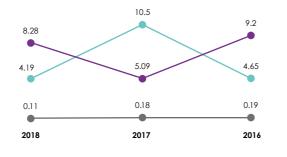
OWN WORKFORCE ACCIDENT RATE



CONTRACTOR ACCIDENTS



CONTRACTOR ACCIDENT RATE



Accidents resulting in sick leave

Incidence index No. of accidents resulting in sick leave/people exposed* 10³ Accidents not resulting in sick leave

0

Índice de frecuencia No. of accidents not resulting in sick leave/hours worked* 10⁶

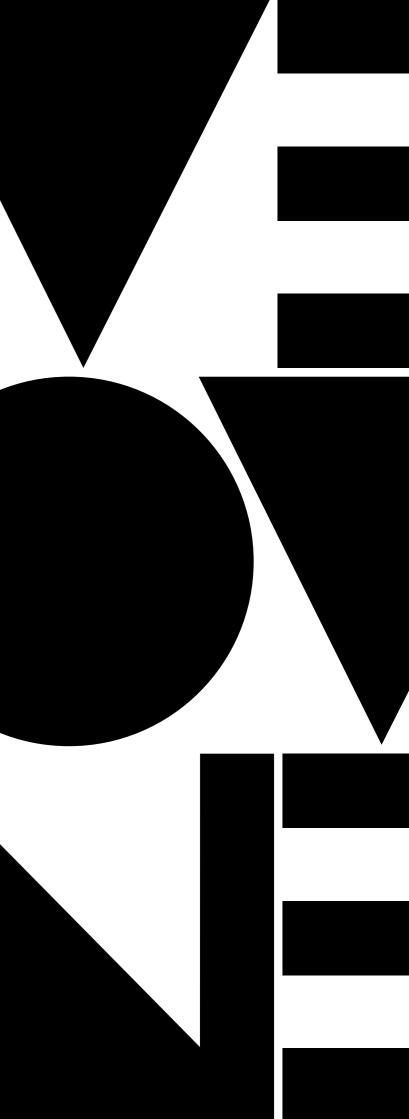


Severity index No. of working days missed/worked hours* 10³











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