



Sustainability  
Report  
2018



*edp*



We love energy.

Energy moves us, unites us, and brings us closer to the world.

We love this energy, the universal language, which comes in all shapes and colors.

Which impels us, motivates us, and challenges us in this story of sharing and of victories.

Which is from the sun, the water, the wind, and the people.

Which 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 - Energias de Portugal, S.A. (hereinafter referred to as EDP), with head office in Lisbon, Avenida 24 de Julho 12 and with its shares listed on the Euronext Lisbon stock exchange, results from the transformation of Electricidade de Portugal, E.P., incorporated in 1976 following the nationalization and consequent merger of the main companies in the electricity sector in Portugal. During 1994, as established by Decree-laws 7/91 and 131/94, the EDP Group (EDP Group or Group) was set up following the split of EDP, which led to a number of directly or indirectly wholly owned subsidiaries of EDP.

The Group's businesses are currently focused on the generation, transmission, distribution and supply of electricity and supply of gas. Although complementary, the Group also operates in related areas such as engineering, laboratory tests, professional training, energy services and property management.

EDP Group operates essentially in the European (Portugal, Spain, France, Poland and Romania) and American (Brazil and the United States of America) energy sectors.

The Sustainability Report of EDP Group was prepared in accordance with the standards of the Global Reporting Initiative (GRI Standards) and with the Directive 2014/95/EU of the European Parliament and of the Council of 22 October 2014 and with the Decree-Law no. 89/2017 of 28 July, as regards disclosure of Group sustainability performance in 2017, with focus in material themes.

This Report has been structured in 3 major blocks:

PRESENTATION AND STRATEGIC APPROACH	PERFORMANCE	PERFORMANCE INDICATORS
<p>Focused in Sustainability within the Group's strategy. Includes our commitments, with goals and targets and their relationship with the United Nations 2030 Sustainable Development Goals.</p>	<p>Organized around the four sustainability strategic pillars, reports on the year's material issues. Includes management approach, the main events and illustrative cases about EDP practices.</p>	<p>Organized by material theme. It also includes indicators disaggregated by geography, in the past four years. Together we aim to respond to the Global Reporting Initiative standards.</p>

Additionally, EDP makes available a set of reports at [www.edp.com> sustainability> publications> reports](http://www.edp.com> sustainability> publications> reports):

- Annual Report;
- Annual Report of the General and Supervisory Board;
- Sectoral reports, in particular: Ethics Ombudsman's Report, Report of assessment on potential impacts and respect for Human and Labour Rights, Safety Summary and Stakeholders' Report;
- Annual and sustainability reports of the societies EDP Espanha, EDP – Energias do Brasil and EDP Renováveis;
- Management Approach on Sustainability, which endorses the issues set by GRI methodology and explains the relation between organizational processes and material issues for the society.

## ENGLISH VERSION

This Sustainability Report is a free translation of the Sustainability Report originally issued in Portuguese. In the event of discrepancies, the Portuguese language version prevails.

**NEB**

The image features a stylized logo in a dark blue color. On the left, the letters 'NEB' are rendered in a bold, sans-serif font. The 'N' is formed by a vertical bar on the left and a diagonal bar extending from the top-left to the middle of the 'E'. The 'E' is formed by a vertical bar on the left and a horizontal bar at the bottom. The 'B' is formed by a vertical bar on the left and a large, rounded, semi-circular shape on the right. To the right of the 'NEB' text, there are three horizontal bars stacked vertically, each of the same length as the 'B' character.

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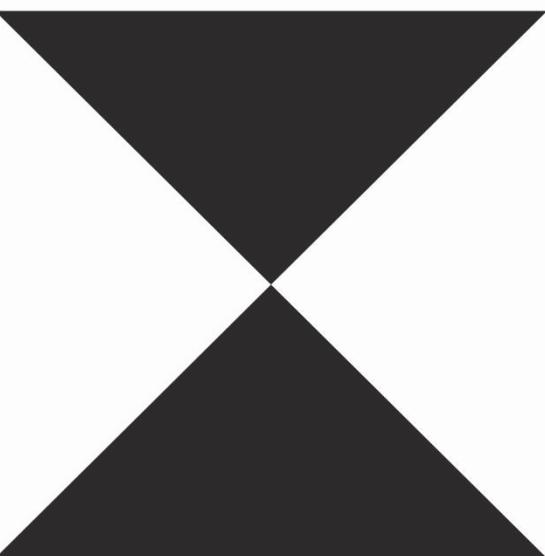
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# WATER



**WE  
LOVE  
THE WATER**



**LOVE ENERGY**

*edp*

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**ANTÓNIO MEXIA**  
CHAIRMAN OF THE EXECUTIVE  
BOARD OF DIRECTORS



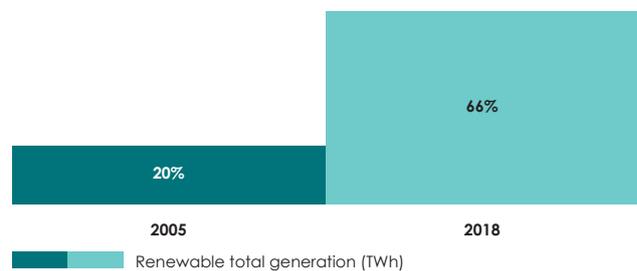
## MESSAGE FROM THE CHAIRMAN

### ANTÓNIO MEXIA

#### DEAR SHAREHOLDER,

Over the past 12 years we have been anticipating the trends in the energy sector and aligning our business model with the energy transition for the fight against climate change - a requirement for those who are committed to creating a more sustainable world for future generations.

Our strategy has resulted in the creation of a leading renewable energy company. Today we are the second greenest player in Europe, with 65% of the EBITDA being sourced from renewable energy and a total installed capacity of 21 GW with considerable international exposure, more than 60% of the recurrent EBITDA is generated outside Portugal.



**“WE WERE EARLY MOVERS IN RENEWABLES. AS A RESULT, TODAY EDP IS UNIQUELY POSITIONED TO EMBRACE THE CHALLENGES OF THE FUTURE AND LEAD THE ENERGY TRANSITION”**

The commitment to sustainable development has long been incorporated in EDP's strategy as one of the core values and we will continue to push forward with clear and demanding goals. In agreement with this, since 2008, we have been part of the Dow Jones Sustainability Index (DJSI), always with a leading position as one of the most sustainable companies in the world.

We are aware of the role that we will play in the global effort to decarbonize the world and limit the global temperature increase to 1.5° C. We are committed and intend to meet the ambitious goals of the Clean Energy for all Europeans legislative package, which targets a carbon-neutral European Union by 2050. Thus, today it is clear that the energy of the future will undoubtedly be electric and:

1. **Clean**, with an increased need for decarbonization, where utilities play an increasingly important role, as they account for 40% of total emissions;
2. **Affordable**, a paradigm that will be further enhanced by the decrease in the cost of renewables, reinforcing their position as the most competitive technologies;
3. **Reliable**, with flexibility ensured by backup systems such as batteries, water reservoirs for pumping and thermal;
4. **Focused on the client**, with the creation of new solutions and services based on energy efficiency, distributed generation, the use of batteries and the adoption of electric mobility.

As mentioned last year, the current revolution in the energy sector is characterized by "3Ds": Decarbonization, Digitalization and Downstream, where today, we should also add the need for full Disclosure of the company's performance. EDP is very well positioned for the future due to the anticipation of these trends. Our unique and distinctive starting point, fully aligned with an indispensable and irreversible energy transition, puts us in a privileged position to increase the ambition and the focus of our vision.

## A DEMANDING YEAR DUE TO THE REGULATORY CONTEXT IN PORTUGAL

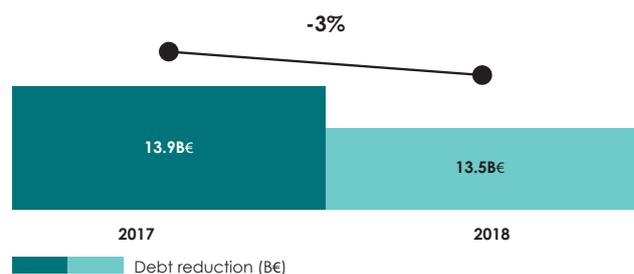
2018 was a particularly difficult year, we were faced with non-predictable and unjustified regulatory measures in Portugal, leading to a significant decrease of our results. However, we maintained the focus, with a continuous bet and better than expected performance in EDP Renováveis, in Brazil and in Spain. These contributions mitigated the losses reported for the first time since the beginning of the privatization in the conventional business in Portugal.

EDP's 2018 Group performance was based on three strategic pillars, namely:

1. The **continued focus of our growth strategy in Renewables and Brazil**:
  - In Renewables, EDP built more than 800 MW of onshore and solar wind and secured long-term contracts for 1.3 GW, of which 0.4 GW for two

substantial solar projects - one in the United States (0.2 GW) and one in Brazil (0.2 GW). Furthermore, it was also a dynamic year in offshore wind with the beginning of the construction of Moray East in December and the acquisition of the exclusive right to develop a project of up to 1.6 GW in the United States, under a joint venture with Shell. Lastly, 2018 was also marked by the bet on the floating technology with the beginning of the construction of the Windfloat Atlantic, potentially the most efficient way to produce renewable energy in densely populated and deep-water countries.

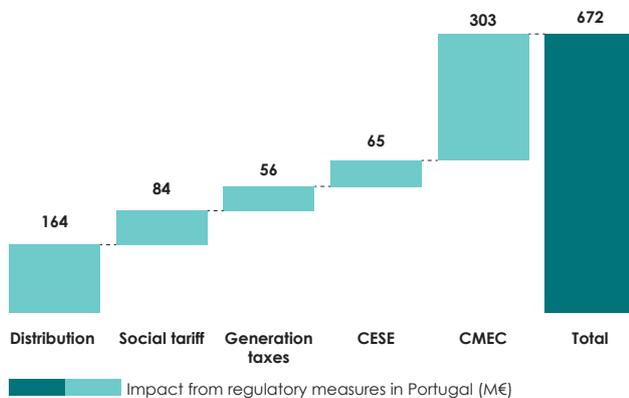
- In Brazil, growth was supported by the completion of the first of five transmission lines, 20 months ahead of schedule, and by the acquisition of a 23.56% stake in CELESC which allowed us to be involved in the management of the company.
2. **A continuous portfolio optimization** through the completion of the first majority sale - 80% stake in a ~500 MW portfolio of wind farms in the USA and Canada, with a capital gain of 129 million dollars - and through the sale of minority stakes in offshore projects, particularly in the United Kingdom (43%) and France (13.5%). These sales and risk sharing mechanisms allow not only for capital recycling, but also for value crystallization in a shorter time frame. In this context, EDP has also divested non-core and smaller scale activities, such as biomass in Portugal and small-hydro assets in Portugal and Brazil.
  3. **The focus on operational efficiency allowed** us to reach the target of OPEX IV two years ahead of schedule, generating total savings of 200 million euros. From a financing standpoint, we securitized 1.3 billion euros of tariff deficit, we were pioneers in Portugal with the issuance of a 600 million euros Green Bond and secured the funding of Moray East for a total amount of 2.6 billion pounds, a milestone in renewable energy on a global scale. In Addition, EDP contracted Tax Equity funding with the most favorable conditions of the last 10 years. All this allowed for a debt reduction of about 3%, compared to the same period.



From an operational standpoint, the company's performance should be considered as positive. Excluding foreign exchange impacts, the Group's EBITDA increased by 2%, supported by the sustained growth in Brazil and in EDP Renováveis (despite weak wind resources, 6% below the long-term average), as well as by the strong recovery of hydro resources and a rigorous cost control in Iberia.

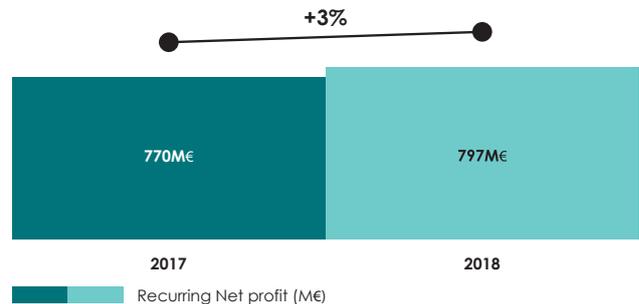
However, the results of the Group were strongly penalised by the political interpretations of the *Custos de Manutenção do Equilíbrio Contratual* ("CMEC"), in particular with regards to the final revisibility and the alleged innovatory costs, which amounted to a total non-recurring cost of 303 million euros. As previously communicated to the market, EDP considers that such decisions violate the law and the contracts signed, which were based on a contractual framework defined in 1995-1996 to make the company solvent and enable its privatization. Accordingly, EDP took the necessary measures to protect the interests and rights of all its stakeholders.

In Portugal, other sector specific taxes have also been maintained, even if some were implemented with an extraordinary nature. In short, our results suffered a negative impact of 672 million euros due to adverse regulatory measures and taxes or fees applied to the energy sector.



Despite these adverse regulatory impacts in 2018, we remain positive and believe that the energy policy of the coming years will provide the fundamental stability to foster private investment and ensure the energy transition.

Finally, from a financial standpoint, EDP reported a sharp reduction of 53% in the 2018 net profit to 519 million euros, mainly due to the regulatory situation in Portugal, which contributed with a net negative result. However, excluding extraordinary effects, recurring net income rose 3% to 797 million euros.



Last but not the least, 2018 was also marked by the launch of a tender offer by our largest shareholder, China Three Gorges (CTG), over the share capital of EDP and EDP Renováveis. Referring to the presented proposal, the Executive Board of Directors communicated its position to the market in June last year.

## A CUSTOMER-CENTRIC COMPANY

Over the past year we have adjusted the organizational structure of our supply activity with a view of adapting our business solutions to a more conscious, more demanding and more digital customer. The objective was clear: greater value creation through the presentation of innovative service proposals.

We have created the e-factory, which aims to accelerate the development of products and services so EDP can continue to evolve in line with our client's ambitions, with a clear focus on energy efficiency, distributed generation and electric mobility. Today, we are already perceived by the B2B segment and more specifically by the small and medium-sized enterprises as more than a supplier of electricity and gas, having recorded the largest ever annual increase in the sale of services to these customers in Iberia (57%).

At EDP, the relationship with our clients is crucial, thus the development of new capabilities has been focused on increasing the quality of our service which allowed us to ensure higher customer satisfaction, 78% in 2018 (+ 2b.p. than in 2017), through, for example, the use of artificial intelligence. This allowed us to maintain our customers' portfolio with 9.8 million customers in electricity and 1.6 million customers in gas.

The electric mobility plan is increasingly relevant in the global effort for decarbonization. As a result, EDP has taken on the role of promoting the adoption of electric mobility, not only in Portugal but also in the remaining geographies where we are present.

In Portugal, we have continued to invest in the expansion of our charging stations network. Since 2017, 50,000 electric vehicles were charged which avoided the emission of about 423 tonnes of CO<sub>2</sub>. New charging solutions have also been created. On the one hand, the EDP Wallbox allows for more efficient management of consumption and greater control of the contracted power in private spaces. On the other hand, to target public spaces, we established a partnership with BP for the installation of 30 new chargers in gas stations. In Brazil, we launched the largest electric corridor in Latin America with BMW, making it possible to travel by electric vehicle between Rio de Janeiro and São Paulo. We have continued to invest in Spain, having already installed more than 80 charging stations in Asturias.

2018 was also the year of digitalization in EDP Distribuição, with the launch of the new functionalities of its app to simplify the interaction with all stakeholders, from clients to municipalities. The company also implemented 15 process robotization initiatives resulting in a potential saving of ~ 50000 hours of work. In parallel, we continued the effort of implementing smart grids, having already installed about 2.6 million smart meters in Iberia, this increase was especially significant in Portugal where this year's growth was 51%.

**“THE DECENTRALIZATION  
OF ENERGY ASSOCIATED  
WITH RENEWABLES AND THE  
DIGITALIZATION ITSELF GAVE  
A NEW POWER TO THE CLIENT,  
WHICH TODAY SEEKS IN EDP NOT  
JUST ENERGY, BUT SMART ENERGY”**

### **OUR PEOPLE ARE OUR SUCCESS**

At EDP, in 2018, we focused on diversity and inclusion.

The strong commitment to gender balance over the past few years allowed us to increase the share of women in our workforce to 25%, a number that is quite substantial considering that this is traditionally a male sector. We remain determined to continue this path and to reinforce our diversity also based on other criteria. Today, we acknowledge that this diversity will bring new perspectives which will enable the creation of enhanced value for our business.

As a global company, EDP has employees from more than 40 nationalities and a growing demand for more analytical and technological profiles, aligned with the digital transformation and generation renewal of our company. To reinforce its positioning as a global company in the energy transition, EDP will continue to couple the deep knowledge of the current workforce with new talents from different backgrounds, which in 2018 corresponded to about 17% of our new admissions.

Furthermore, one should also highlight the important role of our volunteers. This year, EDP's volunteer program mobilized more than 3,000 volunteers, who devoted more than 31,000 hours of their time to community service. I am proud of this number which shows that our people's ability to deliver and dedication goes far beyond the contribution that they give to the company's results.

Another example of the excellent responsiveness of our teams were the actions taken following the natural disasters that devastated Portugal in 2018. I want to thank all those who supported and contributed to the resolution of the various incidents caused by hurricane Leslie and the fires.

### **AN AMBITIOUS PATH TO SUSTAINABILITY**

At EDP, we know that our role is not limited to the relationships with our customers and employees, we acknowledge that we must go further in our contribution to our communities. Therefore, we are committed to the development of areas such as the environment, culture, education, safety, health and social welfare in all the geographies in which we are present.

We have a very clear purpose of putting energy at the service of sustainability. For more than a decade now, we anticipated the main global trends through continuous investment in renewable energies, efficiency and innovation.

At the top of our strategic agenda is the commitment to demonstrate our performance in the 10 principles of the Global Compact, a United Nations initiative, focusing on Human Rights, Labour, the Environment and the fight against corruption, as well as our contribution to the achievement of nine of the seventeen Sustainable Development Goals of the United Nations Agenda for 2030. EDP's participation in the World Business Council for Sustainable Development ("WBCSD") and my appointment as chairman of the Board of BCSD Portugal and as chairman of the Board of the SEforALL also reflect our vision and our commitment to a sustainable development at a time when climate change is in full view.

**“THE SECRET IS NO LONGER  
THE SOUL OF THE BUSINESS.  
TODAY WE WORK WITH AN  
OPEN INNOVATION APPROACH,  
BOOSTED BY THE DIGITALIZATION  
AND FLEXIBILITY OF OUR PEOPLE  
AND ORGANIZATION”**

It is also worth mentioning our active contribution to accelerate the decarbonization of transports in 2018, with a commitment to electrify our car fleet until 2030. We are also committed to developing new business offerings and solutions that promote the energy transition, as well as mobilizing communities for the electrification of transports.

Moreover, it should be noted that EDP remains the main private sponsor of culture in Portugal. In 2018, the MAAT and Central Tejo presented 17 exhibitions with more than 327,000 visitors. In Brazil, we strengthened our role with the support for the reconstruction of the Portuguese Language Museum in São Paulo. On the social component, EDP Group's sponsorship in 2018 totaled 28 million euros, having already surpassed what was the initial 100 million euros target for the 2016-2020 period.

Today, EDP is a company that extends its ethical principles to all the dimensions of its activity. Internally, through the training and continuous reinforcement of auscultation, monitoring and auditing procedures. On an external level, through the involvement of suppliers and partners in the underwriting of good practices and the continuous auditing of activities.

## AN EVEN GREENER FUTURE

EDP is well positioned to be a leader in the energy transition and embrace the new challenges of delivering superior value to our shareholders. Our portfolio, essentially green, puts us in a privileged position to implement our vision based on 5 strategic pillars:

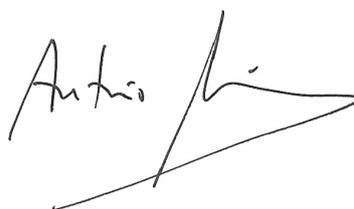
1. **Accelerated and focused growth**, with a clear bet on renewables leveraging on the knowledge and execution capabilities developed over the last decade;
2. **Continuous portfolio optimization**, through the sale of majority stakes in renewables to accelerate

organic growth and value crystallization, and also through the divestment of other assets to balance EDP's risk profile;

3. **Solid balance and low risk profile**, focusing on debt reduction, in the short term, with the aim of improving our rating;
4. **Efficiently and digitally enabled**, through the continuous implementation of efficiency and digitalization projects boosted by the natural generation renewal of our people with the goal of having a more flexible and global organization;
5. **Attractive shareholder remuneration**, based on the distinctive green positioning of our company, with sustained earnings' growth and an attractive dividend policy.

Our sector is going through a revolution and EDP positioned itself on the right path thanks to its anticipation strategy and the ability to deliver in recent years. EDP has a clear ambition for 2030, we shall be coal-free and we will continue to contribute actively to the decarbonization of the economy by reducing our CO<sub>2</sub> emissions by 90% (compared with 2005) based, above all, on generation from renewable energy sources (in more than 90%). Together with our customers, we will also promote electric mobility with the aim of achieving 1 million customers by 2030. On the other hand, we will continue with the effort of digitalization and decentralization, notably with the transformation of our Organization, the transition to smart grids in the Iberian Peninsula and the installation of more than 4 million solar panels for our Customers.

I invite you to find more detail on our operation along the pages of this report and to follow the way we are preparing for the future - a more digital, more renewable and more sustainable future. A future that will be electric.



**ANTÓNIO MEXIA**

Chairman of the Executive Board of Directors

ANTÓNIO MARTINS DA COSTA

EBD MEMBER  
RESPONSIBLE FOR SUSTAINABILITY



## MESSAGE

### FROM THE ADMINISTRATOR

#### ANTÓNIO MARTINS DA COSTA

“WE ESTABLISH PARTNERSHIPS TO  
COMPLEMENT OUR WORK, BOTH  
IN TERMS OF SKILLS AND IN THE  
PROMOTION OF A SUCCESSFUL  
AND SUSTAINED ENERGY  
TRANSITION THAT BALANCES  
ECONOMIC, SOCIAL AND  
ENVIRONMENTAL FACTORS.”

#### SUSTAINABILITY AS A STRATEGIC ELEMENT

This year we are again releasing a separate Sustainability Report in which we highlight the main trends in the sector, the strategy followed by EDP and the results achieved in relation to our sustainability goals.

It is increasingly obvious that the environmental, social and governance (ESG) dimensions are vital in the analysis of long-term business growth. It is for this very reason that we want the detail of the information made available and the transparency of the report, which follows the framework of the 10 Global Compact principles, to provide an increasingly sophisticated and well-grounded appraisal of our commitment and to form a robust foundation for relationships of trust between EDP and those working for the transition to sustainable societies.

We accept sustainability as part of the business of EDP. Our strategy includes ambitious goals that take shape in our activity as the main trends and challenges of today. The results that we present show that our commitments do indeed drive our action. The substantial issues of the year included the following: Climate Change, Environmental Performance, Health and Safety, Quality and Customer Service, Social Investment and Local Communities and Human Rights.

EDP has consistently been recognised by RobecoSAM through Dow Jones Sustainability Index (DJSI) as one of the most sustainable companies in the world. It has appeared in this index since 2008. This year it was judged the best in environmental policy management, was one of the top 2 integrated utilities and was assigned top marks in stakeholder engagement.

We fully recognise the key role of energy - particularly electricity - in the promotion of development, reduction of inequalities and the potential contribution to meeting the decarbonization requirements of societies. In 2018, we extended our commitments to the Sustainable Development Goals of the UN Agenda 2030 (SDG) by including the ambition to contribute to achieving SDG 17 - Partnerships for the Implementation of the Goals, so we are now covering 9 of the 17 SDG. We also increased our commitment to the development of energy access solutions and projects and, in addition to work performed as part of international partnerships and alliances, we approved an investment of 12 million Euros to be implemented by 2020.

### OUR CLIMATE ACTION

At a time when societies are preparing for an unprecedented energy transition, 2018 was marked by the release of the 1.5° C Special Report of the Intergovernmental Panel on Climate Change (IPCC) on global warming which highlighted the need to achieve carbon neutrality by 2050, and by the fact that global emissions are continuing to increase.

EDP continues to focus on growth in renewable energy capacity. We are today a global company operating in 16 countries, with the largest share of our investment being in renewables. This year we invested more than 1,000 million Euros in additional renewable capacity. Installed capacity in wind farms in 2018 was 625 MW, including 211 MW in Europe, 136 MW in Brazil and 278 MW in the USA. In total, we now have a portfolio with 74.4% renewable capacity, with our renewable production reaching 66.5% this year, with a HPI (Hydropower Productivity Index) of 1.05, very close to an average year.

We reduced CO<sub>2</sub> emissions by 59% compared to 2005 and were thus closer to the goal of reducing CO<sub>2</sub> emissions by 75% by 2030 which was recognized by the Science Based Targets Initiative as being in line with the requirements set out in the Paris Climate Agreement.

This year, EDP committed to adopting the Task Force on Climate-Related Financial Disclosure (TCFD) and this report presents a summary of its position in the four priority reporting areas recommended by the initiative.

In terms of sustainable finance, EDP made its first structured debt issue based on the principles of Green Bonds, with the aim of obtaining the recognition of the financial markets for its renewable energy investment strategy. As the first Portuguese company to use this instrument, EDP has given a clear signal and stimulus to other companies to join in committing to carbon neutrality.

### DISRUPTION THROUGH INNOVATION

Rapid technological developments and digitization have had major implications for all economic activities, through disruptions in more traditional business models, including asset management and maintenance and in relationships with employees, customers and partners.

For EDP, innovation is the key to creation of value for the Group. We believe that the promotion of accelerated innovation through our investment in programmes such as Open Innovation, EDP Starter and numerous technological innovation projects will enable us to contribute to important goals: leveraging global innovation in key areas for the ongoing energy transition; incorporating knowledge into the business and increasing the competitive advantages of our activity throughout the value chain. In 2018, cumulative investment since 2015 was 212 million Euros, already exceeding the target set for 2020 (200 million Euros) for investment in innovative projects promising clean energy technologies.

In the context of our direct investment projects, we highlight the financial closure of the Windfloat Atlantic project, the pre-commercial development phase of Windfloat technology - the first floating wind platform prepared for semi-deep waters - and the success of the floating photovoltaic solar field on the Alto do Rabagão reservoir, which will be replicated on other reservoirs in Portugal, with larger systems.

### ENERGY FOR THE CUSTOMER AND FOR SOCIETY

Given our intention to provide our customers with access to energy efficiency products and services that will reduce overall consumption by 1 TWh by 2020 compared to 2015, in 2018 we kept the focus on providing value added services, with an emphasis on decentralized solar power and energy efficiency services.

EDP is promoting several projects that have directly contributed to achieving more efficiency alongside greater innovation, including "Smart House"; "Save2Compete", which since 2015 has already saved our customers in the Iberian Peninsula 27 million Euros and 270 GWh of energy, thus avoiding 406 ktCO<sub>2</sub> emissions; and "InovGrid", for automated management and greater intelligence in power grids.

We continue to focus on putting energy at the service of more sustainable lifestyles and this year, anticipating the necessary convergence between electricity and transport, we consolidated our position in mobility. In addition to the development of commercial solutions to promote electric mobility, including charging infrastructures, we are committed to 100% electrification of the Group's light vehicle fleet and to promoting the mobilization of society in this area.

In this area we are establishing a range of partnerships, in which we will work in the coming years to develop and disseminate knowledge and solutions to move forward in transport decarbonization and improve quality of life in cities. Accordingly, in 2018, we joined the Transport Decarbonisation Alliance (TDA) - as founder members - and the Transforming Urban Mobility programme of the World Business Council for Sustainable Development (WBCSD).

In 2018, in line with our commitment to 80% customer satisfaction in 2020, the rate achieved was 78.2%.

## PEOPLE, OUR RAISON D'ÊTRE

Through new recruitments, EDP continued with its policy of promoting gender equality, by increasing the number of female employees. Likewise, in order to equip young people for the labour market, EDP hosted 850 young people on internship programmes. We also highlight the importance of the internal mobility programme, which in 2018 provided 1,131 employees with the opportunity to rotate roles and take on new professional challenges.

Health and safety at work remains a priority for EDP. With the "Zero Accidents" vision we have been promoting the development of initiatives focused on minimizing occupational risks and promoting safe behaviours, in order to safeguard the physical integrity of all those who work with us.

As a result of these efforts, the frequency of accidents at work involving the employees of EDP and contractors has continued along a downward trend in recent years. However, we regret the occurrence of seven fatal accidents in the EDP Group (including contractors), which reinforces our conviction that people must be at the heart of our strategic agenda.

We believe that the development of a safety culture that enables us to anticipate situations that could lead to future work-related accidents is fundamental for the sustained reduction in workplace accidents and occupational diseases and also contributes decisively to the well-being of our staff.

Also in the area of social responsibility, the company enhanced its strategy of voluntary investment in society, by directing financial resources and volunteering towards the major challenges of energy poverty and access to energy, decarbonization and sustainable lifestyles. In this area, EDP focused in particular on the United Nations Sustainable Development Goals, both through its third sector funding work and by promoting the SDGs in international and national forums.

## OUR EYES ON THE FUTURE

We closed the year confident that we had managed to identify the priorities and the right opportunities and that we had worked to achieve them, thus continuing our leadership in our industry. When and where relevant, we establish partnerships to complement our work, both in terms of skills and in the promotion of a successful and sustained energy transition that balances economic, social and environmental factors.

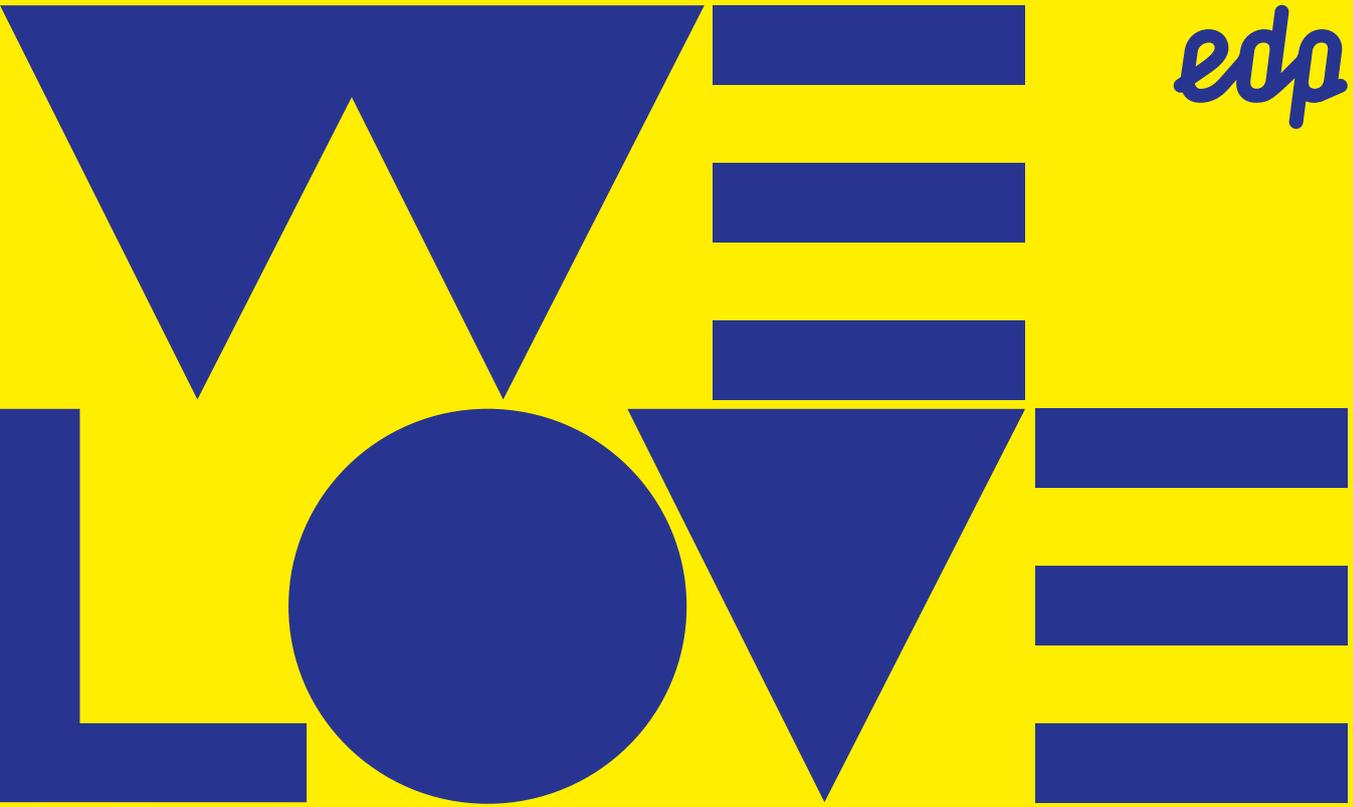
The years ahead will remain demanding for us. The transformations that are impacting on the sector are accelerating year on year while the outlook in terms of geopolitical context, regulatory uncertainty and market developments is challenging.

But we remain focused on our long-standing commitment to sustainable and innovative solutions for our customers that respond to higher demands for electrification of societies, with more renewable energy production, including decentralized generation and greater energy efficiency.



**ANTÓNIO MARTINS DA COSTA**

EBD member responsible for Sustainability



*edp*

# OUR VISION

# VISION, VALUES AND COMMITMENTS

## VISION, VALUES AND COMMITMENTS

### VISION

A GLOBAL ENERGY PROVIDING COMPANY LEADER IN THE ENERGY TRANSITION TO CREATE SUPERIOR VALUE

### VALUES

#### INNOVATION

With the aim of creating value in the many areas in which we operate.

#### SUSTAINABILITY

Aiming to improve the quality of life of current and future generations.

#### HUMANIZATION

Building genuine and trusting relationships with our employees, customers, partners and communities.

### COMMITMENTS

#### RESULTS

- We fulfil the commitments that we embraced in the presence of our shareholders.
- We are leaders due to our capacity of anticipating and implementing.
- We demand excellence in everything that we do.

#### SUSTAINABILITY

- We assume the social and environmental responsibilities that result from our performance thus contributing towards the development of the regions in which we operate.
- We avoid specific greenhouse gas emissions with the energy we produce.
- We ensure the participatory, competent and honest governance of our business.

#### CLIENTS

- We place ourselves in our clients' shoes whenever a decision has to be made.
- We listen to our clients and answer in a simple and clear manner.
- We surprise our clients by anticipating their needs.

#### PEOPLE

- We join conduct and professional rigour to enthusiasm and initiative, emphasizing team work.
- We promote the development of skills and merit.
- We believe that the balance between private and professional life is fundamental in order to be successful.

# RECOGNITION

# RECOGNITION

## ANTÓNIO MEXIA WINS BEST CEO

in Portugal at the Human Resources Awards

**EDP, ONE OF THE WORLD'S MOST ETHICAL COMPANIES,**  
honoured by the Ethisphere Institute for the 7th consecutive year

## EDP IN THE TOP-2 OF INTEGRATED UTILITIES

on the Dow Jones Sustainability Index World and Europe  
and considered the world's best in environmental policy  
management

## BEST ANNUAL REPORT

of the companies listed on the PSI-20 share index, according  
to the Deloitte Investor Relations and Governance Awards

## EDP IS A BUSINESS ADMINISTRATION LEADER

according to the 2018 Business Awards

## EDP AWARDED SUSTAINABILITY PRIZE

at the European Festival Awards

## EDP RECOGNISED AS AN OUTSTANDING EMPLOYER

by Korn Ferry

## EDP ELECTED COMPANY OF THE YEAR

at the Meios & Publicidade Awards

## EDP COMERCIAL ELECTED 2018 CONSUMER CHOICE

in the Energy and Services for Domestic Use category

## FRADES II HYDROELECTRIC POWER PLANT

wins the VGB Quality Award 2018 of the International  
Association of Power Producers and also awarded Plant of  
the Year by Power Magazine

## EDPR WINS TOP EMPLOYERS SPAIN PRIZE

awarded by Top Employers Institute

## MIGUEL SETAS, EDP BRASIL, ELECTED ONE OF THE BEST CEOs IN BRAZIL

according to Forbes Magazine

## EDP BRASIL ELECTED THE BEST COMPANY OF THE BRAZILIAN ENERGY SECTOR

by Época 360°

## EDP BRASIL WINS IN THE BEST REPUTATION CATEGORY

according to the Reputation Index Study

## EDP ESPAÑA WINS FUNDACOM PRIZE

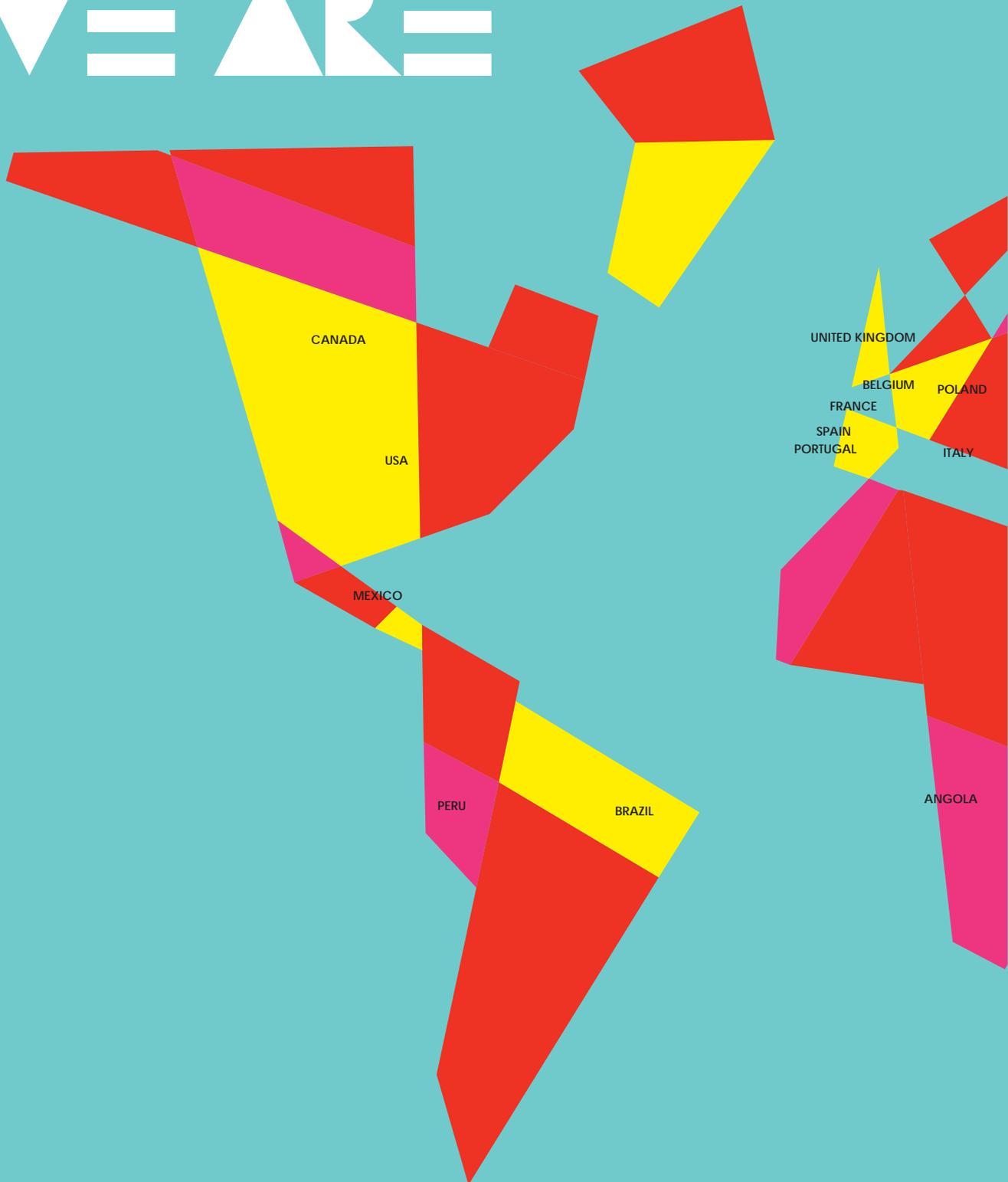
for the best Corporate Social Responsibility campaign with  
"Comparte tu Energia" (Share your Energy)





# WHERE WE ARE

# WHERE WE ARE WE ARE



PORTUGAL	○ ✕ † ∩	👤	6,085	POLAND	✕	👤	32
SPAIN	○ ✕ † ∩	👤	1,674	ROMANIA	✕	👤	30
CANADA	✕	👤	5	ITALY	✕	👤	31
USA	✕	👤	583	UNITED KINGDOM	✕	👤	60
MEXICO	✕	👤	8	BELGIUM	✕	👤	2
BRAZIL	○ ✕ 🚚 † ∩	👤	3,038	FRANCE	✕	👤	78
PERU	✕	👤	2	GRECE	✕	👤	
CHINA	...	👤	2	ANGOLA	✕	...	

○ CONVENTIONAL GENERATION   ✕ RENEWABLE GENERATION   🚚 TRANSPORT   † DISTRIBUTION   ∩ SUPPLY   ... OFFICES   👤 EMPLOYEES



# EDP IN THE WORLD

# EDP IN THE WORLD

## PORTUGAL



renováveis



gás



serviço universal



distribuição

**56%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

6,085

employees

5,243,950

electricity customers

700,058

gas customers

11,311 MW

installed capacity

28,294 GWh

net generation

177,491 km

overhead grid extension

48,817 km

underground grid extension

46,059 GWh

electricity distributed

47 MW

capacity under construction

0.1 GW

pipeline

## SPAIN



naturgas energia



distribución



renováveis

**42%**  
GENERATION  
FROM RENEWABLE SOURCES<sup>1</sup>

1,674

employees

1,153,947

electricity customers

895,289

gas customers

5,684 MW

installed capacity

14,071 GWh

net generation

15,723 km

overhead grid extension

4,986 km

underground grid extension

9,360 GWh

electricity distributed

29 MW

capacity under construction

0 MW

pipeline

## BRAZIL



renováveis

**66%**  
GENERATION  
FROM RENEWABLE SOURCES<sup>1</sup>

3,038

employees

3,450,487

electricity customers

2,787 MW

installed capacity

10,285 GWh

net generation

113 km

operating transport network

91,906 km

overhead grid extension

254 km

underground grid extension

25,007 GWh

electricity distributed

0 MW

capacity under construction

1,184 km

transport network under construction

847 MW

pipeline

## FRANCE



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

78

employees

421 MW  
829 GWh  
19 MW  
5 GW

installed capacity  
net generation  
capacity under construction  
pipeline

## BELGIUM



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

2

employees

71 MW  
129 GWh  
11 MW

installed capacity  
net generation  
pipeline

## ITALY



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

31

employees

221 MW  
385 GWh  
50 MW  
16 MW

installed capacity  
net generation  
capacity under construction  
pipeline

## POLAND



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

32

employees

418 MW  
919 GWh  
38 MW

installed capacity  
net generation  
pipeline

## ROMANIA



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

30

employees

521 MW  
1,059 GWh  
0 MW

installed capacity  
net generation  
pipeline

## USA



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

583

employees

5,332 MW  
14,873 GWh  
199 MW  
3 GW

installed capacity  
net generation  
capacity under construction  
pipeline

## CANADA



**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

5

employees

30 MW  
71 GWh  
100 MW

installed capacity  
net generation  
pipeline

## MEXICO



8

employees

200 MW  
700 GWh  
0 MW

installed capacity  
net generation  
pipeline

## UNITED KINGDOM



60

employees

950 MW

capacity under construction  
(joint venture)

## GREECE



60 MW

pipeline

## CHINA

2

employees

## PERU

2

employees

## ANGOLA

escritórios

<sup>1</sup> Includes hydro, wind and solar.

# WHO WE ARE

# WHO WE ARE

## EDP IS A MULTINATIONAL, VERTICALLY INTEGRATED UTILITY COMPANY

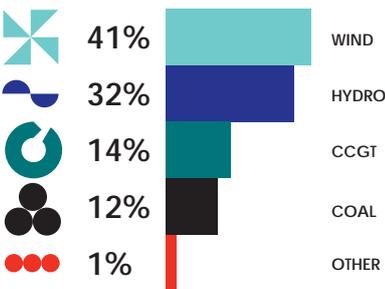
Throughout its 42 years of history, EDP has been building a relevant presence in the world energy scene, being present in 16 countries in 4 continents. EDP has around 11,600 employees and is present throughout the electricity value chain and in the gas commercialization activity.



### 1. GENERATION

**Generation** is the first activity in the value chain of the electricity sector. Power plants transform the various energy sources into electricity. These energy sources may be of renewable origin (water, wind and sun) or non-renewable (coal, natural gas, nuclear and cogeneration).

27 GW OF INSTALLED CAPACITY



72 TWh OF NET ELECTRICITY GENERATION **66%** RENEWABLE SOURCES



### 2. TRANSPORT ACTIVITY

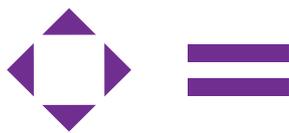
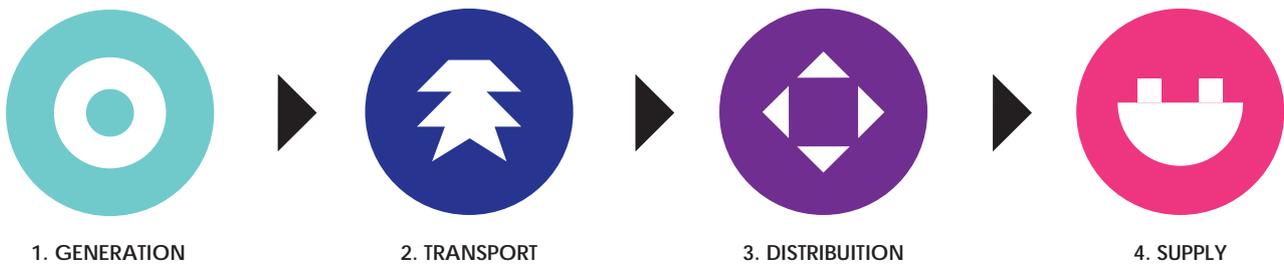
In the **transport activity** the energy generated is delivered to the transmission network, which is made up of very high voltage lines and which then channels the energy to the distribution network.



**1,184Km**  
OF TRANSMISSION NETWORK  
UNDER CONSTRUCTION



**113Km**  
OF OPERATING NETWORK



### 3. DISTRIBUTION

In the **distribution activity** the transported energy is channeled to the distribution grid. The distribution network allows the flow of energy to the supply points. Electricity distribution networks are composed of high, medium and low voltage lines and cables. Substations, processing stations and public lighting installations as well as the necessary connections to consumer installations and power stations are also an integral part of the distribution networks.

339.177 KM OF NETWORK

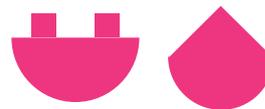


**285,121km**  
OF DISTRIBUTION OVERHEAD LINES



**54,056km**  
OF DISTRIBUTION UNDERGROUND LINES

80 TWh OF ELECTRICITY DISTRIBUTED



### 4. SUPPLY

In the **supply activity** distributed energy arrive at the supply point and is sold by the supplier. Throughout the electricity and gas value chain, supply is the closest activity to the customer and responsible for the relationship with final consumers.

ELECTRICITY CUSTOMERS



**9,848,384**

**5,051,786**  
CUSTOMERS IN LIBERALIZED MARKET

**4,796,598**  
CUSTOMERS IN LAST RESORT

GAS CUSTOMERS



**1,595,347**

**1,503,451**  
CUSTOMERS IN LIBERALIZED MARKET

**91,896**  
CUSTOMERS IN LAST RESORT

# BUSINESS MODEL

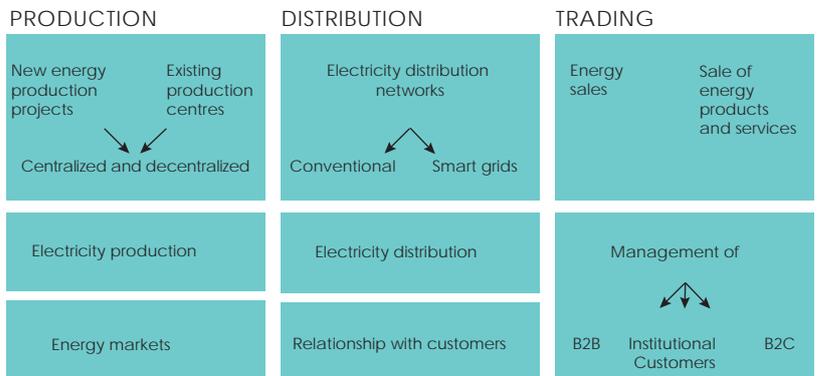
# BUSINESS MODEL



## INPUTS

<b>NATURAL RESOURCES</b> Renewable resources (water, sun, wind) Non-renewable resources (coal, natural gas, raw materials for network equipment)
<b>HUMAN RESOURCES</b> Employees Suppliers
<b>FINANCIAL RESOURCES</b> Third party capital Income Financing Stocks
<b>INTELLECTUAL RESOURCES</b> Brand Patents Innovation Partnerships
<b>PHYSICAL RESOURCES</b> Assets (power grid: hydroelectric, thermal, wind and solar infrastructures) Shop network Property Other facilities
<b>SOCIAL RESOURCES</b> Qualified competences of employees and suppliers Business partners (suppliers, communities, joint ventures, State, R&D, NGOs)

## VALUE CHAIN



## STRATEGY



### MARKET FORCES

Regulatory and governmental pressure

### KEY TRENDS

Enhanced investment in renewables and infrastructure  
 Diversification of revenue sources  
 Climate change and energy efficiency  
 Technological innovation and internet  
 New challenges for conventional production  
 Cultural and socio-economic changes

### STAKEHOLDERS





## RESULTS

### NATURAL VALUE

Air pollutant emissions  
Waste and effluent management  
Water management  
Habitats and protected species  
Environmental incidents  
Energy consumption

### HUMAN VALUE

Diverse workforce  
Volume of Training  
Injuries and ill health  
Employee salaries  
Employee satisfaction  
Social benefits for employees

### FINANCIAL VALUE

Profit  
Returns on third party capital / dividends  
Debt management

### INTELLECTUAL VALUE

Innovative products and services  
Knowledge generated

### SOCIAL VALUE

Energy production and distribution externalities  
Brand reputation  
Social investment  
Customer satisfaction  
Contractual relationship with suppliers

### INFRASTRUCTURE VALUE

Quality and efficiency of energy supply  
Energy Produced and Distributed  
Incidents with third parties

## IMPACTS

### NATURAL VALUE

Reduction of CO<sub>2</sub> emissions through promotion of renewable energy  
Reduction of air pollutant emissions  
Reduction of consumption of Natural Resources  
Ensuring water quality  
Preservation of biodiversity  
Reduction of energy consumption through energy efficiency measures

### HUMAN VALUE

Promotion of diversity and equal opportunity  
Promotion of employee skills development  
Promotion of occupational health and safety  
Promotion of employee satisfaction

### FINANCIAL VALUE

Minimizing financial risks  
Debt reduction

### INTELLECTUAL VALUE

Promotion of innovation and research  
Promotion of the adoption of sustainable consumption behaviours  
Leveraging generated knowledge

### SOCIAL VALUE

Reputation and recognition  
Promotion of social investment  
Promotion of customer satisfaction / customer experience  
Promotion of an ethical culture  
Supplier development

### INFRASTRUCTURE VALUE

Ensuring the quality and efficiency of energy supply  
Promotion of safety of facilities and equipment

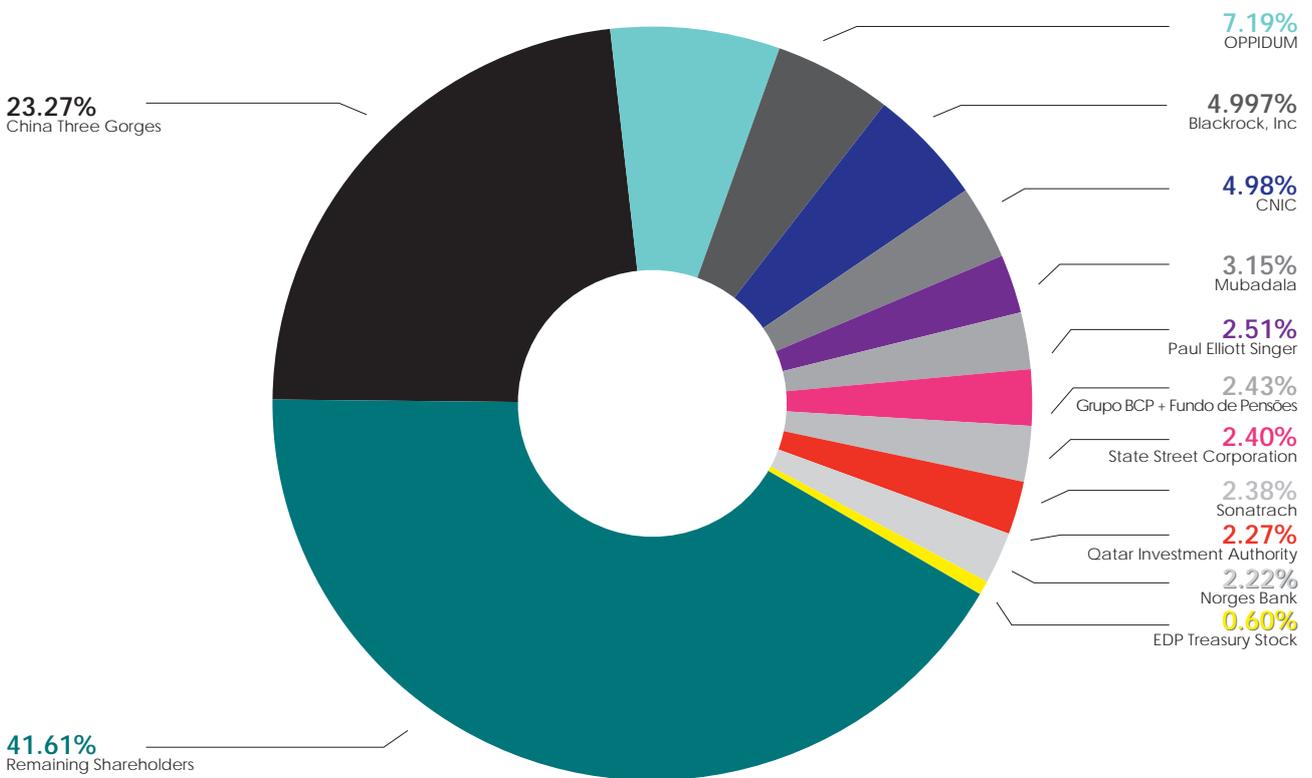
# SHAREHOLDER'S STRUCTURE

# SHAREHOLDER'S

## CAPITAL STRUCTURE

EDP's share capital in the amount of EUR 3,656,537,715.00 and is fully paid up, according to Article 4 (2) of EDP's Articles of Association, being represented by 3,656,537,715 shares, which are ordinary and have a face value of 1 euro each.

EDP's shareholder structure on 31 December 2018 was as follows:



For additional information please see EDP's 2018 Annual Report, page 26.

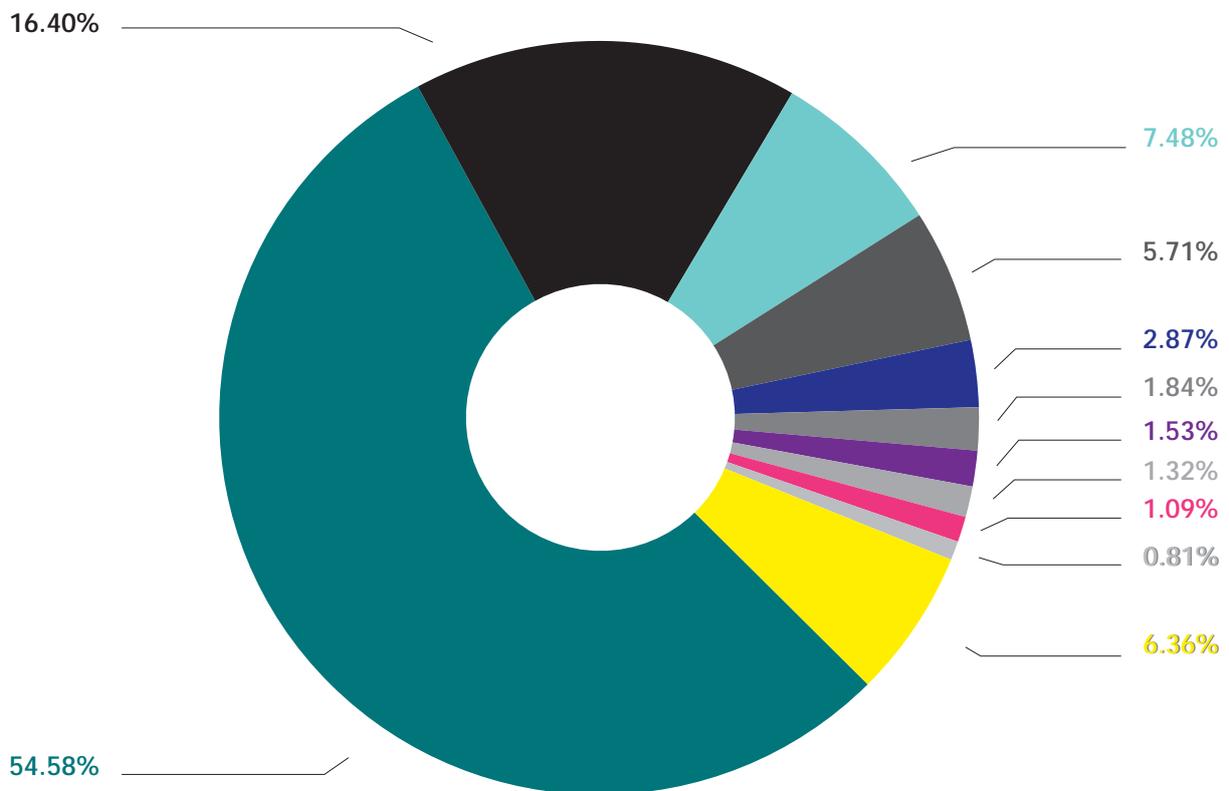
# STRUCTURE

## SRI INVESTORS

According to the results of the analysis prepared by Nasdaq for EDP in December 2018, SRI investors held 147,031,881 shares, corresponding to 4.0% of EDP's Share Capital. Regarding changes in the SRI investment structure, there was a slight decrease in the participation of the largest investor SRI, Norges Bank Investment Management (NBIM) from 55.1% to 54.6%, INVESCO participation (16.4% %) and Kempen (from 7.0% to 7.5%). These investors are signatories to the 6 PRI principles.

The distribution of the socially responsible investment by EDP's shareholder was as of 31 December 2018 as follows:

### SRI INVESTMENT BREAKDOWN IN EDP



■ Norges Bank Investment Management (NBIM)
 ■ INVESCO Asset Management Limited
 ■ Kempen Capital Management N.V.
 ■ NNIP Advisors B.V.
 ■ Union Investment Privatfonds GmbH
 ■ Aviva Investors Global Services Limited
 ■ AG2R La Mondiale Gestion d'Actifs SA
 ■ UBS Asset Management (UK) Ltd.
 ■ PGGM Vermogensbeheer B.V.
 ■ Andra AP-Fonden
 ■ Others

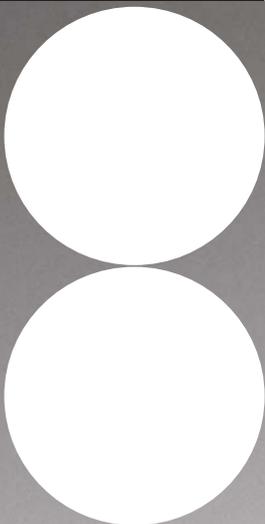
For more information please go to page 61.

**LOVE ENERGY**

*edp*

## 02 STRATEGIC APPROACH

Corporate Governance	35
Sustainability Organization	39
Stakeholders	41
Sector Trends	42
Risk Management	47
Strategy, Goals and Targets	51



**ON A CLEAR**





**WE  
LOVE  
THE SUN**

**DAY YOU CAN SEE FOREVER**



# 02 STRATEGIC APPROACH

## 2.1 CORPORATE GOVERNANCE

EDP's corporate governance structure, based on the dual board model, is composed of the following corporate bodies: General Meeting, Executive Board of Directors, General and Supervisory Board, and Statutory Auditor.

This governance model promotes separation between management and supervision functions and has shown itself to be suitable for the effective management of the Company, in the carrying out of its own goals and interests, those of its shareholders, employees and remaining stakeholders, thus contributing to achieving the degree of confidence and transparency necessary for its suitable operation and optimization.

### SPECIFICITIES OF THE CURRENT CORPORATE GOVERNANCE MODEL

#### STATUTORY BODIES

##### GENERAL AND SUPERVISORY BOARD

The General and Supervisory Board's task is to provide permanent advice, monitoring and oversight of the activities of EDP's management, in particular in respect of the definition of the strategy and its objectives, investments, divestitures and financing operations. Within the scope of its powers, the General and Supervisory Board may propose to the General Meeting the dismissal of any member of the Executive Board of Directors, as well as of the Statutory Auditor.

The General and Supervisory Board also has the power to select and replace EDP's External Auditor, and for providing instructions to the Executive Board of Directors on how to proceed with such hiring and dismissal. The General and Supervisory Board is responsible for analysing reports of financial irregularities presented by shareholders, employees and/or other stakeholders.

The members of the General and Supervisory Board are elected by the General Meeting for three-year terms. For additional information on the members' biographies please go to page 155.

At the General Meeting of 5 April 2018, the General and Supervisory Board was elected for the term corresponding to the 2018-2020 three-year period. Twenty-one members were elected, eleven of them independent, in compliance with the provisions of the Portuguese Commercial Companies Code, which establishes that the majority of the members of this body must be independent. António Manuel de Carvalho Ferreira Vitorino, independent member, resigned on 27 July 2018.

Under EDP's articles, independence is defined as the absence of direct or indirect relations with the company or its management body and the absence of circumstances that may affect the exemption from analysis or decision-making, in

particular because the persons in question having a qualified holding equal to or greater than 2% of the share capital of the company or having been re-elected for more than two terms, continuously or intermittently.

In accordance with the Law and EDP's Articles, the members of the General and Supervisory Board annually renew their declarations of incompatibilities and independence. These statements are disclosed on the EDP website.

For more detail on the functioning of the General and Supervisory Board, see pages 105 and 111 of the EDP 2018 Annual Report.

## **EXECUTIVE BOARD OF DIRECTORS**

The Executive Board of Directors is the body responsible for the management of social activities and Company representation.

The Executive Board of Directors is responsible for defining the EDP Group's organizational model and the division of functions between the different Business Units and the central structure. The latter consists of the Corporate Centre which plays a fundamental role in support of the Executive Board of Directors, defining and monitoring the implementation of strategies, policies and objectives.

The Corporate Centre is organized by directorates and business units, which provides for greater optimization and efficiency of the organizational structure. The Executive Board of Directors is also supported by specific Committees which enable issues to be monitored more effectively and contribute to the decision-making process.

At the General Meeting of 5 April 2018, the Executive Board of Directors was elected for the term corresponding to the 2018-2020 three-year period. Nine members were elected. The Chairman has the right, whenever he/she deems it appropriate, to attend meetings of the General and Supervisory Board, except when deliberations are taking place under the scope of the supervision of the activities of the Executive Board of Directors and, in general, in any situation where there is a conflict of interest. For additional information on the members' biographies please go to page 165.

For more detail on the functioning of the Executive Board of Directors see pages 107 and 113 of the EDP 2018 Annual Report.

## **STATUTORY AUDITOR**

The Statutory Auditor is the company's body responsible for examining the accounting documents and is elected by the General Meeting for three-year terms.

At the General Meeting held on 5 April 2018, PricewaterhouseCoopers & Associados - Sociedade de Revisores de Contas, Lda. ("PWC"), official auditor company number 183, represented by João Rui Fernandes Ramos (Statutory Auditor No. 1333), was elected for the three-year period 2018-2020, and on the same date, Aurélio Adriano Rangel Amado (Statutory Auditor No. 1074) was elected as the Alternate Statutory Auditor for the same three-year period.

For more details on the role of the Statutory Auditor, see page 146 of the EDP 2018 Annual Report.

## **GENERAL MEETING**

The General Meeting is responsible for deliberating on all matters for which the law and EDP's Articles of Association assign it powers, namely electing and dismissing the members of the Board of the General Meeting, the Executive Board of Directors and the General and Supervisory Board, as well as their chairs and vice chairs, if any, the Statutory Auditor, as proposed by the General and Supervisory Board or, by delegation of the latter, of the Audit Committee, and the members of the Environment and Sustainability Council.

It is also responsible for annually appraising the remuneration policy of the members of the Executive Board of Directors, proposed by a Remuneration Committee appointed by the General and Supervisory Board, as well as the remuneration policy of the other corporate governing bodies proposed by the Remuneration Committee appointed by the General Meeting.

## CORPORATE BODIES

### GENERAL MEETING REMUNERATION COMMITTEE

This body is responsible for annually setting the remuneration of the corporate bodies: Board of the General Meeting; Chairman and members of the General and Supervisory Board; Statutory Auditor and Environment and Sustainability Council.

### ENVIRONMENT AND SUSTAINABILITY COMMITTEE

It is elected by the General Meeting, reports to the Executive Board of Directors and holds advisory functions in the definition of the corporate environment and sustainability strategy.

### FINANCIAL MATTERS COMMITTEE / AUDIT COMMITTEE OF THE GENERAL AND SUPERVISORY BOARD

Its constitution is a statutory requirement. It must be specifically dedicated to performing functions related to the supervision of financial information and permanent monitoring of the activity of the Statutory Auditor.

## OTHER STATUTORY BODIES

### REMUNERATION COMMITTEE OF THE GENERAL AND SUPERVISORY BOARD

Its constitution is permitted by Law and was enshrined in EDP's Articles of Association, which assigned it responsibility for setting the remuneration of the Chairman and other members of the Executive Board of Directors.

### CORPORATE GOVERNANCE AND SUSTAINABILITY COMMITTEE OF THE GENERAL AND SUPERVISORY BOARD

Although EDP's Articles provides for its establishment, its actual appointment was freely decided by the General and Supervisory Board, which is responsible for fulfilling various functions in the areas of corporate governance and the economic, social and environmental sustainability of EDP.

### STRATEGY AND PERFORMANCE COMMITTEE OF THE GENERAL AND SUPERVISORY BOARD

This body is responsible for the permanent monitoring of the following matters: (i) short, medium and long term scenarios and strategies, (ii) strategic execution and business planning and budgets, (iii) investments and divestments, (iv) debt and loans, (v) strategic alliances, (vi) markets and competitiveness trends, (vii) regulation, (viii) analysis of the performance of the Group and its Business Units, (ix) benchmarking the Group's performance against the top companies in the sector and (x) evaluation of the competitiveness of EDP's business portfolio.

## CORPORATE GOVERNANCE PRACTICES

In the current legal framework, EDP annually discloses a report on its governance practices, which includes a statement on the adoption of the principles and recommendations of the 2018 Code of Corporate Governance of the Portuguese Institute of Corporate Governance, specifying in particular the recommendations concerning the lack of such reception and the associated reasons.

In the exercise of best practices in terms of corporate governance, thus reinforcing the confidence of EDP shareholders and other stakeholders in general, EDP has gone beyond the legal and regulatory requirements.

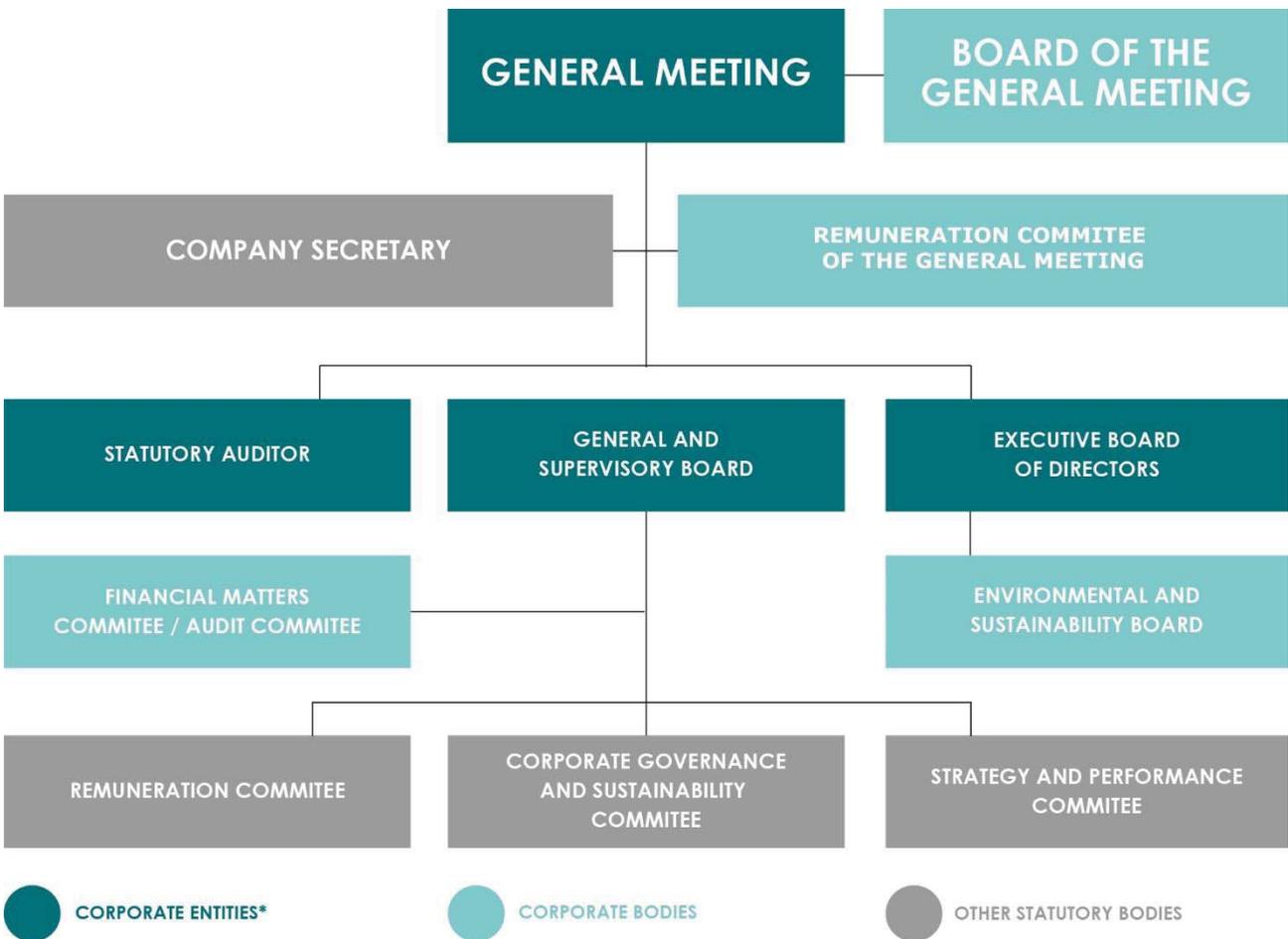
In this sense, the Company has a Corporate Governance Manual, the main purpose of which is to register and share the understanding of the Executive Board of Directors and of the General and Supervisory Board regarding recommendations for

good corporate governance practices applicable to EDP in terms of the governance of the company. This material can be found in detail in the Corporate Governance Report included in EDP's Annual Report.

In order to prevent conflicts of interest, in 2010 the General and Supervisory Board approved a set of objective and transparent rules for identifying, preventing and resolving significant corporate conflicts of interest. This set of rules is available on the EDP website ([www.edp.com](http://www.edp.com)> investors> corporate governance> company's data> by-laws / regulations).

For more details on how EDP operates in terms of corporate governance, see the EDP website ([www.edp.com](http://www.edp.com)> investors> corporate governance> company's data> by-laws / regulations) and the Chapter "Corporate Governance" of the 2018 Annual Report.

## ORGANISATION CHART, DELEGATION, AND DIVISION OF POWERS



\*Corporate Entities are also Corporate Bodies, pursuing the article 8 of EDP's Articles Association.

## 2.2 SUSTAINABILITY ORGANIZATION

The EDP Group recognizes the importance of sustainability in its value chain, integrating the ESG (Environment, Social and Governance) risks and opportunities into its business strategy.

Sustainability within the EDP Group is organized with the goal of establishing a close communication between the corporate structure and the operating structures, enhancing the information flow and the implementation of its strategy. This enables to assure the monitoring of the different sustainability dimensions, with a focus on the material themes of the year, highlighting the following: Climate Change on its different dimensions, Environment Performance, Safety, Quality and Client Service, Social Investment and Local Communities and Human Rights. Additionally, still during 2018, the theme Task Force on Climate-related Financial Disclosure deserved special attention. In terms of sustainability, EDP organization is summarized in the figure above, highlighting the different responsibilities:

**GENERAL SUPERVISORY BOARD** - Maximum body responsible for supervision. Based on the nature and functions attributed, the General Supervisory Board created a specialized commission to deal with particularly important topics within sustainability.

- **CORPORATE GOVERNANCE AND SUSTAINABILITY COMMITTEE** - Specialized Committee with competences on matters related to corporate governance, strategic sustainability, internal codes of ethics and conduct, conflict of interests' resolution system, among others. This Committee is also responsible for defining the members of the Ethical Committee. In 2018, within its competences this Committee met five times, with an average participation rate of 91%. In three of these meetings, given the topics selected, the director of the Executive Board of Directors who is responsible for the corporate sustainability department was requested to be present. For more information on the main topics addressed by this Committee, see the General Supervisory Board Annual Report 2018.

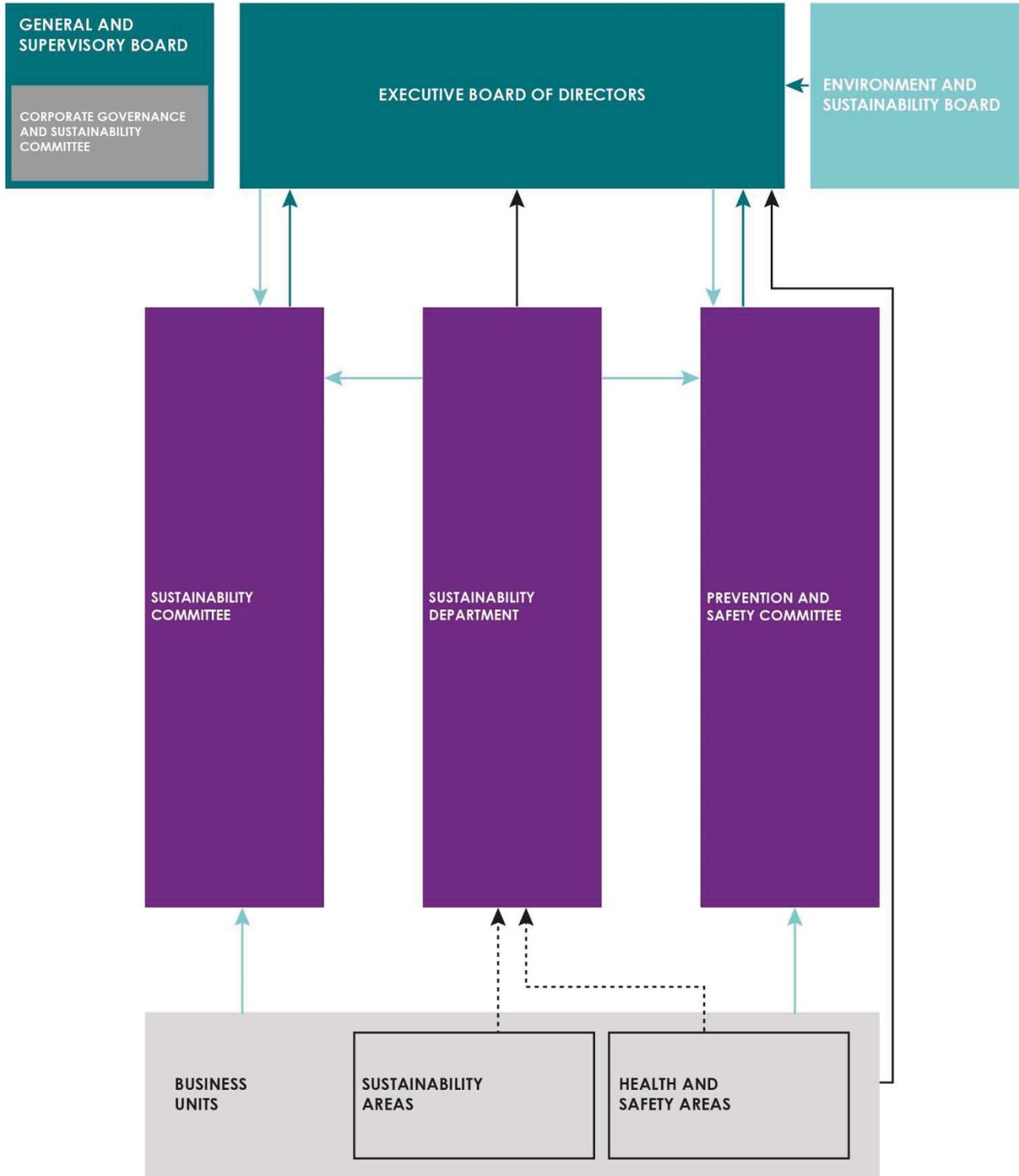
**EXECUTIVE BOARD OF DIRECTORS (EBD)** - Defines policies and sets Sustainability objectives by proposal from the Sustainability Department. It is responsible for defining the members of both the Sustainability Committee and the Prevention and Safety Committee.

**ENVIRONMENTAL AND SUSTAINABILITY BOARD** – Advisory body that supports the Executive Board of Directors in defining the strategy, including the formulation of opinions and recommendations about the environmental impact of projects.

**CENTRAL SUPPORT STRUCTURE** - constituted by a Corporate Centre organized by several Corporate Departments and Business Units. As part of this structure, specific committees also support the Executive Board of Directors and contribute to the decision-making process. In the sustainability area, we have:

- **SUSTAINABILITY DEPARTMENT** - analyses, proposes and guarantees the Group's sustainability strategy, supporting EBD in the definition of ESG policies and objectives, as well as their operationalization in the Business Units.
- **SUSTAINABILITY COMMITTEE** - Chaired by the President of the EBD, this committee supports the management of the sustainability topics. Its permanent members are the ones responsible for the corporate sustainability area in the EBD, directors from the Corporate Centre and representatives from the Business Units. Its scope of action is to support the Sustainability Department in the process of corporate policies development or in the position on certain sustainability matters of corporate interest, assuring alignment and coordination between the two parts. Besides the Sustainability Department, this committee also includes the following departments: Risk Management, Strategic Planning, Investor Relation, Human Resources, EDP University, Brand Management, Marketing and Communication, Institutional and Stakeholders Relations. This committee meets at least once a year.
- **PREVENTION AND SAFETY COMMITTEE** – Internal body that issues opinions on proposals for setting objectives, activities plan and regulatory documents on prevention and safety at work. Assesses the development of the main indicators and proposes improvement actions. Besides the Sustainability Department, this committee also includes the participation of EDP University.

**BUSINESS UNITS** - They operate the Sustainability policies and objectives approved in EBD, through their own projects and targets.

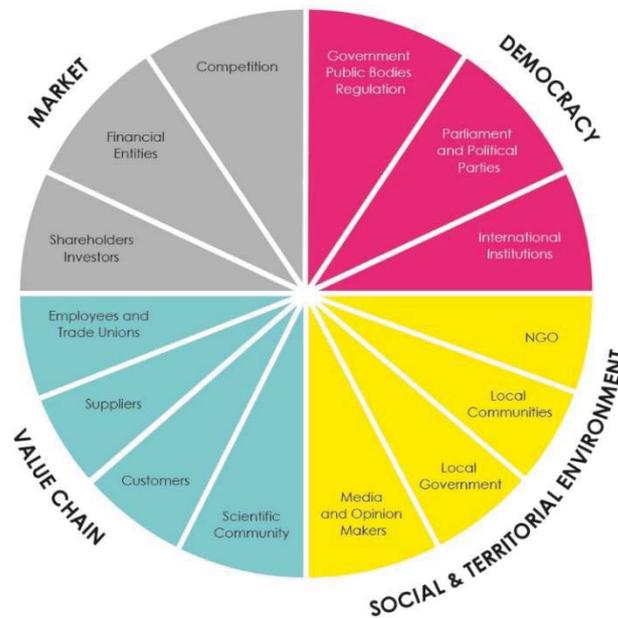


■ Corporate body 
 ■ Corporate entity 
 ■ Other statutory bodies 
 ■ Central structure 
 ■ Business units  
 - - - Functional reporting/policies and strategies alignment 
 — Hierarchic reporting 
 — Participates 
 — Supports

## 2.3 STAKEHOLDERS

Stakeholder engagement is a strategic priority for EDP and the Company is committed to sustain its leadership in stakeholder engagement in regard to its core business and to its social and environmental activities. Therefore, EDP promotes trustful relations, supported by systematic and bidirectional dialogue with key stakeholders, with the purpose to gather its expectations. This is the best way to ensure even further alignment between critical issues for the stakeholders and the business plan of the Company.

**Further evidence of this leadership commitment was obtained with the top score in 2018 in the Stakeholder Engagement criteria of the Dow Jones Sustainability Index.**



This maximum score was obtained for the second year in a row, which mirrors the intense joint effort amid business units and geographies of the EDP Group that seek at each moment to know its stakeholders, identify and prioritize relevant issues in the relationship through dynamic relationship channels and implement responses that anticipate operational and reputational risks, in line with the Policy, Methodology and Stakeholders Management Procedures of EDP Group.



The **Internal View** is the first step of EDP's Stakeholder Engagement Methodology and its main purpose is to identify which stakeholders have stronger influence on EDP's activities and the ones that are more affected by EDP's actions.

The **External View** is the key outward-looking point of EDP's Stakeholder Engagement Methodology. It is an important moment to listen to stakeholders in a direct and proactive way.

The third step consists in the creation of a Stakeholder **Engagement Plan** which contains consistent and clear responses to meet stakeholders expectations, enabling the establishment of a relationship based on trust and creating shared value through cooperation.

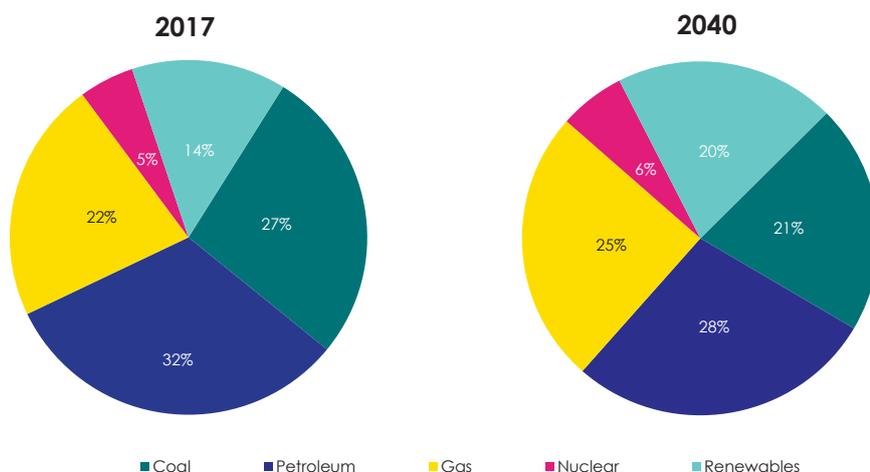
**Monitoring and Reporting** stakeholder engagement performance allows EDP to adjust ongoing actions, depending on the level of implementation or results obtained. The follow-up also enables the identification of emerging issues affecting business and company reputation.

## 2.4 SECTOR TRENDS

After three years of stagnation, carbon emissions from the energy sector rose again in 2017, growing by 1.6%. In 2018, with a rise more than just a one-off increase, the International Energy Agency (IEA) estimates in its baseline scenario (New Policies Scenario) of the World Energy Outlook 2018 (WEO18) that between 2017 and 2040 carbon emissions will increase by 10%. This growth would make it impossible to limit the global temperature increase to 1.5°C compared with pre-industrial values as defined in the Paris Agreement.

This growth in emissions is the consequence of the expected increase in primary energy consumption of 27% by 2040, mainly through increased use of natural gas and oil products in developing countries. By 2040, fossil fuels will furthermore represent 74% of primary energy consumption, with renewable energy sources accounting for 20% and nuclear energy the remaining 6%.

### PRIMARY ENERGY SOURCES IN THE WORLD

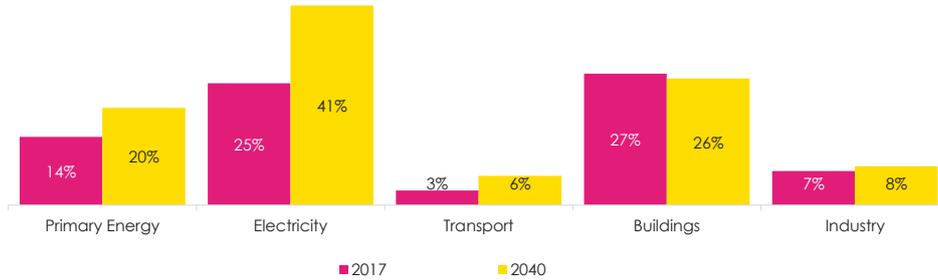


Source: International Energy Agency, World Energy Outlook 2018, New Policies Scenario

Despite the low contribution of renewable energy sources in terms of primary energy, this is not the case in the electricity sector. In fact, the contribution of renewable energy sources to electricity generation is expected to increase from 25% in 2017 to 41% in 2040, with a special focus on wind energy and photovoltaic solar energy. While not enough to reduce carbon emissions in the electricity sector is being done, which will rise by 2% between 2017 and 2040, the use of renewable energy combined with the increasing electrification of consumption still makes a clear contribution to the decarbonisation effort of the world energy sector.

Another factor contributing to an even more significant increase in carbon emissions is the clear decoupling of economic growth and increased demand for energy, which will result in a significant reduction (2.3%/year) in energy intensity globally. At the same time, the overall carbon intensity of the energy sector is expected to reduce by 0.6%/year.

USE OF RENEWABLES WORLDWIDE

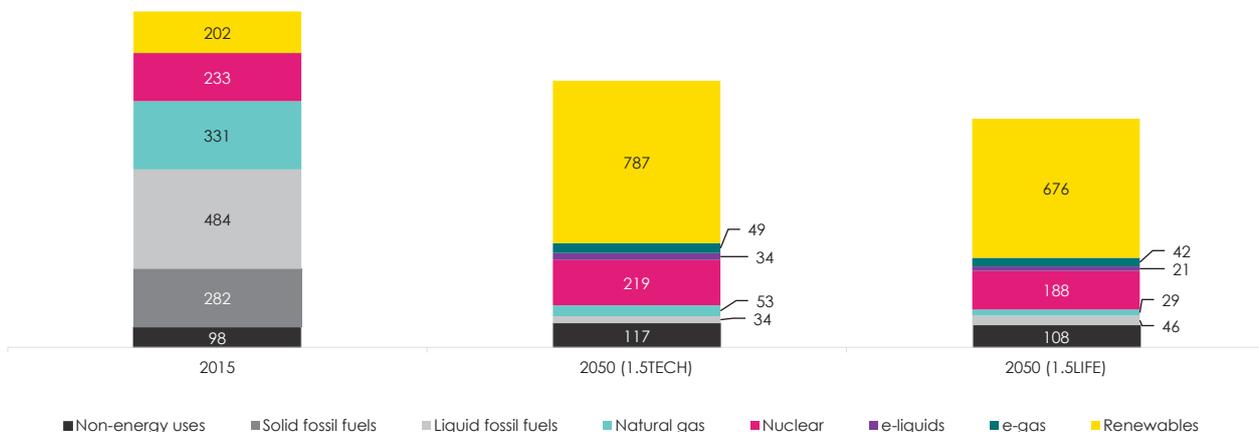


Source: International Energy Agency, World Energy Outlook 2018, New Policies Scenario

In order to take a leading position and support compliance with the Paris Agreement, in 2018 the European Union concluded a set of reforms aimed at guiding sustainable energy development over the next decade and evaluated a set of scenarios representing its vision for 2050. The Clean Energy for All Europeans legislative package set targets of 32% for renewable energy penetration and a 32.5% increase in energy efficiency by 2030. It is also expected that this package will lead to a 45% reduction in emissions by 2030, compared to 1990, which represents an increase in the European Union's goal compared to its 40% target. In order to provide price signals to support decarbonization, the European Union has revised its EU emissions trading scheme. Based on the reduction of available emissions trading, in protecting industries facing international competition, and in supporting investment in low carbon technologies, this review has resulted in a very significant increase in the price of CO<sub>2</sub> (from around €8/tCO<sub>2</sub> at the beginning of January 2018 to around €24/tCO<sub>2</sub> at the end of the year).

The vision of a carbon neutral European Union in 2050, designed by the European Commission and presented in 2018, considers two scenarios based on different technological contributions and changes in lifestyles. The 1.5TECH scenario considers a greater contribution of all available technologies, depending significantly on the use of biomass and carbon capture and storage technologies. The 1.5LIFE scenario assumes that there is a greater incentive to promoting a circular economy, along with a change in lifestyles and consumer choices that leads them to make more sustainable decisions. Examples of such choices include the transition to less carbon-intensive diets, the use of shared modes of transport, less use of air transport, and more rational use of energy in buildings. Regardless of the strategy followed, both scenarios demonstrate the need to reduce energy consumption and increase the use of renewable energy sources to about 61%, compared to only 12% in 2015.

PRIMARY ENERGY IN THE EUROPEAN UNION (Mtep)



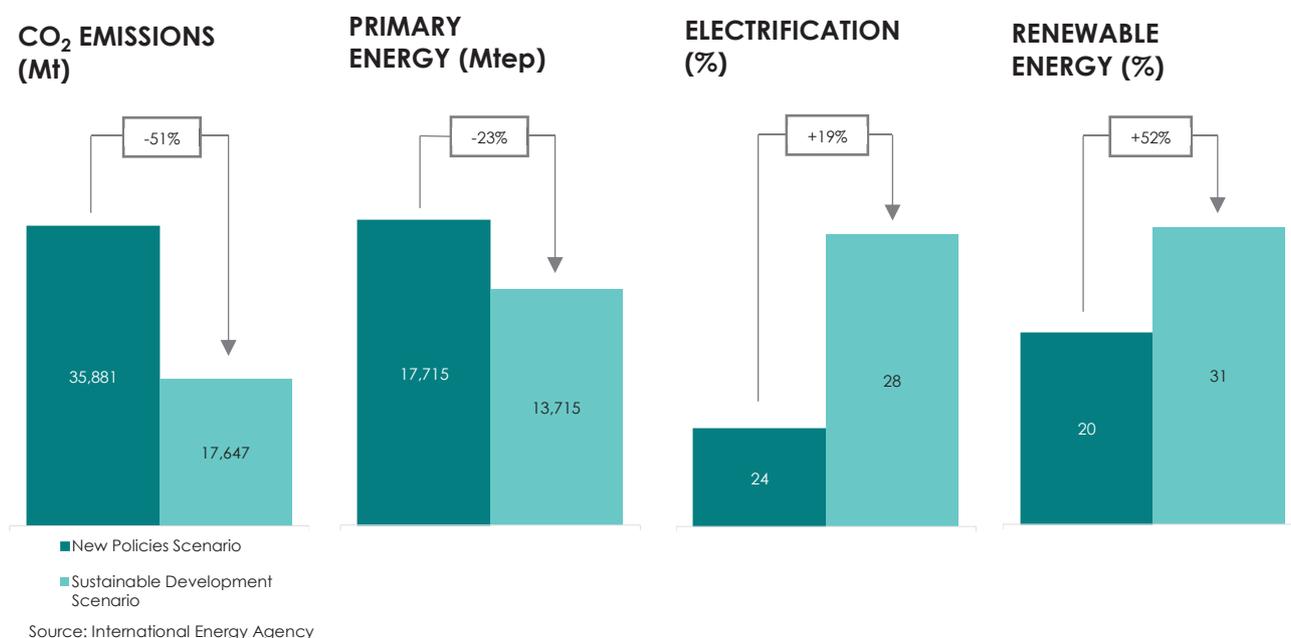
Source: European Commission

Other countries have demonstrated their commitment to reducing their environmental impact, such as China, which has taken a leading role in coordinating global efforts and India which has stated its goal of increasing its environmental

commitment by 2020. However, several regions of the world still need to take concrete steps to contribute to decarbonization efforts, and there are also fears of the impacts of the necessary energy transition on workers and their communities. Thus, promoting an accelerated decarbonization of the world energy system requires a paradigm shift that addresses sustainability in its three dimensions: environmental, economic and social.

## ENVIRONMENTAL SUSTAINABILITY

According to the IEA, achieving the goals of the Paris Agreement requires a transformation of the global energy system leading to a reduction of about 50% of CO<sub>2</sub> emissions in 2040 compared to the baseline scenario. The IEA's proposed sustainable development scenario in WEO18 is based on three main pillars compared to the baseline scenario: increasing energy efficiency by 23%, increasing electrification of the economy by 19% and increasing the share of energy consumed from renewable energy sources by 52%.



Energy efficiency is considered one of the key components for achieving sustainability, producing environmental benefits, reductions in energy costs and reductions in external energy dependence. According to the IEA, to achieve the goals of the Paris Agreement, it will be necessary to increase energy efficiency in order to stabilize primary energy consumption at current levels and accelerate the electrification of the economy, with electricity rising from the current 19% of final energy consumption to 28% in 2040.

In fact, electrification has two major benefits. On the one hand, electric technologies, such as electric vehicles and heat pumps, are more efficient than conventional alternatives, which translates into a reduction in total energy consumption. The transport sector has been identified as one of the key sectors in achieving decarbonization targets. Starting from a very low electrification base (1% in 2017), the IEA identifies the need to achieve an electrification rate of 14% and a reduction in final energy consumption of 6% by 2040. Another very important sector is the building sector, which despite having already an electrification rate of 32%, should reach 49% by 2040, while also reducing its final consumption by 6%.

On the other hand, the transport and heating / cooling sectors are mostly satisfied with fossil fuels, with electricity being the easiest form to decarbonize through the penetration of renewables. Moreover, although the weighting of biofuels in the transport sector is expected to increase from 3% today to 13% by 2040, there are a number of issues related to its sustainability

and potential competition with other cultivation areas. What is more, the use of biomass in the building sector is expected to decline sharply, reducing its contribution from 16% to only 3%.

In line with what has historically been verified, the electricity sector will continue to be the main area responsible for the use of renewables. In order to achieve the goals of the Paris Agreement it will be necessary to increase its 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 to make better use of available resources. This increase in capacity will be supported by a paradigm shift in the electricity sector, with the transition to an increasingly decentralized system, with consumers playing an increasingly active role.

In order to ensure the necessary integration between ever more flexible electricity generation and consumption structures, there has been increasing digitalization along the value chain of the sector and a greater demand for energy storage systems. The introduction of information, communication and energy storage technologies has several advantages such as efficiency gains in system operation, reduction of costs (for example in the generation and use of networks) and greater decarbonization through better integration of renewables within the system.

## ECONOMIC SUSTAINABILITY

It is recognized that two of the major barriers to decarbonization are fears of potential economic impacts that may occur within a process of energy transition and the lack of clear price signals. In the case of the electricity sector, the introduction of renewables pushes down the wholesale market, characterized as marginal, due to its low variable costs. This reduction has a direct impact on the income from generation assets, jeopardizing their economic viability, in particular those of renewable and backup technologies.

Nevertheless, recent years have demonstrated the competitiveness of various renewable technologies in the electricity sector, and these are already more economical than fossil fuels in several markets. This increasing competitiveness has been achieved mainly through strong technological development and through a reduction in the risk associated with these investments in markets with long-term remuneration mechanisms.

The development of long-term remuneration mechanisms has focused primarily on competitive auctions, with corporate energy acquisition contracts making an increasing contribution. Competitive auctions have been adopted by more and more countries as a mechanism to ensure that the necessary investments in renewable technologies occur at the lowest possible price. The auctioning mechanism introduces the necessary competition between agents, reduces the risk to investors by ensuring long-term visibility of quantities and prices, and allows for a better allocation of investments to the best-suited locations. In particular, contracts for differences show benefits over other possible mechanisms, since they provide predictability for both investors and the electricity system. Corporate energy acquisition contracts, on the other hand, have reflected the growing willingness of companies to meet their environmental objectives and reduce uncertainty over their energy costs.

The rapid growth of renewable-based installed capacity has affected the economic viability of several existing generation assets needed to provide strong capacity and ancillary services (reserve and response frequency) to complement the natural variability and intermittence of renewable resources. In this context and recognizing the inadequacy of the marginal market, several countries (such as Germany, France, the United Kingdom, Italy, several US markets, etc.) have chosen to implement capacity remuneration mechanisms that guarantee the necessary available power for the proper functioning of the electrical system.

The internalization in the energy markets of the environmental and social costs of carbon emissions, for example through a price associated with these emissions, enables us to provide the price signal needed to encourage investment in energy efficiency and low carbon technologies. This strategy has already been implemented in some countries, notably European ones, although its implementation is sometimes complex. In order to ensure that the carbon price does not distort energy markets by reducing its effectiveness, it should be designed with the widest possible geographical scope and cut across economic sectors and energy sectors, taking into account the emissions associated with each energy carrier, within the polluter-pays principle. The potential negative impact in economic and distributional terms should be minimized or even

reversed by efficient recycling of tax revenues, through the creation of funding lines for low carbon technologies and the reduction of other taxes (such as income taxes). The possible loss of competitiveness of industries facing international competition must be tackled through trade-offs (for example with fixed incomes) or the taxation of imported products on the basis of their associated emissions.

## **SOCIAL SUSTAINABILITY**

The need to implement decarbonization policies within a more comprehensive perspective that addresses economic and social impacts became evident again during 2018, with demonstrations in several countries against what is considered to be disparities in the distribution of tax tariffs, including the creation of carbon tariffs and increases in fuel tariffs. In France, social discontent with the fiscal policy defined by the government for these matters is often referred to as the genesis for the creation of the "Yellow Vests" (gilet jaunes) movement.

A clear example of inefficient distribution of tariffs is the financing of investment in renewable energy sources currently being borne mostly by electricity consumers. This effect penalizes the electricity sector, which has contributed most to decarbonization efforts, and distorts competition among the various energy carriers, jeopardizing electrification targets and penalizing consumers who are most dependent on this energy carrier.

Moreover, in most countries, there is a huge disparity between the cost structure of the electricity sector, which is mostly composed of fixed costs, and the current tariff structure, mostly composed of variable costs. This cost allocation to consumers on the basis of their consumption provides cross-subsidization and largely favours consumers with the economic capacity to invest in decentralized generation, who are typically not in a situation of fuel poverty, and necessarily leads to cost increases for the remaining consumers, which mainly affects vulnerable consumers.

The fight against fuel poverty must be achieved through the creation of specific funding lines for vulnerable consumers, with a special focus on the application of energy efficiency measures, and the carrying out of a tariff reform that ensures that energy tariffs reflect the costs associated with the energy services they provide. Financing building renovation and purchasing efficient equipment, supported by the development of education measures for the population, will enable consumers to reduce their energy needs and improve thermal comfort. If necessary, the implementation of social tariffs should be based on a welfare logic, financed by the State Budget or by the remaining consumers.

Only with a holistic approach that considers environmental, economic and social impacts can it be possible to ensure the collaboration of all economic stakeholders to successfully implement the reforms needed to achieve ambitious decarbonization goals.

# 2.5 RISK MANAGEMENT

## MAINS RISKS

The group seeks to form an overarching view of the main risks to which it is exposed, at the strategic, business, financial and operational levels, with processes put in place to ensure that they are monitored and managed proactively.

RISK	ILLUSTRATION OF THEMES (NON-EXHAUSTIVE)	RECENT/EXPECTED SHORT-TERM CHANGE	MITIGATION ACTIONS (NON-EXHAUSTIVE)
<b>EXTERNAL FACTORS</b>	<ul style="list-style-type: none"> <li>Geopolitical instability</li> <li>Social and economic crises</li> <li>Technological disruption</li> <li>Change of competitive paradigm</li> </ul>	<ul style="list-style-type: none"> <li>Growing instability of the global geopolitical context, GDP growth forecasts decreased (namely for Portugal, Spain and United States of America) and financial stress increased with a decrease in stock markets.</li> </ul>	<ul style="list-style-type: none"> <li>Rigorous analyses and prospective investments, allowing the business model to foresee and adapt to possible market development trends (e.g., digitalization, decarbonisation).</li> </ul>
<b>INTERNAL STRATEGY</b>	<ul style="list-style-type: none"> <li>Investment strategy</li> <li>Relationship with stakeholders</li> <li>Corporate Planning</li> </ul>	<ul style="list-style-type: none"> <li>Announcement of a Public Tender Offer for the Acquisition of EDP.</li> </ul>	<ul style="list-style-type: none"> <li>Investment subject to a process at Group level with pre-set criteria for the analysis, decision-making and monitoring of projects.</li> <li>Advise on investments by specific committee.</li> </ul>
<b>ENERGY MARKETS</b>	<ul style="list-style-type: none"> <li>Fluctuations in the pool price, commodities and CO<sub>2</sub></li> <li>Volatility of the generation volume of renewable energies (i.e. hydro, wind and solar)</li> <li>Volatility of energy consumption</li> <li>Changes in sale margins</li> </ul>	<ul style="list-style-type: none"> <li>Structural rise of market exposure (with the end of the adjustment of CMEC), highlighting the hydro profile of the generation portfolio, which naturally turns hydrology in Iberia and Brazil one of the most relevant risks of the Group</li> <li>Continuous postponement of necessary market design reforms (given the misalignment of marginal market)</li> </ul>	<ul style="list-style-type: none"> <li>Portfolio diversified by hydro/thermal/wind/solar (partially) reducing the exposure to renewable volumes and following the climate change trend of focus on renewable technologies</li> <li>Preferably long-term contracts</li> <li>Optimization of the production margin to exposed market accompanied by dedicated area, with established risk policy</li> <li>Hedging of the main sources of exposure (e.g. fuel prices)</li> </ul>
<b>REGULATION</b>	<ul style="list-style-type: none"> <li>Change in taxes and sectoral charges</li> <li>Changes in the tariff regimes of regulated activities</li> <li>Legislative amendments</li> <li>Changes in regulations (e.g. environmental)</li> </ul>	<ul style="list-style-type: none"> <li>Regulatory impacts in Portugal (e.g., innovative features) with a significant impact on the Group's results</li> </ul>	<ul style="list-style-type: none"> <li>Follow-up and careful preparation of the various regulatory dossiers, including envisaging potential regulatory risks (e.g. climate change risks)</li> <li>Geographical diversification</li> </ul>
<b>FINANCIAL MARKETS</b>	<ul style="list-style-type: none"> <li>Fluctuations of interest rate</li> <li>Fluctuations of exchange rate</li> <li>Inflation</li> <li>Fluctuations of the value of the financial assets held by the Group</li> </ul>	<ul style="list-style-type: none"> <li>Uncertainty regarding a possible gradual reduction of expansionary monetary policies in Europe</li> <li>Political uncertainty and consequent volatility and continued devaluation of the BRL up to September (corrected after the results of the Brazilian elections)</li> <li>Key foreign exchange exposure to USA and BRL</li> <li>Appreciation of USD as consequence of a more restrictive monetary policy</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring of interest rates in accordance with procedures and instruments established by the Group's policies and regular reports</li> <li>Net foreign exchange exposure tending towards balance (assets-liabilities) in USD, GBP and CAD and geographical diversification</li> <li>Contracts with components indexed to inflation</li> <li>Reduced weight of strategic financial assets and cash investments mainly in bank deposits</li> </ul>

RISK	ILLUSTRATION OF THEMES (NON-EXHAUSTIVE)	RECENT/EXPECTED SHORT-TERM CHANGE	MITIGATION ACTIONS (NON-EXHAUSTIVE)
CREDIT AND COUNTERPARTIES (ENERGY AND FINANCIAL)	<ul style="list-style-type: none"> <li>Non-compliance of financial counterparties</li> <li>Non-compliance of energy counterparties (contracts to buy / sell energy)</li> <li>Non-compliance of customers (B2B and B2C)</li> </ul>	<ul style="list-style-type: none"> <li>(Relative) strengthening of the Eurozone banking system</li> <li>Positive inflexion of the level of non-performing loans and defaults</li> </ul>	<ul style="list-style-type: none"> <li>Careful selection of reference counterparties and regular monitoring</li> <li>Diversification through multiple counterparties</li> <li>Low complexity, liquidity and non-speculative financial instruments</li> <li>Mix of B2B and B2C customers, credit insurance and bank guarantees (when applicable)</li> </ul>
	<ul style="list-style-type: none"> <li>Temporary cash shortfalls</li> <li>Downgrade of financial rating (and consequent increase in loan costs, and limitation of access to financing)</li> </ul>	<ul style="list-style-type: none"> <li>Abundant liquidity and low capital cost, particularly in Europe and the USA</li> <li>Consolidation of investment grade rating</li> </ul>	<ul style="list-style-type: none"> <li>Cash pooling for all geographies (excluding Brazil)</li> <li>Liquidity levels based on detailed forecast of treasury needs (enough to cover 2 years)</li> <li>Diversification of sources of financing, debt type profiles and debt maturity</li> </ul>
LIQUIDITY	<ul style="list-style-type: none"> <li>Capitalization of the Pension Fund of Defined Benefit</li> <li>Additional costs with current and planned retirements.</li> <li>Costs with medical expenses.</li> </ul>	<ul style="list-style-type: none"> <li>Autonomisation of medical expenses and death benefits financing and consequent increasing contributions for the Pension Fund EDP Group.</li> </ul>	<ul style="list-style-type: none"> <li>Regular monitoring of the Pension Fund of Defined Benefit and the value of its assets and liabilities by specific committee (including financial and risk area).</li> </ul>
OTHER FINANCIAL LIABILITIES	<ul style="list-style-type: none"> <li>Delay in commissioning date of assets (COD) and inherent loss of profit.</li> <li>Deviations in the cost of investment (CAPEX).</li> </ul>	<ul style="list-style-type: none"> <li>Continuous investment in transmission in Brazil and development of renewable capacity through EDP Renewables.</li> </ul>	
PLANNING / CONSTRUCTION OF PHYSICAL ASSETS	<ul style="list-style-type: none"> <li>Damages in physical assets and third parties.</li> <li>Malfunctions by component or installation defect.</li> <li>Unavailability due to external events (e.g., atmospheric events, floods, terrorist attacks).</li> <li>Technical and non-technical losses of distribution grid.</li> </ul>	<ul style="list-style-type: none"> <li>Increased impact of extreme events in Iberia, with significant damage of assets of distribution and generation of energy in Portugal.</li> </ul>	<ul style="list-style-type: none"> <li>Regular preventive maintenance and inspection.</li> <li>Crisis management and business continuity plans for catastrophic events (e.g. environmental/ climatic, structural damage, breakdowns).</li> <li>Comprehensive insurance policies (essentially for property damage and loss of profits, civil and environmental liability).</li> <li>Fraud prevention programs (for non-technical losses).</li> <li>Internal tool to support the recording of incidents and analysis of operational risks in adoption by some Business Units in Portugal.</li> </ul>
OPERATION OF PHYSICAL ASSETS	<ul style="list-style-type: none"> <li>Irregularities in the processes' execution (regarding commercial activities, suppliers' selection and management of suppliers and management, billing, etc.)</li> </ul>	-	<ul style="list-style-type: none"> <li>Dissemination of the Internal Financial Reporting Control System (SCIRF)</li> <li>Documentation / formalization of the various existing processes by dedicated area</li> </ul>
PROCESSES	<ul style="list-style-type: none"> <li>Work accidents.</li> <li>Unethical conduct.</li> <li>People management.</li> <li>Relationship with unions and other stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Trend of decreasing index of frequency of accidents in the EDP Group.</li> </ul>	<ul style="list-style-type: none"> <li>Documentation, analysis and reporting of incidents.</li> <li>Monitoring of ethical risk by the Office of the Ethics Ombudsman (independent body).</li> <li>Collection, analysis and evaluation in the Ethics Committee of all allegations of unethical behaviour.</li> <li>Periodic safety risk assessments and implementation of safety measures (e.g., regular training, safety equipment).</li> </ul>
HUMAN RESOURCES			

RISK	ILLUSTRATION OF THEMES (NON-EXHAUSTIVE)	RECENT/EXPECTED SHORT-TERM CHANGE	MITIGATION ACTIONS (NON-EXHAUSTIVE)
<b>INFORMATION SYSTEMS</b>	<ul style="list-style-type: none"> <li>Unavailability of information and communication systems.</li> <li>Integrity and security of information.</li> </ul>	<ul style="list-style-type: none"> <li>Higher level of exposure (e.g. large-scale cyber-attacks, data protection directives) partly offset by enhanced mitigation measures (cyber-range, SOC, cyber-risk insurance, training and awareness raising sessions).</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of criticalities and maximum down times for the main applications.</li> <li>Implementation of redundant disaster recovery systems.</li> <li>Establishment of a dedicated Security Operations Center (SOC) for continuous monitoring of the security of the Group's OT / IT infrastructure.</li> <li>In-house cyber-range for simulation and testing of employees' reactions to cyber-attacks.</li> <li>Online training and awareness raising on information security principles.</li> <li>Continuous improvement of computer systems security.</li> <li>Cyber risk insurance.</li> </ul>
<b>LEGAL</b>	<ul style="list-style-type: none"> <li>Losses arising from lawsuits related with tax, labour, administrative, civil or others (penalties, compensation and agreements).</li> </ul>	-	<ul style="list-style-type: none"> <li>Regular monitoring of legal exposure (individually detailed for high-value litigation)</li> <li>Constitution of provisions designed to cover all estimated probable losses of ongoing litigation.</li> </ul>

**EMERGING RISKS**

In addition to close monitoring of the main risks involved in the Group's activity, the main trends (at a global and sectoral level) that may become threats and opportunities for the Group have also been comprehensively mapped, and appropriate mitigation strategies have been developed proactively. The following are of note, not least because of their impact throughout 2017: (i) the challenge of adapting the design of the wholesale market to the current conditions, (ii) the paradigm shift of decentralized resources, (iii) the industrial revolution and digitization of the electricity sector (iv) the increasing threat of cyber risks and (v) possible increasing frequency and worsening impact of extreme weather events.

EMERGING RISKS	DESCRIPTION	IMPACT	MITIGATION MEASURES
<b>WHOLESALE MARKET DESIGN (IN EUROPE)</b>	<ul style="list-style-type: none"> <li><b>Uncertainty around the evolution of the wholesale market design, given the current challenges:</b> <ul style="list-style-type: none"> <li>Marginal remuneration system not adjusted to the current context of growing penetration of fixed cost technologies (renewables, backup, storage).</li> <li>Growing penetration of technologies with 0 marginal cost (reducing prices and increasing prices' volatility).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li><b>Uncertainty around the returns of the conventional generation, in particular as backup capacity</b> (relevant in a perspective of ensuring security of supply).</li> <li><b>Volatile context, not suitable for long-term investments</b> necessary to the modernization, decarbonization and security of supply.</li> </ul>	<ul style="list-style-type: none"> <li><b>Active and constructive participation in several forums, at European and national level, for the adoption of adequate and equilibrated market design solutions</b> for various stakeholders, in particular                     <ul style="list-style-type: none"> <li>Adoption of energy auctions for long-term contracts to promote renewables.</li> <li>Recognition of the need for capacity remuneration mechanisms.</li> <li>Support to price signals of CO<sub>2</sub> at European level.</li> </ul> </li> <li><b>Reinforcement of focus on long-term contracts</b> (renewable and conventional generation), to reduce risk and increase competitiveness in the supply offer to final clients.</li> </ul>

EMERGING RISKS	DESCRIPTION	IMPACT	MITIGATION MEASURES
<b>DISTRIBUTED RESOURCES</b>	<ul style="list-style-type: none"> <li>▪ <b>Growing proliferation of distributed resources</b>, including:               <ul style="list-style-type: none"> <li>- Decentralized production (in particular solar PV) for self-consumption.</li> <li>- Electric vehicles.</li> <li>- Active demand side management.</li> <li>- Storage.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Threat relating to:</b> <ul style="list-style-type: none"> <li>- (Possible) <b>reduction of margins in traditional generation</b> due to a reduction of the volume of energy generated centrally.</li> <li>- <b>Reduction of the contribution of consumers in self-consumption for the costs of the system</b> (grids and others) and consequent need for tariff increases.</li> <li>- <b>Changing dynamics of energy flows in the grid</b></li> </ul> </li> <li>▪ <b>Opportunity for the sale of new products and services.</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Proactive role in the commercialization of innovative products and solutions, with benefit in margin and client retention:</b> <ul style="list-style-type: none"> <li>- Sale of solar panels for self-consumption (and batteries)</li> <li>- Commercialization of solutions associated with electric mobility (e.g. green electric mobility)</li> <li>- Energy efficiency solutions (e.g. Re:dy with application to electric cars, solar generation, heating, control of outdoor spaces)</li> </ul> </li> <li>▪ <b>Active regulatory management</b>, in particular with regard to the tariff structure, enabling the existence of efficient price signals and incentives.</li> </ul>
<b>4<sup>TH</sup> INDUSTRIAL REVOLUTION (AND DIGITIZATION)</b>	<ul style="list-style-type: none"> <li>▪ <b>Proliferation of new technologies with ground-breaking potential for the electricity sector</b> in, among others:               <ul style="list-style-type: none"> <li>- <i>Blockchain</i></li> <li>- IoT</li> <li>- AI/ machine learning</li> <li>- Virtual / augmented reality</li> <li>- Robotic process automation (RPA)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>New market entrants such as aggregators, services of design science research (DSR) or solutions for clients.</b></li> <li>▪ <b>Opportunities for operational and business optimization</b>, e.g.               <ul style="list-style-type: none"> <li>- Operation and maintenance of assets (generation and networks)</li> <li>- <i>Pricing</i> and segmentation</li> <li>- Product innovation and customer service</li> <li>- <i>Back-office</i> optimization and shared services</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Follow-up on best practices and developments at digital level</b> applicable to the energy sector.</li> <li>▪ <b>Release of dedicated department to EDP Group digitalization (Digital Global Unit – DGU)</b>, as result of EDPX project, developed with the collaboration between internal and external specialists to accelerate ideas and test digital solutions:               <ul style="list-style-type: none"> <li>- Assets / operations (e.g. predictive maintenance, asset management, task force digitization, energy / trading management)</li> <li>- Customer (product and service innovation, namely electrification)</li> <li>- Group (agile / project-based solutions, optimization / automation of internal processes)</li> </ul> </li> </ul>
<b>CYBER-RISK</b>	<ul style="list-style-type: none"> <li>▪ <b>Exposure to several types of cyber-risks, as a result of greater sophistication and technological integration</b></li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Financial, operational and reputational loss</b>, resulting (among other things) from:               <ul style="list-style-type: none"> <li>- Loss / interruption of operation (e.g., dispatch / plants, billing, customer service)</li> <li>- Damage / destruction of assets (grids, plants, other systems)</li> <li>- Violation / destruction of data (personal and other)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Continuous improvement of the security of internal systems</b></li> <li>▪ <b>Security Operations Center (SOC)</b> dedicated to continuously monitor the security of OT/ IT infrastructure of the Group.</li> <li>▪ <b>Internal cyber range</b> to simulate and test the reaction of employees to cyber-attacks.</li> <li>▪ <b>Security courses and awareness programs on key principles of information security.</b></li> <li>▪ <b>Cyber insurance</b></li> </ul>
<b>EXTREME CLIMATE EVENTS</b>	<ul style="list-style-type: none"> <li>▪ <b>Structural climate changes</b> (in particular temperature and precipitation), <b>with an impact on the frequency and severity of extreme climatic events</b> (e.g. floods, droughts, storms, wildfires)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Damage to physical assets and loss of revenue</b></li> <li>▪ <b>Impact on quality of service</b> provided (distribution network)</li> <li>▪ (Possible) <b>structural changes in hydro productivity</b> (mean and volatility)</li> </ul>	<ul style="list-style-type: none"> <li>▪ <b>Geographical and technological diversification</b></li> <li>▪ <b>Active role in combating climate change</b> (in particular the promotion of decarbonisation and energy efficiency)</li> <li>▪ <b>Adoption of TCFD recommendations and mapping of main climatic risks to EDP</b> according to the transition and physical risks categorization</li> <li>▪ <b>Existence of dedicated areas and plans for Crisis Management and Business Continuity</b> (corporate and main Business Units)</li> </ul>

## 2.6

# STRATEGY, GOALS AND TARGETS

EDP Group's business growth strategy is based on investment in renewable assets within a framework of financial deleveraging, increased operational efficiency and low risk exposure. EDP's prioritization of investment in renewable production started in 2006, anticipating major trends in the energy market; it helped to build the vision of a society capable of reducing CO<sub>2</sub> emissions, by replacing thermal with renewable production, decentralizing generation and electrifying transportation. A society that demands more balanced economic growth based on ethics and respect for human rights, protecting biodiversity and limiting the exploitation of raw materials.

Over these last 10 years, technological advances in wind and photovoltaic generation and in energy storage, together with the expansion of the internet and digital transformation, have opened new forms of business and opportunities, have changed social behaviour and challenged the traditional organization of energy markets. The energy sector is undergoing a profound transformation, whose ultimate scope is difficult to predict. EDP is embracing this change by establishing strategic sustainability objectives that are integrated into the Group's overall strategy.

The EDP Group's sustainability objectives and goals, which are integral to the Business Plan and updated periodically, are aligned with the strategic priorities and are currently detailed around the 4 priorities listed below.

These objectives also correspond to contributions to the common agenda set by the United Nations Sustainable Development Goals (SDGs), which EDP endorsed at the launch of this initiative in 2015.

### **GENERATE ECONOMIC VALUE INVESTING IN DECARBONIZATION**

The Generate Economic Value priority establishes the objectives and commitments in total renewable production capacity, gains in energy efficiency, investment in innovation and digital transformation of distribution networks and intelligence at energy delivery points. These objectives contribute to SDGs 7, 9 and 12.

### **DEVELOP OUR PEOPLE**

The Develop our People priority defines commitments in relation to EDP employees and in relation to the employees of its suppliers. The themes of diversity, health and safety in the workplace and satisfaction and motivation contribute to SDGs 5 and 8.

### **IMPROVE ENVIRONMENTAL PERFORMANCE**

The Manage Climate and Environment Issues priority establishes the basic commitments for lowering CO<sub>2</sub> emissions, by addressing environmental impacts through in-house management systems and the commitment of suppliers to the same goals and a reduction in the waste produced by company activity. This corresponds to SDGs 13 and 15.

### **ENHANCE TRUST**

The Improve Trust priority focuses on Customers and Communities, Ethics and Human and Labour Rights, on dialogue with and listening to stakeholders and on the promotion of Citizenship and Volunteering. These objectives contribute fundamentally to SDG 11. It is also in this priority that EDP contributes to SDG 17 through active participation in national and international partnerships to promote the United Nations goals.

## STRATEGIC GUIDELINES COMPLIANCE

		TARGET 2020	STATUS 2018	OBSERVATIONS
<b>FOCUSED GROWTH</b>	<ul style="list-style-type: none"> <li>Net Investments</li> <li>LT Contracted Renewables<sup>1</sup></li> <li>EBITDA CAGR 2015<sup>2</sup>-20</li> </ul>	<ul style="list-style-type: none"> <li>Avg. €1.4B/yr</li> <li>+3.9GW</li> <li>+3%</li> </ul>	<ul style="list-style-type: none"> <li>€1.6B</li> <li>+3.4GW</li> <li>-3%</li> </ul>	<ul style="list-style-type: none"> <li>See Annual Report</li> </ul>
<b>FINANCIAL DELEVERAGING</b>	<ul style="list-style-type: none"> <li>FFO/Net Debt</li> <li>Average Cost of Debt</li> <li>Net Debt/EBITDA</li> </ul>	<ul style="list-style-type: none"> <li>~24%</li> <li>4.2%</li> <li>~3.0x</li> </ul>	<ul style="list-style-type: none"> <li>~17%</li> <li>3.8%</li> <li>~4.0x</li> </ul>	<ul style="list-style-type: none"> <li>See Annual Report</li> </ul>
<b>KEEP LOW RISK PROFILE</b>	<ul style="list-style-type: none"> <li>Renewables installed capacity</li> <li>Avg. Residual Asset Life</li> <li>EBITDA Regulated/ LT Contracted</li> </ul>	<ul style="list-style-type: none"> <li>~76%</li> <li>~21 years</li> <li>~75%</li> </ul>	<ul style="list-style-type: none"> <li>74%</li> <li>~26 years</li> <li>77%</li> </ul>	<ul style="list-style-type: none"> <li>See Annual Report</li> </ul>
<b>REINFORCE EFFICIENCY</b>	<ul style="list-style-type: none"> <li>OPEX V Target Annual Cost Saving</li> <li>Accumulated OPEX Savings</li> <li>OPEX/Gross Profit</li> </ul>	<ul style="list-style-type: none"> <li>€260M<sup>3</sup></li> <li>€900M</li> <li>26%</li> </ul>	<ul style="list-style-type: none"> <li>€203M</li> <li>~€308M</li> <li>30%</li> </ul>	<ul style="list-style-type: none"> <li>See Annual Report</li> </ul>
<b>DELIVER ATTRACTIVE RETURN</b>	<ul style="list-style-type: none"> <li>Target Dividend Payout Range</li> <li>DPS Floor 2016</li> <li>EPS CAGR 2015<sup>2</sup>-20</li> </ul>	<ul style="list-style-type: none"> <li>65-75%</li> <li>€0.19/share</li> <li>+4%</li> </ul>	<ul style="list-style-type: none"> <li>62%</li> <li>€0.19/share</li> <li>-2%</li> </ul>	<ul style="list-style-type: none"> <li>See Annual Report</li> </ul>
<b>GENERATE ECONOMIC VALUE INVESTING IN DECARBONIZATION</b>	<ul style="list-style-type: none"> <li>Renewable capacity</li> <li>Investment in I&amp;D+I (aggregate)</li> <li>Smart meters (Iberia)</li> <li>Saved Energy (aggregate)</li> </ul>	<ul style="list-style-type: none"> <li>~76%</li> <li>€200M</li> <li>90%<sup>8</sup></li> <li>1 TWh</li> </ul>	<ul style="list-style-type: none"> <li>74%</li> <li>€211M</li> <li>38%</li> <li>1 TWh</li> </ul>	  
<b>DEVELOP OUR PEOPLE</b>	<ul style="list-style-type: none"> <li>Engagement level</li> <li>Female employees</li> <li>Certification according to OHSAS 18001<sup>4</sup></li> <li>Suppliers with high H&amp;S impacts, certified according to OHSAS 18001</li> <li>Frequency index (FI)<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>≥ 75%</li> <li>27%</li> <li>100%</li> <li>100%</li> <li>≤ 2.00</li> </ul>	<ul style="list-style-type: none"> <li>72%</li> <li>25%</li> <li>44%</li> <li>62%</li> <li>2.11</li> </ul>	 
<b>IMPROVE ENVIRONMENTAL PERFORMANCE</b>	<ul style="list-style-type: none"> <li>Emissions variation vs 2005</li> <li>Maximum certified installed net capacity</li> <li>Certified substations capacity</li> <li>Certified suppliers with high environmental impacts</li> <li>Variation in specific waste materials vs. 2015</li> </ul>	<ul style="list-style-type: none"> <li>-75%<sup>7</sup></li> <li>100%</li> <li>100%</li> <li>100%</li> <li>-20%</li> </ul>	<ul style="list-style-type: none"> <li>-59%</li> <li>97%</li> <li>86%</li> <li>68%</li> <li>-32%</li> </ul>	 
<b>IMPROVE TRUST</b>	<ul style="list-style-type: none"> <li>Clients/Users satisfaction</li> <li>Recognition by the Ethisphere Institute</li> <li>Protect Human Rights in the supply chain<sup>6</sup></li> <li>Implement full stakeholders auscultation<sup>7</sup></li> <li>Employees participating in volunteer activities</li> <li>Hours/year in volunteer activities</li> <li>Investment in the community (LBG) (aggregate value)</li> <li>Critical suppliers evaluated according to ESG criteria</li> <li>Service providers with audited ESG risks</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 80%</li> <li>√</li> <li>4<sup>th</sup> stage</li> <li>4<sup>th</sup> stage</li> <li>20%</li> <li>20,000h</li> <li>€100M</li> <li>100%</li> <li>100%</li> </ul>	<ul style="list-style-type: none"> <li>78%</li> <li>√</li> <li>2<sup>nd</sup> stage</li> <li>2<sup>nd</sup> stage</li> <li>18%</li> <li>19,375h</li> <li>€110M</li> <li>n/av<sup>9</sup></li> <li>n/av<sup>9</sup></li> </ul>	 

<sup>1</sup> Including installed capacity equity

<sup>2</sup> Based on recurrent EBITDA and Net Profit and adjusted from weather impact in 2015.

<sup>3</sup> Target incremented in 2018, following the replacement of OPEX IV by OPEX V.

<sup>4</sup> Employees covered by OHSAS 18001.

<sup>5</sup> Accidents with EDP co-workers and outsourcing workers for a million worked hours.

<sup>6</sup> 1<sup>st</sup> stage - Impact Study; 2<sup>nd</sup> stage - Supplier's Code of Conduct; 3<sup>rd</sup> stage - Supplier's assessment in the Human Rights dimensions; 4<sup>th</sup> stage - Plans for improvement in relevant cases; adjustment of purchasing policies.

<sup>7</sup> 1<sup>st</sup> stage - Definition of a stakeholder auscultation methodology; 2<sup>nd</sup> stage - Implementation of the methodology in all Business Units in Portugal;

3<sup>rd</sup> stage - Implementation of the methodology in all Geographies; 4<sup>th</sup> stage - Cover all segments of the EDP Group's stakeholders.

<sup>8</sup> Target for 2030.

<sup>9</sup> Status still to be determined.

STRATEGIC UPDATE 2019-2022

On March 12, 2019 EDP presents to the market its Strategic update until 2022 and communicates its vision and strategic pillars for the future, together with key strategic initiatives and financial targets.

EDP's Vision is to lead the energy transition to create superior value, based on 5 strategic pillars:

- **Accelerated and focused growth**, achieved by the step up of growth in renewables;
- Continuous portfolio **optimization**, through a sell-down business model to accelerate growth and value crystallization together with disposal of assets to balance EDP's risk profile;
- **Solid balance sheet and low risk profile**, based on strong deleverage targeting a solid investment grade;
- **Efficient and Digitally enabled**, driving efficiency across the organization with digital revolutionizing EDP towards the future;
- **Attractive shareholder remuneration**, delivering superior value to our shareholders through a distinctive renewables equity story, strong earnings growth and an attractive dividend policy.

Based on its vision and strategic pillars, EDP will be able to deliver:

SUSTAINABLE GROWTH	>€4B EBITDA in '22 >5% CAGR <sup>2</sup>	>€1B Net Profit in '22 >7% CAGR <sup>2</sup>
DELEVERAGING AND LOW RISK PROFILE	<3.0x ND <sup>1</sup> /EBITDA in '22	>75% EBITDA Regulated/ LT Contracted
ATTRACTIVE RETURNS	>7% Earnings per share CAGR <sup>2</sup>	0.19€/share Floor

<sup>1</sup> Net Debt adjusted from regulatory receivables  
<sup>2</sup> Recurring CAGR 2018-22

The EDP Group's vision reflects its commitment to sustainable development, fully assuming the structuring role of energy in supporting more balanced growth models from a social and environmental point of view. In addition to a business model focused in decarbonization, EDP maintains its commitment in ensuring that its activity actively contributes to the United Nations Sustainable Development Goals, aiming to achieve by 2022:



**LOVE ENERGY**

*edp*

## 03 PERFORMANCE

<b>MATERIALITY</b>	<b>57</b>	<b>IMPROVE ENVIRONMENTAL PERFORMANCE</b>	
<b>GENERATE ECONOMIC VALUE INVESTING IN DECARBONIZATION</b>		Environmental Protection	97
Business Sustainability	60	Climate Change	101
Socially Responsible Investment	61	Energy Efficiency	103
Promotion of Renewable Energies	67	Our Practice	105
Innovation and Research	69	<b>ENHANCE TRUST</b>	
Digital Transformation	71	Corporate Governance	110
New Energy Services	73	Ethics and Human Rights	113
Sustainable Mobility	75	Communication and Transparency	120
Our Practice	77	Satisfaction and Customer Service	128
<b>DEVELOP OUR PEOPLE</b>		Vulnerable Customers	130
People Management	80	Supplier Management	132
Health and Safety	90	Community Involvement and Development	134
Our Practice	93	Our Practice	138
		<b>PERFORMANCE INDICATORS</b>	<b>141</b>

# STAN



# ABILITY



**WE  
LOVE  
SUSTAINABILITY**





# 03 PERFORMANCE

## MATERIALITY

Through the Materiality Process, the EDP Group identifies the important themes for its stakeholders (www.edp.com> sustainability> social dimension> stakeholders> who are they) by cross-referencing them with their importance to its business. This analysis supports the decision-making process and the development of strategies in the organization, particularly the definition of its sustainability strategy.

### WHAT IS THE MATERIALITY ANALYSIS USED FOR IN THE EDP GROUP

- 1. It identifies critical themes and sensitive issues for the business**  
It enables the optimisation of the strategic orientation of the company and the direction of internal management
- 2. It supports the definition of the Sustainability strategy**  
It supports its internalisation within the strategic objectives of the company
- 3. It focuses on what is important to report**  
It supports the reporting of non-financial performance
- 4. It supports the management of the Group's stakeholders**  
It allows prioritization of the relevance of material themes per stakeholder group

This process results in the identification of the Material Issues for EDP, which represent those that may affect the value creation of the company in the short, medium or long term and which are recognized as important for its different stakeholder groups. Due to this identification, it is possible to optimize the strategic orientation of the company and direct its internal management in order to internalize and respond to these Material Issues.



The EDP Group's Materiality process involves an in-depth review accompanying the company's Business Plan, and is also subject to an annual review, where the issues to be analysed are revisited and adjusted. This analysis involves the different companies of the Group, and is developed through a common methodology that is detailed in the following infographic (more details can be consulted at [www.edp.com](http://www.edp.com)> publications> reports> sustainability management approach).

In 2018, the Materiality study resulted from the analysis of more than 140 different sources (both direct and indirect), representing 14 groups of stakeholders, the most important being:

- Documents regarding the main international trends for the energy sector within the scope of Sustainability;
- Information from investors and the importance given to Sustainability issues;
- Information on the main risks and opportunities associated with Sustainability issues;
- Direct sounding out of the various groups of stakeholders, meetings and external partnerships;
- Information from associations and other representatives of stakeholder groups;
- Interviews with the EDP Group's top management;
- Internal documents that reflect the positioning of certain stakeholder groups regarding the issues.

As a result, 21 material issues were identified (for more details on the list of topics go to [www.edp.com](http://www.edp.com)> sustainability> approach> materiality) for the EDP Group, which has developed in relation to the previous year as shown in the matrix below.



In 2018 most of the themes and their relevance remain stable in relation to the previous year, highlighting as new themes:

- **Socially Responsible Investment**, that emerged as a material issue for the growing weight of the company's ratings for its ESG performance and, this year, highlighted by the company's first issue of Green Bonds (page 197);
- **Concessions** of the Low Voltage Distribution Networks in Portugal. The Resolution of the Council of Ministers No. 5/2018 aimed the launch of the procedure in 2019, with the final decision on the concession area being responsibility of the Municipalities;
- **Just Energy Transition**, associated with the transition to a sustainable, low carbon, equitable and fair energy system for communities and workers in the case of decommissioning of coal-fired power plants, as well as ensuring a regulatory environment that assures social equity of different consumers;

Highlights for:

- **Sustainable Mobility**, for which the electrification of transport is recognized as imperative to a future decarbonised economy;
- Support to **Vulnerable Customers**, associated with Fuel Poverty, related to the increasing inability of families to support the energy costs that allow them an appropriate level of comfort and the need to address this challenge through specific financing policies and mechanisms, with special focus on the implementation of energy efficiency measures and a tariff reform.

Next, we detail the identified themes aggregated by the degree of relevance attributed by each of the stakeholder groups.



If we add the overall importance attributed by the stakeholders to sustainability issues, we find that in 2018 the 5 most important issues were: 1. climate change; 2. promotion of renewable energy; 3. energy efficiency; 4. environmental management; 5. communication and transparency. These issues are also of strategic importance for the EDP Group business. These issues are also of strategic importance for the EDP Group. In the image on the previous page, the identified themes are detailed, aggregated by the degree of relevance assigned by each of the stakeholder groups.

The material topics identified guide EDP's sustainability strategy and structures the reporting of its performance. For this purpose, the material themes identified are organized according to the four strategic axes defined in the Group's Sustainability Strategy - 1. Generate economic value by investing in decarbonization; 2. Develop our people; 3. Improve environmental performance; 4. Enhance Trust - contributing to ODS 5, 7, 8, 9, 11, 12, 13, 15 and 17.

## 3.1 GENERATE ECONOMIC VALUE INVESTING IN DECARBONIZATION

This pillar sets goals for the promotion of renewable energies through investing in new wind, solar and hydro capacity, for the decarbonization of transport, for energy saving measures, programmes and projects, for innovation and research and installation of smart meters. The defined goals contribute to SDGs 7, 9 and 12.



### 3.1.1 BUSINESS SUSTAINABILITY

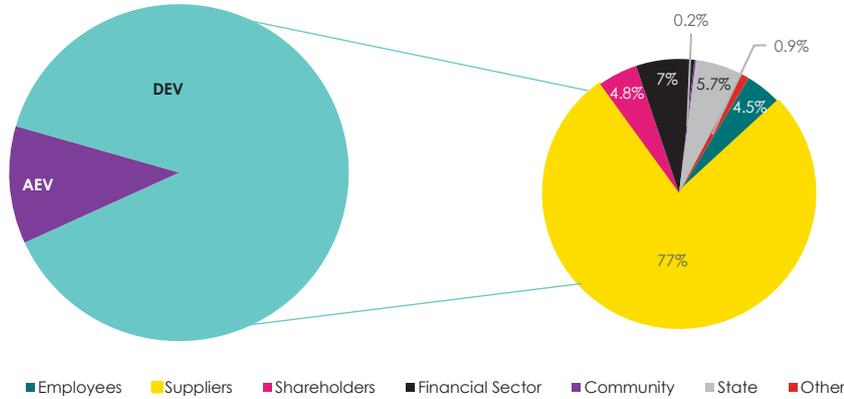
Over the past years, EDP has integrated environmental and social issues in their business model (page 28) and strategy (page 51) by definition and deployment of corporate policies (page 169). Consistent with this approach of long-term value creation, EDP has a Corporate Governance model that meets the various stakeholders' expectations.

In 2018, the economic value that EDP generated reached 16,308 million Euros, which is comparable with 17,234 million Euros in 2017. This value includes turnover and other income. In 2018, 89% of the Economic Value Generated (EVG) was distributed in a total amount of 14,471 million Euros. The Economic Value Accumulated – EVA (difference between EVG and EVD – Economic Value Distributed) corresponds to the remaining 11% and includes retained earnings and non-payable costs.

**ECONOMIC VALUE GENERATED (M€)**



In 2018, the Economic Value Generated is broken down as follows:



For more information on EDP's economic and financial performance, see the Annual Report 2018.

### 3.1.2 SOCIALLY RESPONSIBLE INVESTMENT

The transition to a low carbon economy requires sustainable and responsible investment (SRI) and that private capital mobilizes around the Sustainable Development Goals of Agenda 2030. In December 2016, the European Commission launched the High-Level Expert Group on Sustainable Finance (HLEG) to scale up this challenge by improving information transparency, leveraging the availability of green products and services and promoting a harmonized approach to enable the application of uniform fiduciary standards among the various players in the financial market.

It is within this context that in March 2018, the HLEG submitted its Action Plan (AP - 10 actions) for the growth of sustainable financing.

EUROPEAN COMMISSION ACTIONS TOWARDS SUSTAINABLE FINANCE		
THREE GOALS		
<p><b>1. Reorient capital flows to sustainable investments in order to achieve sustainable and inclusive growth</b></p>	<p><b>2. Management of financial risks resulting from climate change, scarcity of resources, environmental degradation and social issues</b></p>	<p><b>3. Promote transparency and long-term vision in financial and economic activity</b></p>
10 ACTIONS		
<p>1. Establish an EU classification system for sustainable activities</p>	<p>6. Improve the integration of sustainability in ratings and market research</p>	<p>9. Strengthen the dissemination of sustainability and the drawing up of accounting rules</p>
<p>2. Define standards and labels for sustainable financial products</p>	<p>7. Clarify the duties of institutional investors and asset managers</p>	<p>10. Promote sustainable corporate governance and mitigate short-term vision in the capital market</p>
<p>3. Promote investment in sustainable projects</p>	<p>8. Incorporate sustainability into procedural requirements for banks and insurance companies</p>	
<p>4. Incorporate sustainability by providing financial advice</p>		
<p>5. Develop sustainability benchmarks</p>		

To implement the legislative package associated with the Action Plan, in particular the 1<sup>st</sup>, 5<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> actions, in June 2018, the European Commission set up the group on sustainable finance containing 35 experts (TEG). The TEG has various members from civil society, academia, business and the financial sector, among others. EDP is represented on the TEG through its participation in Eurelectric. Since July 2018, the work developed by the TEG has focused on 4 areas of the AP to be adopted in 2019 and they are being handled by 4 TEG subgroups:

- Taxonomy Subgroup TEG#1- sustainable economic activities classification system (sustainability taxonomy): to define the regulations for sustainable activities that contribute to the goals of climate change mitigation and adaptation.
- "European Union Standard for Green Bonds" (EU GBS) Subgroup TEG#2: to define the European standard for Green Bonds to enhance access to funds that finance and refinance projects/assets with positive impacts on the climate and the environment based on the use of procedures.
- Subgroup "Benchmarks for low carbon investment strategies" TEG#3: define minimum standards for low carbon benchmarks and positive carbon impact indexes.
- Subgroup "Guide to improving reporting on climate-related information" TEG#4: to define transparency obligations for all investors, including those selling investment products related to climate-related information.

In line with the activities of these TEG subgroups, the international initiative of the Financial Stability Board should be mentioned (FSB - an organization which has issued recommendations to the G20 concerning the stability of financial markets, led by the Governor of the Bank of England Mark Carney), which created a Task Force on Climate-Related Financial Disclosures (TCFD). This Task Force has developed a set of recommendations which seek to support companies' financial and non-financial reporting in a comparable, efficient, consistent and effective way for climate-related risks. We therefore have the financial sector assuming that the risk of climate change is a systemic risk and, as such, it has to be managed by companies and investors have to know how this risk is managed so that they can analyse potential investments in these companies.

Most recently, EDP was part of an initiative that created the Corporate Forum on Sustainable Finance, announced in January 2019. In addition to EDP, there are 15 other European companies, some of which in December 2017 had already signed the Paris Green Bond Pledge. These 16 companies are committed, through this Forum that brings together "Green Issuers", to being a permanent network for the exchange of views and ideas determined to defend and develop sustainable financing as a critical tool to fight climate change and promote a more sustainable and socially responsible society. For more details see: [www.edp.com/pt-pt/noticias/2019/01/15/main-companies-issuing-green-bonds-launch-corporate-forum](http://www.edp.com/pt-pt/noticias/2019/01/15/main-companies-issuing-green-bonds-launch-corporate-forum).

## EVALUATION OF THE COMPANY IN TERMS OF ITS ESG PERFORMANCE

EDP has been evaluated in terms of environmental, social and ethical practices and impacts, human rights, corruption, and diversity, among others, and included in some of the most important ESG indexes. The evaluation is generally annual and is based primarily on ESG (environmental, social and governance) information provided on the basis of questionnaires and information disclosed on EDP's external website (e.g. annual reports).

This is material information compiled by information providers (sustainability raters, e.g. RobecoSAM, OEKOM) for socially responsible investors (SRI, e.g. Norges Bank Investment Bank; Amundi Asset Management) who decide which bonds or shares to hold in their portfolio based on economic, environmental, social and governance (ESG) criteria/aspects.

EDP's performance has been improving over the past 5 years, ensuring its inclusion in the most independent and consolidated ESG indexes in the financial market. Thus, it can be shown that EDP has implemented a business growth strategy for the Group that meets the criteria for inclusion in sustainable investment portfolios.

## SRI ANALYST: ROBECOSAM

ELIGIBLE INDEX: S&P GLOBAL BMI

SUSTAINABILITY INDEXES: DJSI / SWITZERLAND INDEX FAMILY

This is one of the oldest sustainability indexes, which focuses on significant sustainability issues and is based on the best-in-class methodology. The composition of the indexes (e.g. World, North America, Europe, Asia Pacific, Korea) results from the analysis of 3 dimensions of sustainability: environmental, social and economic. Each dimension comprises several criteria with various issues that represent important requirements to take into account when evaluating the sustainability performance of a company.

Since 2008, EDP has been a member of the DJSI World index and DJSI Europe index, though it was not part of the DJSI Europe index in 2015 and 2016. For comparability with 2018, due to the new methodology for calculating the impact of Media Stakeholder Analysis (MSA) cases, EDP's score in 2017 was 89 points. Considering integrated utilities, EDP occupies position number 2.

### ROBECOSAM (SCORE)



## SRI ANALYST: FTSE RUSSEL

ELIGIBLE INDEX: FTSE4GOOD INDEXES

SUSTAINABILITY INDEXES: FTSE4GOOD INDEXES

SRI methodology developed in partnership with the Russell indexes based on an analysis of the 3 ESG sustainability areas:

- Environmental: environmental management; climate change; water use; biodiversity; pollution and resources; supply chain.
- Social: supply chain; customer responsibility; Human Rights and Community; Labour Standards and Prevention & Security.
- Corporate governance: anti-corruption; fiscal transparency; risk management; corporate governance.

EDP has been a member of this index since 2010 and is in the Top 2% of companies with the best ESG score (it is positioned in the 98<sup>th</sup> percentile).

### FTSE RUSSEL (SCORE)

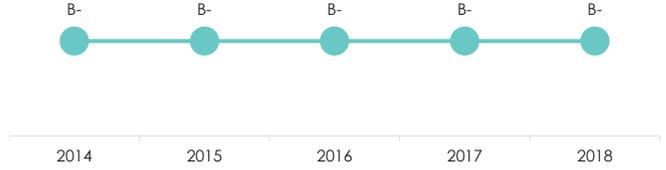


**SRI ANALYST: OEKOM**

ELIGIBLE INDEX: COMPANIES LISTED ON THE STOCK MARKET  
 SUSTAINABILITY INDEXES: GLOBAL CHALLENGES INDEX

The companies are evaluated by OEKOM research based on a pool of about 100 indicators specific to each type of industry. These come under the environmental and social dimensions. EDP has had Prime status since 2009.

**ISS-OEKOM (SCORE)**



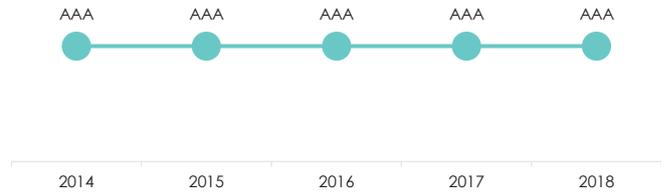
The score is between D (poor performance) and A+ (excellent performance)

**SRI ANALYST: MORGAN STANLEY CAPITAL INTERNATIONAL**

ELIGIBLE INDEX: MSCI  
 SUSTAINABILITY INDEXES: MCSI ESG INDEX FAMILY

Companies are evaluated against their environmental, social and corporate governance practices and their management of the associated risks and opportunities. EDP has had AAA rating since 2012.

**MSCI (SCORE)**



Score varies between CCC and AAA, on a 7-point scale

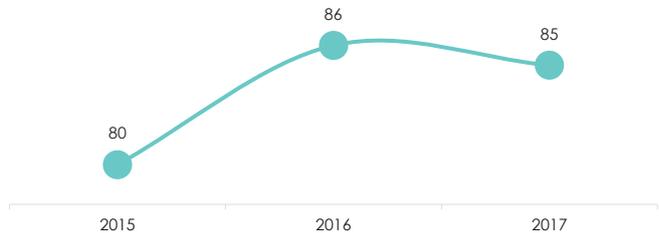
**SRI ANALYST: SUSTAINALYTICS**

ELIGIBLE INDEX: STOXX GLOBAL 1800 INDEX  
 SUSTAINABILITY INDEXES: STOXX ESG & SUSTAINABILITY/SWITZERLAND AND NETHERLANDS INDEX

Sustainalytics is a supplier of SRI information which has been operating in the market since 2009. In 2011 it created the Global ESG Leaders indices in partnership with STOXX Limited. The basis of the evaluation process is the standard defined by the DVFA (Society of Investment Professionals in Germany) and EFFAS (the European Federation of Financial Analysts Societies). EDP has been a member of these indices since 2015.

In 2018, the company's rating expressed a measure of risk according to the new ESG rating methodology adopted by Sustainalytics, "Sustainalytics ESG Risk Rating". The result expresses the amount of risk not managed by a company. EDP scored 20.7, corresponding to a Medium risk category (20-30 range)

**SUSTAINALYTICS (SCORE)**



Score varies between 0 and 100

## SRI ANALYST: VIGEO

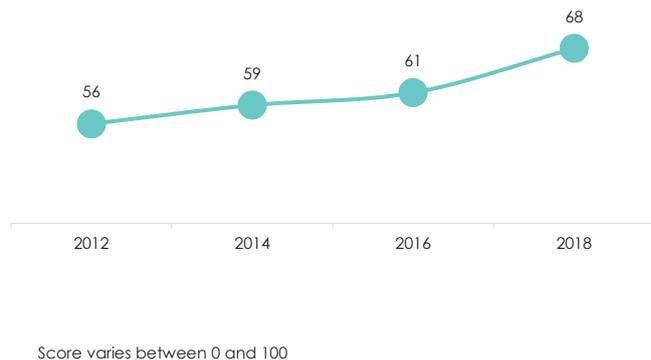
ELIGIBLE INDEX: NYSE EURONEXT

SUSTAINABILITY INDEXES: VIGEO-EIRIS/FRANCE FAMILY OF INDICES

The companies are evaluated by the analyst VIDEO SA based on the VIGEO's Equities methodology which covers 6 areas and more than 300 indicators (environment, human resources, human rights, community engagement, behaviour in business and corporate governance) EDP has been a member of these indexes (Euronext World 120, Euronext Europe 120 and Euronext Eurozone 120) since 2012. In 2018, EDP distinguished itself by:

- Occupying the 2<sup>nd</sup> position in the utilities sector;
- Was the Top Performer for the sector in 3 of the 6 ESG domains: Human Rights 82/100 (1<sup>st</sup> position); Involvement with the Community 72/100 (3<sup>rd</sup> position) and Environment 74/100 (3<sup>rd</sup> position);
- In the Top 1% of the evaluated universe that adopts commitments respecting Human Rights;
- Being a Top performer in the sector on the topic Transition to a low carbon economy: 72/100.

## VIGEO (SCORE)



## NON-FINANCIAL INDEXES

It should also be noted that the company has also responded to questionnaires that have enabled it to obtain recognition in the climate area (CDP Climate) and in the ethics area (Ethisphere Institute). However, the ratings obtained are not expressed as stock indexes.

## SUSTAINABLE FINANCING

The theme "Sustainable Financing" has received increasing attention from investors, issuers (public and private) and regulators. Evidence of this approach has been the increasing number (and amount) of issuances of Green Bonds.

There is no standard definition for these financial instruments although the one that is quoted below is the most used:

"Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four core components of the GBP (Green Bond Principles)." GBP recommends that an issuer defines and explains:

- The use of the funds;
- The process for project evaluation and selection;
- Resource management;
- The process of reporting the use of resources.

This type of issuance enables companies to:

- Reinforce the importance of sustainability in its strategy and alignment with the company's financial activity;
- Diversify and broaden the investor base, providing access to investors who focus on sustainability issues;

## GREEN BONDS

DEBT ISSUES THAT AIM TO FINANCE ASSETS/PROJECTS THAT CAN CONTRIBUTE POSITIVELY TO SUSTAINABILITY ISSUES

- Actively participate in a dynamic and innovative market;
- Benefit from the greater resilience of green investors in times of greater market volatility.

Green Bonds were initially launched by the European Investment Bank in 2007 and the World Bank in 2008, it is still far from having an important position in the financial instruments available to countries and public and private entities. However, the green bond market has grown rapidly in recent years, demonstrating that there are sustainable fixed income investment opportunities, and that bonds can be used as a tool for transition to a low carbon economy.

Since 2014, and after revision by the International Capital Markets Association (ICMA) of the Green Bond Principles (GBP), the market for this product has expanded sharply. In 2016 aggregate issuance exceeded 100 billion dollars, and the first half of 2018 saw a total issuance of approximately 389 billion dollars according to the data released in the Climate Bond Initiative's first half of 2018 report. According to the data in this report there were 498 green bond issuers.

Currently, the share of green and climate-related bonds corresponds to 1% of the global market bond amount (more than 90 billion dollars).

**EVOLUTION OF THE GREEN BONDS MARKET (BILLIONS OF DOLLARS)**



Regarding the utilities sector, the group of entities that have issued Green Bonds, in addition to EDP, is extensive, including Iberdrola, Enel, Naturgy, EDF and Engie, among others.

**600 MILLION EUR**  
**IN GREEN BONDS, ISSUED BY EDP**  
**IN OCTOBER 2018**

On 9 October 2018, EDP issued its first Green Bond of 600 million euros, at 7 years, with a 1.875% coupon, becoming the first green issue by a Portuguese issuer. This issue will be used for the financing and refinancing of EDP Renováveis projects, i.e. wind technology (onshore and offshore) and solar (photovoltaic and concentrated solar power - CSP), as set out in the EDP Green Bond Framework.

In the EDP Green Bond Framework document, EDP presents the set of principles that support the issuance process and which follow the international Green Bonds Principles standard, voluntary principles drawn up by the International Capital Market Association (ICMA). These principles relate to the following aspects: use of resources; selection of projects; management of resources; monitoring and reporting; verification. The EDP Green Bond Framework document was reviewed by Sustainalytics, which issued an external opinion regarding the framework with the GBP. Sustainalytics was of the opinion that the EDP Green Bond Framework document "is credible, impactful and aligned with the four components of the Green Bond Principles 2018" and that the impacts of the financed or refinanced wind and solar projects contribute to United Nations sustainable development goal 7 (SDG 7): Renewable and Affordable Energies and in particular EDP's commitments to reducing its specific CO<sub>2</sub> emissions by 75% by 2030 compared to 2005, and the commitment to achieve 76% renewable installed capacity by 2020.

The Green Bonds issue process has been monitored since 2009 by the Climate Bond Initiative (CBI). The EDP green bonds issuance has been available in the CBI database since October 2018<sup>1</sup>.

CBI is responsible for one of the international standards for reporting and monitoring green bond issues. CBI is the only entity that performs the external certification of Climate Bond Standards, choosing annually some "pioneers" who play an important role as the green bond market enablers.

**GREEN BOND PIONEER AWARDS 2019**  
**EDP WAS RECOGNIZED BY CBI FOR BEING THE 1<sup>ST</sup> PORTUGUESE COMPANY TO ISSUE GREEN BONDS<sup>2</sup>**

<sup>1</sup> [www.climatebonds.net/cbi/pub/data/bonds?page=3](http://www.climatebonds.net/cbi/pub/data/bonds?page=3)  
<sup>2</sup> [www.climatebonds.net/resources/press-releases/2019/03/cbi-2019-green-bond-pioneer-award-winners](http://www.climatebonds.net/resources/press-releases/2019/03/cbi-2019-green-bond-pioneer-award-winners)

It should be noted that, as a result of the assignment of a BBB- investment rating to the green bonds issued by EDP, the company received the distinction of being included in Bloomberg Barclays (November 2018 composition). This index, created in November 2014 by Bloomberg and Barclays, is used as a reference for benchmarking.

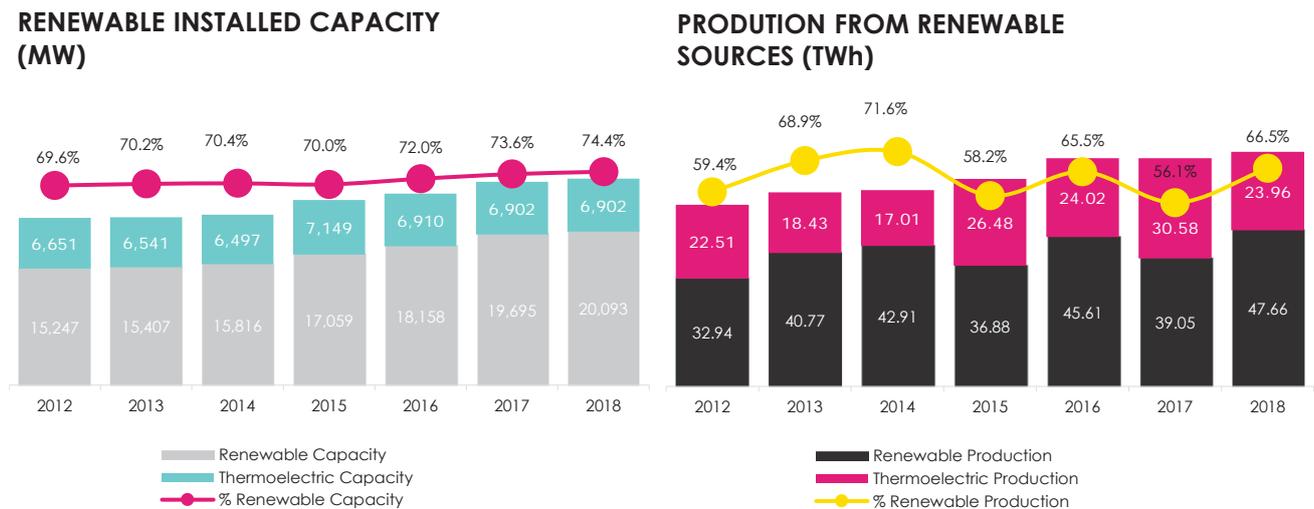
### 3.1.3 PROMOTION OF RENEWABLE ENERGIES

Critical to a society that wants to decarbonize its economy as a way to mitigate the effect of Climate Change, the production of electricity from renewable sources is EDP's main business growth strategy by investing in new wind, solar and water capacity. In addition to decarbonizing the sector, with the consequent environmental benefits, the emphasis on renewables makes electrification of consumption, especially in the transport, building and industrial sectors, the most efficient way to reduce CO<sub>2</sub> emissions in these activity sectors.

According to the current 2016-2020 Business Plan, EDP plans to install 3.5 GW of additional capacity, with an average net investment of 1.4 billion Euros a year, 70% of which is in renewables.



In 2018, additional installed capacity in wind farms was 625 MW, 211 MW in Europe, 136 MW in Brazil and 278 MW in the United States of America.

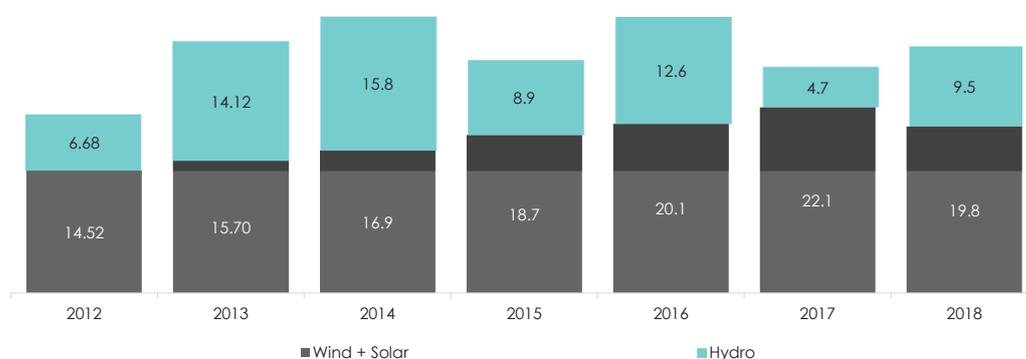


However, the sale of some mini-hydro plants in Portugal and Brazil, with a total power of 226 MW, led to a net increase in renewable capacity of only 399 MW. Thus, installed capacity in renewable production plants increased to 20.1 GW, which represents 74.4% of the total capacity installed by the EDP Group, practically reaching the goal of 75% set for 2020.

As regards the electricity produced by renewable power plants in 2018, there was a significant increase of around 9 TWh compared to 2017 (+23%), mainly due to the significant improvement in the hydraulicity conditions in Portugal and Brazil, after the extreme drought that was felt in 2017, particularly in the Iberian Peninsula. In Portugal, where the water portfolio is more significant, the hydroelectric productivity index (HPI) was 1.05 (against 0.47 in 2017), that is, slightly above the average hydrological year. Under these circumstances, the share of electricity production from renewable sources increased from 56% in 2017 to 67% in 2018.

CO<sub>2</sub> emissions avoided by production from renewable sources to replace fossil fuel production is another important environmental indicator for the decarbonization of the sector. In 2018, avoided emissions amounted to 29.2 million tonnes of CO<sub>2</sub>, which represents about 1.6 times the stationary emissions of the EDP Group's thermoelectric plants. Compared to 2017, this indicator increased by 9%.

### AVOIDED CO<sub>2</sub> (Mt CO<sub>2</sub>)



EDP continues to explore growth opportunities in wind energy in markets with low risk and regulatory stability, investing in long-term Power Purchase Agreement (PPA) and Contracts for Difference (CfD) in geographies such as the US, Brazil, Greece and Poland. In 2018, EDP entered the Brazilian solar market, with a 15-year PPA for the sale of electricity produced by a 199 MW solar park to be installed in the State of São Paulo.

With the contracts already signed, EDP exceeds the target of 3.5 GW of additional renewable capacity envisaged in the 2016-2020 Business Plan.

Also, worth mentioning is the involvement of EDP in consortiums for the implementation of offshore wind farms, having already secured funding for the construction and development of:

- Yeu et de Noirmoutier and Dieppe-Le Tréport farms (496 MW) in France;
- 950 MW farm in Moray East, Scotland, in partnership with DGE and ENGIE;
- Joint venture with Shell for an auctioned US concession area that can accommodate up to 1.6 GW of installed capacity.

In addition, EDP has sought to explore new business options through the development of innovative projects in emerging technologies, with particular emphasis on:

- Floating wind in pre-commercial phase in Portugal (25 MW), with Windfloat technology;
- Floating solar PV in hydropower reservoirs - Alto Rabagão (0.2 MW) already implemented and expansion plan for other reservoirs in Portugal with larger systems;
- Hybrid systems integrating wind, solar and storage (Romania), seeking to exploit the benefits resulting from the combination of the three technologies.

### 3.1.4 INNOVATION AND RESEARCH

Innovation and research are a priority for the EDP Group, being strongly embedded in its strategy, which has allowed it to anticipate new cycles in the energy sector. The transition of the sector, the challenges of climate change and clean energy needs in a pioneering context have been diagnosed. Within the framework of ongoing profound change, innovation is key to ensuring sustained growth, competitive advantage, better customer experience and significant reduction in costs, which justifies its materiality, both for the company and its stakeholders. In this sectoral revolution, service, comfort, mobility, sustainability and the economy are being driven by a multi-technological approach, supported by the emergence of the Internet of Things (IoT), artificial intelligence and Big Data technologies.

Innovation in EDP involves three strategic goals:

- Positioning, through open innovation in collaboration with innovation-driven stakeholders - start-ups, universities, Research and Development (R&D) centres, incubators, accelerators, and innovation contests, among others.
- Growth, through commitment to the internationalization of entrepreneurship programmes and reinforcement of the company's presence in the main global innovation hotspots.
- Collaboration among all EDP Group units, aiming to strengthen business strategy throughout the value chain.

The EDP Group's total investment in research and innovation projects in 2018 amounted to 75 M€. Since 2015, accumulated investment has been 212 M€, exceeding the target set for 2020 (200 M€).

#### COOPERATION AND RESEARCH FUNDING AGREEMENTS

Open innovation continues to be key at EDP: from R&D to the market, through product innovation and development. Collaboration with leading institutions (Universities, start-ups, technology companies, utilities, etc.) is key to anticipating changes and adapting the company to the new paradigm. EDP continues to focus on partnerships and the balance between its own financing and competitive public financing (H2020 Programme, among others) for its Innovation and R&D activity, with a focus on renewables, system flexibility and future networks.

During 2018 the following agreements were of note:

- Membership of COTEC España, similar to what is already happening in Portugal, allowing access to new innovation trends;
- Signing of an agreement with the University of Oviedo Foundation for financial support to higher education and polytechnic students (2,000 euros per student) who carry out Master's work in areas proposed by EDP;
- Membership of the Alastria network consortium, a Spanish association for the promotion and standardization of DLT (Distributed Ledger Technology) technologies, commonly known as Blockchain;
- Continuity of the EDP Chair in Biodiversity, co-financed by the Foundation for Science and Technology (FCT) and awarded to the University of Porto, Portugal, for the development of scientific research work dedicated to the management of biodiversity impacts, conservation and monitoring;
- Various agreements with Institutes and Foundations associated with Universities in Brazil (São Paulo, Rio de Janeiro, Tocantins), for scientific and technological support to an R&D project in the area of generation, operational efficiency and smart grids.

## SUPPORT FOR ENTREPRENEURSHIP

One of the focuses that has proved critical for the development and introduction of innovative technologies in the various EDP business units has been the support provided to entrepreneurship through EDP Starter. With activity in Portugal, Spain and Brazil, EDP Starter offers the best start-ups in the sector the opportunity to participate in acceleration programmes, hackathons and conferences in order to develop pilots and possibly invest. 2018 was also marked by EDP's presence at the Web Summit, and participation in the global start-up acceleration programme, Free Electrons.

**EDP Starter 2018: 700+ applications; 34 Countries; 33 startups; 23 PoCs; 44 Mentors; € 500,000 in PoCs**

### Investment targets:

- EDP Ventures SGPS: €40M
- EDP Cleantech FCR: €25M
- EDP Ventures Brasil: R\$30M

## DEVELOPMENT OF INNOVATIVE TECHNOLOGIES

EDP focuses on five areas of innovation and technological research, of note being some of the ongoing projects:

### CLEAN ENERGY

It aims to boost the renewable energy business (onshore and offshore wind, solar and hydro)

- **Floating photovoltaic** - development of the pilot project for the installation of a floating photovoltaic platform and roll-out study with greater capacity in the Alqueva reservoir in Portugal.
- **WindFloat Atlantic** - Development of the pre-commercial phase of a floating offshore wind farm using WindFloat technology. The project will be located 20 km from Viana do Castelo, with 3 to 4 units and a total installed capacity of 25 MW.

### INTELLIGENT NETWORKS

Development of solutions that enable the smart management of electrical networks. **InteGrid** - a project co-funded by the European Commission with the aim of promoting the demonstration of smart grids, storage and integration of renewable energies, enabling the interactive participation of grid users and providing for the interoperability of different market and interconnection solutions for different stakeholders.

- **Gridcure** - SaaS (Software as a Service) platform for predictive analytics for electrical utilities, which uses data to optimize power strategy and improve smart grid operations.

### CUSTOMER-FOCUSED SOLUTIONS

Promoting the improvement of energy efficiency through offering low carbon products and services and increasing electrification through competitive prices

- **Sharing Cities** - a European project seeking to share integrated energy solutions to promote energy efficiency, in three cities (London, Milan and Lisbon). The development of an ongoing Sustainable Energy Management System (SEMS) in the head office building of the Lisbon municipality, which will allow the grouping and management of energy consumption information for the building (general and controllable loads), photovoltaic production and consumption of electric vehicles.
- **Chatbot EDP** - development by the start-up winner of the EDP Starter Acceleration Programme Spain 2017, of a chatbot available on the EDP Carrefour Plan website, which allows customers, through artificial intelligence, to contract services related to the EDP-Carrefour offerings.
- **Energymate** - IT application developed in collaboration with the Asturian start-up Energintel, which provides customers with natural language Information about their electricity consumption.

## DIGITAL INNOVATION

A cross-cutting area that aims to bring the latest advances in information technology to the service of business and customers.

- **Blockchain:** several projects accompanying and adapting this potentially disruptive technology to EDP's business. Of note is the "Blockchain for Brazil B2C Solar" project, a proof of concept to apply this technology in the settlement of accounts between photovoltaic producers, distributors and B2C customers in Brazil.
- **Energyworx** - SaaS platform for energy data management and smart energy solutions.
- **GISRA** - Proof of concept that, by applying augmented reality technology, will enable the building of a mobile phone application that accesses EDP infrastructure geographic data, managed by GIS MOBILE, and overlays this in the mobile device viewer.

## ENERGY STORAGE

Test new storage technologies, manage flexibility and identify new business models.

- **SENSIBLE** - distributed energy management and storage applications (thermal, electrochemical and
- **OTGEN** - study on energy storage and system services of the future. Study and development of Energy Storage Systems for the Santa Maria, São Miguel and Terceira Islands in the Azores.
- **EV Condominium:** development of a solution for charging electric vehicles in condominiums.

### 3.1.5 DIGITAL TRANSFORMATION

In 2017, EDP began its digital acceleration journey with the EDPX project, which challenged the organization to respond to the opportunities created by the new digital era and resulted in the consolidation of a roadmap of more than 500 digital initiatives throughout the Group.

The creation of the Digital Global Unit (DGU) has thus arisen as a natural evolution of the EDPX: a new area that links the IT Core to Digital and reinforces the importance of technological innovation in the Group's strategy, mainly to accelerate digital transformation throughout the organization.

A very important component of the digitalization process is based on people. That is why one of the DGU's main lines of action is oriented towards internal overall cultural transformation, through disseminating this digital thinking and adopting new ways of working with organizational models and collaborative workspaces that encourage co-creation, experimentation and learning. This new unit works on a Hub & Spoke model in close collaboration with all business units and partners, which enables the optimization of synergies, the elimination of barriers, the fostering of cooperation and the streamlining of the development and testing of new solutions.

#### THE EDP X PROJECT

At the end of 2017, the EDP Digital Acceleration Programme – EDP X – was launched with the collaboration of Accenture | Fjord, with three main objectives:

- increase the coherence and alignment of the different digital initiatives scattered throughout the organization, thus ensuring synergies, including through the creation of more centres of competence;
- a sustainable reduction in costs and promotion of the launch of new technical solutions to increase profitability;
- ensuring digital cultural alignment by implementing a new organization and space suitable for addressing digital challenges and opportunities.

EDP X has been a ground-breaking project which has affected the whole EDP value chain, including conventional and renewable generation, energy trading, transport and distribution, as well as EDP Group corporate areas and business support. It was also developed in a number of countries, which has meant it can leverage the competencies of the EDP Group in the various markets in which it operates, especially Portugal, Spain, Brazil and the United States of America.

This project, which lasted six months, was carried out in partnership with leading digital development companies. The first phase involved an exhaustive survey of digital initiatives and capabilities in the group's various areas and business units. The remaining weeks focused on defining EDP's digital acceleration initiatives. More than 550 initiatives were identified, which seek to develop EDP's current businesses and explore new businesses made possible by digital. Since the EDP X Project, three main strands have been defined that guide digital acceleration in the EDP group:

- **Stream Customer:** focused on customer points of contact in marketing/trading and distribution. It leverages digital technologies in order to create customized multi-channel interaction, a better customer experience and drive new business opportunities;
- **Stream Assets & Operations:** focused on Production, Distribution and Renewables. This automates routine tasks and optimizes operations on the ground using IoT, robotics, cognitive computing and artificial intelligence. It increases productivity and enhances the value of assets centred on innovation;
- **Stream Enterprise:** focused on support and corporate areas (e.g. human resources, information technology, shared services). It leads to new operating models and business processes, optimizes the costs and efficiency of corporate functions and transforms the organization by leveraging new digital capabilities.

For each of the respective strands, based on different methods of collecting details and information, such as benchmarking, rumbles and sprint for prototype design, it was possible to structure the digital roadmaps for the EDP Group, according to the nature of their business.

In order to achieve digital acceleration, product implementation was adopted, based on the concept of mVP (minimum Viable Product), that is, a fully operational solution (e.g. website, application, algorithm) with sufficient resources to satisfy the primary needs of first users, with room for future improvements. The development of these mVPs presupposes the application of new forms of work, particularly the creation of teams inspired by Agile methodology, which operationalize the work in combined development and test sprints, culminating in a viable product for use after three months.



The EDP X Project was also accompanied by a comprehensive communication plan consisting of, among other aspects, weekly one-hour X Clinics sessions, which took place in the Digital Factory auditorium, with speakers presenting on various digital subjects, as well as the X Conferences, monthly sessions that took place in the amphitheatre at the EDP headquarters. X Coins were created using blockchain technology, which were assigned to all users who participated in the EDP X activities, whether present at the X Clinics or X Conferences, or subscribing to the newsletters. At the end of the project, the Digital Champions were identified, that is, the ten people who had managed to collect most X Coins. This has made it possible to increase people's involvement in and attention to the project.

With EDP X it was possible to develop the sense of commitment to the Digital in the EDP Group and to define the intended strategic priorities, thus creating the conditions to implement and accelerate this process through a new form of digital organization in EDP.

**DIGITAL GLOBAL UNIT**

After completion of EDP X in June 2017, 3 important impacts were defined:

- Creation of a digital area for the EDP group, taking into account the importance and strategic commitment of the EDP Group in the digital transformation of the business, operating in a Hub&Spoke model in close collaboration with the linked Business Units;
- Ensure flexibility and agility in this new digital area, both in the contracting of new human resources, and in the contracting of partners and suppliers, with a specific dedicated budget for this;
- Join this new digital area of the EDP Group with the area of information systems, in order to ensure connection and further development, optimize synergies and reinforce digital focus also at the Core IT level.

As a result, on 1 July 2018, EDP's Executive Board of Directors decided to create a new structure in the Corporate Centre, with the designation of Digital Global Unit (DGU) to ensure the effective integration between Digital and Core IT.

The digital area of the DGU (Digital Hub and Digital Factory) is based on three interdependent areas: (i) Strategy; (ii) Digital Projects; and, (iii) Digital Culture.

At the Strategy level, based on a model linked to the different business units, it intends to have an overview of the digital roadmap of the companies and initiatives under analysis, ensuring the internal and external reporting of these matters. With regard to the projects, it seeks to support the business units in the agile execution of mVPs, as well as to support them in other projects and digital initiatives that are being developed locally. Through the development of new forms of work, the dissemination of collaborative tools and the holding of communication and training actions, the Digital Hub&Factory intends to implement a Digital Culture in the EDP Group.

As a result of the work already carried out in 2018, with regard to digital projects developed, 52 mVPs were accelerated, of which 15 are already completed and in production.



**3.1.6 NEW ENERGY SERVICES**

In a context where the customer is increasingly proactive, demanding and technological, along with the intelligence of networks and the digitalization of services, it has become indispensable to evolve to ensure their maximum satisfaction.

The energy solutions provided by EDP aim to meet the specific needs of different customer segments through a diversified and innovative offer supported by optimized and focused communication channels for a response containing quality and efficiency.

## INNOVATING IN THE CLIENT'S SERVICE

In 2018, EDP continued to focus on innovating its commercial offer, launching new products and services and promoting intelligent, efficient energy management solutions. Around 151 million euros of revenues were generated only in energy efficiency services, representing an increase of 13% compared to 2017 (page 142).

In addition to its energy supply, EDP has a wide range of solutions ([www.edp.pt](http://www.edp.pt), [www.edpenergia.es](http://www.edpenergia.es), [energia.edp.com.br](http://energia.edp.com.br)) in geographical areas where its marketing/trading activity is present, of note being its more recent products and services and/or those that are noteworthy through contributing to a more sustainable use of resources:

### SOLAR ENERGY

Savings simulation and installation of solar photovoltaic systems in a self-consumption scheme adapted to customers and local characteristics

### ELECTRICAL MOBILITY

Support, advice and availability of in-home and out-of-home charging solutions available in the three geographical areas where EDP is present.

### ENERGY EFFICIENCY

More efficient equipment and lighting such as LED lamps, high performance motors, electronic speed drives and heat pumps. Advisory services and energy audits.

In the Iberian Peninsula business sector, EDP has supported the implementation of integrated energy efficiency services through the Save to Compete programme, which identifies measures to reduce energy consumption, promoting its implementation and costing through the savings generated. The results are posted online and can be viewed on the Save to Compete website ([edp.pt](http://edp.pt) > corporate > reduzir fatura > save to compete).

EDP also supports energy saving measures, programmes and projects, in addition to those products and services that make up its business portfolio.

In Portugal, of note is the participation in the Plan for the Promotion of Electricity Efficiency Consumption - PPEC, promoted by the Energy Services Regulatory Authority, which encourages the implementation of measures to adopt consumption habits and more efficient equipment by consumers in the different market segments - Residential, Trade and Services and Industry and Agriculture. For the call for tenders the implementation period of which took place during the 2017-2018 biennium, the EDP Group approved 19 measures (3 more than in the previous call for tender), which represented 67% of the available funding. It is estimated that the implementation of these measures will allow an approximate saving of 1.2 TWh and a reduction of 430 thousand tonnes of CO<sub>2</sub>, taking into account the working life of the equipment.

**27M€ AND 270GWh**

**OF ACCUMULATED  
SAVINGS WITH  
SAVE2COMPETE SINCE ITS  
LAUNCH**

In Brazil, EDP invested R\$ 30.28 million in energy efficiency initiatives in 2018, which led to energy savings of 9.6 GWh/year in São Paulo and 7.4 GWh/year in Espírito Santo. Funds are invested in accordance with legislation for the Brazilian electricity sector, which determines that the distributors annually apply 0.4% of net operating revenue into energy efficiency programmes (EEP) and 0.1% into the National Electricity Conservation Programme (PROCEL).

For example, in 2018, the Solidarity Efficiency project benefited more than 25,500 residential customers. 114,000 inefficient lamps were replaced with LED bulbs. This is expected to save 4.4 GWh/year, equivalent to the average consumption of approximately 3 thousand families/year.

## DISTRIBUTED GENERATION/SELF-CONSUMPTION

**28 MWp**

**PHOTOVOLTAIC  
SYSTEMS INSTALLED IN  
PORTUGAL, SPAIN AND  
BRAZIL**

Looking into a future in which production will be increasingly decentralized, EDP offers distributed generation solutions from renewable sources tailored to the customer's profile and the local characteristics, based on photovoltaic systems under self-supply schemes.

In Portugal, since 2013, EDP has installed more than 25,000 photovoltaic systems in homes and companies, with a total installed capacity of approximately 22 MWp and achieving an accumulated energy saving of around 32 MWh, as well as avoiding the emission of close to 10 tonnes of CO<sub>2</sub>.

In Spain, of note was the solar offer in a self-consumption regime for the business segment of customers with the first sales recorded in the last quarter of 2018.

In Brazil, the photovoltaic solar energy segment has been developed through EDP Soluções em Energia, covering all customer segments - residential, commercial and industrial. The business includes distributed generation solutions with lease and sale contracts, which can be installed at the customer's point of consumption or remotely on solar farms.

### 3.1.7 SUSTAINABLE MOBILITY

#### DECARBONIZATION OF TRANSPORT

Sustainable mobility is a key issue for society and one of EDP's priorities. This is one of the areas that will most affect the energy sector and will be essential for the decarbonization of transport, which currently accounts for about 24% of global CO<sub>2</sub> emissions. For EDP, the decarbonization of the economy involves a significant increase in the penetration of production from renewable sources, followed by strong energy consumption electrification, in particular in the transport sector. In this sector, the progressive reduction of the cost of batteries for electric vehicles, together with recent regulatory policies, will promote their adoption, with a growing percentage of sales of this type of vehicle already being seen.

#### STRATEGIC POSITIONING

In 2018, EDP set a goal for electric mobility, taking on the commitment to:

- Electrify its fleet, reaching 100% of electric light vehicles by 2030, with an estimated CO<sub>2</sub> emission reduction of 70%;
- Develop new offers and marketing solutions that promote energy transition, including charging infrastructures;
- Get the company ready for transport electrification.

At the start of 2019, EDP extended its commitment to electrify its fleet, by also including 50% of vehicles between 3.5t and 7.5t.

#### INTERNAL ELECTRICAL MOBILITY

By the end of 2018, EDP's fleet consisted of about 3,700 vehicles, of which 278 were electric or plug-in hybrids (~ 8%), which represented a 34% increase in these types of vehicles compared to 2017.

The expected increase in the electric fleet will require the addition of battery charging points at EDP's facilities. By 2018, EDP already had 467 outlets installed, with different charging speeds (slow and fast).

**278**  
**ELECTRIC AND HYBRID  
VEHICLES**



**34% VS. 2017**

## ELECTRIC MOBILITY TRADE SOLUTIONS

EDP intends to position itself as a reference partner for electric mobility. The company's strategy is to provide users with a commercial offering of products and services, in particular in the Iberian Peninsula, as well as to contribute to the reinforcement of the public and private charging infrastructure, which covers the need to support the charging of vehicles in their residences. During 2018, the following initiatives can be highlighted:

- In Spain, EDP installed 50 new charging points in public spaces in Asturias, with an investment of more than one million euros. Of particular note was the case of Gijón which, with 20 facilities, is the reference city for electric mobility in northern Spain. With this new infrastructure, EDP already has 57 recharging points in the region. EDP also promoted electric mobility in the Valencian Community (20 charging points) and in the Basque Country (2 fast charging stations).
- EDP is a partner in the European project CIRVE (Iberian Corridors for Fast Charging of Electric Vehicles Infrastructure), through which various companies will reinforce the infrastructure in Spain with 40 fast stations.
- In terms of commercial offering, EDP provides users with several charging solutions:
  - i. using the electric mobility EDP card in public spaces, available at [www.edpmoveon.com](http://www.edpmoveon.com) (in Spain) or [edp.pt](http://edp.pt) (in Portugal);
  - ii. manage the charging by means of a mobile application - 'EDP moveon', also providing the location of charging points, distance to their position, availability and type of outlets (only available in Spain);
  - iii. charging the vehicle at home, offering wallbox solutions for single family homes and also for condominiums (in a pilot phase), associated with the re:dy home automation system that allows the operation and supervision of the charging from a mobile phone.



- The ENERGY2MOVE programme was continued in partnership with 8 automobile reference brands (BMW, Mitsubishi, Nissan, Opel, Peugeot, Renault, Smart and Volkswagen), providing EDP customers with special conditions to purchase electric vehicles in Portugal.
- Development of a mobile computing application ([edp ev.x](#)) for awareness raising and promotion of electric mobility. The application simulates a true electrical experience adapted to each user's daily life, with real information about charging needs, available positions, autonomy, as well as the economic and environmental benefits that result from the adoption of electric vehicles.
- Implementation of a new 430-kilometre corridor of the Presidente Dutra Highway linking Rio de Janeiro to São Paulo, with six new fast-charging stations for electric vehicles. The project, developed in partnership with the BMW Group *Brasil*, involved a total investment of about R\$ 1 million. The Rio de Janeiro - São Paulo corridor makes it possible to carry out the complete trip in an electric vehicle between the two most populous main cities in Brazil.



## HYDROCAST

### DEVELOPMENTS IN FORECASTING THE WATER FLOW IN RESERVOIRS – THE BAIXO SABOR AND FOZ TUA DAMS

In addition to exposure to risk and price changes in the electricity market, EDP has a significant exposure to the potential variation in water production – which varies naturally depending on the weather conditions.

Let us take the years 2016 and 2017 as an example of the order of magnitude of variation of water production:

- In 2016, production had a 45% weighting in EDP's generation mix in the Iberian market;
- In 2017, a particularly dry year, the same indicator was set at 22% – with this difference resulting in a significantly more expensive generation mix.

In this context, suitable forecasting of reservoir production capacity is a key element in the planning and optimum management of EDP's water resources production. One of the key elements in this prediction is the determination of the water flow of reservoirs created by dams.

The "Hydrocast", an initiative forming part of EDP X (Digital acceleration project at EDP), had as a challenge the prediction of the natural water flow of the reservoirs of two dams that recently entered into operation – the Baixo Sabor dam and the Foz Tua dam. In particular, the challenge was to construct and optimize new analytical models for forecasting the water flow every 3 hours up to 3, 7 and 14 days for each of the dams.

<b>BAIXO SABOR</b>	<p><b>START OF OPERATION:</b> 2016  <b>USEFUL STORAGE:</b> 630 x 10<sup>6</sup> m<sup>3</sup>  <b>POWER:</b> 189 MW  <b>AVERAGE ANNUAL GROSS PRODUCTION:</b> 460 GWh</p>
<b>FOZ TUA</b>	<p><b>START OF OPERATION:</b> 2017  <b>USEFUL STORAGE:</b> 630 x 10<sup>6</sup> m<sup>3</sup>  <b>POWER:</b> 270 MW  <b>AVERAGE ANNUAL GROSS PRODUCTION:</b> 660 GWh</p>

The response to the challenge followed a data driven approach, starting with the collection and analysis of data quality, followed by its processing and transformation, definition/execution of modelling assumptions, and analysis/presentation of results.

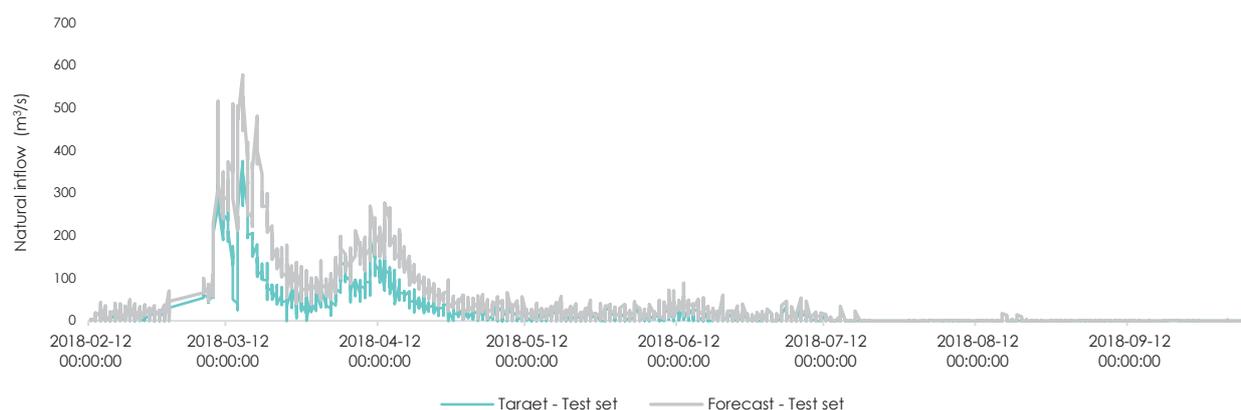
To meet the challenge, the historical data of the two dams were made available:

- For the Baixo Sabor dam, the available history is available since July 2015;
- For the Foz Tua dam, the history began in March 2017.

Since the flow rate of a reservoir is directly related to the local atmospheric conditions at a given moment, the atmospheric forecast data of the Portuguese Institute for the Sea and the Atmosphere (Instituto Português do Mar e da Atmosfera - IPMA) was used to complete the analysis. This includes forecasts of temperature and rainfall, among others.

The data served as the basis for several modelling scenarios using Machine Learning and Deep Learning – Recurrent Neural Network algorithms. The quality of the forecasts resulted in “Hydrocast” becoming a successful initiative, as the error obtained remained below 10% in the various models – significantly positive for the type of models in question. This is all the more important because both dams have recently started operating, so there is little history to support the “knowledge” of their performance.

### BAIXO SABOR, 3 DAY FPRECAST (SARIMA MODEL - DATABASE TEST)



The daily application of the results of these models should enable us to:

- Reduce “discharges” (waste of water resources), maximizing asset productivity;
- Improve coordination between EDP Produção and the other internal and external stakeholders (e.g. Trading area, municipal councils) – endowing it with more and better information on water production assets;
- Optimize the decision making of the energy Trading area.

Given the success of the results obtained in the two dams, the extension of the modelling work – particularly the upriver reservoirs (the first in a cascade) and the more “volatile” in terms of oscillation in size – should provide for better forecasts of the behaviour of the rest of EDP’s water production “park”, and extend the benefits previously identified.

## EDP PARTICIPATING IN THE CIRVE PROJECT IN SPAIN

### DEVELOPMENT OF IBERIAN INFRASTRUCTURE CORRIDORS FOR FAST CHARGING OF ELECTRIC VEHICLES

CIRVE ([cirveproject.com](http://cirveproject.com)) is an European project established to roll out a network of fast charging stations for electric vehicles that connects the Iberian Peninsula with the other countries of the European Union. Taking place in Portugal and Spain, this project will promote the use of electric vehicles between these two countries and France, in a fully interoperable cross-border system, enabling electric vehicle owners to travel from Northern Europe to the Iberian Peninsula. A pilot study will therefore deploy 40 multi-standard fast charging stations along the Iberian corridors of the EU (Mediterranean and Atlantic), with a particular focus on cross-border areas.

The main goal of CIRVE is to provide a business model for installing a full grid of electric charging systems in the Trans-European Transport Network (TEN-T). Therefore, the project sponsors are also working on the interoperability of the stations, to enable their use by all electric vehicle drivers, regardless of the company that performs the installation. The new infrastructures will be installed in two areas, the Atlantic corridor and the Mediterranean. In the first area, the installation will cover the route between the Basque Country and Salamanca, with a branch to Madrid. The second corridor, along the Mediterranean, will have stations between Catalonia and Seville, with a branch to Zaragoza enabling travel to Madrid.

The stations will be installed between 2017 and 2020 on motorways and in nearby areas. Moreover, users will be able to recharge their vehicles in an estimated 15 to 20 minutes.

This project will identify solutions to current technical, legal and economic obstacles and will design a business model to consolidate the development of alternative fuels in the Iberian Peninsula.

EDP is participating in the project together with other sponsoring partners such as Aedive, Ceiiia, Endesa, GIC, Iberdrola, Ibil, and Renault. While promoted by the European Commission, with planned investment of 3.5 million Euros for the construction and commissioning of 40 stations, the project is co-financed through the Connect Europe Facility (CEF), 2015 call. EDP is contributing with eligible costs of 500,000 Euros, with a European grant of 250,000 Euros. The company's participation in the project also includes leading the activity for the studies on the regulatory, economic and legal framework.

Active participation in this project reinforces EDP's commitment to the promotion of sustainable mobility. The company is promoting the use of alternative energy vehicles, through agreements with the automotive sector and by developing modern infrastructures to extend the use of this type of vehicle. EDP, like other benchmark companies such as Endesa and Iberdrola, will contribute 5 charging stations in Asturias, Madrid and the Basque Country. According to the planned implementation schedule, the project will end in December 2020.

## 3.2

# DEVELOP OUR PEOPLE

This pillar defines commitments to EDP employees regarding diversity and equal opportunities, employee satisfaction and health and safety indicators, this last also applies to our suppliers' employees. The goals established contribute to SDGs 5 and 8.



### 3.2.1 PEOPLE MANAGEMENT

The People Management strategy of the EDP Group is conceptualized in the Corporate People Plan, designed in alignment with the Business Plan, in a cross-cutting way to all the companies and geographical areas where we operate. It seeks to promote and continually value all employees and their alignment with the company's values and culture, thus fostering the creation of the conditions most favourable to the contribution of our people to the success and sustainability of the business.

The 2016-2020 Corporate People Plan addresses contemporary and transformational challenges in people management, envisioning supporting the global development of the business by transforming leadership and performance and development models, within an increasingly digital workplace.

This strategic plan consists of three main areas - generational renewal, leadership transformation and talent growth - and two supporting areas - the continuous search for efficiency in processes and decisions, and the development of the profile and role of Human Resources professionals as agents of change. The five areas translate into a set of initiatives, the implementation of which is carried through its culture, its leaders and the employees themselves, as being the main individuals responsible for their development and path.

By creating a positive and differentiating experience throughout the Group's life cycle, we foster a culture that attracts and empowers talent, stimulates personal and professional development, recognizes and rewards excellence and merit, values experience and creates an environment of well-being and productivity. The return on investment of the strategic initiatives defined under this plan will be measured by means of 3 key tools - the People Scorecard (specific indicators and metrics for the various stages of an employee's experience), the climate study and external recognition and assessments.

In 2018, a year in which we have reached the point of having carried out approximately 60% of the 2016-2020 Corporate People Plan, we began to reflect on the guiding principles of the EDP Group's people management strategic plan for the next three-year period. This plan, in addition to continuing the previous strategy, will necessarily address the new challenges of people management resulting from the digitization of the sector, by promoting a more flexible and agile culture and way of working, the acquisition and development of new skills, and focus on making the employee's experience an increasingly differentiating one.

### ATTRACTING, DEVELOPING AND RETAINING TALENT

The EDP Group seeks to attract talent by developing a series of initiatives with external stakeholders, such as student associations, universities and other entities. Overall, the company was present at 18 job fairs and 11 pitch bootcamps and held 4 open days.

In 2018, a partnership was established with the Spark Agency resulting in EDP's presence at pitch bootcamps in Portugal. This presence in 11 pitch bootcamps throughout the year provided contact with 1,899 students from all over the country, with 61% from STEM areas (Science, Technology, Engineering and Mathematics), 36% from management/economics and 3% from social sciences and other subject areas. EDP Renováveis promoted a series of sessions in relevant Universities and Business Schools with the aim of publicizing its operations and identifying talent, in order to meet the strategic needs associated with the growth of the business. As part of this, it was present in 8 job fairs, in Spain and Portugal, where more than 800 students were present. In EDP Spain, in 2018, its presence in the employment forum of Oviedo University sought to provide students with greater preparation for entry into the labour market – so EDP professionals promoted workshops on interview behaviour, designing a CV and reflecting on a personal value proposition. At EDP Brasil, of note was the setting up of the School of Female Electricians, which will seek to attract and train women in a technical role that has traditionally been generally dominated by men. Through the +Inclusion (+Inclusão) project, an effort was made to sensitize managers with regard to inclusive recruitment and the added value of attracting and hiring persons with disabilities.

These initiatives resulted in 60,006 applications in the different geographical areas of the Group, representing a growth of 93% over the previous year.

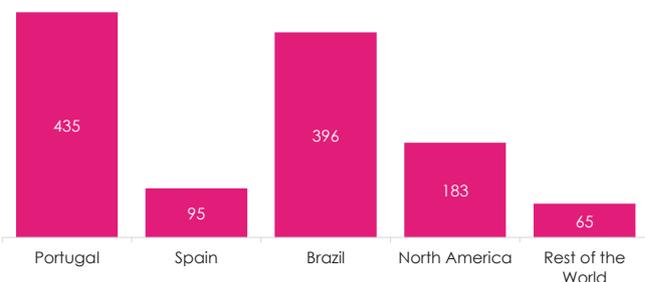
At the same time, EDP helps candidates to experience the labour market at first hand and the creation of a recruitment pipeline through various types of internships in different geographical areas. In two thousand eighteen 840 internships were hosted – 357 professional internships, 418 student internships and 65 summer internships.

In 2018 we would highlight the launch of the EDP Trainee Programme 4.0 and the respective communication and recruitment campaign. Under the slogan "the world is filled with impossible ideas", it managed to attract 5,110 candidates from 87 nationalities (+13% over the previous holding of the programme) living in 73 different countries (+30% over the previous holding of the programme). These candidates were selected through an agile recruiting process, with a lot of focus digitally and on the experience of the candidate, which featured video-conferencing interviews and online assessment tools. Assessment days were also carried out for the first time in Madrid and São Paulo. The group of 30 selected trainees, which will begin onboarding in January 2019, reflects gender diversity (15 men / 15 women), 11 nationalities and varied academic backgrounds - engineering (63%), including aerospace, electrotechnology, mechanics, mines, energy and renewable energy, economics and management (27%) and information technology (10%) - rotations are planned for 9 cities (3 continents) where the EDP Group operates.

With regard to recruitment and integration, the EDP Group's attractiveness plan has enabled the identification and selection of a large number of new employees who meet current and future business needs: 1,174 new employees joined the company (28% female, larger than the 25% which make the total number of employees), 95% of whom started permanent jobs.

In order to clarify the value proposition of EDP as a global employer and the specifics of each geographical area, the EVP (Employee Value Proposition) project was started. In conjunction with Universum (a consulting firm specialized in employer branding), internal indicators were collected (through a global survey of employees, a workshop that included HR and Communications Directors from the 4 geographical areas and interviews with the EBD) and external indicators (on the preferences of target audiences in different markets). Based on the intersection of these indicators, a robust, credible and consistent value proposition will be established that will impact on its attractiveness (employee branding, recruitment and selection) and talent retention (development programmes, benefits packages and internal communication).

## ADMISSIONS BY GEOGRAPHICAL AREA (#)



In order to align the workforce to the business challenges, skills needs were mapped for the future, which was reflected in a search for talent with specific "new" profiles. In order to support the transformation of the business, along with the opportunity for generational renewal, we sought to strengthen business and support teams with Digital, Cloud, Data Analytics, IoT, Agile Coaching, Scrum Mastery, UX and Asset Management profiles.

## TRAINING AND DEVELOPMENT

In the EDP Group, approximately 4 million euros were invested in more than 5,000 actions and 398,000 hours in internal and external training.

In order to promote greater alignment between the growth and development of employees and the organization, EDP offers several key competency development actions around 4 areas:

	UN	BEHAVIOURAL	CORPORATE	MANAGEMENT	TECHNICAL	TOTAL
Volume of training	hours	26,490	38,532	42,217	291,155	<b>398,394</b>
Trainees by domain	#	4,714	18,704	5,165	52,030	<b>80,613</b>
Investment by domain	€	335,600	271,243	1,035,473	2,400,348	<b>4,042,664</b>

Under leadership development, actions were carried out involving 2,529 participations totalling more than 33,700 hours of training and with an investment of approximately 268 thousand euros.

Of the programmes which cut across the group, we would highlight:

- The Global Leadership Programme, aimed at promoting networking among the group's middle management and which aims to develop the know-how to implement strategy and leverage people management skills, divided into two immersive meetings in two non-sequential weeks. A total of 29 leaders participated, of which 19 were from EDP in Portugal, 6 from EDP Renováveis, 2 from EDP Spain and 2 from EDP Brasil. The participants' satisfaction has remained solid and high since the first edition in 2015, with a global appreciation of 4.2 (on a scale of 0 to 5);
- The Lead Now Programme, which prepares new leaders, based on the Amplify competency model. This programme has a training component, and in the case of Portugal and Spain, this involves coaching and self-assessment tools. In 2018, 68 employees in Portugal, 106 in Spain and 33 from EDP Renováveis were involved.

Certain programmes were developed according to the specifics of each business, including:

- In Portugal, Leading Others, which aims to consolidate people management tools, preparing all leaders for EDP's current and future challenges. This had 81 participants, and in its first edition reached an overall appreciation rate of 4.0 (0-5). It should also be noted that during 2018, in order to accelerate organizational transformation, the 7th edition of the Energizing Programme took place, designed for young people with high potential and agents of change. This edition involved 31 participants and incorporated two new aspects: the Social Innovation Challenge, where they could experience and reflect on social entrepreneurship; and Career Counselling, both considered an added value that was reflected in a global appreciation rate of 3.9 (0-5);
- At EDP Brasil, 75 leaders participated in training modules on Digital Transformation and Agile Methods;
- For EDP Renováveis, the Executive Development Programme was held, which brought leaders into contact with current Management tools and practices. The 31 participants worked on a Business Challenge Case to present to the Executive Committee;
- An Innovation of Team Management programme was developed in Spain using Design Thinking methodology, which had 36 participations.

In the EDP Group, we seek to ensure that employees are primarily responsible for their development, and therefore we encourage the creation of Individual Development Plans (IDPs), through which they define actions they intend to carry out, with the aim of accelerating their development and widening their skills based on the 70:20:10 model. This model advocates a differentiation of focus in the different learning methodologies: through the experience on the job - 70% - of knowledge sharing and development of relationships - 20% - and formal training moments - 10%. In 2018, the plan was reviewed in Portugal, with 35% of employees undertaking their IDPs. Compared to 2017, when most actions were based on development through

training, in 2018 almost 50% of actions were based on development through on-the-job experience. In the same way, there was also an increase in actions involving relational and social learning. In addition to these developments, initiatives such as participation in volunteer work and mentoring projects are increasingly valued, with 165 and 82 applications, respectively.

## SWITCH – MOBILITY AS PART OF DEVELOPMENT PROCESS

The SWITCH Programme promotes the mobility and diversification of employees' experiences within the EDP Group and is one of the main on-the-job development tools. The programme boosts the presence of the Group in different business units of the value chain of the sector and in multiple geographical areas, and provides challenges for its participants, enhancing development not only in terms of technical aspects and work experience, but also the acquisition of new learning in different operational areas and the development of a formal and informal contact network.

In this way, while providing opportunities for employees to broaden their range of skills and grow with the Company, stimulating employability and personal fulfilment, we are developing agility and quick response to changes, by aligning the workforce to the current and future needs of the business.

In terms of long-term mobility, in 2018, this involved 1.131 rotations in all EDP Group companies, representing a functional, operational and/or geographical change for 10% of employees. Of these, 196 were intercompany mobilities, of note being EDP Distribuição which integrated 34 employees from other companies of the Group and EDP Renováveis with 20 international movements; and 935 were intra-company mobilities, of note being EDP Brasil with 246 movements within its structure. In turn, the SWITCH programme considers the short-term placement of employees to other areas and/or companies with specific projects and needs. Using this, throughout 2018, 33 short-term mobilities were carried out, of which 27 were international. Lasting between 2 and 6 months, collaboration took place in projects involving 11 companies of the Group, of note being:

- Generation Monitoring and Diagnosis promoting exchange in Portugal and Spain;
- Software Asset Management, which tightened relations between Portugal and Brazil at the Systems level;
- How to Use Big Data Architectures and Analytics to Drive Business Performance, where an employee of EDP Valor contributed to the Distribution business;
- EDP-CTG Young Professional Programme, an exchange programme between EDP and China Three Gorges, in which 22 employees from different companies and business areas had the opportunity to share best practices, expand knowledge, network and obtain international experience in Portugal and China.

In order for the Mobility Policy to continue to respond effectively to the increasing challenges of the EDP Group, in terms of initiatives and projects, as well as to provide a better experience to employees in terms of career management, a start has been made on the development of an online mobile application linking the existing opportunities (functions, projects and/or activities that represent business needs) with employee profiles (skills). This solution - GROW | Talent Marketplace - will deepen knowledge of the different functional areas within the Company (335 global functions aligned between all the companies and geographical areas), providing information about the responsibilities and skills required to work in each functional area (246 technical and intersecting skills mapped, in addition to the behavioural skills of the Amplify model). In addition, it will increase visibility regarding internal opportunities and communities of knowledge. In this way, it is estimated that it will contribute to the promotion of more agile and collaborative forms of work, at the same time as acting as a stimulus to the development of employees, in providing indications for the identification of skills to develop and of paths to be traced.

## TALENT MANAGEMENT AND SUCCESSION PLAN

In order to maintain business sustainability and innovation, EDP has developed the Talent Management model which aims to identify the people who, within the organization, can be agents of change, reinforcing its high performance so that they can be levers for organizational transformation.

In the second half of 2018, based on performance results and the Amplify Skills Analysis model, talents were identified in the EDP Group, which correspond, on average, to 22% of the employees of the target populations in the different geographical areas, 33% of whom are female. Following this identification, People Reviews took place, meetings between managers and human resources managers of the companies, discussing development and next steps for the people identified in this model, and successors for the management positions within the EDP Group being mapped.

The next step will be to invest in exposure to the organization and preparation of these profiles to assume roles of greater responsibility and challenge. To this end, development actions such as mentoring, coaching, shadowing and events/meetings with senior executive members will be promoted, which are examples of tools that will form part of the overall talent development strategy and which, for the most part, should be reflected in the Individual Development Plan of the employees concerned.

## **PERFORMANCE MANAGEMENT AND RECOGNITION**

The success of the EDP Group is determined by its individuals and their satisfaction, depending, among other factors, on how the company manages and recognizes the performance of each employee. Thus, and responding to the feedback received through the climate study, the company changed the model of performance definition and evaluation in order to create a closer link between performance and compensation. In 2017, regarding the Performance Management process, 99% of eligible employees, that is, employees in the Permanent Staff that have worked at least 6 months of the year, were evaluated by their direct hierarchies.

In 2018, a global model was implemented for the Group, with this being clearer and more transparent in the way it aligns goals and recognition, which enhances the comparability and mobility of all employees

The definition of the Group's goals, businesses and areas, in which there was previously a financial predominance, was also changed. EDP Brasil's "Targets with a Purpose" model served as a reference to introduce a methodology of goals setting from a more holistic perspective, based on 6 clusters important to the business: people, shareholders, assets and operations, innovation and partnerships, environment and communities, and customers.

Through transparent and quarterly communication of the results achieved, this model fosters a culture of continuous feedback, which is essential to supporting the business challenges and follow-up of employees, enhancing their permanent involvement with the Group's goals and performance.

It should also be noted that, in line with good market practices, in 2018 studies were carried out and models designed to allow the implementation of a Long-Term Incentive Programme (ILP) for Portugal, Spain and EDP Renováveis (Spain), applicable to all key employees in the organization, similar to that which is already in place at EDP Brasil and EDP Renováveis (North America). The aim is to encourage the pursuit of the Group's goals, ensuring the retention of employees, while respecting legal and tax implications and the respective financial impact.

## **REWARDS AND BENEFITS**

The EDP Group believes that recognition policies play a key role in attracting and retaining talent. For this reason, the Group has a remuneration policy in line with best practices, conducting annual market studies to ensure its competitiveness, as well as internal equity studies.

The EDP Group assigns to all employees, in all geographical areas, a set of benefits aligned with the needs of the employees and associated with their life cycle and their household, particularly access to systems of protection and health care complementary to those of the public health services in each country, supplementary pension plans and life and personal accident insurance.

It should also be noted that there are also benefits indexed to Collective Work Agreements or flexible plans adapted according to the legislation of each country.

In Portugal, in 2018, a new benefits management platform (Benefits4all) was launched, which allows the employees covered by the EDP Flex Plan to manage and consult the measures that the company places at their disposal through the Conciliation Programme (page 88). In 2019, it is planned to expand this platform to all employees in Portugal (covered by the benefits of the 2000 Collective Work Agreement) and progressively to the geographical areas where EDP is present. Taking into account the feedback from employees, new benefits were also introduced that employees can access through the Flex Plan.

EDP Spain also has a flexible benefits plan, which includes benefits such as children's tickets, in addition to the above. In 2018, EDP Spain signed the III Collective Work Agreement, incorporating new aspects and improvements in the benefits available to its employees.

EDP Renováveis, after an analysis carried out during 2018 on the life cycle of its employees (generation and family situation), offered a package of benefits in line with their needs.

## LABOUR RELATIONS

EDP maintains a constructive and cooperative relationship with official entities and the workers' representatives – workers' committees and trade unions – in order to increase the transmission of information and cooperation, which in 2018 had as a corollary the absence of labour disputes regarding EDP. This relationship is operationalized in each geographical area by local teams that guarantee contact and proximity to those entities, communicating, among other aspects, organizational changes that impact on employees, both regarding themselves and their representative structures.

### TRADE UNION REPRESENTATION IN THE EDP GROUP

At the end of 2018, 40% of EDP Group employees were unionized. Compared to the number of employees in each geographical area, the highest percentage of union members occurs in Portugal and Brazil, both with 48%, followed by Spain with 17%.

The number of employees who are members of trade unions in the EDP Group at the end of 2018 was as follows:

### UNIONIZED EMPLOYEES BY POPULATION SEGMENT

	UN	SPECIALISTS	SUPERVISORS	SENIOR MANAGEMENT	TECHNICIANS	TOTAL
<b>Percentage of unionized employees</b>	<b>%</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>32</b>	<b>40</b>
Portugal	#	370	92	61	2,377	2,900
Spain	#	44	12	0	221	277
Brazil	#	300	15	4	1,135	1,454
<b>Total</b>	<b>#</b>	<b>714</b>	<b>119</b>	<b>65</b>	<b>3,733</b>	<b>4,631</b>

### ACTIVITY IN PORTUGAL

In 2018, in the companies of the EDP Group in Portugal, who subscribed or adhered to the Collective Work Agreement (ACT) granted at the end of 2014, this was still in force.

In relation to trade union structures, of note were the negotiations on the increase in salary scales, in which it was possible, as in previous years, to reach agreement with all the trade union negotiating committees. Also of note was the development of solutions to improve the application of the collective agreement.

Accompanying legislative changes, in particular those concerning the conditions of access to old-age retirement, the Labour Code, those arising from the State Budget with an impact in the labour area, as well as those relating to gender pay parity, more than 74 meetings with official entities were held, workers' commissions and trade unions, for the introduction, modification or termination of norms or regulatory procedures resulting from the legal framework and within the scope of the revision and updating of collective regulation.

In the sphere of competence of labour relations, support was also maintained for workers' organizations for recreational, cultural and social purposes, namely the EDP Staff Club, Retirement and Pensioners' Association and the Blood Donors' Association.

## ACTIVITY IN SPAIN

The year 2018 was characterized by an intense Collective Bargaining Process that began on 19 October 2017 with the establishment of the Negotiating Table and ended, after 14 months and 19 negotiation meetings with the company, on 20 December 2018.

The negotiation was characterized by union unity which remained throughout the process, forming a union platform and by the absence of internal conflicts, strikes and pressure measures, regarding EDP.

The III Collective Agreement, with a validity of 8 years, was for the first time, in EDP Spain, signed by all the union forces with a presence in this geographical area. The agreement strengthens social peace and improves labour relations with the main objectives of achieving a more efficient and flexible working day, uniting the schedules of different groups, adjusting salary grids, eliminating wage imbalances and improving the Assessment System.

## ACTIVITY IN BRAZIL

In Brazil, despite the political and economic instability that still exists in the country, the company maintained negotiation processes with seven different unions, which on average involved five monthly meetings, in addition to previously scheduled bimonthly meetings with the main unions. At these meetings issues were discussed relating to Collective Work Agreements (annual periods), Profit Sharing and/or Financial Results and other workers' claims.

EDP Brasil has been active in different labour issues, from the daily drawing up of consultations involving issues related to labour and union relations and internal customers, as well as its activity with public agencies (the Ministry of Labour and Employment and the Public Ministry of Labour).

The communication of the evolution of collective bargaining is carried out concurrently by EDP Brasil and by the trade unions, in order to clarify any doubts, as well as to demonstrate transparency within the negotiation process. It should also be mentioned that such collective bargaining is carried out annually, according to the norms contained in Brazilian labour legislation.

## ORGANIZATIONAL CLIMATE

Organizational Climate is a key indicator for the EDP Group, which reflects the feedback from our people regarding the Company's performance in people management. This is a material theme for the Group, since it reflects involvement and commitment (Engagement) and the perception of organizational support (Enablement) by employees, variables that directly affect their well-being and productivity.

The study of Organizational Climate consists of monitoring the levels of Engagement and Enablement of our employees, which is carried out through the launching of an annual questionnaire to the entire organization. Alternately, in one year a longer and more exhaustive questionnaire is applied, and in the next year there is a shorter follow-up questionnaire. The methodology used allows analysis of the annual development of the indicators, internal comparisons, and comparisons with the sector, market and high performance companies to be carried out, through a digital platform.

According to international benchmarking, and with respect to the main dimensions of the Organizational Climate, EDP has been leading the sector and is aligned with companies with best performance in the global market.

However, the EDP Group's objective is to continue to improve. For this reason, climate management is not limited to the results of the study, since these lead to the definition of action plans for improvement at all levels of the organization: a corporate plan, with initiatives addressing issues that cut across the Group; and company and area plans through which measures are implemented to improve the specific themes identified in the study.

Under the corporate plan resulting from the results of previous years, during 2018, of note was the CLEAR Programme:

- The CLEAR Programme was created with the purpose of providing clarity to employees in a close and transparent manner, supplying more in-depth and detailed information on the topics of people management considered more critical in the climate study, particularly opportunities for development, performance management and compensation/benefits. This program was implemented through Leading Clearly (sessions aimed at employees with responsibility for people management) and Clear Talks (actions aimed at all employees). During the last quarter of 2018, more than 100 sessions were held in 8 geographical areas of the EDP Group, with more than 3,300 participants, representing more than 9,500 hours of training. The balance of the programme has been positive and employees have praised it, which translated not only into high satisfaction indicators (above 80%) but also the qualitative feedback received in all geographical areas. The themes presented became clearer and more transparent, while helping to bring the HR teams closer to individuals. The programme's more than 100 ambassadors played a key role in its success and their testimonies also reinforced the positive impact of the programme.

In relation to the 2018 Climate Study, this was a year of follow-up of the main aspects of Engagement and Enablement. This had a participation of 93% of EDP Group employees, 11 percentage points above the general market level.

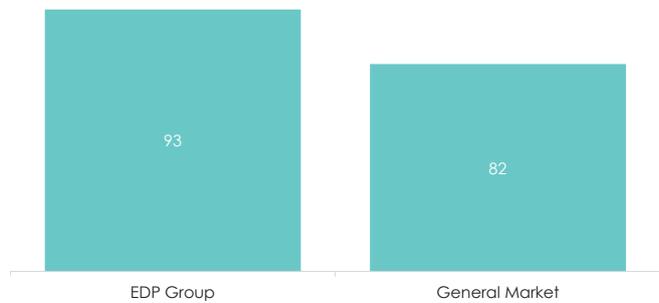
It was verified that 72% of employees feel involved with the company (Engagement), a result that is 5 percentage points above the results obtained in the general market and 4 percentage points above utilities. Of note in this aspect is the employees' sense of pride in the company (84% favourable) and their recommendation of it as an employer (82% favourable).

In relation to Enablement, it was also concluded that 70% of employees feel significant organizational support, a value which is also above both general market results (by 3 percentage points) and utilities (by 2 percentage points). In this area, the opportunity that the company provides for employees to perform challenging and interesting tasks (79% favourable) is also noteworthy.

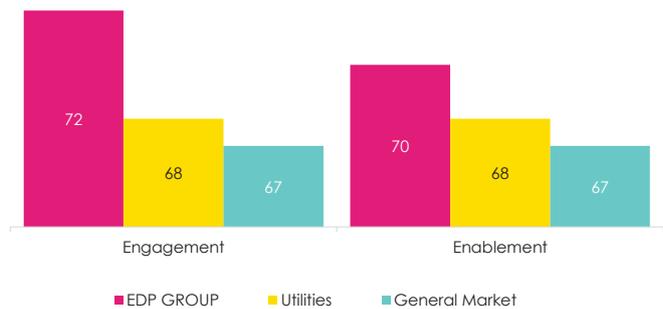
According to the Korn Ferry reference standards:

- General market: benchmark based on information collected from more than 7.2 million employees from 480 companies around the world.
- Utilities: benchmark based on information collected from more than 190,000 employees from 10 companies in the utilities sector.

**PARTICIPATION RATE (%)**



**ENGAGEMENT AND ENABLEMENT (%)**

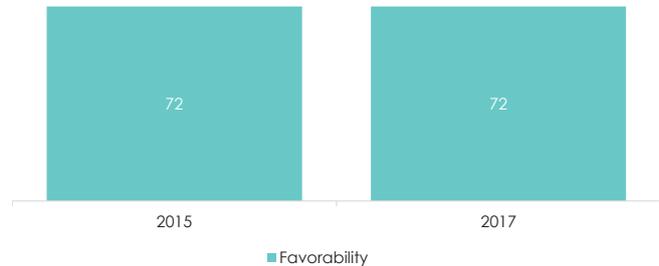


## WORKLOAD PER PERSON

In the 2017 Climate Study, 72% of employees stated that the amount of work expected of them is reasonable, a figure that is in line with the 2015 results, placing the EDP Group 6 percentage points above the general market norm in this issue, according to benchmarking (in accordance with the Korn Ferry HayGroup's reference standards).

Note: This issue is part of the extended climate study, which takes place every 2 years, so the most current results are for 2017.

### THE AMOUNT OF WORK EXPECTED OF ME IS REASONABLE (%)

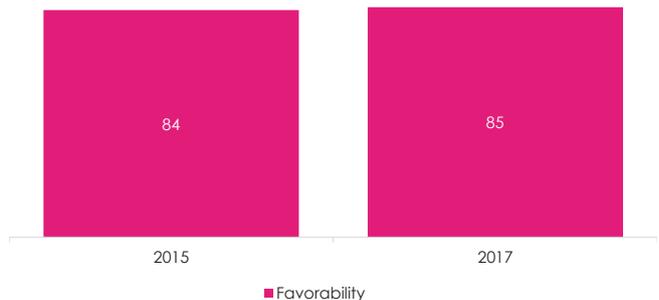


## STABILITY IN EMPLOYMENT

The EDP Group's 2017 Climate Survey revealed that 85% of employees consider that, in the current context, EDP provides job stability, an increase of 1 percentage point over 2015. According to benchmarking, this result is 27 percentage points above the general market norm (in accordance with the Korn Ferry HayGroup's reference standards).

Note: This question is part of the extended climate study, which takes place every 2 years, so the most current results are for 2017. The results of the Employee Value Proposition project, which was carried out in 2018, also reinforced the importance of this theme, since stability and security were the most valued areas for employees of all businesses when characterizing EDP as an employer.

### IN THE CURRENT CONTEXT EDP PROVIDES ME WITH EMPLOYMENT STABILITY (%)



## CONCILIATION AND SOCIAL PROTECTION MEASURES

### CONCILIAR PROGRAMME

EDP has a set of initiatives that aim to promote balance and conciliation between the various life plans of employees - professional, family and social - based on the Conciliar Programme.

In the year 2018, in Portugal, the Conciliar Programme, through its 18 initiatives, directly impacted more than 1,100 people, including 163 mothers and fathers, 27 grandparents, as well as 296 employee children and grandchildren. Conciliar Discounts Platform has more than 3,900 subscribers.

In turn, EDP Spain has signed the III Collective Agreement, incorporating new aspects and improvements related to Conciliation measures, such as measures related to working hours, absences and other benefits.

EDP Renováveis' Work Smarter project, implemented in 2017, was translated into a set of guidelines to help the employee to work efficiently, maximizing the management of each daily task with regard to their organization of work, email, telephone and meetings. This time management initiative aims to help employees better prepare their daily lives, increase their productivity and promote a better reconciliation of work with other aspects of the employees' lives.

At EDP Brasil, the "Employees" app, a unique platform for partnerships, allowed its employees to enjoy discounts in more than 11 thousand establishments, and also indicate partnerships of their own interest through the App. In Portugal and Spain, the company is certified in "Conciliation and Equality", by the Másfamilia Foundation, and is recognized as a Family Responsible

Company (EFR). EFR, rather than merely certification, is a management model based on measuring indicators and promoting measures seeking to respond to an organizational culture increasingly based on flexibility, reconciliation and balance. In Portugal, in 2018, and with the change of management team, a survey of critical issues for the next three years was made, as well as starting the internal process of preparation for the external audit to be held in 2019.

## DIVERSITY / EQUAL OPPORTUNITIES

The EDP Group, under the slogan "Adding differences is winning the future", is committed to ensuring the promotion of a culture of diversity and inclusion based on respect for human beings and equal opportunities. It is intended that this culture be present in the identity of the EDP Group and in the management of its employees and that it serves as a reference for the internal and external performance of the organization.

The year 2018 marked the completion of a 3-year action plan that began in 2016, following the adoption of the Diversity Policy ([www.edp.com](http://www.edp.com)> edp> principles and policies> diversity policy), based on four aspects with specific goals: Gender, Generations, Nationalities and Disability. In 2018, the number of women increased by 1% over the previous year, representing 25% of the Group's total employees. The presence of women in management positions remained at 25%, stable compared to the previous year, contributing to the goal of 27% female representation which the EDP Group has specified for 2020.

In generational terms, there was a significant increase in generation Y, which already constitutes 42% of the organization, an increase of 6% over the previous year, which is due in part to the recruitment effort made and also to employees who have retired, and the Baby Boomers generation now constitutes 27% of the organization (born after 1996).

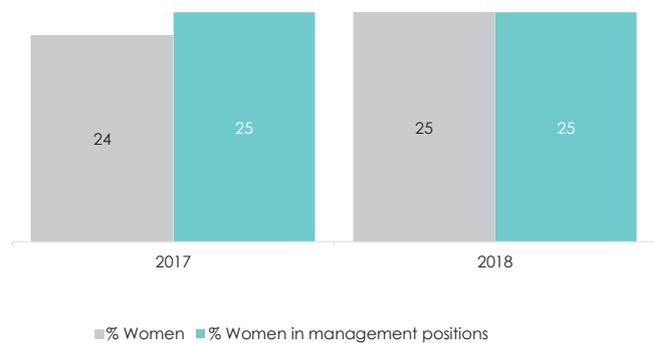
**Focusing on diversification in terms of nationalities, the Group currently has 44 different nationalities, 3 more nationalities than the previous year, as a result of the development of more global attractiveness initiatives through digital recruitment channels and strategies.**

EDP currently has 1.5% employees with special needs, maintaining the goal of 2% inclusion of people with special needs at the Group level.

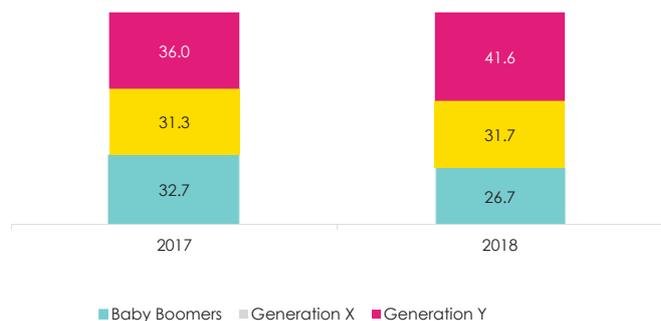
## DIVERSITY AND INCLUSION INITIATIVES

With the aim of contributing not only to the development of the company's culture in terms of diversity and inclusion, but also to its specific objectives. In 2018 initiatives were developed in the various businesses and geographical areas where EDP operates.

### FEMALE EMPLOYEES (%)



### GENERATIONS AT EDP GROUP (%)



In Portugal, the year 2018 was strongly marked by the continuation of the training in "Subconscious Bias", with the aim of awakening employees to the notion that, often, unconsciously and automatically, we condition our decisions based on preconceived or stereotypical ideas. Raising awareness and improving this process leads to a greater understanding of the benefits of diversity, thus having a positive impact throughout the organization. By the end of 2018, more than 1,600 employees had participated, representing more than 6,500 training hours, with a greater than 90% satisfaction level.

It is also noteworthy that, following the signing of the Portuguese Diversity Charter, as well as strategic positioning and best practices in these issues, in 2018 EDP was appointed to the governing bodies of the first term of the Portuguese Association for Diversity and Inclusion, as Chairperson of its Board. This association was created with the purpose of guaranteeing the sustainability and development of the Charter.

We also continued projects such as *Tagga o Teu Futuro* and Inspiring Career Camp, which has contributed to raising the awareness of more than 4,800 young students in Portugal with the message that regardless of gender, colour, race, physical condition or creed, nobody should be led to giving up their future dreams.

In line with the strategic positioning of the Gender Equality Group, EDP has established a partnership with Portuguese Women in Tech (PWIT), a project focused mainly on professional women who, in the area of technologies, can build their network, but above all who are exposed to opportunities and invitations, often directed only at men. In this sense, EDP has sponsored the production of the Portuguese Women in Tech Booklet, a tool that was conceived as an inspiring and introductory guide to the national technological ecosystem for young women. We also continued our partnership with the GirlMove Association, an organization that seeks to impact the lives of Mozambican girls and women and give them access to quality education, and for the second consecutive year we received an intern for a month.

In 2018, EDP *Brasil* started an electrician's course dedicated exclusively to women. The initiative, a pioneering one in the electricity sector, illustrates the EDP Group's commitment to promoting equal opportunities between the sexes. The programme is the result of a partnership between EDP *Brasil* and the National Industrial Learning Service (SENAI) and takes place in the state of São Paulo. The course involves 550 hours of training, and ensures the necessary skills to carry out the activity of electrician for distribution networks, an area still dominated by men. With more than 1,150 applications, we currently have two schools in Mógica das Cruzes and one school in Taubaté, and by mid-2019 it is expected that the project will have trained 40 female electricians. The project +Inclusion was also noteworthy at EDP *Brasil*, which sought to sensitize managers to inclusive recruitment and the added value of attracting and hiring people with special needs.

EDP Renováveis, the EDP Group business with the highest female representativity - 31% (6% above the Group's average) - celebrated International Women's Day by bringing a group of employees to an institution to promote a lecture aimed at women at risk of exclusion seeking job opportunities and new learning opportunities. EDP Spain has received recognition in the area of gender diversity, and is part of the directory of *Companies Engaged with Equality 2018*.

## 3.2.2 HEALTH AND SAFETY

Health and Safety at work (SST) are priorities in the EDP Group's relationship with all its employees, service providers, suppliers and customers. In this area, the Group directs its action through the principles established in the Safety Policy, a document that links business units, companies and service providers, empowering the entire hierarchical structure. For EDP, the OSH of all those who engage in the development of its activities are considered fundamental values for success as a business Group.

Aware of the economic changes, in a period involving digitalization and the decarbonization of the energy sector, and of the disruptive transformational effects that technological advances have had on the working area and in particular on the health and safety of workers, EDP is aware of the changes they will bring to the future of work, and in particular to occupational risks associated with and enabled by these transformations.

Through the definition of short-term and medium-term objectives, EDP has adopted an important role regarding the monitoring of workers during these transitions, through proper and suitable training and professional integration in order to promote safe and protected working environments for all.

## SAFETY PRACTICES

**416,931**  
HOURS OF TRAINING

**53,682**  
AUDITS, INSPECTIONS,  
VISITS, OBSERVATIONS

EDP's annual OSH programme, consisting of a set of initiatives and actions, based on a proactive and ongoing identification of hazards and assessment of risks and opportunities, has as its main objective the promotion of a safe and healthy working environment. The implementation of the programme includes the holding (i) of various training, sensitization, and awareness raising activities for EDP employees and service providers, and (ii) safety audits, inspections and observations; (iii) the implementation of new procedures to reinforce preventive management of the hiring chain, and also (iv) measures to increase knowledge of occurrences (accidents and near misses) and dangerous situations.

In the area of emergency preparedness and response, 618 simulated drills were carried out throughout the EDP Group, covering various industrial, administrative and construction sites in order to test the effectiveness of the planned response capacity to potential emergency situations. These exercises included the participation of the civil defence, fire brigade, police and public safety authorities, as well as employees, service providers and surrounding communities.

For the EDP Group, the issue of citizen safety is crucial given its impact on people's lives. Minimizing the risks associated with the use of electricity ultimately depends on individual information and behaviour. As such, EDP identifies and communicates the risks associated with its facilities and equipment. However, in 2018, there were 7 fatal electricity-related accidents with third parties (unrelated to EDP activity) in EDP Group facilities or involving EDP Group equipment. These occurred in the course of civil construction activities that led to the contact of machines/work equipment with power lines and unauthorized access to live facilities/equipment.

## PROMOTING HEALTH AT WORK

The EDP Group, through health monitoring programmes, guarantees the commitment made to the prevention of occupational illnesses, by complying with the medical examination plan, workplace visits, participation in commissions and committees, and the implementation of preventive campaigns. During 2018, 9,672 medical examinations were carried out in the EDP Group, 1,028 consultations with employees who have nutrition and smoking cessation programmes, 2,006 cardiovascular screenings and 3,826 vaccination programmes against flu, hepatitis B and yellow fever that covered 3,582 employees. Still in the area of occupational health activities, 547 sessions involving tests for alcoholism and drugs detection were carried out involving more than 2,500 workers. In 2018, 3 cases of occupational sickness with incapacity were registered, in Portugal.

In Portugal, an Assessment Study of psychosocial risk factors was carried out in partnership with the Faculty of Psychology of the University of Lisbon, which aimed to identify and investigate the factors associated with the appearance of either stress or well-being and the establishment of intervention guides to build a healthier working environment.

## SAFETY INDICATORS

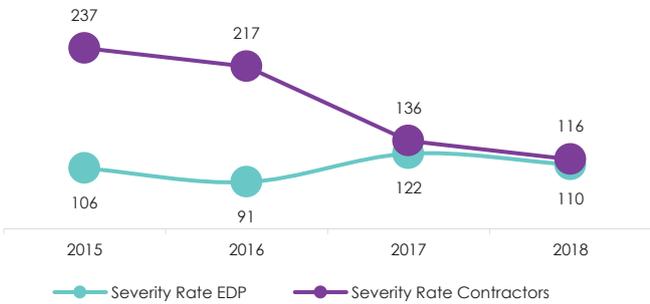
The Health and Safety at Work Policy within the EDP Group demonstrates its commitment to a model of Occupational Safety and Health Management based on continuous improvement and the conviction that working in a safe, healthy environment is instrumental for employee satisfaction and provides added value for successful results. To better manage the goals of the Safety Policy, EDP has its Corporate Safety Management System based on international standards and the ILO-OSH 2001 recommendation of the International Labour Organization. This system can be adopted in its entirety by each of the companies/business units or, alternatively, taken as a reference for the implementation of their systems. In 2018, the EDP Group

counted a total of 5,380 employees covered by OHSAS 18001:2007 / ISO 45001:2018 certifications. The certification covers 96% of installed net power in production activities.

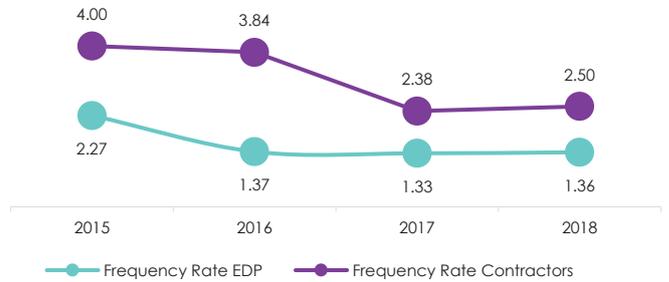
In the EDP Group, there were 135 work accidents for all EDP workers and service providers, registering a slight increase of 5% compared to 2017, and consequently in the frequency index (Tf) (2.11 vs. 2.03, in 2017 accidents per million hours worked). During 2018, 2 fatal accidents occurred with own employees (electric and crushing) and 5 with service providers (fall from a height, interaction with objects, electric and violence).

In addition to the actions and initiatives implemented in 2018, in particular in the areas of training and awareness raising, risk assessment and control, audits and inspections, and information reporting, which have been developed in recent years, EDP is strengthening practices in the areas regarding OSH leadership, organization and processes.

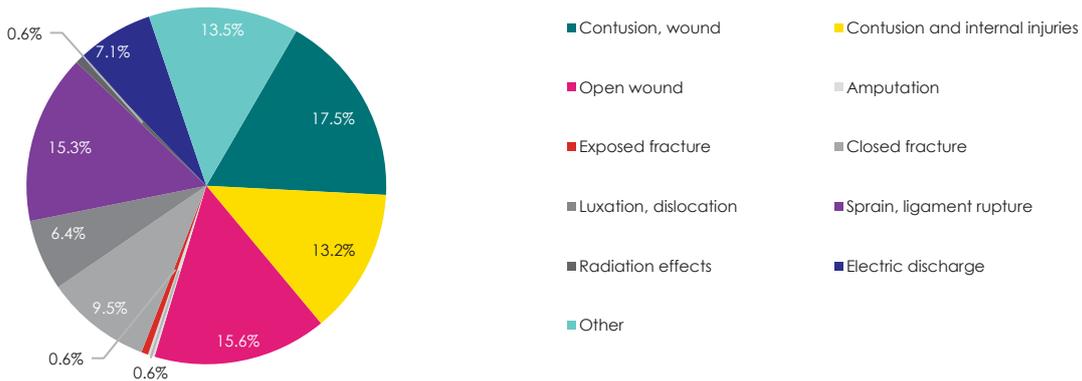
**SEVERITY RATE (Tg)**



**FREQUENCY RATE (Tf)**



**INJURIES ARISING FROM WORK ACCIDENTS (%)**



Includes work accidents of EDP and Contractors employees with and without sick leave and fatal accidents



## NEW WAYS OF WORKING IN THE EDP GROUP

### AGILE METHODOLOGY IN PEOPLE MANAGEMENT

The business of the EDP Group and the energy sector has undergone a significant transformation, leading to the emergence of new paradigms in the management of people and in the way of looking at the organization.

It is increasingly strategic to promote knowledge sharing and flexibility through new ways of working, which are more collaborative and digital, fostering a new employee experience, where continuous feedback plays an increasingly important role.

In recent years, the evolution of EDP's business as well as of the sector, has been mostly marked by regulatory and market changes, the emergence of different approaches to customers in a more competitive context, and an increasingly more rapid digital and technological revolution.

All these transformations have had an impact on the workforce, so it has become important to explore new paradigms. Managing people in this context of change implies new ways of looking at the organization and the world of work, and future trends point to the need to become more agile and project oriented with flexible multidisciplinary teams.

In the EDP Group, along with a cultural change that has been made, there is the challenge of reconciling the adoption of an agile organization with the legacy of that organization. We believe that with a way of working which is more agile and collaborative, knowledge and a new range of skills (such as creativity, critical thinking and empathy) will be decisive factors for the whole organization, particularly for those who take leadership roles of people/projects.

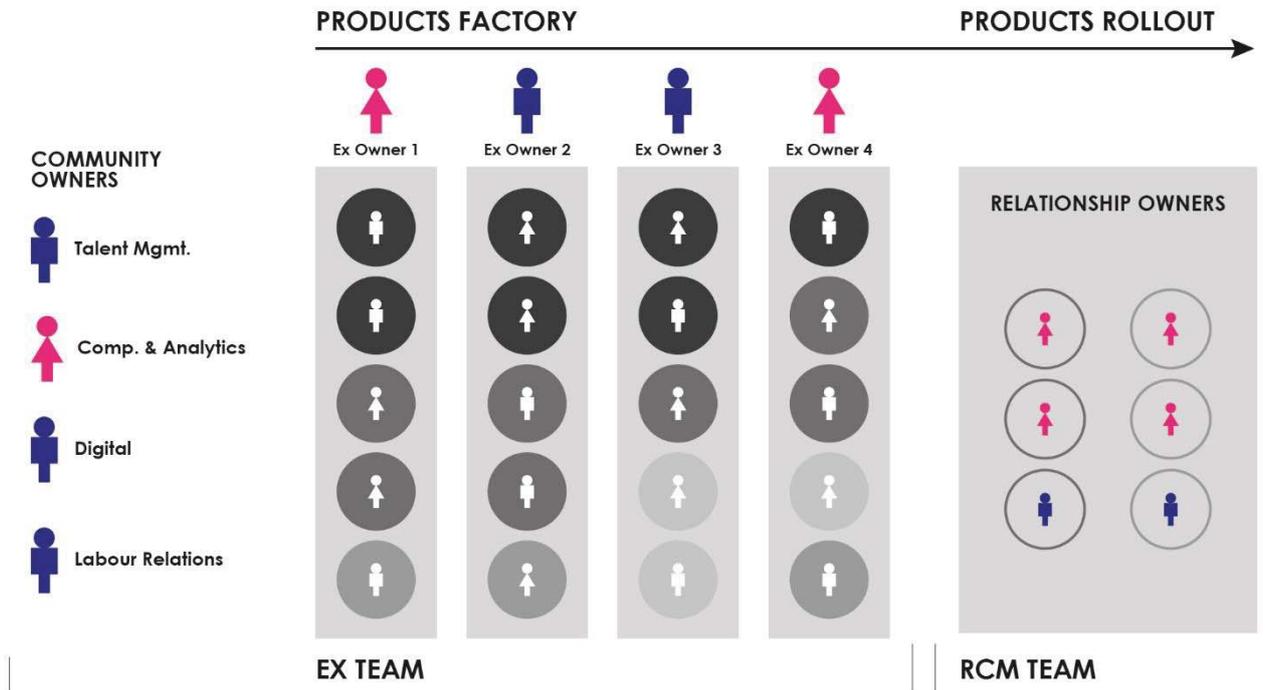
EDP Group seeks to anticipate change to ensure competitive advantage, which is why it has already begun to experiment the adoption of the Agile methodology in different company and geographical areas. The Corporate Human Resources Department was one of these areas, aiming to experiment and understand how to work based on these new methodologies, enabling people management professionals to be agents of change.

Thus, in January 2018, a new working model and way of working as a team was implemented, inspired by the Agile methodology, with the attribution of new roles, a different rhythm and a more collaborative workspace.

The starting point for this new model was the "digital collaborator's experience" project, carried out in 2017, which clarified the EDP employee lifecycle journeys and highlighted the need to redirect efforts, in order to provide a more rapid response to the needs identified by people and on each journey. The definition of the model was also based on feedback from the team that was involved in the design thinking process, regarding the best solutions to achieve the goal.

In this way, the Employee Experience team (EX) and the Relationship and Change Management team (RCM) were created.

The EX team has four communities, each composed of people with a specific set of competencies, led by a community owner. This team operates as a "product factory", organized into work led by experience owners. The experience owner's mission is to resolve the "painpoints" and reinforce the "wow moments" of their work, by promoting the creation of multidisciplinary teams with other EX team members from different communities, as well as other strategic partners, whether internal or external. These teams develop projects at a two-week sprint pace, and once a "minimum viable product" has been achieved, it is delivered to the RCM team, who will coordinate its implementation with the human resources departments and the focal points of each business unit. When the product reaches the employees, it is necessary to incorporate their feedback and make any adjustments.



This new methodology would not be possible without adjusting the rhythm of the area. To ensure the right alignment, the week begins with a radar meeting of thirty minutes. The EX team meets at the end of each sprint to show results and receive feedback, and the RCM team meets every week to validate, align and share decisions and approvals. The community owners also take stock of the week, ensuring that the strategic objectives of the Department are being followed.

The workspace is also a critical success factor, thus some changes were made: a hot-desking policy and a collaborative area were created, where team members and internal and external partners can come together while developing new products.

The implementation of this new methodology, adapted to the reality of the Department, has been a continuous process of experimentation and learning.

One of the main challenges has to do with a cultural theme. The changes in the digitalization of processes, the way of working, the rhythm and the space must be accompanied by a change in mindset.

In terms of balance, the model promoted more effective delivery powered by:

- Greater autonomy on the part of the teams, in developing and delivering products, but also with greater accountability in the delivery of results at a more accelerated rate;
- More collaboration and alignment, resulting from a greater recurrence of feedback, not only in the Department, but also with internal and external partners;
- Higher speed in delivering solutions aligned with customer expectations, with a view to constantly improving the employees' experience.

As a result, throughout 2018 it was possible to develop an ambitious set of initiatives, of which 40% are business as usual activities and 60% are new, responding to the needs of improving our people's experience.

The next step should be to extend these new ways of working to other areas of the organization. In organizational terms, the challenge of reconciling an agile organization (product alignment) with a legacy organization (process alignment) has been identified, with the internal development of competencies as well as the acquisition of skills in particular niches being necessary.

We have also started designing new templates that support the new agile reality in themes such as: talent recruitment and development, efficiency and performance culture, as well as a leadership that fosters continuous feedback.

It should also be pointed out that the People's Manager has, and increasingly so in the future, a lead role in new organizational realities and new ways of working which facilitate an employee's experience, which promote their well-being and performance, while allowing the development of all their potential.

## ATENÇÃO+

### OUR ATTENTION IS THE BEST SECURITY MEASURE

With the increase in accident rates in 2016, it was necessary to act quickly to prevent further accidents. Given this the Atenção+ programme was launched with the aim of promoting safe behaviour at EDP Produção. This programme, which lasted approximately two years, promoted changes in the perception of safety by all of EDP Produção through specific training for managers and other employees, the definition of new safety indicators, incentives to report near-accidents and dangerous situations, among other initiatives. After two years we can conclude that the programme was a success, with the results shown through various indicators.

With the end of the construction period for major undertakings which, due to the number of working hours and associated risks, contributed a substantial amount to the accident rates at EDP Produção, it was expected that there would be a decrease in the number of accidents which occurred. However, this did not happen, since accidents that had previously occurred predominantly in the construction field, moved to the operation and maintenance of our facilities, which are usually carried out by experienced people. In 2016 we suffered a total of 63 accidents resulting in periods off work (EDP Produção + Contractors) resulting in a frequency index of 8.76 when the target for 2016 was not to exceed 6.3. In analyzing the causes of these accidents, most of them were due to behavioural factors, either due to individual behaviour, or incorrect programming and carrying out of the works. This led to the urgency to change behaviour in order to reduce the number of accidents and make work safer.

This finding meant that, in October 2016, the implementation of a safety programme, Atenção+, based on behaviour at EDP Produção, was submitted for the approval of EDP's Executive Board of Directors with a vote in favour of it. This project has been carried out in partnership with DuPont, with a duration of about two years, and is now ending.

The implementation of this project began with a diagnosis of EDP Produção's safety culture through:

- A documental and data analysis;
- A survey of all employees and regular service providers on the perception of the safety culture;
- A set of interviews with management members;
- Visits to production and works centre;
- Workshops and coaching with top management.

This diagnosis resulted in an EDP Produção position paper on safety culture and an action plan. At the same time, training and coaching programmes were developed. These included:

- Sessions for the EDP Produção's BD, for developing skills in safety;
- Leadership and risk prevention sessions for all EDP Produção line managers, drawn up on the basis of the results of the diagnosis;
- The STOP programme for all EDP Produção line managers, which focused on the dialogue between managers and employees with a focus on observed behaviour (Preventive Safety Observations);
- "The Risk Factor" training for all EDP Produção employees, in order to raise awareness and prevent risks.

In 2018, a cross-sectional campaign was launched to encourage near-accident reporting and also dangerous situations, with the aim of preventing future accidents, through the implementation of new reporting forms and explanatory brochures.

The main goals of this programme were: (i) to leverage the reporting of incidents (accidents and near misses) and dangerous situations; (ii) implement tools to enable the monitoring of safe behaviour and (iii) establish a set of preventive performance indicators of Occupational Safety performance, which now serve as a basis for the annual performance evaluation for Organizational Units and Prevention and Safety matters.

The programme began in 2017, when 121 line managers were trained in Leadership, Safety and risk prevention. A further 149 line managers and safety technicians were trained under the STOP programme.

During 2018, the new safety indicators were implemented in the "Prevention" area and the "Culture" section was created. Examples of new indicators in the Prevention section were 1,018 Preventive Safety Observations at EDP Produção, 3,085 safety inspections, 1,417 safety coordination meetings for works and a Last Minute Risk Assessment system implementation across the board during 2018. In the Culture area, safety meetings were held, training was given to all EDP Produção employees in risk awareness and prevention (The Risk Factor), and a working group was created to optimize the Isolations process with the objective of improving and standardizing the practical application of the preventive principles associated with the isolation process.

In 2018, initiatives were created to encourage near-accident reporting, and this was another important step on our way to achieving the target of "zero" accidents. During 2018, a total of 53 near-accidents were reported, which corresponds almost to the sum of all the reports between 2013 and 2017.

The year 2018 ended with a workshop that was attended by the BD and the Directors of the Thermal and Water Assets. The main goals of this initiative were to analyse and debate the actions initiated with Atenção+ and the establishment of an action plan for 2019/2020 in order to consolidate the importance of Safety at EDP Produção and to obtain a commitment to the role of the Line Manager regarding safety.

The next steps include: (i) the consolidation of Atenção+ through keeping up the ongoing initiatives and training of internal trainers, under the STOP programme and The Risk Factor; (ii) the standardization of the EDP Produção isolation process; (iii) a recovery plan for safety-related training; among other initiatives still in the approval phase.

During these two years we have come a long way with regard to the safety of our employees, regular service providers and our facilities. Attention+ has strongly changed the perception of safety at EDP Produção, with very positive results.

# 3.3 IMPROVE ENVIRONMENTAL PERFORMANCE

This pillar sets out commitments for the expansion of the environmental certification of the EDP Group's activities to minimize supply chain impacts on the environment, for sustainable use of natural resources and a reduction in CO<sub>2</sub> emissions. The defined goals contribute to SDGs 13 and 15.



## 3.3.1 ENVIRONMENTAL PROTECTION

EDP has revised its Environmental Policy to comply with ISO 14001:2015 and has made specific additional commitments in the following environmental areas:

CLIMATE	USE OF NATURAL RESOURCES	BIODIVERSITY
<p>Contribute to decarbonization by gradually providing low-carbon energy solutions, in particular through: increase in the renewable portfolio; promotion of internal energy efficiency, along with suppliers and in final consumption.</p>	<p>Promotion of an efficient use of natural resources in its activities, within the framework of a circular economy, in particular: in the use and sustainable management of water in all processes, operations and facilities; in the consideration of environmental aspects throughout the life cycle of products and services.</p>	<p>Contribute to avoiding or reducing biodiversity loss, favouring dynamic, comprehensive, locally-owned management and long-term vision, aiming at an overall positive balance. Contribute to deepening scientific knowledge on the different aspects of biodiversity, including through the establishment of partnerships.</p>

Since 2008, the EDP Group has maintained a corporate environmental management system certified by ISO 14001, with the scope of "corporate management of EDP Group's policies, commitments made and environmental performance throughout the world", contextualized within the objective of the expansion of ISO 14001 environmental certification to all Group activities with significant environmental aspects. In 2018, environmental certification accounted for 96% of those activities.

Electricity production and distribution activities are those that have a direct significant environmental impact. However, EDP carries out all its activities taking into account the protection of the environment, the correct use of natural resources, the minimization of environmental risks and the adoption of preventive measures within a policy of continuous improvement.

### PREVENTION OF POLLUTION

The most significant aspects of thermoelectric production activity are air pollution emissions. All thermoelectric power plants are covered by demanding environmental licences, which establish continuous monitoring, taking into account parameters and sensitivity to the environment in which they are located.

All coal-fired thermoelectric power plants have extractors for the treatment of gaseous effluents as well as nitrogen oxide (NO<sub>x</sub>) reduction processes, such as catalytic denitrification or low NO<sub>x</sub> burners, and most, have desulphurisation processes (SO<sub>2</sub> minimization).

To ensure that wastewater is rejected according to the limiting values set for each parameter, all thermoelectric plants also have physical/chemical treatment processes.

Other environmental improvements that have been developed internally include visually integrating our projects as part of the surrounding area, reducing the visual impact of both urban and rural facilities. Examples are the landscape integration of overhead lines, and the artistic intervention carried out by EDP Distribuição in Portugal.

In the Distribution activity in Portugal, the most frequent mitigation measures are associated with the construction of oil retention systems and installation of noise barriers in facilities for noise mitigation.

69 million Euros were invested in the improvement of technologies, in initiatives to prevent and mitigate environmental impacts resulting from operations, with efficiency gains for the organization in the environmental domains. The variation in air and climate protection corresponds essentially to the fact that the denitrification systems at the Soto and Aboño facilities, which had a high investment in recent years, have already been in operation since 2017 and the investment in 2018 has been residual.

In the course of an in-depth analysis of the environmental expenses incurred by the EDP Group, the procedures for reporting environmental matters were changed. In this regard, CO<sub>2</sub> emissions allowances were included in the 2018 and 2017 reporting, as environmental expenditure of the Group, in the field of Air and climate protection.

**EMERGENCY RESPONSE**

In adopting a precautionary principle, facilities have emergency contingency plans for the different applicable risk scenarios. Employees and service providers are educated and trained in these practices and the scenarios are regularly tested through drills, the results of which are incorporated into improvement initiatives to maintain preparedness for emergency response (page 90).

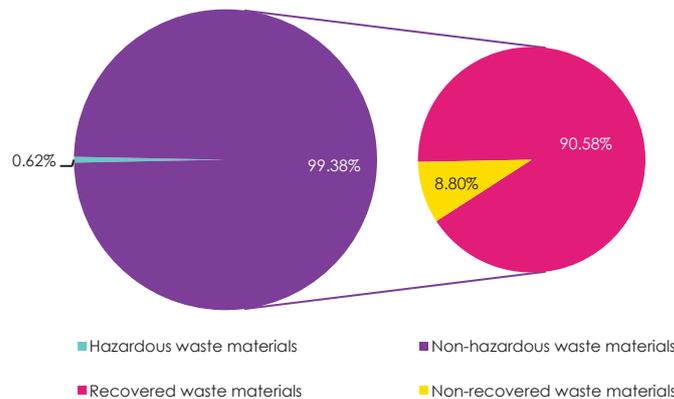
EDP has procedures to identify and handle near-misses with the aim of preventing negative impacts. In 2018, 137 environmental near-misses were registered and the respective prevention measures were implemented, and there were no accidents relating to environmental damage.

**SUSTAINABLE USE OF NATURAL RESOURCES**

To make progress in internalizing the concept of the circular economy, EDP has been working on solutions so that its main waste materials can be used as a by-product, as raw material for another industry. As by-products, EDP now has coal fly ash, gypsum and slag which accounted for about 99% of the total of waste materials are recovered.

Contracts were established with licensed operators who forward waste to the preferred recovery destination.

**WASTE MATERIALS (%)**



Efficient waste management goes beyond the suitable disposal of waste and its incorporation into the economic circuit, by promoting its circularity whenever possible. This management starts upstream, in the design and in the choice of materials necessary for the suitable functioning of the activity.

The substitution of two types of materials important for activity in the distribution networks has been promoted, with satisfactory results in mitigating their environmental impact:

- replacement of mineral oils by vegetable oils with a low level of toxicity and greater and faster biodegradability;
- use of equipment without SF<sub>6</sub> (sulphur hexafluoride), one of the most important greenhouse gases, used as an insulator to reduce the size of facilities and as a means of extinguishing the electric arc in switches. These devices are being replaced by vacuum switches.

In 2018, EDP in Spain built the first substation without mineral oil and without SF<sub>6</sub> at the Biede Substation.

**WATER MANAGEMENT**

Under its Environment Policy, EDP undertakes to use and manage water sustainably in all processes, operations and facilities.

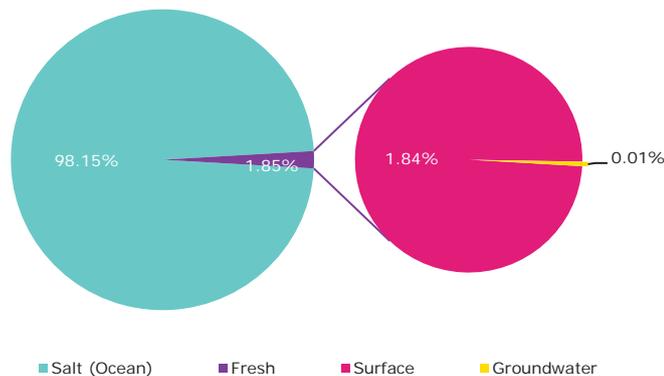
Water is a key resource for EDP's activity, particularly for those hydropower and thermal power plants that depend on its quantity and quality for suitable operation.

Thus, EDP monitors potential shortages, controls water quality and sediments, as well as the impact of the management of this resource on biodiversity, for which it ensures minimization activities such as the release of ecological flows, the transfer and transport of fish, and support for scientific research on these topics.

The thermoelectric power plants of Pecém in Brazil, and Castejón in Spain, are located in areas of water stress. EDP uses the Global Water Tool of the World Business Council for Sustainable Development and Aquaduct from the World Resources Institute for an assessment of water risk exposure at the river basin level. A local analysis is then carried out considering quantitative information from national institutions and the experience of internal operational teams regarding, for example, resource availability and competing uses.

In mid-2017, water consumption reduction measures were implemented in Pecém, which enabled the reuse of part of the effluent generated in the refrigeration circuit facility, and an increase in the number of cooling cycles, increasing the water recycling rate for the circuit. These measures reduced the volume of water collected, and reduced the amount of effluent generated per unit of electricity produced (pages 175 to 177).

**WATER COLLECTED BY SOURCE (%)**



The measures implemented also enabled compliance with the goal of reducing the EDP Group's water consumption by 15% between 2016 and 2018. In the future, only marginal reductions in consumption are expected, since water management has been optimized at EDP Group facilities.

In 2017, after the period of drought in the Iberian Peninsula, the average hydraulicity conditions in 2018 contributed to a 23% reduction in actual freshwater consumption, taking into account the lower use of thermoelectric power plants.

Since 2009, EDP has responded to CDP Water, where it provides a detailed description of its ongoing initiatives. This report can be found at [www.edp.com/sustainability/environmental-dimension/natural-resources/water](http://www.edp.com/sustainability/environmental-dimension/natural-resources/water).

## BIODIVERSITY PROTECTION

In addition to the specific commitments made to protect biodiversity, in its new Environmental Policy, EDP has also committed to mitigation management of its impacts on biodiversity that have sought to contribute to:

- Avoiding or reducing biodiversity loss, favouring dynamic, comprehensive, locally-owned management and long-term vision, aiming at an overall positive balance;
- Deepening scientific knowledge on the different aspects of biodiversity, including through the establishment of partnerships.

In addition, EDP is committed to "not building new production facilities in areas included in the UNESCO World Heritage List", ensuring that it continues to have no presence in these territories, and has also established a No Net Loss target for all new projects with significant residual impacts, by 2030. To this end, it has adopted a mitigation hierarchy strategy ([www.edp.com/sustainability/environmental-dimension/biodiversity](http://www.edp.com/sustainability/environmental-dimension/biodiversity)).

## ECOLOGICAL FLOWS

As regards the river connectivity of man-made or heavily modified bodies of water, and in particular the implementation of Ecological Flow Regimes (EFR), a measure promoting the ecological quality of water in line with the objectives of the Water Framework Directive, in:

### ...in Portugal

The most recent hydroelectric plants, where considered necessary, were built with ecological flow discharge systems. At the same time, a plan for the implementation and monitoring of Ecological Flow Regimes (EFR) has been developed in the dams of older production centres, where the national authority has made ecological flow release mandatory. In this plan, the installation of new Ecological Flow Release Devices (EFRD) and the modernization of existing ones, and the optimization of fish transfer systems were envisaged.

Under this plan, in 2018, the following actions were of note:

- Construction of new EFRD in the Castelo de Bode, Caldeirão and Açude Trinta dams;
- Implementation of monitoring programmes to assess the effectiveness of Ecological Flows in all dams with this obligation, with the exception of Alto Cávado.
- Improvement, modernization and monitoring of the Borland sluices of the Carrapatelo and Régua dams, in the Douro in Portugal.

Within the scope of the public water reservoir programmes, EDP Produção established a cooperation protocol with the Faculty of Science and Technology of the NOVA University of Lisbon, with the goal of developing a mathematical modelling study on the quality of the water of the reservoirs, in the context of existing and planned multiple uses in the area surrounding the reservoir.

### ...in Spain

As part of the process of restoring the ecological flows as provided for in the Hydrological Plan of the Hydrographic Demarcation of the Western Cantabria 2015-2021, was of note for the efficiency improvement of the Olid ecological flow and the measurement and control of the ecological flows in the Pilotuerto reservoir.

### PROTECTION OF BIRDS

In Portugal, EDP distribution has seen its management strategy for mitigating its impact on birdlife recognized with an honourable mention attributed to the Avifauna Protocol in the category "Environmental Protection" for the Good Practice of the Year Awards, of the Renewables Grid Initiative. The Avifauna Protocol, since 2003, has already corrected 647 km of critical lines.

EDP Renováveis, in mitigating bird mortality due to their collision with wind turbine blades, considered to be one of the most significant threats to biodiversity in onshore and offshore wind farms, has been making efforts to find solutions that avoid/minimize this type of impact. Of particular note is the Dieppe-Le Tréport offshore project in France, where it was decided to increase the hub height by an additional 15 m (thus reaching 33.5 m against the previous 18.5 m), which significantly decreases the estimated mortality rate ([www.edpr.com/en/edpr-mitigates-bird-collisions-offshore-facilities](http://www.edpr.com/en/edpr-mitigates-bird-collisions-offshore-facilities)).

In 2018, among the actions carried out in this area, the following stand out:

- The conclusion of the shares assigned to EDP Distribuição as a partner of the Life Rupis project ([www.rupis.pt](http://www.rupis.pt));
- Collaboration with the national authority for nature and biodiversity conservation (ICNF) in the revision of the Technical Guide to support the analysis of projects for the construction of new power lines or the conversion of old lines in protected areas

### MITIGATE THE LOSS OF BIODIVERSITY FROM LARGE PROJECTS

In Portugal, at EDP Produção, at the level of the Compensatory Measure "Programme for the Protection and Enhancement of Priority Habitats", of the Baixo Sabor Hydroelectric Plant (BSHP), of note was the Fire Risk Reduction Plan (FRRP), designed with the aim of reducing the risk of fire on some 2,000 hectares of priority habitats, where the results have been very positive. In relation to the year in which this plan was implemented (in 2014), the 2018 figures show a reduction in the average number of occurrences by 80% and a burned area of 332 ha in 2013, before the implementation of the FRRP, to 0.4 ha in 2017 and zero burned area in 2018.

EDP *Brasil*, in mitigating the impact of the construction of distribution lines in areas considered as having biodiversity value, has sought solutions that reduce the area of suppression of vegetation necessary for the expansion of the network. As such, EDP *Brasil* began a process of using Unmanned Aerial Vehicles to extend the power cables, avoiding the forest site clearing required by classical methods. The technology was tested on Low and Medium Voltage lines and, for example, in the construction of the 138 kV Distribution Line, SD Santa Maria de Jetibá branch, located in an area of high biodiversity value, and it was estimated that there was an 85% reduction in the area of vegetation which had to be suppressed, contributing to a significant mitigation of its impact and the simplification of the licensing process.

## 3.3.2 CLIMATE CHANGE

### MITIGATION AND ADAPTATION TO CLIMATE CHANGE

Considered as one of the most important material themes for both the company and for society, combating climate change is a priority for EDP. Recognizing the anthropogenic origin and the profound impact of climate change on the company and for its businesses, EDP supports the Intergovernmental Panel on Climate Change (IPCC) recommendations expressed in the Paris Agreement to limit the temperature increase to 2°C and, with the most recent IPCC report at 1.5°C, to neutralize

Greenhouse Gas (GHG) emissions before the end of the 21<sup>st</sup> century. Within this framework, the strategy established by EDP for climate action is based on five main pillars:

- **Governance**, ensuring proper management of climate responsibilities and action plans;
- **Mitigation**, with a view to reducing greenhouse gas emissions (GHG), through a major focus on increasing production from renewable sources, increasing electrification and energy efficiency;
- **Adaptation**, creating plans in Business Units and geographical areas;
- **Innovation**, while supporting the introduction of low-carbon technologies and offering energy-efficient products and services;
- **Energization**, raising awareness regarding transformation of behaviour and improving transparency.

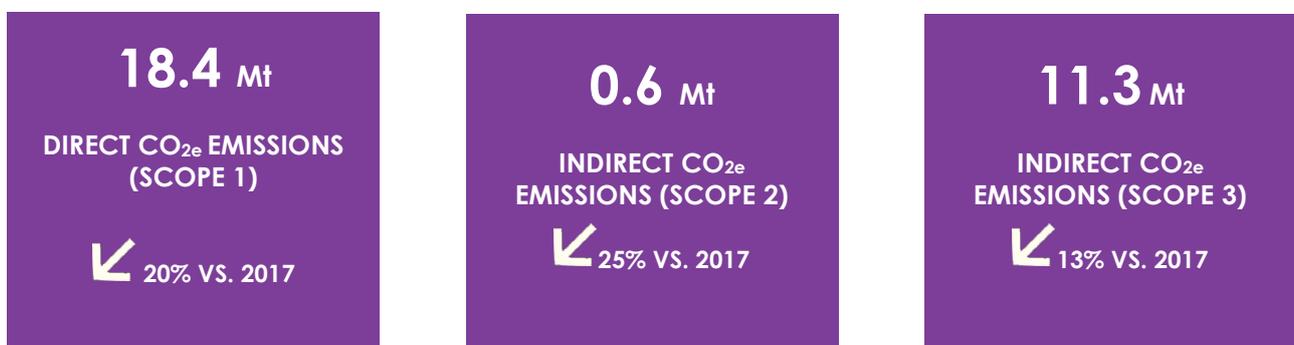
In order to operationalize its climate strategy, EDP has publicly committed itself to a set of short, medium and long-term objectives and targets:

- Reach 76% of installed capacity being of renewable origin by 2020;
- Reduce specific CO<sub>2</sub> emissions by 75% by 2030 compared to 2005 levels. Compatible with this objective, EDP has also committed to reducing by 55% the specific emissions of scope 1 and 2 by 2030, compared to 2015 levels and emissions of scope 3 by 25% over the same time period. This objective was submitted under the Science Based Target initiative and approved as a science-based target;
- Install smart meters in at least 90% of low voltage delivery points in the Iberian Peninsula by 2030;
- Promote the supply of energy-efficient products and services to customers, thereby providing energy savings of more than 1 TWh by 2020, accumulated since 2015;
- In the 2015-2020 period, to invest 200 million euros in Innovation projects, with focus in the areas of clean energy, energy efficiency and smart grids;
- Promote the electrification of all light vehicles in the company's fleet by 2030;
- Achieve carbon neutrality before 2050.

Within the framework of the We Mean Business coalition, EDP has also committed to establishing an internal carbon price and disclosing climate change information as a fiduciary duty in its Annual Report, in accordance with the requirements of the Climate Change Reporting Framework (CCRF).

In 2018, EDP formally adhered to the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and carried out a detailed analysis for the EDP Group of the emerging risks and opportunities related to climate change, in accordance with the methodology proposed in the aforementioned recommendations. Page 107 presents the details of the analysis carried out. In 2018, EDP Spain also implemented a pilot application of the TCFD adapted to the reality of the company.

## THE PERFORMANCE



After a year of extreme drought in the Iberian Peninsula in 2017, which had a negative impact on the environmental and climatic performance of the EDP Group, the average hydraulicity conditions in 2018 contributed to the significant

improvement in all the indicators, with special emphasis on the reduction of absolute and specific emissions of CO<sub>2</sub>, inventoried according to the GHG Protocol (pages 144 and 175 to 177).

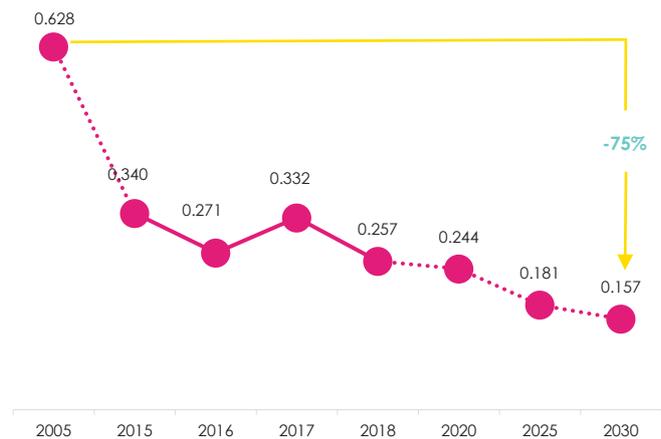
A decrease of 20% of direct CO<sub>2e</sub> emissions compared to 2017 was observed, thanks to the increase in production from renewable sources (hydro, wind and solar) and a lower utilization of thermoelectric power stations. The specific emissions fell from 0.334 to 0.257 tCO<sub>2</sub>/MWh, resuming the downward trend and converging towards the assumed reduction targets.

Scope 2 emissions, associated with the consumption of electric energy, also fell, due to, firstly, the reduction of the distribution of the electricity produced by third parties in Portugal and, secondly, the reduction of carbon intensities in the geographical areas where EDP operates distribution networks (Portugal, Spain and Brazil). The remaining categories, electricity consumption in buildings and self-consumption of power stations (not supplied by EDP) represent less than 4% of the total of scope 2 emissions. EDP reports these emissions according to market-based and location-based approaches (GHG Protocol).

For the remaining indirect emissions, emphasis is placed on the lower use of fossil fuels and the consequent reduction of upstream emissions associated with fuels and energy, by around 1,733 tCO<sub>2e</sub> with regard to 2017. Downstream of the value chain, the impact of the use of natural gas by customers continued, with only a slight increase of 19 ktCO<sub>2e</sub>.

The table on page 145 shows the trends, in the last 4 years, of CO<sub>2e</sub> emissions according to the three scopes and broken down by category.

**SPECIFIC CO<sub>2</sub> EMISSIONS (t/MWh)**



### 3.3.3 ENERGY EFFICIENCY

The improvement of energy efficiency continues to be at the top of the most material themes for the Group. Combined with renewable energy-based electrification and innovation, energy efficiency is a key vector in the decarbonization path.

EDP promotes the improvement of energy efficiency throughout the value chain, namely through:

- Offer of low carbon products and services, contributing to greater efficiency in the final use of energy by our clients in their diverse sectors of activity and by society in general;
- Promotion of electric mobility, a topic developed in the chapter Sustainable Mobility (page 75);
- Internal initiatives for the optimization of power generation performance, reduction of losses in distribution and in support activities (buildings and fleet).

#### ...at EDP

The increasing use of renewable energy sources for electricity production contributes to increasing overall supply-side efficiency, while reducing the burning of fossil fuels and contributing to the decarbonisation of the sector. In 2018, we reduced primary energy consumption by 20% (-55,000 TJ) compared to 2017. The overall performance of the EDP Group's power plants was 65% compared to 60% in 2017.

In the distribution networks, with the increasing introduction of digitalization and intelligence, there was also a reduction of total average losses (technical and commercial), from 9.2% in 2017 to 8.8% in 2018, the lowest value of the last 5 years.

In support activities, in 2018, compared to 2017:

- A reduction of 1.2 GWh in the electricity consumption of administrative buildings, 3.5% less compared to 2017. The installation of photovoltaic systems for self consumption in 18 EDP Distribuição buildings in Portugal also contributed to this result. With a total installed power of 243 kWp, these systems have enabled self-consumption of 260 MWh, avoiding the emission of about 93 tonnes of CO<sub>2</sub>;
- A reduction of 10 TJ in the primary energy consumption (fossil fuels) of the vehicle fleet as a result of the renewal policy implemented with a view to total electrification of the light vehicle fleet by 2030.

### ...in the Customer

EDP is committed to providing energy-efficient products and services that contribute to the attainment of at least 1 TWh of energy savings in EDP customer consumption by 2020, accumulated from 2015. In 2018, the services provided allowed savings of 447 GWh, which prevented the emission of 176 ktCO<sub>2</sub>. The accumulated saving since 2015 enabled for customers was already more than 951 GWh, thus avoiding 406 ktCO<sub>2</sub>. This commitment also adds to the savings achieved by the measures implemented under the PPEC (Plan to Promote Efficiency in Electricity Consumption) in Portugal, which have totalled 1.6 TWh since 2015.



In the Group, energy efficiency services generated 151 million euros of revenues in 2018, representing an increase of 13% over 2017.

In 2018, the environmental benefits of the services provided by Group companies were of note, as detailed in the New Energy Services chapter (page 73):

#### SUPPLY

In 2018, the energy efficiency services provided to customers (page 73) by the supplier companies led to energy savings of approximately 193 GWh, thus avoiding the emission of around 125 ktCO<sub>2</sub>.

#### DISTRIBUTION

LED illumination was adopted as the standard solution for modernizing and improving the energy efficiency of Public Lighting (PL), benefiting municipalities in Portugal. In 2018, approximately 180,000 LED lamps (100,000 in 2017) were installed, replacing less efficient ones (e.g. mercury vapour), resulting in an annual estimated saving of 37.5 GWh and thus avoiding the emission of 11.1 ktCO<sub>2</sub>.

#### EDP BRASIL

As The measures implemented in 2018, both through EDP Serviços, which operates in the liberalized market, and by the regulated distribution companies, generated a saving for customers of 254 GWh in 2018, thus avoiding the emission of 51 ktCO<sub>2</sub>.



## REUSE AND RECYCLING OF WATER AT THE PECÉM THERMOELECTRIC POWER STATION

EDP operates the Pecém thermoelectric power station located in the Brazilian state of Ceará, built in 2012 to meet the growing demand for electricity, which is very dependent on hydroelectric generation.

Typical of the semi-arid region where it is located, the Brazilian Northeast has always recorded periods of drought over the years. However, the average annual precipitation over 6-year periods has been declining since 1910, reaching its lowest value in the 2012-2017 period. Due to climate change, the frequency and intensity of drought events is expected to increase, raising pressure on the availability and quality of water resources.

By recognizing the impacts of its operations on the environment and considering water as a strategic resource for its activity, EDP Brasil identified initiatives to reduce its consumption in order to reduce not only the risk to the business due to restrictions on the water supply (competing uses, regulatory pressure), but also the costs of water purchase and effluent disposal.

Two measures were implemented in mid-2017 that allow for the reuse of part of the effluents generated in the plant and the increase in the number of cooling cycles using the same volume of water

The cooling circuit uses the largest volume of water in the plant, and does not require high quality water. Therefore, the first initiative was to reuse effluents from the secondary effluent treatment plant (ETP) in the cooling towers, from a variety of processes, such as boiler blow-off and cooling towers and rainwater from the coal yard. The second initiative was the addition of chlorine dioxide to the oxidation of organic compounds in the cooling water. A volume of water that previously contributed to 3.5 cycles, started to provide from 12 to 15 cycles, thus increasing the concentration cycles of the cooling towers.

By December 2018 these measures had saved over 1.2 million cubic metres of water. This saving together with the reduction in the costs associated with the previously rejected effluents reached over 6 million Reais in the same period.

In total, with the initial investments and operating costs of the cooling water treatment and maintenance of the ETP, the implementation of the measures had a positive balance of 2.3 million Reais in the 16 months of operation.

In the future it is hoped to more than double the monthly volume of effluent treated and re-routed to the cooling towers. With this process improvement, it is expected that there will be an additional cost reduction of around 42%.

Together with the reduction of water consumption by increasing the cooling cycles, it is intended that in the future there will be a 30% increase in total water savings, considering the nominal load operation for the Pecém groups belonging to EDP.

No new investments associated with the implemented initiatives are expected. The same applies to operating costs, which will vary depending on the electricity produced.

## EDP BIODIVERSITY CHAIR PROMOTES INNOVATION IN THE USE OF ENVIRONMENTAL DNA

### NEW CHAIR COORDINATED BY CIBIO-INBIO BRINGS TOGETHER THE UNIVERSITY OF PORTO, EDP AND FCT FOR BIODIVERSITY CONSERVATION THROUGH ENVIRONMENTAL MONITORING WITH RECOURSE TO eDNA

As a result of its environmental policy and its respective impact management strategy, by 2030, the EDP Group is aiming to achieve a generally positive balance in terms of the impact of new projects on biodiversity, thus contributing to Sustainable Development Goal No. 15 (Protection of Life on Land) of the United Nations. A commitment that reinforces the importance of the contributions of science to develop methodologies capable of improving the monitoring of the quality of habitats and promote more agile viable solutions for the conservation of ecosystems.

EDP, together with the Foundation for Science and Technology (FCT), is co-financing the continuation of the EDP Biodiversity Chair for the 2018-2019 period, with a set of scientific research work dedicated to the management of biodiversity impacts, conservation and monitoring. The Chair attributed to the University of Porto, managed by the Centre for Research into Biodiversity and Genetic Resources (CIBIO-InBIO), is being developed by a research group dedicated to applied ecology (ApplEcol<sup>3</sup>). This is led by the researcher Pedro Beja, the holder of the actual chair, whose works reinforce the continuity of a line of research aimed at the development and implementation of metabarcoding tools for monitoring aquatic ecosystems, an emerging area of knowledge and which uses the DNA collected in the environment (environmental DNA or environmental genomics).

The Chair is based on 3 research areas:

- **Environmental genomics**, already mentioned due to its innovative character, which occurs in reservoirs and waterways, particularly those associated with EDP ventures and activities, and the main issues concern the characterization of fish communities and the detection of invasive species in reservoirs used for hydroelectric projects. Monitoring the quality of waterways with recourse to eDNA techniques has as its final goal the development of new cost-efficient biological monitoring techniques, while at the same time producing important information that helps solve problems in the management of biodiversity impact and which contributes to a Biodiversity offsets goal with No Net Loss or, preferably, Net Gains for biodiversity. The activities of the new EDP Biodiversity Chair started on 18 and 19 December 2018, with an international meeting of experts<sup>4</sup>, where the implementation of eDNA techniques for environmental monitoring of water in Portugal was discussed;
- **Mitigation of usage impacts**, that focuses on the development of conceptual models and methodological approaches that promote a better management of the mitigation of negative impacts on biodiversity in hydroelectric production uses. That is, to increase ecological knowledge about the impacts of these electricity production technologies on biodiversity, so that these impacts are effectively mitigated by the compensatory measures already implemented. In order to achieve this, the work developed during the previous Chair will be continued, in particular the studies on the construction of the Baixo Sabor Hydroelectric Power Station (AHBS) and the Foz Tua Hydroelectric Power Station (AHFT). In this context, priority will be given to the continuity of the work carried out as part of the long-term research site at Baixo Sabor (LTER Sabor Site<sup>5</sup>), initially established with FCT funding and which has been supported by EDP Produção.

It is also intended to continue the partnership already established between EDP Produção and the national branch of the Global Biodiversity Information Facility (GBIF) so that EDP, as the publisher<sup>6</sup> of this sharing platform, which provides continuity to the publication of occurrence data for species collected within the scope of the works for the environmental impact assessment and monitoring of AHBS and AHFT. For additional information, please see <https://www.edp.com/en-us/need-sabor-and-foz-tua>.

<sup>3</sup> <https://cibio.up.pt/research-groups-1/details/applecol>

<sup>4</sup> <https://cibio.up.pt/workshops--courses/details/workshop-on-molecular-approaches-envmetagen>

<sup>5</sup> <https://www.lterportugal.net/sabor>

<sup>6</sup> <https://www.gbif.org/publisher/e5150835-f502-424c-b470-24dd496b1b18>

- **Mitigation of impacts of the electricity distribution network**, a research component that has not been addressed in the previous EDP Biodiversity Chair, which is related to the work that has been developed by EDP Distribuição in mitigating the impacts of electric lines on birds, including electrocution and collision problems. In this context, we intend to provide an additional scientific contribution to the result of the work that has been developed by the Technical and Scientific Committee for Monitoring Power Lines and Birds – CTALEA –, since 2003, within the framework of successive Avifauna Protocols<sup>7</sup>, in particular regarding the impact of the measures adopted on the population dynamics of the most sensitive species.

## APPLICATION OF THE TCFD RECOMMENDATIONS IN ASSESSING THE RISKS AND OPPORTUNITIES FROM CLIMATE CHANGE

At the behest of the G20 Finance Ministers and Central Bank Governors, the Financial Stability Council (FSB) set up the Task Force on Climate-Related Financial Disclosures (TCFD) with the aim of formulating a set of recommendations seeking to help organizations understand and disclose issues to the markets related to their exposure to climate change. The final report, produced in 2017, provides the key recommendations with supporting information on climate-related risks, opportunities, financial impacts and scenario analysis, providing transparency and a roadmap for meeting the commitments of the Paris Accord.

The TCFD recommendations are structured around 4 areas that represent core elements of how organizations operate:

GOVERNANCE	STRATEGY	RISK MANAGEMENT	METRICS AND TARGETS
Responsibilities in the management of climate-related risks and opportunities	Impacts of climate-related risks and opportunities on business, strategy and financial planning	Processes used by the organization to identify, assess, and manage climate-related risks.	Metrics and targets used to assess and manage risks and opportunities and quantify potential financial impacts.

EDP has undertaken to follow the recommendations of the TCFD, having started its report with the publication of the last CDP Climate questionnaire ([www.edp.com/sustainability/environmental-dimension/climate-change](http://www.edp.com/sustainability/environmental-dimension/climate-change)), as summarized below.

### GOVERNANCE

The EDP Group's approach to climate change challenges includes the analysis of risks and opportunities and is managed according to the corporate governance structure, shown on page 39. In this structure, of note is the central role of the Executive Board of Directors (EBD), supervised by the General and Supervisory Board.

In the monitoring of the Group's climate action, the EBD is regularly provided information by the Strategic Corporate Departments on relevant climate topics, particularly: the Sustainability Department, which designs, proposes and monitors climate policies, objectives and targets; the Risk Management Department, identifying and analysing emerging climate risks and opportunities, integrated within the EDP Group's general risk management process; the Energy Planning Department, with its scenario designs and sensitivity analysis, particularly regarding the effects of CO<sub>2</sub> price variation. All these Departments are part of the Sustainability Committee, a management instrument to support decision-making by the EBD, which guarantees suitable linkage between the parties, as well as the active participation of the Business Units in this area.

### STRATEGY

EDP has defined a strategy to combat climate change, with medium/long term goals and targets, as explained on page 51. The climate strategy is part of the corporate strategy established by the EBD based on commodity market scenarios, technology and regulatory analysis, and information on climate change, such as: current and future emissions regulations;

<sup>7</sup> <https://www.edp.com/en/lines-impact-mitigation>

evolution of schemes to support renewable generation; CO<sub>2</sub> price and projections; climate change trends, including frequency of extreme weather events.

Climate change explicitly influences the following priorities of the EDP strategic agenda for 2020:

- Organic growth focused on low carbon technologies, especially wind, hydro and solar, with a view to reaching about 76% of renewable capacity by 2020;
- Low CO<sub>2</sub> exposure and other environmental risks through renewable generation, CO<sub>2</sub> portfolio management and sustainability leadership, with a view to reducing specific emissions by 75% in 2030 compared to 2005 levels.

## RISK AND OPPORTUNITIES MANAGEMENT

A detailed assessment of emerging climate risks and opportunities according to the taxonomy proposed by the TCFD was carried out: physical risks (these may have financial implications for organizations, such as direct damage to assets or disruption in the supply chain), transition risks (may involve major business changes to respond to the need for climate change mitigation and adaptation, with potential financial and reputational impact on organizations) and opportunities (potential gains from the mitigation strategy) – for more details, see the table below.

One of the key recommendations of the TCFD, in order to assess the resilience of the strategies of organization, is the use of long-term climate scenarios, including the 2°C scenario. EDP used 4 IPCC Representative Concentration Pathway (RCP) scenarios: 8.5 (business-as-usual), 6.0, 4.5 and 2.6 (the most aggressive in terms of mitigation), for the analysis of physical risks, and used two scenarios from the IEA (International Energy Agency), IEA450 and 2DS, for the analysis of transition risks:

RISK	RISK TYPE	MAIN IMPACTS AND MITIGATION
PHYSICAL RISKS	<b>Acute</b> , with an impact on the increasing frequency and severity of extreme events, such as heat waves, droughts, floods, storms, forest fires.	Increasing the frequency and severity of extreme events, according to the IPCC scenarios, could disrupt production and distribution activities, as well as increase the operational and capital cost of recovering from damage to distribution and generation network assets. As mitigation strategies, EDP has a comprehensive insurance plan and has been reinforcing business continuity and crisis management plans, thereby minimizing impact to business and third parties.
	<b>Chronic</b> , related to longer-term changes in climate patterns, for example, increase in mean temperature and average level of oceans, and changes in precipitation patterns.	A structural decrease in precipitation, compounded by a potential increase in competitive uses of water, will affect hydroelectric production. IPCC scenario 8.5 is particularly worrisome for the Iberian Peninsula business, and may represent a decrease of 10% in average annual precipitation levels, directly impacting hydro productivity. To mitigate this risk, EDP has a strategy of diversification by technology, geographical area and by business area. Years such as 2017, representing a very dry year (HPI = 0.47), where the impact of the hydrological risk in the Iberian Peninsula was around €300M, may be more common, with the structural reduction of precipitation levels.
TRANSITION RISKS	<b>Regulatory</b> actions on concerted government actions for the adoption of climate mitigation and adaptation strategies, e.g. changes in schemes supporting renewable energies	One of the potential climate regulatory risks identified is related to the change in the regulatory framework regarding generation from renewable sources, with a potential financial impact for EDP. Risk is mitigated through an active strategy of diversification across technologies and geographical areas (see opportunities), asset maturity, as well as through rigorous monitoring of government policy and regulation.
	<b>Technological</b> , regarding the adoption of new technologies requiring greater investment by organizations.	In a fast-paced sector where the current system will be disrupted, the emergence of new, more efficient technologies will require higher levels of investment. The risk of failure to monitor or delay the adoption of new technologies may jeopardize the future. EDP tracks market trends, the study of still-maturing technologies throughout the value chain and has a clear Innovation policy focused on the main trends in the sector (page 42).

RISK	RISK TYPE	MAIN IMPACTS AND MITIGATION
	<p><b>Market</b>, resulting from changes in market dynamics, due to the influence, e.g., of changes in customer behaviour and changes in market fundamentals.</p>	<p>Demand is expected to reduce due to improved energy efficiency. This is driven by a change in consumption patterns (via regulation or change in behaviour), with a potential negative impact on supplier revenues. The medium-term risk in the compliance scenario for the European Energy Efficiency Directive may lead to a 1.5% annual reduction in consumption in the Iberian Peninsula. This risk is positively offset by the current recognition of electrification as a key solution to the decarbonization of the economy, accelerating the reinforcement of the supply of energy services, as described in the <b>opportunities</b> table.</p>
	<p><b>Reputational</b>, referring to the increase in stakeholder concern and the influence of public opinion.</p>	<p>The electricity sector has traditionally been seen as a net contributor to Climate Change. In a paradigm shift, the Group is strengthening its renewable portfolio, which will surpass 75% by 2020. At the same time, it is recognized for its excellent performance in the various sustainability indexes of which it is part, demonstrating its sustainability and providing evidence of measures and strategies which have been adopted.</p>
	TYPE OF OPPORTUNITY	POSITIVE FINANCIAL IMPACT
<p><b>OPPORTUNITIES</b></p>	<p><b>Resource efficiency</b>, regarding the reduction of operational costs by increasing efficiency in value chain processes.</p>	
	<p><b>Energy source</b>, resulting from the use of policies to encourage renewable generation, leveraging the existing generation portfolio.</p>	<p>Opportunity to invest in new clean generation capacity in existing or new markets, taking advantage of schemes to support renewables. According to the 2016-2020 business plan, the EDP Renováveis EBITDA is expected to grow 8%/year during the 2015-2020 period.</p>
	<p><b>Products and services</b>, taking part in the development and expansion of low carbon products and services, and in the electrification of consumption as a decarbonization measure for the economy; and (potentially) increased demand for energy for heating/cooling due to physical risks.</p>	<p>The envisaged increase in demand for electricity from extremes of temperature could benefit long-term marketing. Based on internal studies developed for the Iberian Peninsula, an increase in the average temperature of 1.5°C in Summer and a decrease of 2°C in winter, can lead to a 2% increase in annual consumption.</p>
	<p><b>Markets</b>, access to new markets through geographical, technological, and business diversification (e.g. new services). The issuance of Green Bonds for low carbon generation is also a new opportunity.</p>	<p>The reinforcement of the supply of energy efficiency products and services is already a new business opportunity, with a potential financial impact on the average sales increase estimated at around 150 M€/year during the 2016-2020 period.</p>
<p><b>Resilience</b> involves developing adaptive capacity to respond to climate change to better manage the associated risks and seize opportunities.</p>		

## METRICS AND TARGETS

EDP uses a set of metrics to monitor and assess the performance of its business against the targets underlying the defined strategy, as well as the Group's resilience to current and future challenges in this area. These metrics are used in the chapters "Promotion of Renewable Energies", "Innovation and Research", "Sustainable Mobility", "New Energy Services"; "Climate Change" and "Energy Efficiency".

## 3.4 ENHANCE TRUST

This pillar sets goals for promoting ethical culture, customer satisfaction, minimizing supply chain impacts on human rights, assessing critical suppliers, auditing service providers, promoting citizenship and volunteering and the goals of the United Nations through active participation in national and international partnerships. The established goals contribute to SDGs 11 and 17.



### 3.4.1 CORPORATE GOVERNANCE

The EDP company's governance prioritizes integrity, transparency, honesty, and capacity for leadership and example, based on pillars such as strategy, culture, risk control and growth. As a result of the materiality evaluation process, our stakeholders identified three key aspects, which are:

1. Operation of corporate bodies, based on corporate governance priorities of independence and separation of powers and diversity;
2. Risk management and control and audit system;
3. Performance evaluation and pay.

#### **OPERATION OF CORPORATE BODIES, BASED ON CORPORATE GOVERNANCE PRIORITIES OF INDEPENDENCE AND SEPARATION OF POWERS AND DIVERSITY**

EDP's Articles of Association and its internal regulations contain rules regarding independence and compliance with best governance practices applicable to listed companies, especially the 2018 Corporate Governance Code of the Portuguese Institute for Corporate Governance.

EDP has established a procedure for checking compliance with the independence requirements for members of the General and Supervisory Board, in particular the case of having been elected as an independent member of the General and Supervisory Board (Internal Regulation of the General and Supervisory Board, Article 8, see also the definition of independence on page 35 of this report). At the beginning of each financial year, the members of the Supervisory Board renew their statements regarding the absence of incompatibilities and, where appropriate, verification of the independence requirements (Articles 7 and 8 of the Rules of Procedure of the General and Supervisory Board). The main regulatory sources are Article 414, paragraph 5 of the Portuguese Commercial Companies Code, Article 9 of the EDP's Articles of Association as well as the Corporate Governance Code of the Portuguese Institute for Corporate Governance, with the members of the General and Supervisory Board identified in the Corporate Governance Report and the respective statement of incompatibilities/independence which may be consulted at the EDP website ([www.edp.com](http://www.edp.com)> investors> corporate governance> company's data> incompatibility declaration).

With the appropriate adaptations, this procedure applies to the members of the Executive Board of Directors, and each of these corporate bodies must judge, at all times, the independence of their members and expressly justify any divergence from the recommendations that EDP must uphold.

EDP's Selection Policy for the members of the General and Supervisory Board and Executive Board of Directors ensures diversity in the membership of the corporate bodies. In the selection process, EDP must ensure the integration of a range of skills, professional experience, diversity of knowledge, gender and culture, in accordance with the specifics of the Company's business, and the respective proposals for election must be substantiated with regard to the profile of the candidate and the

role they will play, so that the shareholders can verify the suitability of the profile, knowledge and curriculum of the candidates for the functions they will perform. In addition to this set of guidelines, EDP has signed a Protocol that promotes diversity and equal opportunities, in line with the new law which determines that the under-represented gender cannot be less than 20% in administrative and supervisory bodies, from the first elective general assembly after 1 January 2018 and 33.3% by 2020.

In accordance with EDP's governance model, the separation of management and supervisory functions is implemented in the existence of an Executive Board of Directors, in charge of the management of social affairs, and of a General and Supervisory Board, the highest body responsible for the supervisory remit.

EDP thus has the Chairperson of the General and Supervisory Board, who coordinates the activities of that Board within the scope of the respective corporate body. The Chairperson of the Executive Board of Directors (CEO) coordinates the activities of this body within their respective competencies.

The representation of these bodies is assured by their chairpersons.

Eleven out of the twenty-one General and Supervisory Board members have independent status, in accordance with the provisions of the Portuguese Commercial Companies Code. António Manuel de Carvalho Ferreira Vitorino, independent member, appointed on the Annual Shareholders' General Meeting of 5 April 2018, resigned on 27 July 2018.

At the beginning of their term, the members of the General and Supervisory Board declared their full compliance with the independence requirements established in Article 9 of EDP's Articles of Association.

## **RISK MANAGEMENT AND CONTROL AND AUDIT SYSTEM**

EDP has internal risk management and control systems designed in accordance with the recommendations of the Corporate Governance Code of the Portuguese Institute for Corporate Governance. Under the internal regulations, the General and Supervisory Board is the body responsible for oversight (adequacy and effectiveness), in particular through the Financial Matters / Audit Committee. In turn, the Executive Board of Directors makes proposals to the General and Supervisory Board for setting the Company's strategic risk-taking objectives, particularly in the context of assessing the Company's business plan. It also makes a continuous effort to improve the internal risk control and management systems and reports regularly to the General and Supervisory Board (and to the Financial Matters / Audit Committee) on the identification and evolution of the main risks associated with EDP's activity, with probability - impact quantifications for the risks considered significant.

Effective risk management is vital for long-term financial planning and organizational flexibility. EDP has a comprehensive risk management system based on the best international practices, namely the COSO methodology. This model evaluates any existing gaps or constant external and internal variations, identifies standards to be designed and controls to be implemented. In order to supervise the implementation of the approved regulations, the Internal Audit draws up annual plans, based on its evaluation of execution risks.

The quality of the Internal Audit activity has been evaluated by the Institute of Internal Auditors since 2010, thus ensuring that the work is performed in a proficient, thorough manner, with the appropriate skills and in accordance with the international standards of Internal Audit professionals.

## **PERFORMANCE EVALUATION AND PAY**

The remuneration of EDP's corporate bodies is in line with all the recommendations of the Corporate Governance Code of the Portuguese Institute for Corporate Governance (see page 168 of the 2018 Annual Report). The remuneration policy of the members of the corporate bodies (except for the members of the Executive Board of Directors) is set by the Remuneration Committee elected by the General Meeting and annually submitted to this body for appraisal.

The remuneration policy of the members of the Executive Board of Directors is set by the Remuneration Committee of the General and Supervisory Board and is also submitted to the General Meeting for appraisal. The remuneration policy is designed so as to promote the alignment of their interests with those of EDP, by taking into account the functions performed by each

member and the economic situation of the company. The criteria for determining remuneration favour mechanisms that allow pay to be linked to evaluation of the individual performance of each member.

## REMUNERATION STRUCTURE

The remuneration of the members of the corporate bodies (except for the members of the Executive Board of Directors) consists of a single fixed component.

The remuneration of the members of the Executive Board of Directors involves two components: fixed pay and variable pay.

Variable pay is subdivided between annual variable, which can only be 80% of fixed pay and variable multiannual, which can be up to 120% of fixed pay. The variable multi-annual pay is only remunerated if the previously defined goals have been reached and has a three-year delay in payment relative to the corresponding fiscal year, and shall only be paid if no intentional unlawful acts that jeopardize the sustainability of the Company performance come to light following evaluation, and this is made following its calculation and approval by the Remuneration Committee.

More details are provided in pages 169 of the 2018 EDP Annual Report.

## EVALUATION OF ACTIVITY

EDP voluntarily instituted a formal and objective process of evaluating the activity of the General and Supervisory Board and its Specialist Committees and of the Executive Board of Directors.

This self-assessment process, provided for in article 17 paragraph 2 of the Rules of Procedure of the General and Supervisory Board, is based on a questionnaire, to be filled out in an individual and confidential manner, which is intended to assess the personal perception of each Member of the General and Supervisory Board on the activities of the Board itself, its Specialist Committees and the Executive Board of Directors, particularly at the level of:

- Composition, organisation and operation;
- Activity carried out during the year under analysis;
- Relationship with other EDP corporate bodies and stakeholders;
- Individual self-assessment.

The purpose of this questionnaire is to provide objective support for the reflection of the General and Supervisory Board, with a view to the continuous improvement of performance, both in terms of its own functions and in its relationship with EDP stakeholders, and also in the defence of Shareholder interests.

### DECLARATION\* INTERNAL EVALUATION PROCESS OF EDP'S GENERAL AND SUPERVISORY BOARD (GSB) AND SPECIALISED COMMISSIONS

In light of the best practices of corporate governance, and aiming the continuous improvement of the internal evaluation process applied voluntarily by EDP to its General and Supervisory Board (GSB) and the different Specialised Commissions, Mercer proceeded to analyse the current evaluation process.

At the beginning of 2019, each member of EDP's GSB/Commission was invited to fill out an evaluation questionnaire, including a self-evaluation component, in order to assess their personal perception of the GSB/Commission performance. The questionnaire covers the evaluation of a diverse set of analysis dimensions (as shown in the table below), on a quantitative scale of 1 (Weak/Strongly Disagree) to 5 (Excellent/Totally Agree).

Detail on the dimensions analysed in each questionnaire

QUESTIONNAIRE	ANALYSIS DIMENSIONS
GSB Self-Evaluation	1. Composition, organisation and working
REMC Self-Evaluation	2. Performance of its activity
SFC Self-Evaluation	3. Individual self-evaluation
CGSC Self-Evaluation	
FMC Self-Evaluation	

GSB: General and Supervisory Board | REMC: Remuneration Commission | SFC: Strategy and Performance Commission | CGSC: Corporate Governance and Sustainability Commission | FMC: Financial Matters Commission

From the analysis of the questionnaires results, and with regards specifically to the evaluation of the GSB and each of the Specialised Commissions, all sub-dimensions evaluated obtained an average evaluation between 3.7 and 5.

It is also worth mentioning that the average of the GSB's evaluations in the analysis dimensions 1 to 3 mentioned in the table above was 4.4. The average evaluation of REMC scores in dimensions 1 to 3 was 4.5, for SFC was 4.4, for CGSC was 4.5, and for FMC was 4.5.

Mercer considers that the self-evaluation process of the GSB and each Specialised Commission and the respective questionnaires, described in this document and adopted by EDP, are good practice and has been defined in the light of good corporate governance principles.

1st March 2019

Mercer (Portugal) Lda

represented by:

*[Signature]*

Diogo Almeida

CEO de Mercer Portugal

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Capital Social: 500 000,00€



### DECLARATION\* INTERNAL EVALUATION PROCESS OF EDP'S EXECUTIVE BOARD OF DIRECTORS

In light of the best practices of corporate governance, and aiming the continuous improvement of the internal evaluation process applied voluntarily by EDP to its Executive Board of Directors (EBD) by the General and Supervisory Board (GSB), Mercer proceeded to analyse the current evaluation process.

At the beginning of 2019, each member of EDP's GSB was invited to fill out an evaluation questionnaire, in order to assess their personal perception of EBD's performance. The questionnaire covers the evaluation of a diverse set of analysis dimensions (as shown in the table below), on a quantitative scale of 1 (Weak/Strongly Disagree) to 5 (Excellent/Totally Agree).

Detail on the dimensions analysed in each questionnaire

QUESTIONNAIRE	ANALYSIS DIMENSIONS
EBD's Evaluation	1. Composition and organisation
	2. Performance of its activity
	3. Relationship with the GSB
	4. Relationship with other interlocutors

From the analysis of EBD's evaluation questionnaires, all evaluated sub-dimensions obtained an average evaluation between 3.4 and 4.7. It should also be noted that the average of the EBD's evaluations in the analysis dimensions 1 to 4 in the table above was 4.3.

Mercer considers that the GSB's evaluation process on EBD performance and the respective questionnaire described in this document and adopted by EDP, are good practice and have been defined in the light of good corporate governance principles.

1st March 2019

Mercer (Portugal) Lda

represented by:

*[Signature]*

Diogo Almeida

CEO of Mercer Portugal

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In this regard, at the beginning of each year, the Members of the General and Supervisory Board are invited to fill in the said evaluation questionnaire. Based on the replies to the questionnaire, the General and Supervisory Board jointly reflects on this data, drawing its conclusions, which are widely discussed by all Members of the General and Supervisory Board and by the Members of the Executive Board of Directors, in a plenary of the General and Supervisory Board, identifying the improvement opportunities to be implemented.

This whole evaluation process (content and format of the questionnaire, its conclusions) is analysed and certified by an external consultant.

The results of the evaluation process of the General and Supervisory Board, its Specialist Committees and the Executive Board of Directors may be consulted in the Annual Report of the General and Supervisory Board.

### 3.4.2 ETHICS AND HUMAN RIGHTS

One of the main values of EDP is trust and, as is well known, ethics forms the basis of trust. In line with this conviction, and placing ethics as a central and fundamental element of its organizational culture, in 2005 EDP's Executive Board of Directors approved the Code of Ethics of the EDP Group, and a nominative share distribution was made to all stand-out employees in February 2006, being available in Portuguese, Spanish and English. Thus, the EDP Group, which today has a global presence, bringing together people from different generations, cultures and behavioural patterns, has repeatedly developed and practiced, among other aspects, ethics as a fundamental principle of sustaining a company that honours the commitments it establishes with its employees, with its customers, with its shareholders, with partners and with society as a whole. This means that EDP establishes specific ethical performance goals throughout the organization, the attainment of which presupposes the achievement by all those involved of action that not only minimizes the risk of bad ethical practices, but also guarantees a high level of awareness and ethical requirements at the individual level.

In terms of business ethics, in line with the same principles of engagement and commitments to stakeholders set out in the EDP Group's Code of Ethics, the company has over the years built a consistent "construction" expressed particularly in specific codes and policies - duly disseminated throughout the company through communication and training and awareness-raising programmes - such as the Code of Conduct for Senior Management and Senior Financial Officers, the EDP Supplier Code of Conduct, the Code of Good Conduct for Preventing and Combating Harassment at Work, the EDP Commercial Code of Conduct, and the EDP Renováveis Anti-Corruption Policy, among others. In 2018, another important complementary document was published, the EDP Group Integrity Policy, applicable across all EDP Group companies.

Aware of the fact that EDP is now an "extended company", in which its actions in its business is strengthened by its numerous partnerships, ethical performance commitments have been extended to external service providers, either through training programmes or through contractual formalisation concerning compliance with the Group's policies in this regard.

The EDP Group has a robust decision-making process at various levels of the company, which acts as an important preventive mechanism for ethical risks. However, EDP also has other instruments to identify ethical risks, such as regular internal and external audits in all business areas. Identified ethical risks are assessed in the Ethics Committee, one of the specific committees set up by the EDP Executive Board of Directors - which is administered by the Ethics Ombudsman and brings together representatives of all the Group's companies and relevant corporate areas in this area - and subsequently by the Corporate Governance and Sustainability Committee of EDP's General and Supervisory Board.

#### ETHICAL COMPLAINT MANAGEMENT

Ethical complaints are submitted to the Ethics Ombudsman using the specific channel available at [www.edp.com/en/contact-ombudsman](http://www.edp.com/en/contact-ombudsman).

This is accessible to all stakeholders, enabling close contact with the Ethics Ombudsman, providing a strengthening of this communication mechanism through a faster response, guaranteeing confidentiality and personal data protection, as well as centralization of all the information generated, thus making it easily auditable.

EDP also provides all internal and external stakeholders with another complaint channel (audit@edp.pt) which allows them to report any alleged illegal practice or accounting or financial irregularity in their company, directly and confidentially to the Financial Affairs Committee / Audit Committee of the General and Supervisory Board.

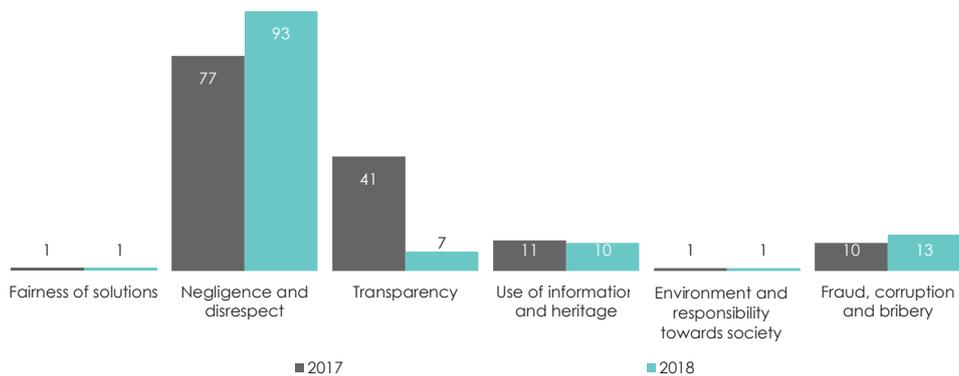
EDP has an explicit commitment to non-retaliation, fairness and confidentiality regarding the claimant's identity and discretion with respect to the subject matter of the complaint. The complainant's confidentiality is guaranteed through the high level of performance of EDP's information systems, particularly with respect to the protection and processing of suitable information in accordance with all applicable laws.

These mechanisms are set out in the EDP Group Code of Ethics as well as in its respective Regulations.

## RISK OF CORRUPTION/ BRIBERY/ FRAUD/ MONEY LAUNDERING

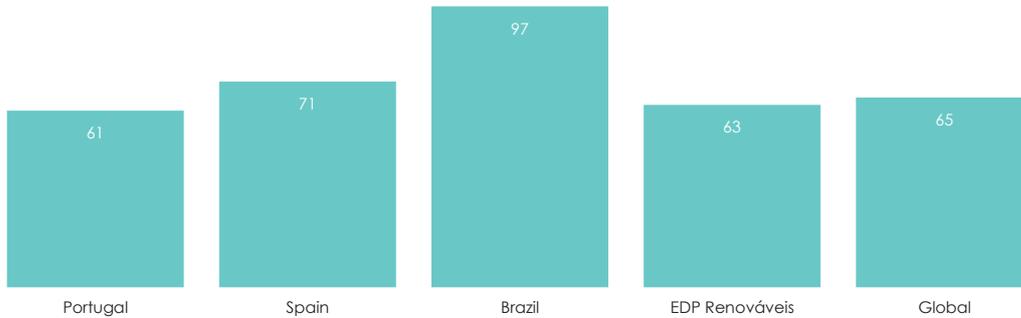
The decisions and actions of EDP and its employees shall be guided by the principles of action set out in the Code of Ethics and other voluntarily accepted commitments, acting in full compliance with the laws and regulations in force in the regions where we operate, maintaining a commitment to integrity and suitable internal control systems for the prevention and detection of fraud or irregularities, particularly financial matters, corruption and bribery, conflict of interest and use of information and patrimony.

### COMPLAINTS MADE TO THE THICS COMMITTEE BY SUBJECT (#)



Based on the commitment of EDP to ethics and integrity in all its businesses and complementing the policies and procedures on this matter which are present in different group companies (including EDP Renováveis and EDP Brasil), a Group Integrity Policy (page 169) was implemented in 2018 and applied throughout all its subsidiaries. This policy defines the commitments, general principles of action and the duties of the group's companies, their employees and business partners, with regard to the prevention of unlawful acts, corruption practices, money laundering and terrorist financing. Its widespread dissemination and reinforcement through awareness-raising / specific training in integrity and prevention of corruption, along with the maintenance of prevention and control models concerning criminal responsibility in EDP Spain and EDP Renováveis, as well as the reinforcement of the monitoring activity of third parties / carrying out Due Diligence Integrity at EDP Brasil (1,408 third parties analysed during 2018), stand out as initiatives implemented to minimize the risks associated with potentially illegal conduct. By 2019, in addition to maintaining the main activities already carried out, it is planned to have the definition and operationalization of the methodology of third-party Integrity Due Diligence in other geographical areas (in particular in Portugal) defined, as well as the strengthening of detailed prevention mechanisms for money laundering and terrorist financing.

**TRAINING IN INTEGRITY (% OF EMPLOYEES SELECTED FOR TRAINING)**



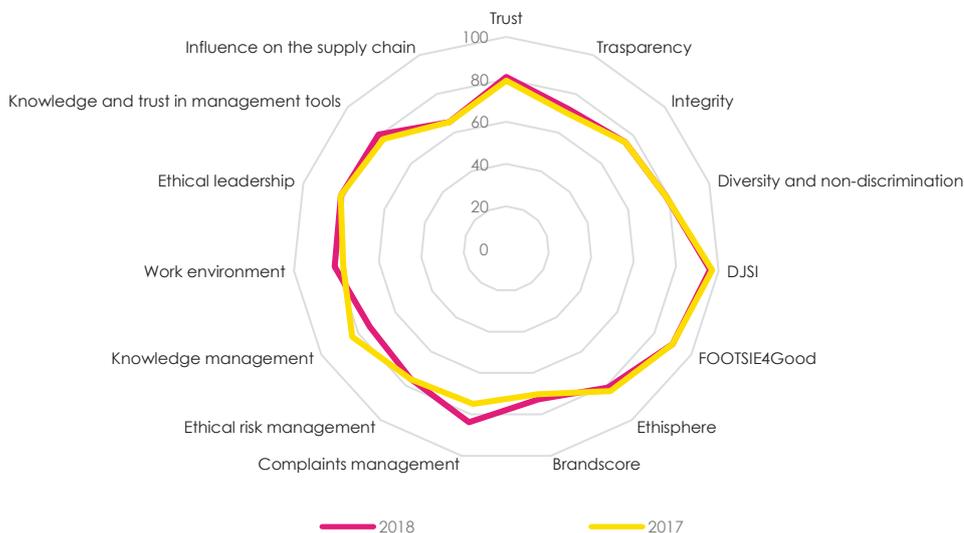
**ETHICAL CULTURE PROMOTION**

One of the objectives of ethical performance management at EDP is to maintain a culture consistent with the values of the Group, where ethics forms an essential pillar. The promotion of this culture is carried out in all geographical areas where the company is represented, through a programme that includes both the publication and dissemination of policies that underlie the major themes of management, including their interrelationship with corporate ethics, or the fostering of the instances of governance of the ethical theme in the company, of which the Ethics Committee is an example, and, in a very important way, the carrying out of multiple communication actions, awareness raising and training in the various areas which involve ethics.

This activity, in particular with regard to training, was extended in 2018 to the numerous partnerships involving EDP, to nowadays form part of the normally mandatory commitments, for all those who work with the Group, with training having been given, since the beginning of the project (December 2016), to 78% of the approximately 400 suppliers (who act on behalf of or who work on the premises of the company and who are seen by customers and by the different stakeholders with whom they interact, as part of the "extended company").

The effectiveness of this programme of reinforcing an ethical culture is measured annually and internally by the "Ethicis" index and, externally, by the "Ethics Quotient" of the Ethisphere Institute, and in the latter case, it presented an extremely positive assessment with the awarding of recognition, for the 7th consecutive year, in the list of the "World's Most Ethical Companies".

**ETHICIS**



## RESPONSIBLE POLITICAL INVOLVEMENT

Although some of the legal regimes in countries where the EDP Group operates permit it, none of the Group companies made monetary or in-kind contributions to any political parties. The absence of such contributions by Group companies is consistent with the internal values enshrined in the EDP Group's Code of Ethics, under which "employees undertake not to make, on behalf of the company, monetary or other contributions to political parties". For its part, "EDP undertakes, where this is permitted by law, to allow the creation of properly regulated mechanisms for employee participation in political processes, which may include monetary contributions on a voluntary and personal basis".

EDP develops contacts with policy makers in the energy value chain, both at the national and international level. EDP's position with these institutions is one of transparency and cooperation.

EDP is in the European Union transparency register, which consists of a database of interest groups which has the aim of raising awareness among decision-makers in European institutions on a number of topics, by appointing a representative for this purpose.

For the year 2018, the costs related to the activity carried out in this regard were 3.9 million euros, with the interventions related to the Clean Energy Package (CEP) being noteworthy. The CEP model of government requires Member States to submit their 10-year National Energy and Climate Plans, which should set out the objectives they intend to achieve and how they intend to achieve them in five key areas: decarbonization, energy efficiency, security of supply, internal market and research, innovation and competitiveness. These issues are dealt with within the scope of the company's participation in the EURELECTRIC working groups.

## FAIR COMPETITION PRACTICES

### RESPECT FOR COMPETITION RULES

EDP promotes strict compliance with competition rules, based on the commitments made in its Code of Ethics, its Integrity Policy, its Healthy Competition Practices Commitment and its Specific Compliance Programme in matters of competition. The Specific Compliance Programme has been implemented in Portugal since 2017 and will be implemented very shortly in other geographical areas, including, in particular, the following actions:

- Review of all relevant Contracts, concluded or to be concluded, with respect to their compliance with competition rules;
- Review of wholesale and retail pricing procedures from the same perspective;
- Formalization of a procedure for the notification of concentration operations to the Competition Authorities;
- Implementation and monitoring of a wide range of internal controls that ensure that the aforementioned Contracts and Procedures are duly reviewed and applied;
- Approval and distribution to employees of a Competition Manual, containing the standards of conduct to be respected in order to guarantee full compliance with competition rules;
- Training of employees in competition matters.

### CUSTOMER ISSUES

The Specific Compliance Programme was approved in April 2017, to avoid any compromise on compliance by the EDP Group companies in Portugal with the legal requirements on competition. This programme's overall objective is to ensure that contracts signed by EDP comply with competition rules. A similar approach to prevention and mitigation of practices that restrict competition is being implemented for the remaining geographical areas, without prejudice to the codes and manuals already applied.

In the first half of 2017, EDP and its subsidiary EDP Comercial were notified by the Competition Authority (AdC) of an enforceable judgement under a legal action related to restrictive competition practices, which resulted in EDP being ordered to pay a fine of 2.9 million euros, and EDP Comercial a fine of 25.8 million euros.

AdC's decision concerned a number of aspects of the EDP Continente Plan, entered into with Modelo Continente Hipermercados, which was in force for a limited period of time in 2012, with significant benefits for consumers.

These notifications came as a surprise to the companies concerned which, right from the start of the Plan, informed AdC about the agreement and have always been guided in their work by a strict compliance with the law. Indeed, the EDP Continente Plan even contributed to boosting competition in the energy market (as ERSE acknowledged) since it translated into actual discounts for consumers and was followed by other similar initiatives by other operators. In this sense, EDP S.A. and EDP Comercial, in June 2017, filed a judicial appeal against AdC's enforceable judgement, and are awaiting a decision from the Competition, Regulation and Supervision Court.

**INFORMATION SECURITY AND PRIVACY**

EDP recognizes information security as a strategic objective and one of the key business requirements, and makes that commitment at the top management level. The information security policy of the EDP Group, approved by the Board of Directors, establishes Information Security as a competitive factor, which generates confidence in its Stakeholders, but also as a critical responsibility in the social context, as a result of its role as an operator of critical infrastructures and manager of large volumes of personal data of clients and employees.

In order to realize the strategic vision for information security, the EDP Group has established a Security Master Plan, approved in the EBD for the 2018-2020 three-year period, based on the E2E (End to End) Security principle. This guiding principle implies a holistic approach permeating the organization, avoiding a silo perspective, but also provides for the incorporation of security from the construction of services and applications, to activities carried out by service providers, within a logic of Security by Design. The strategic objectives of this plan establish a focus on people, recognizing them as a key element in security; in resilience, specifically in building a critical incident response and recovery capacity; in compliance, following external laws and regulations imposed on the sector and generating trust, and intelligence, making security less intrusive, more efficient and empowering business, especially digital transformation.

In operational terms, EDP has a global cybersecurity incident response team, CSIRT - Computer Security Incident Response Team – EDP, which participates in national and international cybersecurity exercises, where it has the possibility to test its capacity to react to the occurrence of disruptive events resulting from cyber-attacks. In addition to teams dedicated to responding to security incidents, EDP has focused on the awareness and training of all employees. In this area, of note is the training in critical infrastructure carried out at CyberRange EDP (single infrastructure in Portugal for cybersecurity training) which, in coordination with the EDP University, in 2018, carried out 31 training sessions with 245 participations.

In addition to its operational capabilities, the EDP Group's vision has established an external position as a reference company in the use of best practices and innovation in the area of information security. In this sense, the EDP Group is part of national and international working groups and studies (such as CERT.PT and the World Economic Forum) as well as European projects with other European counterparts, academic and governmental organizations.

**BITSIGHT SECURITY RATING**



Regarding the communication of security risk to its stakeholders, EDP has adopted a metric based on the BitSight Security Rating. The adopted rating, defined as the Group's KPI for this area, observes the behaviour of the EDP Group in cyberspace, specifically checking aspects such as the security of its public websites, access from its networks to dangerous locations or communication of machines infected by criminal networks. The EDP Group set the value of 660 as its target for 2018 and achieved this goal.

## HUMAN RIGHTS

In line with the principles of Human Rights in the Code of Ethics and in applying the guiding principles for companies, of the UN Human Rights Council, EDP has made 11 commitments regarding Human and Labour Rights ([www.edp.com](http://www.edp.com)> sustainability> social dimension> human rights) and implemented the Respect for Human Rights and Labour Rights Monitoring Programme in all its Business Units, covering companies, premises, new projects, mergers and acquisitions, as well as operations with a significant potential impact on Human Rights.

In order to ensure compliance with the above-mentioned commitments, the company adopted suitable monitoring measures in all its Business Units and new projects or undertakings, including mergers and takeovers, as well as with regard to partners and the entire value chain - suppliers, service providers, joint ventures, agents, and customers.

This monitoring process is aimed at verifying effective practices, assessing the degree of compliance with the principles and commitments assumed, particularly of the groups identified as most vulnerable, identifying the potential risks, developing the actions necessary to prevent and manage these and, if unavoidable, develop the necessary mitigation initiatives or promote their remediation and repair.

Part of this monitoring process are:

- in accordance with the principles of the Code of Ethics, the assessment of ethical performance, culminating in the annual production of a report exclusively dedicated to this matter, and where stock is taken of the most important initiatives related to ethics, and a balance is made of the ethical complaints within the Group. The report of the Ethics Ombudsman can be found at: [www.edp.com](http://www.edp.com)> edp> ethics. In addition, the results of the ETHICIS index, the Ethical Performance Corporate Index and the results of the ETHISPHERE ranking are published, which can be found on page 115;
- in accordance with the principles of the Code of Conduct and the Sustainable Procurement Policy: the systematic assessment and analysis of suppliers' risk level; the supplier selection and performance assessment process (page 132);
- the self-declaration of business representatives and activities carried out in all geographical areas, in accordance with the Ruggie Principles, adopted by the Human Rights Council, under the UN "Protect, Respect and Remedy" Framework – Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework<sup>8</sup>. The results of the analysis of the aforementioned self-declarations are presented in the following section of this report and were supported by a questionnaire to monitor respect for Human and Labour Rights.

For more details on the progress of communication through respect for human rights in 2018 see the document: Report assessing the potential impacts of respect for Human and Labour Rights available at: [www.edp.com](http://www.edp.com)> sustainability> social dimension> human rights.

## RESPECT FOR HUMAN RIGHTS

The company carries out a number of activities which may lead to problems in the human rights sphere, such as in the construction of its undertakings (e.g. consortia); in its activity of conventional thermal production (e.g. purchase of coal); in its distribution activity (e.g. equipment purchase for substations); in its hydroelectric production activity (e.g. impacts on populations due to the destruction of vital natural resources).

<sup>8</sup> [www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR\\_EN.pdf](http://www.ohchr.org/Documents/Publications/GuidingPrinciplesBusinessHR_EN.pdf)

In 2018, the company continued to have to refer to the case in Brazil of the São Manoel Energy Company (EESM), a company formed by the shareholders EDP Brazil S.A., Furnas Centrais Eléctricas and China Three Gorges Corporation and its commercial aim, the construction and operation of the São Manoel Hydroelectric Plant on the Teles Pires river, located between the states of Mato Grosso and Pará. The impacted indigenous communities were the Kayabi, the Munduruku and the Apiaká.

The Installation licence (LI - start of Works) was issued in July 2014 by the Brazilian Institute for Environmental Affairs and Renewable Natural Resources (Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis - IBAMA), under which EESM was authorized to start the construction works, to create a reservoir of 63.96 km<sup>2</sup>. Obtaining the Operation License (LO - Reservoir Filling and Commercial Operation of the Plant), which authorizes the Company to operate the São Manoel Hydroelectric Power Plant, took place in November 2017. The beginning of the commercial operation of the four units took place during 2018.

The EESM is a party in 3 Public Civil Actions (ACP) introduced by the Federal Public Prosecutor's Office (MPF), alleging irregularities in the environmental licensing for the construction of the San Manoel Hydroelectric Plant, such as non-compliance with the indigenous component constraints, in particular the fundamental rights of Indigenous and Tribal Peoples in accordance with ILO Convention No. 169. In all the actions the MFP is requesting an injunction to suspend the licencing. The actions are being investigated.

More recently, in December 2018, a new public civil action was filed by the Federal Public Ministry at the 1st Federal Court of Cuiabá against IBAMA and EESM, alleging that the operating license could not have been issued because of the alleged noncompliance with the constraints of the Preliminary Licence and, subsequently, of the Installation Licence, regarding the right of the Kayabi, Apiaká and Munduruku indigenous tribes to be previously consulted on the mitigating and compensatory measures that were implemented, requiring their effective participation.

At the current stage of the case, EDP understands that the possibility of suspending the installation operation is remote.

However, it should be noted that EESM carried out a wide-ranging discussion on the construction of the undertaking with the indigenous peoples of the area covered by the power plant, duly registered in the licensing process. For each stage of the environmental licensing process specific forums were held, namely:

- Preparation of Studies of the Indigenous Component and the holding of Public Hearings in the discussion phase of the Environmental Viability of the power plant;
- Preparation of the Basic Indigenous Environmental Design (PBAI) in the Authorization phase for the start of the works, where the environmental programmes were drawn up with the participation of the indigenous people; and
- Both studies/projects were monitored and approved by the National Foundation for the Indian (Funai), Local Authority, which was then linked to the Ministry of Justice and Workshops being held for Programme Monitoring and Inspection. All of these forums counselled the FUNAI to issue a statement to IBAMA with a favourable position regarding the issuing of the Prior Environmental License (Environmental Feasibility), Installation License and Operational License.

There was no flooding of indigenous lands and all rural properties affected by the formation of the reservoir were duly compensated. The São Manoel Hydroelectric Power Plant, and its reservoir, do not directly affect any indigenous territory, and it is about 1,500 metres distant from the beginning of the indigenous territory and 16 kilometres from the nearest village. All of the impacts are of an indirect nature and, consequently, the mitigating measures established in the Indigenous Environmental Project are compensatory in nature (construction of schools and donations of scholarships, construction of health posts, telephone towers and Internet signals; donation of agricultural tractors, vans, trucks, buses, boats, outboard motor, etc.) and show no correlation between possible impacts caused by hydroelectric power plants.

The construction of the São Manoel Hydroelectric Power Plant did not affect any place considered as "sacred" by the indigenous peoples. The EESM has always maintained constant dialogue with the indigenous communities in the surrounding area of the undertaking, before, during and after the construction of the plant. The compensatory measures agreed with the surrounding indigenous communities are being fulfilled according to timetables agreed with the indigenous people.

The rapids known as "Sete Quedas" were flooded by the reservoir of the Teles Pires Hydroelectric Power Plant, upstream of the São Manoel Hydroelectric Power Plant. The São Manoel Hydroelectric Power Plant is 40 km from the site where the Sete Quedas rapids existed, and did not cause any interference to this or any other place considered as "sacred" by the indigenous peoples. On the

banks of these rapids indigenous funerary urns were found during the archaeological prospecting works for the Teles Pires Hydroelectric Power Plant. These urns and other archaeological remains were recovered and deposited in a museum designated by the National Historical and Artistic Heritage Institute (IPHAN) in the city of Alta Floresta, while waiting for the indigenous people to define the location of the building that will permanently house them. The commitment to restore and construct the place to store these urns is the responsibility of the concessionaire of the Teles Pires Hydroelectric Power Plant.

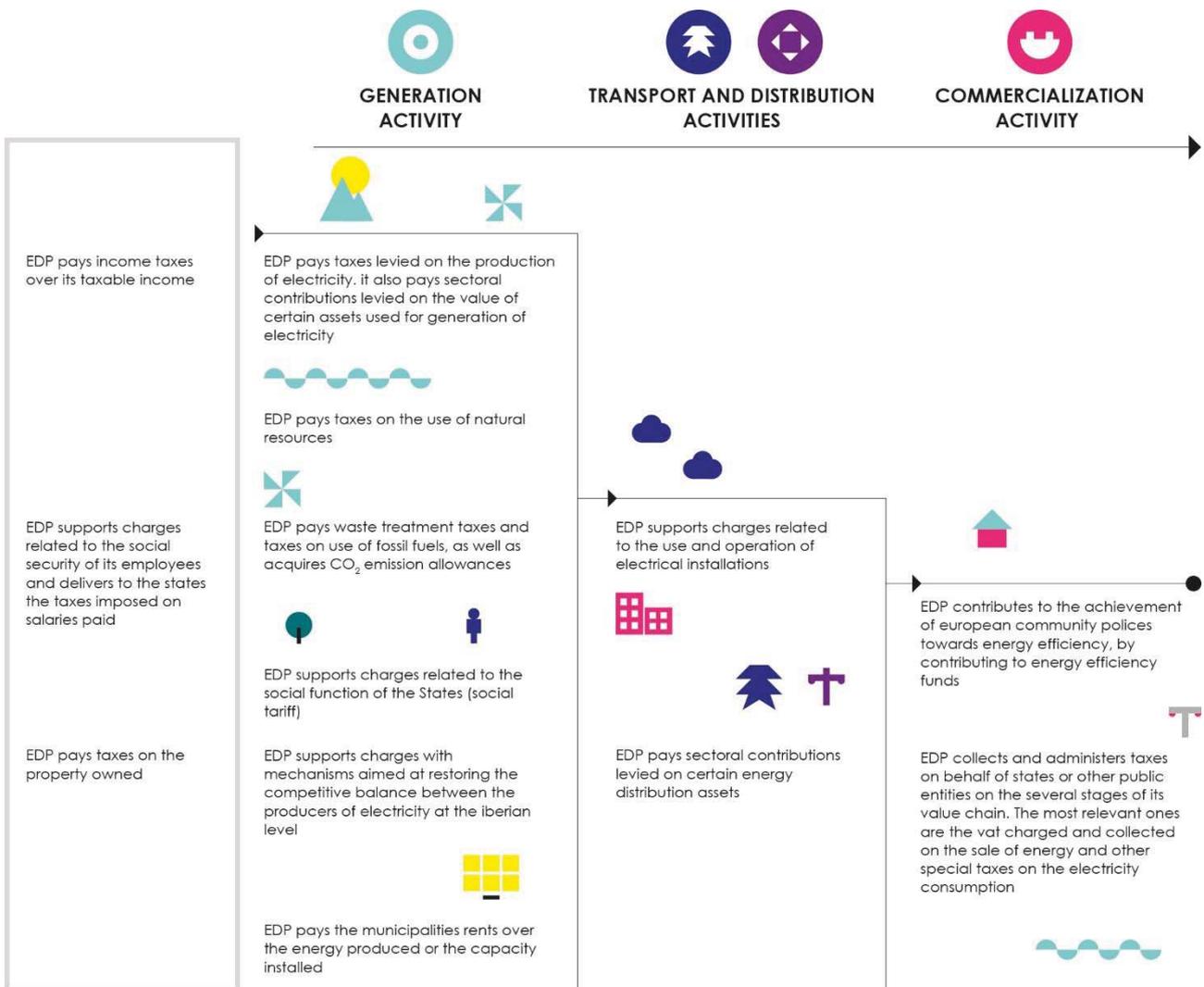
### 3.4.3 COMMUNICATION AND TRANSPARENCY

#### FISCAL TRANSPARENCY

##### EDP GROUP TAX FOOTPRINT

EDP is a utility present in 16 countries, whose value chain includes the activities of generation, transport and distribution and commercialization of energy. These activities trigger various types of taxes, levies and financial contributions which, when considered as a whole, determine the level of taxation to which the EDP Group is subject.

##### THE TAX BURDEN IN EDP GROUP'S VALUE CHAIN



Of all the stages of the EDP's value chain, the energy generation activity is the one that contributes most significantly to the payment of taxes and other contributions.

## FISCAL MISSION AND STRATEGY

The EDP Group's fiscal strategy is based on five main pillars:

1. The EDP Group has an ethical and civic duty to contribute to the financing of the general functions of the States in which it operates, by paying the taxes, levies and other contributions that are due, contributing to the well-being of citizens and to the development of the Group's local business. In this context, it carries out its fiscal function with rigor and professionalism, in line with the "EDP Group Fiscal Mission", in accordance with the following principles:

**EDP manages its taxes responsibly in the various countries where it operates, contributing to the respective tax revenues.**

- Implements the options which are most appropriate to the business and to the shareholders, in faithful compliance with the spirit and letter of the Law;
- Pays the taxes that are due in all the geographical areas where it carries out its activity;
- Adopts the arm's length principle in intra-group transactions, in the context of the applicable international transfer pricing rules, guidelines and best practices, by transversally implementing an internal transfer pricing policy based on three main principles:
  - i. All intra-group transactions of a commercial or financial nature have a pre-defined pricing, with terms and conditions that are in line with what would normally have been practised between independent entities, in comparable operations;
  - ii. The definition of the transfer price is based on the economic rationale of the intra-group transaction and, in accordance with the internal rules of the EDP Group, not constituting an instrument for tax planning and / or tax evasion; and,
  - iii. The documentation of intra-group transactions is fully compliant with the Guidelines of the Organisation for Economic Co-operation and Development (OECD), without prejudice to the specific aspects of the internal legislation of each geographical area.
- Adopts tax practices based on principles of economic relevance and commonly accepted business practices;
- Discloses true and complete information concerning relevant transactions; and,
- Seeks to defend its legitimate interests by administrative means and, when appropriate, judicially, when the payment of any taxes, contributions and levies reasonably raises doubts regarding its legality.

2. The EDP Group reconciles the responsible compliance with tax obligations, with the commitment to create value for its shareholders, efficiently managing its tax burden and using the available tax benefits and incentives applicable in each region, taking into account the Group's global interest and foreseeing significant tax risks.

**Safeguarding the interests of its shareholders, EDP assesses the legality and constitutionality of the tax rules in force in the countries where it is present.**

3. The EDP Group is committed to maintain a relationship with the Tax Authorities of the countries where it operates based on principles of trust, good faith, transparency, cooperation and reciprocity, aiming to facilitate the application of the Law and to minimize litigation.

4. The EDP Group applies responsible policies, striving to maintain a low-risk tax profile in order to avoid conducts that could generate significant tax risks. To this end, EDP implemented a global risk management policy with the objective of identifying, quantifying, managing, monitoring and minimizing the tax risks, in close connection with the highest levels of control and decision (Executive Board of Directors and General and Supervisory Board).

5. The EDP Group considers transparency a core principle of its fiscal function, particularly through:

- Not resorting to opaque structures or operating in jurisdictions for reasons that do not have a close connection with the economic activity developed within them. The EDP Group does not have subsidiaries in territories considered to be non-cooperating in accordance with Portuguese legislation and / or with the OECD benchmarks; and,
- Disclosure of tax information in accordance with the best international practices and recommendations, to facilitate the understanding of the global contribution for the economies and the principles governing its fiscal policies and practices.

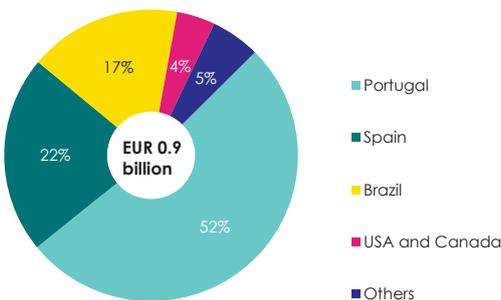
The mission and fiscal policy applicable to all EDP Group companies was approved by the Group's Executive Board of Directors and is made available on the EDP website ([www.edp.com](http://www.edp.com)> edp> about us> principles and policies> EDP Group fiscal policy), being mentioned in the EDP Group's Reports and Accounts.

## FISCAL CONTRIBUTION

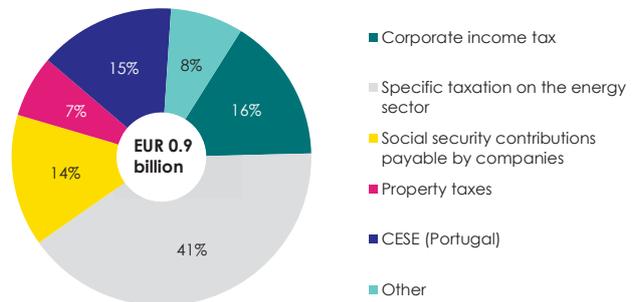
### EDP GROUP'S GLOBAL CONTRIBUTION

In 2018, the EDP Group's global tax contribution to the public revenues of the countries where it is present amounted to approximately 4 billion Euros, of which 0.9 billion Euros correspond to taxes and contributions borne (paid) by the EDP Group and 3.1 billion Euros to contributions paid to the States on behalf of other economic agents, as follows:

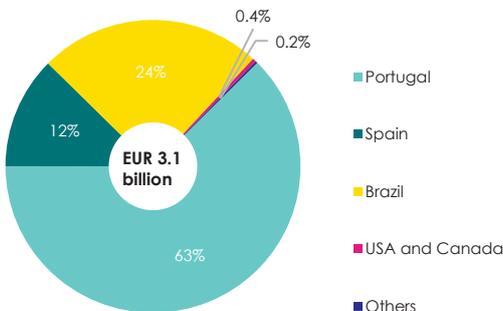
**TAXES BORNE (PAID) BY THE EDP GROUP, BY GEOGRAPHICAL AREA**



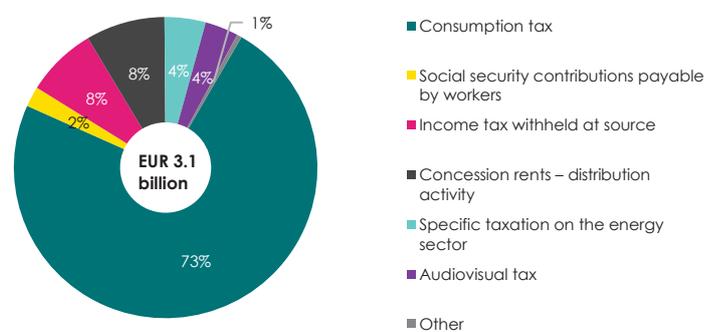
**TAXES BORNE (PAID) BY THE EDP GROUP, BY TYPE OF CONTRIBUTION**



**TAXES COLLECTED BY THE EDP GROUP AND DELIVERED TO THE STATES (BURDEN OF OTHER AGENTS), BY GEOGRAPHICAL AREA**



**TAXES COLLECTED BY THE EDP GROUP AND DELIVERED TO THE STATES (BURDEN OF OTHER AGENTS), BY TYPE OF CONTRIBUTION**



Regarding the taxes incurred (paid) by the EDP Group, Portugal is the country with the highest level of taxation, accounting for 52% of the total taxes.

On the other hand, considering the taxes incurred by the EDP Group, the most relevant (55%) concerns to specific taxation on the energy sector (including the Extraordinary Contribution to the Energy Sector - CESE -, in Portugal), followed by corporate income taxes (16%). It should be noted that, as regards corporate income taxes, the nominal tax rates in the main countries in which EDP operates range between 21% and 34%, adding to the nominal rate, for companies located in Portugal, the municipal and state surtaxes.

In Portugal, the taxes incurred (paid) in 2018 amounted to 475 million Euros, essentially relating to specific taxation on the energy sector (see next Section), of which 135 million Euros refers to the CESE, 91 million Euros to the mechanism designed to restore the competitive equilibrium between the electricity producers operating in Portugal and Spain (generally known as "Clawback") and 85 million Euros of social tariff. In addition, EDP Group companies incurred (paid) 83 million Euros of social security contributions, 44 million Euros of corporate income tax and 37 million Euros of other taxes.

**The simplification of the tax systems reducing the bureaucratic burden and the context costs will be desirable, so that they do not constitute an obstacle to the investment and development of the economic activity of the companies.**

Taxes collected by the EDP Group and delivered to the States where it carries out its activity (burden of other agents) amounted to 3.1 billion Euros. The activity of collecting taxes on behalf of the States, absorbs significant resources of the EDP Group without any direct compensation, consubstantiating relevant costs of context.

## SPECIFIC TAXATION ON THE ENERGY SECTOR

As mentioned above, the specific taxation on the energy sector has a significant impact in the EDP Group.

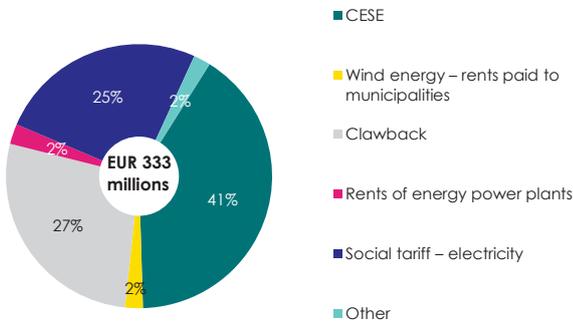
In view of the high impact that the energy sector, in particular the electricity sector, has on the communities (population and environment) and its weight on the economies, several countries have implemented specific taxation mechanisms.

This kind of taxation, not being generally related to the result of the economic activity carried out, is likely to influence the decisions of the economic agents in the development of their businesses and investment, divestment and financing decisions. In fact, while income taxes are levied on the taxable income, other taxes, levies and contributions of significant impact are levied, for example, on the amount of energy produced, on the use of natural resources, on the possession of certain assets associated with the generation of electricity, on the amount of waste produced or on the fossil fuels used. Thus, these other taxes, levies and contributions are not directly related to the economic performance of the business, as reflected in its accounting results, therefore capturing part of the shareholder's value.

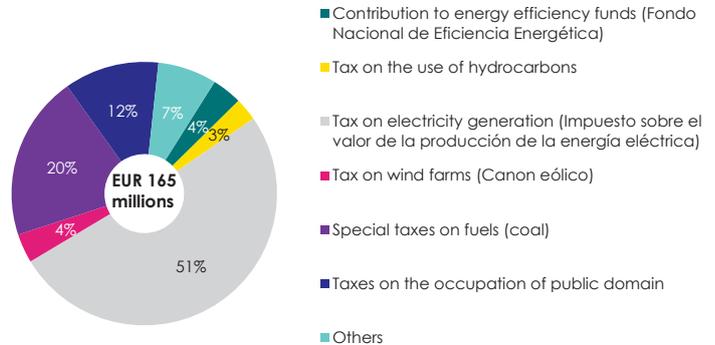
**The energy sector has been particularly penalized by extraordinary fiscal measures, of a temporary nature, introduced in a context of economic austerity, which must be reversed. Taxation of electricity and other energy related products should generally be reduced, to encourage the transition to decarbonisation.**

Considering the countries in which the EDP Group operates, Portugal and Spain have the highest level of taxation, both in terms of the number of the existing taxes and in the amounts collected, adding up to a total charge of 498 million euros in 2018, detailed s follows.

### SPECIFIC TAXES AND CONTRIBUTIONS ON THE ENERGY SECTOR BORNE (PAID) BY THE EDP GROUP, IN PORTUGAL



### SPECIFIC TAXES AND CONTRIBUTIONS ON THE ENERGY SECTOR BORNE (PAID) BY THE EDP GROUP, IN SPAIN



In fact, in the last decade there has been an increase in the level of taxation on the energy sector in the countries where EDP is present - mainly in Portugal and Spain -, due to the increase of the tax burden for existing taxes, as well as due to the introduction of new taxes and contributions.

**The stability and predictability of the tax frameworks is a critical factor for the development of the business, within the context of a sector that requires high levels of investment and financing.**

This is partially justified by the diffusion of the user-pays and polluter-pays principles (e.g. taxes on the use of natural resources or on the use of fossil fuels). Nevertheless, in the context of the global financial crisis that occurred from 2008 onwards, new taxes were introduced which, under the pretext of improving the environmental and systemic sustainability of the sector, where essentially means of increasing the tax revenues of States, distancing themselves from their original purpose.

Relevant examples of this reality are the tax on electricity generation (*Impuesto sobre el valor de la producción de la energía eléctrica*), introduced in Spain in 2013, which taxes the value of the electricity produced and introduced in the distribution network, regardless of whether it is generated from renewable sources or not, and the CESE, introduced in Portugal in 2014, which taxes the net assets of the generation, transmission, distribution and commercialization of electricity.

Not agreeing with the legal and economic fundamentals underlying these taxes, the EDP Group has been judicially challenging them.

Regarding the *Impuesto sobre el valor de la producción de la energía eléctrica*, despite having proceeded with the payment on the due dates, the EDP Group has challenged its legality and constitutionality, on the grounds of the violation of several constitutional principles and of the existence of a double taxation with the tax on the economic activities (*Impuesto sobre Actividades Económicas*), which taxes several sectors of the economy. It should be noted that the Royal Decree 15/2018, of 5 October, determined the suspension, for a period of 6 months, of the application of this tax, due to the exponential increase in the electricity prices.

**In the context of the operation of the Iberian Electricity Market (MIBEL), EDP and other operators of the energy sector have been confronted with relevant taxation asymmetries between Portugal and Spain that create distortions of competition.**

Concerning CESE, the EDP Group paid this contribution for 2014, 2015 and 2016, in the total amount of 250.8 million Euros, having challenged the legality and constitutionality of this measure. For As the revenues collected by the State with CESE were not channelled to the purposes underlying the creation of this contribution, the EDP Group decided, initially, not to make the payment for 2017 and 2018. However, given the commitments subsequently assumed by the Government – and formalized in the State Budget Law for 2019 –, under which both the temporary nature of the CESE and its direct connection with the evolution of the tariff deficit of the National Electricity System were recognised and, by affecting the respective

revenues to the sector (effectively reversing a substantial part of these in order to cover that deficit), on 19 December 2018, the EDP Group decided to pay a total amount of 135 million Euros of the CESE for the years 2017 and 2018 and the respective interests for late payment, despite maintaining the judicial challenge based on the grounds mentioned.

**The European vision for the creation of a single energy market will necessarily imply greater fiscal convergence in the energy taxation between the Member States, in order to avoid distortions of competition between the various economic operators.**

Additionally, in the referred countries there has been a unilateral introduction of a set of other taxes and contributions directly affecting the sector, foremost the generation activity. This has affected the competitive equilibrium in the MIBEL context and is an obstacle to the creation of a single integrated European energy market.

Considering its relevance, it is important to highlight the following realities introduced in Portugal in recent years:

- Creation of the social tariff, in 2010, which consist of a discount on the electricity bill given to economically vulnerable consumers. The number of beneficiaries has been increasing over time and this tariff is entirely supported (financed) by the electricity producers in the general regime;
- Creation of a mechanism designated as Clawback, in 2013, following the introduction of the *Impuesto sobre el valor de la producción de la energía eléctrica* in Spain, not considering, however, the overall taxation asymmetries between the two countries;
- Abolition, in 2018, of the exemption on excise duties and of the tax on the CO<sub>2</sub> emission applicable to electricity and electricity/heat producers, in the purchase of coal, which resulted in a simultaneous taxation of the carbon, as the electricity sector is covered by the European Emissions Trading Scheme (EU ETS).

## DISCLOSURE OF FISCAL INFORMATION

On a quarterly basis, the EDP Group discloses, in its Financial Statements, the main characteristics of the tax systems in the countries where it operates, such as the nominal corporate income tax rates, the legal framework for tax losses and benefits, the policy on transfer prices and the most relevant legislative changes.

In addition, EDP publicly discloses information on Group's reconciliation between the nominal income tax rate and the effective income tax rate applicable, on a consolidated basis. Through this analysis, the EDP Group explains the impact of the income tax booked in the income statement, which includes the overall impact of both current tax and temporary differences (deferred taxes).

Considering that the international accounting standards under which EDP Group prepares and discloses its financial statements (IFRS) does not necessarily prescribe the alignment between the accounting of the expense or the revenue related to income tax and the corresponding cash inflow or outflow, it should be underlined that this analysis does not represent the tax paid or received by the EDP Group in the period to which it relates.

In fact, the quantification of the taxes borne (paid) by the EDP Group is disclosed in this Sustainability Report, issued on an annual basis, which includes a set of tax information and metrics.

In addition, it should be noted that EDP, as a multinational group, fully complies with the annual communication and reporting obligation arising from the implementation of the provisions of Action 13 of the Base Erosion and Profit Shifting project (known as Country-by-Country Reporting), which is part of a plan to strengthen the transparency for tax administrations adopted by the OECD and G20 countries. This obligation is fulfilled in Portugal by the parent company, in accordance with the established legal deadlines (corresponding the last reporting to the period for 2017).

## MANAGEMENT AND CONTROL OF TAX RISK

The process of management and control of the tax risk begins with the identification and mapping of the risks to which the EDP Group is subject.

In this sense, EDP Group continuously assesses the tax risks and uncertainties, conducting regular exercises in order to identify, quantify and monitor risks that arise from external events with potential material impact. EDP identifies the risks to which it is exposed based on the following classification:

- Compliance risk, associated with a potential failure to comply with tax obligations in a timely and complete manner;
- Risk of inappropriate or incomplete technical analysis that potentially leads to a less appropriate decision on a given tax issue, especially in the context of uncertainty in its tax treatment;
- Risk of inadequate internal and external communication, associated with the possibility of inadequate communication between internal tax teams and other corporate areas (e.g., business units) or external entities (e.g., Tax Authorities); and,
- Reputational risk, related to the misinterpretation, by the stakeholders, of financial and tax information disclosed.

It is also important to refer to the risk of change of the legal or fiscal framework, in the context of the legislative instability to which the EDP Group is subject, namely in Portugal, due to political and regulatory pressure, which has been materializing with the creation of specific taxation on the energy sector.

Considering the above, the Group has implemented a risk management policy with the goal of identifying, quantifying, managing, monitoring and mitigating, among others, the tax risks, particularly the risk of materialization of the tax contingencies. Indeed, the EDP Group, through a specialised team, continuously monitors the processes associated with tax risks and contingencies (related and not related to ongoing litigation), in close cooperation with the respective Business Units, corporate legal services and external lawyers and consultants, with a bi-annual report of their evolution to the General and Supervisory Board of the EDP Group.

In addition, the EDP Group's Executive Board of Directors is involved in the decision-making process of the relevant operations, being its tax impact, if any, analysed, documented and included in the documentation submitted for approval, in particular when it may constitute an important element for the final decision, in order to ensure long-term value creation for shareholders.

EDP also has a Financial Matters Committee/Audit Committee, whose main mission, upon delegation of the General and Supervisory Board, includes the permanent monitoring and supervision of any matters related to the internal control system over financial information and the risk management process, particular in its fiscal aspects.

## **TRANSPARENCY IN COMMUNICATION**

### **COMMUNICATION WITH CUSTOMERS**

The rights of customers and the obligations of the EDP Group's subsidiaries relating to electricity and gas supply are for the most part covered by national legislation or regulations of the Energy Services Regulatory Authorities.

EDP is a signatory of the APAN (Portuguese Advertisers Association) Commitment Charter on responsible marketing communication ([www.apan.pt](http://www.apan.pt)> comunicação responsável> carta de compromissos). In addition, EDP is associated with APPM (Portuguese Association of Marketing Professionals) which has a Code of Conduct for Marketing Professionals, which aims to promote and maintain high standards of professional integrity ([www.appm.pt](http://www.appm.pt)> associates> code of conduct). EDP is also a member of APCE (Portuguese Association of Corporate Communication) which has a "Code of Conduct for Institutional Communication and Public Relations Managers", which is a framework for good practice and ethical conduct.

EDP Group information is managed to ensure credibility with its customers and other stakeholders through compliance with the laws and regulations in force in the geographical areas where it operates and through a commitment to the confidentiality, protection and legitimacy of personal data. These commitments are reflected in the EDP Group's Code of Ethics, the Codes of Conduct of its companies, the Information Security Policy and the EDP Group's Data Governance Principles and Policies ([www.edp.com](http://www.edp.com)> edp> about us > principles and policies).

To ensure coherence in customer service across all channels, EDP has a training policy in place that covers more than 3,000 service providers which are in daily contact with customers, developing specific client-focused topics, skills and effectiveness. It also provides an internal communication tool ([kwiki.edp.pt](http://kwiki.edp.pt)) that enables cross-referencing communication for employees

and commercial service provider partners, processes and procedures, alerts and ways of acting to guarantee homogeneity and consistency.

## EDP'S PERFORMANCE IN THE MANAGEMENT OF BANDS

The liabilities of EDP Distribuição regarding vegetation management derive from the legal regulations for network operation and legislation concerning forest fire defence.

In compliance with this legislation, EDP Distribuição operates an average of 4,500 km of Protection Bands and 2,800 km of a Secondary Network of Fuel Bands, with an average annual cost of more than 5 million euros.

At the same time, the aerial network is supervised through the use of aerial resources and laser technology in an extension of 14,000 km. In addition, visual inspections are carried out.

EDP Distribuição has 68,000 km of High Voltage and Medium Voltage overhead lines, of which 28,000 km cross forest areas.

In periods of extreme fire risk, as defined by the Portuguese Institute for the Sea and the Atmosphere (Instituto Português do Mar e da Atmosfera - IPMA), EDP Distribuição acts in advance in the protection systems for the lines in order to make them more sensitive to any external action and inhibits automatic reconnections. The maintenance of lines in service enables the electricity supply to be ensured, in particular the supply of essential and critical services, such as telecommunications, lifting and water collection stations, etc. The disconnection of lines is made whenever requested by the National Civil Protection Authority (ANPC). In addition, EDP Distribuição's availability teams for immediate intervention are strengthened and service provision teams are placed in prevention mode. Communication channels with the National Civil Protection Authority (ANPC), Firefighters and Republican National Guard (GNR) are also strengthened.

In order to cope with extreme events with a significant impact on the electricity grid, including large fires, EDP Distribuição has a properly structured and implemented Crisis Action Operational Plan (POAC), the status of which is triggered according to the particular situation.

Following greater legislative requirements, in terms of vegetation management, EDP Distribuição has also carried out the following actions:

- Reinforcement of aerial inspections (35%) and on the ground for preventive detection of situations of risk in the lines;
- Improvement of its rapid intervention mechanisms: review of contractual tariffs for greater readiness by forest service providers and meeting with the National Command of the National Republican Guard (GNR) to confirm channels and communication procedure with the Operational Managers of EDP Distribuição;
- Development of innovative methodologies through the modelling of the typology and vegetation growth, improving the geographical management of the risk;
- Reinforcement of closeness and cooperation with the Municipalities and their respective Forest Technical Offices (Gabinetes Técnicos Florestais - GTF) in defining the Municipal Plan to Defend Forestry Zones Against Forest Fires (PMDFCI);
- Development and implementation of an EDP Distribuição app for communities to report situations of proximity to vegetation, reinforcing their involvement;
- Cooperation with associations and companies in the sector;
- Research and development cooperation with universities and different stakeholders, such as the participation of EDP Distribuição in the ColaBForestwise Laboratory Association.

The reinforcement carried out in 2018 of aerial and on the ground inspections for preventive detection of situations of risk in the lines, favoured the Priority Parishes for the Defence of the Forest against Fire in 2018 as defined by the Institute for Conservation of Nature and Forests (ICNF).

### 3.4.4 SATISFACTION AND CUSTOMER SERVICE

The growing competitiveness of the energy and services supply market increasingly requires it to become more customer centred, with a special focus on differentiation of supply, technological innovation and continuous improvement of the customer experience.

The availability of optimized and focused communication channels and clear information on contracts and prices is essential to meeting the specific needs of different customer segments.

#### CUSTOMER SATISFACTION

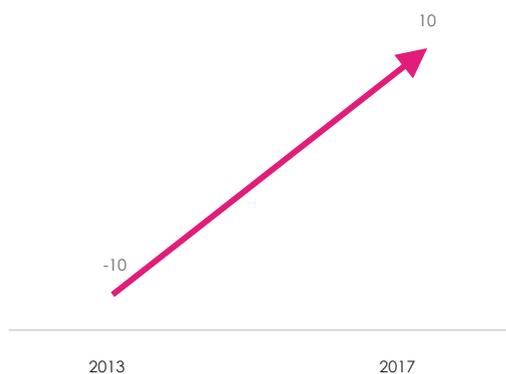
Consultation with the clients regarding the quality of the services offered and the experience during the service is a priority for introducing improvements to the processes. Surveys are therefore conducted in partnership with certified external entities, which are based on satisfaction indicators: Satisfaction with Energy Supply (electricity and/or gas) and Global Satisfaction (page 147).

The Iberian Voice of the Customer (VoC) tool is also used to collect immediate feedback from customers after contact with the company, through any telephone, face-to-face, digital or technical channel. This information makes it possible to gauge the levels of satisfaction and probability that the company will be recommended, and to assess the performance of the operators of EDP channels.

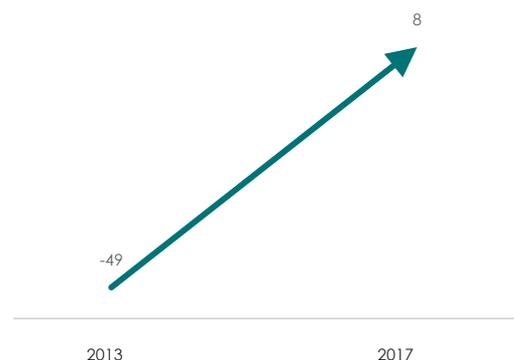
In 2018, customer satisfaction measurement was revised to include the two tools listed above. In line with the commitment to achieve 80% customer satisfaction by 2020, the result for 2018 reached 78.2%, an increase of 2.4 p.p. over the previous year.

In Portugal, at the level of the NPS (Net Promoter Score) – an indicator that measures the degree of customer recommendation for companies – there was an improvement of 20 points for domestic customers and 57 points for business customers since 2013, the year in which implementation of the customer experience improvement programme began.

**NPS - B2C**



**NPS - B2B**



**MANAGEMENT OF COMPLAINTS**

On a global scale, the improvements implemented at the EDP Customer Experience level have substantially reduced the number of complaints per thousand contracts by around 56% since 2013 in Portugal. During the same period of time, the resolution process was substantially optimized, with the average resolution time dropping by more than 30%, and these being resolved upon first contact in more than 90% of the cases.

In Portugal, the Customer Ombudsperson is the independent entity that evaluates the cases presented by the clients when the responses to the complaints made to our services did not meet their expectations.

The Client Ombudsman expresses his opinion on the supply of energy and the provision of services by EDP companies, namely: contract compliance, consumption estimates, invoicing and claims for damages resulting directly from the service provided.

In 2018, the Customer Ombudsperson received 1,265 complaints, 69% of which related to electricity complaints and 15% to dual contracts. The most common reasons were Contracting and Readings/Billing/Payments (45%) and Supply (23%). 34% of customers were satisfied with the contribution of the ombudsperson, with the indicator having improved by 2% compared to 2017 and 5% compared to 2016.

In Spain, EDP received 91,598 complaints from residential customers (+ 38% vs. 2017) caused mainly by the new regulation on the social tariff and the difficulties of implementing and adapting the IT systems to the new regulatory requirements. As regards corporate clients, EDP received 810 complaints (-28% vs. 2017).

**ENERGY PRICES**

In the Iberian Peninsula, energy trading is free and consumers can contract their supply with any trading company.

In Portugal, at the end of 2018, the liberalized market accounted for 82% of the total number of customers (around 94% of consumption). However, since the end of 2017, SLV electricity customers may return to the regulated market or gain access to a regime equivalent to regulated tariffs. The regulated market tariff is envisaged to expire in December 2020.

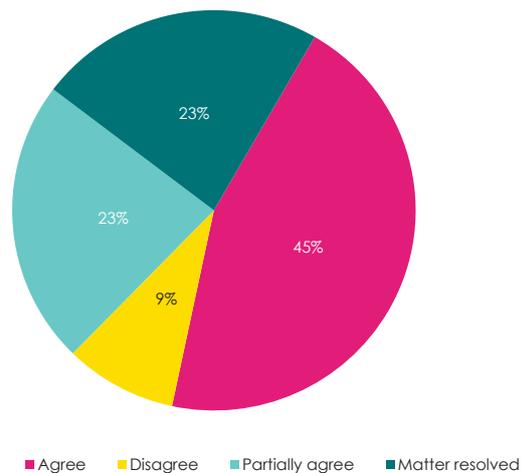
In 2018, the average price of reference sale tariffs to final customers mainly consisted of energy and supplier costs (44% of the final tariff). The cost components of energy policy and use of the networks represented, respectively, 36% and 20% of the total.

In Spain, the liberalized market accounted for about 62% of the total number of customers (around 89% of consumption).

**COMPLAINTS/1K CONTRACTS**



**RESPONSE DETAILS FOR THE CUSTOMER OMBUDSPERSON (%)**



Domestic prices in Spain, in 2018, had an energy policy cost component of 40% of the final tariff, and energy and network components accounted for 37% and 23%, respectively, of the total.

In Brazil, in 2018, the liberalized market accounted for 0.01% of the total number of customers (around 30% of consumption). From July 2019, consumers with contracted power of 2,500 kW or more will be able to migrate to the liberalized market, and from 2020 those with a contracted power of 2,000 kW or more. Energy and supply costs account for around 43% of customer invoiced costs, and network use and energy policy costs account for 31% and 26%, respectively.

## SERVICE QUALITY

Distribution system operators maintain a quality monitoring process of distributed energy through network monitoring plans, allowing the adoption of mitigating measures whenever this is justified. Maintenance actions are carried out to reduce the number of occurrences and limit their impacts.

In Portugal, 2018 was a year marked by several episodes of adverse weather conditions (Storms Emma, Gisele and Leslie). The contribution of the automation of the distribution network and the strategy of anticipation and response to exceptional events enabled the necessary resources to be marshalled through the Crisis Response Operational Plan of the Distribution Network, in order to minimize the customer service restoration times.

## 3.4.5 VULNERABLE CUSTOMERS

The vulnerability of customers to energy prices has different causes, which are important in the geographical areas where the EDP Group is present, and are associated both with situations of fuel poverty as well as the inability to access energy. In order to respond to this need of its customers, EDP raises awareness of public opinion, argues for the modification of social policies and implements measures to support vulnerable clients, not only through complying with all legal obligations, but also by voluntarily developing initiatives itself.

Fuel poverty situations are associated with the inability of families to achieve the level of energy services required to ensure adequate levels of thermal comfort, i.e. the inability to heat and cool their homes properly at an acceptable cost. These situations have causes such as unemployment, structural poverty, energy inefficiency in the housing stock, inability to invest in improvements in housing energy efficiency, and energy prices. Their social impacts are also known, deepening structural poverty and social exclusion, with significant impacts on public health.

From a public policy perspective, the problem can be addressed by raising household incomes, regulating energy prices and improving the energy efficiency of dwellings. But subsidizing low-income households has a continuing impact on public spending without a positive effect on economic growth and does not address the structural problem. In this sense it is essential to define measures for investment in energy improvements in dwellings.

In this way, the transition to a low-carbon economy with the guarantee of affordable and quality energy for all faces a complex and multifaceted social challenge that is present worldwide, both in developing and more developed economies, and has an impact on the EDP Group's business in the geographical areas in which the company markets energy: Portugal, Spain and Brazil.

Customer vulnerability and energy inclusion are key concerns for EDP's sustainability agenda, as defined in its Principles for Sustainable Development, and are addressed through two areas: Fuel Poverty and Access to Energy. This EDP commitment is also linked to the United Nations Sustainable Development Goals (SDG 7).

## FUEL POVERTY

In Portugal, legislation has, since 2010, foreseen the application of a social tariff for electricity and natural gas. This support consists of a discount granted to economically vulnerable customers, funded in the case of electricity by electricity producers in normal production and, in the case of natural gas, by natural gas transporter and supplier companies. Since 2016, access

to the social tariff benefit has been carried out through a mechanism for the automatic recognition of customers benefiting from this. In 2018, 615,183 EDP customers benefited from the electricity social tariff, providing a 33.8% discount on the gross price of regulated market tariffs. Additionally, EDP has 16,000 customers more who benefited from the gas social tariff.

In Spain, with the Publication of Royal Decree-Law 15/2018, modifications were introduced in the social bonus model for electricity, creating a new thermal bonus to support heating and cooling expenses in the homes of vulnerable customers. In addition, a National Strategy to Address Fuel Poverty began to be developed, incorporating new medium-term measures to deal with this social problem. There are three distinct levels of support: vulnerable consumers, with a 25% discount, extremely vulnerable consumers, with a 40% discount and consumers at risk of exclusion, with a 100% discount. These discounts are for a fixed term and cover a maximum energy consumption amount. The new benefit is not automatically assigned but generally must be applied for and is subject to regular renewal. EDP in Spain has 38.560 customers covered by the electric social benefit, of whom 18.844 are extremely vulnerable and 25 are at risk of social exclusion.

In Brazil, the Social Tariff is a benefit created by the Federal Government for low-income families. The discount applies to the tariff applicable to household domestic consumers, and varies from 10% to 65%, depending on the consumption of each household, up to a maximum of 220 kWh/month. Indigenous and quilombo families that meet the defined requirements are entitled, in turn, to a 100% discount up to a consumption limit of 50 kWh / month. Also in Brazil, consumers must apply for the social tariff, it is not automatically applied. In 2018, 143,671 EDP Group customers benefited from the social tariff.

The contribution of the EDP Group to the protection of vulnerable customers is not limited, however, to the promotion of social tariffs and compliance with legal obligations.

In this regard, among other voluntary initiatives, it is important to highlight EDP's support for the Chair for Fuel and Poverty at the Pontificia Comillas University, a forum for dialogue between all the social agents involved, including energy companies and social entities, to design and implement solutions to the problem of fuel poverty.

In Portugal, the EDP Foundation developed the EDP Solidária Programme entirely focused on the topic of fuel poverty, supporting 29 organizations with a total of around 2 million euros. The program includes two strands - health and social inclusion - benefiting institutions from the Third Sector, National Health Service Institutions and Welfare Institutions.

In EDP's view, the problem of fuel poverty must also be seen in the context of public social protection policies and should not be restricted to funding expenditure on energy consumption. In this regard, it is important to create specific funding lines for vulnerable customers, with particular emphasis on energy efficiency measures, and to carry out a tariff reform that ensures that energy tariffs reflect the costs associated with the energy services they provide. Financing energy efficiency building refurbishment and the purchase of efficient equipment, supported by the development of measures to raise awareness in the population, will gradually reduce the problem of fuel poverty by reducing energy needs.

## ACCESS TO ENERGY

Energy and, in particular, electricity, plays a crucial role in economic and social development. In this sense, investment in solutions that provide access to energy for people in countries that do not have sufficient electricity network infrastructure is a necessary condition to promote their development and break the cycle of poverty and inequality.

To this end, in 2018, EDP approved investment of 12 million euros, by 2020, in energy access projects in regions without access to electricity. This year, EDP invested two million euros in the purchase of a minority stake in SolarWorks!, a Dutch solar energy company operating in Mozambique, where only 25% of the population has access to electricity.

Also, in 2018, EDP launched a philanthropic fund to support energy access projects which, through the use of renewable energy, will promote health, education, water, agriculture, and income generation for rural communities in developing countries. The first edition of this programme has a budget of 450,000 euros and is aimed at organizations developing energy access projects in Kenya, Tanzania, Mozambique and Malawi.

## 3.4.6 SUPPLIER MANAGEMENT

The management of sustainability in the relationship with its suppliers is a strategic factor in EDP Group's activity. The management process privileges the construction of a relationship of trust with suppliers, based on a partnership approach based on principles of ethics, transparency and sustainability.

Through the "Sustainable Procurement Policy" and the "Supplier Code of Conduct", operationalized by the "Supply Chain Sustainability Protocol" ([www.edp.com](http://www.edp.com)> edp> principles and policies), the strategic objectives of sustainability in supply chain management are defined.

For additional information please visit [www.edp.com](http://www.edp.com)> suppliers> sustainable procurement.

### PRIORITIES

The priorities of sustainability in supplier management include the:

- Development of activities that promote the sharing of the best sustainability practices in EDP Group purchases;
- Contribution to the growth and profitability of the business through the promotion of initiatives for the development and continuous improvement of the supply chain;
- Systematic monitoring of suppliers' performance and risk profile;
- Dissemination and implementation of the EDP Group's sustainability policies in the acquisition of goods and services;
- Adoption of a responsible environmental policy that respects the environment by mitigating the adverse impacts of its activity;
- Involvement and empowerment of all actors in the supply chain.

### SUSTAINABILITY GOALS

Sustainability goals are operationalized through the following targets by the year 2020:

- Systematically reduce the accidents of contractors and service providers;
- Protect Human Rights in the supply chain, according to the Ruggie - Global Compact methodology;
- Audit contractors and service providers with sustainability risks;
- Evaluate 100% of suppliers critical to Sustainability criteria;
- Ensure environmental, safety and occupational health certification of 100% of suppliers exposed to high risks.

### MINIMUM REQUIREMENTS

The Global Procurement Unit (UPG) ensures the integrated coordination of activities involving registration, selection, qualification, ESG assessments, consolidation of the assessment and risk analysis of suppliers. The assessment of sustainability risks results from the analysis of four vectors: country, economic activity, ESG impact matrix for the supply and, through qualification, ESG assessments and sources of external information on the supplier.

EDP establishes minimum sustainability requirements (pass or fail rules) that all suppliers must accept and comply with, defined and listed in the purchasing documents (Code of Conduct, General Conditions of Purchase and Contract Terms). In that way, the specifications included in the proposals include performance-related sustainability criteria, mandatory and non-negotiable specifications, which in the case of processes subject to qualification systems may, depending on the specific supply risk, require management system audits and certifications (quality, environment and occupational safety).

As a result, and in accordance with its Low Risk Policy, EDP does not work with suppliers who present a high risk because they do not meet with its minimum requirements and, as such, are excluded from the consultation process.

## SUPPLIER SEGMENTATION

For each supply, EDP carries out a criticality analysis where the minimum specific sustainability requirements for each contract are defined. Each contracted activity is specified in relation to the supplier's access to EDP customers, EDP's technical equipment/workplaces, sensitive data, exposure to Health and Safety risks, Environmental risks and Ethical, Employment and Human Rights risks. Criteria such as the irreplaceability of the supplier or the consequence of interruption and operational importance are also essential in this segmentation.

## SUPPLY CHAIN IMPACTS

The EDP Group studies and monitors the impacts of its supply chain. In direct suppliers, gender inequality is the highest risk, accounting for 18.34% of the purchasing volume, followed by 10.3% related to corruption risks and 7% linked to political instability, ineffectiveness of justice and fragility of public services. The environmental impact of EDP on CO<sub>2</sub> emissions (see analysis scopes 2 and 3, pages 102 and 145) is very much determined by the extraction and transport of raw materials.

The risk exposure of indirect suppliers contrasts sharply with that of direct suppliers. For indirect suppliers, with which EDP does not establish commercial relations, the figures range from 0.54% for child labour and 0.39% for forced labour to 7.9%, 1.4% and 13.4%, respectively, for health and safety, overtime work and low wages. As a result, the sustainability management of EDP's supply chain entails developing processes and systems to ensure the direct supplier's commitment to improving the sustainability of its own supply chain, thereby passing sustainability requirements on to indirect suppliers. The implementation of the EDP Supplier Code of Conduct, as well as careful monitoring and following up on supplier performance, are the two fundamental pillars for addressing these risks.

## BALANCE 2018

In 2018, the EDP Group completed the implementation of the new Supplier Registration and Management system, which incorporated all information related to Procurement activity into a single platform, aggregating financial, economic, environmental and social data, enabling the EDP Group to obtain a risk profile of its suppliers. Due to its growing importance, information on Compliance is also being developed in a dedicated module for this purpose. The Sustainability Protocol in the Supply Chain was also revised, the new version of which adopting ISO 20400 and entering into force in 2019.

As a result of the unification of the sustainability requirements in the EDP Group supply chain, in 2018 a pilot project of the ESG Assessments programme was carried out on suppliers from Portugal and Spain and suppliers from Brazil. In this way, EDP has assumed as an element the commitment of its suppliers to Sustainability issues, particularly human rights, governance, social responsibility, prevention and safety, labour rights, environment and quality.

Also, in 2018, aware of the need to have an overall Supplier Assessment System for all the EDP Group's geographical areas, a process of transforming the existing model into a new, more dynamic and centralized one was started, which is capable of responding to the needs of global supply chain management. Thus, through this system, EDP intends to contribute to the improvement of the performance of its suppliers and, consequently, to positively impact the theme of sustainability throughout its entire value chain.

EDP continued to carry out more in-depth sounding out of its suppliers, through the EDPpartners initiative, with the holding of events sharing knowledge and experiences amongst all its participants. For additional information, please go to [www.edp.com](http://www.edp.com)> suppliers> EDP Partners.

## MONITORING HUMAN AND LABOR RIGHTS

As a result of the monitoring actions of its suppliers in 2018, EDP has identified several negative occurrences regarding respect for Human and Labour Rights in some of its suppliers. For detailed information, please visit [www.edp.com](http://www.edp.com)> sustainability> social dimension> human rights.

## 3.4.7 COMMUNITY INVOLVEMENT AND DEVELOPMENT

In order to carry out its business while simultaneously meeting the needs of the communities where it operates, the EDP Group promotes involvement with local communities and society within a broader perspective of value creation. To this end, the Group develops both specific programmes associated with its local impacts, as well as its own collaborative programmes and initiatives, donations and volunteering.

In this way, EDP seeks to promote value creation for society, thus requiring that the company has a focus oriented on its business activities, allowing it to capitalize on its strengths, its brand and its employees in order to maximize its impact on society.

The company promotes active, transparent engagement with local stakeholders, supported by its Stakeholder Relations Policy ([www.edp.com](http://www.edp.com)> edp> principles and policies> stakeholder relations policy), with the aim of managing its impacts and strengthening the positive outcomes of its activity, through the building of partnerships and enduring long-term relationships. Through this policy, the Group seeks to create value for the various stakeholders, in all its geographical areas, by defining four major Guiding Commitments: Understand, Communicate, Trust and Collaborate. Through these commitments, EDP seeks to go beyond simple compliance with the formal requirements of legislation, thus contributing to the effective and genuine involvement of its stakeholders.

- With regard to the Group's Social Investment, it is based on its Social Investment Policy ([www.edp.com](http://www.edp.com)> edp> principles and policies> social investment policy), which has four fundamental priorities: Promote access to culture and art and protect cultural heritage;
- Promote social inclusion and the adoption of sustainable ways of life, enhancing energy inclusion and access to energy;
- Protect natural heritage and biodiversity;
- Promote energy efficiency, renewable energy and decarbonisation.

Through the implementation of these policies, EDP contributes to the United Nations Sustainable Development Goals, in particular SDG5, SDG7, SDG8, SDG9, SDG11, SDG13 and SDG15 ([www.edp.com](http://www.edp.com)> sustainability> approach> sustainable development goals).

### INVESTMENT IN THE COMMUNITY

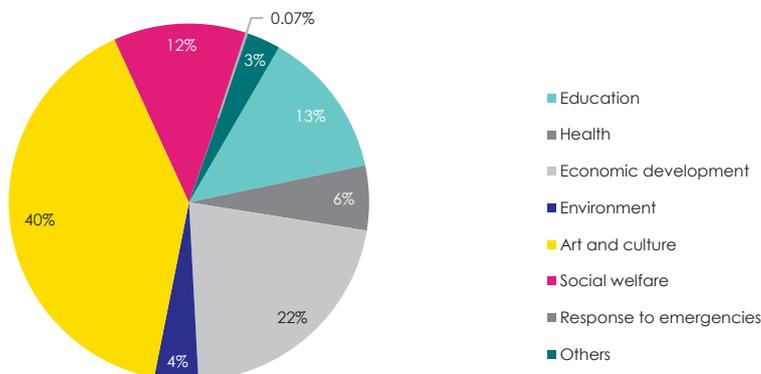
EDP voluntarily develops social investment programmes, as a way to both actively contribute to the sustainable development of society as well as to affirm its strategic vision.

In 2018, EDP continued to implement its Social Investment Policy (approved in 2017), having developed a global plan for the Group, with common strategic objectives, with the involvement of the different Business Units and Foundations. Under the EDP Group's Social Investment Plan, 57 different business-aligned programmes were defined, to be implemented during 2019, which contribute to EDP's commitment to the SDGs.

EDP assesses the projects in which it is involved, within the scope of its investment in the community, through use of the international LBG methodology (Measuring Community Investment). Using this model, EDP promotes the structured dissemination of its decisions and enables discussion of the results and benefits for communities.

EDP's global voluntary investment in 2018 amounted to 27,805,149 euros, contributing to 396 projects, and benefiting 642 entities. The decrease in the number of projects supported compared to the previous year (90 fewer projects) has reinforced the effort to reduce the dispersion of the company's social investment, changing from 58,443 euros per project to an average of 70,215 euros per project in 2018.

**SOCIAL INVESTMENT BY NATURE (%)**



In 2018, with regard to art and culture, of note was the ongoing support to the visual arts, music and dance, developed within the scope of the Museum of Art, Architecture and Technology (MAAT), in Portugal, which enables various artistic projects to reach more than 300 thousand people. Also noteworthy in 2018 was the restoration of the Museum of the Portuguese Language, in São Paulo, to which EDP contributed 886 thousand euros.

In the area of energy inclusion, of note was the EDP Solidária programme, implemented by the EDP Foundation in Portugal. The 2018 edition was entirely dedicated to supporting initiatives to improve thermal comfort and minimize situations of energy precariousness, aimed at both Third sector institutions (social inclusion strand) and at National Health Service Institutions and Social Welfare Institutions which provide health services (health strand). In 2018 this programme supported 29 organizations with a total of around 2 million euros.

In the area of natural heritage and biodiversity protection, of note were the programmes for the planting of trees in Portugal and Spain, involving a total investment of 80 thousand euros in 2018. Also worthy of mention are the various actions to raise awareness about the protection of the Environment and Biodiversity, which involved more than 16 thousand students from 143 schools, in different geographical areas.

In the area of promoting Energy Efficiency and Renewable Energy and decarbonization, the various awareness raising and training actions carried out in third sector Institutions and in schools can be highlighted. The project "Yes to Wind Power" from EDP Renováveis can be highlighted, which has established partnerships with various associations in Spain, Brazil, Italy, the United Kingdom and France, with the aim of raising awareness of the social, environmental and economic benefits of wind energy, as a cutting-edge electricity generation technology.

**VOLUNTEER WORK**

As a fundamental strand of the company's relationship with local communities, EDP Volunteer Work has the strategic goal of increasing the impact of projects by 2020, through better alignment of the skills of employees and the business. Thus, in 2018, and exceeding the goal of developing a new skills-based volunteering project per year, the Group's Volunteer Work Programme increased from the 6 projects reported in 2017 to 11 skills base volunteering projects, as follows: Energy Week; Volunteering in schools with Junior Achievement Portugal; LEAN; Youth leadership; Volunteer Scholarship of Electricians and Energy Efficiency Verifiers; EDP Leadership Programme; Distribution now; Energy Solidarity; EDP in Schools; Energy School Kit; EDP Academy.

	UN	2018	2017	2016	2015
Single EDP Volunteers <sup>1</sup>	#	2.469	2.294	2.371	2.593
EDP Volunteer Work Hours - Working hours <sup>1</sup>	h	19.375	24.932	15.835	17.534
Beneficiary Organizations	#	642	417	407	338
<b>Skills-based volunteering</b>					
Skills-based volunteering Hours - Work Hours <sup>2</sup>	h	5.193	2.008	1.550	1.742
Skills-based volunteering projects	#	12	6	4	4

<sup>1</sup> Includes all employees of all the EDP Group companies

<sup>2</sup> Includes volunteer skills projects that contribute to the annual goal of volunteering skills

In 2018, the EDP Group Volunteer Work Programme involved 3,026 volunteers, providing a total of 31,104 volunteer work hours. The different actions and projects carried out involved 2,469 volunteer employees, contributing 19,370 hours of working hours and 8,700 hours outside working hours. Since the EDP Group's Volunteer Work Programme is inclusive, 557 EDP Friends volunteers, such as company retirees, friends, family and partners were also involved, contributing with 3,029 hours of volunteer work.

Of note is the total number of skills-based volunteering project hours in working hours which was 5,193, which represents a considerable increase compared to the intended goal of increasing this by 10% compared to 2017. In May 2018, a new global campaign was launched - the energy week, with the aim of promoting skills-based volunteering, focusing on the theme of energy, and celebrating energy day in the various geographical areas where the Group is present. Employees were challenged to share their expertise in the sector, particularly through energy classes at schools and social organizations. This campaign involved 386 volunteer work employees from different geographical areas who, through their 2,599 hours of volunteering, of which, 1,991 during working hours, benefited 151 organizations and more than 7,000 people. In the Energy Week in Portugal, 217 volunteers gave 272 energy classes with a content kit and activities on energy efficiency, renewable energy and safety in using energy, to 294 classes from preschool to the 2nd cycle of schooling. Of the 106 volunteers who responded to the assessment survey, more than 90% felt they had developed personal and professional skills, 100% would recommend the activity to others, and 91.5% stated they felt more motivated to work following the initiative. Of the 142 teachers who evaluated the energy classes, 100% said they would like to repeat the activity and 99.3% felt that the students learned something new and that the topic was useful for the class.

In addition to Energy Week, EDP Spain has created a pilot project to train social organizations within the EDP Solidária programme, an initiative that will continue in 2019. Also worthy of note is the Energy Kit project of EDP Renováveis, which challenges employees throughout the year to go to their children's schools and talk about energy, as well as two projects from EDP Brazil - EDP in Schools and Distribution now, which raises awareness on the safe use of energy in schools and local communities.

In order to assess current management practices, the Programme underwent a certification of its volunteer work promoted by the Portuguese Volunteer Work Confederation, in partnership with the Institute for Solidarity and University Cooperation (ISU) and with the support of the Portuguese Association for Quality (APQ), and was recognized as having achieved Excellence through the Seal of Quality in Join4Change Volunteer Work.

In order to strengthen the global positioning of EDP Volunteer Work and to make its management more efficient and digital, on 5 December, International Volunteer Work Day, a new platform was launched for all the volunteers of the EDP Group ([voluntariado.edp.com](http://voluntariado.edp.com)), where it is possible to disseminate active projects and manage enrolments, as well as for volunteers to suggest their actions. The platform externally outlined the new positioning and graphic identity of EDP Volunteer Work, which uses the slogan "I dare" to challenge employees to risk leaving their comfort zone and sharing their time.

In 2019, volunteer work will continue to be promoted by EDP taking into account the challenges of local communities, and in alignment with the EDP Group's social investment and people management strategy.

## **MANAGEMENT OF IMPACTS ON LOCAL COMMUNITIES**

As part of its activity, EDP generates environmental and socio-economic impacts as well as positive effects arising from its activity in the communities and the geographical areas in which it operates. In this sense, involvement with local communities is crucial for the company to ensure its success and "social license to operate", as well as the implementation of its policies and a positive presence on the ground.

During 2018, various initiatives were undertaken with local communities in EDP projects, fundamentally focused on social inclusion; stimulating the development of the local economy and improving the living conditions of the communities.

In the context of the socio-economic development of its communities, the EDP Rural project is noteworthy, carried out by EDP Renováveis in the surroundings of its wind farms in Brazil. This project supports rural producers, families and communities in the areas where EDP Renováveis operates, producing and marketing their products, to increase family income, organize production better and ensure a diversified and safe supply.

The initial phase of the project had very positive results, contributing to a 58% increase in community income and to the implementation of 20 agro-ecological production units. Of the participants, 53% were women, a significant number that will contribute to women's empowerment efforts in the community. The programme has caused major changes in the lives of local families, who now enjoy a more varied and healthy diet and greater direct and indirect income, better expectations of quality of life, increased self-esteem and enthusiasm to plan for a better future.

In the construction of its new developments, EDP seeks to avoid the need to resettle affected communities. In 2018, approximately 22 km of new distribution lines were created by EDP Espírito Santo, in Brazil, which affected 53 properties, all of which were compensated, and there was no need to rehouse families. Also, in Brazil, in São Paulo, seven new loan projects were carried out in the community, for the cultivation of vegetables, in the surroundings of the easement strips of some distribution lines, such as Mogi das Cruzes, Poá, Itaquaquecetuba and São José dos Campos. This initiative promotes the environmental preservation of these areas, avoiding the deposit of waste, while promoting local commerce allowing the community to sell its crops.



Also, in Brazil, works on the construction of a hospital and a recreation area were started, involving an investment of 12 million Reais (2.8 million Euros), within the scope of the compensatory measures for the Cachoeira Caldeirão Hydroelectric Power Station. At the São Manoel Hydroelectric Power Station, more than 6 million Reais (1.4 million Euros) were invested in the construction of various social facilities. Finally, of note at the Pecém Hydroelectric Power Station was the investment of 5 million Reais (1.2 million Euros) in the use of coal ash, resulting from the energy production process, in the construction of a local access road. This project was developed in partnership with the Federal University of Ceará.

## INDIGENOUS COMMUNITIES

The EDP activities most exposed to possible impacts on indigenous communities are those related to the construction of infrastructures that can have an impact on the placement of indigenous populations. In order to manage their impacts, but also to enhance their positive effects, EDP develops territorial and socio-economic enhancement programmes for these communities, acting in accordance with the laws and norms for the protection of indigenous rights, respecting all programmes, projects and commitments.

This subject is of particular importance in Brazil, where the São Manoel Hydroelectric Power Station was built, which, in its indirect area of influence, includes the territories of the Kayabi, Munduruku and Apiaká ethnic groups. When the environmental license was issued by IBAMA, it was agreed to develop an indigenous component in the Basic Environmental

Plan for the development (PBAI). Responding to the specific needs of each ethnic group, EDP developed a plan for each of them, since they are each organized in their own way, with their own language, politics, values and legal code.

Each plan has 17 programmes, subdivided into actions approved by the National Foundation for the Indian (Funai) before the beginning of the construction works for the development. Management Councils were created to implement the programmes, with representatives from EDP Brasil, Funai and each of the indigenous peoples involved.

In order to strengthen the communication and information of these communities during the construction and operation phases of the development, the Indigenous Media and Interaction Programme was developed, which includes direct communication channels with the population. The most important initiatives include the following: communication workshops; seminars on the results of the programmes; dedicated service lines (telephone and email); radio station; visits to the communities and construction of a communication plan that meets the needs of the Kayabi, Munduruku and Apiaká peoples.

In 2018, as part of this Plan, which began in 2017, and under the Program for Strengthening Indigenous Organizations, ten additional scholarships for indigenous students from the three ethnic groups were approved, to be added to the 17 scholarship programmes already underway. Of note also is the construction of a school with six classrooms and a sports field in the Kayabi ethnic group village Kururuzinho.



## **ASKEDP.SUPPLIER**

### **NEW APPLICATION FOR SUPPLIERS RESPONDS IMMEDIATELY AND AT ANY TIME**

Pilot project for the creation of a chatbot that allows suppliers to access information regarding payment of their invoices, 24 hours a day, 7 days a week. Faster and easier!

On a recurring basis, EDP Valor's contact centre was the most widely used method by EDP Group suppliers to obtain information for forecasting payment of invoices issued to EDP, information accessible in the system through a simple SAP query but involving the allocation of human resources, with negative consequences on operation and efficiency. A development plan was developed through collaboration between EDP Valor and EDP Inovação, where solutions to automate processes (developed by a specialist area within EDP Valor) and cooperation with the Accounts Payable Department of the GPU were implemented.

The substitution of human action for automation was achieved through the use of chatbot technology where, through the Skype communication tool, the supplier can ask a question about the date of payment of the amount invoiced to EDP. In this way, the process has become more efficient leading to greater satisfaction on the part of stakeholders.

This solution therefore enables human resources to be freed up for activities with higher added value, reducing on the one hand the response time and, on the other, increasing the number of responses per unit of time. In the future, it is intended to extend the applicability of this favoured solution to other areas of activity, contributing to the efficiency of various processes.

## COMMUNICATION AND TRANSPARENCY IN THE RELATIONSHIP WITH ITS STAKEHOLDERS

In a context of continuous deepening of the EDP Group's relationship with its stakeholders, EDP has once again carried out an external consultation process using an extended number of stakeholders. Direct face-to-face consultation with key stakeholders is the second step of the four major procedures, which form part of the stakeholder management methodology of the EDP Group, which is implemented in all its operations and geographical areas.

For EDP, listening to its stakeholders in a structured and regular way is a unique opportunity to get to know in more depth which themes they consider critical in their relationship with the various business units of the Group, and which expectations feed into the performance of the company regarding these same themes. This work allows EDP to verify that the implementation of its business plan is in line with what its stakeholders expect from the company, and to adapt this whenever this is justified in accordance with the feedback gathered.

As a way of maintaining a comparison of the assessment of EDP stakeholders over the years, in the process of listening in 2018, EDP kept the assessment of critical areas such as the relationship with the EDP Group or the perception of transparency and trust in EDP. Also compared to previous years was the stakeholder view on EDP's intervention in the area of social responsibility, with a growing concern about EDP's involvement in adding to the Group's action themes such as combating fuel poverty and social inclusion.

There were also new issues addressed in this sounding out which merited more extensive attention by the stakeholders. These have shown great openness in contributing with their vision on the new long-term trends of the sector such as electric mobility, agents that will lead the long-term energy transition and potentially disruptive decentralized solutions. These are valuable contributions that help EDP shape its own thinking on these issues.

Because EDP is perfectly clear of the need to maintain an open and transparent relationship with its stakeholders, the main results of this consultation process were published in the third edition of the Stakeholders' Report of the EDP Group, a publication dedicated singularly and exclusively to the performance of the EDP Group regarding the involvement of its stakeholders.

The external sounding out made it possible to understand that today there is a greater depth and institutionalization of the EDP Group's relations with its stakeholders. The existence of structured relations with the different EDP stakeholders is already taken for granted. There is now an ever-greater demand concerning these relations which translates into a challenge that can only be dealt with in a positive manner by EDP. The Group looks forward to an openness of relationship and transparency in the communication of its activity as essential factors of an exemplary relationship with all its stakeholders. EDP is committed to continuing to be a leader in involving its stakeholders not only in its business activity, but also in its actions in the social and environmental field. Further proof of this leadership commitment was given by it attaining the top score in 2018 in the area of Stakeholder Engagement in the Dow Jones Sustainability Index for the second consecutive year.

## EDPR INVITES COMMUNITY MEMBERS TO VISIT ITS WIND FARMS

EDPR organizes wind farm visits in order to educate future generations and local communities about the importance of renewable energy.

In June, two groups of students from France visited EDPR's wind farm in Escardes. In the morning, local students took part in a scavenger hunt and saw a presentation on wind energy. Later in the day, a group from Provins took a tour of Escardes. The tour aimed to explain the wind farm's goals and operations, even giving visitors the unique opportunity to look inside one turbine.

Also, in June, twenty five students from a school in Castejón visited EDPR's Borja wind farm in Zaragoza, Spain. The students enjoyed an educational day spent outdoors with their teachers and EDPR's regional manager, who explained the benefits of wind energy, the history of the wind farm and how wind power is generated. He also showed them the park's installations, substation, and the turbines themselves.

In July, local high school students from Poland took a guided tour of a wind turbine at the Tomaszów Lubelski wind farm, and visited its main station in Ruda Wołoska. Representatives of EDPR also gave a special presentation on the creation of wind farms in the community, which highlighted the importance of renewable energy in Poland. Afterward, each visitor received a souvenir from EDPR to commemorate the day.

Top Crop wind farm in Illinois, USA, also opened its doors to approximately fifteen landowners from Broadlands wind farm for an educational tour in July. The landowners toured the site to learn about wind energy and wind farm operations. Many of the landowners were excited to see a wind farm up close and personal before their own Broadlands wind farm is constructed.

The team at Arbuckle Mountain wind farm in Oklahoma, also hosted a tour for a group of law students from East Central University based in Ada, Oklahoma, in September.

The experience of visiting a wind farm clarifies people about the relationship between the community and the wind farm, as well as the several benefits provided to the surrounding areas.

## 3.5

# PERFORMANCE INDICATORS

BUSINESS SUSTAINABILITY	UN	2018	2017	2016	2015
<b>Economic Value Generated</b>	<b>000€</b>	<b>16,307,865</b>	<b>17,234,143</b>	<b>15,899,739</b>	<b>17,277,905</b>
Turnover	000€	15,278,085	15,745,987	14,595,164	15,516,799
Other income	000€	1,029,780	1,488,156	1,304,575	1,761,106
<b>Economic Value Distributed</b>	<b>000€</b>	<b>14,470,560</b>	<b>14,910,471</b>	<b>14,550,903</b>	<b>14,242,365</b>
Employees	000€	651,540	680,833	660,616	652,979
Suppliers	000€	11,135,864	11,345,442	9,805,006	10,062,093
Shareholders	000€	690,924	690,924	672,588	672,588
Financial sector	000€	1,010,390	1,248,089	1,790,803	1,768,737
Community	000€	27,805	28,403	26,811	27,412
State	000€	822,140	783,940	1,386,814	858,117
Other	000€	131,897	132,839	208,265	200,439
Economic Value Accumulated <sup>1</sup>	000€	1,837,305	2,323,672	1,348,836	3,035,540
Gross value added per employee	000€/ #	341	402	370	409
CAPEX	000€	2,031,167	1,725,487	1,963,702	1,787,867
EBITDA	000€	3,317,129	3,989,949	3,759,307	3,923,958
Net Debt/EBITDA	x	4.06	3.48	4.24	4.43
Regulated EBITDA vs. LT Contracted	%	77	84	86	91
Opex/Gross Margin	%	30	29	27	28
Net profit attributable to EDP shareholders	000€	519,189	1,113,169	960,561	912,703

<sup>1</sup> Includes retention of results and non-payable costs

PROMOTION OF RENEWABLE ENERGIES	UN	2018	2017	2016	2015
<b>Total installed capacity</b>	<b>MW</b>	<b>26,996</b>	<b>26,597</b>	<b>25,067</b>	<b>24,208</b>
<b>Renewable installed capacity</b>	<b>%</b>	<b>74.4</b>	<b>73.6</b>	<b>72.0</b>	<b>70.0</b>
<b>Renewable installed capacity</b>	<b>MW</b>	<b>20,093</b>	<b>19,695</b>	<b>18,158</b>	<b>17,059</b>
Wind	MW	11,156	10,531	9,969	9,199
Hydro	MW	8,728	8,870	7,946	7,614
Mini-Hydro	MW	65	148	160	164
Solar	MW	145	145	82	82
<b>Non-renewable installed capacity</b>	<b>MW</b>	<b>6,902</b>	<b>6,902</b>	<b>6,910</b>	<b>7,149</b>
CCGT	MW	3,729	3,729	3,736	3,736
Coal	MW	3,124	3,124	3,124	3,364
Cogeneration and Waste	MW	49	49	49	49
<b>Total net generation <sup>1</sup></b>	<b>GWh</b>	<b>71,614</b>	<b>69,628</b>	<b>69,634</b>	<b>63,356</b>
<b>Generation from renewable sources</b>	<b>%</b>	<b>66.5</b>	<b>56.1</b>	<b>65.5</b>	<b>58.2</b>
<b>Generation from renewable sources</b>	<b>GWh</b>	<b>47,655</b>	<b>39,045</b>	<b>45,611</b>	<b>36,875</b>
Wind	GWh	28,133	27,466	24,334	21,237
Hydro	GWh	18,899	11,186	20,589	15,138
Mini-Hydro	GWh	397	238	549	349
Solar	GWh	226	155	139	151
<b>Generation from non-renewable sources</b>	<b>GWh</b>	<b>23,958</b>	<b>30,583</b>	<b>24,023</b>	<b>26,481</b>
CCGT	GWh	5,332	8,892	6,103	4,537
Coal	GWh	17,471	21,444	17,665	21,630
Cogeneration, Waste and Heat	GWh	1,155	1,109	1,117	1,184
Capacity under construction	MW	344	828	1,267	344
Avoided CO <sub>2</sub> emissions	ktCO <sub>2</sub>	29,221	26,799	32,724	28,732

<sup>1</sup> The total net generation includes steam.

INNOVATION AND RESEARCH	UN	2018	2017	2016	2015
Investment in RDI <sup>1</sup>	000€	75,366	64,518	36,145	35,845
Investment in RDI/Turnover	%	0.49	0.41	0.25	0.23
Number of employees in RDI	#	99	105	102	68

<sup>1</sup> In 2017, the calculation process of this indicator was changed.

DIGITAL TRANSFORMATION	UN	2018	2017	2016	2015
<b>Number of meetings per videoconference</b>					
Number of meetings	#	401	348	279	n/av
Use of the videoconference service <sup>1</sup>	h/year	115,130	94,116	51,744	n/av
<b>Robotization</b>					
Number of robotised activities	#	546	196	n/av	n/av
Robotised hours/year	h/year	442,643	220,477	n/av	n/av
<b>Smart meters</b>					
	#	<b>2,598,423</b>	<b>1,900,703</b>	<b>1,213,360</b>	<b>656,790</b>
Portugal	#	1,922,991	1,269,840	693,049	242,000
Spain	#	658,632	614,863	506,411	400,890
Brazil	#	16,800	16,000	13,900	13,900
Customers with Re:dy	#	12,329	9,973	5,903	2,146

<sup>1</sup> The number of hours per year of the videoconference service use in 2016 corresponds only to Portugal and Spain, not available for the other geographies.

<sup>2</sup> Amounts presented in accumulated.

NEW ENERGY SERVICES	UN	2018	2017	2016	2015
Energy efficiency services revenues	000€	151,468	134,114	92,975	79,877

SUSTAINABLE MOBILITY	UN	2018	2017	2016	2015
Fleet electrification	%	7.5	5.6	n/av	n/av
Fleet Electric vehicles	#	278	207	n/av	n/av
Electric charging points	#	385	n/av	n/av	n/av
Customers with electric mobility solutions	#	5,546	n/av	n/av	n/av

PEOPLE MANAGEMENT	UN	2018	2017	2016	2015
<b>Employees</b>					
	#	<b>11,631</b>	<b>11,657</b>	<b>11,992</b>	<b>12,084</b>
Female	%	25	24	24	23
Male	%	75	76	76	77
<b>Employees distribution by professional category</b>					
<b>EBD</b>	#	<b>9</b>	<b>8</b>	<b>8</b>	<b>8</b>
Female	#	2	0	0	0
Male	#	7	8	8	8
<b>Senior Management</b>	#	<b>709</b>	<b>750</b>	<b>733</b>	<b>700</b>
Female	#	154	166	155	145
Male	#	555	584	578	555
<b>Supervisors</b>	#	<b>754</b>	<b>766</b>	<b>806</b>	<b>782</b>
Female	#	207	208	223	195
Male	#	547	558	583	587
<b>Specialists</b>	#	<b>4,369</b>	<b>4,093</b>	<b>3,996</b>	<b>3,896</b>
Female	#	1,552	1,423	1,351	1,285
Male	#	2,817	2,670	2,645	2,611
<b>Technicians</b>	#	<b>5,790</b>	<b>6,041</b>	<b>6,450</b>	<b>6,698</b>
Female	#	951	1,010	1,100	1,166
Male	#	4,839	5,031	5,350	5,532
<b>Employees distribution by age group</b>					
<b>≥ 50</b>	#	<b>3,919</b>	<b>4,477</b>	<b>4,910</b>	<b>5,171</b>
Female	#	757	835	907	945
Male	#	3,162	3,642	4,004	4,226
<b>[30-50[</b>	#	<b>5,949</b>	<b>5,632</b>	<b>5,601</b>	<b>5,423</b>
Female	#	1,624	1,529	1,527	1,463
Male	#	4,325	4,103	4,075	3,960
<b>&lt; 30</b>	#	<b>1,763</b>	<b>1,549</b>	<b>1,481</b>	<b>1,490</b>
Female	#	485	444	396	383
Male	#	1,278	1,105	1,085	1,107

PEOPLE MANAGEMENT	UN	2018	2017	2016	2015
<b>Employees distribution by geography</b>					
Portugal	%	52	54	54	55
Spain	%	15	14	16	15
Brazil	%	26	25	25	25
North America	%	5	4	3	3
Rest of the world	%	2	2	2	2
<b>Eligible employees for retirement</b>					
<b>EBD</b>					
1 to 5 years	#	1	1	1	0
5 to 10 years	#	5	4	4	4
<b>Senior Management</b>					
1 to 5 years	#	109	135	149	155
5 to 10 years	#	268	208	222	235
<b>Supervisors</b>					
1 to 5 years	#	47	79	106	103
5 to 10 years	#	221	137	174	187
<b>Specialists</b>					
1 to 5 years	#	354	414	409	375
5 to 10 years	#	1,475	675	703	699
<b>Technicians</b>					
1 to 5 years	#	1,511	1,923	1,999	1,964
5 to 10 years	#	2,341	2,617	2,947	3,200
<b>Ratio EDP minimum wage/National minimum wage</b>					
Portugal	x	1.45	1.49	1.54	1.60
Spain	x	1.28	1.30	1.40	1.42
Brazil	x	1.41	1.43	1.49	1.58
USA	x	2.48	2.47	2.34	2.24
<b>Reasons for leaving/geography</b>					
End of fixed-term contracts	%	3	3	3	3
Terminated by mutual agreement	%	5	4	3	6
Terminated by employee	%	19	14	17	18
Dismissals	%	19	22	28	25
Early retirements	%	42	27	31	29
Age/invalidity retirement	%	8	6	10	10
Other reasons for leaving	%	5	25	8	10
<b>Salary ratio F/M by professional category</b>					
<b>Technicians</b>					
Portugal	x	1.19	1.16	1.13	1.13
Spain	x	0.77	0.77	0.81	0.80
Brazil	x	0.97	0.97	0.99	1.00
USA	x	1.07	1.08	1.09	1.10
Rest of the world	x	1.01	1.32	1.04	0.93
<b>Specialists</b>					
Portugal	x	0.92	0.90	0.91	0.93
Spain	x	0.94	0.91	0.90	0.89
Brazil	x	0.78	0.81	0.78	0.80
USA	x	0.92	0.93	0.93	0.96
Rest of the world	x	0.90	0.88	0.89	0.96
<b>Supervisors</b>					
Portugal	x	1.01	0.98	0.96	0.97
Spain	x	0.85	0.85	0.88	0.86
Brazil	x	0.99	0.94	1.09	1.00
USA	x	0.95	1.02	1.01	1.11
Rest of the world	x	0.83	1.44	0.78	0.70
<b>Senior Management</b>					
Portugal	x	0.93	0.92	0.90	0.90
Spain	x	0.82	0.86	0.87	0.82
Brazil	x	0.92	0.86	0.79	0.81
USA	x	1.04	1.02	1.03	1.03
Rest of the world	x	0.61	0.58	0.73	0.78

PEOPLE MANAGEMENT	UN	2018	2017	2016	2015
<b>Employees satisfaction</b>					
<b>Engagement</b>	%	<b>72</b>	<b>75</b>	<b>74</b>	<b>75</b>
Female	%	n/av	75	74	75
Male	%	n/av	75	74	75
<b>Enablement</b>	%	<b>70</b>	<b>70</b>	<b>70</b>	<b>70</b>
Female	%	n/av	68	67	71
Male	%	n/av	71	70	67
<b>Turnover</b>	%	<b>10.32</b>	<b>9.04</b>	<b>6.38</b>	<b>6.32</b>
Male	%	10.67	8.56	6.18	6.13
Female	%	9.25	10.56	7.03	6.96
<30 years	%	8.00	22.21	17.23	17.87
[30-50 years[	%	4.96	6.80	4.61	5.28
≥50 years	%	19.49	7.48	5.12	4.20
Voluntary employee turnover	%	1.98	1.44	1.16	1.13
HC ROI	%	6.35	6.46	7.25	6.94
Training investment per employee	€/p	348	372	496	485
Training amount	h	398,394	473,078	389,883	443,105
Return on Employee Development Investment	€/p	34	31	36	34

HEALTH AND SAFETY	UN	2018	2017	2016	2015
<b>Employees</b>					
Accidents at work <sup>1</sup>	#	29	28	30	49
Fatalities	#	2	0	0	1
Frequency rate <sup>2</sup>	Tf	1.36	1.33	1.37	2.27
Severity rate <sup>3</sup>	Tg	110	122	91	106
<b>Contractors</b>					
Accidents at work <sup>1</sup>	#	106	100	155	138
Fatalities	#	5	4	3	4
Frequency rate <sup>2</sup>	Tf	2.50	2.38	3.84	4.00
Severity rate <sup>3</sup>	Tg	116	136	217	237

<sup>1</sup> Accidents at the workplace in worktime and accidents on the way to or from work, with an absence of one more calendar days and fatal accidents.

<sup>2</sup> Work accidents by a million worked hours.

<sup>3</sup> Number of calendar days lost due to work accident by a million worked hours.

ENVIRONMENTAL PROTECTION	UN	2018	2017	2016	2015
<b>ISO 14001 CERTIFICATION</b>					
ISO 14001 certification <sup>1</sup>	%	96	88	91	89
<b>PREVENTION OF POLLUTION</b>					
<b>Total NO<sub>x</sub> emissions</b>					
Portugal	kt	4.6	6.1	5.2	5.9
Spain	kt	5.7	6.0	5.9	14.6
Brazil	kt	3.9	4.9	5.2	4.0
<b>Total SO<sub>2</sub> emissions</b>					
Portugal	kt	3.8	4.3	3.5	4.9
Spain	kt	6.0	8.2	6.5	13.6
Brazil	kt	11.4	17.2	9.9	5.8
<b>Total particulate matter emissions</b>					
Portugal	kt	0.09	0.04	0.04	0.02
Spain	kt	0.24	0.56	0.61	0.94
Brazil	kt	1.72	0.89	0.52	0.45

ENVIRONMENTAL PROTECTION	UN	2018	2017	2016	2015
<b>WASTEWATER</b>					
Discharge into sea	10 <sup>3</sup> x m <sup>3</sup>	1,510,986	1,723,329	1,481,107	1,694,911
Discharge into inland and estuary water	10 <sup>3</sup> x m <sup>3</sup>	6,964	9,014	4,502	14,471
<b>WASTE MATERIALS</b>					
Specific production of waste materials	t/GWh	12.04	16.89	15.52	17.59
<b>NATURAL RESOURCES</b>					
Specific fresh water consumption	10m <sup>3</sup> /GWh	304	392	385	695
<b>Fuel</b>					
Coal	TJ	165,982	204,044	169,582	209,191
Natural gas	TJ	40,425	57,013	39,160	28,810
Diesel	TJ	202	182	230	183
Fuel oil	TJ	297	183	373	272
Waste gas	TJ	14,509	15,016	10,994	13,634
<b>Chemicals consumption</b>					
Sodium hydroxide	t	178	1,682	1,561	1,864
Hydrochloric acid	t	1,247	3,225	2,734	2,245
Sodium hypochlorite	t	3,673	3,006	4,268	2,820
Ammonia	t	16,562	22,821	23,259	23,058
Calcareous	t	71,807	77,299	58,096	126,327
Acquired oils	t	138	90	120	341
<b>Environmental fines</b>	<b>000€</b>	<b>3</b>	<b>19</b>	<b>29</b>	<b>35</b>

<sup>1</sup> Aggregated certification indicator due to assets with potential environmental impacts.

CLIMATE CHANGE	UN	2018	2017	2016	2015
<b>HYDROPOWER INDEX</b>					
Portugal	#	1.05	0.47	1.33	0.74
Spain	#	1.28	0.52	1.10	0.82
<b>EMISSIONS</b>					
<b>Specific CO<sub>2</sub> emissions<sup>1</sup></b>					
Global	g/kWh	257	332	271	340
Thermal	g/kWh	768	756	787	813
<b>CO<sub>2</sub> equivalent emissions</b>					
<b>SCOPE 1</b>					
Stationary combustion	ktCO <sub>2eq</sub>	18,429	23,159	18,931	21,550
SF <sub>6</sub> Emissions	ktCO <sub>2eq</sub>	10	10	8	8
Company fleet	ktCO <sub>2eq</sub>	15	20	18	18
Natural gas consumption	ktCO <sub>2eq</sub>	0.19	0.22	0.48	0.46
Natural gas losses	ktCO <sub>2eq</sub>	0	0	5	6
<b>SCOPE 2 (Location-based<sup>2</sup>)<sup>4</sup></b>					
Electricity consumption in office buildings	ktCO <sub>2eq</sub>	2	2	0	2
Electricity losses in distribution	ktCO <sub>2eq</sub>	577	795	540	957
Renewable plants self-consumption	ktCO <sub>2eq</sub>	23	21	7	23
<b>SCOPE 2 (Market-based<sup>3</sup>)<sup>4</sup></b>					
Electricity consumption in office buildings	ktCO <sub>2eq</sub>	0	0	0	2
Electricity losses in distribution	ktCO <sub>2eq</sub>	577	795	540	957
Renewable plants self-consumption	ktCO <sub>2eq</sub>	8	7	7	23
<b>SCOPE 3</b>					
Purchased goods and services (C01)	ktCO <sub>2eq</sub>	11,334	13,039	12,469	14,623
Capital Goods (C02)	ktCO <sub>2eq</sub>	49	54	55	53
Fuel and energy related activities (C03)	ktCO <sub>2eq</sub>	330	324	287	251
Upstream transportation and distribution (C04)	ktCO <sub>2eq</sub>	6,399	8,344	7,091	7,636
Business Travels (C06)	ktCO <sub>2eq</sub>	675	454	304	385
Use of sold products (C11)	ktCO <sub>2eq</sub>	10	11	11	9
	ktCO <sub>2eq</sub>	3,871	3,852	4,722	6,288
<b>SF<sub>6</sub></b>					
	<b>kg</b>	<b>440</b>	<b>422</b>	<b>331</b>	<b>328</b>
Portugal	kg	246	307	213	194
Spain	kg	100	59	40	61
Brazil	kg	92	55	77	63
North America	kg	0	0	0	5
Rest of the world	kg	3	0	1	5

<sup>1</sup> The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plant in Spain. Includes only stationary emissions.

<sup>2</sup> Based on global emission factors of each geography.

<sup>3</sup> Based in the suppliers' emission factors.

<sup>4</sup> Calculation methodology of Scope 2 was revised to avoid emissions duplication with scope 1.

ENERGY EFFICIENCY	UN	2018	2017	2016	2015
<b>INTERNAL ENERGY EFFICIENCY</b>					
<b>Thermal efficiency</b>	%	<b>45.1</b>	<b>45.6</b>	<b>45.1</b>	<b>44.0</b>
Coal plants	%	35.1	35.6	35.7	35.1
Natural gas combined cycle plant	%	53.1	53.5	52.5	51.5
Energy intensity	MJ/€	15.4	17.6	15.1	16.3
<b>Electricity Distribution grid losses</b>					
Technical losses	%	5.4	5.6	5.7	5.7
Total losses	%	8.8	9.2	9.2	9.4
<b>EXTERNAL ENERGY EFFICIENCY</b>					
Savings in energy efficiency services <sup>1</sup>	GWh	951	504	267	117
CO <sub>2</sub> avoided emissions in the final customer <sup>1</sup>	ktCO <sub>2</sub>	406	230	122	43
Energy consumed outside the organization <sup>2</sup>	TJ	304,391	309,233	324,286	342,719

<sup>1</sup> Reviewed and harmonized methodology for all geographies, applied since 2015. Excludes Consumption Efficiency Promotion Plan (PPEC) projects. The 2016 and 2017 values have been revised for consistency with the harmonised savings calculation method.

<sup>2</sup> Consider only the category "Use of sold products" of GHG Protocol Corporate Value Chain (Scope 3).

CORPORATE GOVERNANCE	UN	2018	2017	2016	2015
<b>Number of members</b>					
EBD	#	9	8	8	8
GSB <sup>1</sup>	#	20	21	21	21
<b>Number of independent members</b>					
GSB <sup>1</sup>	#	10	11	11	11
<b>Number of women</b>					
EBD	#	2	0	0	0
GSB	#	4	2	2	2

<sup>1</sup> António Manuel de Carvalho Ferreira Vitorino, appointed on the Annual Shareholders' General Meeting of 5 April 2018, resigned on 27 July 2018.

ETHICS AND HUMAN RIGHTS	UN	2018	2017	2016	2015
<b>ETHICS</b>					
<b>CLAIMS</b>					
Total claims <sup>1</sup>	#	465	426	406	317
<b>Claims before the Ethics Committee <sup>2</sup></b>	#	<b>125</b>	<b>141</b>	<b>52</b>	<b>54</b>
Complaints classification by authorship					
Client	#	17	21	12	15
Citizen	#	8	10	5	0
Employee	#	29	26	11	18
Supplier	#	4	10	4	1
Anonymous	#	67	74	20	20
Complaints classification by category					
Fairness of solutions	#	1	1	5	2
Neglect or disrespect	#	93	77	7	26
Transparency	#	7	41	10	3
Use of information or assets	#	10	11	29	21
Environment and responsibility towards society	#	1	1	0	0
Fraud, corruption and bribery	#	13	10	1	2
Actions determined by the Ethics Committee					
Revisions/improvements of procedures	#	16	26	15	25
Compensation of damages	#	3	0	5	9
Disciplinary action	#	8	3	4	3
Training	#	4	4	10	1
Other	#	9	18	10	9
<b>INFORMATION SECURITY / CYBERSECURITY</b>					
Information security incidents <sup>3</sup>	#	1,260	1,624	686	150
Fines for violation of privacy and loss of customers' data	#	5	4	6	7
Fines for violation of privacy and loss of customers' data	000€	48	110	50	266
<b>TRANSPARENCY IN INSTITUTIONAL RELATIONS</b>					
Costs related to lobbying	000€	3,875	3,845	3,550	3,413
<b>HUMAN RIGHTS</b>					
Human Rights Policy	s/n	s	s	s	s
Human Rights due diligence process	s/n	s	s	s	s

<sup>1</sup> Entries registered in the complaint channels Ethics of EDP Group.

<sup>2</sup> The other claims were quickly and efficiently processed with the Business Units involved.

<sup>3</sup> The evolution is explained by the greater robustness in the detection capacity of this indicator and the larger number of cyberattacks.

COMMUNICATION AND TRANSPARENCY	UN	2018	2017	2016	2015
Current tax	000€	245,613	178,419	824,342	280,024
Support from public authorities	000€	47,958	42,118	51,246	82,157

SATISFACTION AND CUSTOMER SERVICE	UN	2017	2016	2015	2014
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#### NUMBER OF CUSTOMERS

<b>Electricity</b>	#	<b>9,849</b>	<b>9,886</b>	<b>9,806</b>	<b>9,712</b>
Regulated market	#	4,797	4,818	4,941	5,224
Liberalised market	#	5,052	5,068	4,865	4,488
<b>Gas</b>	#	<b>1,595</b>	<b>1,585</b>	<b>1,498</b>	<b>1,405</b>
Regulated market	#	92	96	106	122
Liberalised market	#	1,503	1,489	1,392	1,283

#### CUSTOMERS SATISFACTION <sup>1</sup>

<b>Overall customers satisfaction</b>	%	<b>78.2</b>	<b>75.7</b>	<b>76.5</b>	<b>76.5</b>
Portugal	%	77.8	76.5	76.6	77.4
Spain	%	77.5	75.8	73.1	64.0
Brazil	%	80.2	73.8	78.2	79.3

#### CUSTOMERS BY TYPE OF USE <sup>2</sup>

<b>Electricity customers</b>					
Domestic	%	87	87	87	87
Industrial	%	1	1	1	3
Commercial	%	8	8	7	2
Agriculture	%	3	2	3	3
Other	%	1	1	2	6

#### Gas customers

Domestic	%	97	97	97	98
Industrial	%	0	0	0	0
Commercial	%	1	1	1	1
Agriculture	%	0	0	0	0
Other	%	1	1	2	1

#### CUSTOMER OMBUDSMAN

<b>Ombudsman's answer orientation <sup>3</sup></b>					
Concordant	%	45	38	38	43
Discordant	%	23	7	4	16
Partial concordant	%	9	25	23	5
Resolved issues	%	23	31	35	36

#### SERVICE QUALITY

<b>Portugal</b>					
Installed Capacity Equivalent Interruption Time <sup>4</sup>	Min	61	53	50	54

<b>Spain</b>					
Installed Capacity Equivalent Interruption Time <sup>4</sup>	Min	17	20	24	34

#### Brazil

<b>Average Interruption Duration per Consumer</b>					
Bandeirante	Horas	7.75	7.87	8.47	7.92
Escelsa	Horas	8.24	8.42	8.80	8.83
<b>Frequency of Interruptions per Consumer</b>					
Bandeirante	#	4.83	4.96	5.42	4.81
Escelsa	#	4.76	5.20	5.40	4.94

#### SERVICE RECONNECTION

##### Electricity Supply Reconnection After Payment of Debt by Customer

<b>Portugal <sup>5</sup></b>	#	<b>265,268</b>	<b>237,312</b>	<b>244,949</b>	<b>290,727</b>
< 4h (urgent)	#	32,105	17,834	12,469	14,090
< 8h (other clients)	#	1,041	1,089	1,431	1,236
< 12h (clients NLV)	#	232,122	218,389	231,049	275,401
<b>Spain <sup>6</sup></b>	#	<b>5,771</b>	<b>12,553</b>	<b>12,009</b>	<b>13,147</b>
< 24 hours	#	2,561	11,297	8,432	8,828
< 48 hours	#	1,346	999	679	854
between 48 hours and 1 week	#	1,034	239	1,099	1,346
> 1 week	#	830	18	1,799	2,119
<b>Brazil</b>	#	<b>539,318</b>	<b>551,875</b>	<b>473,362</b>	<b>283,973</b>
< 24h	#	490,670	471,847	427,047	232,812
< 1 week	#	45,628	75,431	43,167	42,114
> 1 week	#	3,020	4,597	3,148	9,047

SATISFACTION AND CUSTOMER SERVICE		UN	2017	2016	2015	2014
<b>E-Voicing</b>						
Portugal	%		44	34	29	23
Spain	%		38	35	33	27
Brazil	%		38	15	8	1
Fines paid for failure in supply and use of products and services	000€		4,140	3,486	3,690	4,171

<sup>1</sup> In 2018, the customer satisfaction measurement was revised to include satisfaction surveys and Voice of Customer (VoC) at the Iberian level.

<sup>2</sup> In 2014 this indicator was not divided in electricity and gas; <sup>3</sup> Does not include gas in Portugal; <sup>4</sup> ICEIT in MV grid, excluding extraordinary effects.

<sup>5</sup> The values include service reconnection within the deadlines set by the regulator, representing 99% of the total reconnections.

<sup>6</sup> The time periods considered concern the time elapsed between the power cut due to the customer's lack of payment and its reconnection.

VULNERABLE CUSTOMERS		UN	2018	2017	2016	2015
<b>Customers with social tariff</b>		#	<b>813,614</b>	<b>895,800</b>	<b>887,158</b>	<b>n/av</b>
<b>Electricity</b>		#	<b>797,614</b>	<b>879,941</b>	<b>871,019</b>	<b>326,108</b>
Portugal	#	615,183	661,103	662,829	93,451	
Spain	#	38,560	56,961	59,011	60,041	
Brazil	#	143,871	161,877	149,179	172,616	
<b>Gas</b>		#	<b>16,000</b>	<b>15,859</b>	<b>16,139</b>	<b>n/av</b>
Portugal	#	16,000	15,859	16,139	n/av	
<b>Priority customers <sup>1</sup></b>		#	<b>5,355</b>	<b>954</b>	<b>1,003</b>	<b>1,034</b>
Portugal	#	4,661	554	519	545	
Spain	#	n/a	n/a	n/a	n/a	
Brazil	#	694	400	484	489	

<sup>1</sup> Customers whose survival depends on equipment or customers that provide fundamental security or health services to the community (in accordance with Article 103 of Electric and Natural Gas Quality of Service Regulation).

SUPPLIER MANAGEMENT		UN	2018	2017	2016	2015
<b>Suppliers Global Acquisitions</b>						
Suppliers	#	16,040	16,832	17,078	18,647	
Portugal	#	4,597	5,121	5,683	5,275	
Spain	#	1,966	2,102	2,567	2,641	
Brazil	#	4,821	4,934	4,705	4,263	
North America	#	527	890	668	3,456	
Rest of the world	#	4,129	4,212	4,025	3,545	
<b>Suppliers Global Acquisitions &gt; €150,000</b>						
Suppliers	#	1,485	1,165	2,260	2,010	
Portugal	#	446	658	732	687	
Spain	#	210	326	387	368	
Brazil	#	403	624	655	497	
North America	#	174	372	201	193	
Rest of the world	#	252	290	323	304	
<b>Suppliers Volume of Purchases</b>						
	M€	<b>3,143</b>	<b>3,312</b>	<b>3,235</b>	<b>2,832</b>	
Portugal	M€	795	826	924	989	
Spain	M€	225	229	278	243	
Brazil	M€	526	854	780	683	
North America	M€	785	1,081	862	637	
Rest of the world	M€	812	322	391	280	
<b>Local Suppliers Volume of Purchases</b>						
Suppliers	%	98	97	94	92	
Portugal	%	93	98	95	90	
Spain	%	100	100	90	86	
Brazil	%	99	98	90	88	
North America	%	100	94	99	100	
Rest of the world	%	100	100	97	99	
<b>Certified Critical Suppliers <sup>2</sup></b>						
ISO 14001	%	68	30	30	31	
OHSAS 18001	%	62	27	28	27	

SUPPLIER MANAGEMENT		UN	2018	2017	2016	2015
<b>Fuel supply<sup>3</sup></b>						
<b>Suppliers<sup>4</sup></b>	#	61	73	72	63	
Portugal	#	22	33	34	29	
Spain	#	32	34	30	37	
Brazil	#	7	6	11	5	
<b>Turnover</b>	M€	1,296	1,444	986	1,365	
Portugal	M€	490	521	370	427	
Spain	M€	641	756	479	808	
Brazil	M€	165	167	137	129	
<b>Local</b>	%	52	50	57	38	
Portugal	%	40	36	48	55	
Spain	%	72	68	74	36	
Brazil	%	11	12	22	0	
<b>Certified fuel suppliers<sup>2</sup></b>						
ISO 9001	%	82	77	83	n/av	
ISO 14001	%	82	78	82	n/av	
OHSAS 18001	%	81	78	78	n/av	
<b>Coal origin</b>						
Colombia	%	79	79	92	96	
USA	%	10	8	1	1	
South Africa	%	2	2	4	0	
Russia	%	9	11	1	2	
Spain	%	0	0	2	1	

<sup>1</sup> Renewables not included.

<sup>2</sup> Critical Suppliers exposed to environmental or health and safety risks.

<sup>3</sup> In the total number of Group EDP suppliers, the companies which have business in more than one geography are counted only once.

<sup>4</sup> Includes fuel purchases and associated services.

COMMUNITY INVOLVMENT AND DEVELOPMENT		UN	2018	2017	2016	2015
<b>INVESTMENT IN THE COMMUNITY<sup>1</sup></b>						
<b>Category</b>	000€	26,798	27,337	25,424	25,879	
Nonstrategic investment	000€	286	822	1,975	209	
Strategic investment	000€	24,443	25,855	21,990	23,556	
Commercial initiative	000€	2,069	660	1,459	2,114	
<b>Nature</b>	000€	26,798	27,337	25,424	25,879	
Education	000€	3,580	4,384	3,014	4,316	
Health	000€	1,565	1,519	1,745	1,814	
Economic development	000€	5,795	2,434	2,637	1,692	
Environment	000€	1,057	1,961	1,617	2,296	
Art and culture	000€	10,749	9,923	10,361	7,234	
Social welfare	000€	3,231	6,360	5,226	3,839	
Emergency response	000€	19	393	24	183	
Other	000€	802	363	800	4,505	
<b>Type</b>	000€	26,798	27,337	25,424	25,879	
Cash contributions	000€	24,283	24,376	23,194	23,289	
Kind contributions	000€	61	105	250	71	
Working time contributions	000€	2,454	2,856	1,980	2,519	
Management costs	000€	1,007	1,067	1,387	1,533	
Total value of contributions (including management costs)	000€	27,805	28,403	26,811	27,412	
Beneficiary entities	#	2,066	1,573	1,778	1,994	
<b>CORPORATE VOLUNTEERING<sup>2</sup></b>						
EDP Volunteers	#	2,469	2,294	2,371	2,593	
EDP time used in volunteering	h	19,375	24,932	15,835	17,534	
Beneficiary entities	#	642	417	407	338	

<sup>1</sup> Determined according to the LBG methodology. Not yet validated by Corporate Citizenship.

<sup>2</sup> Alignment of reporting criteria in the years 2015 to 2016.

**LISBON, MARCH 11, 2019**

**THE EXECUTIVE BOARD OF DIRECTORS**

António Luís Guerra Nunes Mexia

João Manuel Manso Neto

António Fernando Melo Martins da Costa

João Manuel Veríssimo Marques da Cruz

Miguel Stilwell de Andrade

Miguel Nuno Simões Nunes Ferreira Setas

Rui Manuel Rodrigues Lopes Teixeira

Maria Teresa Isabel Pereira

Vera de Morais Pinto Pereira Carneiro



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# 04 ANNEXES

## BIOGRAPHY OF CORPORATE ENTITIES

### GENERAL AND SUPERVISORY BOARD



**Full name**

**LUÍS FILIPE MARQUES AMADO**

**Status**

Independent

**Position**

General and Supervisory Board Chairman

**Committees**

Corporate Governance and Sustainability Committee Chairman | Financial Matters Committee/Audit Committee Chairman

**Skills and Experience**

Degree in Economics – Lisbon University (79) | Auditor – Court of Auditors | Auditor – National Defence Institute (89-90) | Deputy –National Assembly of Portugal (el. 91/95/99/05/09) | Deputy Secretary of State – Internal Administration Minister (95-97) | Secretary of State – Foreign Affairs and Cooperation Minister (97-02) | National Defence Minister (05-06) | State and Foreign Affairs Minister (06-11) | Non Executive Board Member - Sociedade de Desenvolvimento da Madeira (13-19) | Chairman of the Board of Directors - Banco Internacional do Funchal, S.A. (12-16) | Chairman of the General Meeting Board - Banco Cabo-Verdiano de Negócios, S.A. (13-14) | Chairman of the Board of Directors - Banco Cabo-Verdiano de Negócios, S.A. (15-17) | Non executive member of the Board of Directors - Francisco Manuel dos Santos Foundation (13-17)

**EDP's Historic**

General and Supervisory Board Vice Chairman (April 2015 - April 2018) | General and Supervisory Board Chairman (April 2018)

**Current External Appointments**

Curator - Oriente Foundation (12) | Curator - Francisco Manuel dos Santos Foundation (18) | Member of Global Advisory Board - SONAE (18) | Chairman of the General Meeting Board - Tabaqueira, S.A. (18) | Invited Professor - ISCSP (12) | Invited Professor - Paris School of International Affairs (16)



**Full name**

**DINGMING ZHANG**

**Status**

Non-independent

**Position**

General and Supervisory Board Vice Chairman

**Committees**

-

**Skills and Experience**

Bachelor's degree in Power System and Automation - Huazhong University of Science and Technology (84) | Master's degree in Management - Huazhong University of Science and Technology (01) | Deputy Director of Power Production Department - China Three Gorges Corporation (02) | Executive Vice President - China Yangtze Power Company (02-11) | Director - Guangzhou Development Industry

**EDP's Historic**

General and Supervisory Board Vice Chairman, in representation of China Three Gorges (February 2012 – April 2015) | General and Supervisory Board Member, in representation of CWEI (EUROPE), S.A. (April 2015 - April 2018) | General and Supervisory Board Member, in representation of China Three Gorges International Corporation (April 2018 - December 2018) | General and Supervisory Board Vice Chairman, in representation of China Three Gorges Corporation, since December 2018

**Current External Appointments**

President - Beijing Yangtze Power Capital (15)

**Full name**

SHENGLIANG WU

**Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Remuneration Committee Chairman | Strategy and Performance Committee Member

**Skills and Experience**

Bachelor's degree in Engineering –Wuhan University (92) | Master's degree in Technical Economics and Management – Chongqing University (00) | Secretary of Corporate Affairs Department - Gezhouba Hydropower Plant (98-00) | Deputy Director of the Board - China Yangtze Power Company (02-03) | Director of Capital Operating Department - China Yangtze Power Company (04-06) | Executive Vice-President - Beijing Yangtze Power Capital (06-11) | Deputy Director of Strategic Planning Department – China Three Gorges Corporation (11-15)

**EDP's Historic**

General and Supervisory Board Member, in representation of China Three Gorges International (Europe), S.A. (February 2012 – April de 2015) | General and Supervisory Board Member, in representation of China Three Gorges (Portugal), Sociedade Unipessoal, Lda. (April 2015 - April 2018) | General and Supervisory Board Member, in representation of China Three Gorges (Europe), S.A (April 2018 - December 2018) | General and Supervisory Board Vice-Chairman in representation of China Three Gorges International Corporation, since December 2018

**Current External Appointments**

Executive Vice-President – China Three Gorges International Corporation (15) | Chairman - China Three Gorges (Europe), S.A. (15)

**Full name**

IGNACIO HERRERO RUIZ

**Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member | Strategy and Performance Committee Member

**Skills and Experience**

Degree in Economics - Carlos III University (Madrid) (97) | Mergers and Acquisitions Department - Citigroup (97-98) | Mergers and Acquisitions Department - Deutsche Bank Investment (98- 03) | Mergers and Acquisitions Department - Credit Suisse (03-16)

**EDP's Historic**

General and Supervisory Board Member, in representation of China Three Gorges (Europe), S.A., since December 2018

**Current External Appointments**

Executive Vice-Chairman at China Three Gorges Corporation (Europe), S.A. (16)

**Full name**

YINSHENG LI

**Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member

**Skills and Experience**

Bachelor's degree in Science - Tsinghua University (96) | Master's degree in Engineering – Tsinghua University (04) | MBA – *Fundação Getúlio Vargas* (18) | Country Manager - China International Water & Electric Corporation (96-09) | Business Unit Deputy General Manager - China International Water & Electric Corporation (06) | Division Chief of International Department – China Three Gorges (09) | Deputy Director CTG/EDP Collaboration Department – China Three Gorges (12)

**EDP's Historic**

General and Supervisory Board Member, in representation of China Three Gorges Brasil Energia Ltda., since April 2018

**Current External Appointments**

Chief Executive Officer – China Three Gorges Brazil (13) | Executive Vice President - China Three Gorges International Corporation (16)

**Full name****EDUARDO DE ALMEIDA CATROGA****Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Strategy and Performance Committee Chairman

**Skills and Experience**

Degree in Finance – Instituto Superior de Economia e Gestão (66) | Program for Management Development Course - *Harvard Business School* (79) | Honorary Doctor – Lisbon University | Minister of Finance – Portuguese Government (93-95) | Invited Full Professor - MBA of Instituto Superior de Economia e Gestão | Director with executive and non-executive functions in particular as Chief Executive Officer and Chairman on several national and international companies in several fields namely chemical, agrochemical, major consumer products, energy and investment banking

**EDP's Historic**

Independent member of the General and Supervisory Board (June 2006 – February 2012) | Chairman and independent member of the General and Supervisory Board (February 2012 - April 2015) | Chairman and Member of the General and Supervisory Board, in representation of China Three Gorges Corporation (April 2015 – April 2018) | General and Supervisory Board Member, in representation of China Three Gorges (Portugal), Sociedade Unipessoal, Lda., since April 2018

**Current External Appointments**

Chairman (non-executive) of the Board of Directors – Finantipar, holding which control Finantia Bank (17) | Investment Committee Member - Portugal Venture Capital Initiative managed by the European Investment Fund (08)

**Full name****FELIPE FERNÁNDEZ FERNÁNDEZ****Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member

**Skills and Experience**

Degree in Administrative and Economic Sciences – Bilbao University (75) | Professor of Business and Economic Faculty – Oviedo University (84-90) | Director of Economics and Regional Planning - Principality of Asturias (84-90) | Counsellor of Organisation of the Territory and Housing – Principality of Asturias (90-91) | Counsellor of countryside and fishing - Principality of Asturias (91-93) | Manager on several companies on in numerous fields

**EDP's Historic**

General and Supervisory Board Member in representation of Cajastur Inversiones S.A., (February 2012 - April 2015) | General and Supervisory Board Member, in representation of DRAURSA, S.A., since April 2018

**Current External Appointments**

Board of Director Member – Liberbank (11) | Chairman of Board of Directors - Lico Leasing (17) | Executive Commission Member - Lico Leasing (18) | Board of Director Member - Tudela Veguín (11) | Masaveu Inmobiliaria (14) | Cimento Verde do Brasil (14) | Board of Director Member – Molecular Oncology Medicine Institute of Asturias (14)

**Full name****FERNANDO MARÍA MASAVEU HERRERO****Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Remuneration Committee Member | Strategy and Performance Committee Member

**Skills and Experience**

Law Degree – Navarra University (92) | Manager on several companies of Masaveu Group in numerous fields such as energy, finance, transport, environment and real state, among others.

**EDP's Historic**

General and Supervisory Board Member, since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments**

Chairman - Masaveu Corporation | Chairman - Cementos Anónima Tudela Veguín | Chairman - Masaveu International | Board Member - Bankinter | Executive Committee Member - Bankinter | Board Member - EGEO, SGPS | Board Member - Olmea Internacional | Chairman - Maria Cristina Masaveu Peterson Foundation | Chairman - San Ignacio de Loyola Foundation | Protector - Asturias Princess Foundation | Executive Committee Member - Asturias Princess Foundation | Chairman of the Board of Directors - Oppidum Capital

**Full name****MOHAMMED ISSA KHALFAN AL-HURAIMEL AL-SHAMSII****Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Strategy and Performance Committee Member

**Skills and Experience**

Bachelor's degree in Business Administration – American University of Sharjah (01) | MBA - HEC School of Management (05) | Consultant - McKinsey &amp; Company (05-07) | Director of Strategy &amp; Policy - UAE Prime Minister's Office (09-11) | Board Member - Tabreed District Cooling (14) | Board Member - Jiangsu Suyadi (12-14) | Board Member - Shariket Kahraba Hadjret-En-Nous (14-16) | Board Member - SMN Power Company (13-16)

**EDP's Historic**

General and Supervisory Board Member, in representation of Senfora BV, since October 2017 (re-elected in April 2018)

**Current External Appointments**

Director of Utilities Investments - Mubadala Investments Company (11)

**Full name****NUNO MANUEL DA SILVA AMADO****Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Strategy and Performance Committee Member

**Skills and Experience**

Degree in Companies Organization and Management – Advances Institute of Labour and Business Sciences (80) | Advanced Program in Management – INSEAD (04) | Audit and Consulting Department - KPMG Peat Marwick (80-85) | Citibank (85-90) | Banco Fonsecas &amp; Burnay (90-92) | Board of Director Member - Deutsche Bank Portugal (93-97) | Executive Committee Member - Banco de Comércio e Indústria (97-04) | Vice-Chairman of the Executive Committee - Crédito Predial Português (00-04) | Vice-Chairman of the Board of Directors and Chairman of the Executive Committee - Banco Santander Tofta, SGPS (06-12) | Chairman of the Executive Committee - Banco Comercial Português (12-18)

**EDP's Historic**

General and Supervisory Board Member, since May 2013 (re-appointed in April 2015 and April 2018)

**Current External Appointments**

Chairman – Banco Comercial Português (18)



**Full name**

**KARIM DJEBBOUR**

**Status**

Non-independent

**Position**

General and Supervisory Board Member

**Committees**

Strategy and Performance Committee Member

**Skills and Experience**

Degree in Agronomic Engineering - (83) | Degree in Assessment Economic and Financial Project - C.E.F.E.B Paris (89) | Several positions - *Banque de l'Agriculture et du Développement Rural* (84-91) | Sub-director - Ministry of Economy (91-93) | General Manager Assistant in Project Financing, Finance Director - SONATRACH's branch, General Manager (93-99) | CEO - Brown and Root Condor (07) | General Manager - SONATRACH Investissements et Participations SIP (08) | Chief of Staff of the CEO – Sonatrach (14-15)

**EDP's Historic**

General and Supervisory Board Member, in representation of Sonatrach, since April 2018

**Current External Appointments**

Official in the General Directorate – Sonatrach Group(15)



**Full name**

**MARIA CELESTE FERREIRA LOPES CARDONA**

**Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member | Financial Matters Committee/Audit Committee Member

**Skills and Experience**

Law Degree – Lisbon University (81) | Master degree in Law - Lisbon University (94) | Doctorate in Law - Lisbon University (15) | Assistant Professor – Lisbon University (82) | Tax Studies Center Member (83) | Portuguese Representative – Organization for Economic Cooperation and Development (85) | Justice Minister – Portuguese Government (02-04) | Non Executive Member of the Board of Directors - Caixa Geral de Depósitos, S.A. (04-08)

**EDP's Historic**

Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments**

Lawyer (82) | Consultant - M. Cardona Consulting, Unipessoal, Lda. (93) | Supervisory Board Member - SIBS (12) | Associate Professor – Lusíada University (17)



**Full name**

**ILÍDIO DA COSTA LEITE DE PINHO**

**Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Remuneration Committee Member

**Skills and Experience**

Electronic and Machinery Engineering degree – Porto Industrial Institute (64) | Non Executive member, in representation of the National Industry, of the Board of Directors – ICEP (86-91) | President – Municipal Council of Vale de Cambra (73-83) | President – General Meeting of Vale de Cambra (93-97) | Founder of COLEP Group | Founder of Nacional Gás and its associates | CEO of several companies and associations

**EDP's Historic**

Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments**

CEO – Grupo Ilídio Pinho (94)

**Full name****JORGE AVELINO BRAGA DE MACEDO****Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member | Strategy and Performance Committee Member

**Skills and Experience**Law Degree – Lisbon University (71) | International Relations Master degree – Yale University (73) | Doctorate in Economics – Yale University (79) | Professor – *Princeton University* (80-86) | Minister of Finances – Portuguese Government (91-93) | Chairman of the European Affairs Parliamentary Committee (94-95) | President – Tropical Research Institute (04-15) | Consultant – European Bank for Reconstruction and Development (96-99) | Consultant – United Nations (82-84) | Consultant – World Bank (84-88) | Trainee – International Monetary Fund (78-79)**EDP's Historic**

Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments**

Economics Professor – Nova University of Lisbon (76) | Director – Globalization and Governance Center – Economy Faculty - Universidade Nova de Lisboa (08) | Distinguished Fellow - Board of Governors of the International Centre for International Governance Innovation in Waterloo (14) | Chairman of the General Meeting Board – Sociedade de Desenvolvimento da Madeira (12)

**Full name****VASCO JOAQUIM ROCHA VIEIRA****Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Remuneration Committee Member | Strategy and Performance Committee Member

**Skills and Experience**

Degree in Civil Engineering – Military Academia (69-70) | Complementary Course of General Staff at the Army (70-72) | Course of Command and Direction for Official General (82-83) | Course of National Defence (84) | Brigadier (84) | General (87) | Governor of Macao (91-99) | Minister of the Republic for the Azores (86-91) | Deputy Secretary of Communications and Public Works – Macao Government (74-75) | Chief of Army Staff (76-78) | National Military Representative at NATO Supreme Headquarters Allied Powers in Europe (78-84)

**EDP's Historic**

Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)

**Current External Appointments**

Council Member of the Order of Engineers (00) | Member of the Representatives General Meeting of the Order of Engineers (04)

**Full name****AUGUSTO CARLOS SERRA VENTURA MATEUS****Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Corporate Governance and Sustainability Committee Member | Strategy and Performance Committee Member

**Skills and Experience**

Economics Degree – Higher Economics and Management Institute (72) | Invited Professor - Higher Economics and Management Institute (72-14) | Industry Secretary of State (95-96) | Minister of Economy (96-97)

**EDP's Historic**

Independent General and Supervisory Board Member since May 2013 (re-elected in April 2015 and April 2018)

**Current External Appointments**

Consultant on macroeconomics fields, economic policies, strategy and business (86)

**Full name**

JOÃO CARVALHO DAS NEVES

**Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Remuneration Committee Member | Financial Matters Committee/Audit Committee Vice-Chairman

**Skills and Experience**

Degree in Companies Organization and Management - Economics and Management College Institute - Lisbon University (81) | MBA - Economics and Management College Institute (85) | Doctorate - Manchester Business School (92) | Leadership Development Program - Creative Leadership Center (10) | Coaching for Performance - London Business School (10) | Leadership - Kennedy Harvard Government School (09) | Finance and Control - IMD (86) | Management Control - HEC Paris (87) | Executive course - International Finance - INSEAD (87) | Chairman - Central Administration of Health System (11-14) | Director - BPN (08) | CEO and CFO - SLN (08-09); Judicial Manager: TVI (98); Torralta (93-98) - Casino Hotel de Tróia (94-95) | Chairman Management Department - ISEG (10-11)

**EDP's Historic**

Independent General and Supervisory Board Member since April 2015 (re-elected in April 2018)

**Current External Appointments**

School Board Member (14) | Professor - Financing and Management Control (92) | Director - Post-graduation in Management and Real Estate Evaluation - ISEG (00) | Invited Professor in Financing, Negotiation and Health Contracting - ISCSP (12) | Independent non-executive member - Montepio - Valor SGFI (17) | Management Consultant in Management through the company Zenaction Business Consulting (14) | Statutory Auditor (16)

**Full name**

MARÍA DEL CARMEN FERNÁNDEZ ROZADO

**Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Financial Matters Committee/Audit Committee Member

**Skills and Experience**

Degree in Economics and Business Administration and Political Sciences and Sociology - Complutense University of Madrid (78) | PhD in Public Finance - Complutense University of Madrid (04-05) | PADE Management Program MBA - IESE Business School (04-05) | Chief-Inspector - Spanish Minister of Economy and Finance Economy and Finance Minister (84-99) | Member of the Board - Spanish National Energy Commission (99-11) | President of the Task Force for Renewable Energies, Sustainability and Carbon Markets - ARIAE (99-11) | Member of the Advisory Board - EY (12-13) | Chief Inspector - Ministry of Economy and Finance of Spain (84 -99) | Auditor (88)

**EDP's Historic**

Independent General and Supervisory Board Member since April 2015 (re-elected in April 2018)

**Current External Appointments**

Consultant (11) | Chairman of Audit Committee - ACS Group (17) | Member of the Advisory Board - Beragua Capital | Lecturer in several Universities

**Full name****LAURIE LEE FITCH****Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Strategy and Performance Committee Member

**Skills and Experience**

B.A. in Arabic - American University (91) | M.A. - Georgetown University's School of Foreign Service (94) | Assistant Vice-President - Bank of New York (94-99) | Associate - Schroders plc (99-00) | Associate - UBS Warburg (00-02) | Managing Director and Director of International Equity Research - TIAA-CREF (02-06) | Senior Analyst and Partner - Artisan Partners (06-11) | Managing Director and Co-Head, Global Industrial Group, Investment Division - Morgan Stanley (12-16);

**EDP's Historic**

General and Supervisory Board Member since April 2018

**Current External Appointments**

Partner at PJT Partners (16) | Non-Executive Director and member of the Remuneration Committee - Enquest PLC (18) | Member of the Audit and Finance & Operations subcommittees - Tate Board of Trustees (15) | Chairs the Advisory Board of Georgetown University's Center for Contemporary Arab Studies (13) | Trustee of The American University in Cairo (19)

**Full name****CLEMENTINA MARIA DÂMASO DE JESUS SILVA BARROSO****Status**

Independent

**Position**

General and Supervisory Board Member

**Committees**

Financial Matters Committee/Audit Committee Member

**Skills and Experience**

Degree in Management – Advanced Institute of Labour and Business Sciences (ISCTE) (76-81) | Master in Business Management - Economy and Management Superior Institute (ISEG) (84-85) | Doctorate in Advanced Company Management – ISCTE (05) | Several positions - Banco Espírito Santo e Comercial Lisboa (88-90) | Board of Directors Member and General Director – INDEG ISCTE (99-03)

**EDP's Historic**

General and Supervisory Board Member since April 2018

**Current External Appointments**

Invited Professor - ISCTE (82) | Statutory auditor and external auditor (90) | Non-Executive Director and Audit Committee Member – CTT Bank, S.A. (15) | Non-Executive Director and Audit Committee Member - Sociedade Gestora de Fundo de Investimento FundBox, SFIM, S.A. (11) | Board of Directors Member - Portuguese *Corporate Governance* Institute (16) | Chairman of the Board of the General Meeting – Science4You, S.A. (14)

## EXECUTIVE BOARD OF DIRECTORS



**Full Name**

**ANTÓNIO LUÍS GUERRA NUNES MEXIA**

**Position**

Executive Board of Directors Chairman elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)

**Skills and Experience**

Degree in Economy – Geneva University (80) | Assistant of the Economy Department | Professor at Nova University of Lisbon and Portuguese Catholic University (82-95) | Portuguese Institute for foreign Trade Vice-Chairman of the Board of Directors (88-90) | Board of Directors Member – Banco Espírito Santo de Investimentos (90-98) | Board of Directors Chairman - Gás de Portugal and Transgás (98-00) | Board of Directors Vice-Chairman - Galp Energia (00-01) | Executive Chairman - Galp Energia (01-04) | Minister of Public Works, Transport and Communications - Portuguese Government (04-05) | President - Eurelectric (15-17)

**Current External Appointments**

Does not hold any other office or was appointed to any executive position outside EDP Group



**Full Name**

**JOÃO MANUEL MANSO NETO**

**Position**

Executive Board of Directors Member elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)

**Skills and Experience**

Degree in Economy – Higher Institute of Economics (81) | Postgraduate in European Economy - Portuguese Catholic University (82) | Course - American Bankers Association (82) | Advanced Management Program for Overseas Bankers - Wharton School (85) | Financial and Commercial Retail South Central Director – Banco Português do Atlântico (81-95) | Financial Directorate, Large Institutional Businesses and Treasury General Director, Board Member - BCP – Investment Bank and Vice Chairman of BIG Bank Gdansk (95-02) | Board Member - Grupo Banco Português de Negócios (02-03) | General Director and Board Member - EDP Produção (03-05)

**Current External Appointments**

Director - Mibgas, S.A. | Director - OMIP – Operador do Mercado Ibérico (Portugal), SGPS, S.A. | Counsellor - Operador del Mercado Ibérico de Energía, Polo Español, S.A. (OMEL) | CEO – EDP Renováveis



**Full Name**

**ANTÓNIO FERNANDO MELO MARTINS DA COSTA**

**Position**

Executive Board of Directors Member elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)

**Skills and Experience**

Degree in civil engineering – Porto University (76) | MBA - Porto Business School (89) | Executive Course - INSEAD, Fontainebleau – (95) | PADE - AESE (00) | Advanced Management Program - Wharton School (03) | Assistant Professor – Engineering Institute of Oporto (76-89) | Hydraulic Production – EDP (81-89) | General Director - Banco Millennium BCP and Executive Board Member of several insurance, pension and financial asset management companies – BCP Group (89-03) | Executive Director - Eureka BV, Chairman - Eureka Polska and Executive Vice-Chairman – PZU (99-02) | Director and Board of Directors Vice-Chairman – EDP Brasil (03-07) | Vice-Chairman – Portuguese Chamber of Commerce in Brazil (03-07) | Chairman – Brazilian Electricity Distributors Association (03-07) | Chairman and CEO - EDP Renováveis EUA (07-09) | Member of the Board of Directors - EDP Renováveis (08-11) | Vice-Chairman - Chamber of Commerce of USA in Portugal | Vice-Chairman - Proforum | Vice-Chairman- APGEI

**Current External Appointments**

Does not hold any other office or was appointed to any executive position outside EDP Group

**Full Name****JOÃO MANUEL VERÍSSIMO MARQUES DA CRUZ****Position**

Executive Board of Directors Member elected in February 2012, (reappointed in April 2015 and April 2018)

**Skills and Experience**

Degree in Management – Technical University of Lisbon (84) | MBA - Technical University of Lisbon (89) | Post-graduation in Marketing and Airlines Marketing - International Air Travel Association / Bath University (92) | Several positions including General Director - TAP Air Portugal (84-99) | Director - TAPGER (97-99) | Director – EMEF and other companies - Grupo CP (00-02) | Executive Committee Chairman - Air Luxor (02-05) | President – External Trade Institute of Portugal (05-07)

**Current External Appointments**

Vice-Chairman - Companhia de Electricidade de Macau - CEM, S.A. | Director - KNJ Global Limitada (Macau) | President – Portuguese-Chinese Chamber of Commerce and Industry

**Full Name****MIGUEL STILWELL DE ANDRADE****Position**

Executive Board of Directors Member elected in February 2012, (reappointed in April 2015 and April 2018)

**Skills and Experience**

Degree in Mechanic Engineering – Strathclyde University (98) | MBA - MIT Sloan (03) | Mergers and Acquisitions – UBS Investment Bank (UK) (98-00) | Strategy and Corporate Development Area – EDP (00-05) | Strategy and Corporate Development Director – EDP (05-09) | Board of Directors Member – EDP Distribuição and Board Member of other companies within the Group (09-12)

**Current External Appointments**

Does not hold any other office or was appointed to any executive position outside EDP Group

**Full Name****MIGUEL NUNO SIMÕES NUNES FERREIRA SETAS****Position**

Executive Board of Directors Member elected in April 2015 (reappointed in April 2018)

**Skills and Experience**

Degree in Physics Engineering – Higher Technical Institute (93) | Masters in Electronic and Computing Engineering – Higher Technical Institute (95) | MBA – Nova University of Lisbon (96) | Consultant – McKinsey &amp; Company (95-98) | Corporate Director - GDP - Gás de Portugal (98-00) | Board Member - Setgás (99-01) | Executive Board Member – LisboaGás (00-01) | Strategic Marketing Director – Galp Energia (01-04) | Board Member – Comboios de Portugal (04-06) | Chief of Staff of the Chairman of the Executive Board of Directors Chairman – EDP (06-07) | Board Member – EDP Comercial (07-08) | Board Member - EDP Inovação (07-08 / 12-14) | Vice-Chairman – EDP Brazil (08-13)

**Current External Appointments**

Does not hold any other office or was appointed to any executive position outside EDP Group



**Full Name**

**Position**

**Skills and Experience**

**Current External Appointments**

**RUI MANUEL RODRIGUES LOPES TEIXEIRA**

Executive Board of Directors Member elected in April 2015 (reappointed in April 2018)

Degree in in Naval Engineering - Higher Technical Institute (95) | MBA – Nova University of Lisbon (01) | Advanced Management Program - Harvard Business School (13) | Assistant Director of the Naval Commercial Department - Gellweiler (96-97) | Project manager - Det Norske Veritas (97-01) | Consultant - McKinsey & Company (01-04) | Corporate Control and Planning Director – EDP (04-07) | Board Member – EDP Renováveis (07-15)

Does not hold any other office or was appointed to any executive position outside EDP Group



**Full Name**

**Position**

**Skills and Experience**

**Current External Appointments**

**MARIA TERESA ISABEL PEREIRA**

Executive Board of Directors Member elected in April 2018

Law Degree – Law School, Lisbon University (93) | Lecturer in Law of Obligations – Law School, Lisbon University (93-97) | Lawyer registered at the Portuguese Bar Association (97) | Jurist - Proet Projectos (EDP Group) (94-98) | Legal Director - ONI SGPS (98-05) | Legal Director and General Secretariat, Company Secretary – EDP (06-18)

Does not hold any other office or was appointed to any executive position outside EDP Group



**Full Name**

**Position**

**Skills and Experience**

**Current External Appointments**

**VERA DE MORAIS PINTO PEREIRA CARNEIRO**

Executive Board of Directors Member elected in April 2018

Economics Degree – Nova University of Lisbon (96) | Post-graduation in Economics – Nova University of Lisbon (98) | MBA – INSEAD, Fontainebleau (00) | Associate – Mercer (96-99) | Founder – Innovagency Consulting (01-03) | Television Service Director – TV Cabo – PT Multimédia (03-07) | Television Service Director – MEO (07-14) | Executive Vice-Chairman and General Director (Portugal and Spain) - Fox Networks Group (14-18)

Does not hold any other office or was appointed to any executive position outside EDP Group

# EDP'S PRINCIPLES AND POLICIES

Ethics at EDP

EDP's Integrity Policy

Sustainable Development Principles

Regulations on conflict of interest and transactions between related parties of EDP

Corporate Risk Management Policy

Financial Management Policy

Business Data Governance

EDP Group Fiscal Policy

Healthy Competition Practices Commitment

Information Security Policy

Environmental Policy

Stakeholder Relationship Policy

Health and Safety at Work Policy

Training Policy

Diversity Policy

Internal Mobility Policy - local and international

Social Investment Policy

Volunteering Policy

EDP Supplier Code of Conduct

Sustainable Procurement Policy

To read the principles and policies, please visit: [www.edp.com](http://www.edp.com)> edp> about us> principles and policies.

# REPORTING PRINCIPLES

The annual publication of the EDP Sustainability Report is in accordance with the Reporting Principles (content and quality) expressed by the Global Reporting Initiative GRI Standards - "Comprehensive Option".

## GRI STANDARDS REPORTING PRINCIPLES

### REPORTING QUALITY

#### BALANCE

The content of the report considers both the most positive facts of the year and those less positive when materially relevant.

#### COMPARABILITY

The information reported covers a four-year time series in the material topics indicators relevant to the EDP Group's business (page 57) and enables a comparative analysis of the company's performance.

#### TRANSPARENCY

An online glossary is provided, helping to understand some of the technical terms used ([www.edp.com/en/glossary](http://www.edp.com/en/glossary)). In addition to the publications in paper and pdf, a web version is also available, facilitating navigation through the different contents.

#### ACCURACY

The scope of the report is explained, as well as the consolidation criteria. All exceptions and changes to criteria are duly identified and highlighted. The definitions and descriptions of the calculation methodologies of the main indicators employed are available online, in the glossary.

#### TIMELINESS

The Report has an annual frequency and covers the calendar year 2018.

#### RELIABILITY

The internal process verification is described in page 172. External verification is an additional guarantee of the reliability of the content, regarding the indicators included in GRI Table (page 185 onwards).

## CONTENT PRINCIPLES

### SUSTAINABILITY CONTEXT

Within the framework of the defined strategy, EDP fosters a corporate culture of permanent demand for excellence in sustainability, based on its eight principles of sustainability ([www.edp.com> edp> about us> principles and policies](http://www.edp.com> edp> about us> principles and policies)).

The Group's sustainability performance is globally reported based on the financial consolidation criteria defined and described in the next chapter. Regarding these companies, the Group defines a clear strategy for continuous improvement of its performance, supported by the internal process of identifying the year's material themes and emerging trends in the sector, always considering the local conditions in which it operates. Regarding non-consolidated assets (identified below), the Company positively influences its performance and highlights the major initiatives of the year throughout the report, when materially relevant. In the supply chain, the approach is management and the material themes are published. In this context, the Group advocates a relationship supported in trust, collaboration and shared value creation (page 132). Finally, on the customer side, EDP has a growth strategy supported by an increasingly clean supply, contributing to higher energy efficiency and an increasing reduction of its carbon footprint (page 101).

## CONSOLIDATION CRITERIA

The consolidation criteria of non-financial information are as follows:

- In the subsidiary companies where the Group exercises control, the performance of companies is reported at 100%;
- In jointly controlled companies, the performance reported relates only to the percentage of ownership held by the Group in each company;

- In companies where the Group exercises significant influence, operational, environmental and social information is published, given its relevance to the Group.

Included in this list is the company Iberenergia, S.A.U. in which the Group has a 100% holding and which is consolidated by the full consolidation method. This company owns 15.5% of Trillo Nuclear Power Plant and as EDP is a minority shareholder it does not exercise operational control or have the power to make financial decisions. Given this, EDP does not report operational, environmental and company information regarding this plant in its Sustainability Report. However, information on its performance can be consulted at: [www.cnat.es](http://www.cnat.es).

In turn, in compliance with IFRS 10, the EDP Group in its Annual Report publishes financial information on Iberenergia which includes the shareholding held in this plant. To maintain consistency in the RA, operational information is also published.

In 2017, the sale of the gas distribution business in Iberia implied the exclusion of the non-financial information of these companies.

## **MATERIALITY**

In terms of sustainability management and reporting on its performance, the EDP Group periodically identifies the issues and trends that in the short, medium and long term can influence the creation of value for the company. The Material Themes bring together both financial and non-financial dimensions, including economic, environmental and social information likely to influence or be influenced by different EDP stakeholders.

The materiality analysis assesses and prioritises the relevance of an issue for EDP and its stakeholders, periodically reviewing their expectations to support the organisation's decision-making and strategy development process.

Further details on the internal methodology for determining the Materiality of the EDP Group is available in the Sustainability Management Approach document at [www.edp.com](http://www.edp.com)> sustainability> publications> reports> sustainability management approach.

Further details on the material themes of the EDP Group for 2017 and their meaning can be found at [www.edp.com](http://www.edp.com)> sustainability> approach> materiality.

## **VERIFICATION ACCORDING TO AA1000 APS 2018**

Material topics (page 57) are identified within the framework defined by AA1000 APS (2018), ensuring the identification of critical stakeholders; integrating their expectations into the corporate and operational strategy and seeking to appropriately respond to their expectations.

In 2018, like in previous years, EDP was subject to verification of its compliance with the AA1000 APS (2018) type 2 standard by the audit firm PwC, in particular, the principles of inclusion, materiality, responsiveness and impact.

## **STAKEHOLDERS INCLUSIVENESS**

The inclusiveness principle assumes that the most relevant stakeholders are consulted, to learn about their expectations and concerns, and incorporating them into the decision-making process.

Periodically, interaction initiatives are promoted with different segments of the company's stakeholders, while there are communication channels dedicated to specific segments.

## **RESPONSE AND INTEGRITY**

EDP responds strategically to the main expectations of its stakeholders, making commitments and defining action plans for material themes. On page 51, the EDP's Goals and Targets are listed, and on page 58 the Group's Materiality grid for 2017, whose themes are detailed throughout the document.

## INTERNAL AND EXTERNAL ASSURANCE

The overall coordination of the process of preparing the EDP Sustainability Report is the responsibility of the Sustainability Department. The contents are subsequently viewed and approved by the Executive Board of Directors.

The external verification of sustainability content, carried out by PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda. has the external verification level "Limited" for a set of indicators according to the table starting on page 185.

## GRI AND GLOBAL COMPACT

The table on page 185 lists the GRI-Standard indicators in accordance with the "Comprehensive" option and the specifics of the G4 Electric Utilities Sector Disclosures, assuming deadlines for the implementation of the indicators for which full compliance has not yet been possible. Simultaneously, the following table identifies the available information that responds to the 10 principles of the Global Compact, demonstrating EDP's commitment to this initiative.

# CONSOLIDATED AND COMPANY NON-FINANCIAL STATEMENTS UNDER ARTICLES 66.TH.-B AND 508.TH.-G OF THE COMMERCIAL COMPANIES CODE

ARTICLE 66.TH.-B AND 508.TH.-G	DESCRIPTION AND DUE DILIGENCE PROCESSES	ASSOCIATED RISKS	RESULTS	KEY PERFORMANCE INDICATORS
Environmental policies	Environmental Policy Biodiversity Policy Water Management Policy	3.1.6 New Energy Services 3.1.7 Sustainable Mobility 3.3 Improve Environmental Performance		
Workers related social policies	Business Data Governance Healthy Competition Practices Information Security Policy Stakeholder Relationship Policy Training Policy Internal Mobility Policy Social Investment Policy Volunteering Policy EDP Supplier Code of Conduct Sustainable Procurement Policy Integrity Policy	3.2.1 People Management 3.2.2 Health and Safety 3.4.2 Ethics and Human Rights 3.4.3 Communication and Transparency 3.4.4 Satisfaction and Customer Service 3.4.5 Vulnerable Customers 3.4.6 Supplier Management 3.4.7 Community Involvement and Development		
Equality policies between men and women	Code of Ethics Sustainable Development Principles	2.5 Risk Management	3.4.1 Corporate Governance – Operation of Corporate Bodies 3.4.2 Ethics and Human Rights – Human Rights 3.2.1 People Management – Diversity / Equal Opportunities	3.5 Performance indicators Annex 'GRI Indicators'
Non-discrimination policies	Corporate Risk Management Policy	3.2.1 People Management 3.4.1 Corporate Governance – Operation of Corporate Bodies 3.4.2 Ethics and Human Rights – Human Rights 3.4.3 Vulnerable Customers		
Human rights policies	Stakeholder Relationship Policy Social Investment Policy Volunteering Policy EDP Supplier Code of Conduct Sustainable Procurement Policy	3.2.1 People Management 3.2.2 Health and Safety 3.4.2 Ethics and Human Rights 3.4.6 Supplier Management 3.4.7 Community Involvement and Development		
Policies against corruption and bribery attempt	Healthy Competition Practices Commitment EDP Supplier Code of Conduct Sustainable Procurement Policy Integrity Policy	3.4.2 Ethics and Human Rights – Risk of Corruption/Bribery/Fraud/Money Laundering 3.4.2 Ethics and Human Rights – Responsible Political Involvement 3.4.6 Supplier Management		
Brief description of the company's business model	'Business Model' chapter in '01 EDP' and block '02 Strategic Approach'			
Reference to the amounts in the annual financial statements and additional explanations of amounts reported	3.1.1 'Business Sustainability' Group's Financial Analysis in 2018 Annual Report (Chapter 3 - Performance)			

TCFD REPORTING RECOMMENDATIONS		CONSOLIDATED AND COMPANY NON FINANCIAL STATEMENTS UNDER ARTICLES 6 <sup>TH</sup> -B AND 508 <sup>TH</sup> -G OF THE COMMERCIAL COMPANIES				
		BUSINESS MODEL	POLICIES AND DUE DILIGENCE PROCESSES	PRINCIPAL RISKS AND THEIR MANAGEMENT	OUTCOMES	KEY PERFORMANCE INDICATORS
GOVERNANCE	a) Board's oversight		2.2 Sustainability Organization			
	b) Management's role		2.2 Sustainability Organization			
STRATEGY	a) Climate-related risks and opportunities			2.5 Risk Management; Our way: Application of the TCFD; CDP Climate 2018		
	b) Impact of climate-related risks and opportunities	Our way: Application of the TCFD; CDP Climate 2018				
	c) Resilience of the organization's strategy	3.3.2 Climate change				
RISK MANAGEMENT	a) Processes for identifying and assessing			Our way: Application of the TCFD; CDP Climate 2018		
	b) Processes for managing			Our way: Application of the TCFD; CDP Climate 2018		
	c) Integration into overall risk management			Annual Report edp 2018- clause 52 from 04 Corporate Governance.		
METRICS AND TARGETS	a) Metrics used to assess					Environmental indicators
	b) GHG emissions				3.3.2 Climate change	
	c) Targets				2.4 Strategy, goals and targets	

# GRI INDICATORS

## ENVIRONMENTAL INDICATORS

2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>ENVIRONMENTAL CERTIFICATION (ISO 14001)</b>							
ISO 14001 Certification <sup>1</sup>	%	96	97	97	95	96	95
<b>TOTAL ENERGY CONSUMPTION</b>	<b>TJ</b>	<b>234,747</b>	<b>116,110</b>	<b>76,076</b>	<b>42,489</b>	<b>8</b>	<b>65</b>
<b>PRIMARY ENERGY CONSUMPTION</b>	<b>TJ</b>	<b>221,634</b>	<b>109,400</b>	<b>76,076</b>	<b>36,146</b>	<b>8</b>	<b>4</b>
Coal	TJ	165,982	79,306	50,757	35,919	n.a.	n.a.
Fuel oil	TJ	297	264	32	n.a.	n.a.	n.a.
Natural gas	TJ	40,425	29,696	10,726	n.a.	3	0
Blast furnace gas	TJ	12,356	n.a.	12,356	n.a.	n.a.	n.a.
Coke gas	TJ	934	n.a.	934	n.a.	n.a.	n.a.
Diesel oil	TJ	202	2	45	155	n.a.	n.a.
Iron and steel industry gas	TJ	1,220	n.a.	1,220	n.a.	n.a.	n.a.
Fuel for vehicle fleet	TJ	218	132	6	72	5	3
<b>ENERGY INTENSITY<sup>2</sup></b>	<b>MJ/EUR</b>	<b>15.4</b>	<b>14.7</b>	<b>25.1</b>	<b>11.5</b>	<b>0.2</b>	<b>0.3</b>
<b>THERMAL POWER PLANT EFFICIENCY (capacity based)</b>	<b>%</b>	<b>45.1</b>	<b>47.8</b>	<b>44.8</b>	<b>34.5</b>	<b>n.a.</b>	<b>n.a.</b>
<b>ELECTRICITY CONSUMPTION</b>							
Generation self-consumption	MWh	3,527,172	2,508,720	577,610	389,701	34,456	16,685
Administrative service	MWh	34,990	25,518	2,749	5,172	1,311	241
Grid losses	%	8.8	9.6	3.4	9.9	n.a.	n.a.
<b>GHG EMISSION</b>							
<b>Direct emissions (scope 1)</b>							
Stationary combustion <sup>3</sup>	ktCO <sub>2eq</sub>	18,429	9,106	5,345	3,977	0	0
SF <sub>6</sub> Emissions	ktCO <sub>2eq</sub>	10	6	2	2	0	0
Company fleet	ktCO <sub>2eq</sub>	15	10	0	4	0	0
Natural gas consumption	ktCO <sub>2eq</sub>	0.19	0.04	0.00	0.00	0.14	0.01
<b>Indirect emissions (scope 2)<sup>4</sup></b>							
Electricity consumption in office buildings	ktCO <sub>2eq</sub>	18	0.0	0.0	0.0	1.7	0.1
Electricity losses	ktCO <sub>2eq</sub>	577	441	0	136	n.a.	n.a.
Renewable plants self-consumption	ktCO <sub>2eq</sub>	22.8	0.0	0.0	0.0	14.9	7.9
<b>Other indirect emissions (scope 3)</b>							
Purchased goods and services (C01)	ktCO <sub>2eq</sub>	49	16	16	16	0	0
Capital Goods (C02)	ktCO <sub>2eq</sub>	330	38	67	14	162	48
Fuel and energy related activities (C03)	ktCO <sub>2eq</sub>	6,399	2,737	1,501	2,162	0	0
Upstream transportation and distribution (C04)	ktCO <sub>2eq</sub>	675	240	36	400	0	0
Business Travels (C06)	ktCO <sub>2eq</sub>	10	2	1	2	5	0
Use of sold products (C11)	ktCO <sub>2eq</sub>	3,871	785	3,086	0	0	0
<b>GHG EMISSIONS INTENSITY<sup>5</sup></b>	<b>gCO<sub>2</sub>/EUR</b>	<b>1.2</b>	<b>1.2</b>	<b>1.7</b>	<b>1.3</b>	<b>0.0</b>	<b>0.0</b>
<b>CO<sub>2</sub> AVOID EMISSIONS</b>	<b>ktCO<sub>2</sub></b>	<b>29,221</b>	<b>9,259</b>	<b>3,633</b>	<b>1,911</b>	<b>11,495</b>	<b>2,923</b>
<b>TOTAL EMISSIONS</b>							
CO <sub>2</sub> <sup>36</sup>	kt	18,404	9,090	5,342	3,971	n.a.	n.a.
NO <sub>x</sub>	kt	14.3	4.6	5.7	3.9	n.a.	n.a.
SO <sub>2</sub>	kt	213	3.8	6.0	115	n.a.	n.a.
Particulate matter	kt	2.05	0.09	0.24	172	n.a.	n.a.
Mercury	kg	50	27	14	9	n.a.	n.a.
SF <sub>6</sub>	kg	440	246	100	92	0	3
<b>SPECIFIC OVERALL EMISSIONS</b>							
CO <sub>2</sub> <sup>36</sup>	g/kWh	257	321	380	386	n.a.	n.a.
NO <sub>x</sub>	g/kWh	0.2	0.2	0.4	0.4	n.a.	n.a.
SO <sub>2</sub>	g/kWh	0.3	0.1	0.4	11	n.a.	n.a.
Particulate matter	g/kWh	0.03	0.00	0.02	0.17	n.a.	n.a.
<b>SPECIFIC THERMAL EMISSIONS</b>							
CO <sub>2</sub> <sup>36</sup>	g/kWh	768	719	680	1,149	n.a.	n.a.
NO <sub>x</sub>	g/kWh	0.6	0.4	0.7	11	n.a.	n.a.
SO <sub>2</sub>	g/kWh	0.9	0.3	0.8	3.3	n.a.	n.a.
Particulate matter	g/kWh	0.09	0.01	0.03	0.50	n.a.	n.a.
<b>WATER COLLECT BY SOURCE</b>							
Ocean	10 <sup>3</sup> x m <sup>3</sup>	1,509,190	1,098,254	410,935	n.a.	n.a.	n.a.
River/Stream	10 <sup>3</sup> x m <sup>3</sup>	14,398	8,880	5,518	n.a.	n.a.	n.a.
Water reservoir	10 <sup>3</sup> x m <sup>3</sup>	5	n.a.	n.a.	5	n.a.	n.a.
Water hole	10 <sup>3</sup> x m <sup>3</sup>	183	182	0	0	n.a.	n.a.
Well	10 <sup>3</sup> x m <sup>3</sup>	3	0	0	0	2	1
Municipal water supplies	10 <sup>3</sup> x m <sup>3</sup>	12,438	2,363	794	9,273	6	2
Other private entity	10 <sup>3</sup> x m <sup>3</sup>	1,397	426	970	0	n.a.	0

2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>USE OF WATER</b>							
Cooling water	10 <sup>3</sup> x m <sup>3</sup>	153,1530	1,107,087	416,132	8,311	n.a.	n.a.
Raw water	10 <sup>3</sup> x m <sup>3</sup>	5,887	2,917	2,050	920	n.a.	n.a.
Potable water	10 <sup>3</sup> x m <sup>3</sup>	177	111	10	45	9	2
<b>WASTEWATER</b>							
Wastewater from generation with treatment	10 <sup>3</sup> x m <sup>3</sup>	1984	456	1464	65	n.a.	n.a.
Discharge into sea	10 <sup>3</sup> x m <sup>3</sup>	15,10,986	1,098,589	411,745	651	n.a.	n.a.
Discharge into inland and estuary water	10 <sup>3</sup> x m <sup>3</sup>	6,964	5,515	1,449	n.a.	n.a.	n.a.
<b>WASTE SENT TO FINAL DISPOSAL</b>							
Total waste	t	349,329	27,130	194,127	126,909	1029	134
Total hazard waste	t	5,409	2,916	579	1,540	303	71
Recovered waste	%	78	86	92	56	72	76
Recycled waste	%	63	77	91	18	65	35
<b>MAIN WASTE CATEGORIES</b>							
Fly ash	t	240,771	0	165,125	75,646	n.a.	n.a.
Slag	t	49,380	20,463	21,858	7,059	n.a.	n.a.
Used oils	t	403	169	121	26	74	14
PCB	t	19	2	16	0	0	0
Metals	t	5,007	287	1,606	2,815	278	22
Gypsum	t	6,896	4,247	2,649	0	n.a.	n.a.
<b>BY-PRODUCTS<sup>7</sup></b>							
Gypsum	t	165,785	12,1880	43,905	n.a.	n.a.	n.a.
Fly Ash and slag	t	346,946	346,946	n.a.	n.a.	n.a.	n.a.
<b>DISTRIBUTION IN PROTECTED AREAS</b>							
<b>High voltage distribution grid in protected areas</b>							
Overhead	km	1,310	918	119	273	n.a.	n.a.
Underground	km	1296	904	119	273	n.a.	n.a.
	km	14	14	0	0	n.a.	n.a.
<b>Medium voltage distribution grid in protected areas</b>							
Overhead	km	15,730	9,133	930	5,667	n.a.	n.a.
Underground	km	14,706	8,166	879	5,661	n.a.	n.a.
	km	1,024	967	51	6	n.a.	n.a.
Substations in protected areas	#	47	19	17	11	n.a.	n.a.
<b>FLOODED AREAS BY RESERVOIRS</b>	<b>ha</b>	<b>6,025</b>	<b>5,690</b>	<b>330</b>	<b>5</b>	<b>n.a.</b>	<b>n.a.</b>
<b>ENVIRONMENTAL COMPLAINTS</b>	<b>#</b>	<b>250</b>	<b>69</b>	<b>5</b>	<b>129</b>	<b>19</b>	<b>28</b>

<sup>1</sup> Aggregated certification indicator due to assets with potential environmental impacts.

<sup>2</sup> Primary energy consumption by turnover.

<sup>3</sup> The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plants in Spain.

<sup>4</sup> Calculation according with GHG Protocol based location methodology.

<sup>5</sup> Scope 1 and Scope 2 emissions by turnover.

<sup>6</sup> Includes only stationary combustion emissions.

<sup>7</sup> The by-product status is only attributed in Portugal and Spain.

2017	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>ENVIRONMENTAL CERTIFICATION (ISO 14001)</b>							
ISO 14001 Certification <sup>1</sup>	%	88	87	99	94	74	99
<b>TOTAL ENERGY CONSUMPTION</b>	<b>TJ</b>	<b>291,045</b>	<b>139,326</b>	<b>95,501</b>	<b>56,147</b>	<b>17</b>	<b>55</b>
<b>PRIMARY ENERGY CONSUMPTION</b>	<b>TJ</b>	<b>276,668</b>	<b>131,848</b>	<b>95,501</b>	<b>49,298</b>	<b>17</b>	<b>4</b>
Coal	TJ	204,044	89,646	65,276	49,122	n.a.	n.a.
Fuel oil	TJ	183	126	57	n.a.	n.a.	n.a.
Natural gas	TJ	57,013	41,946	15,063	n.a.	3	0
Blast furnace gas	TJ	12,897	n.a.	12,897	n.a.	n.a.	n.a.
Coke gas	TJ	968	n.a.	968	n.a.	n.a.	n.a.
Diesel oil	TJ	182	1	78	103	n.a.	n.a.
Iron and steel industry gas	TJ	1,151	n.a.	1,151	n.a.	n.a.	n.a.
Fuel for vehicle fleet	TJ	231	130	11	73	13	3
<b>ENERGY INTENSITY<sup>2</sup></b>	<b>MJ/EUR</b>	<b>17.6</b>	<b>17.1</b>	<b>26.4</b>	<b>14.2</b>	<b>0.0</b>	<b>0.0</b>
<b>THERMAL POWER PLANT EFFICIENCY (capacity based)</b>	<b>%</b>	<b>45.6</b>	<b>48.1</b>	<b>45.6</b>	<b>34.5</b>	<b>n.a.</b>	<b>n.a.</b>
<b>ELECTRICITY CONSUMPTION</b>							
Generation self-consumption	MWh	4,511,002	3,324,455	670,483	473,802	28,317	13,945
Administrative service	MWh	36,189	26,326	2,737	5,459	1,435	231
Grid losses	%	9.2	10.0	3.5	10.5	n.a.	n.a.
<b>GHG EMISSION</b>							
<b>Direct emissions (scope 1)</b>							
Stationary combustion <sup>3</sup>	ktCO <sub>2eq</sub>	23,159	10,746	7,014	5,398	1	0
SF <sub>6</sub> Emissions	ktCO <sub>2eq</sub>	23,129	10,729	7,008	5,392	n.a.	n.a.
Company fleet	ktCO <sub>2eq</sub>	10	7	1	1	0	0
Natural gas consumption	ktCO <sub>2eq</sub>	20	10	4	4	1	0
	ktCO <sub>2eq</sub>	0.22	0.04	0.00	0.00	0.17	0.01
<b>Indirect emissions (scope 2)<sup>4</sup></b>							
Electricity consumption in office buildings	ktCO <sub>2eq</sub>	818	619	0	177	16	7
Electricity losses	ktCO <sub>2eq</sub>	18	0.0	0.0	0.0	17	0.1
Renewable plants self-consumption	ktCO <sub>2eq</sub>	795	619	0	177	0	0
	ktCO <sub>2eq</sub>	20.7	0.0	0.0	0.0	14.0	6.7
<b>Other indirect emissions (scope 3)</b>							
Purchased goods and services (C01)	ktCO <sub>2eq</sub>	13,039	4,574	5,264	2,992	160	48
Capital Goods (C02)	ktCO <sub>2eq</sub>	54	18	18	18	0	0
Fuel and energy related activities (C03)	ktCO <sub>2eq</sub>	324	39	70	10	157	48
Upstream transportation and distribution (C04)	ktCO <sub>2eq</sub>	8,344	3,614	2,087	2,644	0	0
Business Travels (C06)	ktCO <sub>2eq</sub>	454	106	29	319	0	0
Use of sold products (C11)	ktCO <sub>2eq</sub>	11	5	1	2	4	0
	ktCO <sub>2eq</sub>	3,852	793	3,059	0	0	0

2017	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>GHG EMISSIONS INTENSITY<sup>5</sup></b>	<b>kgCO<sub>2</sub>/EUR</b>	<b>1.5</b>	<b>1.5</b>	<b>1.9</b>	<b>1.6</b>	<b>0.0</b>	<b>0.0</b>
<b>CO<sub>2</sub> AVOID EMISSIONS</b>	<b>ktCO<sub>2</sub></b>	<b>26,799</b>	<b>4,833</b>	<b>3,301</b>	<b>1,811</b>	<b>12,459</b>	<b>4,394</b>
<b>TOTAL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,6</sup>	kt	23,129	10,729	7,008	5,392	n/a	n/a
NO <sub>x</sub>	kt	17.0	6.1	6.0	4.9	n/a	n/a
SO <sub>2</sub>	kt	29.8	4.3	8.2	17.2	n/a	n/a
Particulate matter	kt	1.49	0.04	0.56	0.89	n/a	n/a
Mercury	kg	60	27	24	9	n/a	n/a
SF <sub>6</sub>	kg	422	307	59	55	0	0
<b>SPECIFIC OVERALL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,6</sup>	g/kWh	332	418	445	570	n/a	n/a
NO <sub>x</sub>	g/kWh	0.2	0.2	0.4	0.5	n/a	n/a
SO <sub>2</sub>	g/kWh	0.4	0.2	0.5	1.8	n/a	n/a
Particulate matter	g/kWh	0.02	0.00	0.04	0.09	n/a	n/a
<b>SPECIFIC THERMAL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,6</sup>	g/kWh	756	679	688	1,173	n/a	n/a
NO <sub>x</sub>	g/kWh	0.6	0.4	0.6	1.1	n/a	n/a
SO <sub>2</sub>	g/kWh	1.0	0.3	0.8	3.7	n/a	n/a
Particulate matter	g/kWh	0.05	0.00	0.05	0.19	n/a	n/a
<b>WATER COLLECT BY SOURCE</b>							
Ocean	10 <sup>3</sup> x m <sup>3</sup>	1,721,378	1,219,363	502,014	n/a	n/a	n/a
River/Stream	10 <sup>3</sup> x m <sup>3</sup>	20,019	12,231	7,788	n/a	n/a	n/a
Water reservoir	10 <sup>3</sup> x m <sup>3</sup>	6	n/a	n/a	6	n/a	n/a
Water hole	10 <sup>3</sup> x m <sup>3</sup>	170	170	0	0	n/a	n/a
Well	10 <sup>3</sup> x m <sup>3</sup>	11	0	0	9	2	0
Municipal water supplies	10 <sup>3</sup> x m <sup>3</sup>	15,460	2,595	1,037	11,821	6	2
Other private entity	10 <sup>3</sup> x m <sup>3</sup>	1,388	396	991	1	n/a	0
<b>USE OF WATER</b>							
Cooling water	10 <sup>3</sup> x m <sup>3</sup>	1,751,479	1,231,553	509,326	10,600	n/a	n/a
Row water	10 <sup>3</sup> x m <sup>3</sup>	6,729	3,088	2,464	1,178	n/a	n/a
Potable water	10 <sup>3</sup> x m <sup>3</sup>	208	128	11	58	8	2
<b>WASTEWATER</b>							
Wastewater from generation with treatment	10 <sup>3</sup> x m <sup>3</sup>	2,088	531	1,470	87	n/a	n/a
Discharge into sea	10 <sup>3</sup> x m <sup>3</sup>	1,723,329	1,219,822	502,639	868	n/a	n/a
Discharge into inland and estuary water	10 <sup>3</sup> x m <sup>3</sup>	9,014	7,137	1,877	n/a	n/a	n/a
<b>WASTE SENT TO FINAL DISPOSAL</b>							
Total waste	t	666,771	35,870	267,896	361,847	1,065	94
Total hazard waste	t	6,240	2,664	804	2,240	465	68
Recovered Waste	%	46	84	71	23	80	84
Recycled waste	%	37	73	71	9	70	31
<b>MAIN WASTE CATEGORIES</b>							
Fly ash	t	368,019	684	234,884	132,450	n/a	n/a
Slag	t	64,829	24,254	28,682	11,894	n/a	n/a
Used oils	t	402	158	124	21	95	5
PCB	t	36	7	29	0	0	0
Metals	t	3,043	380	190	2,224	249	0
Gypsum	t	4,750	3,114	1,511	125	n/a	n/a
<b>BY-PRODUCTS<sup>7</sup></b>							
Gypsum	t	197,668	136,499	61,169	0	n/a	n/a
Fly Ash and slag	t	311,904	311,904	n/a	n/a	n/a	n/a
<b>DISTRIBUTION IN PROTECTED AREAS</b>							
<b>High voltage distribution grid in protected areas</b>	<b>km</b>	<b>1,229</b>	<b>914</b>	<b>122</b>	<b>193</b>	<b>n/a</b>	<b>n/a</b>
Overhead	km	1,215	900	122	193	n/a	n/a
Underground	km	14	14	0	0	n/a	n/a
<b>Medium voltage distribution grid in protected areas</b>	<b>km</b>	<b>13,693</b>	<b>9,109</b>	<b>866</b>	<b>3,718</b>	<b>n/a</b>	<b>n/a</b>
Overhead	km	12,671	8,141	818	3,712	n/a	n/a
Underground	km	1,022	968	48	6	n/a	n/a
Substations in protected areas	#	46	19	19	8	n/a	n/a
<b>FLOODED AREAS BY RESERVOIRS</b>	<b>ha</b>	<b>6,025</b>	<b>5,690</b>	<b>330</b>	<b>5</b>	<b>n/a</b>	<b>n/a</b>
<b>ENVIRONMENTAL COMPLAINTS</b>	<b>#</b>	<b>163</b>	<b>74</b>	<b>16</b>	<b>47</b>	<b>1</b>	<b>25</b>

<sup>1</sup> Aggregated certification indicator due to assets with potential environmental impacts.

<sup>2</sup> Primary energy consumption by turnover.

<sup>3</sup> The stationary emissions do not include those produced by the burning of ArcelorMittal steel gases in EDP's power plants in Spain.

<sup>4</sup> Calculation according with GHG Protocol based location methodology.

<sup>5</sup> Scope 1 and Scope 2 emissions by turnover.

<sup>6</sup> Includes only stationary combustion emissions.

<sup>7</sup> The by-product status is only attributed in Portugal and Spain.

SOCIAL INDICATORS

2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>EMPLOYMENT</b>							
<b>Employees</b>	#	<b>11,631</b>	<b>6,085</b>	<b>1,674</b>	<b>3,038</b>	<b>596</b>	<b>238</b>
Executive Board of Directors	#	9	9	0	0	0	0
Senior Management	#	709	452	124	78	38	17
Supervisors	#	754	334	239	101	62	18
Specialists	#	4,369	2,138	723	992	319	197
Technicians	#	5,790	3,152	588	1,867	177	6
Male employees	%	75	76	72	77	72	63
Female employees	%	25	24	28	23	28	37
Females in management position	%	25	25	25	17	27	40
Senior management hired from the local community	%	92	99	84	91	64	29
<b>Employees by types of contract</b>	#	<b>11,631</b>	<b>6,085</b>	<b>1,674</b>	<b>3,038</b>	<b>596</b>	<b>238</b>
<b>Executive bodies</b>	#	<b>59</b>	<b>33</b>	<b>0</b>	<b>26</b>	<b>0</b>	<b>0</b>
Male	#	54	29	0	25	0	0
Female	#	5	4	0	1	0	0
<b>Permanent workforce</b>	#	<b>11,521</b>	<b>6,021</b>	<b>1,659</b>	<b>3,012</b>	<b>596</b>	<b>233</b>
Male	#	8,685	4,581	1,200	2,326	431	147
Female	#	2,836	1,440	459	686	165	86
<b>Fixed-term contracts</b>	#	<b>51</b>	<b>31</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>5</b>
Male	#	26	13	11	0	0	2
Female	#	25	18	4	0	0	3
<b>Employees by occupational contract</b>	#	<b>11,631</b>	<b>6,085</b>	<b>1,674</b>	<b>3,038</b>	<b>596</b>	<b>238</b>
<b>Full-Time</b>	#	<b>11,587</b>	<b>6,084</b>	<b>1,636</b>	<b>3,038</b>	<b>595</b>	<b>234</b>
Male	#	8,759	4,623	1,206	2,351	431	148
Female	#	2,828	1,461	430	687	164	86
<b>Part-time</b>	#	<b>44</b>	<b>1</b>	<b>38</b>	<b>0</b>	<b>1</b>	<b>4</b>
Male	#	6	0	5	0	0	1
Female	#	38	1	33	0	1	3
<b>Employees with special needs</b>	#	<b>169</b>	<b>100</b>	<b>18</b>	<b>51</b>	<b>0</b>	<b>0</b>
Male	#	102	63	11	28	0	0
Female	#	67	37	7	23	0	0
Foreign employees	#	254	50	70	22	68	44
<b>New employees<sup>1</sup></b>	#	<b>1,174</b>	<b>435</b>	<b>95</b>	<b>396</b>	<b>183</b>	<b>65</b>
Direct admissions to permanent workforce	#	1,103	406	84	368	183	62
Admissions with fixed-term contracts	#	60	38	16	0	0	6
Other admissions	#	54	18	7	29	0	0
Male	#	865	319	68	284	154	40
Female	#	352	143	39	113	29	28
<30 years	#	673	325	53	184	87	24
[30-50 years[	#	508	127	52	200	89	40
≥50 years	#	36	10	2	13	7	4
F/M new admissions rate	x	0.41	0.45	0.57	0.40	0.19	0.70
<b>Employees leaving</b>	#	<b>1,200</b>	<b>680</b>	<b>93</b>	<b>301</b>	<b>90</b>	<b>36</b>
Male	#	935	547	74	220	72	22
Female	#	265	133	19	81	18	14
<30 years	#	141	36	13	51	32	9
[30-50 years[	#	295	42	18	163	48	24
≥50 years	#	764	602	62	87	10	3
<b>Turnover</b>	%	<b>10.32</b>	<b>11.18</b>	<b>5.56</b>	<b>9.91</b>	<b>15.10</b>	<b>15.13</b>
Male	%	10.67	11.83	6.11	9.36	16.71	14.77
Female	%	9.25	9.10	4.10	11.79	10.91	15.73
<30 years	%	8.00	4.28	12.87	8.31	19.75	20.00
[30-50 years[	%	4.96	1.76	1.80	8.07	13.15	13.41
≥50 years	%	19.49	21.08	10.78	21.48	14.49	21.43
Average age of workforce	years	44	47	46	38	37	36
Average age of new admissions	years	31	29	32	32	32	34
Average age of leaving	years	51	58	52	41	36	37
Average seniority of employees	years	16	21	16	10	4	4
Seniority of leaving	years	25	30	15	11	3	4
Absenteeism rate	%	2.95	3.45	3.49	1.74	3.21	n/av

<sup>1</sup> Net values of the employees transfer from fixed-term contracts to permanent workforce.

2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>Employees entitled to parental leave</b>	#	<b>471</b>	<b>183</b>	<b>74</b>	<b>156</b>	<b>36</b>	<b>22</b>
Male	#	337	140	36	126	27	8
Female	#	134	43	38	30	9	14
<b>Employees that took parental leave</b>	#	<b>339</b>	<b>178</b>	<b>73</b>	<b>30</b>	<b>36</b>	<b>22</b>
Male	#	205	135	35	n/a	27	8
Female	#	134	43	38	30	9	14
<b>Retention rate of employees who took parental leave</b>	%	<b>99</b>	<b>100</b>	<b>100</b>	<b>93</b>	<b>100</b>	<b>99</b>
Male	%	100	100	100	n/a	100	100
Female	%	98	100	100	93	100	93
<b>Annualized average base salary</b>							
Male	€	3,027	3,130	4,337	1,411	6,536	4,527
Female	€	3,147	3,394	3,691	1,436	6,245	3,719
Pay ratio by gender (F/M)	x	1.04	1.08	0.85	1.02	0.96	0.82
Ratio of the annual total compensation for the organization's highest-paid individual to the average annual total compensation for all employees (excluding the highest-paid individual)	x	n/a	6.22	5.44	13.16	4.71	n/a
Ratio of percentage increase in annual total compensation for the organization's highest-paid individual to the average percentage increase in annual total compensation for all employees (excluding highest-paid individual)	%	n/a	3.10	-0.01	0.96	-0.34	n/a
<b>TRAINING</b>							
<b>Total hours of training</b>	hours	<b>398,394</b>	<b>189,160</b>	<b>68,059</b>	<b>118,824</b>	<b>15,039</b>	<b>7,313</b>
Sustainability							
Environment	hours	2,037	347	1,225	70	0	396
Social and Economic	hours	1,405	1,395	10	0	0	0
Ethics	hours	5,379	1,390	298	3,624	38	30
Quality	hours	3,530	1,676	259	1,595	0	0
Languages	hours	22,675	6,663	13,041	2,387	0	583
Information systems	hours	28,131	13,059	7,387	6,613	614	459
Other	hours	335,238	164,630	45,839	104,535	14,388	5,846
<b>Average training per employee (h/p)</b>	h/p	<b>34</b>	<b>31</b>	<b>41</b>	<b>39</b>	<b>25</b>	<b>31</b>
<b>Executive Board of Directors</b>	h/p	<b>5</b>	<b>5</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>
Male	h/p	5	5	n/a	n/a	n/a	n/a
Female	h/p	5	5	n/a	n/a	n/a	n/a
<b>Senior Management</b>	h/p	<b>43</b>	<b>39</b>	<b>71</b>	<b>9</b>	<b>53</b>	<b>73</b>
Male	h/p	35	38	29	10	53	78
Female	h/p	71	40	236	1	53	55
<b>Supervisors</b>	h/p	<b>59</b>	<b>70</b>	<b>56</b>	<b>54</b>	<b>28</b>	<b>29</b>
Male	h/p	55	72	34	64	33	25
Female	h/p	70	65	115	21	18	32
<b>Specialists</b>	h/p	<b>34</b>	<b>39</b>	<b>43</b>	<b>21</b>	<b>17</b>	<b>28</b>
Male	h/p	32	41	29	24	17	27
Female	h/p	36	37	74	16	17	30
<b>Technicians</b>	h/p	<b>31</b>	<b>20</b>	<b>25</b>	<b>49</b>	<b>34</b>	<b>16</b>
Male	h/p	32	22	10	52	40	24
Female	h/p	25	10	72	30	13	15
Employees with training	%	100	99	100	100	100	97

2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>LABOUR RELATIONS</b>							
Collective employment agreements	%	90	99	78	99	0	45
Trade union membership	%	40	48	17	48	0	0
Union Structures	#	31	18	4	6	0	3
Hours lost due to strikes	hours	98	0	98	0	0	0
Staff engaged in further study	#	47	47	0	0	0	0
Professional Internships	#	357	284	0	0	0	73
Academic internships	#	418	63	208	147	0	0
<b>HEALTH AND SAFETY (H&amp;S)</b>							
Installed capacity certified by OHSAS 18.001	MW	25,715	10,947	5,518	2,523	5,163	1,564
Installed capacity certified by OHSAS 18.001	%	96	97	100	91	93	95
Employees covered by OHSAS 18.001	%	44	28	100	44	51	73
<b>Employees</b>							
<b>Accidents</b> <sup>1</sup>	#	<b>29</b>	<b>19</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>0</b>
Male	#	n/av	17	4	4	n/av	0
Female	#	n/av	2	0	0	n/av	0
Fatal accidents	#	2	2	0	0	0	0
<b>Frequency rate</b> <sup>2</sup>	Fr	<b>1.36</b>	<b>1.84</b>	<b>1.36</b>	<b>0.60</b>	<b>1.81</b>	<b>0.00</b>
Male	Fr	n/av	2.18	1.86	0.81	n/av	0.00
Female	Fr	n/av	0.79	0.00	0.00	n/av	0.00
<b>Severity rate</b> <sup>3</sup>	Sr	<b>110</b>	<b>158</b>	<b>112</b>	<b>57</b>	<b>9</b>	<b>0</b>
Male	Sr	n/av	174	154	76	n/av	0
Female	Sr	n/av	110	0	0	n/av	0
Total lost days due to accidents <sup>4</sup>	#	2,352	1,636	331	375	10	0
Occupational diseases	#	5	5	0	0	0	0
Occupational diseases rate (with devaluation)	%	0.14	0.29	0.00	0.00	0.00	0.00
<b>Contractors</b>							
Accidents <sup>1</sup>	#	106	45	28	26	2	5
Fatal accidents	#	5	2	0	2	1	0
Working days	#	5,663,477	2,167,489	765,859	2,294,532	303,287	132,311
Frequency rate <sup>2</sup>	Fr	2.50	2.77	4.87	1.51	0.88	5.04
Severity rate <sup>3</sup>	Sr	116	149	152	69	15	420
<b>EDP employees and contractors</b>							
Frequency rate <sup>2</sup>	Fr	2.11	2.41	3.68	1.26	1.18	3.71
Severity rate <sup>3</sup>	Sr	114	153	138	65	13	309
Fatal electrical accidents involving third parties <sup>6</sup>	#	7	0	0	7	0	0
Near accidents	#	413	112	41	102	135	23
<b>Representatives elected in H&amp;S Comissions</b>							
EDP employees represented <sup>7</sup>	%	87	88	67	100	51	68
Employees representative	#	248	68	16	111	39	14
<b>H&amp;S TRAINING</b>							
<b>Employees</b>							
Awareness actions	#	1,385	512	456	155	64	198
Employees	#	14,111	6,588	2,877	2,467	194	1,985
Training hours	hours	71,014	25,775	11,383	25,300	1,313	7,243
<b>Contractors</b>							
Awareness actions	#	17,391	1,297	53	14,469	1,541	31
Employees	#	15,095	4,423	445	6,967	2,807	453
Training hours	hours	345,917	375	109	340,277	4,819	337

<sup>1</sup> Accidents at the workplace in worktime and accidents on the way to or from work, with an absence of one more calendar days and fatal accidents.

<sup>2</sup> Work accidents by a million worked hours.

<sup>3</sup> Number of calendar days lost due to work accident by a million worked hours.

<sup>4</sup> Sum of the number of absence calendar days resulting of work accidents occurred in the reference period, plus the number of days lost by accidents in the previous period, which lasted until the reference period without interruption. The lost time is measured from the day following the accident to the day right before the return to work.

<sup>5</sup> Accidents occurred involving male gender employees.

<sup>6</sup> Accidents occurred involving people outside EDP activity.

<sup>7</sup> Number of represented EDP employees, by the total number of EDP employees.

2017	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>EMPLOYMENT</b>							
<b>Employees</b>	#	<b>11,657</b>	<b>6,326</b>	<b>1,680</b>	<b>2,945</b>	<b>502</b>	<b>204</b>
Executive Board of Directors	#	8	8	0	0	0	0
Senior Management	#	750	421	159	74	68	28
Supervisors	#	766	365	225	100	54	22
Specialists	#	4,093	2,062	678	936	269	148
Technicians	#	6,041	3,470	619	1,835	111	6
Male employees	%	76	77	73	77	69	62
Female employees	%	24	23	27	23	31	38
Females in management position	%	25	25	27	16	24	32
Senior management hired from the local community	%	98	100	100	99	99	68
<b>Employees by types of contract</b>	#	<b>11,657</b>	<b>6,326</b>	<b>1,680</b>	<b>2,945</b>	<b>502</b>	<b>204</b>
<b>Executive bodies</b>	#	<b>53</b>	<b>30</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>0</b>
Male	#	50	28	0	22	0	0
Female	#	3	2	0	1	0	0
<b>Permanent workforce</b>	#	<b>11,534</b>	<b>6,252</b>	<b>1,660</b>	<b>2,921</b>	<b>502</b>	<b>199</b>
Male	#	8,762	4,813	1,217	2,259	348	125
Female	#	2,772	1,439	443	662	154	74
<b>Fixed-term contracts</b>	#	<b>70</b>	<b>44</b>	<b>20</b>	<b>1</b>	<b>0</b>	<b>5</b>
Male	#	38	21	16	0	0	1
Female	#	32	23	4	1	0	4
<b>Employees by occupational contract</b>	#	<b>11,657</b>	<b>6,326</b>	<b>1,680</b>	<b>2,945</b>	<b>502</b>	<b>204</b>
<b>Full-Time</b>	#	<b>11,619</b>	<b>6,324</b>	<b>1,650</b>	<b>2,945</b>	<b>502</b>	<b>198</b>
Male	#	8,846	4,862	1,231	2,281	348	124
Female	#	2,773	1,462	419	664	154	74
<b>Part-time</b>	#	<b>38</b>	<b>2</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>6</b>
Male	#	4	0	2	0	0	2
Female	#	34	2	28	0	0	4
<b>Employees with special needs</b>	#	<b>184</b>	<b>111</b>	<b>18</b>	<b>55</b>	<b>0</b>	<b>0</b>
Male	#	116	75	11	30	0	0
Female	#	68	36	7	25	0	0
Foreign employees	#	229	32	70	24	71	32
<b>New employees</b>	#	<b>939</b>	<b>311</b>	<b>128</b>	<b>318</b>	<b>135</b>	<b>47</b>
Direct admissions to permanent workforce	#	820	258	87	300	135	40
Admissions with fixed-term contracts	#	86	40	37	2	0	7
Other admissions	#	33	13	4	16	0	0
Male	#	650	205	84	232	104	25
Female	#	289	106	44	86	31	22
<30 years	#	538	229	70	145	74	20
[30-50 years]	#	374	79	55	165	50	25
≥50 years	#	29	5	3	8	11	2
F/M new admissions rate	x	0.44	0.52	0.52	0.37	0.30	0.88
<b>Employees leaving</b>	#	<b>1,198</b>	<b>450</b>	<b>339</b>	<b>331</b>	<b>58</b>	<b>20</b>
Male	#	892	373	224	244	42	9
Female	#	306	77	115	87	16	11
<30 years	#	135	25	27	57	17	9
[30-50 years]	#	390	30	129	189	31	11
≥50 years	#	673	395	183	85	10	0
<b>Turnover</b>	%	<b>9.04</b>	<b>5.92</b>	<b>13.10</b>	<b>10.99</b>	<b>20.89</b>	<b>17.18</b>
Male	%	8.56	5.81	11.83	10.39	23.14	14.05
Female	%	10.56	6.29	16.53	13.07	16.04	22.30
<30 years	%	22.21	19.08	60.25	16.24	41.74	38.16
[30-50 years]	%	6.80	2.45	8.75	9.27	14.11	12.24
≥50 years	%	7.48	5.64	14.26	11.05	15.91	10.00
Average age of workforce	years	45	48	46	38	37	36
Average age of new admissions	years	31	29	32	32	33	33
Average age of leaving	years	49	58	49	41	39	33
Average seniority of employees	years	18	23	17	10	4	4
Seniority of leaving	years	22	32	20	15	4	4
Absenteeism rate	%	3.19	3.68	3.61	2.12	2.94	n/av

2017	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>Employees entitled to parental leave</b>	#	<b>440</b>	<b>195</b>	<b>62</b>	<b>132</b>	<b>31</b>	<b>20</b>
Male	#	302	138	31	101	25	7
Female	#	138	57	31	31	6	13
<b>Employees that took parental leave</b>	#	<b>334</b>	<b>191</b>	<b>61</b>	<b>31</b>	<b>31</b>	<b>20</b>
Male	#	196	134	30	n/av	25	7
Female	#	138	57	31	31	6	13
<b>Retention rate of employees who took parental leave</b>	%	<b>98</b>	<b>99</b>	<b>100</b>	<b>95</b>	<b>100</b>	<b>100</b>
Male	%	100	99	100	100	100	100
Female	%	95	100	100	77	100	100
<b>Annualized average base salary</b>	€	<b>3,188</b>	<b>3,216</b>	<b>4,179</b>	<b>1,656</b>	<b>6,925</b>	<b>6,823</b>
Male	€	3,164	3,165	4,358	1,653	7,165	7,322
Female	€	3,264	3,386	3,685	1,666	6,382	6,015
Pay ratio by gender (F/M)	x	1.03	1.07	0.85	1.01	0.89	0.82
Ratio of the annual total compensation for the organization's highest-paid individual to the average annual total compensation for all employees (excluding the highest-paid individual)	x	n/a	6.31	5.41	13.08	4.29	n/a
Ratio of percentage increase in annual total compensation for the organization's highest-paid individual to the average percentage increase in annual total compensation for all employees (excluding highest-paid individual) <sup>1</sup>	%	n/a	0.00	2.81	0.00	-4.43	n/a
<b>TRAINING</b>							
<b>Total hours of training</b>	hours	<b>473,078</b>	<b>235,069</b>	<b>58,891</b>	<b>156,707</b>	<b>14,647</b>	<b>7,764</b>
Sustainability							
Environment	hours	3,314	351	302	2,227	129	306
Social and Economic	hours	3,577	2,287	1,290	0	0	0
Ethics	hours	2,653	567	304	1,679	104	0
Quality	hours	3,717	2,505	73	1,078	62	0
Languages	hours	22,553	7,780	10,248	3,459	92	975
Information systems	hours	21,956	12,975	7,059	441	958	523
Other	hours	415,308	208,605	39,617	147,824	13,303	5,960
<b>Average training per employee (h/p)</b>	h/p	<b>41</b>	<b>37</b>	<b>35</b>	<b>53</b>	<b>29</b>	<b>38</b>
Executive Board of Directors	h/p	15	15	n/a	n/a	n/a	n/a
Senior Management	h/p	37	38	48	30	15	40
Supervisors	h/p	72	71	56	131	40	45
Specialists	h/p	38	46	38	25	26	37
Technicians	h/p	39	28	21	64	39	32
Employees with training	%	98	98	111	94	99	85
<b>LABOUR RELATIONS</b>							
Collective employment agreements	%	91	99	79	99	0	43
Trade union membership	%	43	53	18	48	0	0
Union Structures	#	35	22	4	7	0	2
Hours lost due to strikes	hours	8	8	0	0	0	0
Staff engaged in further study	#	29	29	n/av	n/av	n/av	n/av
Professional Internships	#	536	373	0	146	0	17
Academic internships	#	380	123	257	0	0	0

<sup>1</sup> Value for North America explained by the leaving of the highest-paid employee of last year.

2017	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>HEALTH AND SAFETY (H&amp;S)</b>							
Installed capacity certified by OHSAS 18.001	MW	22,782	10,071	5,518	1,718	3,934	1,541
Installed capacity certified by OHSAS 18.001	%	86	89	100	61	74	99
Employees covered by OHSAS 18.001	#	36	17	100	37	43	79
<b>Employees</b>							
<b>Accidents</b> <sup>1</sup>	<b>#</b>	<b>28</b>	<b>22</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>0</b>
Male	#	24	18	2	3	1	0
Female	#	4	4	0	0	0	0
Fatal accidents	#	0	0	0	0	0	0
<b>Frequency rate</b> <sup>2</sup>	<b>Fr</b>	<b>1.33</b>	<b>2.11</b>	<b>0.69</b>	<b>0.46</b>	<b>1.09</b>	<b>0</b>
Male	Fr	N/av	2.25	1.43	0.61	N/av	0
Female	Fr	N/av	1.64	0.00	0.00	N/av	0
<b>Severity rate</b> <sup>3</sup>	<b>Sr</b>	<b>122</b>	<b>173</b>	<b>23</b>	<b>104</b>	<b>24</b>	<b>0</b>
Male	Sr	364	185	41	138	0	0
Female	Sr	130	130	0	0	0	0
Total lost days due to accidents <sup>4</sup>	#	2,574	1,801	66	685	22	0
Occupational diseases	#	2	2	0	0	0	0
Occupational diseases rate (with devaluation)	%	0.00	0.00	0.00	0.00	0.00	0.00
<b>Contractors</b>							
Accidents <sup>1</sup>	#	100	41	28	28	1	2
Fatal accidents	#	4	0	0	4	0	0
Working days	#	5,592,634	2,197,153	696,676	2,250,505	361,521	86,779
Frequency rate <sup>2</sup>	Fr	2.38	2.49	5.36	1.66	0.37	3.07
Severity rate <sup>3</sup>	Sr	136	233	182	48	29	292
<b>EDP employees and contractors</b>							
Frequency rate <sup>2</sup>	Fr	2.03	2.34	3.69	1.32	0.55	2.10
Severity rate <sup>3</sup>	Sr	131	203	125	64	28	199
Fatal electrical accidents involving third parties <sup>6</sup>	#	10	1	0	9	0	0
Near accidents	#	2,279	92	60	1,841	268	18
<b>Representatives elected in H&amp;S Comissions</b>							
EDP employees represented <sup>7</sup>	%	77	77	52	100	7	29
Employees representative	#	138	69	8	56	0	5
<b>H&amp;S TRAINING</b>							
<b>Employees</b>							
Awareness actions	#	1,096	266	510	130	135	55
Employees	#	12,349	7,022	2,367	1,544	1,216	200
Training hours	hours	56,051	15,504	8,849	25,541	4,476	1,680
<b>Contractors</b>							
Awareness actions	#	16,656	1,062	318	14,056	1,200	20
Employees	#	12,478	4,637	190	7,265	0	386
Training hours	hours	119,195	4,176	395	107,340	7,226	58

<sup>1</sup> Accidents at the workplace in worktime and accidents on the way to or from work, with an absence of one more calendar days and fatal accidents.

<sup>2</sup> Work accidents by a million worked hours.

<sup>3</sup> Number of calendar days lost due to work accident by a million worked hours.

<sup>4</sup> Sum of the number of absence calendar days resulting of work accidents occurred in the reference period, plus the number of days lost by accidents in the previous period, which lasted until the reference period without interruption. The lost time is measured from the day following the accident to the day right before the return to work.

<sup>5</sup> Accidents occurred involving male gender employees.

<sup>6</sup> Accidents occurred involving people outside EDP activity.

<sup>7</sup> Number of represented EDP employees, by the total number of EDP employees.

## ECONOMIC INDICATORS

EDP GROUP	UN	2018	2017
<b>ECONOMIC VALUE GENERATED</b>	'000€	<b>16,307,866</b>	<b>17,234,143</b>
Economic value distributed	'000€	14,470,560	14,910,470
Economic value accumulated	'000€	1,837,306	2,323,672
<b>RDI</b>	'000€	<b>75,366</b>	<b>64,518</b>
<b>ENERGY EFFICIENCY AND SUPPLEMENTARY ENERGY SERVICES REVENUES <sup>1</sup></b>	'000€	<b>1,442,966</b>	<b>1,103,854</b>
Energy efficiency services revenues	'000€	151,468	134,114
Supplementary energy services revenues <sup>2</sup>	'000€	1,291,498	969,740
<b>SUPPORT FROM PUBLIC AUTHORITIES <sup>3</sup></b>	'000€	<b>47,958</b>	<b>42,118</b>
<b>FINES AND PENALTIES</b>	'000€	<b>5,951</b>	<b>6,520</b>
<b>ENVIRONMENTAL MATTERS <sup>4</sup></b>	'000€	<b>264,482</b>	<b>237,469</b>
Investments	'000€	68,987	73,197
Expenses	'000€	195,495	164,272
<b>SOCIAL MATTERS</b>			
Personnal costs	'000€	570,909	597,732
Employee benefits	'000€	80,631	83,102
Direct training investment	'000€	4,043	4,337
Direct training investment per employee	€/p	348	372
HC ROI per employee	%	6.35	6.46

<sup>1</sup> Energy Efficiency and Supplementary Energy Services: services provided under energy supply, installation of more efficient and/or building retrofit, and sustainable mobility, which generate revenues for the company.

<sup>2</sup> Supplementary energy services revenues include the following categories: Energy Management, Maintenance and Operation, Property/Facility Management, Energy and/or Equipment Supply, Provision of Service (example: steam) and other.

<sup>3</sup> Support from public authorities both recognised and not recognised in the income statement.

<sup>4</sup> More information available on the Notes to the Consolidated and Company Financial Statements (Note 50) by EDP Group Annual Report.

# GRI INDEX

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 100: UNIVERSAL STANDARDS</b>						
<b>GRI 102: General Disclosures</b>						
<b>1. Organizational profile</b>						
102-1	Name of the organization	3			L	
102-2	Activities, brands, products, and services	26-27			L	
102-3	Location of headquarters	3			L	
102-4	Location of operations	22-23			L	
102-5	Ownership and legal form	3			L	
102-6	Markets served	22-27			L	
102-7	Scale of the organization	22-23; 178; AR 241 and 243			L	
102-8	Information on employees and other workers	178			L	3; 6
102-9	Supply chain	www.edp.com		www.edp.com> suppliers> procurement	L	
102-10	Significant changes to the organization and its supply chain	133; 142; AR 58; AR 91-95			L	
102-11	Precautionary Principle or approach	Code of Ethics		www.edp.com> edp> ethics	L	
102-12	External initiatives	www.edp.com		www.edp.com> sustainability> approach> participations www.edp.com> sustainability> approach> sustainable development goals	L	
<b>2. Strategy</b>						
102-13	Membership of associations	www.edp.com		www.edp.com> sustainability> approach> participations	L	
102-14	Statement from senior decision-maker	8-17			L	
<b>3. Ethics and integrity</b>						
102-15	Key impacts, risks, and opportunities	47-50			L	
102-16	Values, principles, standards, and norms of behaviour	19; Code of Ethics		www.edp.com> edp> ethics	L	10
<b>4. Governance</b>						
102-17	Mechanisms for advice and concerns about ethics	www.edp.com		www.edp.com> edp> ethics	L	10
102-18	Governance structure	35-38; 39-40			L	
102-19	Delegating authority	AR 1209			L	
102-20	Executive-level responsibility for economic, environmental, and social topics	37-40			L	
102-21	Consulting stakeholders on economic, environmental, and social topics	41; 57-60; AR 130			L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
102-22	Composition of the highest governance body and its committees	35-38; 146; 155-168; AR 104-108; AR 142-149			L	
102-23	Chair of the highest governance body	35-38; 155-168; AR 102-104			L	
102-24	Nominating and selecting the highest governance body	35-38			L	
102-25	Conflicts of interest	AR 182; AR 190			L	
102-26	Role of highest governance body in setting purpose, values, and strategy	35-38; 39-40; AR 112-117			L	
102-27	Collective knowledge of highest governance body	179			L	
102-28	Evaluating the highest governance body's performance	110-113; AR 179-184			L	
102-29	Identifying and managing economic, environmental, and social impacts	39-40; 57-60; 111-112; AR 156-171			L	
102-30	Effectiveness of risk management processes	111-112; AR 156-171			L	
102-31	Review of economic, environmental, and social topics	39-40; AR 161			L	
102-32	Highest governance body's role in sustainability reporting	39-40; 170-172			L	
102-33	Communicating critical concerns	113-115; 146; AR 121-135			L	
102-34	Nature and total number of critical concerns	113-115; 146			L	
102-35	Remuneration policies	110-113; AR 174-187			L	
102-36	Process for determining remuneration	110-113; AR 174-187			L	
102-37	Stakeholders' involvement in remuneration	110-113; AR 174-187			L	
102-38	Annual total compensation ratio	179			L	
102-39	Percentage increase in annual total compensation ratio	179			L	
<b>5. Stakeholder engagement</b>						
102-40	List of stakeholder groups	41			L	
102-41	Collective bargaining agreements	179			L	3
102-42	Identifying and selecting stakeholders	Stakeholders Report		www.edp.com> sustainability> publications> reports	L	
102-43	Approach to stakeholder engagement	Stakeholders Report		www.edp.com> sustainability> publications> reports	L	
102-44	Key topics and concerns raised	Stakeholders Report		www.edp.com> sustainability> publications> reports	L	
<b>6. Reporting practice</b>						
102-45	Entities included in the consolidated financial statements	AR 402-410			L	
102-46	Defining report content and topic Boundaries	57-60; 170-172			L	
102-47	List of material topics	57-60			L	
102-48	Restatements of information			Not applicable	L	
102-49	Changes in reporting	57-60; 170-172			L	
102-50	Reporting period	170-172			L	
102-51	Date of most recent report	170-172			L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
102-52	Reporting cycle	170-172			L	
102-53	Contact point for questions regarding the report	AR -last page			L	
102-54	Claims of reporting in accordance with the GRI Standards	170-172			L	
102-55	GRI content index	172			L	
102-56	External assurance	172			L	
<b>GRI 103: Management Approach</b>						<b>1 to 10</b>
103-1	Explanation of the material topic and its Boundary	57;60; Sustainability Management Approach   1.2. Sustainability		www.edp.com> sustainability> publications> reports	L	
103-2	The management approach and its components	57;60; Sustainability Management Approach   1.2. Sustainability		www.edp.com> sustainability> publications> reports	L	
103-3	Evaluation of the management approach	57;60; Sustainability Management Approach   1.2. Sustainability		www.edp.com> sustainability> publications> reports	L	
<b>GRI 200: ECONOMIC TOPICS</b>						
<b>GRI 201: Economic Performance</b>						
201-1	Direct economic value generated and distributed	141			L	
201-2	Financial implications and other risks and opportunities due to climate change	103-104; 174			L	7
201-3	Defined benefit plan obligations and other retirement plans	AR 317; AR 358-366			L	
201-4	Financial assistance received from government	184			L	
<b>GRI 202: Market Presence</b>						<b>6</b>
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	143			L	
202-2	Proportion of senior management hired from the local community	178			L	
<b>GRI 203: Indirect Economic Impacts</b>						
203-1	Infrastructure investments and services supported	134-138			L	
203-2	Significant indirect economic impacts	130-131; 132-134; 134-138			L	
<b>GRI 204: Procurement Practices</b>						
204-1	Proportion of spending on local suppliers	132-134; 148-149			L	
<b>GRI 205: Anti-corruption</b>						<b>10</b>
205-1	Operations assessed for risks related to corruption	113-114			L	
205-2	Communication and training about anti-corruption policies and procedures	179			L	
205-3	Confirmed incidents of corruption and actions taken	113-114; 146			L	
<b>GRI 206: Anti-competitive Behaviour</b>						
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	116-117; 126-128; 146			L	
<b>GRI 300: ENVIRONMENTAL TOPICS</b>						<b>7; 8; 9</b>
ISO 14001 Certified maximum net installed capacity						L
<b>GRI 301: Materials</b>						
301-1	Materials used by weight or volume	145			L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
301-2	Recycled input materials used	n.a.		This figure is considered not material compared to the total materials used	L	
301-3	Reclaimed products and their packaging materials			Not applicable	L	
<b>GRI 302: Energy</b>						
302-1	Energy consumption within the organization	175			L	
302-2	Energy consumption outside of the organization	175			L	
302-3	Energy intensity	175			L	
302-4	Reduction of energy consumption	103-104; 146			L	
302-5	Reductions in energy requirements of products and services	n.a.		Not applicable to the sector	L	
<b>GRI 303: Water</b>						
303-1	Water withdrawal by source	99-100; 175			L	
303-2	Water sources significantly affected by withdrawal of water	99-100; 145; 175-176			L	
303-3	Water recycled and reused			This figure is considered not material compared to the total water used	L	
<b>GRI 304: Biodiversity</b>						
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	176			L	
304-2	Significant impacts of activities, products, and services on biodiversity	100-101; www.edp.com		www.edp.com> sustainability> environmental dim.> biodiversity	L	
304-3	Habitats protected or restored	www.edp.com		www.edp.com> sustainability> environmental dim.> biodiversity	L	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	www.edp.com		www.edp.com> sustainability> environmental dim.> biodiversity	L	
<b>GRI 305: Emissions</b>						
305-1	Direct (Scope 1) GHG emissions	102-103; 145; 175			L	
305-2	Energy indirect (Scope 2) GHG emissions	102-103; 145; 175			L	
305-3	Other indirect (Scope 3) GHG emissions	102-103; 145; 175			L	
305-4	GHG emissions intensity	175			L	
305-5	Reduction of GHG emissions	101-103			L	
	Avoided CO <sub>2</sub> emissions	67-68; 104; 141; 146; 175			L	
305-6	Emissions of ozone-depleting substances (ODS)			Equipment with this substance no longer have expression in the Group	L	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	175			L	
<b>GRI 306: Effluents and Waste</b>						
306-1	Water discharge by quality and destination	145; 175			L	
306-2	Waste by type and disposal method	98-99; 145; 175			L	
306-3	Significant spills			Number of spills registered: 174; Volume of spills: 19,49 m <sup>3</sup>	L	
306-4	Transport of hazardous waste	97-100		There were no exports of hazardous materials in 2018	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
306-5	Water bodies affected by water discharges and/or runoff	97-100		There were no significantly affected water bodies by the wastewater	L	
<b>GRI 307: Environmental Compliance</b>						
307-1	Non-compliance with environmental laws and regulations	145			L	
<b>GRI 308: Supplier Environmental Assessment</b>						
308-1	New suppliers that were screened using environmental criteria	132-134			L	
308-2	Negative environmental impacts in the supply chain and actions taken	132-134			L	
<b>GRI 400: SOCIAL TOPICS</b>						
<b>GRI 401: Employment</b>						
<b>6</b>						
401-1	New employee hires and employee turnover	178			L	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	84; Sustainability Management Approach   4.1. Labour Practices		www.edp.com> sustainability> publications> reports	L	
401-3	Parental leave	179			L	
	Absenteeism rate	178			L	
<b>GRI 402: Labour/Management Relations</b>						
<b>3</b>						
402-1	Minimum notice periods regarding operational changes	Sustainability Management Approach   4.1. Labour Practices		www.edp.com> sustainability> publications> reports	L	
<b>GRI 403: Occupational Health and Safety</b>						
403-1	Workers representation in formal joint management-worker health and safety committees	180; Sustainability Management Approach   4.1. Labour Practices		www.edp.com> sustainability> publications> reports	L	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	92; 180			L	
403-3	Workers with high incidence or high risk of diseases related to their occupation	Health and Safety		www.edp.com> sustainability> publications> reports	L	
403-4	Health and safety topics covered in formal agreements with trade unions	Sustainability Management Approach   4.1. Labour Practices		www.edp.com> sustainability> publications> reports	L	
<b>GRI 404: Training and Education</b>						
<b>6</b>						
404-1	Average hours of training per year per employee	179			L	
404-2	Programs for upgrading employee skills and transition assistance programs	80-81			L	
404-3	Percentage of employees receiving regular performance and career development reviews	84			L	
<b>GRI 405: Diversity and Equal Opportunity</b>						
<b>6</b>						
405-1	Diversity of governance bodies and employees	142; 146; 178			L	
405-2	Ratio of basic salary and remuneration of women to men	179			L	
<b>GRI 406: Non-discrimination</b>						
<b>1; 6</b>						
406-1	Incidents of discrimination and corrective actions taken	Ethics Ombudsman Report		EDP was not aware of such cases in 2018; see in www.edp.com> edp> ethics	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 407: Freedom of Association and Collective Bargaining</b>						1; 3
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	132-133			L	
<b>GRI 408: Child Labour</b>						5
408-1	Operations and suppliers at significant risk for incidents of child labour	132-133			L	
<b>GRI 409: Forced or Compulsory Labour</b>						4
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	132-133			L	
<b>GRI 410: Security Practices</b>						
410-1	Security personnel trained in human rights policies or procedures			Not material	L	
<b>GRI 411: Rights of Indigenous Peoples</b>						1; 2
411-1	Incidents of violations involving rights of indigenous peoples	137-138; Human Rights Report		www.edp.com> sustainability> social dimension> human rights	L	
<b>GRI 412: Human Rights Assessment</b>						1; 2
412-1	Operations that have been subject to human rights reviews or impact assessments	118-119; Human Rights Report		www.edp.com> sustainability> social dimension> human rights	L	
412-2	Employee training on human rights policies or procedures	179		Included in ethics training	L	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	133-134			L	
<b>GRI 413: Local Communities</b>						1
413-1	Operations with local community engagement, impact assessments, and development programs	134-138			L	
413-2	Operations with significant actual and potential negative impacts on local communities	137			L	
<b>GRI 414: Supplier Social Assessment</b>						1; 2
414-1	New suppliers that were screened using social criteria	132-133			L	
414-2	Negative social impacts in the supply chain and actions taken	132-133			L	
<b>GRI 415: Public Policy</b>						10
415-1	Political contributions	119			L	
<b>GRI 416: Customer Health and Safety</b>						
416-1	Assessment of the health and safety impacts of product and service categories	Sustainability Management Approach   4.4. Product Responsibility		www.edp.com> sustainability> publications> reports	L	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services			Its is included in the scope of the GRI 419-1 report but is not relevant	L	
<b>GRI 417: Marketing and Labelling</b>						
417-1	Requirements for product and service information and labelling	Sustainability Management Approach   4.4. Product Responsibility			L	
417-2	Incidents of non-compliance concerning product and service information and labelling			Its is included in the scope of the GRI 419-1 report but is not relevant	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
417-3	Incidents of non-compliance concerning marketing communications			Its is included in the scope of the GRI 419-1 report but is not relevant	L	
	<b>GRI 418: Customer Privacy</b>					1
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	146			L	
	<b>GRI 419: Socioeconomic Compliance</b>					
419-1	Non-compliance with laws and regulations in the social and economic area	184			L	
	Environmental matters	184			L	
	Energy efficiency services revenues	184			L	
<b>G4 SECTOR SPECIFIC</b>						
<b>General standard disclosures</b>						
EU1	Installed capacity, broken down by primary energy source and by regulatory regime	141			L	
EU2	Net energy output broken down by primary energy source and by regulatory regime	141			L	
EU3	Number of residential, industrial, institutional and commercial customer accounts	147			L	
EU4	Length of above and underground transmission and distribution lines by regulatory regime.	24			L	
EU5	Allocation of CO <sub>2e</sub> emissions allowances or equivalent, broken down by carbon trading framework	AR 392			L	
<b>Economic</b>						
G4-DMA Availability and Reliability		Sustainability Management Approach   2.5. Availability and Reliability		www.edp.com> sustainability> publications> reports	L	
EU10	Planned capacity against projected electricity demand over the long-term, broken down by energy source and regulatory regime	24; 141			L	
G4-DMA Demand-Side Management		Sustainability Management Approach   2.6. Demand-Side Management		www.edp.com> sustainability> publications> reports	L	
G4-DMA Research and Development		Sustainability Management Approach   2.7. Research and Development		www.edp.com> sustainability> publications> reports	L	
G4-DMA Plant Decommissioning		Sustainability Management Approach   2.8. Plant Decommissioning		www.edp.com> sustainability> publications> reports	L	
EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime	146			L	
EU12	Transmission and distribution losses as a percentage of total energy	146			L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>Environment</b>						
G4-DMA Materials		Sustainability Management Approach   3.2. Materials		www.edp.com> sustainability> publications> reports	L	
G4-DMA Water		Sustainability Management Approach   3.4. Water		www.edp.com> sustainability> publications> reports	L	
G4-DMA Biodiversity		Sustainability Management Approach   3.5. Biodiversity		www.edp.com> sustainability> publications> reports	L	
EU13	Biodiversity of offset habitats compared to biodiversity of the affected areas	100-101; www.edp.com		www.edp.com> sustainability> environmental dim.> biodiversity	L	7; 8
G4-DMA Effluents and Waste		Sustainability Management Approach   3.7. Effluents and Waste		www.edp.com> sustainability> publications> reports	L	
<b>Social</b>						
G4-DMA Employment	Programs and processes to ensure the availability of a skilled workforce	Sustainability Management Approach   4.1. Labour Practices		www.edp.com> sustainability> publications> reports	L	
EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region	143			L	
EU17	Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities	180			L	
EU18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	180			L	
G4-DMA Freedom of Bargaining	Assoc. Collective	Sustainability Management Approach   4.2. Human Rights		www.edp.com> sustainability> publications> reports	L	
G4-DMA Local Communities	Stakeholder participation in the decision-making process related to energy planning and infrastructure development	Sustainability Management Approach   1.2. Sustainability		www.edp.com> sustainability> publications> reports	L	
G4-DMA Disaster/Emergency Planning and response	Contingency planning measures, disaster/emergency management plan and training programs, and recovery/restoration plans	Sustainability Management Approach   4.3. Society		www.edp.com> sustainability> publications> reports	L	
EU22	Number of people physically or economically displaced and compensation, broken down by type of project	137-138			L	1; 7; 8

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>Product responsibility</b>						
G4-DMA Provision of Information	Practices to address language, cultural, low literacy and disability related barriers to access and safely use electricity and customer support service	Sustainability Management Approach   4.4. Product Responsibility		www.edp.com> sustainability> publications> reports	L	
EU25	Number of injuries and fatalities to the public involving company assets including legal judgments, settlements and pending legal cases of diseases	180			L	
G4-DMA: Access	Programs, including those in partnership with government, to improve or maintain access to electricity and customer support services	Sustainability Management Approach   4.4. Product Responsibility		www.edp.com> sustainability> publications> reports	L	
EU26	Percentage of population unserved in licensed distribution or service areas	Sustainability Management Approach   4.4. Product Responsibility		www.edp.com> sustainability> publications> reports	L	
EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	147			L	
EU28	Power outage frequency	147			L	
EU29	Average power outage duration	147			L	
EU30	Average plant availability factor by energy source and by regulatory regime	AR 419; AR 422; AR 423			L	
L - limited verification				Fully reported		
AR – EDP’s Annual Report 2018				Partially reported		
				Not reported		

# AUDITOR STATEMENT



## ***Independent Limited Assurance Report*** ***(Free translation from the original in Portuguese)***

To the Executive Board of Directors of  
EDP – Energias de Portugal, S.A.

### ***Introduction***

1 We were engaged by the Executive Board of Directors of EDP - Energias de Portugal, S.A. (“EDP” or “Company”) to perform a limited assurance engagement on the indicators which integrate the sustainability information included in the Sustainability Report 2018 (“Report”), for the year ended in December 31<sup>st</sup> 2018, prepared by the Company for the purpose of communicating its annual sustainability performance.

### ***Responsibilities***

2 It is the responsibility of the Executive Board of Directors to prepare the sustainability information included in the Report, in accordance with the sustainability reporting guidelines “Global Reporting Initiative”, “GRI Standards” and Electric Utilities Supplement; with the AA1000AP Standard (2018) issued by Accountability, regarding the principles of inclusivity, materiality, responsiveness and impact; and with the instructions and criteria disclosed in the Report, as well as for the maintenance of an appropriate internal control system that enables the adequate preparation of the mentioned information.

3 Our responsibility is to issue a limited assurance report, which is professional and independent, based on the procedures performed and specified in the paragraphs below.

### ***Scope***

4 The work performed was conducted in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised) “Assurance engagements other than audits or reviews of historical financial information”, issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the sustainability information identified in Annex “GRI Table” from the report, related to the year ended in December 31<sup>st</sup> 2018, with “External Assurance – Limited” is free from material misstatement.

5 It was also considered the AA1000 Assurance Standard (AA1000 AS, 2018 Addendum), type 2 engagement, for a moderate level of assurance.

6 For this purpose the above mentioned work included:

- i) Inquiries to management and senior officials responsible for areas under analysis, with the purpose of understanding how the information system is structured and their awareness of issues included in the report;
- ii) Identification of the existence of internal management procedures leading to the implementation of economic, environmental and social policies;

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PricewaterhouseCoopers & Associados - Sociedade de Revisores Oficiais de Contas, Lda. pertence à rede de entidades que são membros da PricewaterhouseCoopers International Limited, cada uma das quais é uma entidade legal autónoma e independente.

- iii) Testing, on a sampling basis, the efficiency of processes and systems in place for collection, consolidation, validation and reporting of the performance information previously mentioned, through calculations and validation of reported data;
- iv) Confirmation that operational units follow the instructions on collection, consolidation, validation and reporting of performance information;
- v) Execution of substantive procedures, on a sampling basis, in order to collect evidence of the reported information;
- vi) Comparison of financial and economic data included in the sustainability information with the audited by PricewaterhouseCoopers & Associados, SROC, Lda, in the scope of the legal review of EDP's financial statements for the year ended in December 31st, 2018;
- vii) Comparison of sustainability data from EDP Brasil included in the sustainability information with the data reported in Annual Report 2018 from EDP Energia do Brasil S.A., verified by KPMG Financial Risk & Actuarial Services, Ltda;
- viii) Analysis of the process for defining the materiality of the sustainability issues, based on the materiality principle of GRI Standards, according to methodology described by the Company in the Report;
- ix) Assessment of the level of adherence to the principles of inclusivity, materiality, responsiveness and impact set by AA1000AP Standard (2018), in the sustainability information disclosure, through the analysis of the contents of the Report and the internal documents of the Company;
- x) Verification that the sustainability information included in the Report complies with the requirements of GRI Standards.

7 The procedures performed were more limited than those used in an engagement to obtain reasonable assurance and, therefore, less assurance was obtained than in a reasonable assurance engagement.

8 We believe that the procedures performed provide an acceptable basis for our conclusion.

#### **Quality control and independence**

9 We apply the International Standard on Quality Control 1 (ISQC1) and, accordingly, maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

10 We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and of the ethics code of the Institute of Statutory Auditors.

#### **Conclusion**

11 Based on the work performed, nothing has come to our attention that causes us to believe that the sustainability information, regarding indicators identified in Annex "GRI Table" of the Report, related to the year ended in December 31st 2018, identified as with "External Assurance – Limited", was not prepared, in all material respects, in accordance with GRI Standards requirements and with the instructions and criteria disclosed in the Report and that EDP has not applied, in the sustainability information included in the Report, the GRI Standards guidelines, for the option "In accordance – Comprehensive" and the principles defined in the AA1000AP Standard (2018).

**Other matters**

12 Without affecting the conclusion above, in paragraph 11, we also present the following aspects regarding EDP's adherence to the principles of AA1000AP Standard (2018):

- Principle of inclusivity: EDP presents a consolidated process of stakeholders' consultation for the different business units and geographies where EDP Group operates, aligned with the corporate stakeholder management model. The implementation of the stakeholder management guide, as well as the development of the stakeholder management plan applicable to all the business units and geographies where the EDP Group operates, guarantees a better standardization of the process. Every year, EDP carries out specific initiatives related to certain groups of stakeholders, ensuring the inclusion and review of its expectations. Additionally, in 2018, EDP conducted a process of external consultation.
- Principle of materiality: EDP has defined a comprehensive process for the determination of material issues, which consolidates a view of the issues for a corporate and local levels (by geography/business unit). The outputs from the identification of material issues reflect the main issues of the energy sector, of the geographies where the Group operates and of the main stakeholders. EDP ensures that the scope of the materiality process is extended to all geographies where the Group is present, allowing a greater harmonization between all business units, as well as determination of the materiality by stakeholder segment.
- Principle of responsiveness: EDP addresses the expectations of its main stakeholders by defining a set of goals and targets as reported in the Sustainability Report. EDP has been developing consolidated action plans by business unit to ensure a better alignment and communication of corporate commitments and objectives for the most relevant material issues.
- Principle of impact: EDP discloses the main impacts generated by its activity, through the response given in each material issue, in the different aspects of sustainability (economic, environmental and social dimensions). By respecting the reporting principles, EDP intends to create and disseminate a comprehensive and balanced understanding of the measurement and evaluation of the organization's impacts on its stakeholders and on the organization itself.

**Restriction on use**

13 This report is issued solely for information and use of the Executive Board of Directors of the Company for the purpose of communicating its annual sustainability performance in the Sustainability Report 2018, and should not be used for any other purpose. We will not assume any responsibility to third parties other than EDP by our work and the conclusions expressed in this report, which will be attached to the Company's Sustainability Report 2018.

March 11, 2019

PricewaterhouseCoopers & Associados  
- Sociedade de Revisores Oficiais de Contas, Lda.  
represented by:

António Brochado Correia, R.O.C.



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# REPORT ON THE ALLOCATION AND IMPACT OF GREEN BONDS

In accordance with EDP's Green Bond Framework, after issuing 600 million euros in green bonds in October 2018, it became necessary to report annually to investors on the way that the financing obtained was allocated. The information included in this report can be found on the EDP site: [www.edp.com](http://www.edp.com)> investors> funding> green bonds.

With a maturity term of seven years and a coupon of 1.875% per year, the proceeds arising from the issue were used by the company to finance or re-finance investments in a portfolio of projects eligible for green financing (in accordance with EDP's Green Bond Framework), thereby encouraging the transition to a low-carbon economy.

As part of the issuing of green bonds for the sum of 600 million euros in October 2018, EDP undertook to finance or re-finance a portfolio of projects eligible for green financing, and has followed the Green Bond Principles of the ICMA to structure the framework of the green issuances. The EDP's framework was externally verified by Sustainalytics.

The sum of 600 million euros was allocated by 31 December 2018, 76 million euros of which in new projects and 524 million euros in existing projects. It should be noted that the amount of green financing allocated to new projects corresponds to the wind farms that began operating in Europe, after the date the green bonds were issued.

Presented in the points below is the report on the important information for investors on the application of the funds from the 1st issue of green bonds by the company and the resulting environmental benefits.

## REPORT ON THE ALLOCATION OF FINANCIAL ASSETS

CHARACTERISTICS FROM THE 1 <sup>st</sup> GREEN BOND ISSUE	PRE-ISSUE		POST-ISSUE		
	REFERENCE PRINCIPLES	SECOND OPINION	REMOTE	GREEN BONDS INDEXES	EXTERNAL VERIFICATION
	Green Bond Principles (ICMA 2018)	Sustainalytics	Register on the database of the Climate Bond Initiative (CBI)	Bloomberg Barclays MSCI Global Green Bond Index	PWC
USE OF RESOURCES (ELIGIBILITY CRITERIA)	Investments (in new projects or re-financing of existing projects) in renewable energy (wind and solar);				
EVALUATION AND SELECTION OF PROJECTS	Compliance with the objectives of EDP's environmental and social policies, supported by a screening of ESG aspects.				
MANAGEMENT OF THE FUNDS OBTAINED	The net balance of the funds obtained from the green bonds follows a portfolio approach. The resources shall be used to (re-)finance eligible green projects (wind and solar). Until the net balance of the funds obtained from green bonds has been fully assigned, EDP will invest the net unassigned balance to the portfolio of eligible projects, in treasury liquidity or in the repayment/purchasing of existing debt, according to its own criteria.				
REPORT ON THE APPLICATION OF THE FUNDS OBTAINED	The report is made based on the following indicators: <ul style="list-style-type: none"> <li>- Portfolio value of eligible projects.</li> <li>- Net balance of unused resources.</li> <li>- Quantity and percentage of new projects and existing projects.</li> </ul>				
REPORT ON THE IMPACT OF THE FUNDS APPLIED	The report is made based on the following indicators: <ul style="list-style-type: none"> <li>- Installed capacity (MW)</li> <li>- CO<sub>2</sub> Emissions avoided (tCO<sub>2</sub>)</li> <li>- Production of renewable energy (MWh)</li> </ul> Note: The CO <sub>2</sub> emissions avoided correspond to the emissions that would have occurred if the electricity generated by renewable sources had been produced by thermal power stations. For each country, this is obtained by multiplying the net renewable production by the emission factor for thermally-generated electricity in the country.				

## USE OF PROCEEDS FOR ELIGIBLE GREEN PROJECTS

Portfolio date: December 2018

ELIGIBLE SUSTAINABILITY PROJECT PORTFOLIO	UN	VALUE	ALLOCATION OF GREEN FUNDING (IN PERIOD)	UN	VALUE
<b>Existing projects (~ 2018)</b>			<b>Allocated to green bonds</b>	€	<b>600,000,000</b>
Renewable Energy					
Wind	€	6,942,664,580			
Solar	€	188,042,074			
<b>New Projects (~2018)</b>					
Renewable Energy					
Wind	€	75,931,600			
Solar	€	-			
			<b>Unallocated Amount of Eligible Project Portfolio</b>	€	<b>6,606,638,254</b>
<b>TOTAL ELIGIBLE SUSTAINABILITY PROJECT PORTFOLIO</b>	€	<b>7,206,638,254</b>	<b>MAXIMUM SUSTAINABILITY FINANCING</b>		<b>7,206,638,254</b>

Percentage of Eligible Green Project Portfolio allocated to net proceeds of green funding: % 8.3 (usage)

Percentage of Eligible Green Project Portfolio allocated to net proceeds of green funding: % 100

## PORTFOLIO BASED GREEN BOND REPORT ACCORDING TO THE HARMONIZED FRAMEWORK FOR IMPACT REPORTING

Portfolio date: December 2018

ELIGIBLE PROJECT CATEGORY SOCIAL BOND PRINCIPLES (SBP) GREEN BOND PRINCIPLES (GBP)*	SIGNED AMOUNT	SHARE OF TOTAL PORTFOLIO FINANCING	ELIGIBILITY FOR GREEN BONDS	INSTALLED CAPACITY OF RENEWABLE ENERGY IN MW	ANNUAL NET PRODUCTION OF RENEWABLE ENERGY (MWh)	CO <sub>2</sub> EMISSIONS AVOIDED (tCO <sub>2</sub> )
a/	b/	c/	d/	e/	e/	e/
Renewable Energy	€ 7,206,638,254	100%	100%	8,518	20,772,473	14,580,656
<b>Total</b>	<b>€ 7,206,638,254</b>	<b>100%</b>	<b>100%</b>	<b>8,518</b>	<b>20,772,473</b>	<b>14,580,656</b>

a/ Eligible Category

b/ Signed amount represents the amount legally committed by the issuer for the portfolio or portfolio components eligible for Green Bond financing

c/ This is the share of the total portfolio cost that is financed by the issuer

d/ This is the share of the total portfolio costs that is Green Bond eligible

e/ Impact indicators

- Installed capacity of renewable energy in MW
- Annual net production of renewable energy (MWh)
- CO<sub>2</sub> Emissions avoided in tCO<sub>2</sub>

\*the values presented only reflect the percentage of participation by EDPR

Source:

[www.ifc.org/wps/wcm/connect/f932dc004ad996538a1fea4fb4720a61/Updated+logo+FINALPROPOSALIRH+CLEAN.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/f932dc004ad996538a1fea4fb4720a61/Updated+logo+FINALPROPOSALIRH+CLEAN.pdf?MOD=AJPERES)

# GREEN BONDS REPORT



## ***Independent Limited Assurance Report***

***(Free translation from the original in Portuguese)***

To the Executive Board of Directors of  
EDP – Energias de Portugal, S.A.

### ***Introduction***

1 We were engaged by the Board of Directors of EDP - Energias de Portugal, S.A. (“EDP” or “Company”) to perform a limited assurance engagement on information included in the Report on the Allocation and Impact of Green Bonds (“Green Bonds Report”) integrated in the Sustainability Report 2018, for the year ended in December 31, 2018, prepared by the Company in accordance with the EDP Green Bond Framework (“Framework”).

### ***Responsibilities***

2 It is the responsibility of the Board of Directors to prepare the Green Bonds Report included in the Sustainability Report 2018, in accordance with the Framework, as well as to maintain an appropriate internal control system that enables the adequate preparation of the mentioned information.

3 Our responsibility is to issue a limited assurance report, which is professional and independent, based on the procedures performed and specified in the paragraphs below.

### ***Scope***

4 The work performed was conducted in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised) “Assurance engagements other than audits or reviews of historical financial information”, issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the information included at the Green Bonds Report is free from material misstatement.

5 For this purpose the above mentioned work included:

- i) Meetings with EDP’s personnel from various departments who have been involved in the preparation of the Green Bonds in order to understand the characteristics of the (re)financed projects, the internal management procedures and systems in place, the data collection process and the environment control;
- ii) Verification of the application of the eligibility criteria, described in the Framework, for the selection of projects (re)financed by the Green Bonds;
- iii) Analysis of the procedures used for obtaining the information and data presented in the Green Bonds Report;

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- iv) Verification through random sampling and substantive testing of the information related to indicators included in Green Bonds Report. We have also verified whether they were appropriately compiled from the data provided by EDP's sources of information.
- v) Validation that information disclosed is in accordance with the reporting requirements established in the Framework.

6 The procedures performed were more limited than those used in an engagement to obtain reasonable assurance and, therefore, less assurance was obtained than in a reasonable assurance engagement.

7 We believe that the procedures performed provide an acceptable basis for our conclusion.

#### ***Quality control and independence***

8 We apply the International Standard on Quality Control 1 (ISQC1) and, accordingly, maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

9 We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants and of the ethics code of the Institute of Statutory Auditors ("Ordem dos Revisores Oficiais de Contas").

#### ***Conclusion***

10 Based on the work performed, nothing has come to our attention that causes us to believe that the information included in the Green Bond Reports, included in the Sustainability Report 2018 was not prepared, in all material respects, in accordance with the reporting criteria disclosed in the Green Bond Report and in the Framework.

#### ***Restriction on use***

11 This report is issued solely for information and use of the Board of Directors of the Company for the purpose of reporting on green bonds performance and activities, and should not be used for any other purpose. We will not assume any responsibility to third parties other than EDP by our work and the conclusions expressed in this report, which will be attached to the Company's Sustainability Report 2018.

March 11, 2019

PricewaterhouseCoopers & Associados  
- Sociedade de Revisores Oficiais de Contas, Lda.  
represented by:

António Brochado Correia, R.O.C.

*edp*

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