



SUSTAINABILITY  
REPORT

2019

ale





## ENERGY. ENERGIA. ENERGÍA.

We are energy. An energy that is international and speaks many languages.

We are a force driven by innovation toward a greener, more electric, and more sustainable future.

It's no longer a secret that we think of the wind, water, and sun as our greatest allies in our search for ever cleaner energy that reaches everyone in a fairer and more inclusive way.

We set out our ambitious goals, always with a commitment to create a network of energy, talent, technology, with more global and efficient solutions.

Decarbonize, digitalize, and decentralize are the action verbs on this path to change.

We are spearheading the energy transition and assuming the responsibility to challenge the world to join us.

Energy begins with us. And the future is today.



# 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 and American 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 issues.

This Report has been structured in three major blocks and covers the calendar year 2019:

PRESENTATION AND STRATEGIC APPROACH	PERFORMANCE	INDICATORS
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.	Organized around the four sustainability strategic pillars, reports on the year's material issues. Includes management approach, 2019 main events and 2020 challenges, as well as illustrative cases about EDP practices: Our practice.	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.

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

- Annual Report;
- Annual Report of the General and Supervisory Board;
- Annual sectoral reports, in particular: Ethics Ombudsperson's Report, Report of assessment on potential impacts and respect for Human and Labour Rights, Health and Safety Report 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.







energy

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SUSTAINABLE  
ENERGY





# 01

## EDP

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***“We were pioneers  
in renewable energy.  
Our capacity  
to anticipate puts us  
in a distinctive  
position to lead  
the energy  
transition”***

**ANTÓNIO MEXIA**

CHAIRMAN OF THE EXECUTIVE BOARD  
OF DIRECTORS

# Message from the Chairman

OF THE EXECUTIVE BOARD OF DIRECTORS

**ANTÓNIO MEXIA**

DEAR SHAREHOLDER,

We are living in a world in profound transformation characterized by its unprecedented speed, as we move towards the globalization and interdependence of economic activities, creating significant challenges and opportunities with regards to the organization of our societies, national and international institutions, regulation and market functioning. We are also living in a time of assessment of the role of companies in our system, where their success is closely linked to the capacity to anticipate and execute and above all, it is dependent on their capacity to reinvent themselves, considering a mandatory framework of shared commitments with all stakeholders.

It is in this context that the urgency of fighting climate change and decarbonizing the economy arises as a decisive factor in companies' long-term prospects. On the one hand, energy generation from renewable sources has been accelerating, strongly supported by its exponential cost-competitiveness vis-à-vis conventional generation technologies. On the other hand, the intensification of the financing and investment in sustainable companies already reflects the growing awareness on this issue. The commitment to decarbonize the economy in little less than 30 years is a challenge that needs to be at the top of the agenda for both private and public institutions, and the civil society.

## **GLOBAL LEADER IN RENEWABLES**

The investment in renewable energy generation and the electrification of other sectors of society are essential to guarantee an indispensable, inclusive and fair energy transition. This is a commitment that has been incorporated in EDP Group's strategy for over a decade and which has resulted in our affirmation as a global leader in renewables, with over 20GW of renewable installed capacity, contributing to 66% of our generation. Additionally, we have a considerable international exposure through our presence in 19 countries, with more than 65% of the recurring EBITDA stemming from abroad.

Sustainable development has been one of the main drivers of our strategy. We have been contributing to the achievement of 9 of the 17 Sustainable Development Goals from the United Nations' 2030 agenda, through several initiatives, investments and a corporate sustainability fund. We have also shown our commitment to the United Nations Global Compact's 10 principles, as we continuously align ourselves with the best practices in human rights, labour, environment and anti-corruption. EDP was the first Portuguese company to launch a green debt instrument, having already issued the equivalent to 3 billion euros in Green Bonds, currently listed on renowned indexes such as the Bloomberg Barclays MSCI Global Green Bond Index and the ICE BofAML Green Bond Index, and more recently, the new Green Bond specific segment by EURONEXT Dublin. Given our distinguished sustainable and green positioning, we are recognized, since 2008, by the Dow Jones Sustainability indexes as one of the most sustainable companies in the world, occupying a leadership position among integrated utilities and having obtained, in 2019, our best score ever.



## COMMITTED TO DELIVER ON OUR STRATEGIC TARGETS

EDP's strategy is also reflected in the consistency of our results. 2019 was again marked by a strong operating performance, with the recurring EBITDA increasing to 3.7 billion euros, a 13% increase compared to 2018, backed by the solid performance of our teams. The recurring net income increased 7% in 2019, reaching 854 million euros, boosted by record-high results at EDP Renováveis and EDP Brasil and a record-high operating profit at EDP Comercial.

This past year, the company installed 888MW of renewable capacity and secured 3GW, almost doubling the contracted pipeline which already corresponds to 76% of the 7GW additions targeted until 2022. In offshore, we reinforced our leadership positioning through the signing of a 50-50 joint-venture with Engie, which doubles our pipeline ambition, and through the entry in the United States of America with an 804MW supply contract with the State of Massachusetts.

***“In 2019 we provided visibility on the delivery of our 2022 strategic commitments, reinforcing the confidence over our strong execution capabilities”***

In line with our strategic plan, we maintained our focus on optimizing our portfolio through the asset rotation strategy, with one billion euros in proceeds and over 300 million euros in capital gains. To rebalance our portfolio in Iberia, we reached a 2.2 billion euros' agreement for the disposal of 1.7GW of hydro capacity in Portugal, contributing to the reduction of our generation portfolio's concentration and hydrological risk.

In networks, we have strengthened our focus in transmission in Brazil, supported by the acquisition of a new 142km lot, which will imply a total investment of 407 million Brazilian real. Complementing this, are our strong execution capabilities as 187km of transmission lines are already in operation, 20 months ahead of schedule.

As to the strengthening of our balance sheet, our strong execution capabilities led to a decrease of the net-debt-to-EBITDA ratio to 3.6x, the lowest level since 2007. We have also continued the cost-reduction and optimization of our operations, resulting in an OPEX reduction of 1% (excluding growth).

## FOCUSED ON LEADING AN ELECTRIC FUTURE

2020 sets the beginning of a decade that will be decisive to achieve carbon neutrality by 2050 and accelerate the profound behavioural change that it requires. Recognizing the urgency of this matter, EDP joined other utilities to push the European Union to formally commit to achieving carbon neutrality by 2050 and to target a greenhouse gas emissions' reduction of at least 55% by 2030 (compared to 1990).

***“We are aware of the role we must play in the global effort to decarbonize the planet. We want to lead by example and actively contribute to contain the global temperature increase to 1.5°C”***

We have committed, and intend to meet, the ambitious goals of the Clean Energy for all Europeans' package and we were one of the first 87 companies to answer the United Nations' call as we stepped up and subscribed the Business Ambition for 1.5°C. On top of this, our decarbonisation commitment has already been recognized by the Science Based Target Initiative as having a level of ambition aligned with the Paris Agreement, on a path to well below 2°C.

The commitment is ours, but the effort must be shared. We therefore continuously promote partnerships to create value and respond to the sector's challenges. Whether by collaborating with international institutions such as Sustainable Energy for ALL (a United Nations initiative that brings together governments, international organizations and the private sector to promote global access to sustainable energy), or by creating an open innovation ecosystem with start-ups, EDP intends to be part of the solution.

We have been working and partnering to find new solutions for these challenges at a global scale:

- To stay at the forefront of innovation, we acquired minority stakes in more than 30 start-ups, in an amount superior to 36 million euros. The recent investment in GridBeyond, a leading ancillary services company focused on flexible load management for corporate clients, in the United Kingdom and Ireland, is a clear example of this strategy.



- We recently entered Nigeria through the investment in Rensource, a company developing decentralized solar energy systems, strengthening our access to energy commitment for a more just and inclusive energy transition.
- In emergent renewable technologies, we are leading in the development of floating wind platforms through the Windfloat Atlantic project, which implies the installation of 8,4MW wind turbines in deep water (the largest turbine ever installed on a floating platform), so far inaccessible and where the abundant wind resources may be used.
- In electric mobility, we are consistently increasing the pace, having recently closed a partnership with 10 reference companies in the Brazilian mobility sector for the development of the largest ultra-fast chargers' installation in South America, with more than 2,500km of extension.

To remain at the forefront of the sector, we also continuously evaluate and test new potential energy generation alternatives:

- We have developed several renewable technology hybridization projects, among which the 11,000 floating solar panel installation with storage in the Alqueva, a pumped-storage hydro powerplant.
- We are also developing a pilot project to produce hydrogen at the Ribatejo Combined Cycle Plant, with storage and natural gas co-combustion as hydrogen, produced from renewable sources, will be a clear solution to solve the so-called last mile of decarbonisation in sectors and industries where direct electrification is not an option.

***“We challenge ourselves daily, with increasingly ambitious and demanding objectives for the building of a more sustainable future, an electric future.”***

By 2030, we will reduce our CO<sub>2</sub> specific emissions by 90% (compared to 2005) based, above all, on the increase in generation from renewable energy sources (which will represent more than 90% of our generation) and the exit from the coal business, namely by closing Sines Power Plant, the Group's largest coal plant, until 2023. We will promote electric mobility with the aim of reaching one million customers by 2030 and boost the installation of more than 4 million solar panels. We will also continue with the transition to smart grids in Iberia and with the digitalization of our organization.

Our starting point is unique and distinctive and gives us an advantage to meet tomorrow's challenges and lead the energy transition. Nonetheless, it is our ability to deliver on our commitments, our ambition and our focus in our vision that will make the difference in this indispensable and irreversible change. We are proud of what we have achieved so far, but we want to take on the responsibility of going further. The decisive decade has started, and the future cannot wait - the future is now.

I invite you to learn more about our operation throughout the pages of this report and to follow the energy and commitment with which we are preparing the future - a future that will be electric.





***“It is important to highlight that EDP is joining the global movement of companies committed to aligning their business with the maximum target of the Paris Agreement to limiting the global average temperature increase by 1.5°C.”***

**ANTÓNIO MARTINS  
DA COSTA**

EBD MEMBER  
RESPONSIBLE FOR SUSTAINABILITY

# Message from the Administrator

ANTÓNIO MARTINS DA COSTA

## AMBITION 2030

### CHALLENGES AND CHOICES

In the next ten years, the energy transition will restructure industries, jobs and consumer preferences. Value chains based on CO<sub>2</sub> issuing technologies will have increasing reputational difficulties as well as access to the capital market. Innovative companies in the development of clean solutions and technologies will mobilize the interest of investors and the choices of decision makers.

In 2030, the energy mix will be fundamentally different from the current one. Companies operating in 2030 will have managed to go through a decade of radical transformation, as they will have been able to define, implement and communicate a strategy for decarbonizing their portfolio and society.

The success of energy companies will be achieved with the constant scrutiny, collaboration and support of their stakeholders. In the face of worsening climate change, and under strong media, competitive and regulatory pressure, it will be the stakeholders - shareholders, employees, business partners, customers and local communities - who decide which companies will deserve their preference and will reach 2030 stronger.

In 2030, the EDP Group will have transformed its portfolio in order to reduce 90% of its specific emissions of CO<sub>2</sub>eq, compared to 2005, and to reach the goal of 90% of renewable production. EDP customers will use smart energy management technologies, photovoltaic systems and electric car charging at home, in businesses and on the public highway. Over 50% of customers will use new energy services tailored to their needs and preferences, based on decentralization and energy efficiency, digital innovation and energy communities. EDP will reach its customers and provide services by travelling in a 100% electric car fleet. EDP's buildings will already have been carbon neutral since 2022 and the Company will have helped its customers achieve 10% gains in energy efficiency in that same year.

Towards 2030, with targets set for 2022, the EDP Group will invest 20 million Euros in companies that develop renewable electrification solutions for populations without access to electricity, especially in sub-Saharan African countries, and will finance social organizations with energy inclusion projects with two million Euros.

For 2022, EDP intends that employee satisfaction with the Company will be over 75%, that the number of female employees will have grown 50%, compared to 2010, and that more than 20% of employees will volunteer during working hours, with a special focus on developing the skills of people and organizations in the third sector, social and energy inclusion and combating climate change. The Company will continue to strive to develop its efr (Entidade Familiarmente Responsável (Fundación Más Familia)) certification which promotes the reconciliation of work life with personal and family life.



For 2022, EDP is working to eliminate fatal occupational accidents of its employees and service providers, as a result of a more intense safety culture, increased training, better scrutiny and selection of suppliers, the increasing demand of ISO 45001:2018 certifications, and the intensification of monitoring and assessment processes.

In 2022, the TCFD recommendations will have been internalized and the entire Company will be trained in Climate Change Adaptation Plans, prepared for emerging risks and endowed with suitable resilience mechanisms. In an environment of increased environmental risks, the EDP Group will guarantee its commitment to its policy of zero accidents and coverage of its operations by environmental certification. The rate of waste recovery will remain high, above 75%, and single-use plastics will no longer be part of EDP's daily life.

But already by 2020, the integrity system, the ethical process and the Human Rights protection process will have reached their maturity through the permanent assessment and mitigation of risks in all decision-making processes, also extended to critical suppliers, through the introduction of new procedures and the reinforcement of training, self-assessment and awareness.

These are the main strategic objectives for Sustainability of the EDP Group. They are also objectives in line with the United Nations Sustainable Development Goals which the Company subscribed to from the outset.

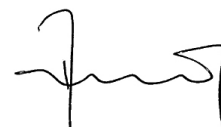
This is the EDP Group's ambition: to reach 2030 stronger, leading the energy transition to a low-carbon economy, generating and adding value for its stakeholders and for society. But this is not a new ambition. It is above all the result of the strategy pursued over the past 15 years and which started with subscription to the United Nations Global Compact, the publication of EDP's eight Principles for Sustainable Development, the publication of the Code of Ethics, the creation of the Corporate Sustainability Department and the start of the growth strategy through investment in wind energy.

The EDP Group Sustainability Report, which we now publish, and which should be read in conjunction with the EDP's Annual Report, reflects the results achieved in 2019 in the face of the challenges that the company has faced and shows the main lines of action that will guide the year 2020 to reach the 2022 targets.

In the EDP Group's performance in 2019, in addition to progress in line with sustainability goals and the Strategic Update, it is important to highlight that EDP is joining the global movement of companies committed to aligning their business with the maximum target of the Paris Agreement to limiting the global average temperature increase by 1.5°C, compared to pre-industrial values. The company also saw its decarbonization goal recognized by the Science Based Target initiative, as being on a trajectory well below 2°C.

Finally, we would like to highlight the recognition achieved with:

- 1) gaining the leadership of the utilities sector which forms part of the Dow Jones sustainability indices;
- 2) the success of the Green Bonds strategy, with the issue of 2,950 million Euros in 2018-2019;
- 3) the distinction attributed by efr - Family Responsible Company - to EDP as a company of excellence in balance of family life;
- 4) the implementation of the ISO 20400 standard for sustainability in the supply chain;
- 5) the new EDP Group KPI model which has implemented strategic objectives in all units and areas of business.







# VISION

A GLOBAL ENERGY COMPANY,  
LEADING THE ENERGY TRANSITION  
TO CREATE SUPERIOR VALUE

## 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.

### 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.

### 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.

### 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.

## 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.



# Recognition

## ANTÓNIO MEXIA NAMED THE BEST CEO

in Portugal at the eighth  
Human Resources Awards

## EDP COMERCIAL RECOGNISED AS A CONSUMER CHOICE 2019

in the Energy and Services for  
Domestic Use category

## EDP ESPANHA NAMED THE BEST RETAILER OF THE YEAR IN SPAIN

according to Selectra (power  
tariff comparator)

## EDP BRASIL RECOGNISED AS THE BEST LATIN AMERICAN COMPANY FOR SOCIAL RESPONSIBILITY

by the Latin Trade Index  
Americas Sustainability Award,  
developed by the Inter-American  
Development Bank (IADB)

## EDP NAMED NUMBER 1 IN THE WORLD AMONG THE INTEGRATED UTILITIES

in the Dow Jones  
Sustainability Index for the  
12th consecutive year, having  
obtained the best score ever

## EDP RECOGNISED AS ONE OF THE MOST ETHICAL COMPANIES IN THE WORLD

by Ethisphere for the 8<sup>th</sup>  
consecutive year



**EDP IS THE  
WORLD'S 14<sup>TH</sup>  
MOST VALUABLE  
COMPANY IN THE  
UTILITIES SECTOR**  
with an estimated value of €2.4  
billion, according to Brand  
Finance

**NEW CO<sub>2</sub>  
EMISSIONS  
REDUCTION  
TARGET  
RECOGNISED BY  
SBTI**  
as being in line with the  
decarbonisation trajectory  
below 2°C

**EDP PIONEER  
IN THE ISSUE  
OF GREEN BONDS**  
awarded by the Climate Bonds  
Initiative, in the New Country  
Taking Green Bonds Global  
category

**EDP ACHIEVES  
EXCELLENCE  
DISTINCTION AS A  
FAMILY-RESPONSIBLE  
COMPANY**  
becoming the first Portuguese  
company to receive the efr  
certificate in this category

**EDP NAMED BEST  
ENERGY SECTOR  
COMPANY**  
in the 2019 Marketeer Awards

**MIGUEL SETAS, CEO  
OF EDP BRASIL,  
NAMED BEST  
ENERGY SECTOR  
COMPANY LEADER**  
by the Valor Econômico  
newspaper (published by the  
Globo Group)

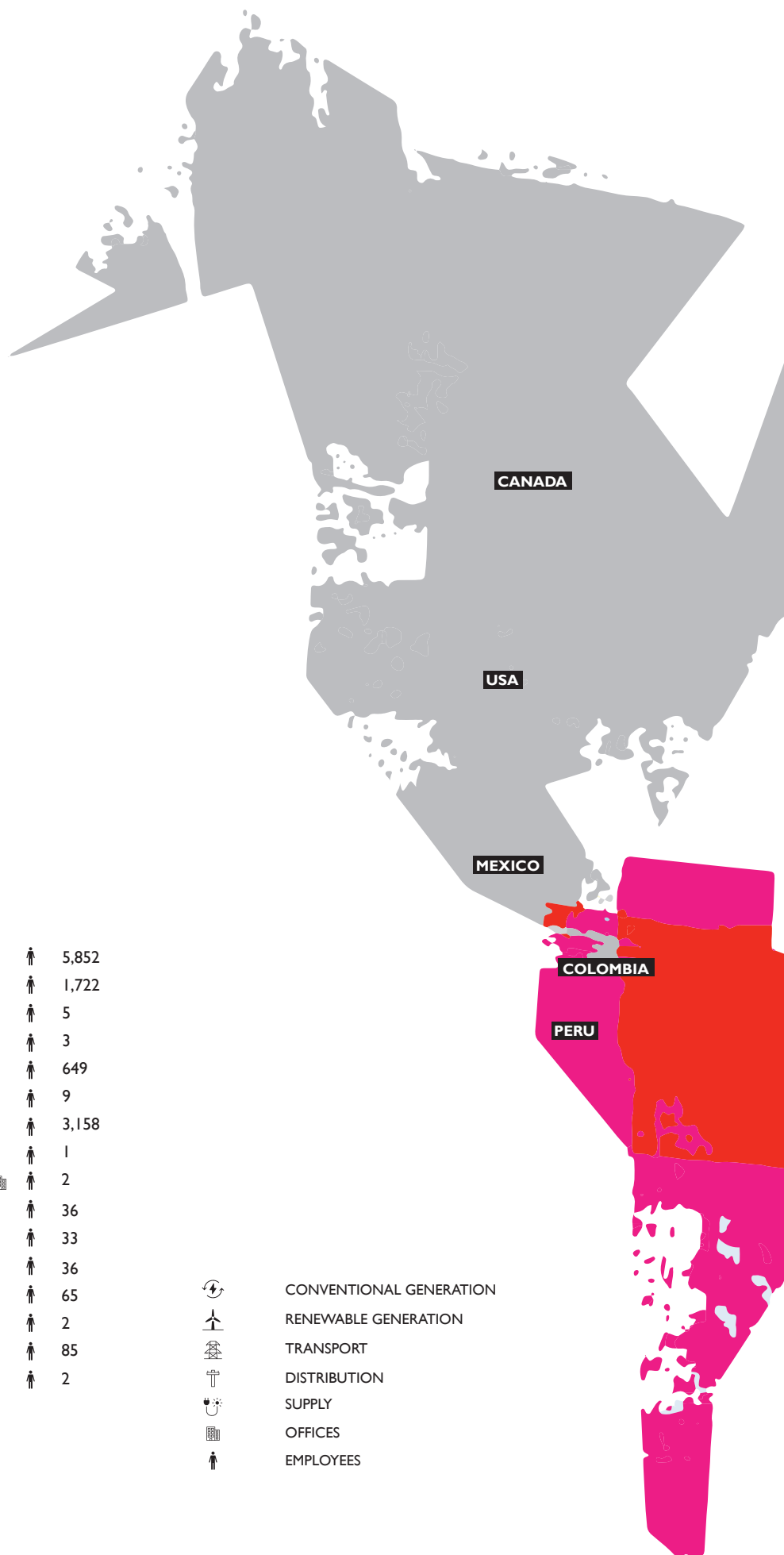
**MIGUEL STILWELL  
DE ANDRADE WINS  
THE BEST CHIEF  
FINANCIAL OFFICER  
(CFO) AWARD**  
at the 32<sup>nd</sup> IRG Awards

**EDP RECOGNISED  
AS A WORLD  
LEADER IN THE  
FIGHT AGAINST  
CLIMATE CHANGE  
AND WATER  
MANAGEMENT BY  
THE CDP NGO**  
at the highest Leadership  
performance level: Climate  
Change (A-) and Water  
Security (A)

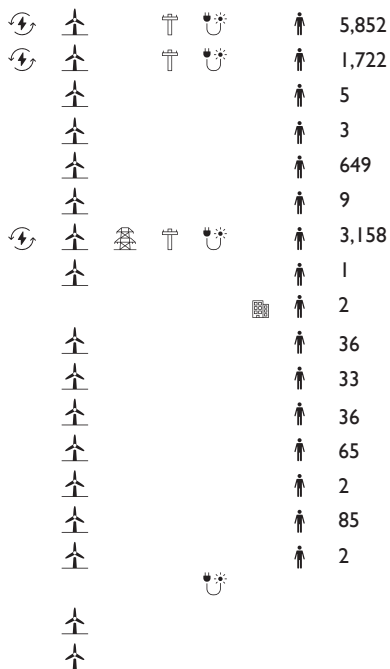
**ALTO LINDOSO  
DAM WINS A 2019  
FIVE STARS  
REGIONS AWARD**  
in the  
Reserves/Landscapes/Dams  
category, standing out as the  
most powerful hydro-electric  
power station in Portugal



# Where We Are

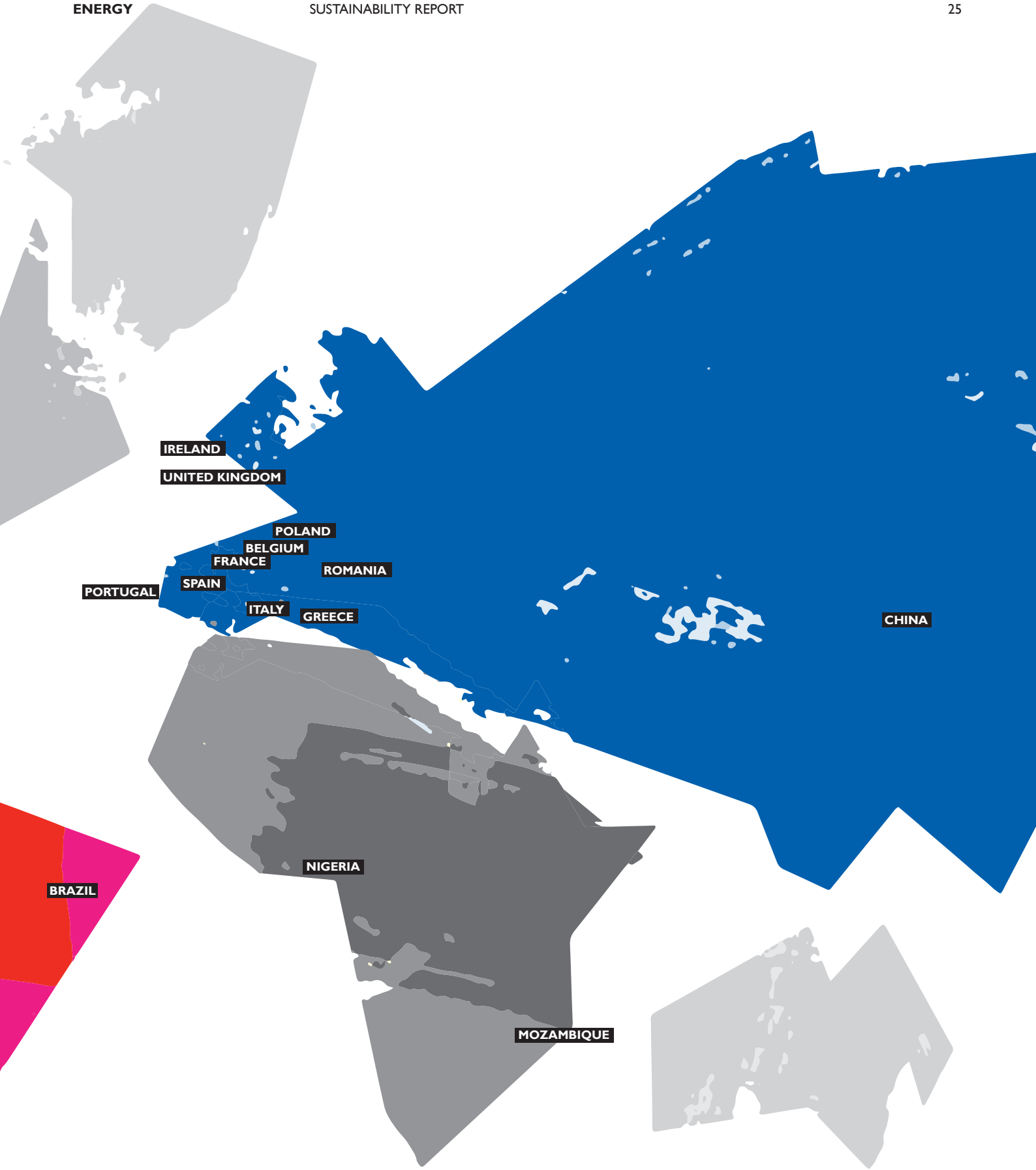


PORTUGAL  
SPAIN  
CANADA  
COLOMBIA  
USA  
MEXICO  
BRAZIL  
PERU  
CHINA  
POLAND  
ROMANIA  
ITALY  
UNITED KINGDOM  
BELGIUM  
FRANCE  
GREECE  
IRELAND  
MOZAMBIQUE  
NIGERIA



⚡ CONVENTIONAL GENERATION  
🌳 RENEWABLE GENERATION  
🚚 TRANSPORT  
🚚 DISTRIBUTION  
🏠 SUPPLY  
🏠 OFFICES  
👤 EMPLOYEES





# EDP in the World

## PORTUGAL



renováveis



gás



serviço universal



distribuição

5,852

employees

5,137,910  
696,051electricity customers  
gas customers11,159 MW  
22,571 GWh  
177,841 km  
48,981 km  
45,666 GWh  
279 MW  
25 GWinstalled capacity  
net generation  
overhead grid extension  
underground grid extension  
electricity distributed  
capacity secured onshore  
capacity secured offshore  
(14 MW net for EDP)

**55%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

## SPAIN



E REDES



renováveis

1,720

employees

1,166,187  
903,181electricity customers  
gas customers5,373 MW  
14,242 GWh  
15,729 km  
5,037 km  
8,262 GWh  
89 MWinstalled capacity  
net generation  
overhead grid extension  
underground grid extension  
electricity distributed  
capacity secured onshore

**41%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

## BRAZIL



renováveis

3,158

employees

3,523,408

electricity customers

2,787 MW  
9,593 GWh  
113 km  
92,899 km  
256 km  
25,591 GWh  
1,328 km  
598 MWinstalled capacity  
net generation  
transport grid extension  
overhead distribution grid extension  
underground distribution grid extension  
electricity distributed  
transport grid under construction  
capacity secured onshore

**61%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>

**FRANCE**

renováveis

85

employees

53 MW  
465 GWh  
84 MW  
1 GWinstalled capacity  
net generation  
capacity secured onshore  
capacity secured offshore  
(301 MW net for EDP)**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**CANADA**

renováveis

5

employees

30 MW  
70 GWh  
100 MWinstalled capacity  
net generation  
capacity secured onshore**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**BELGIUM**

renováveis

2

employees

68 GWh  
10 MWnet generation  
capacity secured onshore**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**MEXICO**

renováveis

9

employees

200 MW  
726 GWh  
96 MWinstalled capacity  
net generation  
capacity secured onshore**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**ITALY**

renováveis

36

employees

271 MW  
551 GWh  
16 MWinstalled capacity  
net generation  
capacity secured onshore**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**UNITED KINGDOM**

renováveis

66

employees

1 GW

capacity secured offshore  
(316 MW net for EDP)**GREECE**

renováveis

2

employees

119 GW

capacity secured onshore

**POLAND**

renováveis

36

employees

418 MW  
1,098 GWh  
365 MWinstalled capacity  
net generation  
capacity secured onshore**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**COLOMBIA**

renováveis

3

employees

492 MW

capacity secured onshore

**CHINA**

2

employees

**PERU**

1

employees

**ROMANIA**

renováveis

33

employees

521 MW  
1,151 GWhinstalled capacity  
net generation**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**USA**

renováveis

649

employees

5,714 MW  
15,696 GWh  
1.9 GW  
804 MWinstalled capacity  
net generation  
capacity secured onshore  
capacity secured offshore  
(402 MW net for EDP)**100%**  
GENERATION  
FROM RENEWABLE  
SOURCES<sup>1</sup>**IRELAND**

Investment in GridBeyond

**MOZAMBIQUE**Investment in A2E<sup>2</sup> in SolarWorks!**NIGERIA**Investment in A2E<sup>2</sup> in Rensource<sup>1</sup> INCLUDES HYDRO, WIND AND SOLAR. <sup>2</sup> ACCESS TO ENERGY

# Who We Are

## EDP IS A MULTINATIONAL, VERTICALLY INTEGRATED UTILITY COMPANY

Throughout its 40 years of history, EDP has been building a relevant presence in the world energy scene, being present in 19 countries in 4 continents. EDP has around 11,700 employees and is present throughout the electricity value chain and in the gas commercialization activity.

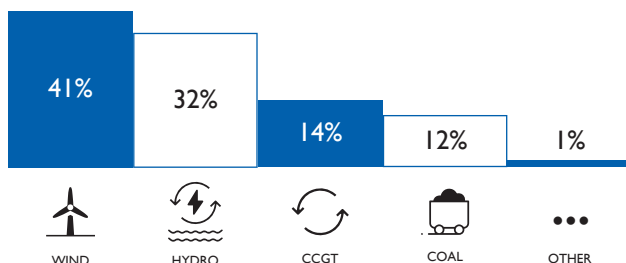


### 1. GENERATION

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



# 67

TWh OF NET ELECTRICITY GENERATION

# 66%

FROM RENEWABLE SOURCES

### 2. TRANSMISSION

In the transmission the energy generated is delivered to the transport network, which is made of very high voltage lines and which then channels the energy to the distribution network. This is a new business segment being developed in Brazil. In 2018 the first 113 km lot started operations.

# 113

OF OPERATING NETWORK

# 1,328

OF TRANSMISSION NETWORK UNDER CONSTRUCTION



### 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.

**340,744**

KM OF NETWORK

**286,470**

KM OF DISTRIBUTION  
OVERHEAD LINES

**54,274**

KM OF DISTRIBUTION  
UNDERGROUND LINES

**80**

TWh OF ELECTRICITY DISTRIBUTED

### 4. SUPPLY

In the supply activity distributed energy arrives 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.

**9,827,505**

ELECTRICITY CUSTOMERS

**5,041,722**

CUSTOMERS IN LIBERALIZED  
MARKET

**4,785,783**

CUSTOMERS IN LAST RESORT

**1,599,232**

GAS CUSTOMERS

**1,509,811**

CUSTOMERS IN LIBERALIZED MARKET

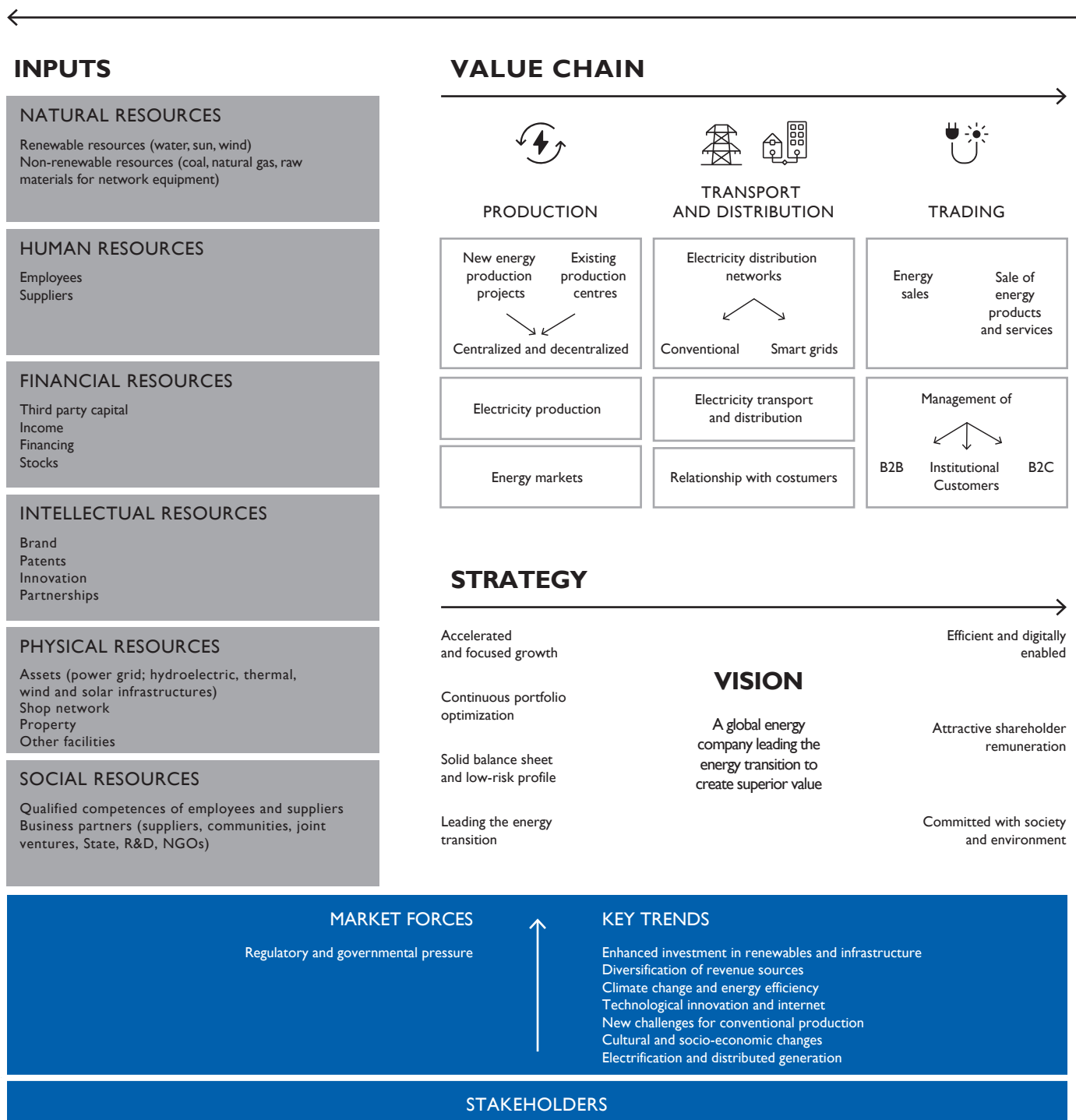
**89,421**

CUSTOMERS IN LAST RESORT





# Business Model



## 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

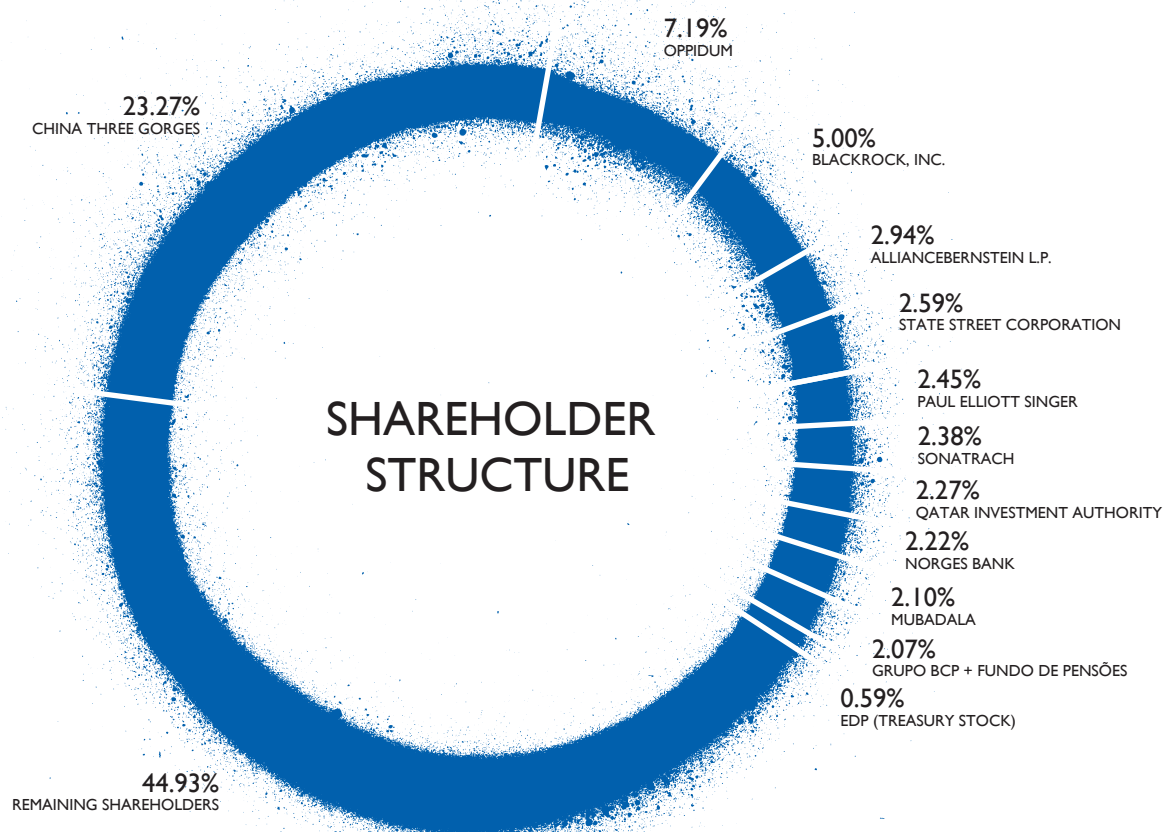


# Shareholder Structure

## CAPITAL STRUCTURE

The share capital is 3,656,537,715 Euros and is fully paid up, as provided for in article 4 of the Company Statutes, being represented by 3,656,537,715 shares with a nominal value of 1 euro each.

The breakdown by EDP shareholder, on 31 December 2019, was as follows:

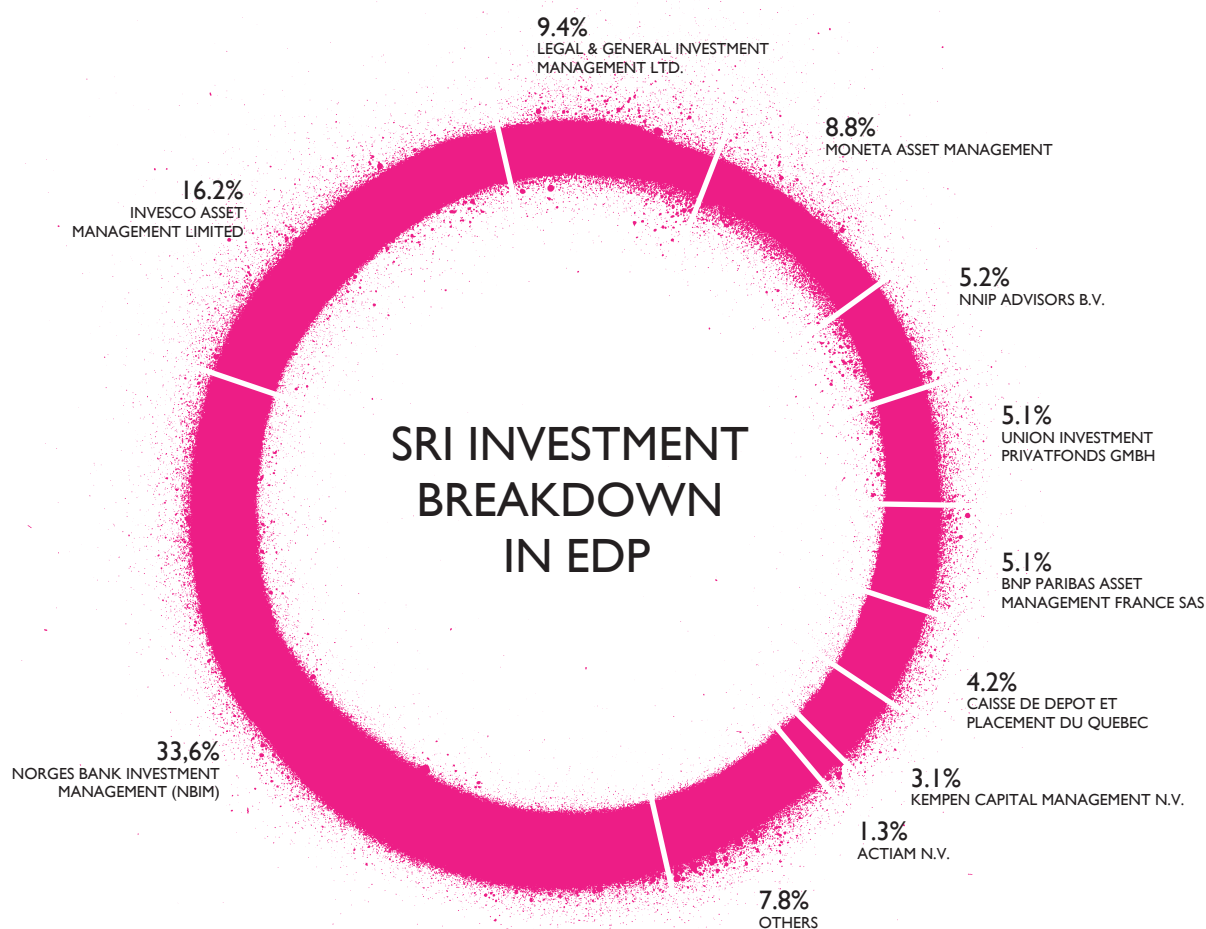


For more details please consult the Annual Report 2019, page 26.

## SRI INVESTORS

According to the results of the analysis prepared by Nasdaq for EDP in December 2019, SRI investors held 318,581,276 shares, corresponding to 9% of EDP's social capital. The four largest SRI investors in EDP are Norges Bank Investment Management (33.6%), INVESCO Asset Management Limited (16.2%), Legal & General Investment Management Ltd (9.4%) and Moneta Asset Management (8.8%). These investors are signatories to the 6 PRI principles, and follow a core approach, that is, one or more of six SRI investment approaches, such as negative filtering, integration of ESG factors, involvement and practice of voting rights.

The breakdown of the socially responsible investment per EDP shareholder was, on 31 December 2019, as follows:



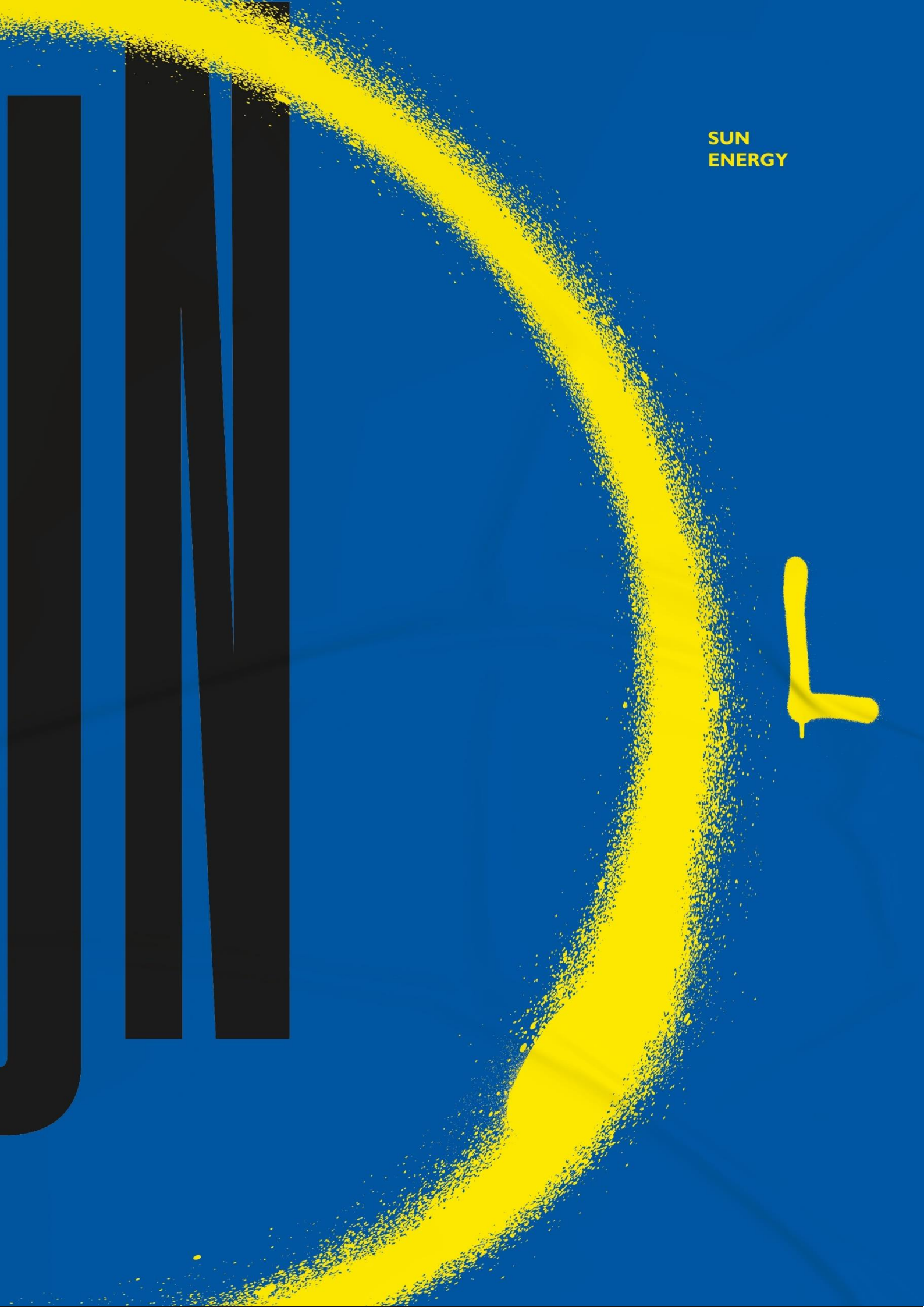
For more details see page 76.





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SUN  
ENERGY



# 02

## 02 STRATEGIC APPROACH

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## 02

## STRATEGIC APPROACH

**2.1. CORPORATE GOVERNANCE**

EDP's governance structure is a dual model one and consists of the General Meeting, Executive Board of Directors, General and Supervisory Board and the Statutory Auditor.

The separation of management and supervision roles is embodied in an Executive Board of Directors, which is responsible for the management of the Company's business, and a General and Supervisory Board, the highest supervisory body.

The division of competences, inherent to such model, between the Executive Board of Directors and the General and Supervisory Board, has been assuring an effective management of the Company, benefitted by a constant and attentive supervision. Considering this structure, we can say that the dual model of corporate governance in place at EDP since July 2006 has allowed for an effective separation of the Company's supervision and management in pursuit of the goals and interests of EDP and its shareholders, employees and other stakeholders, thereby contributing to achieving the degree of trust and transparency necessary for its adequate functioning and optimization.

Furthermore, this model has proved appropriate to the Company's shareholder structure as it allows supervision by key shareholders on the General and Supervisory Board.

The next pages briefly describe the specificities of the current governance model as well as its practices. Further information on this matter are available at the Corporate Governance Report.



## SPECIFICITIES OF THE CURRENT CORPORATE GOVERNANCE MODEL

### STATUTORY BODIES

#### GENERAL AND SUPERVISORY BOARD

In the exercise of its duties – see Article 441 of the Companies Code and Article 22 of EDP's Articles of Association - the main mission of the General and Supervisory Board is to constantly advise, monitor and supervise the management activities of EDP, cooperating with the Executive Board of Directors and the various other corporate bodies in pursuit of the Company's interests, pursuant to the Companies Code and the company's Articles of Association. It is elected by the shareholders at the General Meeting.

Pursuant to Article 21 (1) of the Articles of Association, the General and Supervisory Board consists of no fewer than nine effective members, but always more than the number of members of the Executive Board of Directors. The majority of the elected members of the General and Supervisory Board must be independent, pursuant to Article 21 (4) of the Articles of Association.

For further information, please see items 17 and 21 of Chapter 4 of the 2019 EDP's Annual Report.

#### EXECUTIVE BOARD OF DIRECTORS

The Executive Board of Directors is responsible for managing the Company's activities and representing the Company, pursuant to Article 431 of the Companies Code and Article 17 of the Articles of Association and was elected by the shareholders at a General Meeting.

Pursuant to Article 16 (2) of the Articles of Association of EDP, the Executive Board of Directors must have a minimum of five and a maximum of nine members, as per statutory change approved at the Shareholders' General Meeting on 5 April 2018 which increased the maximum number from eight up to nine members.

The members of the Executive Board of Directors may not exercise executive functions in more than two companies not integrating EDP Group, and the exercise of the referred functions shall be subject to prior appraisal by the Executive Board of Directors, according to Article 6 of the Internal Regulation of such body.

The Executive Board of Directors is responsible for defining the EDP Group's organisational model and dividing duties among the different Business Units, the Shared Services companies (EDP Global Solutions - Gestão Integrada de Serviços, S.A. and EDP Real Estate Global Solutions – Imobiliária e Gestão de Participações, S.A.) and the central structure. This structure consists of a Corporate Centre that provides assistance to the Executive Board of Directors in defining and monitoring the execution of strategies, policies and goals.

The Corporate Centre is divided into Corporate Departments and Business Units, allowing for optimisation and greater efficiency of the organisational structure.

The Executive Board of Directors is also assisted by Specialised Committees, which ensure more effective monitoring of matters and contribute to the decision-making process.

For further information, please see items 17 and 21 of Chapter 4 of the 2019 EDP's Annual Report.

#### STATUTORY AUDITOR

The Statutory Auditor is the company body responsible for the examination of the accounting documents. It is elected by the General Meeting for a three-year term, pursuant to Article 25 of EDP's Articles of Association and Article 446 of the Portuguese Company Code.

On 5 April 2018, PricewaterhouseCoopers & Associados - Sociedade de Revisores de Contas, Lda., statutory auditor company number 183, represented by João Rui Fernandes Ramos (auditor number 1333), was elected for the 2018-2020 triennium, having also on such date, Aurélio Adriano Rangel Amado (auditor number 1074) been elected as Alternate Statutory Auditor for the 2018 – 2020 triennium.

For further information, please see item 39 of Chapter 4 of the 2019 EDP's Annual Report.

## CORPORATE BODIES

### GENERAL MEETING REMUNERATION COMMITTEE

The remuneration of the corporate bodies, with the exception of the members of the Executive Board of Directors, is defined by the Remuneration Committee elected by the General Meeting (Article 11 (2) (d) of EDP's Articles of Association).

Pursuant to this Article, the majority of the members of the Remuneration Committee of the General Meeting must be independent.

### ENVIRONMENT AND SUSTAINABILITY COMMITTEE

As a corporate body, the Environment and Sustainability Board has powers to advise the Executive Board of Directors on environment and sustainability matters. In particular, it provides advice and support in defining the Company's environmental and sustainability strategy and drafting opinions and recommendations on the environmental impact of projects planned by the EDP Group (Article 28 (1) of EDP's Articles of Association).

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

In accordance with Articles of Association and the Internal Regulation of the Financial Matters Committee/Audit Committee and under the applicable law, are assigned to this Committee, by delegation from the General and Supervisory Board, the following powers:

- Financial matters and financial practices relating to the Company;
- The internal procedures for auditing and the Internal Financial Reporting Control System (SCIRF);
- Matters relating to the internal risk management;
- The activity and the independence of the Statutory Auditor of the Company;
- Function of compliance.

## OTHER STATUTORY BODIES

### REMUNERATION COMMITTEE OF THE GENERAL AND SUPERVISORY BOARD

The Remuneration Committee appointed by the General and Supervisory Board, pursuant to Article 27 of EDP's Articles of Association, defines the remuneration of the Executive Board of Directors as well as any supplements.

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

The Corporate Governance and Sustainability Committee is a Specialised Committee of the General and Supervisory Board. Its purpose is to permanently monitor and supervise all matters related with the following:

- Corporate governance;
- Strategic sustainability;
- Internal codes of ethics and conduct;
- Systems for assessing and resolving conflicts of interests, in particular pertaining to relations between EDP and its shareholders;
- Internal procedures and relation between the Company and Subsidiary Companies and its employees, clients, suppliers and remaining stakeholders.



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

The Strategy and Performance Committee supervises the following matters:

- The short-, medium- and long-term scenarios and strategies;
- The strategic implementation, business planning and the respective budgets;
- The investments and divestments;
- Debt and funding;
- Strategic alliances;
- Market and competitiveness evolution;
- Regulation;
- Analysis of the performance of the Group and the Business Units;
- The benchmarking of the Company group performance compared with the companies at the top of the sector;
- The assessment of the competitiveness of the EDP 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 positioning regarding 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, EDP has in several areas gone beyond the legal and regulatory requirements thus reinforcing the confidence of EDP shareholders and other stakeholders. Within this scope, and without prejudice of this information is more detailed in Chapter 4 of the Corporate Governance Report it is important to highlight here that the conflict of interests' matter and the way EDP addresses such matter.

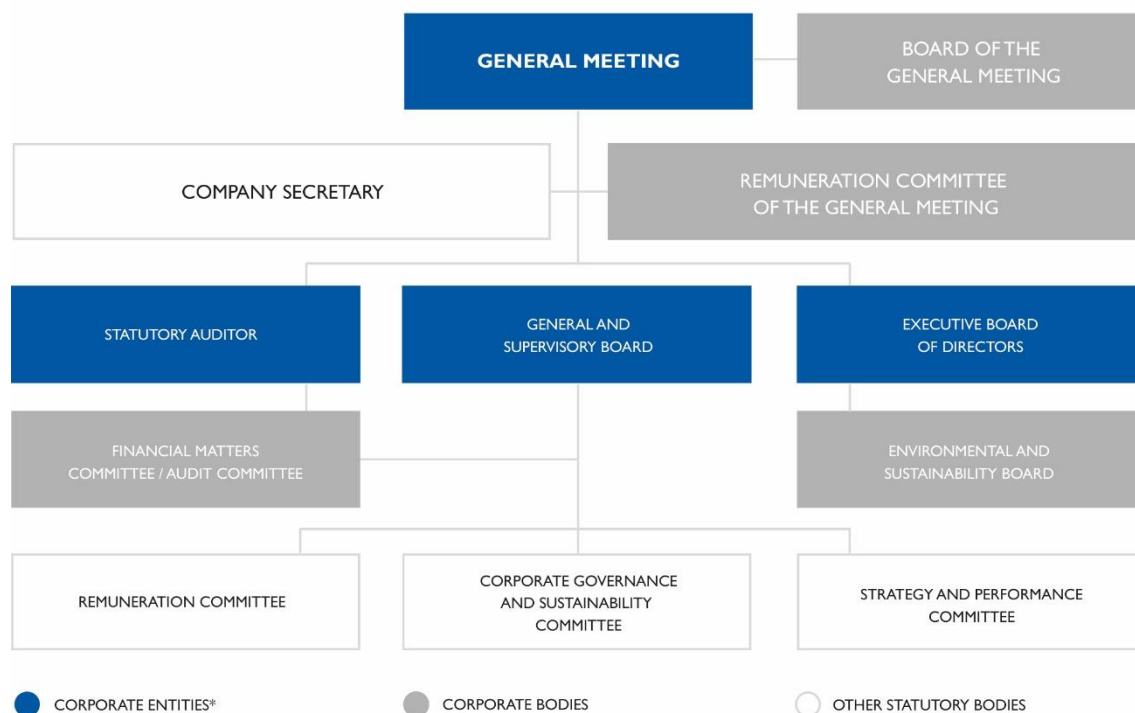
The General and Supervisory Board approved in 2009 objective, transparent rules on the identification, prevention and resolution of relevant corporate conflicts of interest called Framework on Handling of Conflicts of Interest.

Following a resolution made by the General and Supervisory Board, on 17 May 2010 the Executive Board of Directors approved the rules on identification, in-house reporting and procedure in the event of conflicts of interest applicable to all EDP Group employees who play a decisive role in transactions with related parties. These rules are also available on EDP's website.

As part of its improvement of governance practices, on 29 July 2010, the General and Supervisory Board approved EDP's Regulation on Conflict of Interest and Transactions between Related Parties, which was reviewed in 2015 and a new version was approved on 29 October 2015, available on EDP's website ([www.edp.com](http://www.edp.com)). This set of rules on the prevention, identification and resolution of potential corporate conflicts of interest has a wider scope of application than that set out in CMVM Regulation 4/2013.

The Corporate Governance and Sustainability Committee is responsible for supervising enforcement of the aforementioned rules and reports on its work to the General and Supervisory Board.

## 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 (Environmental, 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, Energy Poverty and Access to Energy, and Human Rights. Additionally, and together with 87 companies along 2019, the formalisation of the "Business Ambition for 1.5°C – Our Only Future" commitment was paid particular attention framed in the vision of leading the Company's way to the energy transition in 2030. In terms of sustainability, EDP organization is summarized in the figure above, highlighting the different responsibilities:

**GENERAL SUPERVISORY BOARD** – corporate body responsible for advice, monitoring and supervision EDP's management activity. Based on the nature and functions attributed, and in accordance with the law and EDP's statutes, 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 2019, within its competences this Committee met six times, with an average participation rate of 86%. Considering the Corporate Governance and Sustainability Committee's competences, the following subjects were addressed in the six meetings held in 2019: analysis of situations of potential conflicts of interests, appraisal of the opinions issued by the Ethics Committee,



analysis of stakeholder management in general and customers relations policy in particular, analysis of the human resources strategy and succession plans, study of the sustainability objectives for the Group and analysis of the strategic plan of the EDP Group's Foundations. For more information on the main topics addressed by this Committee, see the General Supervisory Board Annual Report 2019.

**EXECUTIVE BOARD OF DIRECTORS** – the corporate body responsible for managing the Company's activities and representing the Company. Within the scope of sustainability, defines policies and sets Sustainability objectives by proposal from the Sustainability Department.

**ENVIRONMENTAL AND SUSTAINABILITY BOARD** – the company body with powers and to advise and to support 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** – its mission is to analyse, propose and guarantee the Group's sustainability strategy in order to support the Executive Board of Directors in Sustainability and Health and Safety at Work policies and goals, to ensure their implementation and the continuous improvement of the business units' process and to report non-financial information to the stakeholders. It is also one of the areas involved in the mission of supporting the identification, analysis, evaluation and monitoring of risk, integrating one of the three lines of internal defence to the organisation of the Risk Governance Model.
- **SUSTAINABILITY COMMITTEE** – chaired by the President of the Executive Board of Directors and has the Director of the Sustainability Department as secretary. Its permanent members are the ones responsible for the corporate sustainability area in the Executive Board of Directors, 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. The Sustainability Committee held one meeting in 2019.
- **PREVENTION AND SAFETY COMMITTEE** – Chaired by the member of the Executive Board of Directors with the responsibility for the area of sustainability and has a representative of the Sustainability Department as secretary. This committee 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. Two meetings have been held in 2019.

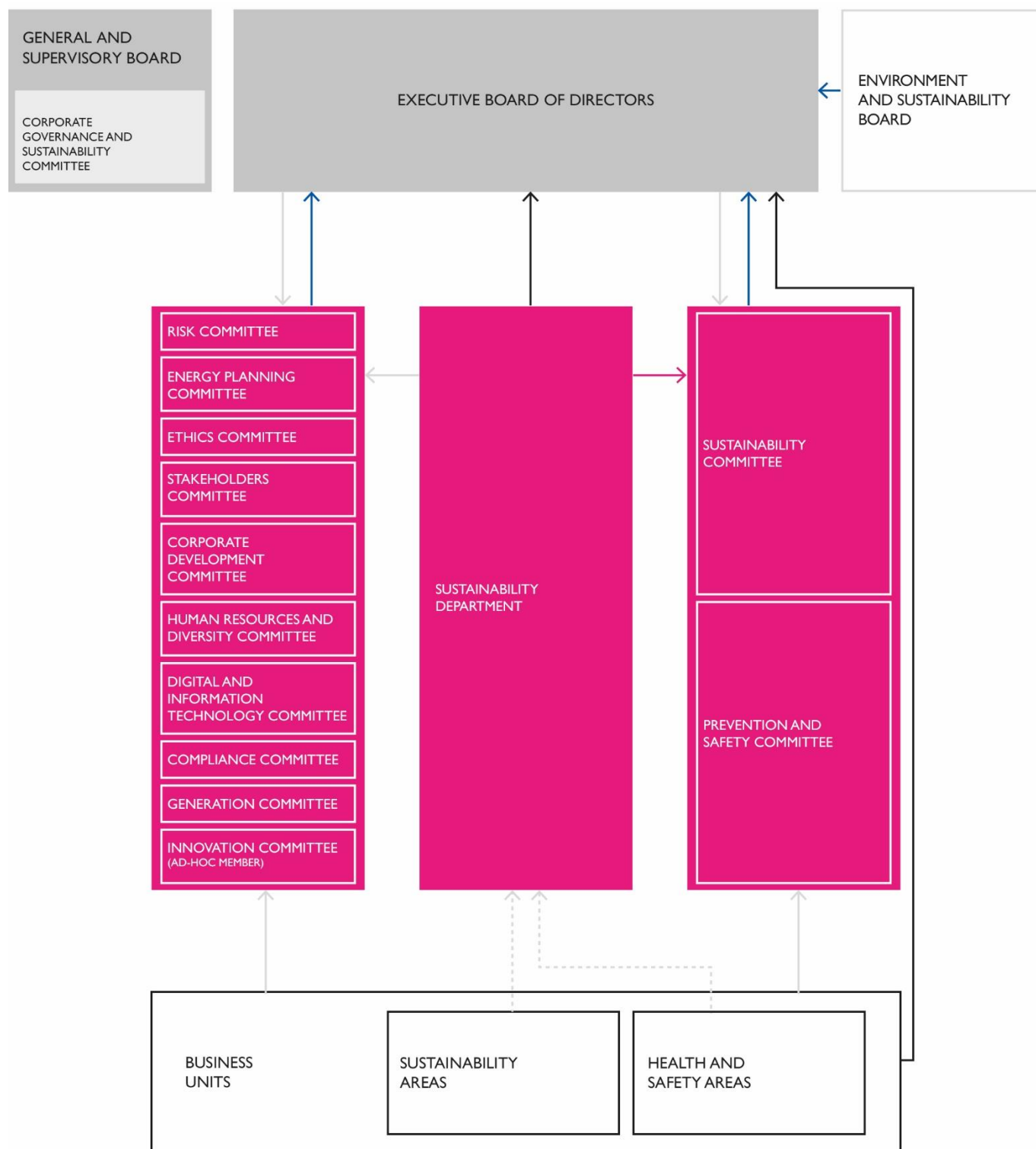
As part of the Central Structure, there are other Committees that have the participation of the member of the Executive Board of Directors with responsibility for the area of sustainability or the Director of the Sustainability Department, which are indicated in the image on the following page.

**BUSINESS UNITS** – they operate the Sustainability policies and objectives approved in Executive Board of Directors, through their own projects and targets.

In the EDP Annual Report and Accounts for 2019, in the Corporate Governance chapter, an exhaustive description of the corporate bodies and committees is made.



## Sustainability organization



□ CORPORATE BODY    ■ CORPORATE ENTITY    ■ OTHER STATUTORY BODIES    ■ CENTRAL STRUCTURE    □ BUSINESS UNITS  
 - - - FUNCTIONAL REPORTING/POLICIES AND STRATEGIES ALIGNMENT    — HIERARCHIC REPORTING    — PARTICIPATES    — SUPPORTS    — PROVIDES SECRETARIAL DUTIES



## 2.3. STAKEHOLDER MANAGEMENT



Stakeholder management is a priority for upholding a close and transparent dialogue with all those with whom EDP relates, playing an increasingly distinctive role on the Group's business.

Building and strengthening relationships of trust, sharing relevant knowledge and information, anticipating challenges and identifying new opportunities for cooperation with stakeholders are, thus, the main objectives of EDP Group's stakeholder management policy, within the framework of EDP Group Sustainable Development Principles. Stakeholder engagement is a demanding activity, which requires transparent relations between companies and society, particularly with all entities that have an impact on or are impacted by business activities.

EDP identified this challenge several years ago, having designed clear methodologies and tools to systematize the Group's relations with its stakeholders in all its activities and projects, regardless of their location.

The continuous improvement of stakeholder management activities in all EDP Business Units, has been acknowledged internationally with the highest score on the Stakeholder Engagement criteria in the Dow Jones Sustainability Index over the last three years. EDP has been acknowledged internationally for its stakeholder management practices, being considered in 2019 and for the third consecutive year, the top performer of the Dow Jones Sustainability Index on the Stakeholder Engagement criteria.

## EDP GROUP STAKEHOLDER ENGAGEMENT POLICY



### UNDERSTAND INCLUDE, IDENTIFY, PRIORITISE

- We have dynamically and systematically identified the Stakeholders who influence and are influenced by the Company.
- We analyze and seek to understand stakeholders' expectations and interests in the decisions that impact them directly.



### COMMUNICATE INFORM, LISTEN, UNDERSTAND

- We are committed to promoting a two-way dialogue with Stakeholders through information and advisory activities.
- We listen, inform and respond consistently, clearly, accurately and transparently to stakeholders in order to build close, strong and lasting relationships.



### TRUST TRANSPARENCY, INTEGRITY, RESPECT, ETHICS

- We believe promoting a climate of trust with our stakeholders is crucial to establishing stable and long-term relations.
- Our relationship with stakeholders is based on such values as transparency, integrity and mutual respect.



### COLLABORATE INTEGRATE, SHARE, COOPERATE, INFORM

- We aim to work with stakeholders to build strategic partnerships that collate and share knowledge, skills and tools, thereby promoting the creation of shared value in a differentiated way.

ADDITIONAL INFORMATION PLEASE READ EDP'S STAKEHOLDERS REPORT AVAILABLE AT [WWW.EDP.COM](http://WWW.EDP.COM).

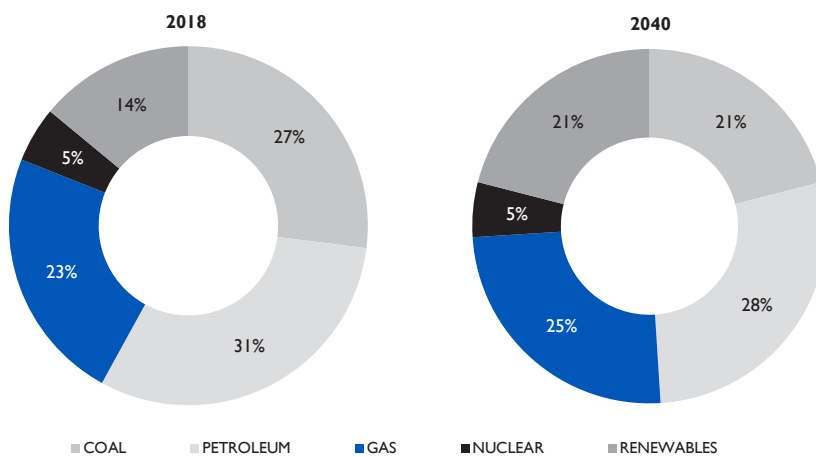
## 2.4. SECTOR TRENDS

### POSSIBLE TRAJECTORY WITH CURRENT POLICIES

Carbon emissions from the energy sector rose again in 2018 (+ 1.9%), and it is estimated that they have risen again in 2019. The International Energy Agency (IEA) estimates in its baseline scenario (Stated Policies Scenario) of the World Energy Outlook 2019 (WEO19) that between 2018 and 2040 carbon emissions will increase by 7%. 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 24% 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 21% and nuclear energy the remaining 5%.

Primary energy sources in the world



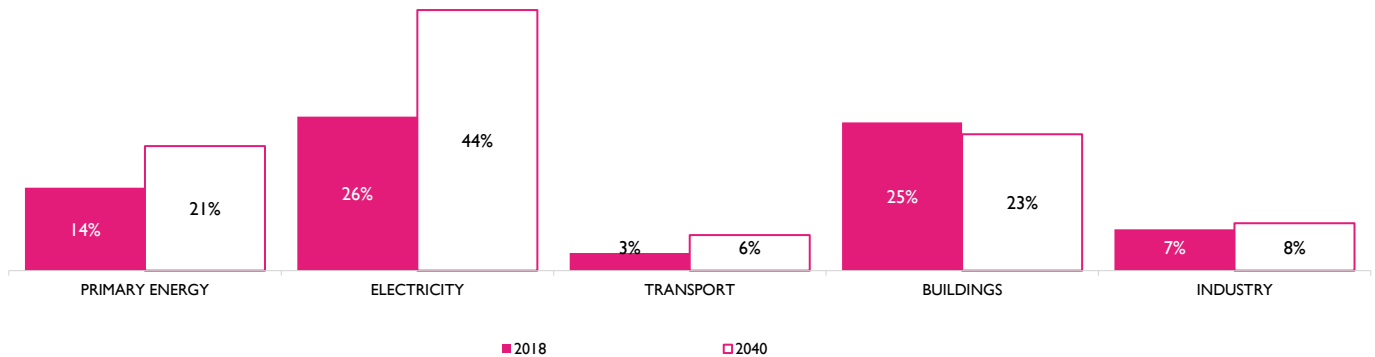
SOURCE: INTERNATIONAL ENERGY AGENCY, WORLD ENERGY OUTLOOK 2019, STATED POLICIES SCENARIO

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 will increase from 26% in 2018 to 44% in 2040, with a special focus on investments in wind energy and photovoltaic solar energy. The growing use of renewable energy sources will only be enough to prevent an increase in carbon emissions in the electricity sector between 2018 and 2040. However, 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 0.7%/year.



## Use of renewables worldwide



SOURCE: INTERNATIONAL ENERGY AGENCY, WORLD ENERGY OUTLOOK 2019, STATED POLICIES SCENARIO

## ENERGY AND ENVIRONMENTAL POLICY

### EUROPEAN GREEN DEAL

Following the approval of the Clean Energy for all Europeans legislative package in 2018, European Union Member States submitted preliminary versions of their National Energy and Climate Plans by the beginning of 2019. According to the assessment released by the European Commission in June 2019, some of the preliminary plans were already very ambitious (as was the case for Spain and Portugal), while many others were classified as insufficient. In total, the sum of the various preliminary plans was determined to be insufficient to achieve the goals of 32% for renewable energy penetration and a 32.5% increase in energy efficiency by 2030. In addition to the European Commission's assessment, several Member States held public consultations on their plans and held meetings with neighbouring countries to improve coherence between the various plans. The final versions of the documents were to be submitted to the European Commission by 31 December 2019.

In order to reaffirm global leadership in combating climate change and becoming the first continent to have a neutral climate impact by 2050, the new European Commission that took office in November 2019 presented an ambitious European Green Deal on 11 December 2019. Among other actions, the plan includes:

- The aim of publishing a European Climate Law that firmly commits to achieving climate neutrality, with the due implications of setting a more ambitious goal for reducing CO<sub>2</sub> emissions in 2030 by 55%;
- The establishment of a plan to increase the extent of the European Union's goals for 2030;
- Revision of various items of legislation (such as the Renewable Energy Directive, the Energy Taxation Directive, and the emissions trading scheme, among others);
- The development of various industrial strategies;
- The creation of a Geopolitical Commission to achieve carbon neutrality.

### GREEN FINANCE

The European Green Deal will, on the one hand, stimulate and reaffirm public and private investment priorities in achieving the carbon neutral commitment in 2050 as shown through the mobilization of at least one billion Euros in sustainable investments over the next

decade, with a key role for the European Investment Bank (EIB). In this regard, it should be noted that the EIB has announced, in November 2019, that it will stop financing any fossil fuel energy projects – coal, oil and natural gas – until the end of 2021, and only those projects that emit less than 250g CO<sub>2</sub>/kWh will be considered eligible for financing. The focus of its financing between 2021 and 2030 should be the generation of energy from renewable sources. On the other hand, it will facilitate and make private investment in economic activities easier in order to meet the additional annual investments needed of between 175 to 290 billion Euros to achieve the current objectives of the Climate-Energy Package for 2030, compared to a scenario without these climate targets, which is equivalent to around 1.5% of European GDP in 2018.

To put sustainable finance at the heart of the financial system, the European Union has developed the European Commission Action Plan on Sustainable Finance, with ten actions, one of which is its Sustainability Taxonomy. The Taxonomy, approved and signed by the various Member States of the European Union in December 2019, is an agreement between all Member States for the existence of a common classification system for sustainable investments that contributes to climate change mitigation and adaptation and also the exclusion of coal from sustainable financial products. The Sustainability Taxonomy is the foundation for the development of other objectives of the European Union, such as the European Standard for green bonds and changes in the monetary policies of central banks.

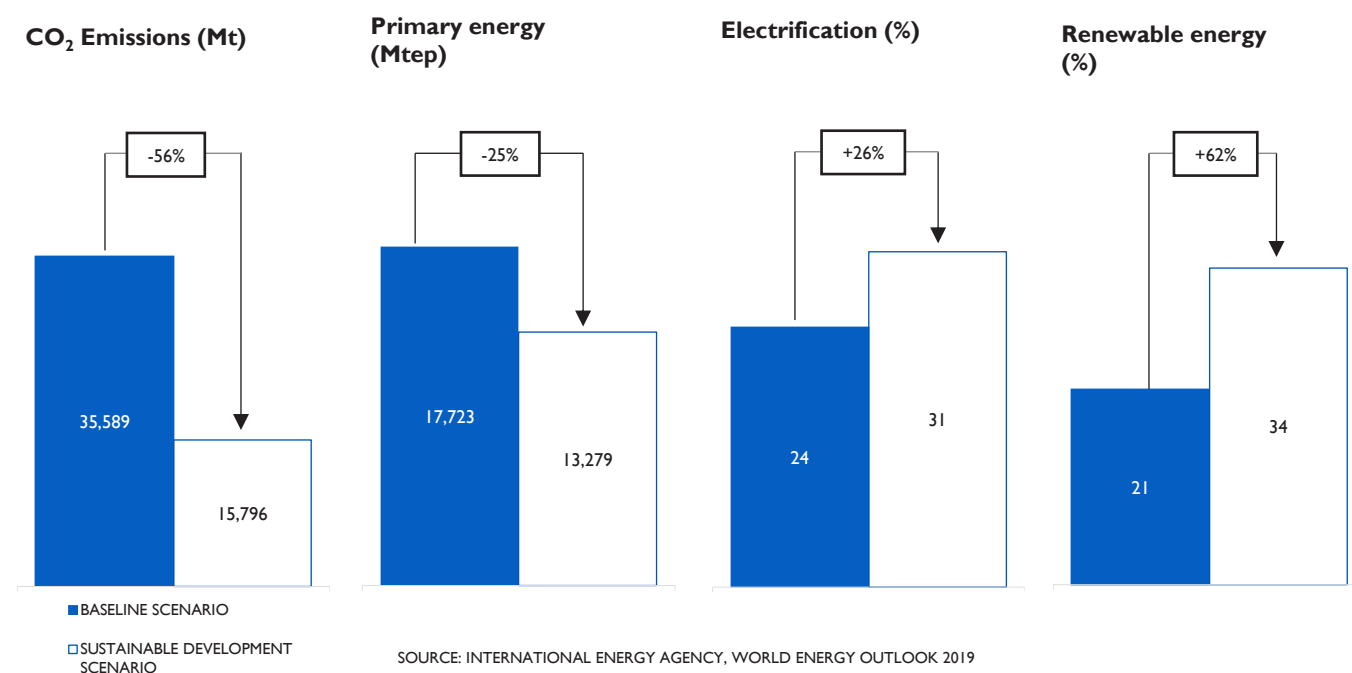
## FAIR TRANSITION MECHANISM

Recognizing that climate transition is a plan for the whole of society, but that there are disparities between regions and Member States, the European Commission will create a Fair Transition Mechanism, which will provide at least 100 billion Euros during the 2021-2027 period. This mechanism will support regions with high carbon intensity, as well as citizens more vulnerable to climate change, creating programmes to develop new skills and employment opportunities in new economic sectors.

## INTERNATIONAL RESPONSE TO CLIMATE CHANGE

At the global level, the commitment to climate change has not necessarily followed the European example. On 4 November 2019, the President of the United States confirmed the country's withdrawal from the Paris Agreement. COP25, held in Madrid in November 2019, demonstrated the difficulty in creating an understanding between the various countries with the necessary ambition and strategy to be adopted to reduce climate impact. However, it was decided that all countries will submit new climate commitments by COP26 in 2020. Only with the involvement of all countries it will be possible to promote an accelerated decarbonisation of the world energy system, which requires a paradigm shift that addresses sustainability in its three dimensions, namely environmental, economic and social.

### Goals to comply with the Paris Agreement, in the World, by 2040



## ENVIRONMENTAL SUSTAINABILITY

According to the IEA, achieving the main United Nations Sustainable Development Goals related to energy requires a transformation of the global energy system leading to a reduction of about 56% of CO<sub>2</sub> emissions in 2040 compared to the baseline scenario. The IEA's proposed sustainable development scenario in WEO19 is based on three main pillars compared to the baseline scenario: increasing energy efficiency by 25%, increasing electrification of the economy by 26% and increasing the share of energy consumed from renewable energy sources by 62%.

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 sustainable development scenario, 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 31% 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 2018), the IEA identifies the need to achieve an electrification rate of 13% and a reduction in final energy consumption of 9% by 2040. Another very important sector is the building sector, which despite having already an electrification rate of 33%, should reach 53% by 2040, while also reducing its final consumption by 13%. 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. Furthermore, although the sustainable development scenario identifies it as necessary to increase the volume of biofuels in the transport sector from 3% nowadays 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 20% 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. According to the Sustainable Development Scenario, it will be necessary to increase its use in this sector from the current 26% to 67% 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 decarbonisation 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.

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. In Portugal, the auction held in 2019 for



investments in solar energy awarded long-term contracts for 1 GW of capacity at an average price of 20.89 €/MWh, with one of the investments receiving a world record price of 14.63 €/MWh.

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 year 2019 saw an increase in demand for this type of contract, with the markets in Portugal and Spain growing significantly and gaining importance at the European level.

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 year 2019 was marked by protests at a global level to demand that world governments act to significantly reduce greenhouse gas emissions. The activist Greta Thunberg was one of the most visible faces of this mobilization, having taken the organization of school strikes to a worldwide level. However, it is imperative that decarbonisation policies take into account a comprehensive perspective that includes economic and social aspects, in order to reduce disparities in the distribution of fiscal efforts, including the creation of carbon taxes and increases in fuel taxes, and thus avoiding the social discontent shown in several demonstrations that took place in 2018.

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 energy poverty, and necessarily leads to cost increases for the remaining consumers, which mainly affects vulnerable consumers.

The fight against energy 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

### KEY RISKS

EDP Group seeks a comprehensive perspective over the key risks it is exposed to, at strategic, business, financial and operational level, establishing processes to assure follow-ups and proactive management.

In 2019 it was launched the Strategic Update for the period of 2019-2022, establishing once more commitments of a strategy based on a low risk profile, in line with what has been pursued for the last years.

	ILLUSTRATION OF TOPICS (NOT EXHAUSTIVE)	RECENT EVOLUTION/ EXPECTED IN THE SHORT-TERM	MITIGATION ACTIONS (NOT EXHAUSTIVE)
<b>STRATEGY</b>	Surrounding context <ul style="list-style-type: none"> <li>• Geopolitical instability.</li> <li>• Social and economic crisis.</li> <li>• Technological disruption.</li> <li>• Change of competitive paradigm.</li> <li>• Climate change.</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).</li> <li>• Rise of the global investment in renewable technologies, with impact in geographies where EDP Group is present.</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>
	Internal strategy <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>• End of a Public Tender Offer for the Acquisition of EDP.</li> <li>• Presentation of new Strategic Update for 2019-2022.</li> <li>• Continuing strategy of asset rotation.</li> <li>• Attribution of the position of Global Leader within integrated utilities by the Dow Jones Sustainability Index.</li> <li>• Memorandum of understanding for a joint-venture with Engie in projects of wind offshore.</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>BUSINESS</b>	Energy markets <ul style="list-style-type: none"> <li>• Fluctuations of pool price, commodities and CO<sub>2</sub>.</li> <li>• Volatility of the generation volume of renewable energies (i.e., hydro and solar).</li> <li>• Volatility of energy consumption.</li> <li>• Changes in sales margins.</li> </ul>	= <ul style="list-style-type: none"> <li>• Rise of wind and solar renewable capacity.</li> <li>• Reduction of the hydro profile in Brazil with the sale of mini-hydro plants and rise of wind and solar energy projects.</li> <li>• Low hydro volumes in Iberia in comparison with historical average, partially compensated by a rise on selling price.</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 exposed to market accompanied by dedicated area, acting according with established risk policy.</li> <li>• Hedging of the main sources of exposure (e.g. fuel prices).</li> </ul>
	Regulation <ul style="list-style-type: none"> <li>• Changes in taxes and sectorial charges.</li> <li>• Changes in tariff regimes of regulated activities.</li> <li>• Legislatives amendments.</li> <li>• Changes in regulations (e.g., environmental/ climate).</li> </ul>	= <ul style="list-style-type: none"> <li>• Regulatory impacts in Portugal (e.g., maintenance of CESE, and reintroduction of clawback) with materialization in the results of the Group.</li> <li>• Growth in Brazil with a new regulatory cycle in distribution and the development of transmission lines projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Follow-up and careful preparation of the various regulatory dossiers, including envisioning of potential regulatory risks (e.g. climate change risks).</li> <li>• Geographical diversification.</li> </ul>

	ILLUSTRATION OF TOPICS (NOT EXHAUSTIVE)	RECENT EVOLUTION/ EXPECTED IN THE SHORT-TERM	MITIGATION ACTIONS (NOT EXHAUSTIVE)
FINANCIAL	Financial markets	<ul style="list-style-type: none"> <li>Continuing decrease of long-term interest rates in several financial markets. Short-term interest rates with a positive trend until the middle of the year, moment when the Fed inverted the cycle of rise.</li> <li>Maintenance expansionary monetary policies in Europe.</li> <li>Political uncertainty and consequent volatility and devaluation of BRL.</li> <li>Key foreign exchange exposure to BRL and USD.</li> <li>Appreciation of USD as consequence of a more restrictive monetary policy until the middle of the year, compensated by an even more restrictive monetary policy of EUR until the end of the year.</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 with regular reports.</li> <li>Foreign exchange exposure diversified by the presence in multiple geographies, with net position (assets – liabilities) broadly balanced through the use of financing sources in local currencies and/ or hedging instruments.</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>
	Credit and counterparties (energy and financial)	<ul style="list-style-type: none"> <li>Default of financial counterparties.</li> <li>Default of energy counterparties (contracts to buy/ sell energy).</li> <li>Default of clients (B2B and B2C).</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>
	Liquidity	<ul style="list-style-type: none"> <li>Abundant liquidity and reduced cost of capital, particularly in Europe and United States of America.</li> <li>EDP Group's financial liquidity enough to cover refinancing need beyond 2022.</li> <li>Consolidation of rating investment grade.</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>
	Social liabilities	<ul style="list-style-type: none"> <li>Increasing contributions for the Pension Fund EDP Group, partially compensated by the update of the fair value of social liabilities, as consequence of a decrease in interest rates.</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>
OPERATIONAL	Development/ construction of physical assets	<ul style="list-style-type: none"> <li>Continuous investment in transmission in Brazil (until now developed according with the plan) and development of solar and wind capacity through EDP Renewables.</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.</li> </ul>



	ILLUSTRATION OF TOPICS (NOT EXHAUSTIVE)	RECENT EVOLUTION/ EXPECTED IN THE SHORT-TERM		MITIGATION ACTIONS (NOT EXHAUSTIVE)	
	Operation 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).</li><li>• Technical and non-technical losses of distribution grid.</li></ul>	=	<ul style="list-style-type: none"><li>• Maintenance of the risk of increased impact and severity 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>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>
	Processes	<ul style="list-style-type: none"><li>• Irregularities in the processes' execution (regarding commercial activities, suppliers' selection 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>
	Human resources	<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 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>
	Information systems	<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>• Maintenance of level of exposure (e.g., large-scale cyber-attacks, data protection directives) partially compensated by a continuous reinforcement of mitigation measures (cyber range, SOC, cyber risk insurance, training 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>
	Legal	<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>

A more detailed description of each risk is available in the Corporate Governance Chapter, part I, section 53.

## EMERGING RISKS

Besides closely monitoring key risks inherent to its activity, the Group maps key trends (at global and sectorial level) that may be translated into threats and opportunities, and proactively develops adequate mitigation strategies. Due to their impact throughout the last years, one should highlight (1) the challenge of adjustment of the wholesale market design to current market conditions, (2) the changing paradigm of decentralized resources, (3) the industrial revolution and digitalization of the electric sector, (4) the growing threat of cyber risks and (5) the (possible) increasing frequency and severity of extreme climatic events.

	DESCRIPTION	IMPACT	MITIGATION MEASURES
<b>WHOLESALE MARKET DESIGN (IN EUROPE)</b>	<p><b>Uncertainty around the evolution of the wholesale market design, given the current challenges:</b></p> <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>	<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>	<p><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:</p> <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> <p><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.</p>
<b>DISTRIBUTED RESOURCES</b>	<p><b>Growing proliferation of distributed resources, including:</b></p> <ul style="list-style-type: none"> <li>• Decentralized generation (in particular solar PV) for self-consumption.</li> <li>• Electric vehicles.</li> <li>• Active demand side management.</li> <li>• Storage.</li> </ul>	<p><b>Threat relative to:</b></p> <ul style="list-style-type: none"> <li>• (Possible) <b>reduction of margins for 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> <p><b>Opportunity for the sale of new products and services.</b></p>	<p><b>Proactive role in the commercialization of innovative products and solutions, with benefit in margin and client retention:</b></p> <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>• Solutions of energy efficiency (e.g., Re:dy with application to the electric car, solar decentralized generation, heating, control of outdoor spaces).</li> </ul> <p><b>Active regulatory management</b>, in particular related with tariff structure, <b>enabling the existence of efficient price signals and incentives.</b></p>
<b>4<sup>TH</sup> INDUSTRIAL REVOLUTION (AND DIGITALIZATION)</b>	<p><b>Proliferation of new technologies with disruptive potential for the electric sector, including (among others):</b></p> <ul style="list-style-type: none"> <li>• Blockchain.</li> <li>• IoT.</li> <li>• AI/ machine learning.</li> <li>• Virtual/ augmented reality.</li> <li>• Robotic Process Automation (RPA).</li> </ul>	<p><b>New market entrants such as aggregators, services of design science research (DSR) or solutions for clients.</b></p> <p><b>Opportunities for operational and business optimization, e.g.:</b></p> <ul style="list-style-type: none"> <li>• Operation and maintenance of assets (generation and grids).</li> <li>• Pricing and segmentation.</li> <li>• Innovation of product and client services.</li> <li>• Optimization of back-office and shared services.</li> </ul>	<p><b>Follow-up on best practices and developments at digital level</b> applicable to the energy sector.</p> <p><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:</p> <ul style="list-style-type: none"> <li>• Assets/ operations (e.g., predictive maintenance, asset management, task force digitalization, energy/ trading management).</li> <li>• Client (innovation of products and services, namely electrification).</li> <li>• Group (agile/ project-based solutions, optimization/ automation of internal processes).</li> </ul>





	DESCRIPTION	IMPACT	MITIGATION MEASURES
<b>CYBER-RISKS</b>	<b>Exposure to several cyber risks, due to a growing sophistication and integration of technologies.</b>	<b>Financial, operational and reputational loss</b> , due to (among others): <ul style="list-style-type: none"> <li>Loss/ interruption of operations (e.g., dispatch/ plants, billing, client service).</li> <li>Damage/ destruction of assets (grids, plants, other systems).</li> <li>Violation/ destruction of data (personal and others).</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</b> on key principles of information security.</li> <li><b>Cyber insurance.</b></li> </ul>
<b>EXTREME CLIMATE EVENTS</b>	<b>Structural climate changes<sup>1</sup></b> (in particular temperature and precipitation), <b>with impact in the frequency and severity of extreme climatic phenomena</b> (floods, droughts, storms, wildfires).	<ul style="list-style-type: none"> <li><b>Damage to physical assets and loss of profit.</b></li> <li><b>Impact on quality of service</b> (distribution grid).</li> <li>(Possible) <b>structural changes in hydro generation</b> (average and volatility).</li> </ul>	<ul style="list-style-type: none"> <li><b>Geographic and technological diversification.</b></li> <li><b>Active role fighting against climate change</b> (namely promoting decarbonization and energy efficiency).</li> <li><b>Adoption of TCFD<sup>2</sup> recommendations, and mapping of the main climate risks for EDP</b> according to transition and physical risks categorization.</li> <li><b>Existence of dedicated areas and plans for Crisis Management and Business Continuity</b> (at corporate level and for key business units).</li> </ul>

## CLIMATE RISK FRAMEWORK IN THE TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD)

The assessment of emerging climate-related risks and opportunities is aligned with the taxonomy proposed by the TCFD:

- Physical risks - which may have financial implications for organizations, such as direct damage to assets or disruption to the supply chain.
- Transition risks - which may imply profound changes in businesses to respond to the need for climate change mitigation and adaptation, with potential financial and reputational impact for organizations.
- Opportunities - possible gains from the mitigation strategy.

For this assessment, EDP used four RCP scenarios (Representative Concentration Pathway) from IPCC - 8.5 (business-as-usual), 6.0, 4.5 and 2.6 (the most aggressive in terms of mitigation and compatible with the 2°C trajectory) - to analyse the physical risks, and two scenarios from the International Energy Agency (IEA), IEA 450 and 2DS, to analyse transition risks.

RISK	TYPES OF RISK	MAIN IMPACT AND MITIGATION
<b>PHYSICAL RISKS</b>	<b>Acute</b> , with an impact on the increase in frequency and severity of extreme events, such as heat waves, droughts, floods, storms, forest fires	The increase in the frequency and severity of extreme events, according to the IPCC scenarios, could disrupt generation and distribution activities, as well as increase the operational and capital cost of recovering from damage to distribution network and generation 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.

<sup>1</sup> Additional information on the TCFD framework on the table above

<sup>2</sup> Task force on Climate-related Financial Disclosures

RISK	TYPES OF RISK	MAIN IMPACT AND MITIGATION
	<b>Chronic</b> , related to long-term changes in climate patterns, for example, an increase in mean temperature and average level of the oceans, and changes in precipitation patterns	A structural decrease in precipitation, compounded by a potential increase in competitive uses of water, will affect hydroelectric generation. The IPCC 8.5 scenario is particularly worrying for 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 in technology, geographical area and 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 300 million Euros, may become more common, with the structural reduction of precipitation levels.
<b>TRANSITION RISKS</b>	<b>Regulatory</b> , regarding 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 various technologies and geographical areas (see opportunities), asset maturity, as well as through rigorous monitoring of governmental policy and regulation.
	<b>Technological</b> , regarding the adoption of new technologies requiring greater investment by organizations	In a fast-changing 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 47).
	<b>Market</b> , resulting from changes in market dynamics, due to the influence, for example, of changes in customer behaviour and changes in market fundamentals.	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.
	<b>Reputational</b> , referring to the increase in stakeholder concern and the influence of public opinion.	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, and committed to achieve 78% renewable capacity by 2022. At the same time, it is recognized for its excellent performance in the various sustainability indexes of which it forms part, demonstrating its sustainable character and providing evidence of adopted measures and strategies.

	TYPES OF OPPORTUNITIES	POSITIVE FINANCIAL IMPACT
<b>OPPORTUNITIES</b>	<p><b>Energy source</b>, resulting from making use of incentive policies for renewable generation, leveraging the existing generation portfolio</p> <p><b>Resource efficiency</b>, regarding the reduction of operational costs by increasing the efficiency in value chain processes</p>	Investment opportunity in new clean generation capacity, in existing or new markets, taking advantage of support schemes for renewable energy. According to the 2019-2022 business plan, EDP Renováveis' EBITDA is expected to grow 6%/year in the 2018-2022 period.



TYPES OF OPPORTUNITIES		POSITIVE FINANCIAL IMPACT
	<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>The envisaged increase in demand for electricity due to temperature extremes could benefit supply in the long-term trading. 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, may lead to a 2% increase in annual consumption.</p> <p>Reinforcement of the supply of energy-efficient products and services is nowadays already a new business opportunity, with a potential financial impact on the average increase in sales estimated at around 150 million Euros per year during the 2016-2020 period.</p>
	<b>Markets</b> , access to new markets through geographical, technological, and business diversification (for example, new services). The issuance of “green” bonds for low carbon generation is also a new opportunity	
	<b>Resilience</b> , which involves developing the ability to adapt to respond to climate change so as to better manage the associated risks and seize opportunities	

EDP uses a set of metrics to monitor and assess the performance of its activity against 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”.

## 2.6. STRATEGY, GOALS AND TARGETS

EDP's vision also reflects its commitment to sustainable development, fully assuming a structuring role in energy, supporting more balanced growth models from an economic, environmental and social point of view. This vision was recently reinforced in the Strategic Plan 2019-2022, that besides establishing objectives and goals for 2022, establishes a transparent ambition for 2030 focused in the decarbonization in order to place EDP in the leadership in the energetic transition. Furthermore, the company is still maintaining its commitment in ensuring that its activity actively contributes to 9 of the 17 United Nations Sustainable Development Goals.



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 generation 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 generation, 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 years, technological advances in wind and photovoltaic generation and in energy storage, together with the 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.

### LEADING THE ENERGY TRANSITION

This axis establishes the fundamental commitments to reducing CO<sub>2</sub> emissions, by promoting renewable energies, both upstream and downstream, accompanied by measures and programmes to increase energy efficiency in consumption and solutions for customers. Is also noteworthy, the investment in access to energy in developing countries.

### COMMITMENT WITH SOCIETY AND ENVIRONMENT

This axis defines EDP's commitments towards its employees, service providers and communities. Aspects associated with diversity and equal opportunities, occupational safety and health, voluntary work, the circular economy, and environmental protection are highlighted.



## 2.2.2. STRATEGIC GUIDELINES COMPLIANCE

STATUS 2019	TARGET 2022	KEY INITIATIVES	STRATEGIC
€3.7B <sup>1</sup>	>€4B EBITDA 2022 (>5% CAGR)	STEP-UP GROWTH IN RENEWABLES WITH >7GW GROSS ADDITIONS	✓ Accelerated and focused growth
€2.3B	~€12Bn CAPEX (2019-22)	LEVERAGE ON ASSET ROTATION MODEL AS A KEY COMPLEMENT TO OUR STRATEGY	
		DELIVER SUPERIOR EXECUTION OF TRANSMISSION PROJECTS IN BRAZIL	
€1.0B	>€4B Asset Rotations	RECYCLE CAPITAL TO ACCELERATE GROWTH IN RENEWABLES	✓ Continuous portfolio optimization
€0B	>€2B disposals	REDUCE EXPOSURE TO IBERIA/MERCHANT/THERMAL	
		ACCELERATE IMPROVEMENT OF RISK PROFILE	
3.6x	<3.0x Net Debt/EBITDA 2022	COMMITMENT TO SOLID INVESTMENT GRADE	✓ Solid balance sheet and low-risk profile
79%	>75% EBITDA regulated/ LT contracted	REDUCE NET DEBT BY ~€2BN	
		~90% CAPEX IN REGULATED/LT CONTRACTED	
€123M	~€300M cumulative OPEX savings	REINFORCE EFFICIENCY/COST REDUCTION PROGRAMS	✓ Efficient and digitally enabled
-1%	-2% CAGR OPEX like-for-like	IMPLEMENT DIGITAL TRANSFORMATION PLAN	
		FOSTER A MORE FLEXIBLE AND GLOBAL ORGANIZATION	
€0.9B <sup>1</sup>	>€1B Net Profit 2022 (~7% CAGR)	DISTINCTIVE GREEN POSITIONING	✓ Attractive shareholder remuneration
81% <sup>1</sup>	75 - 85% Payout ratio, with 19 cents € floor	SUSTAINABLE EPS GROWTH TO DELIVER DPS INCREASE	
		DIVIDEND FLOOR OF €0.19	



STRATEGIC AXIS COMPLIANT IN 2019

<sup>1</sup> RECURRING FIGURES

# AXIS

Leading  
the energy  
transition



## KEY INITIATIVES

TARGET  
2022

STATUS  
2019

SDG

RENEWABLE INSTALLED CAPACITY

78%

74%

7

SOLAR INSTALLED CAPACITY  
(CENTRALISED AND DISTRIBUTED)

>1,000MW

242MW

7

CO<sub>2</sub>eq SPECIFIC EMISSIONS  
VARIATION VS. 2005

-65%

-66%

9; 13

INTERNALISE THE TCFD RECOMMENDATIONS

100%

33%

13

CUSTOMERS WITH VALUE-ADDED SERVICES

30%

26%

11; 12

CUSTOMERS WITH ELECTRIC  
MOBILITY SOLUTIONS

100k

10.1k

7; 11

SAVED ENERGY BY COSTUMERS (SINCE 2015)

5TWh

3.1TWh

7; 12

SMART METERS

>70%

48%

7; 9

CUSTOMERS' SATISFACTION INDEX

>75%

77%

11

ELECTRIFICATION OF EDP'S LIGHT DUTY FLEET

>20%

9%

7; 11

CARBON NEUTRALITY IN EDP'S  
OFFICE BUILDINGS

100%

37%

7; 13

CLIMATE CHANGE ADAPTATION PLANS

100%

20%

13

INVESTMENT IN ACCESS TO ELECTRIFICATION

20M€

4.9M€

7; 17

AVERAGE WASTE RECOVERY RATE<sup>2</sup>

75%

96%

12

SINGLE-USE PLASTICS ELIMINATED

100%

5%

12

ENVIRONMENTAL ACCIDENTS AND PENALTIES

0

0

13; 15

FEMALE EMPLOYEES

30%

25%

5

FATAL ACCIDENTS  
(EMPLOYEES AND SERVICE PROVIDERS)

0

2

8

INVESTMENT IN THE COMMUNITY (SINCE 2015)

200M€

136M€

7; 13

PARTICIPATION IN VOLUNTARY ACTIONS

20%

24%

8; 11

PARTICIPATION IN VOLUNTARY ACTIONS

20,000h

23,258h

8; 11

Committed with  
society and  
environment



SUSTAINABLE  
DEVELOPMENT GOALS



<sup>2</sup> IN THE PERIOD 2019-2022, COMPARED TO 2015-2018. THE FIGURE FOR 2018 CORRESPONDS TO THE AVERAGE VALUATION FOR 2015-2018 PERIOD





**hmm**  
Hm

HUMAN  
ENERGY

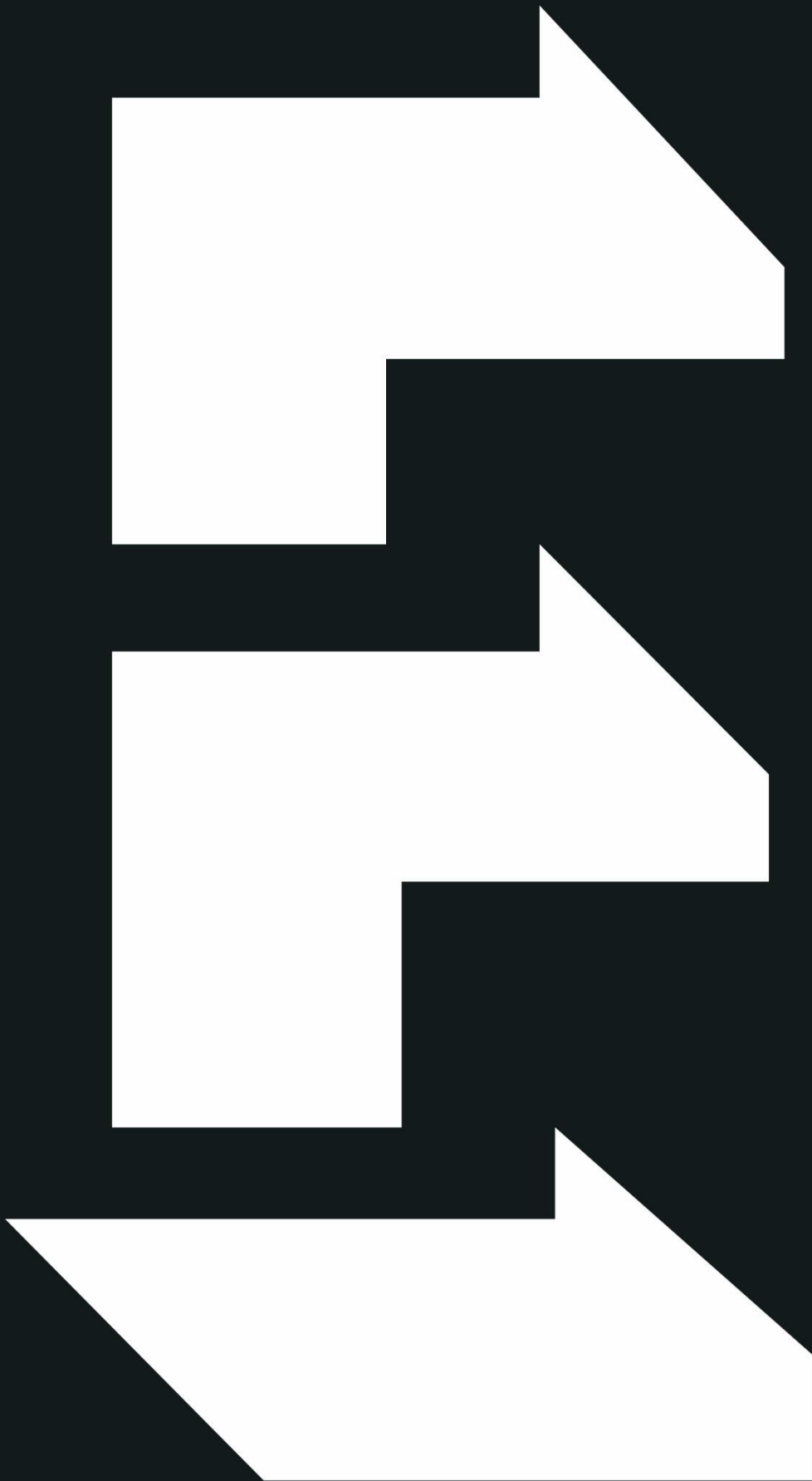
man



# 03

## 03 PERFORMANCE

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## 03

## PERFORMANCE

## MATERIALITY

The EDP Group carries out its Materiality process annually, identifying the importance of non-financial issues for its stakeholders (page 46), cross-referencing this with the importance of these regarding priorities and business strategy. The potential impacts generated or suffered by the company are also considered, in order to verify its alignment with its business strategy and identify areas for improvement.

This analysis supports the decision-making process and the development of strategies in the organization, particularly the definition of its sustainability strategy, thereby also allowing it to identify the main challenges and opportunities for the company. Thus, for EDP, the Materiality analysis enables it to:

- Identify critical issues<sup>3</sup> and sensitive issues<sup>4</sup> for the business – allowing it to optimize the company's strategic orientation and administer internal management more effectively;
- Support the definition of the sustainability strategy – supporting its internalization within the company's strategic objectives;
- Focus on what is important to report – supporting the reporting of non-financial performance;
- Support the management of the Group's stakeholders – allowing the prioritization of the importance of material issues per stakeholder group.

This process results in the identification of material issues for the EDP Group, which influence the creation of company value and, at the same time, positively or negatively impact its stakeholders. 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.

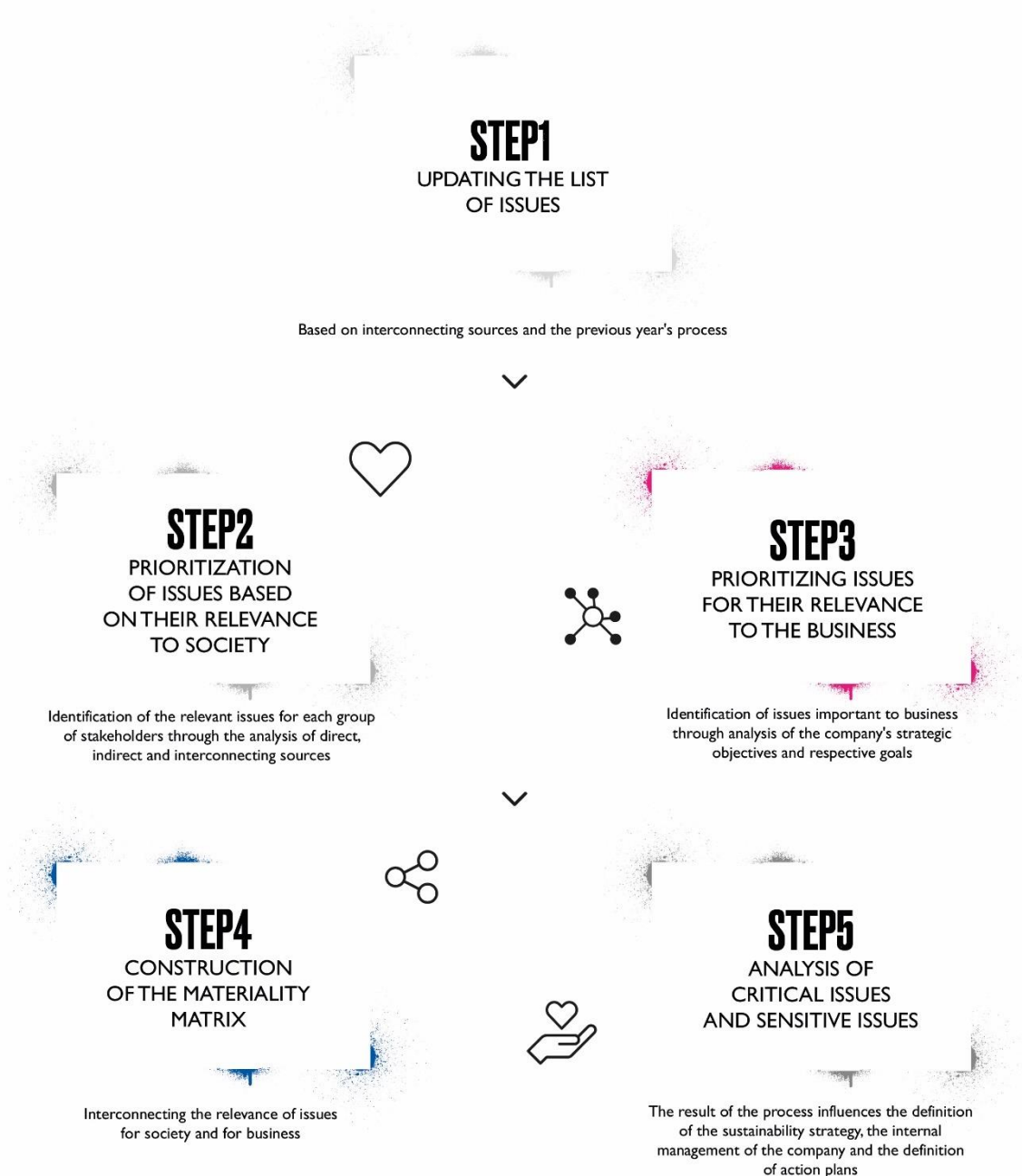
<sup>3</sup> Critical issue: Highly relevant issue for society and business. Issues to consider when developing internal strategies and action plans. They highlight areas to be focused on in establishing partnerships

<sup>4</sup> Sensitive issue: Issues of considerable importance for Society, but not so for EDP. They require close monitoring, either to internalize them in future plans, or to clarify their importance to the business.





In 2019, the EDP Group's Materiality process involved a detailed review in order to integrate the company's new 2019-2022 Business Plan and its sustainability strategy that defines new objectives and goals for 2022 (page 60). The process involves the different companies and geographical areas of the Group, with each developing its own Materiality analysis, which are then consolidated into a corporate matrix. This methodology allows each business unit to use its analysis to strategically reflect on its priorities and action plans. The analysis of the Group's Materiality is developed through a common methodology systematized below (additional information at [www.edp.com](http://www.edp.com)).

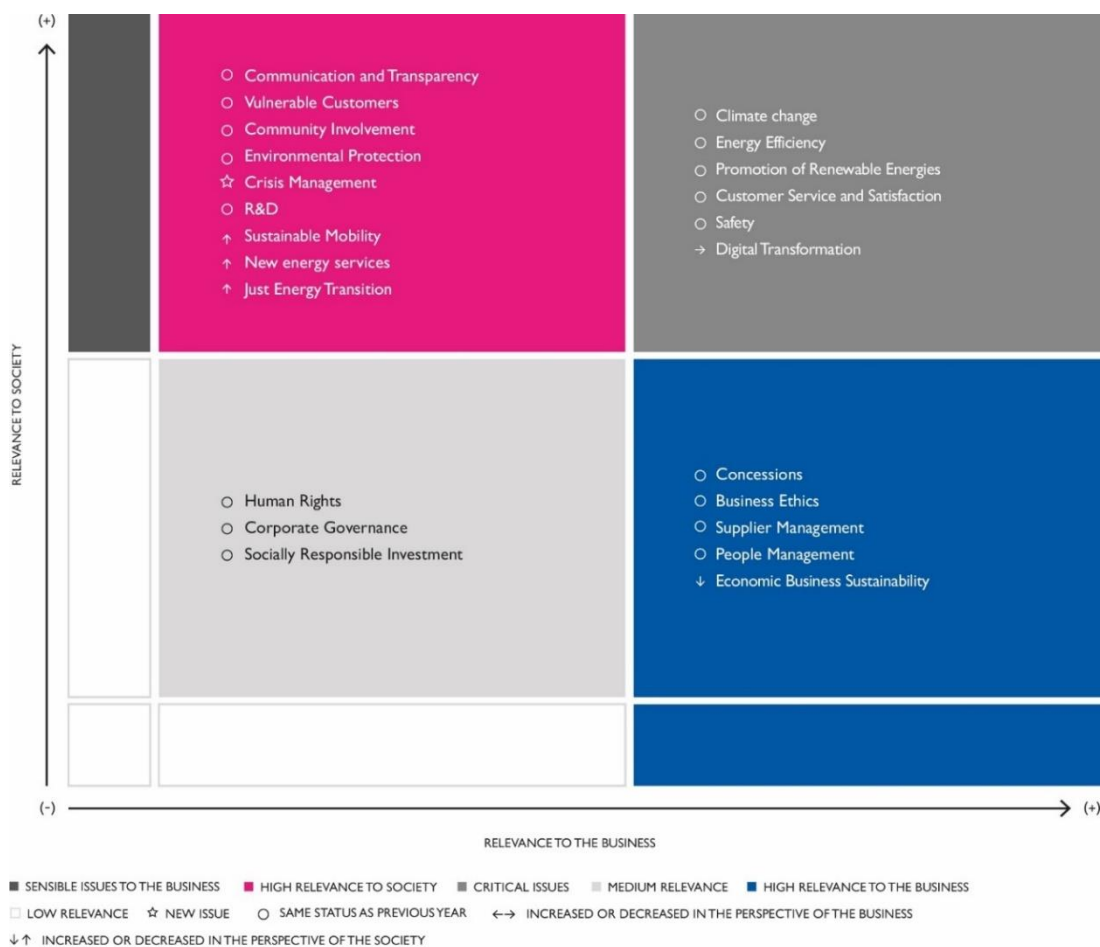


In 2019, the Datamaran platform was used to support the analysis of the importance of issues for society, which, using big data analysis, allowed the number of consulted sources to be extended to more than 4,000 different sources (direct and indirect), highlighting the main types of sources:

- 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.

23 material issues were identified for the EDP Group in 2019, which evolved compared to the previous year, according to the matrix below. Additional information at [www.edp.com](http://www.edp.com).



In 2019, most of the issues and their relevance remain stable compared to the previous year, with the following highlighting the main changes in the matrix:

- **Digital Transformation:** this is a catalysing theme for energy transition and a strategic priority for the Group. In 2019, it covered the theme of digital inclusion for the first time.
- **Crisis Management:** this is a mature theme within the Group, emerging from society as highly relevant, in a year in which the climatic emergency was declared and recognized by different segments of EDP's stakeholders. The extreme events that plagued the world during the year were facts that contributed to the increase in this perception.

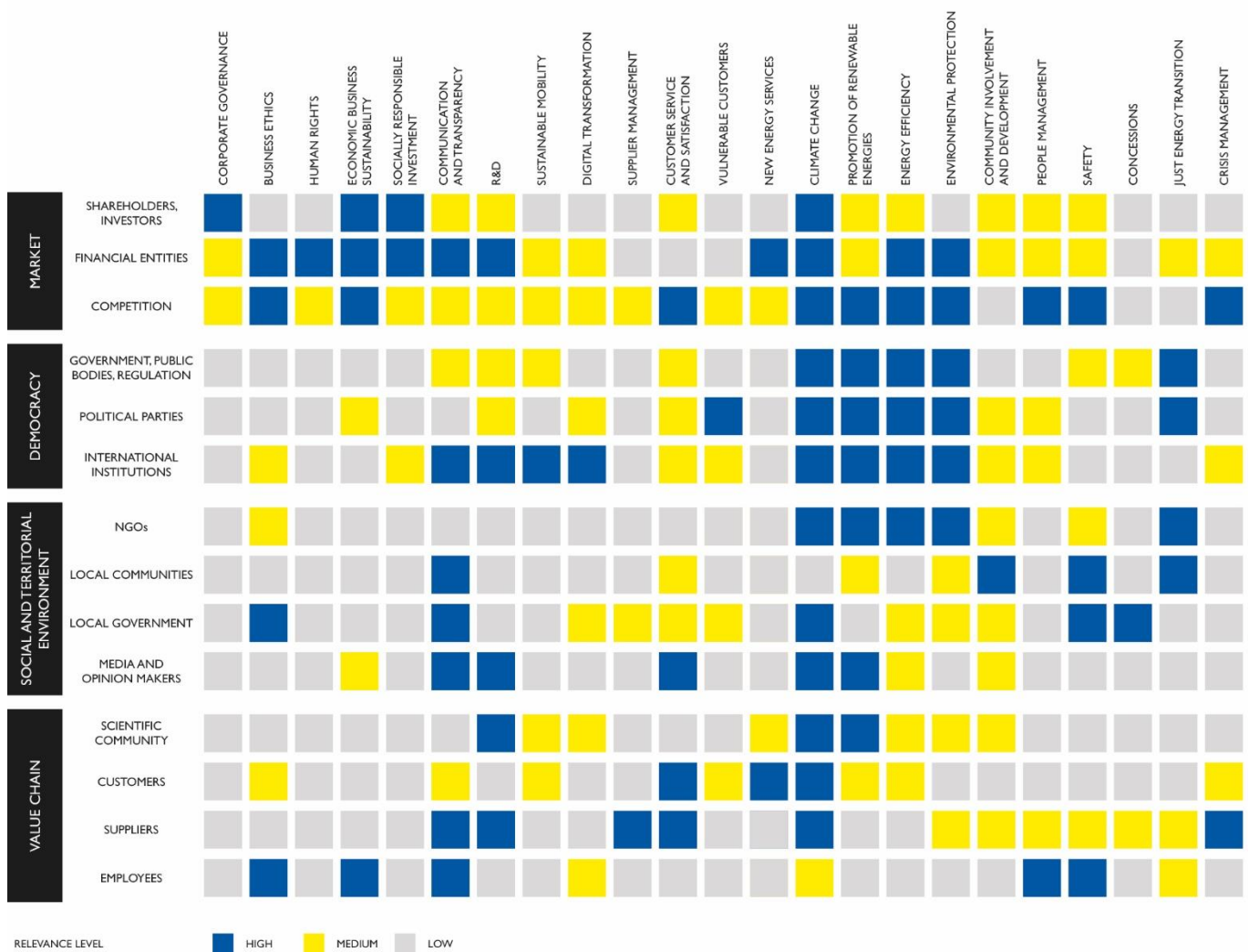


- **Just Energy Transition:** in a context of climatic emergency where cross-over speed is requested by society, this theme has emerged associated with the social fragility to which it can lead, particularly associated with employment, energy poverty and the loss of local competitiveness in areas highly dependent on fossil fuels, particularly coal.
- **New Energy Services and Sustainable Mobility:** greater relevance to society translates into a better perception of the need to change consumption habits as a way of contributing positively to the energy transition that is required.
- **Economic Business Sustainability:** the company's Debt Management issue is now more mature in the investor's perception, since the new BP 2019-22 includes a reduction of the Net Debt / EBITDA ratio to <3.0x in 2022 (vs 4.0x in 2018), and at the end of 2019, this ratio has already been reduced to 3.6x.

One of the results of the materiality matrix is the identification of the degree of priority given by each of the company's stakeholder groups to sustainability issues. This analysis shows a natural dispersion of the importance attributed by the different stakeholders to the issues analyzed, inherently related to the nature of the stakeholder and its relationship with the company.

In 2019, adding to the relevance attributed by different stakeholders to the different sustainability issues, the Top 5 most relevant issues were: 1. Climate change; 2. Promotion of Renewable Energies; 3. Energy efficiency; 4. Communication and Transparency; 5. Environmental Protection as well as Research and Development.

The identified issues are detailed below, aggregated according to the degree of relevance attributed by each of the stakeholder groups.



3.1. LEADING THE ENERGY TRANSITION

This axis establishes the fundamental commitments to reducing CO<sub>2</sub> emissions, by promoting renewable energies, both upstream and downstream, accompanied by measures and programmes to increase energy efficiency in consumption and solutions for customers. Is also noteworthy, the investment in access to energy in developing countries.

2019 HIGHLIGHTS

- Secured 70% of the new renewable capacity set out in Strategic Update 2019-22
- Best rating ever in SAM's CSA evaluation. Gold Category in SAM S&P Global Yearbook
- Setting the Digital CAPEX target at 800 million Euros between 2019 and 2022, with a strong focus on more efficient operations and on digitizing the customer experience
- New CO<sub>2</sub> emission reduction target approved by Science Based Target Initiative as being in line with the decarbonization trajectory well below 2°C
- Subscription to the 1.5°C commitment - "Business Ambition for 1.5°C - Our Only Future" - together with 87 major companies worldwide
- EV100 Commitment | The Climate Group to electrify 100% of the light fleet and 50% of the heavy fleet by 2030
- A2E investment of USD 3 million in Rensource, a solar energy company, in Nigeria

2020 MAIN CHALLENGES

- Anticipate renewable production capacity quota targets
- Roll out of partnership with Engie for offshore
- Increase of Sustainable Mobility solutions for customers and internal fleet
- Consolidate the presence of digital in the roadmap of the Business Units and leverage digital as a relevant vehicle for the strategic positioning of the EDP Group in the Energy Transition
- Strengthening A2E investment, especially in developing countries
- To actively contribute to the public consultation process on the revision of the Non-Financial Reporting Directive in alignment with the EDPTCFD reporting improvement process



### 3.1.1. ECONOMIC BUSINESS SUSTAINABILITY

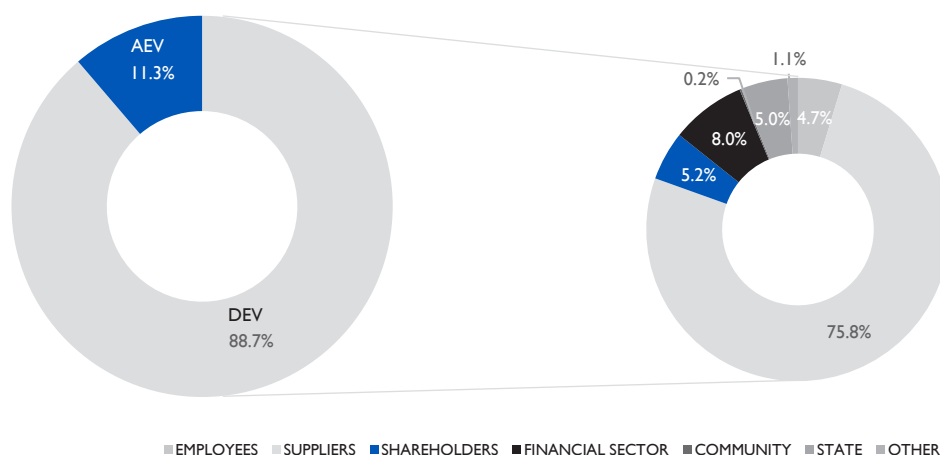
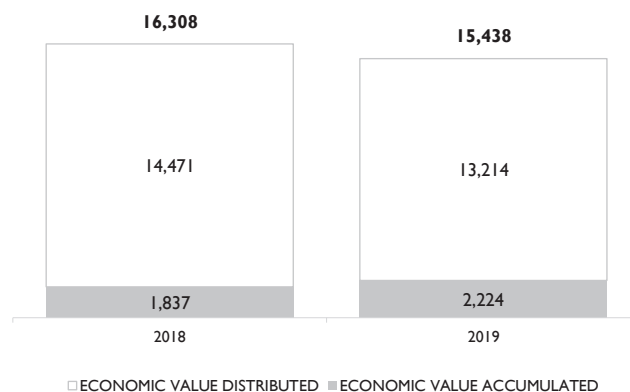
#### VALUE CREATION

Over the past years, EDP has integrated environmental and social issues in their business model (page 30) and strategy (page 60) by definition and deployment of corporate policies (page 221). Consistent with this approach of long-term value creation, EDP has a Corporate Governance model that meets the various stakeholders' expectations.

In 2019, the economic value that EDP generated reached 15,438 million Euros, which is comparable with 16,308 million Euros in 2017. This value includes turnover and other income. In 2019, 86% of the Economic Value Generated (EVG) was distributed in a total amount of 13,214 million Euros. The Economic Value Accumulated – EVA (difference between EVG and EVD – Economic Value Distributed) corresponds to the remaining 14% and includes retained earnings and non-payable costs.

In 2019, the EVG is broken down as follows:

**Economic value generated (M€)**



For more information on EDP's economic and financial performance, see the Annual Report 2019.

## SOLVENCY AND FINANCIAL MANAGEMENT

### AVAILABLE LIQUIDITY

**12-24 months**

FOR REFINANCING NEEDS

Financial strength is considered an essential factor for sustainable and balanced growth.

Careful management of liquidity levels and maintenance of high solvency levels are essential to ensuring compliance with short and long-term financial obligations and access to the capital market.

As part of its financial management policy, EDP considers it essential to maintain a level of liquidity that will enable it to overcome prolonged periods of difficulties in accessing financial markets, supported by an appropriate strategy of diversifying financing sources. As such, EDP seeks to ensure the maintenance of sufficient liquidity reserves at all times to cover refinancing needs for 12 to 24 months, while seeking to guarantee permanent access to the capital market and maintain a relationship with a large number of leading financially sound international counterparts. At the end of 2019, the available liquidity was EUR 7.0 billion, which made it possible to cover refinancing needs beyond 2022.

With regard to its level of indebtedness, EDP has successfully pursued its strategic commitment to reduce its leverage, while at the same time acting to optimize the average cost of the debt and increase its average debt maturity. As part of its financial management policy, EDP aims to maintain an average life of more than 5 years. [At the end of 2019, the EDP Group's net debt totalled 13.8 billion Euros, the Net Debt/EBITDA<sup>5</sup> ratio fell to 3.6x, and the average cost of debt was 3.9%.

In order to improve its financial risk profile, EDP has the goal of reducing the Net Debt/EBITDA ratio to less than 3x in 2022, through sustained growth in operating cash flow and the optimization of its asset portfolio. EDP believes that the improvement of the company's credit metrics, combined with the maintenance of a low risk business profile, are consistent with the goal of a "BBB" rating in the 2019-2022 period.

### STRENGTHENING EDP'S CREDIT METRICS

**< 3.0x**

NET DEBT/EBITDA IN 2022

<sup>5</sup> Net debt less regulatory assets and excluding 50% of subordinated debt (hybrids, including interest).





# Our Way



## GRIDBEYOND TO GROW IN NEW MARKETS

EDP reinforced its international expansion plans by investing 6 million Euros in GridBeyond, a leader in providing system services to business customers, operating in the UK and Ireland markets. The choice of this company – set up in 2007 and a finalist in the last edition of the Free Electrons programme – is part of EDP's strategy to provide leadership in energy transition, by focusing on a key area in the future of the sector which is undergoing major growth, namely system services through customer load flexibility management. It is estimated that, worldwide, this system services market will reach an accumulated overall capacity above 1,000GW in 2040 – the equivalent of 46 times current installed capacity in Portugal – using customer load flexibility.

Traditionally, the provision of system services has been reserved for thermal and hydro power plants. With the greater penetration of intermittent energy sources, such as wind and solar, the need to stabilize the electricity grid through alternative formats will increase. The solutions developed by GridBeyond enable the provision of intelligent system services through remote action



on flexible loads which are available in end customer factories or companies. Examples of this are large ovens, refrigeration systems, or even air conditioning systems in buildings, which can be adjusted remotely and marginally without any impact on their final production. In return, the customer (factory or company which provides this remote access to its equipment) is remunerated for their participation in the local system services market, through a reduction in their energy bill.

For EDP, “this investment will allow us to gain experience in distributed assets flexibility management, reinforcing our international expansion, as well as developing new products and energy solutions that will meet the new needs of the end customer”. The paradigm shift that the sector faces – with the electrification of the economy, decentralization of energy production and digitalization – “has led to the adoption of new technologies which, within an appropriate regulatory framework, will enable the boosting of services, such as participation in the search for flexibility, which will be essential for balance in the electrical system in the near future”, explained Vera Pinto Pereira, chairwoman of EDP Comercial.

In Portugal, it is expected that customers will also very soon have access to the provision of these types of services in return for extraordinary income, which will contribute to reducing their energy bill.



### 3.1.2. SOCIALLY RESPONSIBLE INVESTMENT

The impulses of the world today resulting from climate change, alignment with the objectives of the Paris Agreement (2015) and various regulatory reforms for Sustainable Finance - Task Force on Climate-related Financial Disclosures (TCFD), established by the Financial Stability Board of the G20 in 2015; the European Commission's Action Plan on Sustainable Finance (2018) - have marked the actions of the various international players in the capital market in 2019, to mobilize the resources necessary for investments in actions to mitigate and adapt to climate change, in response to the indication of the carbon price.

Increasingly, investors integrate environmental, social and corporate governance (ESG) factors into their investment decision-making processes, and as a consequence, many of them have reformulated investment frameworks. In the annual letter, addressed to his clients, Larry Fink, CEO of BlackRock stated "Our investment conviction is that sustainability – and climate-integrated portfolios – can provide better risk-adjusted returns to investors" because investors need to take into account all the risks and opportunities that companies and issuers face when taking decisions, which means including topics related to sustainability (January 2020) (Source: [www.blackrock.com](http://www.blackrock.com)).

It is now universally accepted by financial agents, regulators and governments, that climate change is important and should be considered in due diligence processes. This is not surprising, as can be seen in the 2020 Global Risk Report, carried out by the World Economic Forum (WEF), where five environmental risks have for the first time been identified in the category of high probability risks: 1st extreme weather events; 2nd failures in actions to mitigate and adapt to climate change; 3rd natural disasters; 4th loss of biodiversity; and 5th man-made disasters. Three of these risks were already in the TOP 5 of high probability global risks for 2019.

In turn, socially responsible investment (SRI) is growing very rapidly, showing the importance that investors are attaching to ESG factors, and climate change in particular.

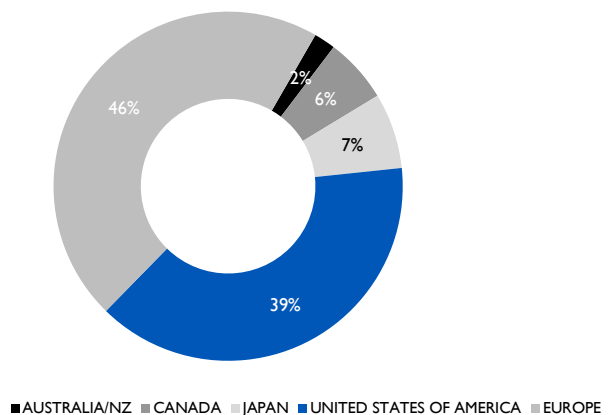
Globally, socially responsible investment totals 31 billion US Dollars (Assets under Management (AuM)), corresponding to 36% of the total market, which represents an increase of 34% compared to 2016. Europe and the U.S.A. continue to hold the largest shares of total SRI assets (source - 2018 Global Sustainable Investment Alliance). The most widely used SRI approaches are: i) negative filtering (for example exclusion) (19.8 billion US dollars); ii) a strategy for including ESG factors (17.5 billion US dollars); and iii) a strategy of engagement and exercise of voting rights (Engagement and Voting) (9.8 billion US dollars), the latter being the second most used approach in the European market (after the exclusion approach).

Overall, EDP has lived up to expectations in the search for ESG information by SRI investors, who only invest in companies that have guaranteed the correct standards from an environmental, social and corporate governance point of view. Currently, 9% of the capital of EDP's shareholder structure comes from SRI investors. EDP has provided the responses requested, for the purpose of assessing the potential consequences of disputes, to SRI investors who follow active investment approaches (such as Engagement and Voting), as well as different ESG information to those who follow passive investment approaches, such as RobecoSAM, ISS-Oekom, Sustainalytics, etc., to obtain a sustainability score.

In addition, with regard to the financing component, the Company has responded to requests from investors, who are increasingly demanding in terms of mitigating the risks inherent to ESG factors. EDP's strategy has been focused on sustainability for many years, even before the issuance of Green Bonds became a trend. In order to promote greater alignment of the company's financing policy with its strategy, in October 2018, EDP entered the Green Bonds market and has since issued approximately 3 billion Euros of this type of bond.

In parallel, the Company has followed the regulatory developments in Sustainable Finance due to the implications they have for the sector in which the company operates and where climate change is seen by investors as a risk and an opportunity. As such, the company has

**Proportion of overall sustainable investment assets by region in 2018**



provided responses to public consultation processes, not only individually, but also represented by associations, such as Eurelectric, or the Corporate Forum for Sustainable Finance.

## EDP ESG PERFORMANCE ASSESSMENT

EDP's global performance has improved over the past few years, ensuring its inclusion in the most independent, critical and consolidated ESG indices in the financial market. Being included in various indices - ECPI; ETHIBEL; Bloomberg; DJSI; FTSE; VIGEO; OEKOM; MSCI; Sustainalytics is, therefore, a sign of recognition of the sustainability strategy followed for more than a decade.

Currently, EDP is present in 65 ESG indices (equity and fixed income) and 144 ESG funds. EDP's presence in the ESG indices mentioned above was supported by the following scores obtained in 2019.

RATER	SCALE	SCORE 2019	EVOLUTION VS. 2018
RobecoSAM	0 - 100	90	↗
FTSE Russel	0 - 5	4.7	↗
MSCI	CCC - AAA	AAA	=
Sustainalytics <sup>1</sup>	100 - 0	22.1	↘
CDP/Euronext <sup>2</sup>	A-F	A-	new
ECPI	No - Yes	Yes	=
Forum ETHIBEL	No - Yes	Yes	=
ISS Score – Environmental <sup>1</sup>	10 - 1	1	new
ISS Score – Social <sup>1</sup>	10 - 1	1	new
ISS Score – Governance <sup>1</sup>	10 - 1	4	new

<sup>1</sup> The lower the better

<sup>2</sup> Inclusion in the index comes from the classification within the scope of the CDP

## SRI ANALYST: ROBECOSAM

ELIGIBLE INDEX: S&P GLOBAL BMI

SUSTAINABILITY INDEXES: DJSI / SWITZERLAND INDEX

FAMILY

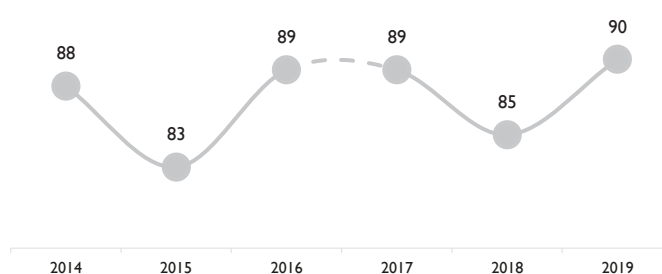
ANNUAL ESG ASSESSMENT

Based on the best-in-class methodology, the composition of the DJSI indices (e.g. World, North America, Europe, Asia Pacific, Korea) results from the analysis of three 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. In 2019, EDP obtained an overall score of 90 points on the Dow Jones Sustainability Index (DJSI), 5 points more than in 2018 and 45 points more than the average for the electricity industry. It occupies 1st place in integrated Utilities, and 2nd in Utilities.

For more details see [www.robecosam.com](http://www.robecosam.com).

### RobecoSAM (score)



Score from 0 to 100; maximum score equals 100.



## SRI ANALYST: FTSE RUSSEL

ELIGIBLE INDEX: E.G.: FTSE DEVELOPED INDEX, FTSE ALL-SHARE INDEX.

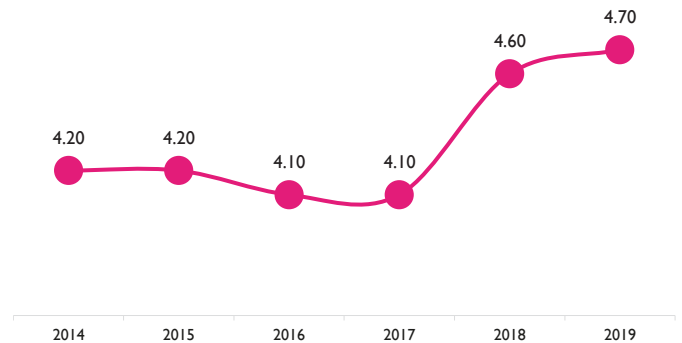
SUSTAINABILITY INDEXES: FTSE4GOOD INDEXES

ANNUAL ESG ASSESSMENT

SRI methodology developed in partnership with the Russel indices and which results in an analysis of the 3 ESG pillars:

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

**FTSE Russel (score)**



Score from 0 to 5; maximum score equals 5.

In 2019, for the 10th consecutive year, EDP has been a member of the FTSE4Good Index Series, with an ESG score of 4.7 and in the top 5% of Utilities with the best ESG performance.

For more details, see [www.ftserussell.com](http://www.ftserussell.com).

## SRI ANALYST: MORGAN STANLEY CAPITAL INTERNATIONAL

ELIGIBLE INDEX: MSCI

SUSTAINABILITY INDEX: MCSI ESG INDEX FAMILY

ANNUAL ASSESSMENT

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. For more details see [www.msci.com](http://www.msci.com).

## SRI ANALYST: SUSTAINALYTICS

ELIGIBLE INDEX: STOXX GLOBAL 1800 INDEX

SUSTAINABILITY INDEXES: STOXX ESG & SUSTAINABILITY/SWITZERLAND AND NETHERLANDS INDEX

ANNUAL ASSESSMENT

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 ESG Risk Rating, which expresses the amount of risk not managed by a company on a scale of 0 to 100, classifies the ESG risk of companies into 5 levels: negligible (0-9.99), low (10-19.99), medium (20-29.99), high (30-39.99) and severe (> 40). In 2019, EDP obtained a result of 22.1 (in 2018 it obtained a value of 20.7), which corresponds to the Medium risk category (20-30 interval).

For more details see [www.stoxx.com](http://www.stoxx.com).

**SRI ANALYST: VIGEO**

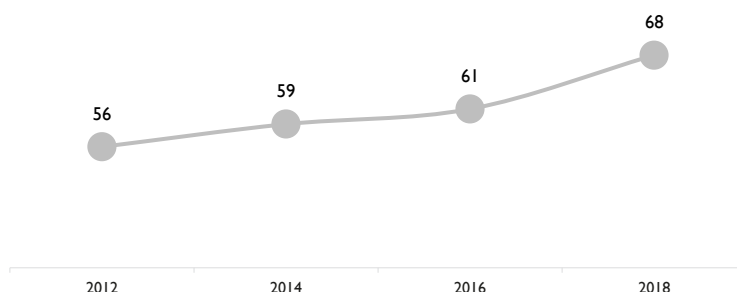
ELIGIBLE INDEX: NYSE EURONEXT

SUSTAINABILITY INDEXES: VIGEO-EIRIS/FRANCE FAMILY OF INDICES

BIANNUAL ASSESSMENT, WITH HALF-YEARLY REASSESSMENT

The companies are assessed by the analyst VIGEO SA based on VIGEO's Equities methodology, which incorporates 6 areas (environment, human resources, human rights, involvement with the community, behaviour in business and corporate governance) and more than 300 indicators. EDP has been a member of these indexes (Euronext World 120, Euronext Europe 120 and Euronext Eurozone 120) since 2012.

For more details visit [vigeo-eiris.com](http://vigeo-eiris.com).

**Vigeo (score)****SRI ANALYST: FORUM ETHIBEL**

ELIGIBLE INDEX: ETHIBEL EXCELLENCE INVESTMENT REGISTER

SUSTAINABILITY INDEX: ETHIBEL PIONEER AND ETHIBEL EXCELLENCE

BIANNUAL ASSESSMENT, WITH HALF-YEARLY REASSESSMENT

EDP is included in the Ethibel EXCELLENCE Investment Register, a group of companies that perform above the average in their sector of activity. The assessment is carried out based on sustainability criteria, information collected by Vigeo and consultation with important stakeholders for companies. EDP has also been part of the Ethibel Sustainability Index (ESI) Excellence Europe since 2013, an index that contains only companies included in Investment Registers. The indices are owned by Vigeo, but their creation is the responsibility of the ETHIBEL Forum, a Belgian non-profit organization that aims to promote Socially Responsible Investment - SRI. For more details visit [vigeo-eiris.com](http://vigeo-eiris.com).

**SRI ANALYST: ECPI**

ELIGIBLE INDEX: S&amp;P GLOBAL 1200

SUSTAINABILITY INDEX: CPI INDEX FAMILY

ANNUAL ASSESSMENT

Since the launch of its first index in 2001, ECPI has been a pioneer in the SRI market. Following scrutiny based on an SRI exclusion approach, it currently has about 40 indices ranging from global equity indices to thematic, strategic and bond indices. EDP has been a part of these since 2013. More details on the ECPI index family are available at [www.ecpigroup.com](http://www.ecpigroup.com).

**SRI ANALYST: CDP/EURONEXT**

ELIGIBLE INDEX: CDP

SUSTAINABILITY INDEX: EURONEXT CDP ENVIRONMENT

ANNUAL ASSESSMENT

The Euronext CDP Environment indices were assembled in 2019. The classification under the ESG scope comes from the CDP Climate methodology that scores institutions in the environmental area - from A to F. According to the rules of the Euronext indices, inclusion in the Euronext CDP Environment indices is made taking into account the ranking of the 200 largest companies by free-float capitalization and ranking in the CDP score. In 2019, EDP was included in the Euronext CDP Eurozone index. The scoring methodology is available at [live.euronext.com](http://live.euronext.com).





## 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 and water areas (CDP Climate and CDP Water Security) and in the ethics area (Ethisphere Institute). However, the ratings obtained are not expressed as stock indexes.

## SUSTAINABLE FINANCING

The topic “Sustainable Financing” continues to receive 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.

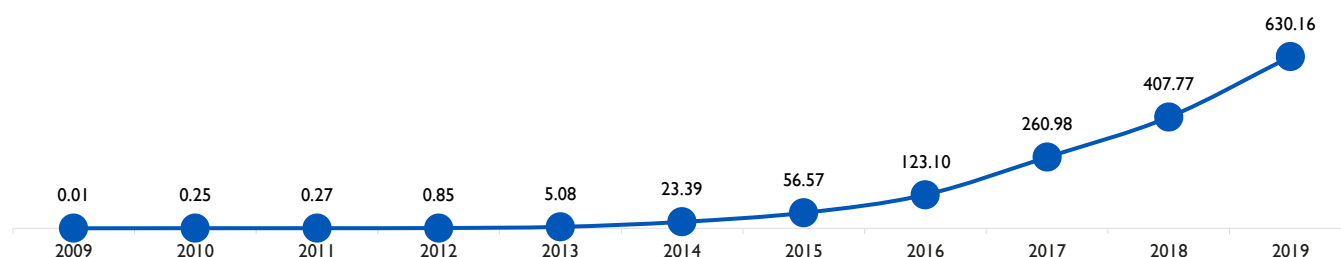
Issuers find credit investors increasingly demanding in assessing the sustainable behaviour of companies and their respective reporting. In this context, the capital market has begun to signal a preference for more sustainable financing, assuming the possibility of issuers that resort to this type of financing and that assertively communicate the use of funds raised and the incorporation of ESG policies in their strategy, beginning to receive positive discrimination.

Initially introduced by the European Investment Bank in 2007, Green Bonds have grown rapidly in recent years, demonstrating the inevitability of moving to the necessary scale due to the pressure of climate change and other environmental pressures.

In 2019, according to data released by Bloomberg, the cumulative value for Green Bond transactions was 630 billion US Dollars. In annual average terms, this corresponds to a 160% growth in the period between 2008 and 2019. The Green Bonds market in the Utilities sector represents 19% of total green issues and in circulation.

Currently, the Green Bonds fraction corresponds to about 1% of the global bond market value (over 115 trillion US Dollars).

### Evolution of the Green Bonds market (billion US Dollars)



SOURCE: BLOOMBERG

EDP's strategy has long been focused on sustainability and the issuance of Green Bonds by the company has promoted greater alignment of the financial policy with our sustainability strategy, increasing the market's awareness of this. It also enables diversifying and expanding the investor base, allowing access to investors more focused on sustainability issues.

So far, EDP has issued 2,950 million Euros of Green Bonds: two issues of Senior Debt and two issues of Subordinated Debt (Hybrid).

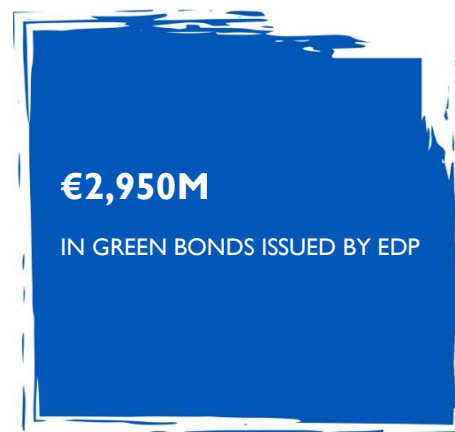
EDP issued its first Green Bond in October 2018, in the amount of 600 million Euros and in January 2019, it issued the first Green Hybrid, in the amount of 1,000 million Euros. These issues were the first green issues of Senior Debt and Subordinated Debt by a Portuguese

issuer, so in 2019 EDP received a Green Bond Pioneer award – recognition from the Climate Bond Initiative (CBI) – for being the first Portuguese Company to issue Green Bonds.

More recently, EDP issued two more Green Bonds, one for Senior Debt, in the amount of 600 million Euros, and another for Subordinated Debt, in the amount of 750 million Euros, in September 2019 and January 2020, respectively.

Our Green Bond issues are supported by EDP's Green Bond Framework. In this document, EDP has presented the set of principles that support the process of issuing this type of bond and that follow the international standard of Green Bond Principles (GBP), voluntary principles drawn up by the ICMA. This document was reviewed by Sustainalytics, which issued a favourable external opinion regarding the framework with the GBP, having mentioned that EDP's Green Bond Framework "is credible, impactful and aligned with the four components of the Green Bond Principles 2018".

The EDP Green Bonds issuance has been available in the CBI database since October 2018. It should also be noted that EDP's Green Bonds are included in some benchmark indices, particularly the Bloomberg Barclays MSCI Global Green Bond Index and the ICE BofAML Green Bond Index. More recently, with EDP's Green Bonds admitted to trading on Euronext Dublin, EDP was invited to join a new specific Green Bond segment launched in November 2019 by EURONEXT Dublin.



#### THE VOICE OF JAVIER RODRÍGUEZ VEJA, DIRECTOR OF AERI, ASOCIACIÓN ESPAÑOLA PARA LAS RELACIONES CON INVERSORES

##### **How do you see EDP positioned with respect to peers regarding ESG report? Do you think EDP is reporting relevant information to investors?**

I truly believe that EDP report in terms of ESG is one of the very best of the utility sector we have seen so far. We at AERI keep believing that whatever doesn't get measured, doesn't get managed, and this is not the case at EDP. It is not a coincidence that DJSI rates EDP so high in terms of ESG. EDP is clearly reporting very relevant information to investors through its different sets of documentation: Sustainability Reports, presentations to investors, objectives progress, strategic update, ...

##### **Do you think EDP is prepared for climate-related reporting? Which steps EDP should take in the future to improve their ESG disclose in alignment with the recommendations of TCFD?**

EDP is more than ready and willing to take the lead in aligning with the recommendations of the TCFD. A company such as EDP has a great responsibility in helping other similar companies in finding a unique standard that is also aligned with the EU taxonomy. EDP should help us all in this commitment of simplifying measurement and metrics so that KPIs are fully comparable, easy to measure and relevant.

Since 1997, Finch&Beak, specialized company, support businesses by developing and implementing winning sustainability strategies that accelerate their performance on today's global sustainability challenges. Recently on their website and in their monthly newsletter dedicated to green Sustainability, they published a case study on EDP's green bond issuance. It recognizes the success of the process and of the Company's strategy in the decarbonization trajectory of the sector and the economy.



# Our Way



## GREEN BONDS FOSTER SUSTAINABLE INVESTING

### STEERING A GREEN PORTFOLIO ENSURES EDP'S LONG-TERM VALUE CREATION

Alternative forms of investments are becoming more predominant in corporate financial structures. Companies that leave a bigger fingerprint are encouraging internal collaboration by pairing unrelated divisions to one another. Energías de Portugal is living proof of this, blending its corporate vision with investors' desire for portfolio diversification. Hedging both financial and environmental risk factors, green bonds enable alignment and play an active role in a strategic point of view.

### THE GREEN BOND MILESTONE

Indeed, 2019 was a breaking point to set this financing measure as a reference, as \$255bn was issued during the course of the year; representing a 49% increase compared to the previous year. According to Climate Bond Initiative, the broad view of green investments is expected to reach a staggering \$1 trillion; an emblematic figure that serves as proof in this decade of change.

The previous year also had the EU as the dominant green bond market provider (\$106.7bn), with clean energy representing the bulk category of bonds exchanged (31.5%).

### THE RISE OF GREEN FINANCING IN PORTUGAL

Benefiting from favorable geographic terrains, Portugal's wind and solar power plants are growing in abundance. Feeding of these demographic conditions is Energias de Portugal (EDP), which through its Renewables subsidiary EDP Renováveis has formed a renowned green portfolio that is impacting economic outcomes at both industry and nation level.

### EDP – A CATALYST WITH GREEN BOND INITIATIVES IN EUROPE

EDP is well familiar with this financing mechanism, as it has been issuing green bonds since 2015. Portugal's largest energy provider and the third largest in Spain started 2020 by issuing its third green bond issuance, a further \$814,125m with a maturity date prolonging to 2080. According to Bloomberg, the demand for EDP's bonds more than exceeded the quantity issued, which was estimated to be worth four times higher than what was offered.

The figures show the alignment between the issuer EDP, who furthers its vision and statement, and its investors, who opt to diversify their portfolio with responsible investing. Through this financing measure, the firm will be enhancing its green portfolio, which consists of renewable energy production projects, such as wind power plants and solar power plants.

The world's fourth largest wind energy producer emerges as an example in its sustainable investment approach for several reasons. Mainly:

- Being transparent and eager to comply with regulatory framework: EDP has published a green bond framework which states that all green bond initiatives follow the green bond principles, a volunteering guideline provided by International Capital Market Association, which promotes transparency and integrity in the development of the green bond market. EDP's framework is based on a well-structured, 5-pillar approach, from the use of the proceeds to a final external review.
- Promoting internal cooperation and integration in the company's capital structure: EDP ensures cooperation between its financial and sustainability teams when crafting its capital structure. This is crucial for these two pillars within a company structure, as it helps the sustainability team improve their understanding of investors' perspectives, which can then improve their ability to communicate the financial value of EDP's sustainability efforts.
- Alignment with the company's environmental strategy and priorities put forth: The energy provider excludes

projects related to fossil fuel and hydro energy production, as these go against the ESG strategy envisioned, and is not part of the EDP Renováveis portfolio of projects. Furthermore, EDP establishes relevant impact indicators such as the installed capacity of renewable energy and its annual net production, as well as the CO<sub>2</sub> emissions avoided, linking them to UN Sustainable Development Goals and the already established targets. Whilst providing the necessary impact reporting, EDP clearly states the potential impact of their investments, ensuring full transparency in all aspects relating to green bond financing.

Author: Tomás Flora da Silva (Finch and Beak)

[www.finchandbeak.com](http://www.finchandbeak.com)



### 3.1.3. RESEARCH & DEVELOPMENT

Research, Development and Innovation (RDI) are a priority for the EDP Group and are strongly rooted in its DNA, its vision and its culture, enabling it to anticipate the new challenges of the energy sector. In a context of transition for the sector, with the challenges of climate change, EDP has reinforced the need to adopt innovative strategies and technologies. Within this framework, EDP has been promoting and developing new technologies, products, services or business models, with the aim of providing the Group with competitive advantages and contributing to EDP's image as a leader in the development and implementation of innovative and creative solutions for value creation.

In 2015, EDP made a commitment to invest 200 million Euros, accumulated until 2020, in RDI projects, an amount that was exceeded in 2018. In 2019, the EDP Group's total investment in RDI amounted to 162 million Euros.

#### RESEARCH COOPERATION AND FUNDING AGREEMENTS

EDP's innovation positions itself as open innovation, emphasising collaboration with stakeholders such as startups, universities, R&D centres, incubators, accelerators, technological companies, utilities, among others. This collaboration is key to anticipate changes and adapt the company to the new paradigm. EDP continues to focus on partnerships and the balance between its own financing and competitive public financing for its RDI activity, with a focus on renewables, system flexibility, future networks and solutions for customers. In 2019, the following initiatives should be highlighted:

- EDP Ventures Spain signed an agreement with the Government of Asturias to invest in technology companies through co-investment instruments;
- As part of COTEC Spain, EDP is leading a line of work on innovation metrics with the aim of establishing common criteria between companies to identify and measure their efforts in Innovation;
- EDP chairs the Spanish Technology Platform for Energy Storage (BatteryPlat), a collaborative forum for the promotion and technological development of electricity storage technologies;
- In Brazil, EDP launched the Smart Energy Lab in conjunction with Accenture, with the aim of creating innovative technologies in the areas of distributed solar generation, solutions for energy management, electrical mobility, financial solutions and energy storage;
- EDP Distribuição has been strengthening its relationship with Scientific-Technological Research Entities, Research Centres and Incubators. To date, more than 28 national and international RDI projects have been carried out in partnership with this type of entity, and it already has more than a dozen partners from the most varied areas of expertise and geographical areas in its RDI project portfolio;
- Continuity of the EDP Chair in Biodiversity, co-financed by the Foundation for Science and Technology (FCT) and awarded to CIBIO – Research Centre in Biodiversity and Genetic Resources - of the University of Porto, Portugal, for scientific research work dedicated to the management of biodiversity impacts, conservation and monitoring, with particular emphasis on environmental genomics.

#### SUPPORT FOR ENTREPRENEURSHIP

Support for entrepreneurship through EDP Inovação has proven to be fundamental for the development and introduction of innovative technologies in the various EDP business units (BU). In collaboration with the BUs, in particular with EDP Brasil, EDP Espanha e EDP Renováveis, EDP Inovação offers the best startups in the sector the opportunity to be part of a community, EDP Starter, and to participate in acceleration programmes (such as the Free Electrons or the Starter Acceleration Program), hackathons and conferences in order to develop pilots, increase their sales and possibly receive investment from EDP Ventures.

The year 2019 was also marked by the presence of EDP at the Web Summit, the continued co-organization of the global startup acceleration program, Free Electrons, as well as the launch of the Starter Acceleration Program. This new program consolidated several



local EDP initiatives in Portugal, Spain and Brazil and involved EDP Renováveis North-America for the first time in the startup engagement effort, through the organization of the North American module of this initiative. EDP Spain was the host company for the European module, and EDP Brasil organized the South American module. These initiatives aim to identify, select and test the energy solutions proposed by startups, in line with EDP's technological priorities

The value chain of interaction with startups also includes EDP Ventures, a group of investment vehicles based in Portugal, Spain and Brazil, which carry out venture capital operations with around 70 million Euros under management, including EDP Cleantech FCR with some 25 million Euros under management. It should be noted that 2019 was a record year for EDP Ventures, both in terms of investment volume and portfolio valuation.

Also noteworthy is the creation, by EDP Brasil, of the Innovation Lounge, a collaborative work space that concentrates several areas of the company with activity in the development of strategic digital transformation projects, new products and services.

## DEVELOPMENT OF INNOVATIVE TECHNOLOGIES

Technological RDI activities and projects are structured in five areas: **Cleaner Energies**, to boost the renewable energy business; **Smarter Grids**, which develop solutions for a more intelligent management of electrical grids; **Customer-Centred Solutions**, which promote consumer electrification solutions, improved energy efficiency and distributed generation; **Digital Innovation (Data Leap)**, which aims to place the latest advances in information technologies - Internet of Things (IoT), artificial intelligence and Big Data technologies - at the service of business and customers; and, finally, **Energy Storage**, which tests new storage technologies, flexibility management and identifies new business models. For each of these areas, the most important projects carried out in 2019 are summarized below.

CLEAN ENERGIES	<ul style="list-style-type: none"> <li>• <b>FLEXnCONF (PT)</b>: installation of electrolyser for hydrogen generation, storage and burning in the gas turbine of the Ribatejo CCTG power plant.</li> <li>• <b>Community Waters (BR)</b>: construction and installation of reverse osmosis equipment powered by wind, solar and/or batteries, to produce at least 20 m<sup>3</sup>/day of water for isolated populations without access to drinking water.</li> <li>• <b>EU-SysFlex (PT)</b>: integrated management of various forms of electricity generation from renewable sources (water, wind, solar) and storage, based on the implementation of a Virtual Power Plant.</li> <li>• <b>XFLEX Hydro (PT)</b>: optimization and development of hydroelectric energy generation, in particular flexibility models for hydro generation, demonstrated in several hydroelectric plants in Portugal.</li> </ul>
INTELLIGENT NETWORKS	<ul style="list-style-type: none"> <li>• <b>Project Lean+ (ES)</b>: the aim of which is to analyse the supply of remote-controlled overhead switches, using hybrid systems consisting of solar panels, small wind turbines and storage batteries.</li> <li>• <b>Incident Forecasting in the National Distribution Grid (PT)</b>: application of machine learning algorithms with the aim of, based on meteorological forecasts, providing a forecast of the expected number of incidents in the High and Medium Voltage network by geographical area, based on the associated risk level.</li> <li>• <b>Smart Grid Laboratory (BR)</b>: development of innovative automation, measurement and communication features for Smart Grids and validation of solutions through systemic tests in a controlled environment.</li> <li>• <b>Red MARTE (ES)</b>: development of a real web supported Low Voltage network model, ensuring access and interaction with smart meters.</li> </ul>



<b>INTELLIGENT NETWORKS</b>	<ul style="list-style-type: none"> <li>• <b>Robotization (BR)</b>: implementation of generation 3+ robots for proactive communication with customers: using artificial intelligence, the robot identifies potential customers to inform them about possible power outages and forecast reconnection, with updates;</li> <li>• <b>EV Charging Management Platform (PT)</b>: internal charging management platform, which enables orders to be communicated and given to existing EV chargers in the EDP fleet.</li> <li>• <b>EV.X (PT)</b>: Application which presents users with the possible financial and environmental savings - reductions in CO<sub>2</sub> emissions - that they could make if they were driving an electric vehicle (EV) instead of their internal combustion vehicle (<a href="http://www.edp.com">www.edp.com</a>).</li> </ul>
<b>DIGITAL INNOVATION (DATA LEAP)</b>	<ul style="list-style-type: none"> <li>• <b>SPA – Space Perception Algorithm (PT)</b>: algorithm developed with open-source Artificial Intelligence tools for the intelligent detection of extra space available in a residential electrical board.</li> <li>• <b>VEGA - Vegetation Analytics (PT)</b>: tool for planning maintenance and control of protection zones around high and medium voltage overhead lines, using artificial intelligence techniques to predict the growth of each plant species.</li> <li>• <b>Solarworks - Forecasting models</b>: provision of energy services by Solarworks, a subsidiary of EDP Renováveis, which includes the technological renewal of certain components and the opportunity to explore Machine Learning techniques in order to improve the service provided to customers and optimize operations.</li> </ul>
<b>ENERGY STORAGE</b>	<ul style="list-style-type: none"> <li>• <b>2nd Life (PT)</b>: evaluation of the potential and technical and economic validation of the use of electric vehicle in a second life in stationary applications, particularly in the residential sector.</li> <li>• <b>GISRA (ES)</b>: Proof of concept that will enable, using augmented reality technology, the construction of an application that accesses the geographical data of the infrastructure assets managed by GIS MOBILE and superimposes them on the camera display of mobile devices.</li> <li>• <b>Akkurate</b>: Analytics in energy storage system: platform that allows the visualization of the operational data, as well as the analysis of performance and the main factors which lead to a reduction in the capacity and lifetime of storage systems.</li> </ul>



# Our Way



## **FLEX IP - ADAPTABLE AND INTEROPERABLE PUBLIC LIGHTING CONTROL AND REMOTE MANAGEMENT SYSTEM**

As a result of the rapid developments related to Smart Cities and the IOT - Internet of Things, public lighting has been an area of increasing interest on the part of stakeholders. EDP Distribuição has been following these developments and studying solutions that will enable not only performance to be improved in the management of public lighting and its potential cost reduction, but also to meet society's expectations, in particular the municipalities and the population in general.

The following pillars have been identified for the implementation of an advanced public lighting control and remote management system:

1. Energy Efficiency and Quality of Service;
2. Interoperability and Modularity;
3. Smart Cities Facilitator.



Therefore, within the various developments of the InteGrid project - financed by the H2020 program - the FlexIP system is the one which has modernized the public lighting network. This was created from scratch thinking about the involvement with municipalities and enables the integration of “Smart Cities” features, as it is a system that is flexible and can adapt to future technological developments.

The pilot stage of this project has been implemented in Vila do Samouco, in Alcochete, one of the demonstration areas for the InteGrid project, and consists of:

- Central Management System;
- 26 LED luminaires;
- Individual and point to point operating luminaire controllers;
- Gateways for connection between the Central Management System and the Controllers.

The architecture recommended for the system is based on modular use with standard interfaces, which is the key to interoperability. In addition to the point-to-point management of public lighting, this pilot also includes components related to “Smart Cities” such as a Computer Vision module integrated in the luminaire controller that enables the detection of movement and adapts the luminous flux according to the presence of people or vehicles. This makes it possible to achieve savings associated with reduced flux and maintain the most appropriate lighting levels for when this is needed. It also can count the presence of people and vehicles.

The existence of QR Codes next to each luminaire is a way to interact with the local population, who can have a certain degree of control over the lighting levels, something that becomes very important in areas with parks or gardens. One of the most important results of this pilot has been the laying of the foundations for the creation of the FlexIP point-to-point public lighting remote management platform:

- Definition of the features of the public lighting management platform - for example, the definition of alarms and information to be shown;
- Definition of standard system interfaces, such as how to connect the luminaire controllers, the communication data model of the Gateway to the Central Management System, among others;
- Definition of the necessary requirements in terms of local communications as well as available technologies.

The implementation also made it possible to reduce the consumption of public lighting in the pilot area. It was possible to verify that, with the application of lighting profiles that reduce the luminous flux in less busy hours, there was a reduction of consumption of 68% compared to the original situation. It also

showed a 25% reduction compared to a conventional LED conversion solution, without the FlexIP system.

This project is still in the pilot phase, and we are continuing working on developing and maturing the solution. The next steps to be taken are to invest in the development of the system in terms of features and application, the integration of new technological partners for the creation of an ecosystem of smart cities and the carrying out of new implementations.

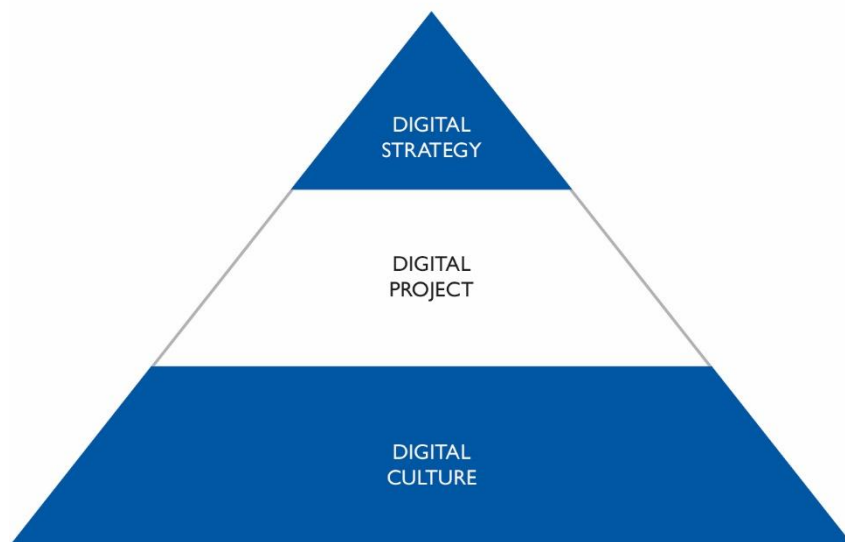


FlexIP pilot implementation

### 3.1.4. DIGITAL TRANSFORMATION

It was in 2017 that the EDP Group took an important step towards the future, with the launch of a Digital acceleration and transformation project: EDP X. This project, which has the objective of accompanying the growing digitalization that defines our era, gave rise to an organizational transformation, with the creation of a new unit, the Digital Global Unit (DGU), which aggregates the development of new Digital projects and the management of Core Information Technologies (IT) Systems. The creation of the DGU, in July 2018, was part of the realization of one of EDP's strategic pillars - Digitalization - by adapting the organizational structure to the demands of a new reality and responding to the need to promote the growth and dissemination of the digital DNA within the organization. In this way, the DGU has responded to the opportunities created by the new digital age, which has resulted in the consolidation of a roadmap of more than 500 digital initiatives across the Group.

In order to ensure effective integration between the Digital and Core IT systems and to reinforce the importance of technological innovation in the Group's strategy, the DGU's Digital area (Digital Hub and Digital Factory) is based on three interdependent areas: (1) Strategy; (2) Digital Projects; and, (3) Digital Culture.



#### DIGITAL STRATEGY

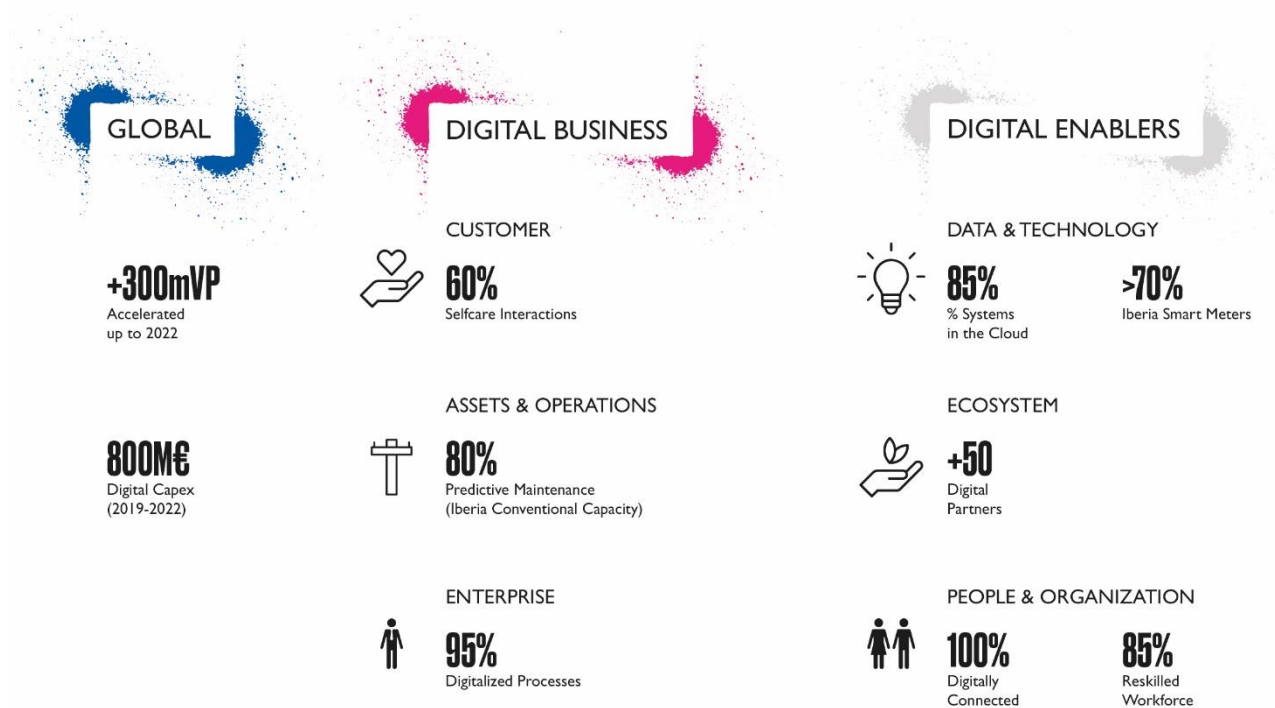
The centralization of the EDP Group's Digital Strategy has enabled a global view of the digital roadmap of the various business units and pipeline initiatives, thereby ensuring correct alignment and taking advantage of synergies.

In order to ensure the materialisation of EDP's Digital Strategy, ambitious objectives were specified in the Group's various business and activity aspects (Digital Business). By the end of 2022, the goal is to invest a total of 800 million Euros in digital CAPEX, with more than 300 mVP accelerated. In terms of customer relationship, the aim is to increase the quality and speed of customer service, through robotization and automation tools. In Asset & Operations management, the main objective is to increase efficiency through the implementation of predictive maintenance solutions. Concerning the organization's own operation, the intention is to simplify and digitalize the vast majority of processes, such as check-in for meetings and the signing of contracts.



For Digital Transformation to be a reality at the Business level, it is also necessary to invest in technological “levers” that support it, particularly data and technology, development and training of employees in new skills, provision of collaborative tools and the establishment of an ecosystem of technological partners.

Digital KPIs for 2022



Currently, EDP's digital partner ecosystem has 34 companies with expertise in the various digital technologies used for project development.

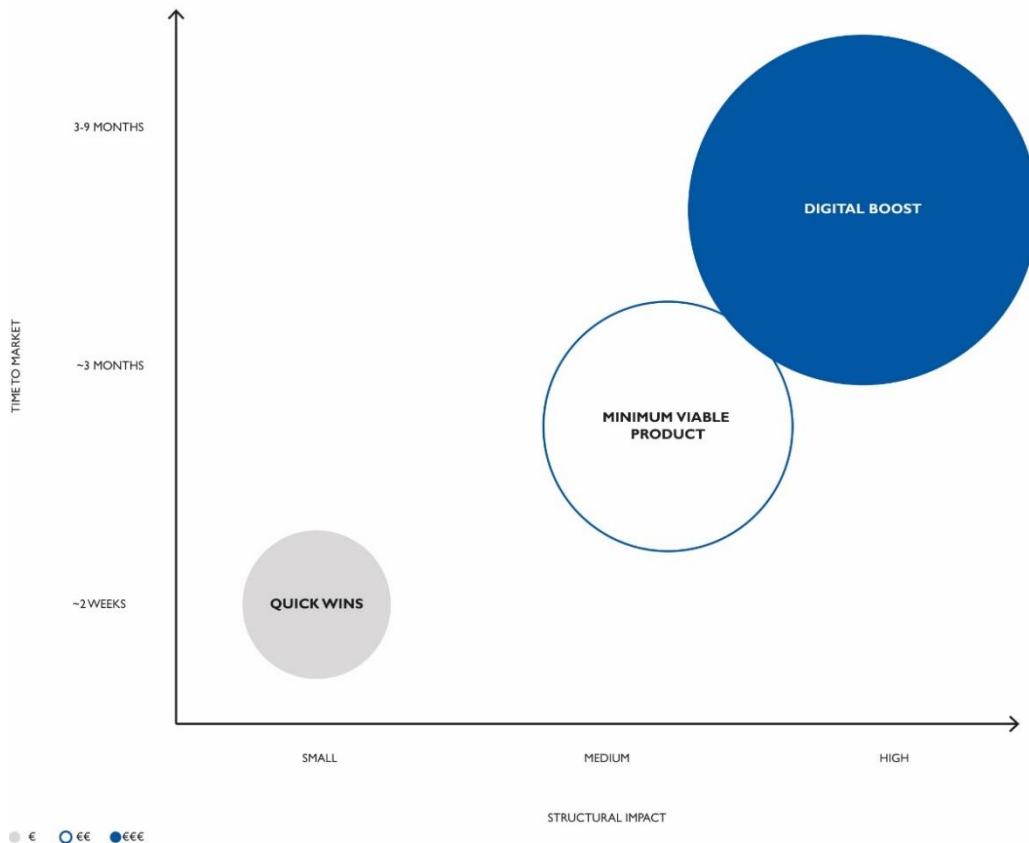
Digital acceleration begins with the transformation of the organization itself, both in terms of re-skilling the workforce and in terms of organizational culture. It is for this reason that effective and cross-cutting communication has become a crucial aspect for the success of the Digital Strategy. Becoming aware of major trends, how the company is responding to new challenges, which projects are underway and which benefits they will bring to customers and our own employees is essential for everyone to feel involved and responsible for the success of the transformation. For this reason, in 2019 we organized the first Digital Roadshow. The objective was simple: to share the various initiatives that have taken place and revisit the main Digital trends, with the help of guests from renowned companies in this sector, who made known their perspectives on the opportunities and challenges of the Digital. Lisbon, Porto, Madrid, Oviedo, Houston and São Paulo were the destinations of the first edition of the Roadshow, directly involving more than 530 participants in the sessions.

A reflection of the digital transformation that has been achieved since the launch of the EDP X Project, is the evolution of the EDP Group in the Digital Maturity Index, an independent external assessment, by the Catholic University of Portugal (UCP) and by the International Data Corporation (IDC). Three years after the first assessment, within the scope of edpX, at the end of 2019, the Group is between levels 3 and 4 of the Digital Maturity Index, with an increase of more 20% compared to 2016.

## DIGITAL PROJECTS

The Digital Global Unit carries out three types of digital projects, depending on their duration and impact on the organization: the “Boosts”, mVPs and also the “Quick Wins”.

The “Digital Boosts” are projects developed for between three and nine months, with a significant impact on the organizational structure. To date, 6 projects of this type have been developed in various Business Units, related to blockchain technologies, robot processing automation and data lakes, among others.



Based on Agile methodologies, the “minimum Viable Product” (mVP) is the type of digital project most often developed in the EDP Group. The mVPs enable the basic features of a new product to be tested, with a minimum of financial investment and in the shortest possible time. With an estimated execution time of about 3 months and with a medium impact on the organizational structure, since 2018, 155 mVPs have been launched, of which 92 have already been completed. Of these, 42 have already been considered successful, and 37 are under evaluation. Currently, the goal is to accelerate 100 mVPs per year. Some examples of mVPs carried out and successfully implemented are the app Skipper from EDP Produção, distinguished at the 2019 Portugal Digital Awards, or the EV.X Mobility Advisory app from EDP Comercial, which was awarded the Best Automotive App Site, at the 2019 ACEPI awards.

Finally, the Quick Wins, are projects with reduced structural impact, which last for about 2 weeks. Divided into four categories – Productivity, Collaboration, Design Thinking and, as of 2020, Standard Workflows – more than 65 projects of this type have already been completed or are underway.

## CULTURE

Digital Transformation is not just about developing digital projects and implementing new disruptive technologies. In fact, Digital Transformation begins with people and, for this reason, one of the DGU's priorities is focused on cultural transformation through the adoption and dissemination of Digital Thinking, new ways of working and new organizational models which foster cooperation and learning.

The Digital Factory was the physical space created to bring together the work teams from the various business units, which together with the DGU, identify and develop opportunities to accelerate digital projects. The co-location of the teams in a single space allows us to ensure collaboration between the business areas and the technical areas, thereby accelerating the development and testing of the new



solutions. Additionally, this collaborative model promotes the elimination of barriers within the organization, inspiring cooperation and the optimization of resources.

In addition to the Digital Factory, “Hubs” were created in the main business units, where local teams meet, which facilitates collaboration and speed of response. While keeping a common culture, each hub has autonomy and its own dynamics of operation, which reflects the specificities of the business unit.

In all of these collaborative spaces, work methodologies such as Agile and Design Thinking are used daily by multidisciplinary product design and development teams, which promotes the dissemination of these new ways of working throughout the EDP Group. To make this possible, 48% of EDP’s employees participated in training sessions on new working methods, new technologies, cybersecurity and digital transformation. By 2022, the goal is that 85% of employees are trained in these topics.

Learning is not limited to face-to-face training. In fact, the DGU, in partnership with the EDP University, promotes and develops online courses and digital training. In July 2019, “Digital Transformation Training” was officially launched, an e-learning programme available to all the Group’s employees, through which the foundations of Digital Transformation are made known. In 6 months, more than 3,000 employees have already taken the online course.

In addition to breaking down barriers, the digital age breaks down borders. In order to enhance the digital culture throughout the organization, the DGU has implemented new collaborative tools not only in Portugal, but in all geographical areas of the EDP Group. Teams is one of them, thus replacing Skype, and thanks to its new and improved features, it allows easier and more effective communication and cooperation between employees from different corners of the world. At the end of 2019, the EDP Group had 73% of employees active in the use of Teams as a collaborative tool.

It was precisely thanks to the implementation of these new technologies and work tools, that purely digital collaboration spaces were able to arise. Thus, “Virtual Communities” were born, which are based on Teams, bringing together, in various groups, experts on certain digital technologies and methodologies. These collaboration forums promote the sharing of knowledge and best practices among the specialists who form part of them, thus facilitating communication and capturing synergies between the BUs. The first two Virtual Communities (VC) were launched in December 2018 and, one year later, the DGU had nine active communities. Today, the themes covered by the VCs are “Robotics & Automation”, “Analytics, Big Data & AI”, “Agile Product Development”, “Digital Platforms, Mobile & Social Media”, “AR/VR”, “IoT & Drones”, “Design Thinking”, “Blockchain and Collaborative & Productivity Tools”. With more than 810 people involved, each virtual community organizes events, presentations and show-cases regularly, in an effort to keep its members up to date on the latest trends in each of the areas of expertise. In total, 25 show cases have been completed, more than 100 documents have been shared, 13 forums and expert events have been organized, and more than 500 publications have been posted on the Communities’ pages.

EDP’s audacity in implementing this digital knowledge management model was a successful case recognized by the digital market, in particular with the use case disclosure by Microsoft, “Sustainable energy leader builds virtual communities with Microsoft Teams” and by EY, “Success Case: Virtual Communities of Practice paving the way to a digital knowledge-based transformation”, which has allowed EDP to participate in various digital forums and events.

## DIGITAL INCLUSION

As part of the digital projects developed by the Digital Global Unit for the various business units of the EDP Group, we would highlight some products that have contributed to the digital inclusion of customers, particularly through the provision of online services, electronic invoicing, interaction through mobile applications, being attended by virtual assistants, which have improved the efficiency and speed of the service as well as customer satisfaction.

From the employee’s perspective, EDP promotes digital education initiatives through training programmes, such as the Digital Transformation e-learning programme launched in 2019, sessions for activating collaborative tools and encouraging new ways of working, such as Agile and Design Thinking

Another ongoing initiative in the field of digital literacy is the EDP Group’s participation in the MUDA programme – Movement for Active Digital Use, which is promoted by several private entities and by the Portuguese State. The aim is to promote and support digital movement for the Portuguese community, with the aim of allowing all citizens to have conditions of equal access to information, thereby reducing information-exclusion.

# Our Way



## VIRTUAL COMMUNITIES AND THE PATH TO KNOWLEDGE-BASED DIGITAL TRANSFORMATION

The EDP Group has been investing heavily in innovative methods that can foster a more flexible and knowledge-focused ecosystem, guiding the organization towards a new digital reality, of which the Virtual Communities, created by the Digital Global Unit, are an example to highlight. However, the initial path towards digital transformation, which requires resources and knowledge, has not been without its challenges, in particular:

1. The fact that there has been no mapping and identification of talents in the digital areas;
2. The need to cultivate and spread a culture of digital knowledge within the Group;
3. The importance of fostering greater cooperation between different areas, companies and geographical areas.





Given this, Virtual Communities are an essential element for efficiently adapting the EDP Group to the digital world, simultaneously enabling it to face the challenges and take advantage of the opportunities resulting from this new reality. These have been implemented as an effective way of reaching employees with expertise or interest in areas directly related to the digital area, as well as a way of promoting a business culture focused on the sharing of knowledge and cooperation between the various business units, in the different companies of the group, and in the different geographical areas in which the Group operates. Furthermore, they stimulate peer-to-peer learning, cultivate know-how and share good practices within the Group, contributing to the creation and dissemination of new ideas and business models.

Currently, there are 9 Virtual Communities, with a total of 819 individual members, working in the following areas: Robotics & Automation; Analytics, Big Data & AI; Agile Product Development; Digital Platforms, Mobile & Social Media; IoT & Drones; Augmented Reality & Virtual Reality; Design Thinking; Blockchain; Collaborative & Productivity Tools.

Each community comprises three levels of participation: leaders, boosters and experts. The leader, responsible for stimulating the community, is chosen every 6 months by the boosters, a group of specialists recognized for their skills in various digital areas, with established networking systems and who are selected for their charisma to stimulate the other experts. The topics discussed vary according to the actual daily experiences and daily routines of members and leaders, always taking into account the global interest, relevance and applicability for the different business units.

Finally, it is important to mention the growing role of Virtual Communities in the sense of creating not only a mechanism for mapping talents and promoting knowledge, but also in the more operational aspect of the group. If at its start, focus was mostly on a more strategic aspect (analysis and mapping of needs), currently, and in more experienced Communities, focus on operation is a priority as well as the search for best practices and ideas outside the organization (e.g. the Robotics Automation Community has mapped all the RPA solutions and created a manifesto to help find the best ways to develop RPAs; the Analytics, Big Data & AI Community are already sharing code that can be applied to different areas of business; the Design Thinking Community has created an initiative that helps to map expert knowledge level as well as experience of the topic and processes).

Belonging to these Communities allows all involved not only to share and gain more know-how and create an extended network of contacts, but also to feel that they are part of something bigger, through being considered the main drivers for the dissemination of the adoption of “Digital” in EDP.

Considered as high value resources, they are supported by top management, giving them more visibility and rapid access to learning opportunities, such as specialized courses. At the same time, they allow the EDP Group to leverage their digital potential by having a network of experts with common interests in the digital area, regardless of their position in the company or business area of which they form part, thereby contributing to even faster development and digital growth.

The Digital Global Unit was primarily responsible for the setting up, development and implementation of this and other innovative solutions, and has been the main driver in accelerating existing digital projects, establishing new ones, and obtaining synergies between different technological and business areas, which has enabled “digital” to be enhanced within the EDP Group.

### 3.1.5. PROMOTION OF RENEWABLE ENERGIES

Energy transition to a low-carbon economy necessarily involves promoting renewable energies, electrifying consumption and improving energy efficiency, which are essential to mitigate the effects of climate change. The electricity sector has, admittedly, a crucial role in this transition and in the decarbonization of the remaining sectors of activity, through electricity produced from renewable energy sources.

#### EDP'S STRATEGY

For more than a decade, EDP has focused its business growth on renewable energies. This focus was reinforced with the recent "2019-22 Strategic Update", with the following objectives and targets for 2022 and ambition for 2030:

- Increase renewable origin capacity to 78% in 2022 and 85% in 2030 (currently 74%);
- Contribute to the growth of electricity generation from renewable sources, reaching 90% from renewable sources by 2030 (currently 67%);
- Increase the installed capacity in solar photovoltaic systems, both centralized and decentralized, to more than 1 GW in 2022, reaching 3 GW centralized and 1 GW decentralized, in 2030;

In order to meet the defined objectives, EDP is adopting an investment strategy complemented by asset rotation, which will result in a net investment in renewables of 4 billion Euros in the 2019-2022 period. New net capacity additions of around 4 GW are expected, mainly in onshore and solar wind, focusing on markets with low risk and regulatory stability and establishing long term corporate Power Purchase Agreements (PPA) and Contracts for Difference (CfD). It is also worth mentioning the creation of a 50/50 joint venture with Engie in the wind offshore segment, either fixed or floating, for the implementation of 1.5 MW currently under construction and 3.7 MW under development.

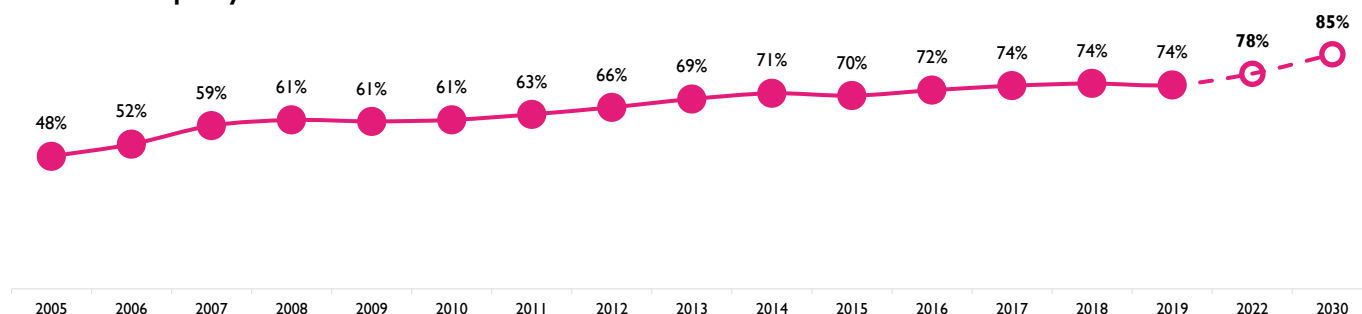
The strategy also involves the development of innovative projects, anticipating future business options, in areas such as energy hybridization, taking advantage of potential synergy and complementarity of different sources and technologies (solar, wind, water, storage), especially in areas such as floating offshore wind and floating photovoltaics. Of note is the Windfloat Atlantic project, an offshore wind power plant with 25 MW of total installed capacity, composed of 3 wind turbines with 8.4 MW of unit power, each of which supported by a semi-submersible floating structure, based on the "WindFloat technology".

EDP has also been promoting decentralized solar PV to its customers, totalling, at the end of 2019, 97 MW of installed power. Further developments are presented in the New Energy Services chapter (page 101).

#### PERFORMANCE

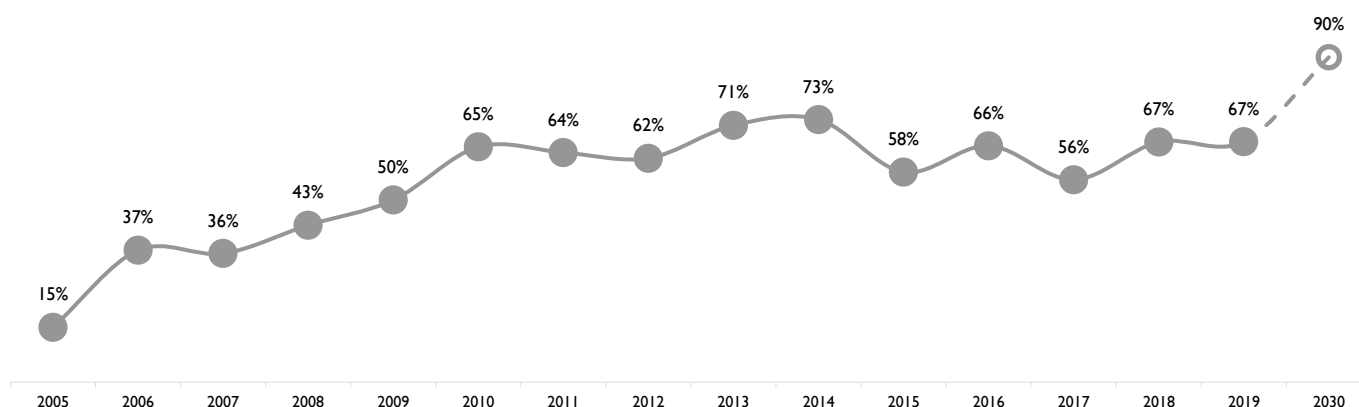
The total installed capacity in the EDP Group in 2019 was 26.5 GW (without nuclear), of which 74% is in renewable power plants. Compared to 2018, we reduced the installed capacity in wind farms by 489 MW by undertaking an asset rotation strategy: adding 431 MW in the USA and Italy and selling 920 MW in Portugal, Spain, France and Belgium. Consequently, we reduced the share of renewables by 0.5 pp and reduced the total installed capacity by 2%.

##### Renewable capacity



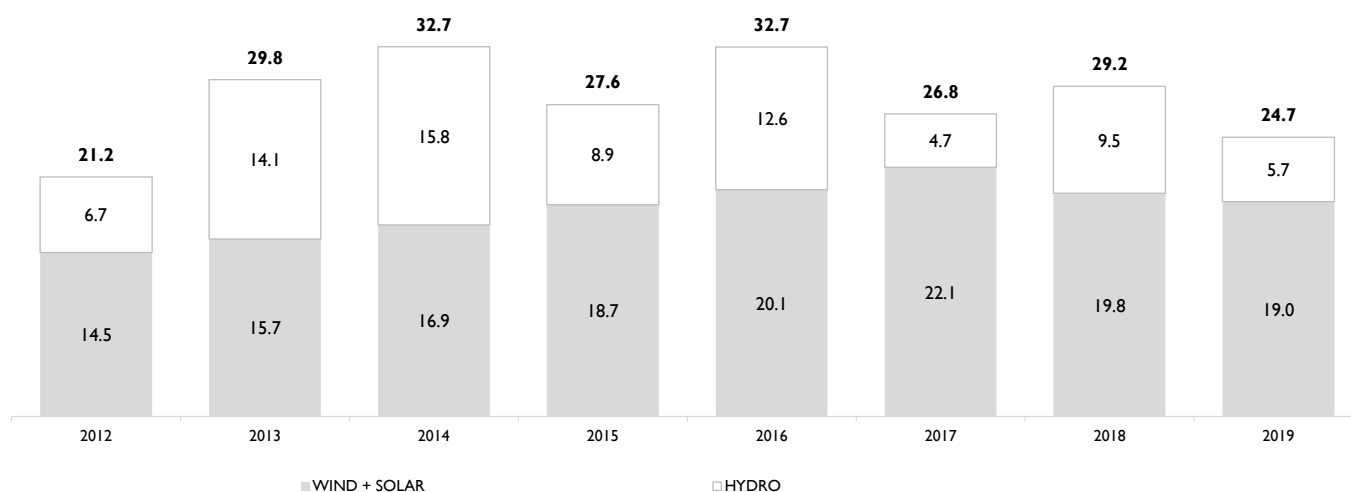
The Group's electricity generation decreased by 7% compared to 2018, mainly due to the 27% reduction in hydroelectric generation (- 5.2 TWh compared to 2018), as it was a relatively dry year, both in the Iberian Peninsula, with hydraulicity indexes (IPH) of less than 1, as well as in Brazil. Even so, the percentage of renewables in the total generation of electricity was in the order of 67%, practically identical to that of 2018.

### Generation from renewable sources



The power generation from renewable sources, by replacing fossil-based thermoelectric generation, avoids the emission of greenhouse gases. In 2019, avoided emissions amounted to 24.7 Mt CO<sub>2</sub>, 15% less than in 2018, due mainly to the lower hydropower generation. Even so, this level of avoided emissions largely exceeds, by 10 Mt CO<sub>2</sub>, the actual emissions from thermoelectric power plants.

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



# Our Way



## A NEW ENERGY STORAGE SYSTEM CONNECTED TO THE SOLAR ENERGY FARM

EDP Renováveis has implemented a battery energy storage system (BESS) connected to the Bailesti photovoltaic solar energy park, in Romania. This system allows the batteries to be charged when there is overproduction. When generation is below expected, the stored energy is released to supply consumers. The project is of note for the fact that it has been directly installed for direct current (DC), ensuring less energy loss in the charging process. New features were also added to improve performance: recovery from cuts in supply; capturing energy at low voltage levels or on cloudy days.

To achieve this result, the company installed an innovative energy conversion system which allows the connection of photovoltaic panels and direct current batteries to an

alternating current transformer, together with a lithium ion battery and a device enabling total control of the system.

This is the first energy storage station connected to a solar energy park implemented by EDP Renováveis. A project that incorporates progress in the modernization of these stations and a turning point in the energy market.



### 3.1.6. CLIMATE CHANGE

In a context where climate change is already visible and its effects are undeniable, with an increase in the average global temperature exceeding 1°C compared to the pre-industrial period, the challenge of the next decade lies in the ability to accelerate pre-existing measures. The involvement of all stakeholders is necessary to achieve the goals agreed in Paris: “to limit the increase in average temperature to well below 2°C and continue efforts to limit the increase in temperature even more, not exceeding 1.5°C above pre-industrial values”. The latest special report published by the IPCC<sup>6</sup> - Global Warming of 1.5°C – shows that it is still possible to limit global warming to 1.5°C, but it will take an unprecedented effort by all the stakeholders involved, and that there are clear benefits in a 1.5°C trajectory compared to a 2°C one.

The electricity sector is today, admittedly, the one that will most quickly ensure its energy transition and, consequently, the decarbonization of the remaining activities sectors, through electricity produced from renewable energies. At the European level, this sector is expected to have very demanding levels of decarbonization, with a reduction in Greenhouse Gas (GHG) emissions of between 54% and 68% by 2030, reaching carbon neutrality in 2050 (between 93% and 99% reduction).

### EDP CLIMATE ACTION

Recognizing the importance of its role in energy transition, EDP has established a climate action strategy based on 5 pillars, as shown in the table below. EDP has also committed to following the recommendations of the TCFD (Task Force on Carbon-related Financial Disclosures), which it joined in 2018, with regard to the disclosure of governance, strategy, analysis of risks and opportunities and the financial impact of climate change in the company. The table also shows the alignment of its climate action with the TCFD recommendations. Page 231 presents a detailed analysis of risks and opportunities, according to the TCFD taxonomy.

<b>GOVERNANCE</b>	Ensuring proper management of climate responsibilities and action plans.	Responsibilities in the management of climate-related risks and opportunities. EDP's approach to the challenges of climate change includes the analysis of risks and opportunities and is managed according to its corporate governance structure, as illustrated on page 43. In this structure, of note is the central role of the Executive Board of Directors, supervised by the General and Supervisory Board.
<b>MITIGATION</b>	Reduce greenhouse gas (GHG) emissions, through a strong commitment to increasing generation from renewable sources, increasing electrification and energy efficiency.	The EDP Strategy is aligned with the need to decarbonize the sector, with a level of ambition reflected in a set of medium/long term objectives and targets, such as those outlined in this chapter.
<b>ADAPTATION</b>	Create adaptation plans for each business unit and geographical area.	Ensuring the resilience of electricity generation and distribution infrastructures is a natural concern within EDP. With the effect of climate change beginning to be felt, it is essential to carry out an internal and ongoing analyse of the physical risks to which the infrastructures may be subject. EDP has set a goal to have Adaptation Plans in place in its Business Units by 2022 which ensure the resilience of infrastructures which may be exposed to extreme events of greater intensity and periodicity, given reality as we know it today.
<b>INNOVATION</b>	Supporting the introduction of low-carbon technologies and offering energy-efficient products and services.	Innovation at EDP is in line with the Company's strategy, with a focus on areas essential to the decarbonization of the economy, such as renewable energies, smart grids, customer focused efficient solutions, storage and digitization as an area encompassing the entire innovation process.
<b>ENERGISATION</b>	Raising awareness on behavioural change and improving transparency.	Disclosure of governance, strategy, analysis of opportunities and risks and metrics for assessing the financial impact of climate change.

<sup>6</sup> Intergovernmental Panel on Climate Change

In May 2019, EDP publicly took on a new set of short, medium and long term objectives and targets, which support a demanding decarbonization strategy:

- Reduce specific CO<sub>2</sub> emissions by 65% in 2022 and by 90% by 2030, compared to 2005 levels.
- In line with this new objective, EDP updated the level of emission reductions previously approved by the Science Based Target initiative (SBTi), now committing itself to reduce the specific emissions of scope 1 and 2 in 2030 by 75%, in view of the levels of 2015 and emissions of scope 3 by 40% over the same time period. This objective was submitted and approved by the SBTi as a science-based target, aligned with a decarbonization trajectory well below 2°C.
- Achieve carbon neutrality before 2050.

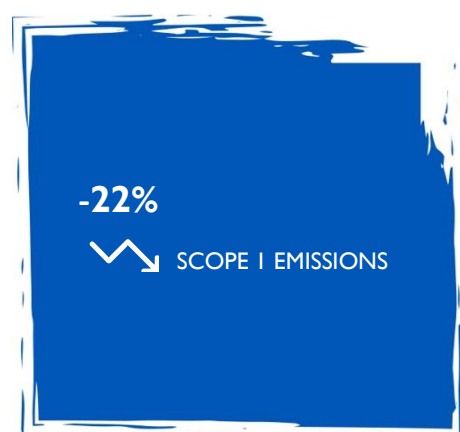
In addition to these objectives, it should be noted that, at the end of 2019, EDP signed the 1.5°C commitment – “Business Ambition for 1.5°C – Our Only Future” – together with 87 large companies worldwide, further raising its climate ambitions.

EDP has also committed to disclosing information on climate change as a fiduciary duty, in accordance with the requirements of the Climate Change Reporting Framework (CCRF). The table on page 231 shows the type of information to be disclosed and where it is available. Part of that information can also be found in the response to the CDP Climate Change, available at [www.edp.com](http://www.edp.com). In 2019, EDP obtained a Leadership A- level.

## PERFORMANCE

2019 was characterized by being a year of relative drought in the Iberian Peninsula, with a Hydroelectric Productivity Index (HPI) of 0.81 in Portugal and 0.90 in Spain, resulting in a 5.2 TWh reduction hydropower generation, compared to 2018. From the point of view of CO<sub>2</sub> emissions, the most relevant fact was the inversion in order of merit from coal-fired power plants to combined cycle natural gas turbine power plants (CCGT), in the Iberian Peninsula, from the second half of 2019 on, which has not happened for several decades. When compared to 2018, coal generation dropped 38% and gas generation increased 91%. The combined effect of the reduction in the price of natural gas, the increase in the tax on coal under the Petroleum Products Tax (PPT) and the increase in the price of CO<sub>2</sub> in the European Union Emission Trading System (EU.ETS) greatly contributed to this fact, with clear environmental benefits.

EDP reports its GHG emissions in accordance with the GHG Protocol Corporate Accounting and Reporting Standard - see details of the different scopes of emissions, by category, in the table on page 234.

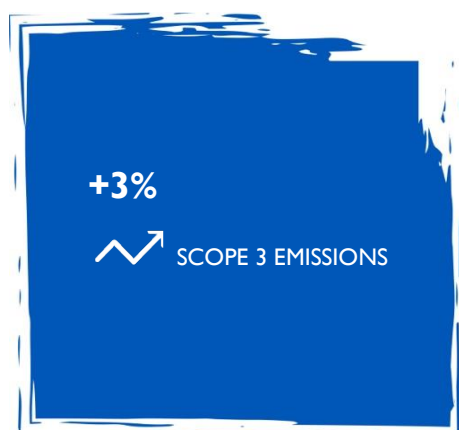
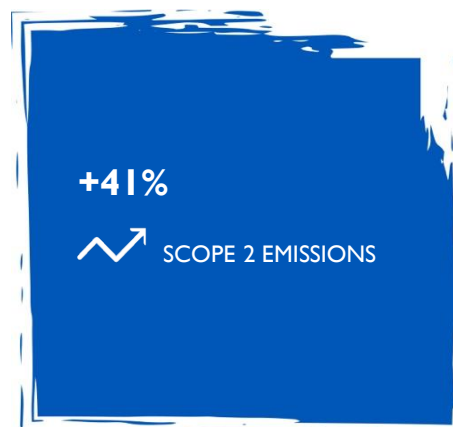


Composed mostly of emissions resulting from the burning of fossil fuels in thermoelectric power plants (99.8%), direct emissions of scope 1, totalling 14.4 MtCO<sub>2</sub> reduced by about 4.0 MtCO<sub>2</sub> (-22%) in 2019 compared to the previous year, as a result of the inversion of the aforementioned ranking order. This reduction is explained by the considerable difference between the emission factors of these two types of plants – 0.37 tCO<sub>2</sub>/MWh for CCGT versus 0.9 tCO<sub>2</sub>/MWh for coal-fired plants.



Indirect emissions of scope 2 include those associated with losses in the transmission and distribution networks, as well as self-consumption in power plants and electricity consumption in administrative buildings, with a value of 97.4%, 2.5% and 0.2%, respectively.

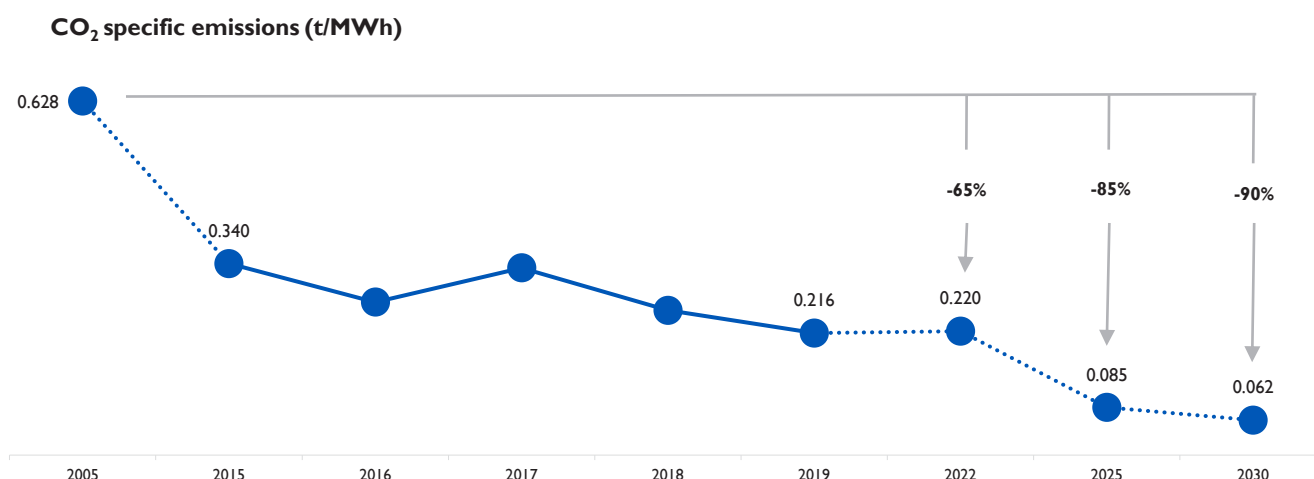
Compared to 2018, scope 2 emissions increased by 41% to 0.85 MtCO<sub>2</sub>, due to the increase in electricity distributed by EDP but produced by third parties. This effect is observed in Portugal, where EDP is the operator of the distribution networks, whenever the years are dry. Under these conditions, hydroelectric generation, mainly from EDP, is reduced, which increases the generation of electricity from third parties and, consequently, the emissions corresponding to the fraction of the losses from the distributed energy not produced by EDP.



Scope 3 emissions comprise all other indirect emissions upstream and downstream of the value chain, avoiding double counting with the remaining scopes. The most relevant categories for EDP, which account for 97% of total emissions in this scope, are those related to fuel and energy related activities, upstream, and the use of sold products (gas supply), downstream.

In 2019, scope 3 emissions totalled 11.7 MtCO<sub>2</sub>, a small increase of 3% over the previous year, and of note was the increase of 5% of the total emissions upstream, due to increased use of natural gas in thermoelectric power plants, and, also, an increase in emissions downstream (2%), due to the higher volume of gas sold to end customers.

With regard to specific CO<sub>2</sub> emissions, there was a reduction from 0.257 tCO<sub>2</sub>/MWh in 2018 to 0.216 tCO<sub>2</sub>/MWh in 2019. This evolution resulted from the strong overall reduction in stationary emissions from thermoelectric plants due to the inversion of the order of merit from coal-fired power plants to CCGT. The commitment to reducing specific emissions by 65% in 2022 and by 90% by 2030, supported by the decommissioning of coal-fired powerplants and the growth in renewables, should lead to the decarbonization trajectory shown in the following figure. This trajectory is compatible with the reduction target approved by the Science Based Target initiative.





### 3.1.7. NEW ENERGY SERVICES

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 quality and efficient response.

EDP continued to invest in the launch of new products and services and in the promotion of intelligent and efficient energy management solutions. In 2019, 26% of customers in the liberalized market had value-added services, such as energy efficiency, sustainable mobility or decentralized solar services. The goal is to ensure that 30% of those customers have value-added services by 2022 and 50% by 2030.

These services mainly have three distinct and complementary natures:

ENERGY EFFICIENCY	ELECTRICAL MOBILITY	SOLAR ENERGY
More efficient equipment and lighting such as LED lamps, high performance motors, variable electronic speed drives and heat pumps. Advisory services and energy audits.	Support, advice and availability of in-home and out-of-home charging solutions available in the three geographical areas where EDP is present.	Savings simulation and installation of solar photovoltaic systems in a self-consumption scheme adapted to customers and local characteristics.

For more detailed information see [www.edp.pt](http://www.edp.pt), [www.edpenergia.es](http://www.edpenergia.es), and [energia.edp.com.br](http://energia.edp.com.br).



In the residential segment, EDP reinforced its energy efficiency strategy in the Iberian Peninsula, by introducing large appliances within its range of equipment, a highly competitive market with a major impact on energy consumption.

In the corporate segment, EDP supports companies in implementing integrated energy efficiency services, through the Save to Compete programme. This programme identifies measures to reduce energy consumption, promoting its implementation and costing through the savings generated. Since its launch in Portugal (2012) and Spain (2013), the programme has led to an accumulated saving of around 321 GWh, corresponding to a reduction of approximately 116 thousand tonnes of CO<sub>2</sub>.

In Brazil, EDP invested R\$ 25.8 million in energy efficiency initiatives in 2019 that led to savings of 26 GWh/year and R\$ 9.12 million for the end customer. 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 (PEE) and 0.1% into the National Electricity Conservation Programme (PROCEL).

In 2019 around 158 million Euros of revenues were generated in energy efficiency services, an increase of 5% compared to 2018 (page 244).

The company's strategy for electric mobility involves reinforcing the number of customers with electric mobility solutions, and strengthening the electrical vehicle charging infrastructure, both in terms of the number of charging points and in terms of their geographical spread, so that electric mobility can increasingly reach more people (see more details on page 106).

Foreseeing the future in which generation will be increasingly decentralized, EDP offers distributed generation solutions from renewable sources adapted to customers and local characteristics.



In 2019, more than 90,000 photovoltaic modules were installed in residential and business customers in Portugal. With a generation of around 25 GWh of solar energy this year, 123 thousand tonnes of CO<sub>2</sub> were avoided, equivalent to traveling 818 million kilometres by car.

In Spain, it is worth noting the creation of EDP Solar at the end of 2019, and the availability of a solar calculator through which it is possible to obtain a personalized quote based on location and consumption habits ([www.edpenergia.es](http://www.edpenergia.es)).

In Brazil, EDP Smart was established in 2019, a brand that brings together the entire portfolio for business and residential customers in the liberalized market, including the photovoltaic solar energy segment. This business segment includes distributed generation solutions installed at the customer's place of consumption or remotely on solar farms.

**97 MWp**

PHOTOVOLTAIC SYSTEMS  
INSTALLED IN PORTUGAL,  
SPAIN AND BRAZIL

#### EDP AND EL CORTE INGLÉS WITH A PIONEERING ENERGY PROJECT

The five wind farms of EDP Renováveis in Andalusia are producing energy that will be consumed by the El Corte Inglés centres in Seville, Malaga and Madrid (Campo de las Naciones). This commercial alliance has enabled the pioneering use of the “Blockchain Energy Tracking” system, a chain of blocks that tracks the origin of renewable energy in real time. The technology takes on the role of “digital controller” at the moment energy is being used, thereby certifying that the information contained in the chain is correct. Through the use of this data structure, it is impossible to modify the already finalized information, as well as its authenticity and integrity. The ability to guarantee that the total annual energy consumed by a shopping centre is renewable has enabled El Corte Inglés to certify a reduction in its CO<sub>2</sub> emissions similar to removing 101,794 cars from the road for a week.

### 3.1.8. ENERGY EFFICIENCY

Improving energy efficiency, together with the promotion of renewable energies, is critical for the decarbonisation of the electricity sector. EDP promotes energy efficiency throughout the value chain, both internally, from the generation of electricity, to distribution and consumption, and externally, providing its customers with low carbon products and services. This contributes to the reduction of primary energy consumption upstream, and to greater efficiency in the end use of energy downstream, for customers in the various activity sectors.

#### INTERNALLY

The inversion of the order of merit from coal to natural gas in the Iberian Peninsula has contributed to the reduction of primary energy consumption by 17% (about 37,000 TJ) compared to 2018, as well as to the overall improvement in the efficiency of the plants, which amounted to 45.8%, 1 pp more than in the previous year.

In support activities, in 2019, compared to 2018:

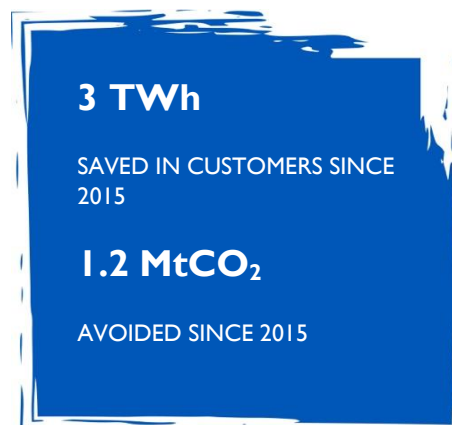
- a reduction of 1.9 GWh in the electricity consumption in office buildings.
- a reduction of 7 TJ in the primary energy consumption (fossil fuels) of the vehicle fleet as a result of the renewal policy implemented with a view to total electrification of the light vehicle fleet by 2030.

## AT THE CUSTOMER'S

EDP is committed to providing energy-efficient products and services that contribute to the attainment of at least 5 TWh of energy savings in customer consumption by 2022, accumulated from 2015. This objective includes the measures carried out within the scope of the PPEC (Plan for Promoting Efficiency in Electricity Consumption) voluntary programme, promoted by the Energy Services Regulatory Authority in Portugal. By the end of 2019, the initiatives carried out had had an accumulated savings value of around 3 TWh and avoided the emission of 1.2 MtCO<sub>2</sub>.

In the Group, energy efficiency services generated 158 million Euros of revenues in 2019, representing an increase of 5% over 2018.

The savings induced by the energy efficiency services provided by the commercialization and distribution companies to their customers in 2019, described in detail in the chapter New Energy Services (page 101), generated environmental benefits given by the amount of CO<sub>2</sub> emissions avoided, as shown below:



<b>SUPPLY</b> (PORTUGAL AND SPAIN)	The energy efficiency and distributed generation services provided by the supply companies in the Iberian Peninsula led to an energy saving of about 116 GWh, avoiding the emission of 167 ktCO <sub>2</sub> .
<b>DISTRIBUTION</b> (PORTUGAL)	Continuing the program of modernization of the Public Lighting (PL) park in Portugal, in 2019 around 223,700 LED technology luminaires were installed, which generated energy savings of about 87 GWh, thus avoiding the emission of 23 ktCO <sub>2</sub> . At the end of 2019, approximately 683,000 LED luminaires had been installed, corresponding to approximately 22% of the total number of PL luminaires in Portugal.
<b>EDP BRASIL</b>	The Energy Efficiency projects carried out by the energy distribution and services companies enabled savings of about 35 GWh and, together with the steam cogeneration PV distributed generation projects, avoided the emission of 33 ktCO <sub>2</sub> e.

### SAVE TO COMPETE - ONLINE PLATFORM TO ACCELERATE ROLLOUT OF ENERGY SERVICES

In 2017, EDP Comercial launched the Save To Compete 2.0 project, with the objective of digitalizing the sale of energy services for the business segment, with a particular focus on small and medium-sized companies. The project was composed of a multidisciplinary team with employees in Portugal and Spain and consisted of the development of an online platform to enable the real-time generation of energy services proposals. The result generated a large increase (~10x) in the volume of energy efficiency projects in small and medium-sized companies.

Given the success of the project, in 2019, we decided to create a spin-off, totally dedicated to the development of the online platform. The aim was to expand the scope to all geographical areas where it is present, as well as helping Utilities in other countries to accelerate the rollout of energy efficiency projects in their markets, thus contributing to helping tackle climate change.



# Our Way



## ENERGY HARNESSING OF ECOLOGICAL FLOWS IN CASTELO DO BODE

One of the strategies to minimize the environmental impact associated with hydroelectric energy is to maintain a minimum flow of water downstream of the dam throughout each month, called the ecological flow. This flow allows rivers to maintain good water quality and favourable conditions for wildlife and their ecosystems. The Castelo do Bode hydroelectric power station is located immediately downstream of the dam, thereby allowing the use of existing generator groups to comply with the imposed ecological flow regime. This hydroelectric plant is composed of three main generator groups, connected to the distribution grid, and two auxiliary generator groups which are outside the grid and which exclusively supply the auxiliary systems. That is, it has an untapped capacity. Taking into account the various possibilities for energy production while the ecological flow is released and, therefore, the recovery of its water resources, there was a need to find an integrated optimization solution. The period considered for this



analysis was 12 years (January 2005 and December 2016) and took into account the two ecological flow regimes defined:

- one for normal years, when it is necessary to release about 13% of the average flow of the river;
- another for years of drought, when it is necessary to release 7% of the average flow of the river.

Through studies of energy production, only for auxiliary generator groups, it was determined that the ecological flow in the dry year scenario presented a total estimate of annual energy production of 6,935MWh, a value that increases to 8,321MWh in the case of the ecological flow in the normal yearly scenario. Allied to this, technical and economic feasibility studies were carried out, reaching the conclusion that the viable solution would be an automation system based on a PLC - Power Line Communication with the main mission of guaranteeing the launch of the ecological flow when required. For this, the system will monitor all flow rates from the plant, that is, the flow released by the main and auxiliary groups. This system will also control the existing ecological flow launching device and, when necessary, control the bottom discharge valve on the left

bank, controlling the opening of each valve to achieve the desired flow. In this way, water use and asset performance are optimized, as well as the release and ecological flow programme of Castelo do Bode.

In the event of the unavailability of the generator groups, either due to maintenance or damage, the ecological flow launching device will ensure the release of the respective flow. In addition, the operation of the main and auxiliary generator groups will be carried out manually by the operators according to the ecological flow regime for a given month. The automatic operation of the generator groups was considered during the design phase, however, for reasons of operational safety, as well as the commitment of the energy management unit, the solution adopted was manual control with information for the operators.

The tendering process is currently underway in the negotiation phase for the grid interconnection package, which includes all automation, control and protection systems, as well as the distribution system. At the same time, the environmental process, as well as the energy licensing process, was requested and is awaiting a favourable opinion to start the implementation phase of the project, which should be concluded in 2020.



### 3.1.9. SUSTAINABLE MOBILITY

#### LEADING THE TRANSITION TO THE DECARBONIZATION OF TRANSPORTATION

The transport sector currently accounts for about a third of final global energy consumption, with 90% of the energy used coming from fossil fuels. In fact, it is estimated that this currently represents around 25% of total CO<sub>2</sub> emissions worldwide, with this figure growing by 2% per year in recent years, and it is expected to almost double by 2050, if mitigation measures are not implemented.



The urgent decarbonization of this sector will imply its strong electrification, creating an important opportunity for electric mobility, one of the current priorities of EDP's business.

For EDP, the decarbonization of the economy involves a significant increase in the penetration of generation from renewable sources, followed by major electrification of energy consumption, particularly in the transport sector. As part of the company's commitment to sustainability and as an effective way to combat climate change, the EDP Group has included electric mobility within its strategic objectives, leading the transition to sustainable mobility and electrification of transport.

In 2019, EDP included in its sustainability strategy a set of commitments for electric mobility, focusing both on the company's internal vision as well as on a set of objectives for the development of new solutions for its customers:

2022	2030
>20% of the light vehicle fleet electric	100% of the light vehicle fleet electric (<3.5t) 50% of the heavy vehicle fleet electric (>3.5t and <7.5t)
100,000 customers with electric mobility solutions	1 million customers with electric mobility solutions
	100,000 electric charging points installed <sup>7</sup>

EDP also participates in several partnerships, initiatives and global campaigns to accelerate electric mobility, with the following being of note in 2019:

- EDP joined the EV100 initiative, promoted by "The Climate Group". This is a global initiative that brings together companies from various sectors, committed to accelerating the transition to the electrification of transport; 
- Joining the ACT – Action towards Climate-friendly Transport initiative, following the company joining the Transport Decarbonization Alliance (TDA) – Call for Zero Emissions Vehicles. This initiative aims to leverage the transition to the decarbonization of transport by 2050; 
- Signing the Corporate Mobility Pact (CMP), an initiative promoted by the World Business Council for Sustainable Development (WBCSD) and with the city of Lisbon. This pact was signed by 54 companies and aims to catalyse corporate leadership to transform mobility in cities, which involves cities and companies undertaking collaborative actions.

#### ELECTRIC MOBILITY PRODUCTS AND SERVICES

EDP intends to position itself as a reference partner for electric mobility.

The company's strategy is to provide users with a commercial offer of products and services, particularly in Portugal, Spain and Brazil. Knowing that the electrification of cars will only be possible if users of electric vehicles feel confident in the public charging network, the EDP Group's strategy also involves strengthening its network in Portugal, Spain and Brazil.

<sup>7</sup> Including public and private charging with public access points

## CUSTOMER SERVICE

During 2019, the following initiatives can be highlighted:

- Portuguese market launch of the EDP Wallbox for condominiums which enables users to control accesses and consumptions for each loading session and which carries out an automatic settlement with the condominium account;
- Spanish market launch of EDP Wallbox for homes and electric mobility pre-installation product launch for condominiums;
- Brazilian market launch of EDP Wallbox for homes and businesses reinforced with the establishment of a partnership with JAC Motors to sell the equipment to the concessionary's customers;
- The EV.X app continued on its path in 2018 and was distinguished by the National Renewable Energy Laboratory (NREL) as a success story for a utility-developed technology. The application was also distinguished as Best Automobile Site/App by the Association for the Digital Economy (ACEPI), which distinguishes the best work carried out in the Digital Economy in Portugal.

## PUBLIC ACCESS CHARGING NETWORK

Highlights in 2019:

- Expansion of the public charging infrastructure network in Portugal through the establishment of partnerships for mobility, particularly with BP, Pestana Group, Vila Galé Hotels and Sport Lisboa e Benfica;
- In Spain, EDP joined the Hubject roaming platform, which allows users of electric vehicles to use EDP charging points in Spain, whether they are customers of EDP or another partner of the international platform;
- Expansion of the public charging infrastructure network in Spain, including the charging points on the EDP MoveOn platform, totalling more than 100 charging points in 2019;
- In Brazil, EDP joined Porsche, Audi and Volkswagen to launch the first ultra-fast charging network that will cover the entire state of São Paulo and connect the main electric corridors in the country, connecting that state capital to Rio de Janeiro, Vitória, Curitiba and Florianópolis, through the installation of 30 new charging points;
- Expansion of the public charging infrastructure network in Brazil through the establishment of partnerships for mobility, particularly with JAC Motors, Cabify, Federation of Industries of Espírito Santo and Santander, thereby ending the year with almost 50 installed points.

## INTERNAL ELECTRICAL MOBILITY

The EDP Group's strategy for electric mobility also involves implementing a set of internal measures, such as electrifying its fleet and strengthening the charging network at its facilities.

At the end of 2019, the EDP Group had a fleet of 3,343 light vehicles, of which 9% are electric - 239 vehicles 100% electric and 44 plug-in hybrids. This electrification rate represents about 45% of the company's commitment for 2022.

Along with the electrification of its fleet, during 2019 the company reinforced its internal charging infrastructure, and it now has 550 charging points, with different charging speeds, in its buildings.



9%

OF LIGHT VEHICLES OF  
THE EDP GROUP ARE  
ELECTRIC





# Our Way



## EV.X – THE ADVISORY APP TO ACCELERATE EV ADOPTION

When the Smart Mobility Project started in 2018, EDP identified a general lack of awareness amongst Portuguese drivers with regards to EVs which resulted in range and consumption anxieties. Thus, as its first product, the team developed an app for users to understand the several benefits of switching to an electric vehicle.

Launched in 2018, the EV.X app supplies users with the potential financial savings and carbon reductions that they could capture if they were to drive an EV in lieu of their standard internal combustion engine vehicle.

### COSTUMER EXPERIENCE THROUGH DATA

The app records all trips users take by car, aggregates the trip information (number of trips, distance, and fuel consumption), and then provides analysis reports to show the counterfactual scenario of what these trips could have saved in expenditures and emissions if the user had been driving an EV. The app also provides information on the location of charging stations along the routes taken to alleviate any user concerns regarding range anxiety, which,

by EDP's estimation, is a principal barrier to customer adoption of EVs.

The application employs a mix of real and preferential user data to calculate the financial and environmental benefits. The real data come from not only the trips taken, but also the specific brand and model of car driven by users (users can specify the brand, model, and year manually, or can enter their license plate number for auto-population). The preferential data come from selecting a brand and model of EV to produce the counterfactual scenario. The app pulls data from a large database it maintains on EV performance by manufacturer, for models available in Europe and Brazil. In this way, users can determine which vehicles would deliver the greatest utility given their unique driving characteristics.

## INTERNATIONAL RECOGNITION

**Since its launch, the EV.X app has also garnered international interest in the EV ecosystem. In early 2019, the app was featured in the report by the 'National Renewable Energy Laboratory' in the USA for 'Innovative Utility Offerings at the Distribution Edge' – as the only case-study making it to the report from Europe. In October 2019, the app also won the 'Best Automobility App/Site' award at the Portugal Digital week (Prémio ACEPI Navegantes XXI). More recently, the app was featured in the 'Digital Transformation Seminar' held at Dubai by the 'Einstein Energy Institute' as an example for a data-drive customer experience within the energy utility ecosystem.**

The app is available for both iOS and Android users. As of January 2020, EV.X had more than 23,000 downloads and 273,720 trips recorded (an aggregate distance of 5.01 million km). These trips amount to nearly 221,721 kg of carbon dioxide emissions and would translate to €238,136 in savings if they had been taken in an EV.

## WHAT'S NEXT?

EDP's Smart Mobility department is working to develop mobility solutions for the B2C and B2B segments while using EV.X as a fundamental tool for EV adoption. The EV.X app also aims to expand to the B2B segment to meet the requirements of fleet managers and accelerate fleets' electrification.

## EDP MOVEON – THE EDP MOBILITY PLATFORM

EDP MoveOn is a digital platform to access electric vehicle public charging points (available in Android and iOS devices). There are currently more than 1,500 registered users, and the app is open to every EV driver, regardless if the user has a supply contract with EDP or not. The user just needs to download the app and register to charge in one of the 150 charging points currently available.

EDP MoveOn was born in 2018. The initial goal was to show the charging points in a map, enabling users to find their exact location and characteristics: charging power, type of connector,

etc. EDP MoveOn has been progressively adding new features, and it currently covers the full business cycle with the EDP Mobility customers. This way, the users can not only see charging points in a map but also start and stop the charge, manage their payments and see previous information about their charging operations. Everything in one app.

## INTEROPERABILITY BETWEEN DIGITAL PLATFORMS

EDP MoveOn is also the platform that allows EDP to achieve the so-called interoperability with other Mobility agents. Interoperability consists on enabling the interaction between the EMPs (electro-mobility providers) – the digital platforms – and the CPOs (charge point operators) – the owners of the charging infrastructure. Thus, it is possible to access charging points through several different digital platforms, increasing the synergies between clients and operators. EDP MoveOn has already successfully implemented the communication protocols OICP (Open InterCharge Protocol) and OCPI (Open Charge Point Interface), which technically enable interoperability.

## B2B SOLUTIONS

In addition to offering Mobility solutions in the B2C segment, EDP MoveOn also offers Mobility solutions to the B2B segment, managing their charging infrastructure and covering the full business cycle. This enables the B2B clients to offer charging solutions to their customers and employees. Therefore, EDP MoveOn manages today charging points from clients like MediaMarkt, the retail store Ahorramás and Guppy, an innovative carsharing powered by EDP.

EDP MoveOn is, thus, a digital platform in constant evolution, with experience in managing charging infrastructure and with the top priority of offering the best possible solutions to EDP Mobility clients, while, at the same time, enabling communication with other digital platforms.



### 3.1.10. CUSTOMER SERVICE AND SATISFACTION

The growing digital innovation, the opening of markets to commercial competition and the decentralization of generation, the new regulatory dynamics and customer behaviour associated with the objectives of decarbonization, the growing importance of energy services in relation to the traditional energy sales business, and the increasingly frequent occurrence of extreme phenomena with an impact on infrastructure, are the main trends that pressure the quality of service and challenge the commercial relationship with customers. As a result, transformation dynamics in the market context are changing the classic segmentation of customers, widening their diversity and expanding business opportunities. In this area, however, special care should be taken regarding increasing inequalities resulting from the difference in accessibility and the digital culture of customers, as well as the increasing gap between customers with the ability to invest in energy efficiency and customers living in energy poverty.

In this area, the EDP Group is committed to accelerating investment in commercial innovation and ensuring a high level of customer experience satisfaction, both through its commercial offer and through excellence in the quality of its commercial relationship. Commitments that are part of the EDP Group's values and culture and are translated into quantitative strategic goals and targets (page 60).

The EDP Group operates in three energy retail markets. In Spain and Portugal, where the regulatory systems are similar, there is a separation between retail and distribution, and in Brazil, in the states of São Paulo and Espírito Santo, there is no separation of activities with residential customers. As such, in Portugal and Spain, the distribution activity also serves customers of retailers that are not part of the EDP Group.

In 2019, in Portugal, the designation and brand image of the electricity supplier of last resort was totally separated from the EDP Group, following a decision by the Energy Services Regulatory Authority (ERSE), and EDP Serviço Universal was renamed SU Eletricidade. In Spain, and also in 2019, in response to the obligation stipulated by the Comisión Nacional de los Mercados y la Competencia, EDP modified the trademark of the electricity distribution company, which became E-REDES, and that of the last resort retailer, which became BASER COR. In conjunction with the change in image and designation, all communication channels and work tools were adapted.

#### REBRANDING SU ELECTRICITY

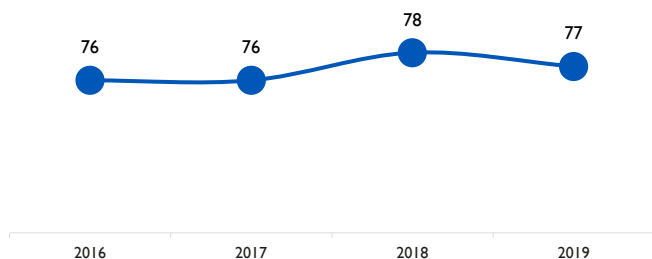
**Starting January 15, 2020, EDP Serviço Universal has changed its brand name to SU ELECTRICITY, keeping the same rigor and focus on the client. This change, which was decided by the energy regulator to further differentiate its logo from the other EDP group companies, offers a new graphical image and logo to customers as an electricity retailer in the regulated market. SU ELECTRICITY differs not only in terms of its colour, but also in its graphic concept, inspired by the inputs of an electrical socket which become the pins of an electrical plug. The new spaces were designed under the slogan feels like home, seeking modernity, simplicity, and greater proximity to the customer when attending the customer as well as aligning with new trends. Through this change, the first exclusive stores of this chain were opened in Lisbon and Porto. The remaining stores, one per district capital, are expected to open by the end of the first quarter of 2020.**



### CUSTOMER SATISFACTION

In a market where customers are looking for differentiated solutions, adapted to their profile and an omnichannel relationship with interfaces which ensure immediate, consolidated and personalized responses, EDP has been developing innovative services and processes based on the potential offered by digitalization and internet access. In Portugal, in its commercial activity, noteworthy were the new Packs

### Customer satisfaction (%)



Living EDP offer and the new chatbot. In distribution the possibility of communicating the proximity of vegetation near to lines was introduced, a chatbot was developed for customer support and the new uberization feature, which allows the customer on their mobile phone to follow the path of the team that travels to their consumption location, as well as new features for low voltage grid connection requests. In Spain, the new “maitre” system for store queueing management, which avoids sounds and service tickets and personalizes the service, was awarded the “Vth edition of the Digital Age Awards” with the prize for the best Customer Experience Innovation project. In Brazil, the digital transformation of the contact centre was implemented, with the Lumus system introduced to support the telephone assistant, along with Speech Analytics for quality analysis and the chatbot functions were strengthened to issue invoices, bar codes and service quality notices. A connection system to Whatsapp, the preferred platform for Brazilians, is also being implemented.

At the global level, Customer Satisfaction stood at 77% in 2019, slightly below the figure recorded in the previous year but in line with the EDP Group's commitment to maintaining a level of customer satisfaction above 75% until 2022. For this result contributed to the decrease registered in Brazil, from 80% to 76%, despite the increase registered in the other geographies (see page 60 with detailed information).

In Portugal, the customer satisfaction reached 78%, slightly above 2018. In the NPS (Net Promoter Score) on the liberalized market, which measures the degree of recommendation of customers in relation to the company, there was an increase of 8 points compared to 2018 in the residential segment and 6 points in the business segment. Satisfaction with EDP services was also recognized through the Consumer Choice of 2019, which distinguished EDP Comercial, for the 4th consecutive year, as the best energy service choice as well as services for home use.

In Spain, for the third consecutive year, EDP was distinguished as the company that offers the best in-person service, a recognition awarded by the Spanish Association of Specialists in Customer Relations (AEERC). This award compares companies in different sectors through an exhaustive process of auditing and sounding out 88,419 customers.

In Brazil, EDP assesses its customer satisfaction through surveys carried out by industry bodies such as ABRADÉE and ANEEL. In 2019, the customer satisfaction reached 79% in São Paulo and 73% in Espírito Santo (measured by ABRADÉE through proprietary survey). In the liberalized market, the Global Satisfaction Index reached 83%. Additionally, it was recognized with the “Smart Customer 2019” award for the modernization and technological transformation of the call center for the electric energy distributors, having also been elected by the Consumidor Moderno magazine as the “Company that Most Respects the Consumer”, in the Electric Energy category, for the second consecutive year.

## SAFETY OF PRODUCTS AND SERVICES

The safety of products and services sold by EDP represents a fundamental aspect for the sustainability of the business. Ensuring that the equipment made available and the activities carried out do not present risks, or only reduced risks reconcilable with a high level of protection of the health and safety of customers, suppliers, employees and society in general, is considered an essential organizational requirement adhered to at the highest level and throughout the entire Company.

Thus, within the scope of energy services made available by the commercial area to customers, there is a set of practices that are promoted in order to guarantee the safety of the products and services sold, in particular:

- Selection of equipment to ensure compliance with the regulations in force, appropriate to any constraints existing at the customers' premises;
- Installation of equipment involving duly trained teams, supervised by safety coordination from the commercial area;



- Carrying out tests on the equipment at the factory and subsequently at the customers' premises, in order to ensure their compliance with current safety requirements;
- Monitoring the operation of the equipment and maintaining it during the initial warranty period;
- Providing training to the customer, which includes instructions on use and safety rules;
- Provision of means for safe use by the customer, in order to avoid accidents or potentially dangerous situations.

In the case of energy supply services, an activity carried out in Brazil, Spain and Portugal, the systems are installed in order to guarantee maximum protection against accidents and improper uses, complying with the technical standards established by the regulatory authorities. Despite this, in Brazil it has been necessary to carry out successive educational campaigns to offer guidance to communities in the safe use of energy. In 2019, a diagnostic on accidents in the community was carried out in order to obtain a complete mapping of the main causes of accidents and to develop action plans. This mapping identified clandestine connections as the actual reason behind several accidents and a 24-month plan to regularize these clandestine electrical connections was developed. In 2019, in Brazil, there were 15 accidents with illegal connections, six of which resulted in deaths.

Throughout 2019, there were no occurrences of non-compliance with regulatory, legal or voluntary rules, regarding the products and services made available by EDP.

## MANAGEMENT OF COMPLAINTS

The EDP Group places the customer at the centre of its business strategy and constantly invests in improving dialogue and quality of service, paying particular attention to the development of channels and means of resolving complaints. In addition to facilitating customer service by telephone, face-to-face and correspondence, the EDP Group also provides solutions to appeal administrative decisions in addition to those provided for by law. The Customer Ombudsperson, Ethical Ombudsperson and participation in citizenship initiatives, such as the Complaint Portal, are tools for resolving complaints which improve customer experience and translate EDP's values.

Overall, the improvements implemented in terms of EDP Customer Experience have enabled the number of complaints per thousand contracts to be substantially reduced, by around 16% per year since 2016 in Portugal. During the same period of time, it has been possible to substantially optimize the time taken to resolve customer complaints, which fell by more than 55%, of note being the 2019 performance with a record average of 5.8 days average resolution time.

COMPLAINTS (#)	2019	2018
<b>Portugal</b>	<b>85,683</b>	<b>114,357</b>
B2B	1,103	1,315
B2C	84,580	113,042
<b>Spain</b>	<b>72,469</b>	<b>92,408</b>
B2B	759	810
B2C	71,710	91,598
<b>Brazil</b>	<b>74,393</b>	<b>70,995</b>
Company	57,746	58,169
ANEEL	2,081	1,544
PROCON	6,255	4,837
Justice	8,311	6,445

Contributing to the achieved outputs, several initiatives were implemented throughout 2019, notably the Complaints Reduction Program (-R) and the ClientID Project, both in the sphere of EDP Distribuição. The latter includes analytics and artificial intelligence tools, which map the root causes of the types of existing complaints and their impact and allows a predictive analysis of customer behaviour, based on a list

of influencing variables (e.g.: weight of each type of complaint regarding customer dissatisfaction, technical and commercial campaigns, weather conditions, regulatory changes, network breakdowns or scheduled interruptions).

#### COMPLAINT REDUCTION PROGRAMME (-R)

**The -R Programme was created to ensure a thorough analysis of the deep causes of EDP Distribuição's complaints, as well as to define and implement a roadmap of specific initiatives.**

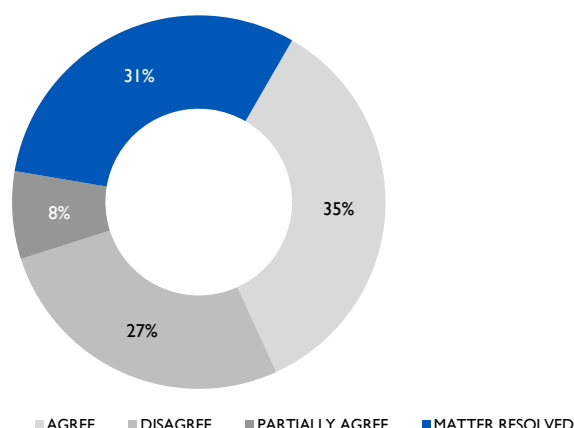
**This is a transverse programme in EDP Distribuição, involving eight Organisational Units of this company that have led and implemented specific initiatives relating to their processes, and with the participation of Soluções Comerciais in the Service Channels. It also involved a set of external entities, such as Energy Suppliers and External Service Providers. More than 100 initiatives were carried out which promoted various types of interaction with the end customer: Readings, Public Lighting, Requests for Connection to the Network, Service Orders and Contact Management itself.**

**One of the highlights was the possibility for customers to proactively communicate a reading after receiving an extraordinary reading communication. In the 1st quarter of 2019 it avoided around 50,000 reading orders in the field. This and other initiatives were pivotal in reversing the upward trend in complaints: in 2019, EDP Distribuição had a total of 58.4 thousand complaints, corresponding to an overall reduction of 19.4%. This was even lower than in 2013, when there were around 59,000 complaints. These improvements had a direct impact on customer satisfaction and experience, but also a very positive impact on EDP Distribuição's operating efficiency.**

In Portugal, EDP has a Customer Ombudsperson, an independent entity which has the mission of considering complaints submitted by customers, in cases where they have not been satisfied with the answers given within the conventional complaint system (<https://provedordocliente.edp.pt/>). The Customer Ombudsperson gives its opinion on the supply of energy and the provision of services by EDP companies, in particular: compliance with contracts, consumption estimates, invoicing and claims for compensation for damages that result directly from the service provided. In 2019, the Customer Ombudsperson received 1,027 complaints, 19% less than in the previous year, of which 34% related to Meter Readings/ Invoicing/Collection, 22% to Supply and 18% related to contracting.

In Spain, after the period of increased complaints in 2018 and due to regulatory changes to the social tariff with an impact on IT systems, there was a reduction to the expected values. In Brazil, the trend towards a reduction in the total number of complaints and a high rate of resolution continues.

**Response details from the customer ombudsperson (%)**



## ENERGY PRICES

In the Iberian Peninsula, energy trading is free and consumers can contract their supply with any retail company.

In Portugal, according to ERSE, the energy regulator, at the end of 2019, the liberalized market already accounted for 84% of the total number of customers (about 93% of consumption), and the regulated market tariff is expected to end in early 2021. However, since the end of 2017, Normal Low Voltage electricity customers on the liberalized market have had the right to access a regime similar to that of regulated tariffs, and may return to the regulated market if their supplier does not provide them with an equivalent regime. The average price of the reference tariffs for sale to final customers in Portugal, in 2019 was mainly composed of energy and sales costs, with a weight



of 53% in the final tariff, while the cost components of energy policy and use of networks represented, respectively, 28% and 19% of the total.

In Spain, in the third quarter of 2019, the liberalized market represented 63% of the total number of customers, which represented around 89% of consumption (forecast data). Domestic prices in Spain, in 2019, had an energy policy cost component higher than Portugal, with a weight of around 40% of the final tariff, while the energy and network use components represented, respectively, 37% and 23% of the total.

In Brazil, in November 2019, the liberalized market represented 0.01% of the total number of customers (8,686 out of a total of about 85 million customers), which represented around 30% of consumption. In January 2020, all consumers with contracted power equal to or greater than 2,000 kW had the conditions to migrate to the liberalized market. Under the terms of MME Order 465/2019 which specified the market opening calendar, consumers with contracted power equal to or greater than 1,500 kW will be able to migrate to the liberalized market from 1 January 2021, whereas consumers with contracted power equal to or greater than 1,000 kW may migrate from 1 January 2022 and those with contracted power equal to or greater than 500 kW from 1 January 2023. As regards the breakdown of the price of electricity, energy and sales costs constitute about 44% of the costs invoiced to the customer, with the costs of using the networks (transport and distribution) and energy policy corresponding to 45% and 11%, respectively.

## QUALITY OF TECHNICAL SERVICE

In 2019, the resilience of electricity supply infrastructures was again put to the test by the succession of weather events. The adoption of Climate Change Adaptation Plans, foreseen in the EDP Group's strategic objectives, made it possible to mitigate the destructive effects through predictive measures, maintain a high response capacity of the emergency teams and restore electricity services, exceeding the standard time response indicators. The quality of service remained high as a result of the efforts made by the technical teams, in a joint effort between EDP and the company service providers, and management measures, new investments and cooperation and dialogue with the stakeholders.

In Portugal, EDP Distribuição continued to guarantee high levels of performance in the Commercial Service General Quality Indicators of the Service Quality Regulations (RQS) by generally exceeding the standard values contained in the Service Quality Regulations. As in the previous year, 2019 was marked by various episodes of adverse weather conditions (the Helena Storm; Lightning Strikes in August; the Elsa and Fabien Storms), leading to a large number of negative events. The minimization of the impact of these events on the continuity of service was obtained through distribution network automation measures and the anticipation and response strategy to exceptional events as incorporated in the Operational Crisis Action Plan for the Distribution Grid. Excluding the impact of episodes originating outside the distribution network, which are in the process of being classified as Exceptional Events by the Regulatory Authority, the main service continuity indicators in 2019 show an improvement in the performance of the distribution network compared to 2018. In addition, in the field of smart grids, important efforts were made in 2019, with the implementation of projects that aim to develop new use cases for the use of information that is made available through the smart meter infrastructure. These efforts will make it possible to speed up the identification of constraints in the BT network and thus improve the response to this type of occurrence.

In Spain, E-REDES carries out its electricity distribution function in six Spanish provinces: Asturias (which represents 95% of its activity), Madrid, Huesca, Zaragoza, Valencia and Alicante. In total, it is present in 90 different municipalities. The Installed Capacity Equivalent Interruption Time (TIEPI) in 2019 was 26 minutes, while the Installed Capacity Equivalent Interruption Number (NIEPI) was 0.4, complying with the legal limits for both indices at the quality level for the geographical area. Given the different storms suffered in 2019, both wind and snow, the quality of service was not significantly affected, thanks to the preventive measures implemented, such as the installation of generator sets in strategic areas to deal with possible network incidents, the reinforcement of the warning level of partner companies and the Customer Service Centre, and the strengthening of the dialogue with the Public Emergency Services and competent agencies.

Furthermore, in Brazil, even with the impact of climatic factors, EDP recorded an improvement trend in quality indicators, in accordance with regulatory limits. In 2019, the Average Interruption Duration (DEC) indicators had the best historical result, at 6.98 for EDP São Paulo and 8.19 for EDP Espírito Santo. Initiatives to improve quality indicators are based on the DEC Down Project, which implements the reduction of occurrences, the rapid restoration of energy and the limitation of impacts on the network. The Frequency of Interruption per Customer (FEC) recorded in both São Paulo and Espírito Santo has always been better than the limits defined by the regulator.



### 3.1.1.1. VULNERABLE CUSTOMERS

Quality of life and well-being are directly dependent on accessibility to energy and, in particular, to quality electrical energy at affordable prices. In an increasingly technological and digital society, ensuring that everyone can enjoy this essential asset is a challenge that the EDP Group places at the centre of its business strategy, for which it has established quantitative goals (page 60) and the commitment to contribute to targets of the United Nations Sustainable Development Goals (SDG 7).

EDP's approach to customer energy vulnerability is based on three pillars:

COMMERCIAL COMMITMENTS	ENERGY POVERTY	ACCESS TO ENERGY
<ul style="list-style-type: none"> <li>• Service guarantee</li> <li>• Adapted solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Social tariffs</li> <li>• Energy efficiency</li> </ul>	<ul style="list-style-type: none"> <li>• New businesses</li> <li>• Social donations</li> </ul>

#### COMMERCIAL COMMITMENTS

EDP scrupulously applies the service guarantees specified by regulation and which aim to protect Priority Customers from interruptions in the supply of energy. Priority customers are informed individually about supply interruptions that are subject to prior notice, with minimum adequate prior notice, and have priority in the restoration of service in the event of breakdowns. Priority Clients are health services, security forces, firefighters, civil protection, maritime and air safety, and penitentiary facilities. Similarly, for customers with special needs, with limited vision, hearing, oral communication or smell, EDP adapts its information and communication systems and guarantees the same levels of quality of service and rights available to other customers (see page 186).

EDP also offers the “Safe Invoice” service which covers situations of involuntary unemployment, temporary incapacity for work or total and permanent disability.

#### ENERGY POVERTY

EDP argues that support for vulnerable customers, in a situation of energy poverty, should be oriented towards solving the structural problem, fundamentally through energy efficiency measures, and preventive measures that avoid interruptions in the supply of energy in situations involving non-payments. In line with the guidelines of the European Commission, it also argues that the financing of these types of measures should preferably be carried out through the National Budget, as an obligation of the Welfare State, or alternatively be supported by the other consumers, within a logic of national solidarity.

The situations of energy poverty are associated with families' inability to obtain the level of energy services necessary to guarantee the appropriate level of thermal comfort, that is, the inability to heat and cool their homes adequately at an acceptable cost. These situations have causes such as unemployment, structural poverty, energy inefficiency in the housing stock, inability to invest in improving the energy efficiency of housing or energy prices. Their social impacts are also known, deepening structural poverty and social exclusion, with important impacts on public health.

The EDP Group's contribution to protecting vulnerable customers is not limited, however, to the promotion of the social tariff and compliance with legal obligations. On a voluntary basis, through its Social Investment Policy, EDP develops programmes to combat energy poverty (see page 221).

In Portugal, since 2010, legislation has provided for the application of a social tariff for electricity and natural gas, which translates into a discount in the access tariff awarded to economically vulnerable customers which is financed, in the case of electricity, by electricity producers in the normal regime and, in the case of natural gas, by the transmission system operator, distribution system operators and natural gas traders.



## POCITYF – A SMART CITY APPROACH FOR HERITAGE SITES

**Due to the increase in densely populated and resource-intensive urban centres, cities will play a pivotal role on the road to a more sustainable and inclusive future.**

**EDP Labellec/NEW R&D has been at the centre of innovation through the coordination of POCITYF: H2020 smart cities project, the main goal of which is the creation of Positive Energy Blocks – areas, the renewable generation of which exceeds energy consumption – in its two lighthouse-cities: Évora and Alkmaar. To this end, a wide range of solutions will be installed, such as the generation of renewable energy and electric mobility.**

**One of the most distinguishing aspects of the project focuses on the fact that it provides the local business fabric with a platform to donate (part of) their renewable energy overgeneration to energetically vulnerable communities. Through this platform, citizens will be provided with the possibility of converting sustainable behaviour within the historic centre into tokens which can also be donated to energetically poor communities.**

In 2011, Additional Social Support for Energy Consumers (ASECE) was created, for both electricity and natural gas, which consisted of a discount attributed to economically vulnerable customers in the amount of 13.8% of the invoice value, financed by the State, in order to offset the impact of the increase in VAT from 6% to 23% for these customers. In 2016, access to the social tariff was facilitated, with the extension of its eligibility criteria and its automatic allocation, in addition to the incorporation of ASECE within this. In 2019, the number of beneficiaries of the social electricity tariff in mainland Portugal was around 760 thousand customers with a discount equivalent to 33.8% of the gross price of the transitional tariffs in the regulated market. In 2019, around 35 thousand beneficiaries of the social tariff for natural gas were registered in Mainland Portugal, with a discount equivalent to 31.2% of the invoice before taxes in the regulated market. In 2019, the number of beneficiaries of the social tariff in EDP's customer portfolio was approximately 588,000 customers in electricity and 16,000 in gas.

In Spain, the social tariff has been implemented since 2009, covering, however, only electricity customers. The mechanism currently in force differentiates between three categories of beneficiaries of the social tariff, depending on their level of income: vulnerable customers, with a 25% discount, severe vulnerable consumers, with a 40% discount and consumers at risk of exclusion, with a 100% discount. The discounts in question apply to fixed term and maximum energy consumption. The social tariff is not automatically assigned and, as a rule, must be requested and renewed periodically. In December 2019, the number of social tariff beneficiaries in EDP's customer portfolio was approximately 51 thousand customers.

In Brazil, the Social Tariff was implemented in 2002 and consists of a benefit created by the Federal Government applicable to low-income families. This is a discount on the tariff applicable to the residential class of electricity distributors, which can vary from 10% to 65%, according to the consumption of each residence, up to a maximum of 220 kWh/month. Indigenous and quilombola families who meet the specified requirements benefit, in turn, from a 100% discount up to a consumption limit of 50 kWh/month. Also in Brazil, consumers must apply for the social tariff, as it is not automatically applied. In 2019, EDP's two energy distributors had a total of 148,986 customers registered for the social tariff.

## ACCESS TO ENERGY

Energy and, in particular, electricity play a crucial role in economic and social development. As such, investment in solutions that enable access to energy for the peoples of countries that do not have sufficient electrical network infrastructure is a necessary condition to promote their development and break the cycle of poverty and inequality.

Given this, EDP approved the objective of investing 20 million Euros, by 2022, in the capital of companies that develop energy access projects in regions without access to the electricity grid. In a similar manner, EDP created the A2E Fund to support energy access projects which, through renewable energy, will promote health, education, water, agriculture, and income generation for rural communities in developing countries (see the next page)

# Our Way



## EDP SUPPORTS PROJECTS ACCESSING SUSTAINABLE ENERGY IN AFRICA

### MOZAMBIQUE, KENYA, TANZANIA, MALAWI AND NIGERIA BENEFIT FROM EDP'S A2E (ACCESS TO ENERGY) PROGRAMME

As part of the strategy to support the electrification of communities without access to energy, in 2019, EDP invested in the capital of Rensource, in Nigeria, and supported five clean energy community projects in Mozambique, Kenya, Tanzania, Malawi, which will provide access to energy for 22 thousand people.

Approximately 840 million people still do not have access to electricity and around 2.9 billion people depend on wood, charcoal, agricultural waste and coal for cooking and heating<sup>1</sup>. This problem is particularly prevalent in Sub-Saharan Africa, where only 45% of the population has access to energy<sup>2</sup>.



Access to clean, affordable and reliable energy is vital to boosting employment and sustainable growth.

EDP promotes sustainable energy for all, focusing on countries with low electrification rates, focusing its efforts on two areas of action:

- Investment in the capital of **companies that are developing businesses with access to energy (A2E)**;
- **Donations to social organizations**, to support sustainable and clean energy projects in the areas of education, health, water and agriculture, business and the community.

As such, the EDP Group has made investments in companies and projects involving access to energy in several African countries:

#### INVESTMENT IN THE CAPITAL OF COMPANIES

- **2018** – EDP invested in **SolarWorks!**, a company with operations in Mozambique and Malawi, dedicated to the sale of Solar Home Systems (SHS) - two million Euros;
- **2019** – EDP purchased capital in **Rensource**, a company that develops and manages decentralized solar energy systems in Nigeria - 2.7 million Euros.

#### DONATIONS TO SOCIAL ORGANIZATIONS – A2E FUND

- **2018/2019 - 1st edition of the fund** – of the 108 projects submitted to the tender, the jury selected the following:
  - **Co-operative Bank Foundation (Kenya)** – installation of 12 solar greenhouses and irrigation systems in seven schools, to guarantee the production of food necessary for students, while the surplus is sold in local markets. With power of up to 100 kWp, the project also allows access to energy for 6,000 people;
  - **OKAPI Green Energy (Kenya)** – improving access to health, education and business training for the Kakuma Refugee Camp. A 20 kWp photovoltaic mini-grid was installed to supply electricity to 150 households and 50 commercial customers, totalling 800 direct beneficiaries and 18,000 indirect ones;
  - **Girl MOVE Academy (Mozambique)** – training and development of a new generation of women leaders through a 13 kWp solar energy project for the ECOCampus and the institution's IT centre,

directly benefiting 1,230 people and indirectly 6,000 people;

- **UN-Habitat (Mozambique)** – promoting access to education for displaced persons and the installation of alert systems for emergency situations, internet access and cell phone charging. Installation of 3.8kWp of solar energy to supply 12 classrooms in two schools, benefiting more than 1,200 people;
- **Fundación Energía Sin Fronteras (Malawi)** – installation of 22.7 kWp of photovoltaic panels in the five buildings of the St. Mary Rehabilitation Centre, providing medical assistance 24 hours a day and pumping drinking water to serve 130 orphans. The project includes outpatient and educational assistance for other children and the elderly in the community, impacting 2,800 people.

These projects received support ranging from 25 thousand to 100 thousand Euros and will impact around 22 thousand people.

In line with the commitment established to reach the target of 20 million Euros of investments in access to electrification by 2022, EDP launched the 2<sup>nd</sup> edition of the A2E Fund (2019/2020), aimed at projects in Mozambique, Kenya, Tanzania, Malawi and Nigeria. 160 applications were received, from which the selection will take place in 2020.

<sup>1</sup> IEA, IRENA, UNSD, WB, WHO (2019), TRACKING SDG 7: THE ENERGY PROGRESS REPORT 2019, WASHINGTON DC

<sup>2</sup> ACCESS TO ELECTRICITY (% OF POPULATION) - SUB-SAHARAN AFRICA (EXCLUDING HIGH INCOME), WORLD BANK, SUSTAINABLE ENERGY FOR ALL DATABASE

### 3.2. COMMITMENT WITH ENVIRONMENT AND SOCIETY

This axis defines EDP's commitments towards its employees, service providers and communities. Aspects associated with diversity and equal opportunities, occupational safety and health, voluntary work, the circular economy, and environmental protection are highlighted.

## 2019 HIGHLIGHTS

- Mobilisation of 24% of EDP employees in voluntary initiatives, during working hours
- Achieving Leadership A level at CDP Water Security
- Obtaining the certificate of Excellence efr (family responsible company), in Portugal
- Development and launching of the programme "Raising the Ethical Building@EDP"
- Generalisation of human rights assessment in the supply chain
- Launch of new supplier relationship platform
- Study of the socio-economic impact of the closure of the Coal Power Plants (Portugal and Spain)
- Implementation of safety culture programme at EDP Brasil (Programa Viva)

## 2020 MAIN CHALLENGES

- Strengthen the ethical culture among all EDP Group employees, with a focus on Leadership, through a Continuous Training Programme
- Implementing the programme to reinforce Safety Culture in the EDP Group
- Strengthen labour/personal conciliation through flexibility practices to be implemented in 2020
- Strengthening the Group's commitment to biodiversity conservation
- Increase ambition in the strategy of circular economy throughout the value chain
- Strengthen the alignment of the supply chain with the EDP Group's sustainability objectives
- Promoting the just transition arising from the new energy transition challenges
- Pursue internal harmonisation of Crisis Management and Business Continuity practices across different geographies, taking into account climate change adaptation plans



### 3.2.1. CORPORATE GOVERNANCE

As a result of a materiality evaluation process, our stakeholders identified three key aspects, which are:

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

Being these matters detailed in Chapter 4 of the 2019 EDP Annual Report, it is presented below a summarized version of the main aspects.

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

As referred in Chapter 2, EDP's governance structure is a dual model one and consists of the General Meeting, Executive Board of Directors, General and Supervisory Board and the Statutory Auditor.

The separation of management and supervision roles is, as previously referred, embodied in an Executive Board of Directors, which is responsible for the management of the Company's business, and a General and Supervisory Board, the highest supervisory body.

EDP's Articles of Association (Article 9 (1), Article 10 (1), Article 11 (2) (d), Article 21 (4), Article 22 (1) (a), Article 23 and Article 27) and the Internal Regulation of the General and Supervisory Board (Article 8), both available at [www.edp.com](http://www.edp.com), lay down the rules on independence and incompatibilities for members of any of the Company's corporate bodies.

The criteria of independence set out in EDP's Articles of Association are in line with those laid down in 414 (5) of the Companies Code and determine that independence means an absence of direct or indirect relations with the Company or one of its bodies and an absence of any circumstances that might affect impartiality of analyses or decisions, e.g. because the people in question own or are acting on behalf of owners of a qualifying shareholding of 2% (two percent) or more of the share capital of EDP or have been re-elected for more than two terms of office continuously or intermittently.

Pursuant to Article 9 (1) of EDP's Articles of Association, independence is "absence of direct or indirect relations with the Company or one of its bodies and an absence of any circumstances that might affect impartiality of analyses or decisions, e.g. because the people in question own or are acting on behalf of owners of a qualifying shareholding of 2% (two percent) or more of the share capital of EDP or have been re-elected for more than two continuous or intermittent mandates".

In view of the need to clarify the aforementioned Article 414 (5) of the Company Code, as there are diverging legal opinions, Associação de Emitentes de Valores Cotados em Mercado ("AEM") requested an opinion from the CMVM, whose opinion was that the capacity as independent is only lost if, "on the basis of the criterion of number of terms of office, in a situation likely to affect his/her impartiality in analyses or decisions if the members of the supervisory bodies of public limited companies, having been elected for a first term of office and re-elected continuously or intermittently for a second and third term, are re-elected (for the third time, therefore) for a fourth term of office."

Pursuant to its Internal Regulation, the General and Supervisory Board has in place a specific procedure regarding compliance with a large number of rules on incompatibilities and independence applicable to positions on this board (Articles 7 and 8 of the General and Supervisory Board Internal Regulation). This procedure includes the following aspects:

- Acceptance of a position as member of the General and Supervisory Board is subject to a written statement setting out specifically (i) the inexistence of any incompatibility under the law or Articles of Association; (ii) compliance with the independence requirements set out in its Internal Regulation, if the person has been elected as an independent member; (iii) the members' obligation to report to the Chairman of the General and Supervisory Board or, for the Chairman, directly to the board any subsequent event that might generate incompatibility or loss of independence;

- Every year, the members of the General and Supervisory Board must renew their statements as to the inexistence of incompatibility and, if applicable, the compliance with the independence requirements.

Also, every year, the General and Supervisory Board conducts a general assessment of compliance with the rules of incompatibility and independence by its members.

At the same time, the Internal Regulation of the General and Supervisory Board has broadened the independence criteria applicable to its members, going beyond the provisions of Article 414 (5) of the Companies Code and Article 9 of EDP's Articles of Association, and so people who directly or through their spouse or relative or similar in a straight line and to the collateral third degree, inclusive, are in one of the following situations cannot have independent status:

- Being holder, director, having contractual ties or acting on behalf or on the account of owners of a qualifying shareholding of 2% (two percent) or more of the share capital or voting rights in EDP or the same percentage in a company of which it is a subsidiary;
- Being a holder, director, having contractual ties or acting on behalf or on the account of owners of a qualifying shareholding of 2% (two percent) or more of the share capital or voting rights in a company that is a competitor of EDP;
- Having been re-elected for more than two consecutive or non-consecutive terms of office;
- Having exercised for twelve years, on a consecutive or non-consecutive basis, functions in any corporate body of the Company exception made to, from the end of its functions in any body and its new appointment, at least a three-year period has elapsed;
- Having, in the last three years, provided services or had a significant commercial relation with the Company or one of its Subsidiaries; and,
- Being a remuneration beneficiary paid by the Company or one of its Subsidiaries other than the remuneration deriving from the execution of its functions as a member of the General and Supervisory Board.

The rules of independence covering members of the General and Supervisory Board are particularly important regarding the following requirements:

- The board must consist of a majority of independent members (Article 434 (4) and Article 414 (5) and (6) of the Companies Code and Article 21 (4) of EDP's Articles of Association);
- The Financial Matters Committee/Audit Committee is entirely composed of independent members of the General and Supervisory Board (Article 23 (2) of EDP Articles of Association and Article 3 (1) of the Financial Matters Committee/Audit Committee's Internal Regulation);
- The Remuneration Committee of the General and Supervisory Board must comprise a majority of independent members (Article 27 (1) and Article 28 of the Articles of Association (1) (b) of the General and Supervisory Board's Internal Regulation).

In compliance with the above procedure, at the start of their terms of office, the members of the General and Supervisory Board stated that they were not in any of the situations of incompatibility set out in the Companies Code (Article 414-A (1) (a) to (e), (g) and (h) (ex vi Article 434 (4)) and Article 437 (1)) or under Article 9 (1), Article 10 (1), article 11 (2) (d) and Article 21 (4) of the Articles of Association and, where applicable, that they complied with the independence requirements of the Internal Regulation of the General and Supervisory Board. Of the incompatibility situations for the exercise of the role of member of the General and Supervisory Board, pursuant to the Article 414-A of the Companies' Code, it is considered the exercise of functions of administration or supervisory in five companies. Therefore, one may not be elected or designated a member of the General and Supervisory Board if holds office of administrator or supervisor in five companies.

At the end of 2019, the members of the outgoing General and Supervisory Board renewed their statements on incompatibilities and independence.





The above statements are available to the public on EDP's website, at [www.edp.com](http://www.edp.com).

The respect for diversity within the governing bodies and in the appointment, procedures constitute one of the founding elements of the corporate purpose of EDP.

The Internal Regulations of the corporate bodies, corporate entities and Specialized Committees which form part of EDP's structure set forth several provisions related to reputation, independence and incompatibilities applicable to the members of those corporate bodies.

In particular, regarding gender diversity, it is convened by the compliance with Law 62/2017, of 1 August, related to the balanced representation between men and women in governing and supervisory bodies in public sector entities and listed companies. Furthermore, EDP has a diversity policy according to which it undertakes to (i) promote the mutual respect and equal opportunities before diversity, (ii) acknowledge the differences as a source of strengthen human potential and diversity enrichment in the organization, in the management and in the strategy and (iii) adoption of non-discriminatory and awareness measures not only internal but also towards the community in order to have an effective and efficient implementation of the diversity policy.

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

EDP Group follows a risk governance model based on the concept of three lines of defence internal to the organization, which are complemented by an external fourth line of defence, represented by external audit and regulation/supervision:

- 1st line: Business (responsibility for risk) – daily running of business, including proactive management of risks, aligned with established risk policies. The areas involved are Business Units and Corporate Departments with decision-making responsibility.
- 2nd line: Risk (support the analysis and risk monitoring) – support in the identification, analysis, evaluation and risk monitoring. The areas involved are Risk Management Department and Compliance Department.
- 3rd line: Audit (independent supervision) – performance and coordination of audits, seeking the improvement of the risk management process, control and corporative government. The area involved is the Internal Audit Department.

From the established governance model, with the goal of identify, evaluate, follow and control risks to which the Group is exposed to, the Risk Management, Compliance and Internal Audit Departments stand out, from the Corporate Departments.

The Risk Management Department's main responsibility is to coordinate the Group's risk assessment studies in order to assist the Executive Board of Directors in controlling and mitigating them and to provide integrated risk-return analysis, according to a more detailed analysis in the Corporate Governance Report.

The Compliance Department has as main responsibilities to contribute to the improvement of management procedures associated, externally, with legal and regulatory “compliance” risks and, internally to the compliance of regulations and other internal rules in force, ensuring the implementation of the Internal Control System for Financial Reporting (SCIRF).

The activity of the Compliance Department is based in four major phases:

- Identification and analysis of compliance risks;
- Promotion and coordination of the implementation of Group's policies and procedures in order to mitigate the identified compliance risks;
- Monitoring of procedures and controls in order to assess the maintenance of their suitability;
- Periodic reporting to the Executive Board of Directors and to the Financial Matters Committee / Audit Committee of the most relevant topics that represent greater risk for the Group.

The Group's compliance management system considers the particularities of dimension and activity of each business unit and geography.

The Internal Control System for Financial Reporting (SCIRF) is introduced in item 55 of the Corporate Governance Report, which details the methodology and the responsibility model adopted by the Group.

The main role of the Internal Audit Department is to perform internal audits or to ensure that they are performed in the Group, in accordance with legislation and the best international practices.

The Group's internal audits consider existing work lines, of which stand out: (i) analysis of the operations effectiveness and efficiency, (ii) the reliability and integrity of the information, both financial and operational, (iii) information systems audit and property integrity.

The Internal Audit Department periodically reports to the Executive Board of Directors and to the Financial Matters Committee / Audit Committee about its activity plan accomplishment, underlining the most relevant topics and those that represent greater risk for the Group.

In addition to the above-mentioned Departments, the Executive Board of Directors established a Risk Committee and a Compliance Committee, whose functions and composition are described in item 50 and following of Chapter 4 of 2019 EDP's Annual Report.

Under the law, the General and Supervisory Board permanently oversees and evaluates internal accounting and auditing procedures, the efficacy of the risk management system, the internal control system and Compliance, including the reception and treatment of complaints and queries, whether from employees or others. This duty has been assigned to the Financial Matters Committee / Audit Committee, which, among other tasks, permanently monitors and supervises:

- Financial matters and accounting practices;
- The Compliance management system and the Internal Control System for Financial Reporting;
- Internal auditing procedures;
- Matters relating to the risk management system;
- The activity and independence of the Statutory Auditor of the Company.

## PERFORMANCE EVALUATION AND PAY

Pursuant to the Articles of Association, payments to the company officers are fixed by a Remuneration Committee appointed by the General Meeting of Shareholders, with the exception of the remuneration to members of the Executive Board of Directors, which is fixed by a Remuneration Committee appointed by the General and Supervisory Board.

These Committees submit annually to the Shareholders' General Meeting a statement regarding the remuneration policy of the corporate bodies members, pursuant to Article (2) (1) of Law no. 28/2009, 19 June.

When establishing the remuneration of the members of the General and Supervisory Board and Statutory Auditor, the Remuneration Committee of the General Meeting takes account of its fixed nature and the imperative rules on its determination, in particular Article 440 (2) of the Company Code, which sets out the criteria for setting the remuneration of the General and Supervisory Board, Article 374-A of the Companies Code on the remuneration of members of the officers of the General Meeting and Article 60 of Decree-Law 224/2008 of 20 November on the remuneration of the Statutory Auditor.

## REMUNERATION STRUCTURE

Remuneration policy for the members of the managing body is set by the Remuneration Committee appointed by the General and Supervisory Board. This Committee defines the remuneration of the directors, intending for it to reflect the performance of each member of the Executive Board of Directors in each year of their term of office (annual variable remuneration) and their performance during their term by fixing a variable component that is consistent with maximisation of EDP's long-term performance (variable multi-annual remuneration).



The remuneration policy statement, as approved by the shareholders, lays down that the total variable component can reach twice the fixed component during a term of office, thereby placing a maximum limit of two-thirds of the remuneration depending on fulfilment of strict Company performance goals. Variable remuneration depends on whether the directors achieve a performance of 90% of the business plan. Only if they achieve 100% fulfilment will they receive the maximum amounts allowed by the Company's remuneration policy.

Variable remuneration is divided into annual, which may only reach 80% of fixed remuneration, and multi-annual, which may reach 120% of the fixed remuneration. The multi-annual remuneration, although calculated annually, it only becomes effective if, at the end of the term, in average, at least 90% of the fixed goals have been achieved, assessed by the performance of the Company, by its comparison with strategic benchmarks of reference and by the individual contribution of each member of the EDB for that aim.

If the remuneration goals are fully met in a term of office, 60% of the directors' variable remuneration is deferred for no less than three years.

For further information, please see item 66 and following of Chapter 4 of the 2019 EDP's Annual Report.

## EVALUATION OF ACTIVITY

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

In effect, worth also noting that the General and Supervisory Board annually performs:

- A self-assessment of its activity and performance and those of its Committees, the conclusions of which are set out in its annual report (see Article 12 of the General and Supervisory Board Internal Regulation);
- An independent assessment of the activity and performance of the Executive Board of Directors, the conclusions of which are submitted to the General Meeting and are presented in an annex to the annual report of the General and Supervisory Board.

EDP, on the initiative of the General and Supervisory Board has voluntarily established a formal, impartial process to assess the activity of this board and of the Executive Board of Directors. Experience of recent years has allowed the General and Supervisory Board to make some changes in the process to make it more effective and efficient. During the 2019 financial year, the method used comprises the following stages:

- Delivery of the collective evaluation process of the General and Supervisory Board, its Specialized Committees and the Executive Board of Directors to an external entity, in order to have individual and face-to-face interviews to the General and Supervisory Board members and support to the filling in and validation of the several evaluation questionnaires supporting documents;
- In the beginning of 2020, each General and Supervisory Board member was individually interviewed by specialized consultants, answering to quantitative and qualitative matters, in particular on matters (i) related to the composition, organization and functioning, activity performance of the General and Supervisory Board, relationship between the General and Supervisory Board and the Specialized Committees and other EDP corporate bodies and finally, to self-assess the individual performance of each member as well as (ii) to proceed with the analysis of matters related with the composition, organization of the Executive Board of Directors, its activity performance and the relationship between the Executive Board of Directors and the General and Supervisory Board including to other interlocutors;
- Reports were produced on the General and Supervisory Board evaluation, on its Specialized Committees and on the Executive Board of Directors, which were available for assessment in the General and Supervisory Board meeting;
- In its meeting, the General and Supervisory Board issues its assessment opinions and they are included in this board's annual report;
- At the General Meeting, the Chairman of the General and Supervisory Board presents the board's opinion in the item of the agenda for assessment of the Executive Board of Directors.

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.



#### 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 adopted voluntarily by EDP to its General and Supervisory Board (GSB) and the different Specialised Commissions, Mercer proceeded and proceeded with to analyse the current evaluation process.

At the beginning of 2020, each member of EDP's GSB was interviewed by Mercer specialised senior consultants on an evaluation questionnaire on both quantitative and qualitative perspectives. This evaluation including a self-evaluation component, in order to assess their personal perception of the GSB's 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 Evaluation	1. Composition, organization and operation
REMC Evaluation	2. Performance of its activity
SPC Evaluation	3. Relationship with the Specialized Commissions
GCSC Evaluation	4. Relationship with other EDP governing bodies
FMC Evaluation	5. Individual self-evaluation

GSB: General and Supervisory Board / REMC: Remuneration Commission / SPC: Strategic and Performance Commission / GCSC: Corporate Governance and Sustainability Commission / FMC: Financial Markets - Generalist Financial 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 "Opportunity for improvement" and "Excellent".

It is also worth mentioning that the average of the GSB's evaluations in the dimensions analysis was "Above expectations". The average evaluation of REMC scores in dimensions was "Excellent", for SPC was "Above expectations" for GCSC was "Above expectations", and for FMC was "Excellent".

Mercer considers that the evaluation process of the GSB and each Specialised Commission adopted by EDP, is a good practice of corporate governance principles.

13th of February 2020

Mercer (Portugal) Lda  
represented by:

Diego Almeida  
CEO of Mercer Portugal

\* UNTRANSLATED TRANSLATION OF THE ORIGINAL DOCUMENT PROVIDED BY MERCER

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MARSH & MCLENNAN  
CORPORATES



#### 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 adopted 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 2020, each GSB member was interviewed by Mercer specialised senior consultants on an evaluation questionnaire on both quantitative and qualitative perspectives, 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

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

From the analysis of EBD's evaluation questionnaires filled by GSB members, all evaluated sub-dimensions obtained an average evaluation between "Opportunity for improvement" and "Excellent". It should also be noted that the average of the EBD's evaluations in the analysis dimensions in the table above was "Above expectations".

Mercer considers that the GSB's evaluation process on EBD performance adopted by EDP, is a good practice of corporate governance principles.

13th of February 2020

Mercer (Portugal) Lda  
represented by:

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CEO of Mercer Portugal

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MARSH & MCLENNAN  
CORPORATES

### 3.2.2. ETHICS AND HUMAN RIGHTS

One of the values of the EDP culture is trust, which is recognized to be founded on the solidity of ethical performance. In line with this vision, the EDP Group has, since 2005 and following approval by the Executive Board of Directors, had a Code of Ethics, and an ethical process management system which includes the Ethics Ombudsperson, the Ethics Committee and the Corporate Governance and Sustainability Committee of the General and Supervisory Board. The Code of Ethics is a mandatory knowledge document, individually and formally supplied to each employee in February 2006 and, since then, included in the mandatory documentation of each new employee, and is available in Portuguese, Spanish and English. Thus, the EDP Group, which today has a global presence, bringing together people from different generations, cultures and individual characteristics, has repeatedly developed and practised, among other aspects, ethics as a fundamental principle of sustaining a Company which honours the commitments it establishes with its employees, with its customers, with its shareholders, with its partners and with society as a whole. EDP establishes concrete ethical performance goals throughout the organization, the achievement of which presupposes a high degree of training, awareness and ethical requirements at the individual level, and the imperative of organizational action that not only minimizes the risk of the occurrence of bad ethical practices, but also ensures the rapid and effective handling of events, within a framework of compliance, transparency and ongoing improvement.

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" which develops the Code in specific policies - duly disseminated throughout the Company through communication actions and training and awareness programmes - as are 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



in the Workplace, the Declaration of respect for Human and Labour Rights, the EDP Group's Integrity Policy, EDP Renováveis's Anti-Corruption Policy and EDP Comercial's Code of Conduct.

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

The effectiveness of the policies and regulations that guide decision-making procedures at the various levels of the Company depends, to a large extent, on the control and verification process that is guaranteed through complaints and analysis of violations of the code of ethics and regular internal and external audits in all business areas. It is incumbent upon the Ethics Committee, whose members are appointed by the General and Supervisory Board following the proposal of the Executive Board of Directors, to propose policies, objectives and targets in matters of business ethics and to assess the processes carried out by the Ethics Ombudsperson. The EDP Code of Ethics Regulations ([www.edp.com](http://www.edp.com)) applies the EDP Code of Ethics with regard to the reception, retention and handling of information and complaints received by companies and entities that are part of the EDP Group and establishes the relevant procedures for the association of the competent bodies in matters of business ethics of the General Supervisory Board, the EDP Group Corporate Centre and the companies and entities which make it up. To ensure the effective implementation of its Code of Ethics, EDP has direct ethics channels to the Ethics Ombudsperson and channels for ethical complaints in each geographical area where it operates. It also has channels for communicating irregularities created for this purpose. One of the functions of the Financial Matters Committee/Audit Committee (FMC) of the General and Supervisory Board is to follow up on communications of irregularities and of the relationship with the Audit Committees of the subsidiary companies. This Committee is composed only of independent members of the General and Supervisory Board (paragraph 2 of article 23 of the Articles of Association and paragraph 1 of article 3 of the Rules of Procedure of the Financial Matters Committee/Audit Committee). Communications of irregularities contain the identification of the author, so that anonymous information will be accepted and handled only exceptionally. Pursuant to the regulation on the communication of irregularities, the FMC must ensure the implementation of appropriate security measures to protect the information and data contained in the communications and the respective records.

All of these ethics channels are disclosed on the EDP Intranet and Internet website.

In order to continue developing the importance of its ethical process, in 2019 the Company started revising its Code of Ethics for the second time. The year 2019 was therefore a moment of reflection on the path that had been followed for years in this area in terms of Ethics at EDP, and, consequently, a time to consider the theme by resorting to the best information and practices in matters of business ethics.

## PROMOTION OF AN ETHICAL CULTURE

In 2019, within the framework of a new cycle of the Ethics Ombudsperson at EDP, a three-year action programme was drawn up to develop the corporate ethics philosophy which has framed the Group's management for over a decade.

The Programme – called “RAISING THE ETHICAL BUILDING@EDP” – was designed based on a diagnosis of the Company's ethical performance, which enabled the identification of some points for improvement which served as inspiration for defining the paths to follow.

The main objective pursued with the Programme is the strengthening of the ethical culture in the Group, to be achieved through new and modern mechanisms which, in addition to contributing to strengthening the formal perspective of Ethics in the Company, provides a simple but in-depth experience of ethical principles by all stakeholders and, in particular, by all employees.

Thus, and starting from the concept of “ethical building” – which intends to translate all the construction work carried out so far in this area in the Group – the Programme is based on two pillars: the pillar of strengthening the “infrastructural system” and the pillar of what we have designated “Substance ethics”.

The first pillar mentioned includes the strengthening of the structural parts of the “building”, in which a review and update of the reference documents is recommended, in particular, as is the case with the Code of Ethics; the modelling of training in Ethics in the Group, based on a set of guiding principles that make this decisive in the development of ethical behaviour; and the optimization of the contact management process, among other initiatives.

Through the initiatives to be developed in the second pillar mentioned, it is intended to bring Ethics to the practice of business and activities in general, leading to the permanent and balanced use of ethical reasoning in everything we do at the Company.

In strengthening the “ethical building” it was possible to take some very important steps in 2019 already:

- The rationale for the new Code of Ethics was built based on the fundamental identity traits of the EDP Group – the centrality of people, the orientation towards results and through being sustainable, innovative and compliant – and an approach totally oriented towards the reality of the Company’s activities. The new Code will, in a simple and realistic manner, translate the behaviour that the Company considers to be in line with its principles and values and reinforces the decisive role of leadership in matters of Ethics.
- The annual Ethics Training Plan has been designed in compliance with the guiding principles and the first sessions provided for it, both online and in person, have been constructed.
- Also in terms of training in ethics, the disclosure of the Code of Conduct for Senior Management and Senior Financial Officers has been accentuated, and the Ethics training programme for service providers, this time in Spain, has been concluded, covering approximately 2 thousand people.
- Four thematic conferences were organized around some of the ethical risks that society faces – to which we gave the name Ethics Talks – and which were open to all employees in Portugal wishing to participate and which counted on the collaboration of renowned external speakers.
- The contact management process addressed to the Ethics Ombudsperson was improved, namely through the implementation at the beginning of the year of a modern portal which facilitates and strengthens all the steps which take place as part of this.

The following initiatives should be highlighted at the “Substance Ethics” pillar level:

- Addressing the theme of Ethics with some companies, with the intervention of the Ethics Ombudsperson in employee meetings, namely at EDP Global Solutions, EDP Comercial and EDP Brasil.
- Development of broad reflection and the beginning of a project which aims to identify the situations which constitute a digital ethical risk in the context of the EDP Group, with the participation of employees from various companies.

Based on the activity described, it is believed that the improvement opportunities identified at the beginning of this year were positively addressed, and that the future path has been set, which places the experience of a strong ethical culture at the top of its initiatives, which will contribute to the uncompromising defence of EDP’s reputation and the strengthening of the trust of all its stakeholders.

## ETHICAL COMPLAINT MANAGEMENT

With regard to the current activity in the field of Ethics, of note also is the continuity of the normal management of contacts addressed to the Ombudsperson – or the Ethics Committee at EDP Brasil – and the holding of regular Ethics Committees, in addition to the presence of the Ombudsperson in the quarterly meetings of the Corporate Governance and Sustainability Committee of the General and Supervisory Board.

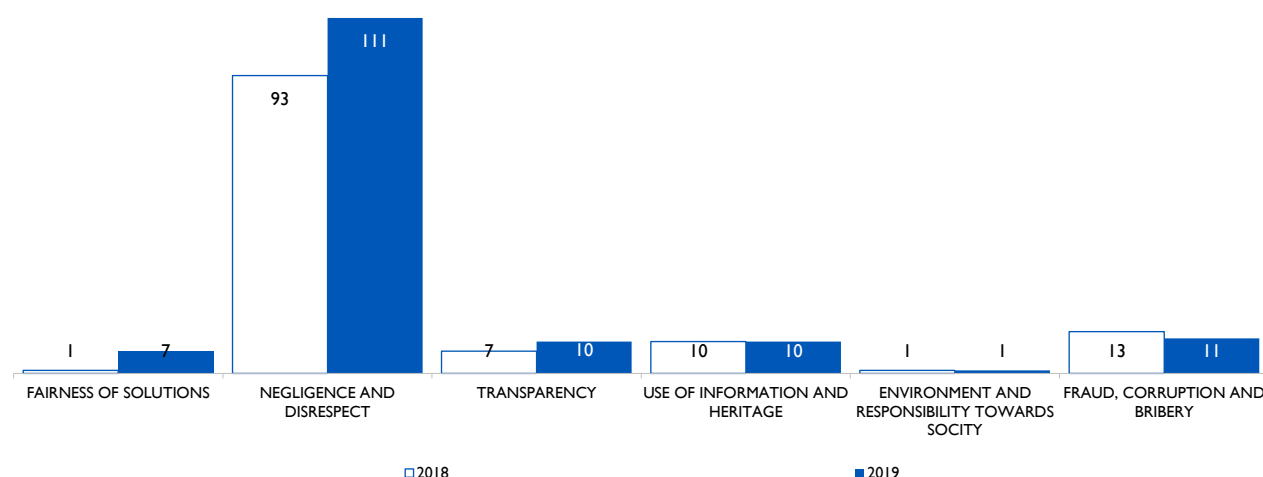
With the entry into operation, on 1 January 2019, of the “EDP Ethics Channel” - the contact portal with the Ethics Ombudsperson -, the increase in the number of contacts received compared to previous years was noteworthy (26.5% more contacts in relation to 2018), with 588 contacts having been registered in 2019, of which 150 gave rise to ethical complaint processes submitted to the Ethics Committee, with the remainder being dealt with expeditiously with the Business Units involved. These contacts came from all stakeholder segments, with an emphasis on the Citizen and Employee segments, with an increase in the number of anonymous complaints, most of which originated from EDP Brasil, where this practice is more common.



## RESPECT FOR HUMAN RIGHTS

In line with the United Nations Guiding Principles on Business and Human Rights, EDP made 11 commitments regarding Human and Labour Rights (available at [www.edp.com](http://www.edp.com)) and implemented the Respect for Human and Labour Rights Monitoring Programme in all its Business Units, covering companies, facilities, new projects, mergers and acquisitions, as well as operations with a significant potential impact on Human Rights, particularly throughout its value chain – its own activities, suppliers, service providers, joint ventures, agents and customers

### Complaints made to the ethics committee by subject (#)



This monitoring process verifies effective practices, the degree of compliance with the principles and commitments assumed, particularly of the groups identified as most vulnerable, and, through the results obtained, promotes the resolution of negative events, identifies procedural weaknesses and improves the characterization of potential risks to develop the necessary actions to avoid and manage them and, if inevitable, develop the necessary mitigation initiatives or promote their remediation and repair.

An integral part of this monitoring process includes:

- 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). In addition, the results of the ETHICIS index, the Ethical Performance Corporate Index and the results of the ETHISPHERE ranking are published, which once again recognized EDP in 2019 as one of the six most ethical companies among its peers in the Energy & Utilities category;
- in accordance with the principles of the EDP Supplier Code of Conduct, which establishes the Human Rights contractual clauses, and the Sustainable Procurement Policy, the prior assessment, monitoring and annual assessment of the performance of suppliers and service providers, which culminates in the drawing up of the contents presented on page 173 of this report;
- 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" – cfr ([www.ohchr.org](http://www.ohchr.org)).



At the end of 2018, the Ministério Público Federal de Mato Grosso (Mato Grosso Federal Prosecutor's Office - MPF/MT) filed a civil lawsuit aiming at the suspension of the Operation License of the São Manoel Hydroelectric Power Plant, arguing that the Empresa de Energia de São Manoel (EESM), of which EDP is a shareholder, would not have correctly executed the socio-environmental compensations foreseen in the environmental licensing of the undertaking. The Public Prosecutor maintains that the licensing authorities had not guaranteed respect for indigenous rights, as provided for in ILO Convention 169. However, all the socio-environmental conditions provided for in the Installation and Operation Licenses are being executed by EESM and monitored by the licensing process bodies, including FUNAI - Fundação Nacional do Índio, IPHAN - Instituto do Patrimônio Histórico e Artístico Nacional, Ministério da Saúde, Instituto Chico Mendes e IBAMA – Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis, in accordance with the provisions of the approved Basic Environmental Programs. Having occurred the decline of jurisdiction by the Judge of Cuiabá/MT for the Judicial Subsection of Sinop/MT, the EESM has not even been cited in this process. The Conflict of Jurisdiction arising from the Sinop/MT Judicial Subsection is currently awaiting trial, and it has also not been considered competent to process the case. These and other results and analysis of the EDP Respect for Human and Labour Rights Monitoring Programme are published in a specific document available at [www.edp.com](http://www.edp.com).

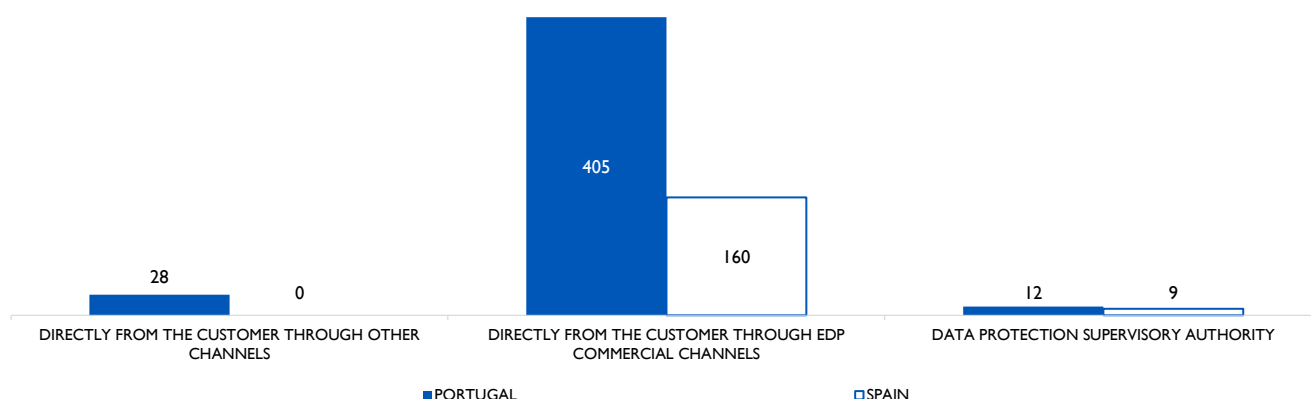
In 2019, pursuing its policy of promoting Human Rights, EDP actively subscribed to and communicated the “Ceo Guide to Human Rights” prepared by the WBCSD which was signed by 36 CEOs of major international companies.

## INFORMATION PRIVACY

Safeguarding the privacy and protecting the personal data of its customers, employees, suppliers or other third parties has always been an important feature of the EDP Group's operating strategy. However, with the publication and entry into force of the General Data Protection Regulation (GDPR), the Group proceeded to analyse and adjust its procedures in the geographical areas where this legislation is applied in order to ensure the mitigation of risks related to personal data processing operations carried out. This work resulted in the systematization of a specific compliance programme, having defined its own governance model with the appointment of a person in charge of protecting personal data and teams dedicated to the management of this topic. In addition, action plans were defined and implemented with measures to adapt business processes and to reinforce existing technical and organizational measures, interdisciplinary methodologies were defined with guidelines for the application of the main new aspects introduced by the GDPR (particularly with regard to the treatment of breaches of personal data, the management of subcontractors and the development of Privacy by Design procedures) and general training actions were strengthened, complemented with specific initiatives, due to the exposure of employees to data protection risks. Within the scope of this compliance programme, the operationalization and monitoring of the response to the exercise of rights and complaints regarding data protection has been ensured (614 customer complaints, out of a total of around 11 million customers in the entire EDP group in 2019), as well as monitoring security incidents and potential situations involving personal data breaches, with 10 cases having been reported to the respective control authorities in 2019.

EDP Brasil is also in the process of adapting to the new requirements of the General Data Protection Law published in 2018, with entry into force scheduled for August 2020. As such, a project was started in 2019 to adapt to the requirements of the General Data Protection Law in order to obtain a thorough diagnosis and ensure that EDP's processes, tools and policies meet the requirements of the law.

### Customer complaints related to personal data protection in 2019



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

The EDP Group's actions are guided by high ethical standards, business integrity, awareness and social responsibility and also by strict compliance with applicable laws and regulations. The widespread respect for these values is a daily commitment and is extremely important for the EDP Group's positioning and culture. Based on this commitment and complementing the existing policies and procedures regarding integrity in different companies of the group (namely in EDP Spain and EDP Renováveis - models of prevention and control of criminal liability - and in EDP Brasil – a compliance programme to prevent corruption), an integrity compliance programme has been systematized, based on the EDP Group's Integrity Policy, applicable across all business units, in which the commitments, general principles of action and the duties of the companies of the Group, its employees and business partners, with regard to the prevention of illegal acts, corruption practices, money laundering and terrorist financing have been defined.

There is also a set of complementary procedures – Supplier Code of Conduct, Code of conduct for Senior Management and Senior Financial Officers, Regulation on conflicts of interest and business between EDP related parties, Social investment policy, among others – which address risks specific to integrity. In 2019, this programme was reinforced with the definition, in Portugal and Spain, of a Due Diligence integrity (DDI) methodology for third parties, similar to those already existing in other Company geographical areas which, following a risk-based approach, will apply to suppliers, business partners/counterparts, beneficiaries of sponsors/donations, employees and other third parties. Furthermore, as part of the compliance programme to prevent money laundering and the fight against the financing of terrorism, an action plan has been defined for the implementation of different initiatives, namely that a person responsible for regulatory compliance has been appointed and initial training actions have been carried out in companies impacted by these legal requirements (67% participation rate).

## RESPONSIBLE POLITICAL INVOLVEMENT

EDP's interests are represented through participation in the main European or international Sectoral or Industrial Associations, direct or indirect intervention by employees appointed/designated for this purpose, and also, with regard to the EDP Group's activity in the USA, through its subsidiary EDP Renováveis, the awareness of people and specialized institutions.

This representation is regulated by the EDP Group's Code of Ethics, which ensures that none of the Group's companies makes monetary or in-kind contributions to political parties. The Code ensures that employees are committed to “refusing to receive and not making offers that could be considered an attempt to influence, to obtain an illegitimate advantage” and “not making, on behalf of the company, monetary or other contributions to political parties”.

Ensuring the integrity of the EDP Group's relationships, there are also mechanisms to ensure full transparency through the public register of employees and interactions with European public bodies. An example of this is the transparency register in the European Union.

The other instruments assuring integrity are the publication of EDP's holdings in various organizations on the EDP website, as a way of showing its commitment to sustainability, and reporting of the activity of representing interests to international and independent organizations such as SAM and S&P Global or Sustainalytics.

For the year 2019, the costs related to the activity carried out in this regard were 4.6 million Euros, of note being the issues of decarbonization of the economy, electric mobility, energy efficiency and security of supply. This work, developed mainly through the main national associations in the energy sector, EURELECTRIC, WBCSD and TDA - Transport Decarbonization Alliance, had its main focus on the European Green Deal, the flagship project of the new European Commission for the sustainable development of Europe in the next decade and Member States' National Energy and Climate Plans.

The organizations which in 2019 received the most significant contributions were:

NAME	TYPE	CONTRIBUTION AMOUNT IN 2019 (€)
UNESA (Spanish Electricity Industry Association)	Commercial Association	681,850
American Wind Energy Association	Commercial Association	290,234
Elecpor	Commercial Association	240,000
Instituto Abradee	Commercial Association	233,455
Instituto Acende Brasil	Commercial Association	228,147

## FAIR COMPETITION PRACTICES

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.

In April 2017, in order not to compromise the compliance of the companies of the EDP Group, in Portugal, with the legal requirements in terms of Competition, the Specific Compliance Programme - Legal Obligations for Competition ("PEC") was approved. In overall terms, the objective of the aforementioned programme is to guarantee conformity of the contracts signed by EDP with the Competition rules, as well as to guarantee that EDP employees continue to act according to the highest standards of ethics, integrity and competitive Compliance, thereby contributing to the sustainability and development of the markets in which EDP operates.

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 implemented.

The aforementioned programme (PEC) is already in its implementation phase in the EDP Group companies located in Portugal, and comprises, namely, of the following elements/documents:

- Definition of the EDP Group's Governance Model, aiming to establish the relationship model, the roles and responsibilities of the various actors that act within the scope of the PEC, with a view to complying with Competition legislation;
- Establishment of the EDP Group's Competition Manual, which is mandatory for employees, which contains the rules of conduct that they must follow within the scope of the PEC, in order to promote strict compliance with the Competition legislation;
- Online training programs to make EDP Group employees aware of the basic concepts of Competition; the main rules of conduct to be observed; the impact of non-compliance with the Competition rules, as well as the correct action to be followed in the event of unannounced inspections by the Competition authorities;
- Creation of an email address ([concorrencia@edp.com](mailto:concorrencia@edp.com)) for employees to communicate any doubts or confidential reports of breaches of the Competition rules;
- Establishment of a set of Compliance controls with the Competition rules, which must be implemented and monitored by the respective responsible parties;
- Establishment of a set of rules to guarantee compliance and promote compliance with the different contracts and statutes which concern EDP with the Competition rules;
- Preparation of a document with the guidelines to be followed in terms of Competition for the new contract specifications;
- Review of a set of manuals, policies and internal procedures related to the EDP Group's activity, rigorously in terms of wholesale/retail offers and access to networks, in order to ensure that the principles to be followed in terms of Competition are reflected; and
- Drawing up of the procedure to safeguard compliance with the Competition rules applicable to the merger of companies.



Additional information available in the EDP 2019 Report and Accounts - Notes to the Consolidated and Separate Financial Statements – note 35: Provisions).

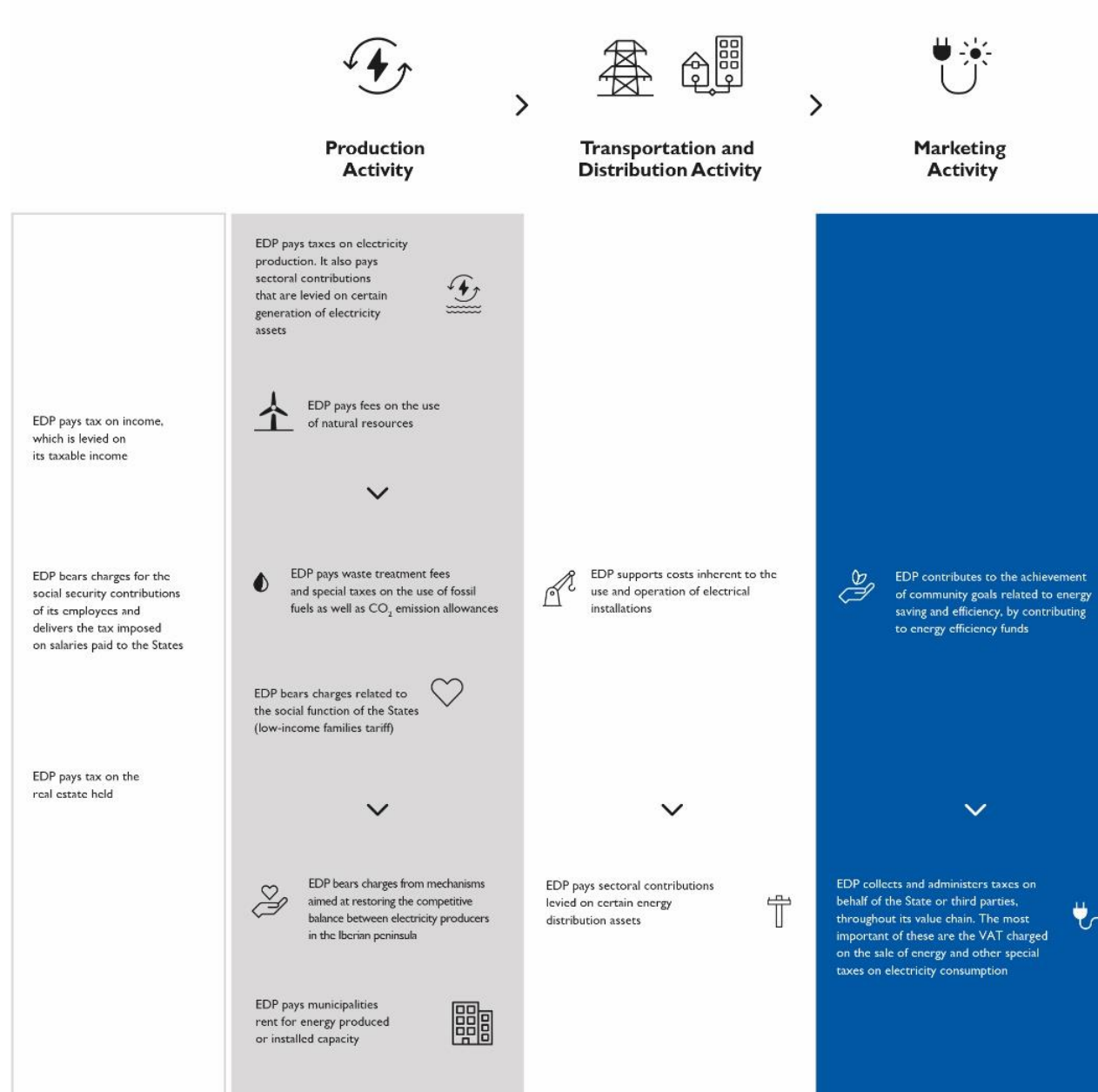
### 3.2.3. COMMUNICATION AND TRANSPARENCY

#### FISCAL TRANSPARENCY

##### EDP GROUP TAX FOOTPRINT

EDP is a utility present in 17 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.

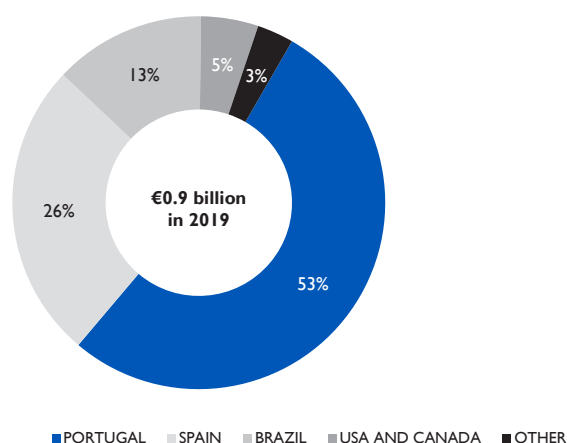
The mission and fiscal policy applicable to all EDP Group companies was approved by the Group's Executive Board of Directors and is made available at [www.edp.com](http://www.edp.com), being mentioned in the EDP Group's Annual Report.

## FISCAL CONTRIBUTION

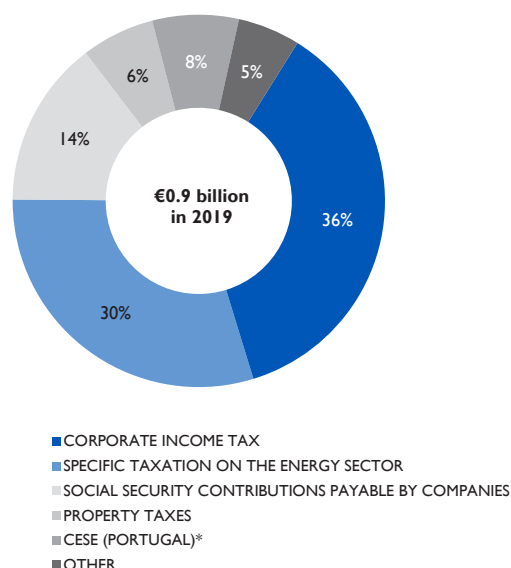
### EDP GROUP'S GLOBAL CONTRIBUTION

In 2019, the EDP Group's global tax contribution to the public revenues of the countries where it is present amounted to approximately 3.0 billion Euros, of which 0.9 billion Euros correspond to taxes and contributions borne (paid) by the EDP Group and 2.1 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**

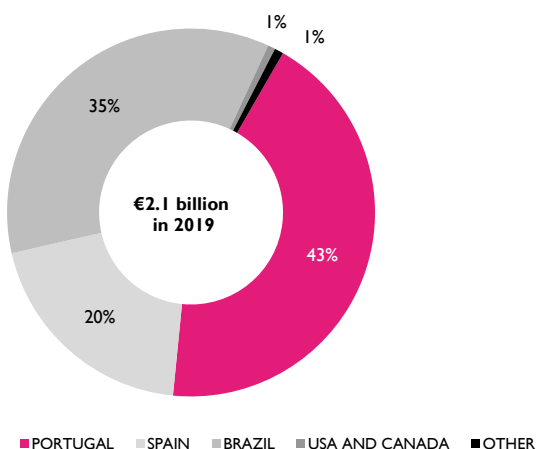


**Taxes borne (paid) by the EDP Group, by type of contribution**

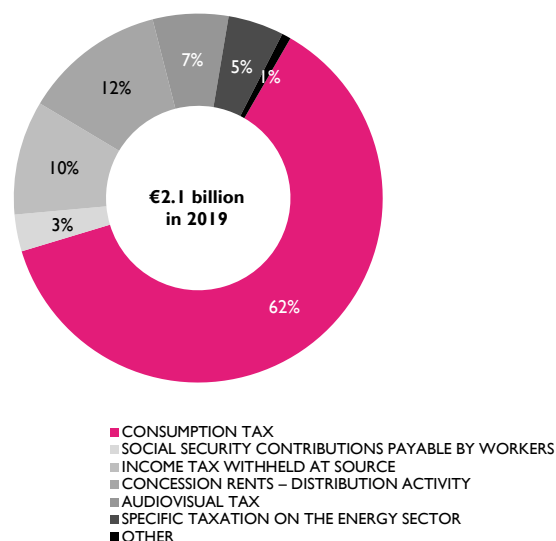


(\*) Due to a delay in the internal processing of the payment of this tax, part of 2019 CESE was settled on 2 January 2020. For the purposes of this document, considering the imminent proximity of the payment made with the period under analysis and for increased comparability and relevance, the total financial outflow is being attributed to the year of the taxable event. This amount will not be included in the amount of CESE to be paid in 2020, to be presented in the Fiscal Transparency note of that year's Sustainability Report.

**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 53% of the total taxes.

On the other hand, considering the taxes incurred by the EDP Group, the most relevant (38%) concerns to specific taxation on the energy sector (including the Extraordinary Contribution to the Energy Sector - CESE -, in Portugal), followed by corporate income taxes (36%). It should be noted that, as regards corporate income taxes, the nominal tax rates in the main countries in which EDP operates range between 16% in Romania and 34.43% in France, adding to the nominal rate, for companies located in Portugal, the municipal and state surtaxes.

In Portugal, the taxes incurred (paid) in 2019 amounted to 483 million Euros, underlining the weight of the specific taxation on the energy sector (see next Section), of which 68 million Euros refers to the CESE, 12 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 104 million Euros of social tariff. In addition, EDP Group companies incurred (paid) 81 million Euros of social security contributions, 181 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 2.1 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.



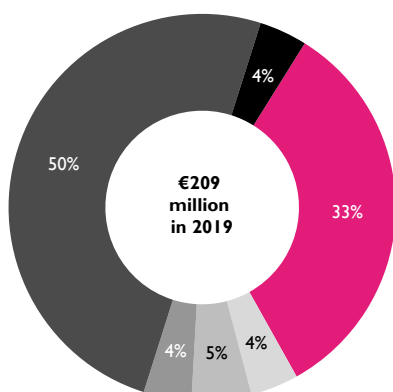


The energy sector has been particularly penalized by extraordinary fiscal measures, of a temporary nature, introduced in a context of economic austerity, which must be reversed. Taxation of electricity and other energy related products should generally be reduced, to encourage the transition to decarbonisation.

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.

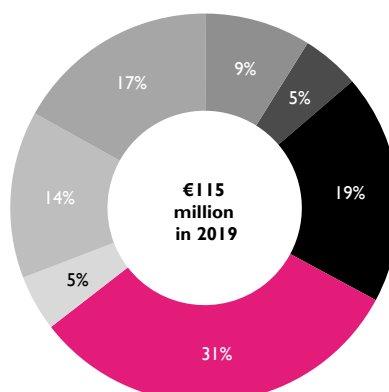
Considering the countries in which the EDP Group operates, Portugal and Spain have the highest level of taxation, both in terms of the number of the existing taxes and in the amounts collected, adding up to a total charge of 324 million Euros in 2019, detailed as follows.

**Specific taxes and contributions on the energy sector borne (paid) by the EDP Group, in Portugal, in 2019**



- CESE
- WIND ENERGY – RENTS PAID TO MUNICIPALITIES
- CLAWBACK
- RENTS OF ENERGY POWER PLANTS
- SOCIAL TARIFF – ELECTRICITY
- OTHER

**Specific taxes and contributions on the energy sector borne (paid) by the EDP Group, in Spain, in 2019**



- CONTRIBUTION TO ENERGY EFFICIENCY FUNDS (FONDO NACIONAL DE EFICIENCIA ENERGÉTICA)
- TAX ON THE USE OF HYDROCARBONS
- TAX ON ELECTRICITY GENERATION (IMPUESTO SOBRE EL VALOR DE LA PRODUCCIÓN DE LA ENERGÍA ELÉCTRICA)
- TAX ON WIND FARMS (CANON EÓLICO)
- SPECIAL TAXES ON FUELS (COAL)
- TAXES ON THE OCCUPATION OF PUBLIC DOMAIN
- OTHER

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, from October 1, 2018 to March 31, 2019.

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.

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.

Concerning CESE, the EDP Group paid this contribution from 2014 to 2019, in the total amount of 388.2 million Euros, having challenged the legality and constitutionality of this measure.

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 consists 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. In 2019, this tax was suspended, following Order no. 895/2019 of the Office of the Secretary of State for Energy, in the period corresponding to the suspension of the tax incidence measures in Spain mentioned above.
- 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).



- Loss of CESE exemption for renewable energy powerplants benefiting from guaranteed remuneration, in contradiction with the global goals assumed by several States regarding energy transition and fighting climate change.

## 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 to the last reporting to the period for 2018).

## 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

The opening of energy markets to competition from new, non-traditional operators, along with the diversification of commercial offers, oriented towards energy services, energy efficiency and decarbonization, in a context of profound transformation of consumer behaviour, has been posing new communication challenges to companies operating in the energy sector.

In this new context, the active, differentiated consumer has emerged, interested in the major themes of energy transformation, digitally empowered, seeking to make the best choices in terms of the quality-price ratio, compared to the more traditional consumer, essentially focused on the price of energy. In this new context, intense diversified energy marketing communication has emerged, accompanied by the growing interest of the media in the themes of energy transition and, at the same time, the focus of the political agenda, especially in Portugal, on the themes of energy prices has been accentuated. Within this context, Transparency in Communication has asserted itself as an increasingly important and decisive issue for the reputation of energy companies, both from the perspective of brand communication and from the perspective of commercial communication.

The EDP Group has pursued a brand and commercial communication policy that guarantees the rights of customers and the fulfilment of the duties of companies regarding the supply of electricity and gas as stipulated by legislation or the national regulations of the regulatory authorities for energy services.

Voluntarily, EDP has also subscribed to the APAN (Portuguese Advertisers Association) Letter of Commitment concerning responsible marketing communication ([www.apan.pt](http://www.apan.pt)), subscribed to the APPM Code of Conduct for Marketing Professionals (Portuguese Association of Marketing Professionals) ([www.appm.pt](http://www.appm.pt)) and the "Code of Conduct for the Organizational Communication and Public Relations Manager" of APCE (Portuguese Association of Business Communication), a benchmark for best practices and ethical behaviour. EDP also supports Auto Regulação Publicitária (Self-Regulation Advertising) (national entity responsible for the self-regulation advertising system), committing itself to promoting ethical and responsible advertising.

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, available at [www.edp.com](http://www.edp.com).

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.

### 3.2.4. CRISIS MANAGEMENT

Crisis management is assumed by the Company as a strategic capacity that allows it to respond, in a supported and sustainable way, to abnormal and unstable situations, with a potential negative impact on its strategic objectives, viability and/or reputation.

As such, EDP has been developing this capacity internally, both at a strategic and operational level, adopting practices and plans aligned with internationally recognized benchmarks, in particular with BS 11200:2014 and ISO 22 301:2019 standards, establishing a cross-cutting approach to Crisis and Business Continuity Management, reflected in the internal communication document of the Executive Board of



Directors (OS I/2018/CAE), taking advantage of the Company's risk management governance structure. Of these, the development of strategic and operational plans stands out considering the critical nature of responding to situations with a high level of uncertainty, which require urgent attention and action to protect life, the environment, assets and the reputation of the EDP Group, advancing in a task of harmonising Crisis Management, in an interdisciplinary manner.

Aware that crisis and potential crisis situations typically arise from the simultaneous and/or sequential materialization of different risk factors, which translate into significant tangible and intangible negative impacts, EDP has adopted a comprehensive methodology supported by best international practices for corporate risk management in strategic, business, financial and operational areas. It is considered that, regardless of its nature and origin (internal or external), the timely identification and mitigation of weaknesses allows for reducing the probability of enhancing incidents of an appreciable dimension, leading to disruptions, including extreme events.

In order to fully detect and act on these risks, EDP relies on a robust set of controls involving protective measures at the human, procedural and technological level, which it has been developing and improving, complemented by operational level recovery plans, as is the case with Business Continuity Plans for priority processes/services. These have enabled an increase in EDP's ability to continue to provide its services at acceptable levels in the event of incidents, emergencies and disasters, in compliance with its assumed objectives. In order to ensure their effectiveness and suitability, the plans are subject to periodic exercises and simulations, either internally or in cooperation with external entities important to the EDP value chain.

EDP's commitment to the safety of people, data and assets, and to Business continuity management was recognized, having been awarded, among others, certifications within the OSHAS 18001 frameworks (extended scope, corporate coordination and local implementation) ISO 45001, ISO 27001 (EDP Distribuição and Digital Global Unit), and ISO 22301 (EDP Distribuição).

It is also important to highlight the role assumed by EDP in the protection of Critical Infrastructures under its responsibility, both in Spain and in Portugal, following the provisions of Council Directive 2008/114/EC of 8 December 2008, regarding the identification and designation of European critical infrastructures and the assessment of the need to improve their protection.

## CRITICAL INFRASTRUCTURES

Directive 2008/114/EC defines "critical infrastructure" as "an asset, system or part thereof located in Member States which is essential for the maintenance of vital societal functions, health, safety, security, economic or social well-being of people, and the disruption or destruction of which would have a significant impact in a Member State as a result of the failure to maintain those functions".

The Company is responsible, in Spain and Portugal, for a set of critical infrastructures, which include electricity generation and distribution infrastructures (physical and control facilities), as well as related customer service activities, which were identified in the transposition of Directive 2008/114/EC into Spanish and Portuguese legislation.

Due to the diversity of critical infrastructures under its responsibility, EDP has proactively adopted strategies to respond to risks of different natures, such as physical risks (e.g. fires, earthquakes, atmospheric events, including extreme events) and technological risks (including, but not limited to, cybersecurity risks for operating and information systems).

In addition, the measures and tools adopted to mitigate these risks are diversified and of a different nature, adjusted to the specificities of its infrastructures, necessarily including physical security (safety and security aspects), technological security and cybersecurity, as well as business continuity management, leveraged by a strong component of training and exercises. For each of the critical infrastructures, EDP has developed the respective operator's safety plan, supported by the conclusions from the risk analysis undertaken on them and the set of measures implemented, in line with those laid down in Directive 2008/114/EC.

Additionally, it is important to mention the role assumed by EDP in promoting the adoption of best management practices for critical infrastructures in the sector, through their dissemination, but also through cooperation with external entities, participating in exercises and workshops related to the topic.

Furthermore in this context, and following the approval of the Sendai Framework for Disaster Risk Reduction 2015-2030, EDP has participated, in Portugal, in the National Platform for Disaster Risk Reduction (PNRRC), with responsibility for a Subcommittee coordinated by the National Authority for Emergency and Civil Protection (ANEPC), with special emphasis on its participation in the

development of the “Best practices for Critical Infrastructure Resilience - Private Sector and State Business Sector” Manual, available at the website of the PNRRC.

## II INFORMATION SECURITY

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 EDP Group's Information Security Policy, approved by the Executive Board of Directors, establishes information security as a competitive factor, generating 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 customers and employees.

The governance of information security in the EDP Group involves the existence of the Information Technology Committee, which operates on a quarterly basis. Members of the management of the various business units, the Chief Information Security Officer (CISO) of the Company and a member of the Executive Board of Directors, who chairs it, take part in this committee. This committee's duties include the mission to discuss and issue opinions on guidelines for the strategic planning of information security, also taking on the responsibility of assessing the cybersecurity risks of the Company, thereby monitoring scenarios involving serious incidents in the energy sector and the organization's cybersecurity risk profile. The member of the Executive Board of Directors responsible for information security receives a monthly activity report and indicators from the organization's CISO and the entire Executive Board of Directors receives the same information on a quarterly basis. The EDP Group's cybersecurity risk is presented annually to members of the General and Supervisory Board.

In order to realize the strategic vision for information security, the EDP Group has established a Security Master Plan, approved in the Executive Board of Directors for the 2018-2020 three-year period, based on the E2E (End to End) Security principle. This guiding principle implies a holistic approach throughout the organization, avoiding silo perspectives, but it also provides for the incorporation of security from the construction of services and applications, to the activities performed by service providers, within a Security by Design logic. 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, in 2019 the EDP Group obtained ISO 27001 certification, in its Security Operation Centre management decision and operation process, which includes real-time monitoring services (24x7), incident management and security vulnerabilities.

In addition, the global cybersecurity incident response team, CSIRT – Computer Security Incident Response Team – EDP, participates in national and international cybersecurity exercises, where it has the possibility to test its ability 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 raising awareness and training for all its employees. In this regard, the training in the defence of critical infrastructures carried out at CyberRange EDP has been of note (the only infrastructure in Portugal for training in cybersecurity) which, in coordination with the EDP University, in 2019 held 30 training sessions involving 217 participants.

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. As such, the EDP Group includes national and international working and study groups (such as CERT.PT, the World Economic Forum and the International Energy Agency) as well as European projects with other European counterparts, as well as academic and governmental organizations.

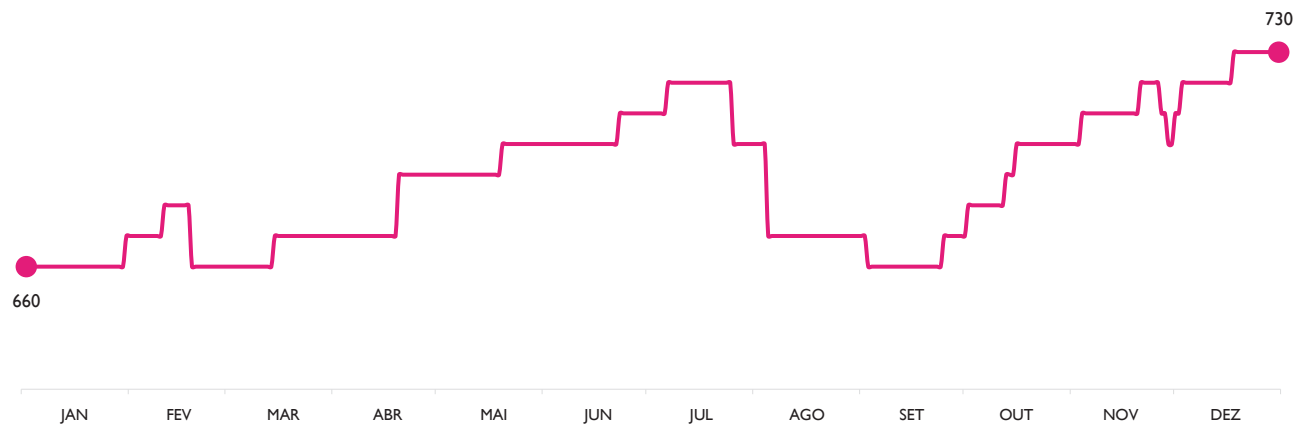
Within the set of cyber security management measures, it is also worth mentioning the contracting of cyber risk insurance.

EDP has adopted as a main indicator for security risk communication with its stakeholders 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 700 as its target for 2019 and achieved this goal.

Bitsight security rating (2019)





# Our Way



## VEGA PROJECT – VEGETATION MANAGEMENT

The reputation of a company is considered by all to be one of the main intangible assets of a company and represents financial value. The VEGA –Vegetation Management project emerged in an unfavourable context, since in 2017 and 2018 there were fires that devastated not only our country but the areas of other countries such as California (U.S.A.), where responsibilities were attributed to the electric companies. From this context, it was imperative to demonstrate that EDP Distribuição has always focused on implementing best practices, as well as being proactive in seeking innovation in vegetation management.

The conception was interdisciplinary, involving internal areas such as network planning, including network management, operational structures in the field and communication. In addition, other companies of the group were also involved, such as EDP Inovação and EDP Labelec, with space for the involvement of the university community. This demonstrates its ability to combine efforts to do even better in this area.



The VEGA project had its first test during the critical fire season of 2019: the commitment of everyone to mobilise conferences, in weekly meetings with Civil Protection, in dispatch centres to monitor the grid, on the ground to solve vegetation interfering with the electricity network and in communication with the different entities, which allowed EDP Distribuição to establish itself as a responsible and capable entity in the management of vegetation. Above all, as a partner for society in finding solutions in this area.

Within the scope of this, the VEGA project developed five lines of action: Benchmarking & ID, Network and vegetation planning, Network and vegetation maintenance, Network Control and External Relations. The communication line served as a link between them. In total, more than 26 initiatives were implemented in 2019, with some examples being:

- Availability of the “proximity to vegetation” module on the EDP Distribuição app;
- Development of the VEGAnalytics tool to control vegetation around the High Voltage and Medium Voltage overhead network;
- Development of backoffice and app to survey the condition of the vegetation around the Low Voltage overhead network;
- Development of a mobility tool to collect the before and after interventions, as part of the information network of ANEPC - National Emergency and Civil Protection Authority, IDL - Instituto Dom Luiz and IPMA - Portuguese Institute for the Sea and the Atmosphere;
- Fire monitoring regime and protection parameterization structure defined in POAC-RD - Crisis Action Operational Plan;
- Promotion of a workshop with support from EEL - Edison Electric Institute, with counterparts from the USA and Europe;
- Supporting a webinar on best practices with support from the EEL;
- Partnership with ISA - Instituto Superior de Agronomia for research, which led to the technical report “Fuel management associated with the electricity network: functions, limitations and possibilities”;
- Presence of 125 people at the Vegetation Management conference, with representation from the main stakeholders;

- Organization of 162 district meetings of CODIS – District Command of Relief Operations, GNR - National Republican Guard, ICNF - Institute for Nature and Forest Conservation, AGIF - Agency for Integrated Management of Rural Fires and Firefighters;
- Setting up of 16 internal meetings on the status of the development of projects and initiatives.

EDP Distribuição mobilised innovation and scientific research with pilot projects taking place on several fronts such as the use of drones and satellite images to be able to go more deeply into the management of vegetation. In terms of scientific research, it has established partnerships, both in cooperative laboratories, CoLab ForestWISE, and with the university community, an example of which is the renewal of the partnership with ISA to study alternatives to linear forest defence structures.

### 3.2.5. ENVIRONMENTAL PROTECTION

EDP's Environmental Policy includes a set of general commitments to protect the environment, to which it adds specific commitments, in the environmental domains which it considers most important within its strategy area:

CLIMATE	USE OF NATURAL RESOURCES	BIODIVERSITY
<p>Contributing to decarbonization by gradually providing low-carbon energy solutions, in particular through:</p> <ul style="list-style-type: none"> <li>Increasing the renewable energy portfolio;</li> <li>Promoting internal energy efficiency, with suppliers and in the final consumption.</li> </ul> <p>See page 98.</p>	<p>Promoting efficient use of natural resources in its activities, within the framework of a circular economy, in particular:</p> <ul style="list-style-type: none"> <li>In the use and sustainable management of water in all processes, operations and facilities;</li> <li>In considering environmental aspects throughout the life cycle of products and services.</li> </ul> <p>Additional information below.</p>	<p>Contributing to avoiding or reducing biodiversity loss, favouring dynamic, comprehensive, locally-owned management, long-term thinking and aiming for an overall positive balance.</p> <p>Contributing to the deepening of scientific knowledge on the different aspects of biodiversity, including through the establishment of partnerships. See page 148.</p>

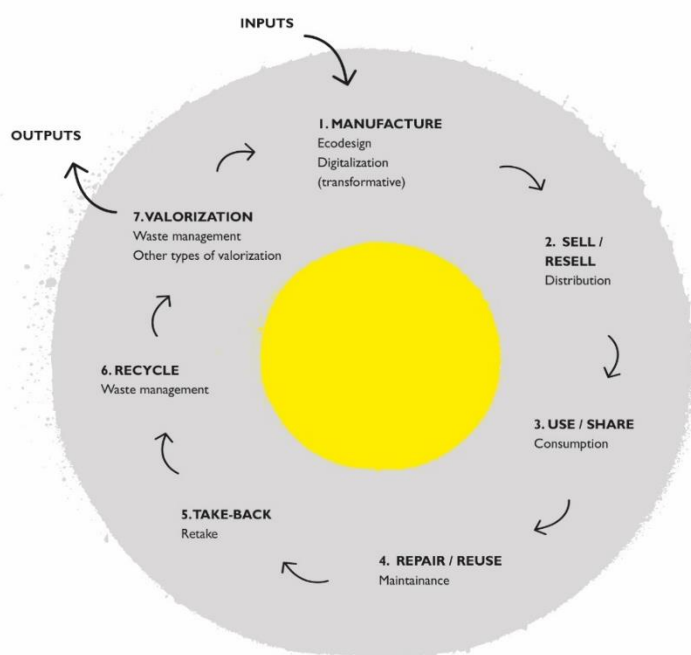
Based on this Policy, since 2008, the EDP Group has maintained a corporate environmental management system certified by ISO 14001:2015, within the scope of "corporate management of the EDP Group's policies, commitments made and environmental performance throughout the world". By 2020, EDP has established the objective of obtaining 100% ISO 14001:2015 environmental certification of the Group's activities with significant environmental aspects. In 2019 96% of these activities were certified.

Information on the adoption of a responsible environmental policy in the supply chain can be found on page 173.

Due to the characteristics of the business, the environmental dimension associated with climate change goes beyond mere environmental management, so this will be dealt with in a separate chapter (page 98).

### A TRANSITION TO A CIRCULAR ECONOMY

An efficient management of natural resources is nowadays a micro focus of a larger problem which requires a change in the economic model by which we live. The circular economy has arisen through focusing on a general reduction in consumption of natural resources and also represents an opportunity to develop new net contributing businesses to reduce the consumption of resources of our customers. For EDP, the circular economy is a driver of its sustainability strategy, through adopting a global vision to be implemented in all its Business Units.



To make progress in internalising 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 raw materials for other industries, EDP has coal fly ash, gypsum and slag which accounted for 92% of total recovered waste materials. At the Sines Plant, the outflow for recovery of the bottom ash existing in the landfill was continued. During 2019, 29,673 tonnes were removed, representing a 2.4% reduction in the environmental liability of the landfill and a profit of 133 thousand Euros.

**96% OF ALL WASTE MATERIALS ARE RECOVERED**

**60% ARE BY-PRODUCTS**

**25% ARE RECYCLED**

**THE REST ARE SENT FOR ELECTRICITY GENERATION**

As regards the activities of construction, operation and maintenance of facilities, reuse is favoured and at the time of disposal, there is always the intention of the first solution being to send it for recycling. Agreements were established with licensed operators who forward waste to the preferred recovery destination. Efficient waste management goes beyond the suitable disposal of waste and its incorporation into the economic circuit, by promoting its reintegration whenever possible. This management starts upstream, in the design and in the choice of materials necessary for the suitable functioning of operations.

The distribution networks have been promoting the replacement of mineral oils with vegetable oils, with a low level of toxicity and better biodegradability, with satisfactory results in mitigating their environmental impact: Furthermore, in order to minimize the residual leakage, or that occurring through malfunctions, of sulphur hexafluoride gas (SF<sub>6</sub>), preference is given to the selection of equipment that does not contain this gas.

In the management of transformers with Polychlorinated Biphenyls (PCBs), in addition to complying with applicable laws, it uses the best methods for identification, screening and appropriate final treatment of PCB waste. In Portugal and Spain, PCB concentrations in contaminated equipment are below 50 ppm and the deadline for their elimination as specified in legislation and in the plans of the respective companies is 2025. At EDP Brasil, in the state of Espírito Santo, the maximum concentrations of PCBs are in the order of 67.5 ppm, with their total elimination expected in 2028.

At EDP Renováveis, in 2019, due to the re-powering of a wind farm in Spain (Zas), 80 turbines were dismantled, of which 22 were sold and the rest delivered to an authorized dealer for their recovery. In addition, 30 blades, 30 powertrains and many other components were kept for future use in parks with the same technology.

In Spain, as part of the current legal framework, the company forms part of the Technical Committee for Standardization of the Circular Economy, of the Consultative Commission for the Circular Economy, which includes 40 Spanish entities from the public and private sectors. The objective is to define the requirements, hallmarks, guides and tools for the implementation of circular economy projects, in all activity sectors.

In commercial activity, in Portugal, it has been included as a contractual requirement for suppliers, with the contracting companies obliged to be able to demonstrate that in their activities they pay attention to the reduction of the possible adverse environmental impacts of their products and services throughout their life cycle, considering factors such as energy consumption, use of materials and end-of-life handling. At the same time, in 2019, a life-cycle analysis was developed for Smart House Technical Services, which can be controlled or influenced by the organization.

## **SINGLE-USE PLASTICS**

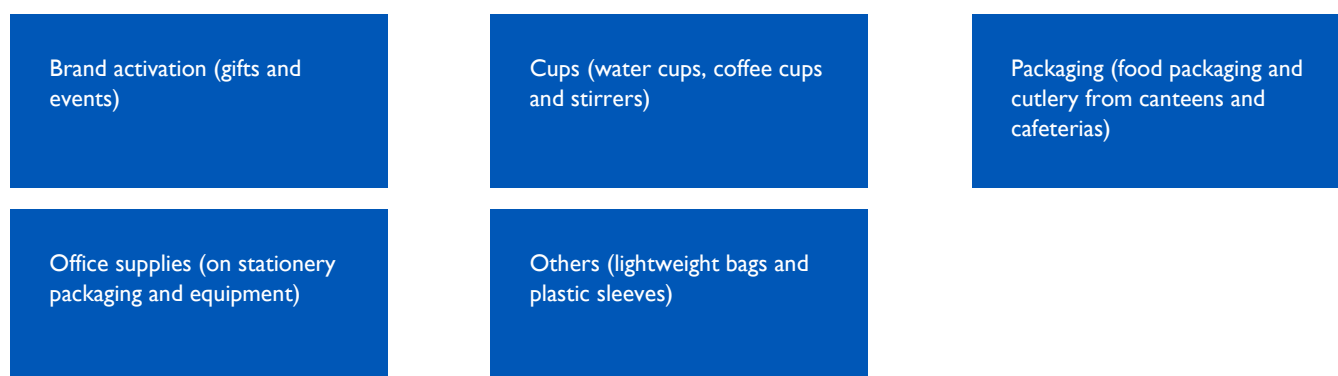
The use of plastic products at EDP is mostly industrial. In 2019, EDP produced about 523 thousand tonnes of waste materials, of which only 0.02% is plastic waste, noting that, in the EDP Group, 100% of plastic industrial waste (excluding Urban Solid Waste) is recovered. However, there are still improvements which can be implemented in terms of the urban waste used in the Group.

In this context, the company has committed itself to eliminating 100% of single-use plastics in all the EDP Group, by 2022.

To ensure the implementation of this objective, EDP's approach focuses on:

- Reduction in consumption;
- The search for alternatives giving priority to reusable solutions;
- Reinforcing selective collection and, finally,
- Increasing employee awareness.

Five clusters of single uses of plastic were identified across the EDP Group, with an internal plan for their elimination/replacement having been designed for 2020.



One of the most significant examples of the consumption of Single-Use Plastic products in the Group are the plastic cups used in EDP buildings. In order to resolve this issue, reusable bottles were recently delivered to employees, which led to a 59% reduction in the consumption of disposable materials. This measure will be scaled up for the entire Group in Portugal in early 2020.

## WATER MANAGEMENT

Under its Environment Policy, EDP is committed 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.

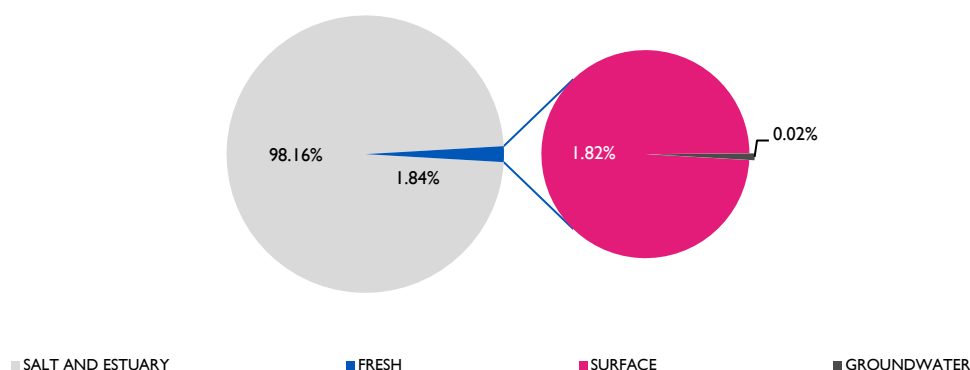
Unlike other activities of the organization, the use of water in hydroelectric generation is not considered consumption. However, EDP monitors the volume of water managed in these assets, which reached 157 million cubic meters, -24% compared to 2018. This indicator strongly depends on the hydroelectric productivity index which in Portugal, where the water portfolio is more important, was 0.81 (against 1.05 in 2018), 19% below the average hydrological year.

Specific consumption of fresh water did not change significantly in 2019 (-1% compared to 2018). The reduction in coal-fired electricity generation and measures to reduce water consumption in Pecém offset the increase in electricity generation from natural gas.

Since mid-2017, part of the effluents from Pecém have been reused in the refrigeration circuit, as a measure to reduce water consumption at the facility. In 2019, 31.5% of the effluents produced at the plant were reused, reducing water consumption by more than 21 thousand cubic meters per month.



## Water collected by source (%)



NOTE: DOES NOT INCLUDE HYDROELECTRIC GENERATION

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 undertakes mitigation activities such as the release of environmental flows, the transfer and transport of fish, and support for scientific research on these topics (additional information below).

The thermoelectric power plants in Pecém, Brazil, and Castejón in Spain, are located in areas of water stress. EDP uses the Aqueduct from the World Resources Institute for an assessment of its 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.

Since 2010, 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](http://www.edp.com).

## PROTECTION OF BIODIVERSITY

In addition to the specific commitments assumed in EDP's Environmental Policy, which aim to mitigate impact with overall gains for biodiversity and to deepen scientific knowledge, EDP has committed itself to "not building new generation facilities in areas that form part of the Natural Sites within the UNESCO World Heritage List", to ensure that it continues not to have a presence in these territories, and also establishes 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. Additional information at [www.edp.com](http://www.edp.com).

Thus, within the scope of these two specific commitments for biodiversity, by 2019, the following actions developed by EDP stand out:

### AVOID OR REDUCE LOSS OF BIODIVERSITY

#### ECOLOGICAL FLOWS

In Portugal, the most recent dams were initially designed and built with ecological flow release devices (EFRD). However, for the older ones, a phased plan for implementing the Ecological Flow Regime (EFR) was defined, jointly with the National Authority (APA). In 2019, the construction works for the EFRD were continued as planned and the 18 monitoring programmes for the assessment of the effectiveness of ecological flows were carried out.

In Spain, the guarantee of ecological flows established by law is a significant aspect in the operation & maintenance phase of hydroelectric plants. In 2019, the adaptation actions foreseen in the 2015-2021 Hydrological Plan for the Hydrographic Demarcation of Western Cantabria were continued, reaching 100% execution.

## BIRD PROTECTION

In Portugal, EDP Distribuição:

- started carrying out the actions provided for in the Avifauna VIII Protocol, where 32.7km of distribution lines were corrected in areas of conservation interest. Since the beginning of the Avifauna Protocols (in 2003), 680 km of critical distribution lines have been corrected;
- participated as a partner in the ongoing work of the Life Rupis project ([www.rupis.pt](http://www.rupis.pt));
- collaborated with EDP Produção regarding AHFT compensatory measures. Together with the national authority (ICNF), they have assessed the most advantageous technological solutions minimizing impact for the protection of avifauna to be applied to the MV networks in question in terms of cost/effectiveness;
- continued to collaborate on the Life Lines Project, particularly to correct an existing line with an “eco crossing”, in order to reduce the impact by reducing the number of collision scenarios to just one.

In Spain, due to Royal Decree 1432/2008, of the two Autonomous Communities (Aragon and Asturias), where EDP Spain carries out its distribution activity, only that of Aragon has published the Bird Protection Zones for its territory, although without the respective inventory of the affected lines. As such, in 2019, EDP Spain developed a standard project for the implementation of the adaptation works of the critical lines that may be identified by the respective inventories, which are awaiting publication.

## IN LARGE PROJECTS

In Portugal, in terms of compensatory measures resulting from the impact of the recently built hydroelectric plants, EDP Produção continued the work planned for Foz Tua and in the other areas carried out maintenance actions for the compensatory measures already implemented. Of note is the planting of another 4,000 junipers (*Juniperus oxycedrus*) in the compensation areas of the Priority Habitats. Between 2012 and 2019, EDP Produção already planted a total of 430,000 trees and shrubs of native species in the habitats surrounding the dams, distributed over 18 centres covering 19 municipalities.

The Fire Risk Reduction Plans implemented in Baixo Sabor and Foz Tua have been shown to protect the priority habitats, through excellent case studies. There were reductions in the burnt area of priority habitats in the order of 86% in Baixo Sabor and 80% in Foz Tua. These two Plans involve local partnerships and manage around 1,100 plots of private land that protect a total area of approximately 100 km<sup>2</sup>.



In Brazil, one of the main challenges that EDP faces in managing biodiversity impact is related to the construction of transmission lines, which involves, for example, clearing strips of land for the line and opening accesses. In total, 102 km of strips for lines were cleared, while of note in the impact mitigation action is the enrichment of vegetation with native tree-shrub species, in an area of 26 hectares. Follow-up actions were also carried out to monitor fauna and flora in reservoirs and the surrounding area and in the easement strips for the distribution network and electricity transmission networks in rural areas.

Within the scope of the Forestry Rehabilitation Programme of the São Manoel HPP, it is worth mentioning, for example, the reforestation programme of approximately 1,175 ha, of which 467.12 ha have already been carried out.

## DEEPEN SCIENTIFIC KNOWLEDGE

In each of the research pillars of the new EDP Chair in Biodiversity 2018-2021 ([www.edp.com](http://www.edp.com)), the following page list the actions carried out in 2019.





- Environmental genomics - molecular testing techniques for the early detection of zebra mussels (*Dreissena polymorpha*) and fish species through environmental DNA took place, contributing to increase the cost-efficiency of monitoring systems for invasive species in reservoirs. Non-destructive techniques for DNA extraction in samples of aquatic macroinvertebrates have also been developed, with major applications in the ecological monitoring of water courses;
- Mitigation of impacts from hydroelectric plants – identification ecological refuges for amphibians and Pyrenean desmans (*Galemys pyrenaicus*) were identified in situations involving invasion by river crayfish, which will enable the development of more cost-efficient approaches to mitigate the impacts of hydroelectric plants. An initiative was also developed to publish biodiversity data on the GBIF platform ([www.gbif.org](http://www.gbif.org)), collected as part of the environmental impact assessments and monitoring of the Baixo Sabor and Foz Tua hydroelectric plants;
- Mitigation of the impacts of the electricity distribution grid - the bases were laid for a detailed quantification of the positive result of the correction measures for the supports of energy distribution lines implemented, in the population dynamics and viability of endangered species of birds. As such, the population of Bonelli's eagle (*Aquila fasciata*) from southern Portugal was selected as a case study, and the collection of necessary data to develop demographic models for this species started.

As part of the partnership between EDP Produção and the national branch of the Global Biodiversity Information Facility (GBIF), EDP, in 2019, published 21 more information datasets, to form a total of 33 datasets, with more than 306,000 records already published. EDP has therefore become the largest Portuguese contributor to this international database and is serving as an example to others as a model to follow in the involvement of private entities in the sharing of information and knowledge ([www.edp.com](http://www.edp.com)).

EDP Brasil is developing a biodiversity R&D project on “Environmental Recovery and Impact and Dependency Analysis for the Electric Sector”, with the main objective being that of developing an integrated methodology to measure and improve the impacts and dependencies of ecosystem services related to the activities of EDP Brasil. In 2019, actions were taken to identify the main stakeholders and the dynamics of use of ecosystem services by the business units.

## PREVENTION OF POLLUTION

Electricity supply and distribution activities are those that have the most significant direct environmental impact.

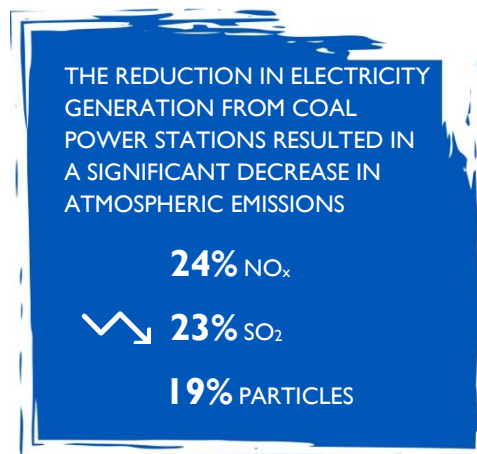
Thermoelectric power plants are covered by stringent environmental permits, which establish continuous monitoring, taking into account parameters and sensitivity to the environment in which they are integrated. The environmental impact of atmospheric emissions from coal-fired power stations is minimized through the use of electrostatic precipitators to capture particles, nitrogen oxide (NO<sub>x</sub>) reduction processes, such as catalytic denitrification or low NO<sub>x</sub> burners, and also desulphurisation processes (SO<sub>2</sub> minimization). All thermal power plants have physical/chemical wastewater treatment processes, ensuring that they are disposed of according to the limit values established for each parameter.

In the Distribution activity, the main impact minimization measures are the landscape integration of overhead lines, oil retention systems and noise barriers to mitigate noise.

There was an investment of 88 million Euros in improving technologies and initiatives to prevent and mitigate environmental impacts resulting from operations. The increase in the amount invested by about 28% compared to the previous year is essentially due to the investment in construction and licensing of the transmission lots in Brazil.

## EMERGENCY RESPONSE

In adopting a precautionary principle, and according to the results of the environmental risk assessments, facilities have emergency contingency plans for the different applicable hazard scenarios. Training and awareness-raising events on emergency response are held for



employees, service providers and others involved such as the local community (when applicable). The emergency response capability is regularly trained and tested through simulations. In the case of rupture of the hydric mechanisms, or flooding scenarios, the government entity coordinates the exercises, involving the local community and the results are fed into improvement initiatives to maintain the best emergency response practices (page 140).

EDP has procedures to identify and handle near-miss accidents with the aim of preventing negative impact by internally promoting learning. In 2019, 140 environmental near-miss accidents were recorded and the respective prevention measures were implemented, and there were no accidents relating to environmental damage.

### 3.2.6. PEOPLE MANAGEMENT

In 2019, a new People and Organization global unit was created in the EDP Group with the main objective of anticipating and responding to the impact that the transformation and global growth of the business has had in this area. In parallel, the People and Organization Strategic Plan was designed in line with the business plan (Strategic Update) presented to the market in March 2019, which followed up on the results obtained by the previous 2016-20 People Plan.

The new People and Organization model is leveraged through a tripartite structure. Firstly, the People Experience Unit focuses on the employee's experience, promoting efficiency and people management processes, and training the workforce for the digital utility. The Transformation & Talent Unit's priorities are cultural transformation, talent management and organizational agility. Finally, the EDP University's main objective is the development of employees for the digital utility context.

PEOPLE EXPERIENCE UNIT	TRANSFORMATION & TALENT UNIT	UNIVERSIDADE EDP
<ul style="list-style-type: none"> <li>• Increase the Employee Experience</li> <li>• Efficiency</li> <li>• Digital utility upskilling</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural transformation</li> <li>• Talent management</li> <li>• Organizational agility</li> </ul>	<ul style="list-style-type: none"> <li>• Digital utility upskilling</li> </ul>

The aforementioned People and Organization Strategic Plan aims to foster an increasingly flexible and global organization through the development and ongoing improvement of all employees, as well as their alignment with the company's values and culture, thus enhancing the creation of more favourable conditions for the contribution of EDP people to the success and sustainability of the business. The plan consists of five axes - enabled organization, leaders and talents prepared for change, HR digitalization, global and skilled workforce and experience of the reference employee.

The return on investment of the strategic initiatives defined under this plan is measured through three key instruments – the People Scorecard (specific indicators and metrics for the various stages of the employee's experience), the climate study and external recognition and assessments (such as EFR certification – Family Responsible Company and the Dow Jones Sustainability Index).

In 2020, the implementation of the initiatives foreseen in the People and Organization Strategic Plan will be continued, continuously assessing the impact of this activity in four aspects: at the operational and process level, at the level of the experience of EDP individuals, at the organizational level (through instruments such as the DJSI) and, finally, at the societal level, thereby clarifying how the wide-ranging activity of these areas impacts and contributes to the Sustainable Development Goals.

### ATTRACTIVENESS AND RECRUITMENT

In order to disclose the EDP Group's value proposition, as a global employer, the Employee Value Proposition project was continued, establishing a robust, credible and consistent value proposition with an impact on attractiveness, namely on employer branding, external communication, recruitment and selection.

As a result, the strategy to attract talent was reinforced, which was reflected in an increasingly diversified digital presence and in the development of initiatives and partnerships with external stakeholders, such as universities and "junior companies".



The continued commitment to the LinkedIn social network enabled us to leverage some of the employer branding initiatives that resulted in approximately 260,000 views of job openings, after visiting the EDP Group page, in another 130,000 direct page views with a 53% increase in new jobs followers, so EDP remains the Portuguese company with the most followers, having already exceeded 200,000. Overall, in 2019, LinkedIn influenced about 50% of recruitment.

Overall, in 2019, the company was present at 18 Employment Fairs at Universities, where it is estimated that around 18000 students were impacted. In order to guide young people on their academic and professional path, eight Open Days were held involving 161 students who visited EDP facilities in various geographical areas and established contact with employees from the most varied areas. Through workshops and seminars, 444 university students were also impacted.

In terms of partnerships, the longstanding relationship with CEMS - The Global Alliance in Management Education was deepened, challenging its students with innovative projects, one of which was considered one of the five best projects worldwide, and a seminar was carried out taught by the CEO of EDP Renováveis. The development of the partnership with the Innoenergy - Knowledge Innovation Community, made it possible for 115 students to establish contact with different areas of energy at the Game Changing Impact Challenge in Paris.

In Portugal, the Corporate Partners partnership with Spark Agency resulted in the participation of 32 EDP employees in 11 Pitch Bootcamps and governing boards at the sessions of Lessons Learned, which in total impacted 2,136 students, predominantly in STEM areas (Science, Technology, Engineering and Mathematics) - 68%, business - 36% and social sciences - 5%. It should be noted that in the "Studies of the most attractive companies to work for in Portugal", carried out by Spark Agency on national university students, EDP was considered the fourth best company to work for in Portugal. The continuation of the Global Management Challenge initiative with 41 participations by employees and five trainees and the IST Management Challenge with two Best Of Classes for 106 students, should be mentioned. In Brazil, the Alliance for Young People – an internship programme shared between several companies, was able to provide experiences for 1,774 young people.

These initiatives and partnerships resulted in 70,613 applications in the different geographical areas of the Group, which represents a growth of 17.5% compared to 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. During 2019, EDP provided a total of 736 internships:

	UN	PROFESSIONAL	CURRICULAR	SUMMER	TOTAL
Portugal	#	278	109	42	429
Spain	#	0	87	0	87
Brazil	#	40	94	0	134
North America	#	0	0	0	0
Rest of the World	#	53	0	33	86

In 2019, we welcomed the 30 participants of the EDP Trainee Program 4.0, which were recruited following an international campaign, with a major focus on digital media and the candidate's experience. In the onboarding phase, which ran for six weeks, the trainees had the opportunity to get to know each other, to get to know the EDP business, to attend workshops aimed at developing behavioural skills and to be accompanied in group and individual Career Counselling sessions. They had the opportunity to develop six Business Projects during five weeks, which consisted of analysing and constructing business models in order to respond to real company cases. After this period, each trainee undertook two rotations of six months each, in different areas of the company, in nine cities on three continents.

The EDP Group wishes that the experience of its employees, in their different geographical areas and companies, be differentiated, with a concern that all interactions are positive and remarkable. As such, considering that the recruitment phase is one of the first contacts with future employees, and taking into account the competitiveness for talent in the market, in 2019 a project was set up to redesign the Recruitment and Selection model. The project ran over three months and consisted of three phases - Discover, Design and Test & Plan, in which the various stakeholders involved in the process were involved and which resulted in changes and overall guidelines in order to offer a positive, unforgettable and differentiating experience for candidates with a faster, smarter, digital and flexible and globally aligned process. The recommendations of this project will be implemented during 2020.

## TRAINING AND DEVELOPMENT

In 2019, the EDP Group invested more than 3.7 million Euros in approximately 400,500 hours of internal and external training for its employees, spread over 4,980 training activities.

The various development actions, aligned not only with business challenges, but also with the needs and expectations of employees, were divided into four main areas:

	UN	BEHAVIOURAL	CORPORATE	MANAGEMENT	TECHNICAL	TOTAL
Volume of training	h/p	18,471	37,718	26,668	317,647	<b>400,504</b>
Trainees by domain	#	3,126	15,152	1,979	52,181	<b>72,438</b>
Investment by domain	€	373,106	302,895	838,778	2,240,850	<b>3,755,629</b>

Considering that development is a priority in People Management in the Group, there is a competence model – Amplify – which aims to align the development of employees with the Group's strategic challenges. This is a model that, while expanding employees' skills, also promotes their self-knowledge and self-responsibility for their own development. Across the EDP Group, 2019 was a year of competency analysis, in which 9,455 employees reflected on the state of development of their skills, which resulted in the construction of Individual Development Plans (IDP). The development actions identified by employees in their IDPs reflect the importance given to learning through on the job experience, problem solving and exposure to new tasks, responsibilities and challenges, activities for which represented 40% of the total initiatives identified. In the same sense, learning through sharing knowledge and developing relationships has also gained more importance for employees, as they made up 21% of the defined development actions.

With regard to overall development projects, it is important to highlight Your Board, a new initiative launched in the second half of 2019 with the aim of challenging the organization to contribute directly to strategic initiatives, leveraging the individual development of participants and bringing new perspectives on decision making. This initiative has involved the participation of 18 employees who, with the sponsorship of members of the EDP Group's Executive Board, will be focused on the identification, analysis and construction of concrete proposals to solve some of the EDP Group's main strategic challenges. In the first running of this, the focus of the participants, who will be divided into two groups, will be on the Commercial area and on the People and Organization area. In 2019, a selection process was carried out to identify the participants, which received 265 applications, of note being the important participation of employees from companies outside Portugal (17% from EDP Renováveis, 18% from EDP Brasil and 8% from EDP Spain). Selected candidates will dedicate 20% of their working time, over the period of a year, to Your Board.

In order to accompany the digital transformation of the business, a digital upskilling roadmap has been designed, which aims to train employees within a new context, with new challenges with the digital driver. This roadmap provides for four possible levels of proficiency in digital topics, which will require content adjustment and adaptation for recipients. This upskilling started with pilot training in Portugal, with the hope that it will become global and evolve into initiatives that leverage learning in a real context and through digital communities.

Considering that there are specific aspects regarding the development needs in the EDP Group's various businesses, different programmes and initiatives were developed in 2019 that should be highlighted in this area.

In Portugal, the 8th edition of the Energizing Program began, a program aimed at employees with considerable potential that seeks to reinforce and accelerate the development of strategic skills, thereby contributing so that employees can be catalysts for change, creating a positive impact on the Organization. The Energizing Program is designed according to the 70-20-10 model, and includes relevant and current training content, giving the opportunity to participate in an interdisciplinary project and a career counselling programme, while promoting networking among participants. This version had 30 participants who were identified, for the first time, through applications, with 263 people expressing interest in participating in the Programme, which represents more than 50% of the eligible personnel. Of the 30 employees selected, 33% were female, and the majority (67%) had between two and five years of company experience and represented seven EDP Group companies in Portugal. The Programme started in November, with the "Social Innovation Challenge" module, where participants had the opportunity to experience and reflect on social entrepreneurship, based on the EDP Group's Social Investment Policy. This course recorded one of the most positive global appraisals of the Management School for Development in 2019: 4.4 (on a scale of 0 to 5).



Also in Portugal, the Corporate Mentoring Programme was redesigned, which aims to promote mentoring relationships between employees in the different businesses of the Group. The Program's redesign had as its main objectives: (1) reinforce its cross-business aspect, that is, enhance sharing and learning relationships between employees from different business units; (2) revisit the mentor pool in order to respond to specific and emerging areas with respect to mentoring relationships such as reverse/across generation mentoring or cross gender mentoring; and (3) ensure greater monitoring of participants by encouraging sharing moments and initiatives throughout the Programme. Through their Individual Development Plan, 68 employees expressed an interest in participating in this Programme, through being mentored, so they will be accompanied by a mentor for a period of one year.

## LEADERSHIP DEVELOPMENT

Bearing in mind the fundamental role played by EDP Group leaders, in the day-to-day activities of their teams, there is a strong concern to promote the development of their Management and Leadership skills, through training, inspiring and challenging these professionals, in the sense of consolidating their personal and professional development. In 2019, 24,860 hours of training were dedicated to leadership development, which represented an investment of 763,486 thousand Euros and 1,788 participations were accounted for. As part of this, the following Programmes stood out:

- In Portugal, the Lead Now Program, which ran for the 7th occasion and which was attended by 69 employees. This Programme, aimed at new leaders, seeks to develop the skills of employees who have the responsibility to manage people for the first time at EDP. The programme recorded a very positive overall feedback rating in 2019: 4 (on a scale of 0 to 5). It is also important to mention the Leading Others Program, which aims to consolidate people management tools, preparing all leaders for current and future challenges within the EDP Group. With 79 participants, this second running was very positively assessed with an overall result of 4.2 (on a scale of 0 to 5);
- At EDP Renováveis, there was the 4th holding of the Lead Now Program, involving 30 employees who had the opportunity to identify their leadership style and develop the skills and knowledge necessary to be able to play their new role as managers of individuals;
- EDP Spain launched the 1st running of Bootcamp Leaders in Digital Transformation, an event in which digitalisation was considered from an integrated point of view, by taking into account people, business and technology. This initiative was developed in a summit format and included round tables, presentations, interviews, pitches, stands and workshops, involving 204 employees from all of EDP Spain's business areas;
- At EDP Brasil, 28 Leaders were involved in the training activity "Leaders who Inspire and Transform", carried out in partnership with the Dom Cabral Foundation (FDC), elected as one of the 10 best executive education schools in the world. This course, made up of four modules, aimed at getting its participants to rethink their role as leaders for the new decade, through considering transformations in the world and in society. This training activity also focused on the importance of self-knowledge and valuing diversity and sustainability, as levers for the performance of teams and innovation for the business.

## MOBILITY AS A DEVELOPMENT TOOL

The EDP Group favours a concept of learning and development based on sharing, experience and know-how, according to the idea that most skills and knowledge will be better learned the more the employee has the opportunity to experience, share and put into practice. For this reason, and reinforcing the line of action of previous years, the EDP Group's Mobility programme – Switch – continued to be one of the most valued pillars, both for corporate policy and for employees, and as one of the most efficient tools for development.

In addition to the obvious connotation with on the job development, mobility between different business units in the value chain, and between multiple geographical areas, it stimulates other essential aspects that are increasingly critical to an ever-changing business, such as collaboration and construction of formal and informal networks, versatility/interdisciplinarity of profiles and agility in adapting to challenges and building solutions.

In order to stimulate and facilitate mobility as an effective development tool, the GROW online platform was launched in 2019, available to all Group employees and bringing together all the opportunities of the various businesses/geographical areas with regard to long-term mobility, short-term mobility (projects of three to six months full-time or up to 12 months part-time) and collaborative activities (up to 40 hours which can be started by any employee). In addition to facilitating research and finding out about opportunities, which may make

more sense considering the development objectives of the employee, this platform also promotes greater ease of contact, both between the “owners of the opportunity” and potential candidates, or among employees, who can find out who in the Group has a certain competence or experience. It is felt that, in this way, the conditions for the creation of a culture of collaboration, experimentation and knowledge sharing are reinforced, which in a natural way will favour the motivation and development of employees.

In six months of operation, and in addition to the publication of long-term mobility opportunities, the GROW platform had 77 published opportunities (19 activities and 58 short-term projects), and attracted the interest of more than 6,400 users, with 26,500 visits carried out. The 77 published opportunities obtained round 400 applications, predominantly candidates from Portuguese companies (60%) and a more or less balanced distribution among the rest (EDP Brasil 16%; EDP Spain: 14%; EDP Renováveis: 10%).

Regarding the movement of employees within the group, as part of a logic of enhancing the internal market to fill definitive needs, in 2019, 979 rotations were carried out in the group, which represented a functional change, in the scope of action and/or geographical area, of 8% of employees. Of these, 237 were intercompany movements, with EDP Distribuição standing out through having incorporated 38 employees from other companies in the Group and EDP Renováveis with 27 international movements. With regard to long-term intra-company movements, there were 742 employees, with a special note for EDP Brasil, with 312 employees who filled opportunities within their own company.

It should be noted that of the total of 979 employees who moved in 2019, 46% belonged to the group of senior staff and 37% to the group of technicians, with a predominance of Generation Y (59%).

In turn, with regard to short-term mobility, for projects and/or specific business needs, it is worth highlighting the interest in joining international projects with 17 employees travelling to a different geographical area than their own.

For 2020, the intention is to continue to encourage employees to enjoy different ways of constructing their personal and professional growth. The potential of the GROW platform will be enriched, thereby also reinforcing the autonomy of managers to find the right combination within the immense number of the Group's employees, to achieving the best results in each project or challenge.

## PERFORMANCE MANAGEMENT AND RECOGNITION

The way the company manages and recognizes the performance of each employee is closely related to the success of the EDP Group. Thus, and in response to the feedback received through the climate study, the company changed its model for defining and assessing performance, in order to create a closer relationship between performance and compensation. In 2018, as part of the performance assessment process, 99% of eligible employees, namely the Permanent Staff employees with tenure for less than 6 months were assessed by their immediate line managers.

In 2019, a global model for the Group was implemented, which is clearer and more transparent in the way it aligns objectives and recognition, which enhances the comparability and mobility of all employees.

The definition of the annual objectives of the Group's businesses and areas, in which there was previously a financial predominance, was also changed. EDP Brasil's “Goals with Purpose” model served as a reference to introduce a methodology for setting objectives from a more holistic perspective and aligned with the main strategic objectives, based on 6 clusters relevant to the business: people, shareholders, assets and operations, innovation and partnerships, environment and communities, and customers.

This model fosters a culture of ongoing feedback, essential to supporting business challenges and the monitoring of employees, through enhancing their permanent involvement with the Group's objectives and performance.

It should also be noted that, in line with best market practices, in 2019, studies and models were designed that will allow the implementation of a Long Term Incentive Programme (LTI) for Portugal, Spain and EDP Renováveis (Spain), applicable to all key employees of the organization, similar to that which is already in force at EDP Brasil and EDP Renováveis (North America, Offshore and France). This is intended to encourage the pursuit of the Group's objectives, ensuring employee retention, respecting legal and tax considerations and the respective financial impact.





## REWARDS AND BENEFITS

The EDP Group believes that recognition policies play a fundamental role in attracting and retaining talent. 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 its 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 Labour Agreements or flexible plans adapted according to the legislation of each country.

In Portugal, with the launch of the new platform for benefits management (Benefits4all), it was possible to provide employees covered by the EDP Flex Plan with a more flexible management of their benefits plan and consult the measures that the company makes available to them through the Conciliar Programme. In 2019, two new benefits were also introduced (parking lots and gyms). For the year 2020, significant improvements have been made to the EDP Flex Health Plan (with the possibility for the employee to reinforce some health insurance coverage), as well as two additional new benefits (technology and mobility) that employees can access through their Flex credits.

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

EDP Renováveis, after an analysis carried out during 2019 on the life cycle of its employees (generation and family situation), offered an individualized and customized package of benefits in line with their needs.

EDP Brasil, understanding the importance and relevance of health and well-being issues for all employees and society, created, for the first time in 2019, specific management aimed at Occupational Health and Welfare. The Health Connection programme encompasses a series of actions which join physical and mental health, and well-being at work, promoting the welcoming and monitoring of the health journey of employees and their dependents. Within the main actions of the programme – Second Medical Opinion, Health Campaigns, Vaccination, Monitoring the performance of medical and dental health operators, Medicine Subsidy, Executive Checkup - Dr. Health EDP stands out, which, with the intention of reviving the Family Doctor model, focuses on disease prevention and not just treatment.

## LABOUR RELATIONS

EDP maintains a constructive and cooperative relationship with official bodies and workers' representatives – the workers' committees and trade unions – in order to strengthen communication and cooperation. 2019 was characterized by the absence of labour conflicts. This relationship is operationalized in each geographical area by local teams that guarantee contact with 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 2019, 37% of EDP Group employees were unionized. Compared to the number of employees in each geographical area, the highest percentage of union members occurs in Brazil and in Portugal, with, respectively, 48% and 43%, followed by Spain with 15%.

The characteristics of the number of employees who were members of trade unions in the EDP Group at the end of 2019, are detailed on the next page.



### Unionized employees by population segment

	UN	SPECIALISTS	SUPERVISORS	SENIOR MANAGEMENT	TECHNICIANS	TOTAL
Percentage of unionized employees	%	5.6	1.0	0.5	29.7	36.8
Portugal	#	317	85	53	2,048	2,503
Spain	#	42	12	0	198	252
Brazil	#	296	14	4	1,210	1,524
<b>Total</b>	<b>#</b>	<b>655</b>	<b>111</b>	<b>57</b>	<b>3,456</b>	<b>4,279</b>

### ACTIVITY IN PORTUGAL

In 2019, in the companies of the EDP Group in Portugal, who subscribed or adhered to the Collective Labour Agreement (ACT) granted at the end of 2014, this was still in force.

In relation to trade union structures, 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 were of note. Also of note was the development of solutions to improve the application of the collective agreement, particularly related to the organization of working time.

Accompanying legislative changes, in particular those concerning the conditions of access to old-age retirement, the Labour Code and those arising from the State Budget with an impact in the labour area, more than 88 meetings with official bodies, workers' committees and trade unions were held, 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 2019 was characterized by the implementation of the working conditions established in the III Collective Labour Agreement of the EDP Spain Group, relating to working time and new concepts of remuneration, in compliance with the objectives of the new agreement, as well as the constitution and implementation of different Labour Affairs Committees and Subcommittees.

In addition, several agreements were signed with trade union representatives regarding the daily recording of working time and specific issues supplementary to the text of the III Collective Labour Agreement regarding the payment of financial compensation of an extra salary type for travel expenses and compensation for travelling using one's own vehicle.

Noteworthy were the advances in digitization with the creation of an RL-Union Library, which unifies and simplifies the different communications between the trade union structures and the Company and the reduction of the role in formalizing labour changes that affect workers.

In terms of labour, the reorganization in the area of Generation, of Soto 3 and Edp Cogeneración stood out.

In 2019, Social Peace was consolidated, with the absence of internal conflicts, strikes and pressure actions, related to EDP.

### 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 Labour 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 its employees in relation to the Company's performance in terms of 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, aspects that directly affect their well-being and productivity.

The study of Organizational Climate consists of monitoring the levels of Engagement and Enablement of 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 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.

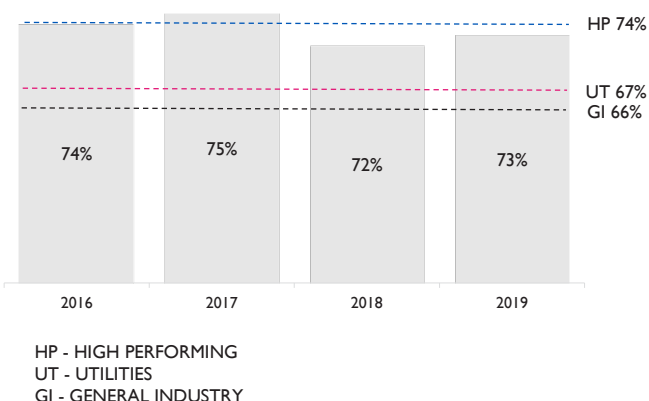
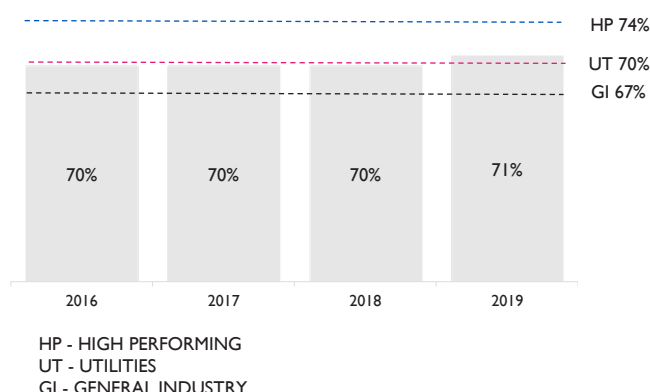
Despite the good results, the EDP Group's goal is to continue to improve. For this reason, climate management is not limited to the results of the study, since these lead to the definition of action plans for improvement at all levels of the organization: a corporate plan, with initiatives addressing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

Within the scope of the corporate plan resulting from the results of previous years, during 2019, the project related to flexibility in terms of ways of working stood out. This project sought to identify new possibilities and options related to the space and time within which the EDP employee works, in alignment with best market practices. At the end of the year, priority was given to a set of new options and benefits that should be implemented and tested during the year 2020 in order to analyse results in certain EDP Group contexts and, potentially, extend the measures to the entire eligible group of employees in 2021. These new measures are related to the possibility of remote work, new maternity benefits, time-off and leave for voluntary work projects.

In relation to the 2019 Climate Study, it was a year of exhaustive study of the main aspects of Engagement and Enablement. This had a participation of 93% of EDP Group employees, 10 percentage points above the general market level.

It was verified that 73% of employees feel involved with the company (Engagement), a result that is seven percentage points above the results obtained in the general market and six percentage points above utilities. Of note in this aspect is the employees' sense of pride in the company (83% favourable) and their recommendation of it as an employer (81% favourable).

In relation to Enablement, it was also concluded that 71% of employees feel significant organizational support, a value which is also above both general market results (by four percentage points) and utilities (by one percentage points). In this area, the opportunity that the company provides for employees to perform challenging and interesting tasks (80% favourable) is also noteworthy.

**Engagement (%)****Enablement (%)****JOB STABILITY**

The EDP Group's 2019 Climate Survey revealed that 82% of employees consider that, in the current context, EDP provides job stability, an decrease of 3 percentage points over 2017. According to benchmarking, this result is 16 percentage points above the general market norm.

**CONCILIATION AND SOCIAL PROTECTION MEASURES**

EDP believes that reconciling professional and family life is essential to achieving more competitive companies and a more just society, based on flexibility, respect and equal opportunities.

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 Conciliation Programme.

In 2019, in Portugal, the Conciliation Programme, through its initiatives, directly impacted more than 1,300 people, including 177 mothers and fathers, 26 grandparents, as well as 220 employee children and grandchildren. Initiatives such as Gymnastics at Work benefitted about 4,000 people in the buildings where this is implemented and the Conciliation Discounts Platform has more than 4,100 subscribers.

In turn, EDP Spain implemented new measures and improvements related to Conciliation, mainly with regard 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.

There were also actions at EDP Brasil that aim to promote a better balance between personal and professional life, which have been consolidated by the Conciliation programme, which encourages the adoption of healthy habits, by encouraging the practice of sport, leisure, culture and quality of life. This initiative also includes the Social Welfare Programme, which in 2019 held 10,400 consultations – an increase of 25% over the previous year, which showed more confidence and satisfaction with the programme, which includes psychological help consultations, social, legal and financial inclusion, both for employees and their dependents, and former employees who have already retired.



In 2011, both EDP Spain and EDP Renováveis were certified as Family Responsible Companies by the Másfamilia Foundation. In 2013, it was the turn of EDP Portugal. Since then, EDP has been working on the development of measures and policies that promote conciliation and equality, acting on six pillars that it considers important for the lives of its employees:

- Support for families;
- Flexibility in time and space;
- Professional and Personal Development;
- Equal Opportunities;
- Quality in the workplace;
- Leadership and Management Style.

EDP seeks to create a positive and differentiating experience throughout the different stages of the Group employees' life-cycle, by fostering a culture that attracts and empowers talent, which encourages personal and professional development, which recognizes and rewards excellence and merit, which values individuality, and which creates an environment of well-being and productivity.

In 2019, EDP becomes the first Portuguese company to achieve the level of "Excellence", with the Másfamilia Foundation renewing the company's certification and distinguishing EDP Portugal with this level and recognition given for the first time to a company in Portugal and among 26 companies with this level of certification worldwide.

## DIVERSITY AND EQUAL OPPORTUNITY

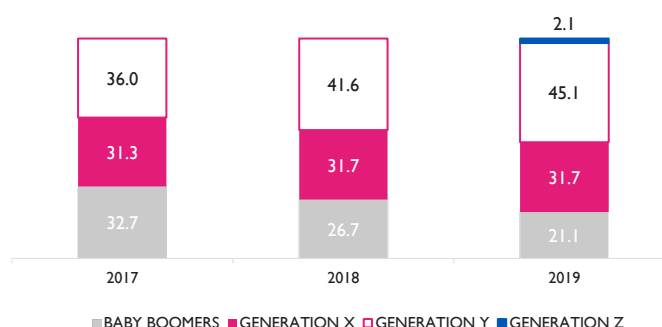
The EDP Group marked its commitment to Diversity & Inclusion (D&I) in 2013 with the approval of a Diversity Policy ([www.edp.com](http://www.edp.com)), based on four aspects with specific goals: Gender, Generations, Nationalities and Disabilities. Since then, under the slogan "Adding differences is winning the future", it has been 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.

In 2019, initiatives resulting from this action plan continued and strategic objectives such as female representation, the inclusion of employees with special needs as well as the diversity of nationalities and generations were followed up. In preparation for 2020, and given its organizational, social and legal challenges, the revision and conceptualization of a new Diversity & Inclusion strategy began in 2019. For this purpose, we developed a consultancy project (Consulting Lab) with NOVA SBE Master's students, making it possible, firstly, to obtain the knowledge, trends and vanguard practices of this university and research groups and, in addition, to provide important labour market experiences to students, through developing a real challenge for the organization. This specific project had the goal of reviewing the EDP Group's D&I business case, as well as its inclusive recruitment process, to develop an inclusion measurement model and identify potential D&I promotional initiatives within the EDP Group.

Considering the diversity indicators that the EDP Group periodically monitors, in 2019, and in terms of gender diversity, the number of women increased 0.5% over the previous year, currently representing 25% of the Group's total employees. The presence of women in management positions remained at 25%, practically the same as the previous year, contributing to the goal of 27% of female representation that the EDP Group specified for 2022.

In generational terms, there was an increase of 3.5 percentage points in the representation of generation Y, which currently represents about 45% of the organization and which is due in part to the recruitment effort made and also to employees who have retired, and the Baby Boomer generation now constitutes around 21% of the

**Generations at EDP Group (%)**



organization. Generation X continues to represent 31.7%, remaining stable compared to the previous year. Generation Z (born after 1996) recorded an increase of 1.1 percentage points compared to 2018, currently representing 2.1% of the entire organization.

With a focus on diversification in terms of nationalities, the Group currently has 44 different nationalities, recording the same number of nationalities when compared to the previous year. This representativeness continues to be the result of the development of more global attractiveness initiatives through digital recruitment channels and strategies.

EDP currently has 1.4% 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 goals, in 2019 initiatives were developed in the various businesses and geographical areas where EDP operates.

In Portugal, the year of 2019 continued with training in "Subconscious Bias", with the aim of awakening employees to the notion that, often, in day-to-day management and in view of the constant need to take decisions, we can build unconscious biases in the form of stereotypes and prejudices. Taking and raising awareness of these processes leads to a greater understanding of the benefits of diversity, in the way we integrate difference and promote the same opportunities for everyone in life and in the organization. In the 4th quarter, a total of 18 sessions were held for around 284 employees: 11 training sessions dedicated to about 184 employees with responsibility for leadership and team management, and 7 sessions for 100 employees in Portugal, totalling 1,136 hours of training, with more than 90% satisfaction. Since the launch of this initiative in the EDP Group in 2016, more than 1,800 employees have participated in it.

The Plan for Gender Equality was published, which aims to serve the purpose of publicizing the set of measures adopted by EDP under the terms of the Guideline for the Drawing Up of annual Equality Plans, prepared in the light of the provisions of Legislative Order No. 18/2019, of 21 June, by the Portuguese Equal Work Opportunities Commission.

As part of the commitment to equal opportunities for people with special needs, a pilot project was developed in conjunction with the Salvador Association to monitor and mentor 6 candidates from the association by 10 professionals in the Human Resources areas of the EDP Group, in Portugal. This Volunteer Work project was oriented towards the development of skills and awareness of employees in the HR areas, with a view to monitoring and training candidates, from the Salvador Association, in their preparation for entering the labour market. As a way of reinforcing its commitment to promoting respect for equal opportunities, for all its employees and potential employees, EDP was present at the 1st Forum for Inclusive Recruitment promoted by ISCTE-IUL, with the goal of promoting discussion and sharing ideas, practices, challenges and testimonies about equal opportunities in the area of employment and the professional insertion of people with disabilities and special needs.

It should also be noted that, following the setting up of the Portuguese Association for Diversity and Inclusion (APPDI) in late 2018, EDP, throughout 2019, carried out its role as Chairperson of the Board. APPDI was created with the aim of promoting diversity and inclusion in different organizations, and in Portuguese society in general, cooperating with national and European institutions important to the pursuit of its activities as well as ensuring the sustainability and development of the Portuguese Charter for Diversity.

In line with the EDP Group's attractiveness and recruitment strategy, we continued the Inspiring Career Camp initiative, where we received 10 secondary school students, providing vocational guidance for engineering areas, inviting them to participate in a workshop on Agile, MVP and New Forms of Working, to get to know the reality and the professional career path of EDP employees who work in the technical and engineering areas. This initiative included a visit to the EDP Dispatch Centre in Lisbon, where they were able to meet the professionals, women, who work in this very critical area of EDP's business.

In line with the Group's strategic positioning for Gender Equality, we have 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. For the third consecutive year, we received a young woman to carry out her Life Internship, as part of this association's Change programme. This leadership and social entrepreneurship programme is aimed at Mozambican women, graduates or at Master's level, with considerable leadership potential and willingness to be part of the change in their country, marked by the high numbers of teenage and single mothers.

In 2018, EDP Brasil started the first Electrician School exclusively for Women, a pioneering initiative in the electrical sector and which illustrated the EDP Group's commitment to promoting equal opportunities between the sexes. The 1st cohort, also in 2018, had 16



students, with a rate of around 94% students being trained. The 2<sup>nd</sup> cohort had 16 students and a 100% rate of students being trained. Of the 31 trained students, about 32% were hired by EDP Brasil.

Also at EDP Brasil, the highlight of 2019 was the launch of the Inclusion & Diversity Programme with the goal of strengthening EDP's Culture and Principles and including the participation of its employees. A cross-cutting initiative focusing on six strategic pillars: Gender, Race, LGBTI +, PCD (People with Disabilities), Generations and Cultures & Spiritualities – for which affinity groups were created, where employees can register as agents and actively participate in the construction and implementation of this group's action plan. The Diversity Week was held as part of this, organized by the employees involved in the Affinity Groups, which took place in 7 locations of the Company, involving about 2,000 EDP Brasil employees with several lectures and workshops on various topics aligned with the six pillars. EDP Brasil also joined the Citizen Company Programme, having extended the duration of maternity leave for sixty days and the duration of paternity leave for fifteen days. Throughout the year, about 40 employees took part in various volunteer initiatives related to D&I issues, in the “Eternally Me” (a home for LGBT senior citizens) and “I'm a Refugee” associations.

EDP Renováveis, the EDP Group business with the highest female representation, 30.5% (5.4% above the Group average), in the last quarter of 2019, continued the “Woman and Engineer” project in partnership with the Royal Academy of Engineering of Spain. This project aims to support young students in raising awareness and knowledge of vocational and professional paths, such as the Engineering area, through a 7-month Mentoring Programme (Dec 19-Jun 20). In this project, EDP Renováveis employees will mentor a group of young engineers in their last year of their Master's degree, advising them about the corporate world and the labour market.

In 2019, EDP Spain renewed its commitment to gender equality as part of the Directory of Companies Committed to Equality promoted by the Ayuntamiento de Gijón. Within the scope of promoting women's personal and professional development, EDPE supported two Mentoring initiatives. The Stem Talent Girl Asturias Programme, started in 2018, is aimed at 13 and 14 year olds with the aim of inspiring and fostering their closeness to STEM areas, areas of great potential for future employability, still, however, with a clear underrepresentation in terms of the feminine gender. In 2019, the programme featured 20 young women being mentored. In 2019, EDPE also entered into a partnership with Aemener (Spanish Association of women energy), supporting a mentoring programme for female students and professionals in the energy sector with the aim of boosting their professional paths and supporting them to achieve their goals and maximize their learning.

Also in 2019, EDP Spain launched a digital platform, EDP Synchronized, which was conceived with the goal of connecting women amateur athletes who want to go out for a run as a way of promoting women's sport, thereby feeling safer, at any time and in any place. In 2019, there were 4,650 new runners, totalling 11,823 women between 2018 and 2019. In 2019, 728 races were organized, 15 of which were directly organized by EDP.

# Our Way



## EDP DISTINGUISHED AS A FAMILY RESPONSIBLE COMPANY

### FAMILY RESPONSIBLE COMPANY CERTIFICATION (EFR)

EDP is the first Portuguese company to be distinguished with a level of excellence (A) as a family responsible company, receiving the efr certificate from the Fundación Másfamilia. EDP has, over the years, implemented various measures to reconcile personal and professional life for company employees. In total, there are about 150 initiatives, which enable a fundamental balance for the well-being of all those who work at EDP. Currently, EDP promotes this reconciliation through six pillars:

- Support for the Family;
- Professional and Personal Development;
- Flexibility in Time and Space;
- Equal Opportunities;





- Quality in the Workplace;
- Leadership and Management Styles.

The EDP Group was distinguished internationally for its best practices in this area, due to the application of conciliation measures in its business:

- **2006/2007 – EDP wins the 1<sup>st</sup> prize from AESE/Deloitte**, being recognized as one of the most family responsible companies in Portugal;
- **2011 – EDP Spain and EDP Renováveis obtain Family Responsible Companies certification** from the *Fundación Másfamilia*;
- **2013 – EDP S.A.**, in Portugal, obtains **efr certification**;
- **2016 – the company reaches 12th place in the Thomson Reuters D&I index**, among 100 organizations from around the world;
- **2017 – EDP is recognized at the European Excellence Awards**, winning the *“Diversity Management”* category;
- **2019 – EDP obtains the “excellence” level of efr certification**, becoming the first Portuguese company to be awarded this distinction.

The increasingly competing and competitive economic and labour context is leading to imbalances in terms of physical and mental health and contributes to the loss of professional motivation and productivity, absenteeism and reduced quality of life. This is the reason why organizations are increasingly sensitive to the impact of this challenge and invest in actions to promote the well-being of their employees and better reconciliation between the various aspects of their lives.

Efr certification - Family Responsible Company, is a methodology that seeks to answer questions related to the conciliation of family and working life, promoting the development of professional skills, while supporting equal opportunities and inclusion. More than certification, it is a management model based on measuring indicators and promoting measures, which aim to respond to an organizational culture increasingly based on flexibility, conciliation and balance.

Conciliation measures have the potential to benefit both employees and companies:

#### FOR EMPLOYEES:

- It increases their level of satisfaction;

- It improves their professional performance;
- It favours time management and the setting of priorities;
- It improves family emotional and temporal availability.

#### FOR COMPANIES:

- It contributes to a greater dedication and commitment from employees;
- It decreases absenteeism levels and increases productivity levels;
- It promotes the attraction and retention of talent;
- It improves the corporate image;
- It promotes a reduction in labour conflicts.

Following on from the results obtained, EDP intends to go further, establishing the following objectives for the 2019-2021 three-year period in Portugal:

- To promote a culture of conciliation and equality at EDP;
- To sound out the organization and adjust its conciliation measures according to such needs;
- To implement improvements in the current efr management model;
- Extend the culture of conciliation and equality to the EDP value chain.

### 3.2.7. COMMUNITY INVOLVEMENT

In order to develop its business activities and at the same time satisfy the needs of the communities where it operates, the EDP Group promotes engagement with local communities and society from a perspective of creating shared value, capitalizing on its strengths, its brand and its employees in order to maximize its impact on society and obtain a “social licence to operate”.

The company promotes active and transparent engagement with local stakeholders, supported by its Stakeholder Relations Policy ([www.edp.com](http://www.edp.com)), with the objective of managing its impacts and reinforcing the positive effects of its activity, through the construction of partnerships and long lasting relationships. Through this policy, the EDP Group intends to create value for the various stakeholders, in all its geographical areas, through defining four major Guiding Commitments: Understand, Communicate, Trust and Collaborate. Through these commitments, EDP seeks to go beyond mere compliance with the formal requirements of legislation, thereby contributing to the effective and genuine engagement of its stakeholders.

The EDP Group helps local communities and the societies where it is present to address their development priorities through financial and non-financial contributions. EDP's Social Investment is based on its Social Investment Policy ([www.edp.com](http://www.edp.com)) which applies the principles and methodologies referred to in the following documents:

- ISO 26000 – Corporate Social Responsibility;
- Principles of Social Investment – United Nations;
- Sustainable Development Goals (SDGs) – United Nations;
- Global Reporting Initiative (GRI) guidelines;
- LBG – Measuring Community Investment.

### VOLUNTARY INVESTMENT IN THE COMMUNITY

Voluntarily, EDP promotes social investment programmes, as a way of actively contributing to the sustainable development of society as well as affirming its strategic vision. The programmes aim to satisfy social needs and, at the same time, address needs and core business themes, thereby creating value for stakeholders and for the EDP Group.

The EDP Group's Social Investment Policy establishes the strategic priorities for contributions to the community, through four objectives:

- Promoting access to culture and art and protecting cultural heritage;
- Promoting social inclusion and the adoption of sustainable ways of life, valuing energy inclusion and access to energy;
- Protecting natural heritage and biodiversity;
- Promoting energy efficiency, renewable energy and decarbonization.

The EDP Group embodies its Social Investment Policy through social responsibility programmes and activities, based on collaborative initiatives, donations and voluntary work. Its execution contributes to EDP's commitment to the SDGs, particularly with SDG5, SDG7, SDG8, SDG9, SDG11, SDG12, SDG13, SDG15 and SDG 17 ([www.edp.com](http://www.edp.com)).



## APPLICATION OF LBG METHODOLOGY

EDP assesses the projects it engages in, within the scope of its voluntary investment in the community, using the international LBG (Measuring Community Investment) methodology. Using this model, EDP promotes the structured disclosure of its decisions and enables discussion of the results and benefits for communities.

In 2019, the EDP Group voluntary invested around 26 million Euros in the community, having contributed to the projects of 2,490 entities. According to the LBG methodology, 87.3% of this investment was strategic, 6.5% non-strategic and 6.2% corresponding to commercial initiatives. In terms of the type of contribution, 81.7% refers to monetary donations to beneficiary entities, 15.9% to donations in-kind and 2.4%, corresponds to 561,821 Euros in working time for EDP employees, who participated in voluntary work initiatives.

Since 2015, the accumulated value of voluntary investment in the community by the EDP Group has amounted to 136 million Euros, in line with the commitment established to reach the target of 200 million Euros by 2022 (see table on page 192).

### SOCIAL INVESTMENT PROGRAMMES

The EDP Group evaluates its Social Investment programmes and projects not only through LBG methodology, but also in terms of its contribution to the objectives established in the Social Investment Policy. In 2019, through its voluntary investment in the community, EDP supported several programmes and projects that contributed to each of the four objectives of its Social Investment Policy:

### OBJECTIVE A - PROMOTING ACCESS TO CULTURE AND ART AND PROTECTING CULTURAL HERITAGE

The EDP group continuously promotes access to art and culture, through its Foundations. On the other hand, it supports projects to enhance and protect the cultural heritage of local communities that are nearby its infrastructure. In addition to contributing to the preservation of the collective memory and cultural identity of these communities, these projects encourage the creation of jobs and sustainable tourism opportunities in these communities.

#### Art and culture

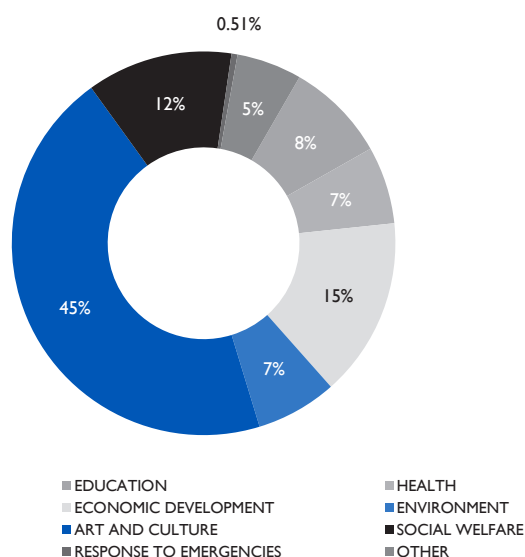
The EDP Foundation, Fundação EDP and the EDP Institute undertake sponsorship activities in Portugal, Spain and Brazil, respectively, through supporting projects by various institutions in the fields of fine arts, dance, music, architecture, design, artistic education and publishing. In 2019, in Portugal, cultural projects such as the Portuguese National Ballet Company, the Casa da Música Foundation, the Serralves Foundation, the Arpad Szenes - Vieira da Silva Foundation stands out. In Spain, the support given to the Kursaal Foundation, the Princesa de Asturias Foundation, the Oviedo Opera and the Artium Museum stands out. In Brazil, in turn, of note was the support given to the Tomie Ohtake Institute, the Brazilian Contemporary Orchestra of the Friends of Art, the Chamber Orchestra of the University of São Paulo and the organization of the Paraty Literary Festival.

In particular, the EDP Foundation offers a cultural impetus to the city of Lisbon through MAAT - Museum of Art, Architecture and Technology - by presenting national and international exhibitions involving the contribution of contemporary artists, architects and thinkers. This museum also houses the Art Collection of the EDP Foundation.

#### Cultural heritage

In 2019, we would highlight the completion of the reconstruction works of the Museum of the Portuguese Language in Sao Paulo, Brazil and the Traditions programme of EDP Produção, in Portugal.

**Social investment by nature (%)**



In 2015, a fire struck the Museum of the Portuguese Language. Since then, EDP has been the main sponsor of the reconstruction works which have involved the complete architectural recovery and readjustment of its internal spaces. On 16 December 2019, the awarding of the restoration works was made official and the museum will reopen in June 2020.

The Traditions aims to maximize social return by supporting traditions in popular culture, promoting a reflection on culture as a way to preserve collective memory, as well as the production of cultural assets and their dissemination to new audiences. In 2019 this programme supported nine projects in Portugal, with an investment of more than 100,000 Euros.

## **OBJECTIVE B - PROMOTING SOCIAL INCLUSION AND THE ADOPTION OF SUSTAINABLE WAYS OF LIFE, VALUING ENERGY INCLUSION AND ACCESS TO ENERGY**

As a company in the energy sector, EDP values the support to the third sector organizations that develop energy access projects in countries with communities that have a low electricity grid coverage; aimed at combating energy poverty and promoting community safety in access to energy.

In addition, the EDP Group supports initiatives aimed at developing skills and fostering entrepreneurship in the communities in its area of influence, thus promoting the employability of people belonging to the most disadvantaged groups of the population. Recognizing that the limitation in terms of skills does not only affect people, but also the capacity of companies and organizations to act, EDP also develops programmes aimed at strengthening the management skills of third sector organizations, enabling them to strengthen their social impact.

The proximity to the most disadvantaged groups in the communities is also a concern of EDP. In this context, the EDP Group's Volunteering Programme represents a fundamental pillar in supporting projects that promote human dignity and social inclusion, in close cooperation with third sector organizations.

### **Energy inclusion**

Since 2009, the EDP Group has invested in access to energy projects (A2E), which have benefited more than 20,000 people in countries where people have limited access to the electricity grid. In 2019, the projects carried out in Kenya, Tanzania, Mozambique and Malawi stand out, which received support from the A2E fund to the amount of 450,000 Euros (see A2E Fund history on page 117).

In order to address the problem of energy poverty, the EDP Group promotes various programmes focusing on the implementation of energy efficiency measures and raising awareness about the responsible use of energy, which make it possible to reduce the energy bill of families and NGOs and modify their consumption habits.

An example is the Energía Solidaria (Solidary Energy) programme, which aims to increase the safety, well-being and energy efficiency of the most disadvantaged families and centres of NGO entities with which Fundación EDP collaborates. The participation of EDP's business areas, as well as volunteers who perform administrative support and training tasks, has been essential in implementing this programme. Since 2015, Fundación EDP has invested 700,000 Euros and benefited more than 60,000 people with this programme.

Also noteworthy in 2019 were the programmes aimed at improving the housing conditions and thermal comfort of families and institutions, such as the voluntary renewal programme in partnership with the Just a Change association in Portugal and the Closer2You programme, from EDP Renováveis, in Brazil and Romania.

EDP also developed the Energia Segura (Safe Energy) programme in Brazil, aimed at raising public awareness of the risks associated with the electricity grid. As part of the Energia Segura programme, the Brincando com Pipas (Playing with Kites) project helped raise awareness among 6,000 children and adolescents of the importance of playing safely with paper kites near electrical distribution lines. This action contributed to reducing the number of incidents in the electric grid registered by EDP in the regions close to the teaching units where the programme is carried out – in 3 years, the Suzano regions which have taken part in the project reduced the incidents with the kites in 25%, while the municipality had an 8% reduction.

In addition, in Portugal, EDP provides the skills and know-how of its employees, through the volunteer Electricians and Energy Efficiency Verifiers scholarship. The volunteer electricians (EDP employees) who support third sector organizations by correcting malfunctions, replacing and improving systems and carrying out safety checks and supporting institutions to carry out more efficient energy consumption, thereby reducing their bills.



## FIGHTING HOUSING/ENERGY POVERTY

**The voluntary renewal programme in partnership with Just a Change association has the aim of restoring rundown private homes or institutions in urban areas. In 2019, EDP has contributed with 287 volunteers (EDP employees, family and friends), investing 2,055 hours in the recovery of 12 homes and four third sector organizations.**

**In the Closer2You programme, cooperation agreements have been established with local authorities and suppliers, addressing the needs of needy families in communities near generation centres: access to thermal comfort, electricity or running water or even the complete restoration/reconstruction of their homes.**

### Skills

EDP supports various training and professional empowerment actions, aimed at communities and third sector organizations. In this context, professional internship programmes and the awarding of scholarships to young people from families with fewer financial resources, allowing them to continue their studies and promotes access to dignified work.

With a focus on young people, the Incluir para Iluminar Programme from EDP Distribuição offers training in technical and on-job skills, through internships in the Company's technical areas, integrated into professional courses to train electricians. The aim is the acquisition of skills that enable young people to integrate the labour market. In 2019, protocols were signed with five secondary schools and EDP employees contributed with 3,502 hours of work.

Aimed at children and young people, the EDP Produção Escolas com Energia (Schools with Energy) programme aims to develop communication, socialization and leadership skills that will be essential in the labour market and, at the same time, enables the establishment of a stronger relationship between EDP Produção and the school community in the vicinity of the producing centres.

Since 2005, EDP has supported the Junior Achievement Portugal programme of the Aprender a Empreender organization, through its Volunteering Programme. This organization promotes the education of children and young people for entrepreneurship, through transformative experiences based on three fundamental pillars: Citizenship and Financial Literacy, Education for Entrepreneurship and Skills for employability. In 2019, EDP contributed a total of 1,685 hours of voluntary work where it made the skills of EDP employees, friends and retirees available to this organization.

In 2019, also noteworthy was the inauguration of the Fundación EDP Academy, in Oviedo, and the ENTAMA programme (word meaning entrepreneurs in Asturian), developed by EDP Espanha, the main aim of which is to support business projects generating resources and employment in the region of Asturias.

## FUNDACIÓN EDP ACADEMY

**The main objective of this programme is to contribute to strengthening the organizational skills of the entities that cooperate with EDP in order to reinforce their social impact. As such, they can be trained in finance, human resources, communication and legal aspects, among others. Training is provided mainly by EDP voluntary workers (skills-based volunteering), in person or online.**

Another example is the EDP Renewables Rural program, of EDP Renewables, in Brazil, whose main objective is to increase the household income of rural producers, families and local communities in the surroundings of its wind farms. Social interventions and training actions allow them to better organize the production and selling of their products and to guarantee a diversified and safe supply. This program has

promoted profound changes in the lives of local families, who now enjoy a more varied and healthy diet and higher direct and indirect income, better life expectancy, increased self-esteem and enthusiasm for planning for a better future.

#### ENTAMA

**The 1<sup>st</sup> edition of this programme began in 2019, and 85,000 Euros were allocated to the 10 selected projects. These projects should contribute to the fight against unemployment and to settling the population in the municipalities of Carreño, Ribera de Arriba, Proaza, Quirós, Somiedo, Belmonte and Sobrescobio. In addition to financial support, it also intends to contribute to the empowerment and sustainability of projects, with information and consultancy actions for its promoters from the beginning and during the period the project is carried out. This program will continue in 2020.**

#### Closeness to communities

The year of 2019 was marked by the devastation caused by the Idai Cyclone in the Beira region, in Mozambique. In response to this catastrophe, EDP immediately launched an aid initiative, sending two experts from EDP Distribuição, who are specialists in grids and who have had experience in catastrophe scenarios. These EDP employees carried out land recognition and a needs analysis with a view to defining an action plan for restoring electricity in the affected areas.

At the same time, the EDP Group joined the Apoiar Moçambique initiative launched by SIC Esperança, which included partnerships with several companies in Portugal. Through its Volunteering Programme, EDP challenged its employees to prepare Esperança (hope) backpacks, with kits designed to meet the basic needs of schoolchildren.

In 2019, the 9th edition of the EDP Group's Christmas Campaign took place in the various countries where EDP is present. This initiative aims to celebrate Christmas with those who need it most, especially institutionalized people, at risk of social exclusion, through the voluntary involvement of EDP employees. There have been varied initiatives in this campaign: delivery of Christmas baskets, solidarity meals, renewal of spaces, collection of goods for donation, convivial moments, children's entertainment, among others. In 2019, 126 initiatives were developed under this programme, with more than 2100 volunteers, exceeding 11,000 hours of voluntary work, providing a happier Christmas to over 11,800 people and 110 organizations.

#### APOIAR MOÇAMBIQUE – ESPERANÇA BACKPACKS

**Thanks to internal mobilization, the involvement of friends and family, and also the support of volunteers at the various EDP collection points, it was possible to collect 2,100 Esperança Backpacks, made up of essential goods: rice, pasta, beans, tuna, condensed milk, pots, wooden spoons, soaps and T-shirts. In total, together with its partners, 5,100 backpacks were sent to Mozambique through the Portuguese NGDO APOIAR - Portuguese Association for Support for Africa. This initiative continued during the 2019 EDP Group's Christmas Campaign: together with its partners, it was possible to collect more 4,360 backpacks with school material, this time to support the children of the Dondo region in the new school year, which starts in February 2020.**

In 2019, also noteworthy were blood donation initiatives in several geographical areas where the EDP Group is present. Created in 1976, the EDP Blood Donor Association currently has around 3,500 donors in Portugal. In the health area, EDP also supports projects that aim to improve the clinical and social conditions resulting from health problems. The EDP Solidária - Saúde Programme of the EDP Foundation includes the refurbishment of facilities of institutions providing permanent health care, and the donation of medical equipment that can reinforce the offer of clinical resources. The 2019 edition of this programme focused on respiratory diseases, addressing one of the main health problems in Portugal, since respiratory diseases are one of the main causes of morbidity and mortality in the country.



## OBJECTIVE C - PROTECTING NATURAL HERITAGE AND BIODIVERSITY

The EDP Group is aware of the impacts of its assets on natural resources and biodiversity, particularly hydroelectric plants and overhead power lines. In order to mitigate these impacts, EDP supports scientific research projects, programmes for the recovery and enhancement of species and ecosystems, as well as actions to raise awareness of the importance of preserving natural heritage.

In 2019, EDP continued funding for the EDP Chair in biodiversity, details of which can be found on page 149.

The Preservar a Natureza (Preserving Nature) programme, from EDP Distribuição, which focused on the purchase of more than 200,000 indigenous trees for planting in the 7 municipalities of the districts most affected by the fires of 2017 and 2018 in Portugal. For example, in the municipality of Leiria, pine trees were planted during the months of November and December, in order to ensure greater success in re-planting. In addition to purchasing the trees, EDP Distribuição also contributed with volunteers who helped in the planting of the trees.

Both EDP Produção and EDP Distribuição also have programmes for donating vehicles from their fleet, aiming to support local authorities and local communities in the areas of civil protection, the environment, and biodiversity, such as firefighters and forest firefighters. These vehicles meet the needs of these stakeholders, allowing them to expand their capacity for action and enabling their response to safeguard the forest, as well as the lives and assets of the population.

## OBJECTIVE D - PROMOTING ENERGY EFFICIENCY, RENEWABLE ENERGY AND DECARBONIZATION

The EDP Group believes that everyone should be aware of the urgency to identify the risks arising from climate change and adopting mitigation and adaptation measures that protect people, biodiversity and infrastructure from its effects. In this sense, the EDP Group promotes various actions to raise the awareness in communities of the consequences of climate change, the need to develop adaptation plans and the benefits of renewable energy.

### Climate action

The EDP Group organizes visits and open days so that local communities can get to know the producing centres. For example, the EDP Produção Programme Fábricas de Luz (Factories of Light) opens doors to hydro and thermal generation plants in Portugal, while EDP Renováveis Wind Farm Visits programme provides visits to wind farms. During these visits, in addition to publicizing the centres, the company and its business, visitors are made aware of climate change and the need to adopt renewable energy as an important contribution to decarbonization and to mitigate climate change.

Recognizing that the new generations will be the leaders and decision makers of tomorrow, the EDP group attaches particular importance to raising the awareness of this age group in these matters. For this reason, it develops several programmes aimed at the young people, such as the Your Energy and Wind Experts programmes, both from EDP Renováveis. The EDP Renováveis Your Energy programme explains the differences between the various energy generation technologies, with a special focus on renewable energies. In turn, the Wind Experts programme consists of a competition for children, in which participants have to create a wind generator from recyclable materials, with the winning team chosen by a jury. In 2019, the 4<sup>th</sup> edition of this programme took place, with almost 120 school teams from Galicia, Castilla-La Mancha, Asturias, Andalusia, Aragon, Castilla y León and Tarragona, representing an 18% increase in participation since the last edition.

Through its Science Education Service, the EDP Foundation develops ongoing programmes to raise awareness of climate change, decarbonization and knowledge about electricity, adapted to the various audiences that visit the Central Tejo, the former thermoelectric plant that is part of MAAT. Its permanent exhibition, designated as a Circuito Central Eléctrica (Central Electrical Circuit), features original machinery, through which the history of this former factory is told, as well as the evolution of the means of electricity generation from fossil fuels up to renewable energies. It is one of the most visited museum centres in Portugal, especially by school groups. Annually, more than 40,000 students and teachers participate in school trips to this powerplant.

## VOLUNTEER WORK STRATEGY

EDP's Volunteering Programme is a fundamental pillar of the company's relationship with communities and contributes, at the same time, to the development of employees, multiplying the purpose and meaning of their activity. Volunteer actions carry out the EDP Group's Social Investment Policy and Volunteering Strategy.



Over the years, the Volunteer Work Programme, based on the company's conciliation measures adopted during working hours, has attracted an increasing number of participants and, in 2019, there was a 24% participation rate of the total employees of EDP, a result of excellence in the international panorama of corporate volunteering. In addition to employee volunteer work, and given the inclusive nature of the Programme, company retirees, friends, family and partners are also invited to participate in its activities. The talents and skills of these people actively contribute to the development and transformation of communities in the various countries where EDP is present.

Since 2018, the EDP Group's Volunteering Programme has the level of Excellence through the Join4Change Volunteering Work Seal of Quality.

	UN	2019	2018	2017	2016
Single EDP Volunteers <sup>1</sup>	#	2,833	2,469	2,294	2,371
EDP Volunteer Work Hours - Working hours <sup>1</sup>	h	23,258	19,375	24,932	15,835
Beneficiary Organizations	#	797	642	417	407
<b>Skills-based volunteering</b>					
Skills-based volunteering Hours - Work Hours <sup>2</sup>	h	8,907	5,193	2,008	1,550
Skills-based volunteering projects	#	15	12	6	4

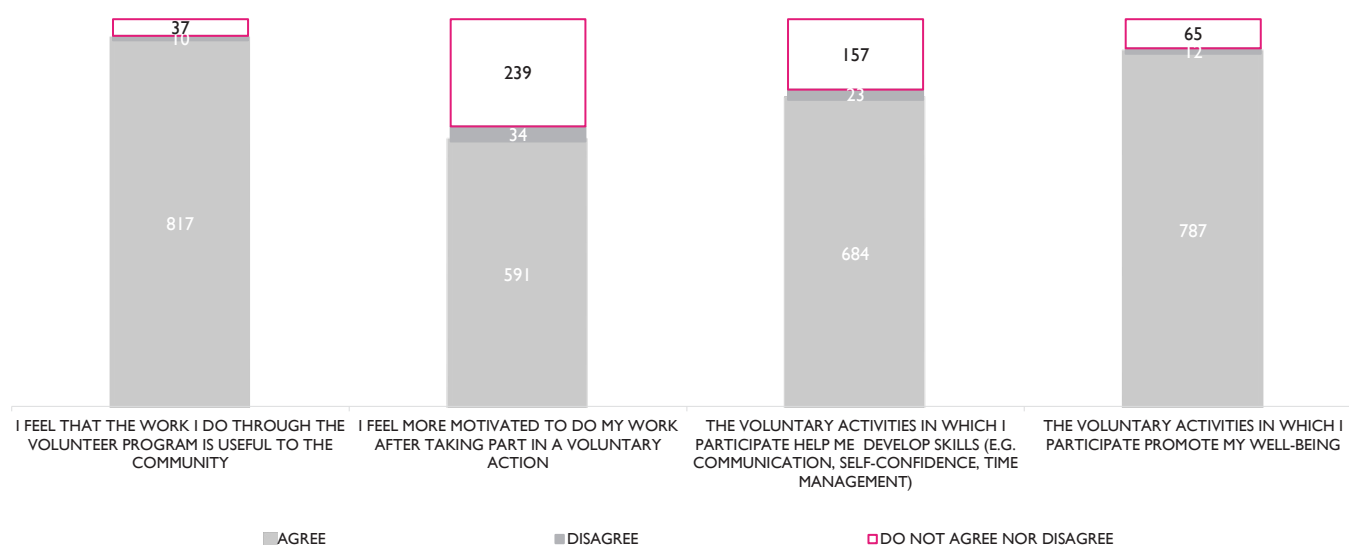
<sup>1</sup> Includes all employees of all the EDP Group companies

<sup>2</sup> Includes voluntary skills projects that contribute to the annual voluntary skills target

In 2019, in all the different activities and projects carried out, 2,833 unique volunteers participated who contributed 23,258 hours during working hours and 6,386 hours outside working hours. 729 Friends of EDP volunteers (retired employees, friends, family and partners) were also involved, contributing 6,907 hours of voluntary work. In total, in 2019, the EDP Group's Volunteering Programme involved 3,915 volunteers, to make a total of 36,551 volunteer hours.

The EDP Volunteer Work Programme has been a lever for attracting new people to voluntary work and active involvement with the community. Through the global survey of satisfaction with the Programme, carried out in 2019 and which received 868 responses, 35% of the volunteers stated that they had carried out their first voluntary work activity through EDP. Confirming the idea that voluntary work creates value both for the participants and for the companies themselves, 79% said they had developed personal and professional skills.

### Volunteer Work Programme satisfaction (#)



through voluntary work initiatives. These results, together with the value of 67 obtained in the Net Promoter Score<sup>8</sup>, reinforce EDP's confidence in its Volunteer Work Programme

## PRIORITY FOR SKILLS-BASED VOLUNTEERING

Skills-based volunteering puts the individual talents and skills of employees at the service of the community and is that which has the potential to have the greatest social impact. The EDP Group invests in skills-based volunteering and is seeking to increase the number of projects/initiatives based on this type of voluntary work.

Thus, in 2019, the EDP Group Volunteering Programme developed 16 skills-based volunteering projects: Energy Campaign; Volunteer Work in schools with Junior Achievement Portugal; LEAN Volunteer Work; Volunteer Work Exchange of Electricians and Energy Efficiency Verifiers; Comunica com Energia (Communicate with Energy) Programme; EDP in Schools; Segurança com a População (Population Safety); Conexão do Bem (Connection with what is Good); Customer +; IEDP partnerships; Energia Solidária (Solidary Energy); EDP Solidária; Energy School Kit; International Women's Day; Fundación EDP Academy and Energy efficiency Workshops. In 2019, the 8,907 hours of skills-based volunteering projects during working hours stand out, reinforcing the EDP Group's strategy in involving volunteers in these types of projects.

In 2019, EDP reinforced its positioning in the area of skills-based volunteering, by celebrating International Energy Day in the various geographical areas where the Group is present. Extending the initiative over a month, employees were challenged to share their skills in the sector, particularly through energy classes in schools and social organizations. This campaign involved 505 volunteer employees from different geographical areas, who through 4,325 hours of volunteer work, benefited 104 organizations and more than 18,200 people.

In 2020, volunteering will continue to be promoted, considering the challenges of local communities, and in line with the EDP Group's social investment and people management strategy. EDP's Volunteering Programme aims to be closer to its communities, bringing more and more skills to its people and third sector organizations.

## IMPACT MANAGEMENT IN LOCAL COMMUNITIES

Guided by its Stakeholder Relations Policy, the EDP Group develops its activity with respect for the interests and rights of local communities. In 2019, in this area, important themes were the management of impacts on indigenous communities in the territories of influence of the São Manoel hydroelectric power plant, in Brazil, and the emerging theme of the Just Transition resulting from the effects on employment in local communities in areas with coal-fired power plants.

### INDIGENOUS COMMUNITIES

The construction, between 2014 and 2018, of the São Manoel Hydroelectric Power Plant, with 700 MW of installed capacity, located on the Teles Pires River, on the border of the Brazilian states of Mato Grosso and Pará, led to EDP being exposed to impacts resulting from interference in the territories historically occupied by the Kayabi, Munduruku and Apiaká ethnic groups. In order to mitigate the negative impacts, but also to enhance the positive effects of the São Manoel power station, EDP has developed programmes for territorial and socioeconomic enhancement with these communities, thereby fully complying with the obligations arising from socio-environmental licensing, acting in full respect for legislation and regulations for the protection of indigenous rights, with all the programmes, projects and commitments assumed having been implemented in a proactive manner involving dialogue and diligence.

In 2019, when the São Manoel power station was already operating, the territorial enhancement programmes continued with the construction of two schools, three basic indigenous health units, a social gathering centre equipped with a community kitchen and a flour house serving seven villages of the Munduruku, Apiaká and Kayabi ethnic groups. As part of the Programme for Strengthening Indigenous Organizations, the granting of 39 technical and higher educational scholarships for indigenous students is underway. The scholarships include the payment of college fees and monthly payments, donation of laptop computers with a backpack for each student, guarantee of travel to the indigenous communities during the holiday period, housing assistance in the amount of 2.5 minimum wages and psychopedagogical support to adapt to the University. This measure covers about 1,200 indigenous people spread over 19 villages, and forms an integral part of the Basic Indigenous Environmental Plan.

<sup>8</sup> The Net Promoter Score is a loyalty metric for users of products/services – quickly measuring their satisfaction. A rating higher than 50 indicates a very good level of satisfaction, with excellence achieved after 75.

The territorial enhancement programme of the São Manoel plant also includes the Forestry Recomposition Programme, which aims to create an area of 1,174.85 hectares for permanent preservation in the Teles Pires River basin. By 2019, 467.12 hectares had been recovered and 727.45 m3 of wood were donated to the municipality of Paranaíta (MT), resulting from the suppression of vegetation to form the dam reservoir. This wood will be used to build social housing and improve wooden bridges on access roads.

## JUST TRANSITION

The goals of energy decarbonization, a key element of the European Union's climate strategy and, in particular, Portugal and Spain, and also a key element of the EDP Group's strategy (see page 59) imply the closure of coal-based energy generation in Sines, Portugal, and Aboño and Soto de Ribera, in Asturias, Spain.

The closure of coal-fired power stations will have a significant negative impact on employment levels and the economy of the local communities, if measures are not taken and mechanisms are not put in place to ensure a just transition that guarantees the well-being and employability alternatives for the affected populations. By taking on the commitment to work towards decarbonization, the EDP Group also made a commitment to work together with governments and local authorities to mitigate any negative impacts and to seek solutions adapted to the need for social balance.

In order to promote public discussion on the necessary measures to guarantee the just transition of the closure of coal plants, EDP carried out socio-economic impact studies associated with its coal-fired plants, detailing the direct, indirect and induced effects on the creation of employment, at the geographical level, the contribution to GDP and the contribution to public revenue. In particular, job destruction could amount to 7% of the population in the municipality of Carreño and 20% of the population of Ribera de Arriba, in Asturias, as well as 2% of the population of Sines, in the Alentejo.

### 3.2.8. SUPPLIER MANAGEMENT

The management of sustainability in the relationship with its suppliers is a strategic vector in the activity of the EDP Group. The management process favours the construction of a relationship of trust and ongoing improvement of suppliers, as a partnership based on the principles of efficiency, quality, ethics, transparency and sustainability.

Through the "Sustainable Procurement Policy" and the "Supplier Code of Conduct" ([www.edp.com](http://www.edp.com)), operationalized by the "Sustainability Protocol for the Supply chain", the strategic objectives for sustainability in supply chain management are defined and the criteria for selection, monitoring, evaluation and development of supplier companies implemented.

The management approach and supplementary information is available at [www.edp.com](http://www.edp.com)> suppliers> sustainable procurement.

## PRIORITIES

Among the priorities in supplier management the following can be highlighted:

- Development of activities that promote the sharing of best sustainability practices in EDP's purchases;
- Contribution to business growth and profitability through promoting initiatives for the development and ongoing improvement of the supply chain;
- Systematic monitoring of supplier performance and risk profile;
- Disclosure 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 training of all stakeholders in the supply chain.



## SUSTAINABILITY OBJECTIVES

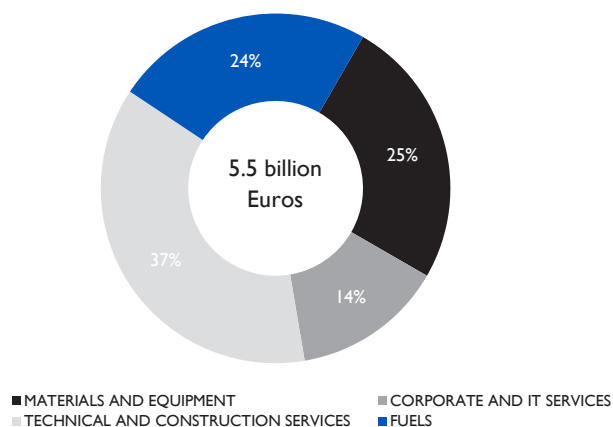
The sustainability objectives are operationalized through five goals that are to be achieved by the end of the year 2020. The degree of achievement of these targets is published on page 60 of this report:

- 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.

## SELECTION AND RELATIONSHIP WITH SUPPLIERS

The Global Procurement Unit (UPG), through the EDPartners programme, ensures the integrated coordination of the activities of registration, selection, qualification, ESG (Environmental, Social and Governance) assessments, evaluation and analysis of provider risk. The combination of four vectors (1) country (2) economic activity (3) ESG supply impact matrix (ESG registration and assessments) and (4) sources of external information about the supplier, guarantees the analysis of sustainability risks. In this way, it is possible to analyse trends and provide EDP with an integrated analysis of the entire supply chain, which is essential for a feeling of partnership and the creation of shared value.

### 2019 volume of purchases



The EDP Group categorises and selects its suppliers by applying a risk and criticality analysis methodology where, in addition to the standard criteria applicable to all suppliers, the minimum sustainability requirements specific to each contract are defined. In conjunction with the technical and normative criteria, each activity to be contracted is characterised 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, Labour and Human Rights risks. Criteria such as the irreplaceability of the supplier or the consequence of interruption of supply, as well as the importance for operation and innovation are equally essential in this segmentation. As a result of this characterization, the contract specifications define the minimum sustainability requirements that all candidate suppliers must comply with.

In establishing minimum mandatory sustainability requirements, the EDP Group applies the "pass or fail rule" principle, which allows it to ensure that all suppliers have the appropriate skills and profile for the type of risks that arise from the activities they have to carry out. The

rules that everyone must accept and comply with are defined and listed in the procurement documents (Code of Conduct, General Purchase Conditions and Contractual Terms). As such, the specifications contained in the proposals include sustainability criteria related to performance, mandatory specifications not subject to negotiation, which in the case of processes subject to qualification systems and depending on the specific risk of supply, require verifications, due diligences, audits and certifications in management systems (quality, environment and occupational safety). Thus, the negotiation of price, technical proposal and commercial conditions are factors in the selection of suppliers applicable only to proposals from suppliers with a low sustainability risk. As a result, and in accordance with the EDP Group's Low Risk Policy, suppliers who do not meet the minimum sustainability requirements are excluded from the consultation process.

After hiring a supplier, a plan for monitoring contractual performance is established which seeks to ensure compliance with the rules established in the contract specifications. The monitoring plan is adapted to the specificities and risks of each contracted activity, covering both commercial, quality, ethical, labour and human rights aspects as well as, when applicable, environmental and health and safety aspects. This monitoring plan includes a set of procedures and checks, from which audits and inspections, improvement plans and training actions can be highlighted. At least once a year, the performance of suppliers is assessed through a system common to the entire EDP Group and its results enable the identification of areas for improvement in the policies and procedures for managing the contractual relationship, as well as excluding suppliers whose performance is inadequate.

## SUPPLY CHAIN DEVELOPMENT

Embodying the defined sustainability strategy, EDPartners has emerged as a structured and systematic programme aiming at the ongoing improvement of suppliers, by identifying areas of activity, the long-term implementation of which will allow EDP to gradually improve the sustainability level of its supply chain.

The EDPartners Supplier Registration System, launched in April 2018, brings together in a single platform all the information relevant to the Procurement activity, aggregating financial, economic, environmental and social data, thereby allowing the EDP to obtain a risk profile of its employees in real time. In this way, the different business areas of EDP can make faster and more informed decisions, based on duly validated quality information. This risk assessment approach consists of a combination of results obtained by third party sources with the analysis of information submitted by the supplier, bringing together the generation of different scores (financial, operational and compliance) and alerts.

EDPartners Qualification Systems is designed to assess the profile, capacity and suitability of the supplier and its supply of goods and services for the acquisition needs of the EDP Group. To carry this out, technical, environmental, and economic-financial criteria are determined and published in official publications, thus guaranteeing the selection of suppliers on principles of equality and transparency for the candidates.

The EDPartners Assessment Programme consists of carrying out on-site audits at the supplier's premises, aiming to obtain information about the degree of compliance of suppliers with the requirements set forth in the EDP Supplier Code of Conduct and, depending on the result obtained, to establish a plan of corrective and improvement actions. All defined plans are monitored by EDP, providing full support to its suppliers so that, within a perspective of ongoing improvement, they can implement the measures identified. In this sense, EDP is committed to its suppliers in relation to Sustainability issues, namely, human rights, governance, social responsibility, prevention and security, labour rights, the environment and quality.

The EDPartners Supplier Evaluation programme enables the EDP Group to measure and quantify the contractual performance of its suppliers in a structured and systematic way. In line with the Supply Chain Sustainability Protocol, the model implemented, in addition to aspects such as execution and operation, mainly considers the evaluation of criteria related to the aspect of sustainability, namely, prevention and safety, environmental management and respect for human, labour and ethical rights. In order to reinforce involvement and partnership with its supply chain, EDP intends with this decentralized process to motivate contract managers to identify, together with their suppliers, areas for improvement and development in order to positively impact improvement throughout its value chain.

At a more relational level, EDP continues to strengthen its consultation with its suppliers through targeted online surveys and initiatives such as EDPartners Talks, which promotes bilateral dialogue to gather experiences in supplier relations with the EDP Group, promoting the ongoing development of communication with its stakeholders. With an objective focused on providing information, the EDP Group conducts EDPartners Workshops annually, making the EDP Group strategy known to the entire value chain, thereby enabling the sharing of knowledge and innovative ideas between the parties.



Payment policy, relationship stability and economic non-dependence, and cooperation are other pillars for the development of the EDP Group's supply chain. The guarantee of certain, swift payments on the contractual dates was implemented through the innovation provided by the digitalization of the documental relationship and constitutes an example of success in the management of the supply chain. The collaboration and promotion of public initiatives in favour of sustainability, through business associations, is an ongoing activity carried out by the EDP Group. The United Nations' 2030 agenda, embodied in the Sustainable Development Goals, is a priority aspect in the EDP Group's supply chain development actions.

In the coal sector, EDP remains an active participant in the Bettercoal initiative (<https://bettercoal.org/>).

## SUPPLY CHAIN IMPACTS

In addition, the EDP Group studies and monitors the country and sector risk impacts of its supply chain. Through input-output methodologies, it is possible to estimate the probability of events with a negative impact and adjust due diligence procedures to suppliers. For example, in direct suppliers, gender inequality is the risk most likely to occur, since it may be present in 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. EDP's environmental impact regarding CO<sub>2</sub> emissions (see scopes 2 and 3 analysis, pages 99 and 183) is largely 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 whom EDP does not establish commercial relations, the probability values go from 0.54% for child labour and 0.39% for forced labour up to 7.9%, 1.4% and 13.4% for, respectively, health and safety, excessive working hours and low wages. As a result, EDP's supply chain sustainability management implies the development of processes and systems to ensure the direct supplier's commitment to improving the sustainability of its own supply chain, thus taking sustainability requirements to indirect suppliers. The application of the EDP Supplier Code of Conduct, as well as close monitoring and follow-up of the suppliers' performance, are the two fundamental pillars to address these risks.

## MONITORING OF HUMAN AND LABOUR RIGHTS

The EDP Group periodically draws up its Assessment Report on the Potential Impacts of Respect for Human and Labour Rights available at: [www.edp.com](http://www.edp.com).

In addition to the existing complaints mechanisms, receiving, checking news sources, inquiries and surveys, the EDP Group monitors contracts exposed to greater context risks and annually and systematically assesses the contractual performance of its suppliers in the areas of Labour and Human Rights.

Additional information in this report on the topic of Supply Chain management:

- Strategic goals and targets page 59;
- Prevention and Safety page 176;
- Statistical information page 191.

### 3.2.9. HEALTH AND SAFETY

Health and Safety at work (OSH) are priorities in the EDP Group's relationship with all its employees, service providers, suppliers and customers. In this area, the Company directs its action through the principles established in the Health and 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 as essential values for success as a business Group.

For EDP, the OHS of all those who apply for the development of its activities is considered a fundamental value for success. By assuming this commitment, based on the principles of sustainable development and applying the highest ethical standards, exceptional levels of performance will be achieved, making the EDP Group an increasingly better place to work.

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 work 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 taken on an important role in 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

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, consciousness, 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 situation.

In regards to emergency preparedness and response, 408 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 EDP, 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 education and behaviour. As such, EDP identifies and communicates the risks associated with its facilities and equipment. However, in 2019, there were 8 fatal electricity-related accidents with third parties (unrelated to EDP activity) in EDP Group facilities or involving EDP Group equipment, one of which led to the death of two people. These occurred in the course of civil construction activities that led to machines/work equipment coming into contact with power lines and unauthorized access to live facilities/equipment.

## PROMOTION OF OCCUPATIONAL HEALTH

EDP, 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 2019, 9,651 medical examinations were carried out in the EDP Group, 834 consultations with employees who have nutrition programmes, 1,444 cardiovascular screenings and 5,100 vaccination programmes against flu, hepatitis B and yellow fever that covered 5,302 employees. Still in the area of occupational health activities, 2,652 sessions involving tests for alcoholism and drug detection were carried out. In 2019, no cases of occupational sickness were registered.

In general terms, the EDP Group considers that, in the development of its activities and with the adequate implementation of existing control measures, employees are not exposed to occupational or work-related illnesses that can be considered high incidence or high risk.

**61,034**

AUDITS, INSPECTIONS,  
VISITS, OBSERVATIONS





## SAFETY INDICATORS

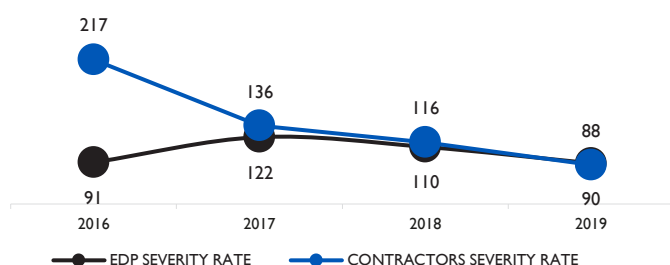
**376,179**

HOURS OF TRAINING

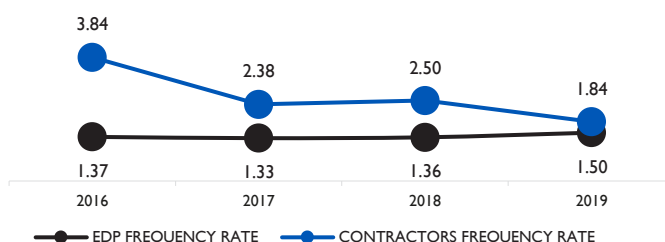
The Occupational Safety and Health Policy within the EDP Group demonstrates its commitment to a model of occupational safety and health management based on ongoing improvement and the conviction that working in a safe, healthy environment is instrumental for employee satisfaction and provides added value for successful results. To better manage the goals of this 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 or, alternatively, taken as a reference for the implementation of their systems. In 2019, the EDP Group counted a total of 6,492 employees covered by OHSAS 18001:2007 / ISO 45001:2018 certifications. The certification covers 97% of installed net power in generation activities.

In 2019, amongst employees and service providers the trend continued to improve in recent years, with the frequency index below the EDP 2020 goal ( $Fr \leq 2$ ), with a strong contribution to it from Portugal and North America, which was benefited in large part by the completion of the hydroelectric facilities and all the actions and efforts regarding the reinforcement of preventive action with service providers.

Severity rate (Tg)



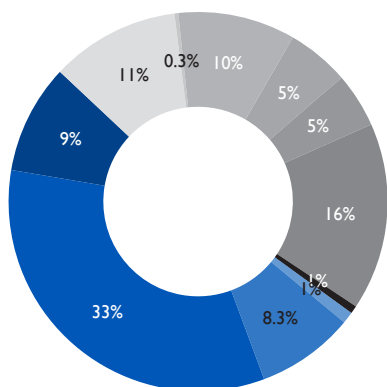
Frequency rate (Tf)



In EDP, there were 111 work accidents for all EDP workers and service providers, registering a decrease of 16% compared to 2018, and consequently in the frequency index (Fr) (1.72 vs. 2.11, in 2018 accidents per million hours worked). Throughout 2019, there were two fatal accidents<sup>9</sup> with service providers (crushing and electrocution) and we are awaiting confirmation of a third, whereby until the end of the year a possible relationship between the death of the worker and the incident still had to be established. Additional information at [www.edp.com](http://www.edp.com).

<sup>9</sup> This figure may be increased to 3 fatal accidents if the ongoing investigation of one (accident in a deforestation job) considers that the death of a worker is related to the incident.

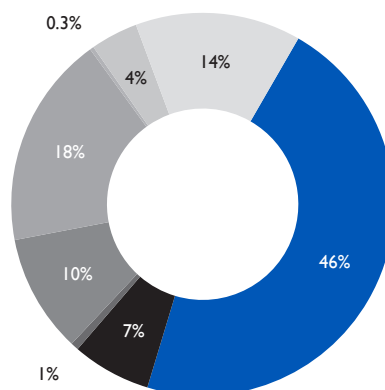
Tipology accidents at work (%)



■ ELECTRICAL CAUSE  
 ■ OTHER FALLS  
 ■ CONTACT/ EXPOSURE TO SUBST. TOXIC  
 ■ INTERACTION WITH OBJECTS  
 ■ INCORRECT MOVEMENT OR OVEREXERTION  
 ■ OTHER

■ FALL FROM HEIGHT  
 ■ CONTACT WITH COLD AND HEAT  
 ■ ENTRAPMENT/ENGULFING  
 ■ ROAD ACCIDENT  
 ■ FIRE/EXPLOSION

Tipology of occupation injury (%)



■ CONTUSION, WOUND  
 ■ EXPOSED FRACTURE  
 ■ SPRAIN, LIGAMENT RUPTURE  
 ■ ELECTRIC DISCHARGE

■ CONTUSION AND INTERNAL INJURIES  
 ■ CLOSED FRACTURE  
 ■ CHEMICAL BURN  
 ■ OTHER

INCLUDES WORK ACCIDENTS OF EDP AND CONTRACTOR EMPLOYEES WITH AND WITHOUT SICK LEAVE AND FATAL ACCIDENTS

Accidents occurring due to interaction with objects are responsible for 35% of accidents, followed by incorrect movements or overexertion, at 12%, other falls (falls at the floor level), at 11%, and 42% resulting from other causes.

When analysing the type of injuries, contusions, wounds represent 46%, sprains, torn ligaments 18%, closed fractures 10% and the remaining types of injury 26%

In addition to the actions and initiatives implemented in 2019, in particular in the areas of training and awareness raising, risk control and assessment, audits and inspections, and information reporting, which have been developed in recent years, EDP will strengthen practices in OSH leadership, organization and processes with the implementation of a Safety Culture programme in 2020.



# Our Way



## VIVA PROGRAMME

### LIFE ALWAYS COMES FIRST!

EDP Brasil aims to achieve high standards of operational excellence and ensure a sustained reduction in labour accidents.

In December 2018, the VIVA safety programme was implemented. This project had been carried out in partnership with DuPont until the end of 2019.

The implementation of this project started with a diagnosis of EDP Brasil's safety culture, which resulted in the identification of three critical aspects:

- Culture, Organization and Awareness;
- Risk management and control measures;
- Continuous improvement.

This project is based on four pillars: (i) Rules and procedures; (ii) Actions; (iii) Beliefs and attitudes; (iv) Situational awareness. For each of these pillars, initiatives were defined to improve and reinforce safety culture

at EDP Brasil. Of the twelve initiatives identified, the following stand out:

- **Safety Committees** - safety committees establish the process of managing health and safety at work for EDP Brasil. These committees meet periodically, and in these forums, leaders discuss safety issues with all hierarchical levels (status of strategic projects and assess indicator trends, to find strategies focused on the objective of zero accidents);
- **Critical Risk Management** - the dangers associated with the activities of all businesses that comprise EDP Brasil were identified, the risks assessed, and the respective control measures applied. This process followed the principal of the ISO 31000 - Risk Management normative framework, with a procedure having been drawn up which has become an important tool for anticipating risks and preventing accidents. This topic is monitored by all the leaders in the safety committees;
- **Accident investigation and analysis** - one of the objectives of the programme in 2019 was to “learn from mistakes”. In this sense, the incident analysis and investigation process was reviewed by the corporate OSH area with the support of DuPont, thus defining a methodology for the identification of a single root cause for EDP Brasil. Roles and responsibilities for this process were reviewed, with the involvement of top management;
- **Service Provider Management** - EDP Brasil currently has approximately 1200 active contracts. To work on this topic, a working group was set up that defined general requirements and criteria for OSH management of service provider companies. In addition, a workshop was held with the contract managers in order to inform them of the new requirements and criteria for contracting;
- **Behavioural Observations** - the behavioural observations programme strengthened the “Visible leadership and partnerships” concept. The training sessions held by DuPont marked the start of this project. After the training, top management put into practice dialogues with some of the employees in the distribution and generation business. Secondly, the same process was carried out, but for executive leaders and field leaders.;
- **Risk perception** - “The Risk Factor” programme was another initiative implemented in partnership with DuPont. This programme aimed to increase the perception of risk of EDP Brasil employees and service providers;
- **Rules that Save Lives** - through consultation carried out with employees, “Rules that Save Lives” were selected. These rules are all related to the critical business procedures of EDP Brasil, where failures in carrying out critical work can cause serious and/or fatal accidents. Selection was made of 8 “Rules that Save Lives” for EDP Brasil, and for the distribution business, 2 more rules were defined in addition to these 8 rules.
- **EDP Safety Stop** – to reinforce the importance of the culture of safety at EDP Brasil, on 29 August 2019, the corporate safety area organized a “general stop” with all EDP Brasil employees and service providers. The “safety stop” was a moment of reflection with the aim of committing all those involved in EDP Brasil’s activities to the aim of Zero Accidents. This action was led by the CEO, at the Distribution Services Centre in Espírito Santo and the Vice-presidents and directors in operations mirrored throughout Brazil.

Since the beginning of the implementation of the VIVA programme, there has been a 50% reduction in the occurrence of service accidents involving sick leave (workers and service providers), compared to 2018. Unfortunately, a fatal accident occurred with a service provider in the distribution business, while the number of fatal accidents in relation to internal workers remained at zero.

EDP Brasil continues to work together with its service providers and employees in order to achieve zero accidents.

In addition to the actions of the VIVA programme, some operational actions were carried out: (i) training in legal requirements, (ii) review of procedures with the aim of improving processes on the ground, (iii) reinforcement of field safety inspections for all businesses, (iv) assessment of legal compliance, (v) training in first aid in partnership with the EDP University, (vi) ongoing analysis of dangers and interactions with teams, according to the activities carried out at each location.

EDP Brasil is in the process of developing its safety culture. The initiatives implemented by the VIVA Programme, in 2019, have enabled the executive and occupational health and safety team to continue its work in consolidating internal safety processes.

It is planned to consolidate the VIVA Programme in the more operational areas through the next steps, which involve applying all the tools and methods acquired throughout the programme.



### 3.3. PERFORMANCE INDICATORS

<b>ECONOMIC BUSINESS SUSTAINABILITY</b>	<b>UN</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>ECONOMIC VALUE GENERATED</b>	<b>000€</b>	<b>15,437,724</b>	<b>16,307,865</b>	<b>17,234,143</b>	<b>15,899,739</b>
Turnover	000€	14,333,009	15,278,085	15,745,987	14,595,164
Other income	000€	1,104,715	1,029,780	1,488,156	1,304,575
<b>ECONOMIC VALUE DISTRIBUTED</b>	<b>000€</b>	<b>13,213,652</b>	<b>14,470,560</b>	<b>14,910,472</b>	<b>14,550,903</b>
Employees	000€	620,196	651,540	680,833	660,616
Suppliers	000€	10,013,401	11,135,864	11,345,442	9,805,006
Shareholders	000€	690,924	690,924	690,924	672,588
Financial sector	000€	1,057,592	1,010,390	1,248,089	1,790,803
Community	000€	25,972	27,805	28,404	26,811
State	000€	658,553	822,140	783,940	1,386,814
Other	000€	147,014	131,897	132,839	208,265
Economic Value Accumulated <sup>1</sup>	000€	2,224,072	1,837,305	2,323,671	1,348,836
Gross value added per employee	000€/#	370	341	402	370
CAPEX	000€	2,258,386	2,031,167	1,725,487	1,963,702
EBITDA	000€	3,705,617	3,317,129	3,989,949	3,759,307
Net Debt/EBITDA	x	3.73	4.06	3.48	4.24
Regulated EBITDA vs. LT Contracted	%	77	77	84	86
Opex/Gross Margin	%	28	30	29	27
Net profit attributable to EDP shareholders	000€	511,751	519,189	1,113,169	960,561

<sup>1</sup> Includes retention of results and non payable costs

<b>INNOVATION AND RESEARCH</b>	<b>UN</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Investment in RDI <sup>1</sup>	000€	162,040	75,366	64,518	36,145
Investment in RDI/Turnover	%	1.13	0.49	0.41	0.25
Number of employees in RDI	#	158	99	105	102

<sup>1</sup> In 2017, the calculation process of this indicator was changed.

<b>DIGITAL TRANSFORMATION</b>	<b>UN</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
<b>SMART METERS</b>					
Portugal	#	2,578,167	1,922,991	1,269,840	693,049
Spain	#	666,478	658,632	614,863	506,411
Brazil	#	16,000	16,800	16,000	13,900
Clients with Re:dy	#	13,097	12,329	9,973	5,903
<b>NUMBER OF MEETINGS PER VIDEOCONFERENCE</b>					
Number of meetings	#	409	401	348	279
Use of the videoconference service <sup>1</sup>	h/year	123,919	115,130	94,116	51,744
<b>ROBOTISATION <sup>2</sup></b>					
Number of robotised activities	#	845	546	196	n.a.
Robotised hours/year	h/year	658,323	442,643	220,477	n.a.
Minimum Viable Products	#	92	18	n.a.	n.a.

<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.

PROMOTION OF RENEWABLE ENERGIES		UN	2019	2018	2017	2016
<b>TOTAL INSTALLED CAPACITY</b>		<b>MW</b>	<b>26,525</b>	<b>26,996</b>	<b>26,597</b>	<b>25,067</b>
Renewable installed capacity	%		73.9	74.4	73.6	72.0
Renewable installed capacity	<b>MW</b>		<b>19,597</b>	<b>20,093</b>	<b>19,695</b>	<b>18,158</b>
Wind	MW		10,667	11,156	10,531	9,969
Hydro	MW		8,728	8,728	8,870	7,946
Mini-Hydro	MW		57	65	148	160
Solar	MW		145	145	145	82
Non-renewable installed capacity	<b>MW</b>		<b>6,928</b>	<b>6,902</b>	<b>6,902</b>	<b>6,910</b>
CCGT	MW		3,729	3,729	3,729	3,736
Coal	MW		3,150	3,124	3,124	3,124
Cogeneration and Waste	MW		49	49	49	49
<b>TOTAL NET GENERATION <sup>1</sup></b>		<b>GWh</b>	<b>66,231</b>	<b>71,614</b>	<b>69,627</b>	<b>69,634</b>
Generation from renewable sources	%		66.6	66.5	56.1	65.5
Generation from renewable sources	<b>GWh</b>		<b>44,137</b>	<b>47,655</b>	<b>39,045</b>	<b>45,611</b>
Wind	GWh		29,768	28,133	27,466	24,334
Hydro	GWh		13,958	18,899	11,186	20,589
Mini-Hydro	GWh		138	397	238	549
Solar	GWh		273	226	155	139
Generation from non-renewable sources	<b>GWh</b>		<b>22,095</b>	<b>23,959</b>	<b>30,582</b>	<b>24,023</b>
CCGT	GWh		10,183	5,333	8,029	5,242
Coal	GWh		10,856	17,471	21,444	17,665
Cogeneration, Waste and Heat	GWh		1,055	1,155	1,109	1,117
Capacity under construction	MW		664	344	828	1,267
Avoided CO <sub>2</sub> emissions <sup>2</sup>	ktCO <sub>2</sub>		24,725	29,221	26,799	32,724

<sup>1</sup> The total net generation includes steam.

<sup>2</sup> CO<sub>2</sub> emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

CLIMATE CHANGE		UN	2019	2018	2017	2016
<b>HYDROELECTRIC PRODUCTIVITY INDEX</b>						
Portugal	#		0.81	1.05	0.47	1.33
Spain	#		0.90	1.28	0.52	1.10
<b>EMISSIONS</b>						
<b>Specific CO<sub>2</sub> emissions <sup>1</sup></b>						
Global	g/kWh		216	257	332	271
Thermal	g/kWh		649	768	756	787
<b>CO<sub>2</sub> equivalent emissions</b>						
<b>SCOPE 1</b>	<b>ktCO<sub>2</sub>eq</b>		<b>14,363</b>	<b>18,429</b>	<b>23,159</b>	<b>18,931</b>
Stationary combustion	ktCO <sub>2</sub> eq		14,338	18,404	23,129	18,900
SF <sub>6</sub> Emissions	ktCO <sub>2</sub> eq		9	10	10	8
Company fleet	ktCO <sub>2</sub> eq		15	15	20	18
Natural gas consumption	ktCO <sub>2</sub> eq		0.04	0.19	0.22	0.48
Natural gas losses	ktCO <sub>2</sub> eq		0	0	0	5
<b>SCOPE 2 (Location-based <sup>2</sup>) <sup>4</sup></b>	<b>ktCO<sub>2</sub>eq</b>		<b>846</b>	<b>602</b>	<b>818</b>	<b>547</b>
Electricity consumption in office buildings	ktCO <sub>2</sub> eq		1	2	2	0
Electricity losses in distribution	ktCO <sub>2</sub> eq		824	577	795	540
Renewable plants self-consumption	ktCO <sub>2</sub> eq		21	23	21	7
<b>SCOPE 2 (Market-based <sup>3</sup>) <sup>4</sup></b>	<b>ktCO<sub>2</sub>eq</b>		<b>829</b>	<b>585</b>	<b>802</b>	<b>547</b>
Electricity consumption in office buildings	ktCO <sub>2</sub> eq		0.1	0.0	0.1	0.1
Electricity losses in distribution	ktCO <sub>2</sub> eq		824	577	795	540
Renewable plants self-consumption	ktCO <sub>2</sub> eq		5	8	7	7
<b>SCOPE 3</b>	<b>ktCO<sub>2</sub>eq</b>		<b>11,730</b>	<b>11,334</b>	<b>13,039</b>	<b>12,469</b>
Purchased goods and services (C01)	ktCO <sub>2</sub> eq		28	49	54	55
Capital Goods (C02)	ktCO <sub>2</sub> eq		349	330	324	287
Fuel and energy related activities (C03)	ktCO <sub>2</sub> eq		6,784	6,399	8,344	7,091
Upstream transportation and distribution (C04)	ktCO <sub>2</sub> eq		611	675	454	304
Business Travels (C06)	ktCO <sub>2</sub> eq		7	10	11	11
Use of sold products (C11)	ktCO <sub>2</sub> eq		3,951	3,871	3,852	4,722



CLIMATE CHANGE	UN	2019	2018	2017	2016
<b>SF6</b>	<b>kg</b>	<b>394</b>	<b>440</b>	<b>422</b>	<b>331</b>
Portugal	kg	194	246	307	213
Spain	kg	54	100	59	40
Brazil	kg	140	92	55	77
North America	kg	6	0	0	0
Rest of the World	kg	0	3	0	1

<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.

NEW ENERGY SERVICES	UN	2019	2018	2017	2016
Energy efficiency services revenues	000€	158,376	151,468	134,114	92,975

ENERGY EFFICIENCY	UN	2019	2018	2017	2016
<b>INTERNAL ENERGY EFFICIENCY</b>					
<b>Thermal efficiency</b>	<b>%</b>	<b>45.9</b>	<b>45.1</b>	<b>45.6</b>	<b>45.1</b>
Coal plants	%	35.6	35.1	35.6	35.7
Natural gas combined cycle plant	%	54.4	53.1	53.5	52.5
Energy intensity	MJ/€	13.8	15.4	17.6	15.1
<b>Electricity Distribution grid losses</b>					
Technical losses	%	5.6	5.4	5.6	5.7
Total losses	%	8.9	8.8	9.2	9.2
<b>EXTERNAL ENERGY EFFICIENCY</b>					
Savings in energy efficiency services <sup>1</sup>	TWh	3.0	2.6	1.5	1.2
CO <sub>2</sub> avoided emissions in the final customer <sup>1</sup>	ktCO <sub>2</sub>	1,169	948	707	471
Energy consumed outside the organization <sup>2</sup>	TJ	290,331	304,391	309,233	324,286

<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).

SUSTAINABLE MOBILITY	UN	2019	2018	2017	2016
Fleet electrification	%	9.0	7.5	5.6	n.a.
Fleet Electric vehicles	#	283	278	207	n.a.
Electric charging points	#	772	467	n.a.	n.a.
Customers with electric mobility solutions	#	10,100	5,546	n.a.	n.a.



SATISFACTION AND CUSTOMER SERVICE		UN	2019	2018	2017	2016
NUMBER OF CUSTOMERS						
<b>Electricity</b>	#		9,828	9,849	9,886	9,806
Regulated market	#		4,786	4,797	4,818	4,941
Liberalised market	#		5,042	5,052	5,068	4,865
<b>Gas</b>	#		1,599	1,595	1,585	1,498
Regulated market	#		89	92	96	106
Liberalised market	#		1,510	1,503	1,489	1,392
CUSTOMERS SATISFACTION <sup>1</sup>						
<b>Overall customers satisfaction</b>	%		77.4	78.2	75.7	76.5
Portugal	%		78.3	77.8	76.5	76.6
Spain	%		78.9	77.5	75.8	73.1
Brazil	%		76.3	80.2	73.8	78.3
CUSTOMERS BY TYPE OF USE <sup>2</sup>						
<b>Electricity customers</b>						
Domestic	%		87	87	87	87
Industrial	%		1	1	1	1
Commercial	%		8	8	8	7
Agriculture	%		3	3	2	3
Other	%		1	1	1	2
<b>Gas customers</b>						
Domestic	%		97	97	97	97
Industrial	%		0	0	0	0
Commercial	%		1	1	1	1
Agriculture	%		0	0	0	0
Other	%		1	1	1	2
CUSTOMER OMBUDSMAN						
<b>Ombudsman's answer orientation <sup>3</sup></b>						
Concordant	%		35	45	38	38
Discordant	%		27	23	25	23
Partial concordant	%		8	9	7	4
Resolved issues	%		31	23	31	35
SERVICE QUALITY						
<b>Portugal</b>						
Installed Capacity Equivalent Interruption Time <sup>4</sup>	Min		56	61	53	50
<b>Spain</b>						
Installed Capacity Equivalent Interruption Time <sup>4</sup>	Min		26	17	20	24
<b>Brazil</b>						
<b>Average Interruption Duration per Consumer</b>						
Bandeirante	Hours		6.98	7.75	7.87	8.47
Escelsa	Hours		8.19	8.24	8.42	8.80
<b>Frequency of Interruptions per Consumer</b>						
Bandeirante	#		4.52	4.83	4.96	5.42
Escelsa	#		4.84	4.76	5.20	5.40
SERVICE RECONNECTION						
<b>Electricity Supply Reconnection After Payment of Debt by Customer</b>						
<b>Portugal <sup>5</sup></b>	#		292,142	265,268	237,312	244,949
< 4h (urgent)	#		63,236	32,105	17,834	12,469
< 8h (other clients)	#		819	1,041	1,089	1,431
< 12h (clients NLV)	#		228,087	232,122	218,389	231,049
<b>Spain <sup>6</sup></b>	#		9,209	5,771	12,553	12,009
< 24 hours	#		4,974	2,561	11,297	8,432
< 48 hours	#		1,593	1,346	999	679
between 48 hours and 1 week	#		1,185	1,034	239	1,099
> 1 week	#		1,457	830	18	1,799
<b>Brazil</b>	#		453,237	539,318	551,875	473,362
< 24h	#		404,344	490,670	471,847	427,047
< 1 week	#		43,731	45,628	75,431	43,167
> 1 week	#		5,162	3,020	4,597	3,148



SATISFACTION AND CUSTOMER SERVICE	UN	2019	2018	2017	2016
<b>E-Voicing</b>					
Portugal	%	39	44	34	29
Spain	%	47	38	35	33
Brazil	%	23	38	15	8
Fines paid for failure in supply and use of products and services	000€	4,466	4,140	3,486	3,690

<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	2019	2018	2017	2016
<b>CUSTOMERS WITH SOCIAL TARIFF</b>	#	818,922	813,614	895,800	887,158
<b>Electricity</b>	#	803,025	797,614	879,941	871,019
Portugal	#	587,997	615,183	661,103	662,829
Spain	#	51,132	38,560	56,961	59,011
Brazil	#	163,896	143,871	161,877	149,179
<b>Gas</b>	#	15,897	16,000	15,859	16,139
Portugal	#	15,897	16,000	15,859	16,139
<b>PRIORITY CUSTOMERS <sup>1</sup></b>	#	3,077	3,235	3,405	3,337
<b>Electricity</b>	#	3,077	3,235	3,405	3,337
Portugal	#	3,077	3,235	3,405	3,337
Spain	#	n.a.	n.a.	n.a.	n.a.
Brazil	#	n.a.	n.a.	n.a.	n.a.
<b>SPECIAL NEEDS CUSTOMERS <sup>2</sup></b>	#	1,040	964	2,670	2,696
<b>Electricity</b>	#	1,040	964	2,670	2,696
Portugal <sup>3</sup>	#	265	270	2,270	2,212
Spain	#	n.a.	n.a.	n.a.	n.a.
Brazil	#	775	694	400	484

<sup>1</sup> Customers whose survival depends on equipment or customers that provide safety or health services, essential for the community (according to Article 103 of the Regulation on the Quality of Service of the Electricity and Natural Gas sector - Portugal).

<sup>2</sup> Customers with limitations in the field of vision (total blindness or hypovision), audition (total deafness or hearing loss) and in the field of oral communication (according to Article 100 of the Service Quality Regulation for the Electricity and Natural Gas sector - Portugal).

<sup>3</sup> As a result of the application of the new Quality of Service Regulation in Portugal, customers for whom survival or mobility depends on equipment whose operation is ensured by the electricity network, and customers who live with people in these conditions, are no longer characterized as customers with special needs, and started to be considered as priority customers.

CORPORATE GOVERNANCE	UN	2019	2018	2017	2016
<b>NUMBER OF MEMBERS</b>					
EBD	#	9	9	8	8
GSB <sup>1</sup>	#	21	20	21	21
<b>NUMBER OF INDEPENDENT MEMBERS</b>					
GSB <sup>1</sup>	#	11	10	11	11
<b>NUMBER OF WOMEN</b>					
EBD	#	2	2	0	0
GSB	#	5	4	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	2019	2018	2017	2016
<b>ETHICS</b>					
<b>Claims</b>					
Total claims <sup>1</sup>	#	588	465	426	406
<b>Claims before the Ethics Committee <sup>2</sup></b>	#	150	125	141	52
Complaints classification by authorship					
Client	#	7	17	21	12
Citizen	#	16	8	10	5
Employee	#	25	29	26	11
Supplier	#	2	4	10	4
Anonymous	#	100	67	74	20
Complaints classification by category					
Fairness of solutions	#	7	1	1	5
Neglect or disrespect	#	111	93	77	7
Transparency	#	10	7	41	10
Use of information or assets	#	10	10	11	29
Environment and responsibility towards society	#	1	1	1	0
Fraud, corruption and bribery	#	11	13	10	1
Actions determined by the Ethics Committee					
Revisions/improvements of procedures	#	40	16	26	15
Compensation of damages	#	2	3	0	5
Disciplinary action	#	16	8	3	4
Training	#	0	4	4	10
Other	#	0	9	18	10
<b>Information security / cybersecurity</b>					
Information security incidents <sup>3</sup>	#	4,631	1,260	1,624	686
Fines for violation of privacy and loss of customers' data	#	3	5	4	6
Fines for violation of privacy and loss of customers' data	000€	36	48	110	50
<b>Transparency in institutional relations</b>					
Costs related to lobbying	000€	4,607	3,875	3,845	3,550
<b>HUMAN RIGHTS</b>					
Human Rights Policy	y/n	y	y	y	y
Human Rights due diligence process	y/n	y	y	y	y

<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	2019	2018	2017	2016
Current tax	000€	145,858	245,613	178,419	824,341
Support from public authorities	000€	103,105	47,958	42,118	51,246



ENVIRONMENTAL PROTECTION		UN	2019	2018	2017	2016
<b>ISO 14001 CERTIFICATION</b>						
ISO 14001 certification <sup>1</sup>	%		96	96	88	91
<b>PREVENTION OF POLLUTION</b>						
<b>Total NO<sub>x</sub> emissions</b>						
Portugal	kt		2.8	4.6	6.1	5.2
Spain	kt		3.9	5.7	6.0	5.9
Brazil	kt		4.1	3.9	4.9	5.2
<b>Total SO<sub>2</sub> emissions</b>						
Portugal	kt		2.0	3.8	4.3	3.5
Spain	kt		1.5	6.0	8.2	6.5
Brazil	kt		12.8	11.4	17.2	9.9
<b>Total particulate matter emissions</b>						
Portugal	kt		0.04	0.09	0.04	0.04
Spain	kt		0.10	0.24	0.56	0.61
Brazil	kt		1.52	1.72	0.89	0.52
<b>WASTE MATERIALS</b>						
<b>Waste</b>						
Hazard waste	%		2.19	1.55	0.94	1.35
Non-hazard waste	%		97.81	98.45	99.06	98.65
<b>Recovered waste</b>	t		<b>210,846</b>	<b>272,964</b>	<b>304,167</b>	<b>288,898</b>
Recycled waste	t		126,236	219,972	249,733	257,711
Other	t		84,610	52,992	54,434	31,186
Non-recovered waste	t		21,335	76,365	362,604	188,475
<b>Main waste categories</b>						
Fly ash	%		82.69	79.60	83.44	67.76
Slag	%		13.21	16.33	14.70	29.12
Gypsum	%		1.81	2.28	1.08	1.61
Used oils	%		0.10	0.13	0.09	0.14
PCB	%		0.01	0.01	0.01	0.02
Metals	%		2.19	1.66	0.69	1.35
<b>By-products</b>	t		<b>291,122</b>	<b>512,731</b>	<b>509,572</b>	<b>603,588</b>
Gypsum	t		99,787	165,785	197,668	139,644
Fly ash	t		157,253	311,234	298,883	463,943
Slag	t		34,082	35,712	13,022	n.a.
Specific production of waste materials	t/GWh		7.90	12.04	16.89	15.52
Recovered waste materials	%		95.92	91.14	69.18	82.56
<b>NATURAL RESOURCES</b>						
<b>Total water withdrawal</b>						
Freshwater	10 <sup>3</sup> xm <sup>3</sup>		18,315	19,544	24,824	25,016
Salt and estuarine water	10 <sup>3</sup> xm <sup>3</sup>		977,994	1,518,069	1,733,609	1,485,262
In water-stressed regions	10 <sup>3</sup> xm <sup>3</sup>		11,774	10,326	13,796	14,157
<b>Total water discharge</b>						
Discharge into inland water	10 <sup>3</sup> xm <sup>3</sup>		1,783	1,471	1,886	1,519
Discharge into estuary water and sea	10 <sup>3</sup> xm <sup>3</sup>		974,516	1,516,478	1,730,456	1,484,090
Municipal treatment	10 <sup>3</sup> xm <sup>3</sup>		2.27	2.67	2.93	8.95
In water-stressed regions	10 <sup>3</sup> xm <sup>3</sup>		1,255	848	1,266	3,853
<b>Total water consumption</b>						
<b>Water consumption</b>	10 <sup>3</sup> xm <sup>3</sup>		<b>21,736</b>	<b>21,800</b>	<b>28,370</b>	<b>29,000</b>
Total freshwater consumption	10 <sup>3</sup> xm <sup>3</sup>		16,817	18,372	23,234	23,817
In water-stressed regions	10 <sup>3</sup> xm <sup>3</sup>		11,192	10,130	13,796	14,157
Specific fresh water consumption	m <sup>3</sup> /GWh		254	257	334	342
<b>Fuel</b>						
Coal	TJ		101,514	165,982	204,044	169,582
Natural gas	TJ		70,823	40,425	57,013	39,160
Diesel	TJ		173	202	182	230
Fuel oil	TJ		337	297	183	373
Waste gas	TJ		11,836	14,509	15,016	10,994

ENVIRONMENTAL PROTECTION	UN	2019	2018	2017	2016
<b>Chemicals consumption</b>					
Sodium hydroxyde	t	892	178	1,682	1,561
Hydrochloric acid	t	1,008	1,247	3,225	2,734
Sodium hypochlorite	t	4,175	3,673	3,006	4,268
Ammonia	t	10,557	16,562	22,821	23,259
Calcareous	t	54,267	71,807	77,299	58,096
Acquired oils	t	229	138	90	120
<b>Environmental fines</b>	<b>000€</b>	<b>4</b>	<b>3</b>	<b>19</b>	<b>29</b>

<sup>1</sup> Aggregated certification indicator due to assets with potential environmental impacts.

PEOPLE MANAGEMENT	UN	2019	2018	2017	2016
<b>EMPLOYEES</b>	<b>#</b>	<b>11,660</b>	<b>11,631</b>	<b>11,657</b>	<b>11,992</b>
Female	%	25	25	24	24
Male	%	75	75	76	76
<b>EMPLOYEES DISTRIBUTION BY PROFESSIONAL CATEGORY</b>					
<b>EBD</b>	<b>#</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>
Female	#	2	2	0	0
Male	#	7	7	8	8
<b>Senior Management</b>	<b>#</b>	<b>827</b>	<b>709</b>	<b>750</b>	<b>733</b>
Female	#	199	154	166	155
Male	#	628	555	584	578
<b>Supervisors</b>	<b>#</b>	<b>783</b>	<b>754</b>	<b>766</b>	<b>806</b>
Female	#	199	207	208	223
Male	#	584	547	558	583
<b>Specialists</b>	<b>#</b>	<b>4,528</b>	<b>4,369</b>	<b>4,093</b>	<b>3,996</b>
Female	#	1,649	1,552	1,423	1,351
Male	#	2,879	2,817	2,670	2,645
<b>Technicians</b>	<b>#</b>	<b>5,513</b>	<b>5,790</b>	<b>6,041</b>	<b>6,450</b>
Female	#	876	951	1,010	1,100
Male	#	4,637	4,839	5,031	5,350
<b>EMPLOYEES DISTRIBUTION BY AGE GROUP</b>					
<b>≥ 50</b>	<b>#</b>	<b>3,445</b>	<b>3,919</b>	<b>4,477</b>	<b>4,910</b>
Female	#	683	757	835	907
Male	#	2,762	3,162	3,642	4,004
<b>[30-50[</b>	<b>#</b>	<b>6,324</b>	<b>5,949</b>	<b>5,632</b>	<b>5,601</b>
Female	#	1,709	1,624	1,529	1,527
Male	#	4,615	4,325	4,103	4,075
<b>&lt; 30</b>	<b>#</b>	<b>1,891</b>	<b>1,891</b>	<b>1,891</b>	<b>1,891</b>
Female	#	533	485	444	396
Male	#	1,358	1,278	1,105	1,085
<b>EMPLOYEES DISTRIBUTION BY GEOGRAPHY</b>					
Portugal	%	50	52	54	54
Spain	%	15	15	14	16
Brazil	%	27	26	25	25
North America	%	6	5	4	3
Rest of the world	%	2	2	2	2



PEOPLE MANAGEMENT		UN	2019	2018	2017	2016
ELIGIBLE EMPLOYEES FOR RETIREMENT						
<b>EBD</b>						
1 to 5 years	#	3	1	1	1	1
5 to 10 years	#	5	5	4	4	4
<b>Senior Management</b>						
1 to 5 years	#	104	109	135	149	149
5 to 10 years	#	165	268	208	222	222
<b>Supervisors</b>						
1 to 5 years	#	53	47	79	106	106
5 to 10 years	#	91	221	137	174	174
<b>Specialists</b>						
1 to 5 years	#	322	354	414	409	409
5 to 10 years	#	526	1,475	675	703	703
<b>Technicians</b>						
1 to 5 years	#	1,370	1,511	1,923	1,999	1,999
5 to 10 years	#	1,713	2,341	2,617	2,947	2,947
<b>RATIO EDP MINIMUM WAGE/NATIONAL MINIMUM WAGE</b>						
Portugal	x	1.75	1.45	1.49	1.54	1.54
Spain	x	1.24	1.28	1.30	1.40	1.40
Brazil	x	1.41	1.41	1.43	1.49	1.49
USA	x	2.07	2.48	2.47	2.34	2.34
<b>REASONS FOR LEAVING/GEOGRAPHY</b>						
End of fixed-term contracts	%	2	3	3	3	3
Terminated by mutual agreement	%	4	5	4	3	3
Terminated by employee	%	26	19	14	17	17
Dismissals	%	18	19	22	28	28
Early retirements	%	39	42	27	31	31
Age/invalidity retirement	%	6	8	6	10	10
Other reasons for leaving	%	5	5	25	8	8
<b>SALARY RATIO F/M BY PROFESSIONAL CATEGORY</b>						
<b>Technicians</b>						
Portugal	x	1.23	1.19	1.16	1.13	1.13
Spain	x	0.80	0.77	0.77	0.81	0.81
Brazil	x	0.98	0.97	0.97	0.99	0.99
USA	x	1.08	1.07	1.08	1.09	1.09
Rest of the world	x	1.11	1.01	1.32	1.04	1.04
<b>Specialists</b>						
Portugal	x	0.94	0.92	0.90	0.91	0.91
Spain	x	0.93	0.94	0.91	0.90	0.90
Brazil	x	0.81	0.78	0.81	0.78	0.78
USA	x	0.92	0.92	0.93	0.93	0.93
Rest of the world	x	0.90	0.90	0.88	0.89	0.89
<b>Supervisors</b>						
Portugal	x	0.97	1.01	0.98	0.96	0.96
Spain	x	0.84	0.85	0.85	0.88	0.88
Brazil	x	1.03	0.99	0.94	1.09	1.09
USA	x	0.96	0.95	1.02	1.01	1.01
Rest of the world	x	1.03	0.83	1.44	0.78	0.78
<b>Senior Management</b>						
Portugal	x	0.93	0.93	0.92	0.90	0.90
Spain	x	0.83	0.82	0.86	0.87	0.87
Brazil	x	0.87	0.92	0.86	0.79	0.79
USA	x	1.00	1.04	1.02	1.03	1.03
Rest of the world	x	0.92	0.61	0.58	0.73	0.73

PEOPLE MANAGEMENT	UN	2019	2018	2017	2016
<b>EMPLOYEES SATISFACTION</b>					
<b>Engagement</b>	%	73	72	75	74
Female	%	74	72	75	74
Male	%	73	73	75	74
<b>Enablement</b>	%	71	70	70	70
Female	%	69	67	68	67
Male	%	72	70	71	70
<b>TURNOVER</b>	%	10.51	10.32	9.04	6.38
Male	%	10.57	10.67	8.56	6.18
Female	%	10.36	9.25	10.56	7.03
<30 years	%	8.46	8.00	22.21	17.23
[30-50 years[	%	5.55	4.96	6.80	4.61
≥50 years	%	20.75	19.49	7.48	5.12
Voluntary employee turnover	%	2.70	1.98	1.44	1.16
HC ROI	%	6.96	6.35	6.46	7.25
Return on Employee Development Investment	€/p	38	34	31	36
Training investment per employee	€/p	322	348	372	496
Training amount	h	400,504	398,394	473,078	389,883

COMMUNITY INVOLVMENT AND DEVELOPMENT	UN	2019	2018	2017	2016
<b>INVESTMENT IN THE COMMUNITY <sup>1</sup></b>					
<b>Category</b>	000€	23,650	26,798	27,337	25,424
Nonstrategic investment	000€	1,534	286	822	1,975
Strategic investment	000€	20,652	24,443	25,855	21,990
Commercial initiative	000€	1,464	2,069	660	1,459
<b>Nature</b>	000€	23,650	26,798	27,337	25,424
Education	000€	2,002	3,580	4,384	3,014
Health	000€	1,545	1,565	1,519	1,745
Economic development	000€	3,576	5,795	2,434	2,637
Environment	000€	1,616	1,057	1,961	1,617
Art and culture	000€	10,585	10,749	9,923	10,361
Social welfare	000€	2,907	3,231	6,360	5,226
Emergency response	000€	120	19	393	24
Other	000€	1,299	802	363	800
<b>Type</b>	000€	23,650	26,798	27,337	25,424
Cash contributions	000€	19,320	24,283	24,376	23,194
Kind contributions	000€	3,768	61	105	250
Working time contributions	000€	562	2,454	2,856	1,980
Management costs	000€	2,322	1,007	1,067	1,387
Total value of contributions (including management costs)	000€	25,972	27,805	28,404	26,811
Beneficiary entities	#	2,490	2,066	1,573	1,778
<b>CORPORATE VOLUNTEERING <sup>2</sup></b>					
EDP Volunteers	#	2,833	2,469	2,294	2,371
EDP time used in volunteering	h	23,258	19,375	24,932	15,835
Beneficiary entities	#	797	642	417	407

<sup>1</sup> Determined according to the LBG methodology. Not yet validated by Corporate Citizenship.

<sup>2</sup> Alignment of reporting criteria in the year 2016.





SUPPLIER MANAGEMENT		UN	2019	2018	2017	2016
SUPPLIERS GLOBAL ACQUISITIONS						
<b>Suppliers</b>	<b>#</b>	<b>16,644</b>	<b>16,040</b>	<b>17,259</b>	<b>17,648</b>	
Portugal	#	4,189	4,597	5,121	5,683	
Spain	#	1,936	1,966	2,102	2,567	
Brazil	#	4,352	4,821	4,934	4,705	
North America	#	763	527	890	668	
Rest of the world	#	5,404	4,129	4,212	4,025	
<b>Volume of purchases</b>	<b>M€</b>	<b>4,157</b>	<b>3,143</b>	<b>3,312</b>	<b>3,235</b>	
Portugal	M€	757	795	826	924	
Spain	M€	214	225	229	278	
Brazil	M€	673	526	854	780	
North America	M€	1,182	785	1,081	862	
Rest of the world	M€	1,331	812	322	391	
<b>Local Suppliers volume of purchases</b>						
Portugal	%	92	93	98	95	
Spain	%	88	100	100	90	
Brazil	%	99	99	98	90	
North America	%	100	100	94	99	
Rest of the world	%	92	100	100	97	
<b>Certified Critical Suppliers <sup>2</sup></b>						
ISO 14001 or equivalent	%	82	68	30	30	
OHSAS 18001 or equivalent	%	65	62	27	28	
<b>FUEL SUPPLY <sup>3</sup></b>						
<b>Suppliers <sup>4</sup></b>	<b>#</b>	<b>76</b>	<b>61</b>	<b>73</b>	<b>72</b>	
Portugal	#	25	22	33	34	
Spain	#	46	32	34	30	
Brazil	#	8	7	6	11	
France	#	2	0	0	0	
<b>Turnover</b>	<b>M€</b>	<b>1,337</b>	<b>1,296</b>	<b>1,444</b>	<b>986</b>	
Portugal	M€	369	490	521	370	
Spain	M€	870	641	756	479	
Brazil	M€	97	165	167	137	
France	M€	0	0	0	0	
<b>Local</b>	<b>%</b>	<b>51</b>	<b>52</b>	<b>50</b>	<b>57</b>	
Portugal	%	57	40	36	48	
Spain	%	52	72	68	74	
Brazil	%	18	11	12	22	
France	%	100	0	0	0	
<b>CERTIFIED FUEL SUPPLIERS <sup>2</sup></b>						
ISO 9001	%	77	82	77	83	
ISO 14001 or equivalent	%	74	82	78	82	
OHSAS 18001 or equivalent	%	58	81	78	78	
<b>COAL ORIGIN</b>						
Colombia	%	76	79	79	92	
USA	%	13	10	8	1	
South Africa	%	0	2	2	4	
Russia	%	8	9	11	1	
Spain	%	0	0	0	2	

<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.

HEALTH AND SAFETY		UN	2019	2018	2017	2016
EMPLOYEES						
Accidents at work <sup>1</sup>	#	29	29	28	30	
Fatalities	#	0	2	0	0	
Frequency rate <sup>2</sup>	Tf	1.50	1.36	1.33	1.37	
Severity rate <sup>3</sup>	Tg	90	110	122	91	
CONTRACTORS						
Accidents at work <sup>1</sup>	#	82	106	100	158	
Fatalities <sup>4</sup>	#	2	5	4	3	
Frequency rate <sup>2</sup>	Tf	1.84	2.50	2.38	3.84	
Severity rate <sup>3</sup>	Tg	88	116	136	217	

<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> Accidents occurred involving people outside EDP activity. It should be noted that a third dead was still awaiting confirmation by the end of last year of a possible relationship of the workers's death to be the incident.



Lisbon, March 10, 2020

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 Moraes Pinto Pereira Carneiro



**TO OVER  
DWINO  
FENTO**



WIND  
ENERGY

TOV  
WIND  
VENTO





# 04

## 04 ANNEXES

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# 04

## ANNEXES

## BIOGRAPHY OF CORPORATE ENTITIES

### GENERAL AND SUPERVISORY BOARD



<b>Full name</b>	LUÍS FILIPE MARQUES AMADO
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Chairman
<b>Committees</b>	Corporate Governance and Sustainability Committee Chairman  Financial Matters Committee/Audit Committee Chairman
<b>Skills and Experience</b>	Degree in Economics – Lisbon University (76)   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 Defense 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)
<b>EDP's Historic</b>	General and Supervisory Board Vice Chairman (April 2015 - April 2018)   General and Supervisory Board Chairman (since April 2018)
<b>Current External Appointments</b>	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)



<b>Full name</b>	DINGMING ZHANG
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Vice Chairman
<b>Committees</b>	-
<b>Skills and Experience</b>	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-I I)   Director - Guangzhou Development Industry
<b>EDP's Historic</b>	General and Supervisory Board Vice Chairman, in representation of China Three Gorges (February 2012 – April 2015)   General and Supervisory Board Member, in representation of CWEL (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
<b>Current External Appointments</b>	President - Beijing Yangtze Power Capital (15)





<b>Full name</b>	SHENGLIANG WU
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Remuneration Committee Chairman   Strategy and Performance Committee Member
<b>Skills and Experience</b>	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)
<b>EDP's Historic</b>	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
<b>Current External Appointments</b>	Executive Vice-President – China Three Gorges International Corporation (15)   Chairman - China Three Gorges (Europe), S.A. (15)



<b>Full name</b>	IGNACIO HERRERO RUIZ
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member  Strategy and Performance Committee Member
<b>Skills and Experience</b>	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)
<b>EDP's Historic</b>	General and Supervisory Board Member, in representation of China Three Gorges (Europe), S.A., since December 2018
<b>Current External Appointments</b>	Executive Vice-Chairman at China Three Gorges Corporation (Europe), S.A. (16)



<b>Full name</b>	LI LI
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member
<b>Skills and Experience</b>	<p>Bachelor's degree in International Business with a major in Hydropower Engineering   First-class Constructor in China   Assistant Engineer at Planning Department – CWE (84-85)   Assistant Engineer/Engineer – CWE Tunisian Branch (85-89)   Engineer at Hydropower Department – CWE (89-93)   Engineer – CWE Romanian Branch (94-95)   Senior Engineer at Hydropower Department – CWE (95-99)   Project Manager (<i>the Odaw Drainage Channel</i>) – CWE (99-00)   Deputy General Manager - CWE (00-01)   Project Manager (<i>the Water Mains</i>) – CWE (01-03)   Deputy/General Manager at International Business Department – CWE (03-11)   Vice-Chairman – CWE (11-15)   Chairman – CWE (15-17)   Executive Director – CWE (17-19)</p>
<b>EDP's Historic</b>	General and Supervisory Board Member, in representation of China Three Gorges Brasil Energia Ltda., since December 2019
<b>Current External Appointments</b>	Deputy Chief Economist – China Three Gorges Brazil (since 2019)







<b>Full name</b>	EDUARDO DE ALMEIDA CATROGA
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Strategy and Performance Committee Chairman
<b>Skills and Experience</b>	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
<b>EDP's Historic</b>	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
<b>Current External Appointments</b>	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)

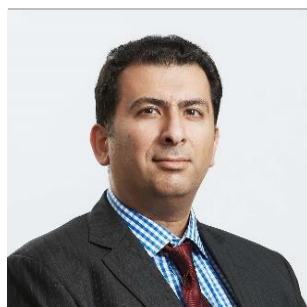


<b>Full name</b>	FELIPE FERNÁNDEZ FERNÁNDEZ
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member
<b>Skills and Experience</b>	Degree in Administrative and Economic Sciences – Bilbao University (75)   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
<b>EDP's Historic</b>	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
<b>Current External Appointments</b>	Board of Director Member – Liberbank (11)   Chairman of Board of Directors - Lico Leasing (17)   Executive Commission Member - Lico Leasing (18)   Board of Directors Member - Tudela Veguín (11)   Masaveu Inmobiliaria (14)   Cimento Verde do Brasil (14)   Board of Director Member – Molecular Oncology Medicine Institute of Asturias (14)





<b>Full name</b>	FERNANDO MARÍA MASAVEU HERRERO
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Remuneration Committee Member   Strategy and Performance Committee Member
<b>Skills and Experience</b>	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.
<b>EDP's Historic</b>	General and Supervisory Board Member, since February 2012 (re-elected in April 2015 and April 2018)
<b>Current External Appointments</b>	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   Protrector – Asturias Princess Foundation   Executive Committee Member - Asturias Princess Foundation   Chairman of the Board of Directors - Oppidum Capital



<b>Full name</b>	MOHAMMED ISSA KHALFAN AL-HURAIMEL AL-SHAMSIS
<b>Status</b>	Non-independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Strategy and Performance Committee Member
<b>Skills and Experience</b>	Bachelor's degree in Business Administration – American University of Sharjah (01)   MBA - HEC School of Management (05)   Consultant - McKinsey & Company (05-07)   Director of Strategy & 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)
<b>EDP's Historic</b>	General and Supervisory Board Member, in representation of Senfora BV, since October 2017 (re-elected in April 2018)
<b>Current External Appointments</b>	Director of Utilities Investments - Mubadala Investments Company (11)

	<b>Full name</b>	NUNO MANUEL DA SILVA AMADO
	<b>Status</b>	Non-independent
	<b>Position</b>	General and Supervisory Board Member
	<b>Committees</b>	Strategy and Performance Committee Member
	<b>Skills and Experience</b>	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 & 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 Totta, SGPS (06-12)   Chairman of the Executive Committee - Banco Comercial Português (12-18)
	<b>EDP's Historic</b>	General and Supervisory Board Member, since May 2013 (re-appointed in April 2015 and April 2018)
	<b>Current External Appointments</b>	Chairman – Banco Comercial Português (18)
	<b>Full name</b>	KARIM DJEBBOUR
	<b>Status</b>	Non-independent
	<b>Position</b>	General and Supervisory Board Member
	<b>Committees</b>	Strategy and Performance Committee Member
	<b>Skills and Experience</b>	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)
	<b>EDP's Historic</b>	General and Supervisory Board Member, in representation of Sonatrach, since April 2018
	<b>Current External Appointments</b>	Official in the General Directorate – Sonatrach Group(15)





<b>Full name</b>	MARIA CELESTE FERREIRA LOPES CARDONA
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member   Financial Matters Committee/Audit Committee Member
<b>Skills and Experience</b>	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)
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)
<b>Current External Appointments</b>	Lawyer (82)   Consultant - M. Cardona Consulting, Unipessoal, Lda. (93)   Supervisory Board Member - SIBS (12)   Associate Professor – Lusíada University (17)



<b>Full name</b>	ILÍDIO DA COSTA LEITE DE PINHO
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Remuneration Committee Member
<b>Skills and Experience</b>	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   Member of the Board of Trustees of Aveiro University   <i>Honoris Causa</i> Doctorate by Aveiro University
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)
<b>Current External Appointments</b>	CEO – Grupo Ilídio Pinho (94)   Chairman – Ilídio Pinho Foundation



<b>Full name</b>	JORGE AVELINO BRAGA DE MACEDO
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member   Strategy and Performance Committee Member
<b>Skills and Experience</b>	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)
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)
<b>Current External Appointments</b>	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)





<b>Full name</b>	VASCO JOAQUIM ROCHA VIEIRA
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Remuneration Committee Member   Strategy and Performance Committee Member
<b>Skills and Experience</b>	Degree in Civil Engineering – Military Academia (56-64)   Course of General Staff at the Army (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 (78-82)
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since February 2012 (re-elected in April 2015 and April 2018)
<b>Current External Appointments</b>	Council Member of the Order of Engineers (00)   Member of the Representatives General Meeting of the Order of Engineers (04)   Member of Engineering Academy   ISCSP School Board Member



<b>Full name</b>	AUGUSTO CARLOS SERRA VENTURA MATEUS
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Corporate Governance and Sustainability Committee Member   Strategy and Performance Committee Member
<b>Skills and Experience</b>	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)
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since May 2013 (re-elected in April 2015 and April 2018)
<b>Current External Appointments</b>	Consultant on macroeconomics fields, economic policies, strategy and business (86)



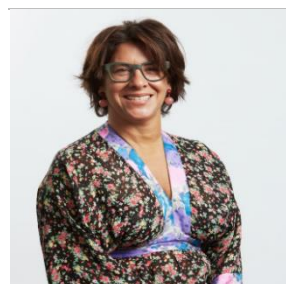


<b>Full name</b>	JOÃO CARVALHO DAS NEVES
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Remuneration Committee Member   Financial Matters Committee/Audit Committee Vice-Chairman
<b>Skills and Experience</b>	Degree in Companies Organization and Management - Economics and Management College Institute - Lisbon University (81)   MBA – Economics and Management College Institute (85)   Finance and Control - IMD (86)   General Manager – CIFAG/IPE (87-02)   Management Control - HEC Paris (87)   Executive course - International Finance - INSEAD (87)   Doctorate - Manchester Business School (92)   Senior Consultant – Coopers & Lybrand (92-93)   Judicial Manager: Torralta (93-98); Casino Hotel de Tróia (94-95); TVI (98)   ROC Partner – Neves, Azevedo Rodrigues e Batalha (98-09)   Chairman Management Department – ISEG (07-08)   Director - BPN (08)   CEO and CFO - SLN (08-09)   Leadership - Kennedy Harvard Government School (09)   Leadership Development Program - Creative Leadership Center (10)   Coaching for Performance - London Business School (10)     Chairman – Central Administration of Health System (11-14)
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since April 2015 (re-elected in April 2018)
<b>Current External Appointments</b>	Professor – Management Department - ISEG (92)   Director – Post-graduation in Management and Real Estate Evaluation - ISEG (00)   Invited Professor in Financing, Negotiation and Health Contracting - ISCSP (12)   School Board Member – ISEG Lisbon University (14)   Management Consultant in Management through the company Zenaction Business Consulting (14)   Statutory Auditor (16)   Independent non-executive member - Montepio - Valor SGFI (17)





<b>Full name</b>	MARÍA DEL CARMEN FERNÁNDEZ ROZADO
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Financial Matters Committee/Audit Committee Member
<b>Skills and Experience</b>	Degree in Economics and Business Administration and Political Sciences and Sociology - Complutense University of Madrid (78)   PhD in Public Finance - Complutense University of Madrid (98)   PADE Management Program MBA - IESE Business School (04-05)   State Tax Inspector (84)   Account Auditor (88)   Chief-Inspector in Spanish Ministry of Economy and Finance (85-86)   Deputy Head of the State Tax Inspection Office (87-96)   Head of the State Tax Inspection Office (96-99)   President of the Task Force for Renewable Energies, Sustainability and Carbon Markets - ARIAE (99-11)   Member of the Advisory Board - Ernst & Young (12-13)
<b>EDP's Historic</b>	Independent General and Supervisory Board Member since April 2015 (re-elected in April 2018)
<b>Current External Appointments</b>	Consultant (11)   Independent Board member and Chairman of the Audit Committee – ACS Group (Spain 17)   Member of the Advisory Board - Beragua Capital   Professor in different universities and business schools in Spain and abroad on issues related to taxes, environment, energy and governance.



<b>Full name</b>	LAURIE LEE FITCH
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Strategy and Performance Committee Member
<b>Skills and Experience</b>	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);
<b>EDP's Historic</b>	General and Supervisory Board Member since April 2018
<b>Current External Appointments</b>	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)





<b>Full name</b>	CLEMENTINA MARIA DÂMASO DE JESUS SILVA BARROSO
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	Financial Matters Committee/Audit Committee Member
<b>Skills and Experience</b>	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)   Several positions - Banco Espírito Santo e Comercial Lisboa (88-90)   Board of Directors Member and General Director – INDEG ISCTE (99-13)   Doctorate in Advanced Company Management – ISCTE (15)
<b>EDP's Historic</b>	General and Supervisory Board Member since April 2018
<b>Current External Appointments</b>	Invited Professor - ISCTE (82)   Statutory auditor and external auditor (90)   Chairman of the Board of the General Meeting – Science4You, S.A. (14)   Non-Executive Director and Audit Committee Member – CTT Bank, S.A. (15)   Board Member - Portuguese Corporate Governance Institute (16)





<b>Full name</b>	LUÍS MARIA VIANA PALHA DA SILVA
<b>Status</b>	Independent
<b>Position</b>	General and Supervisory Board Member
<b>Committees</b>	-
<b>Skills and Experience</b>	Degree in Economics - Higher Institute of Economics (78)   Degree in Management – Portuguese Catholic University (81)   CFO – Covina – Companhia Vidreira Nacional, S.A.R.L (87-91)   Member of the Board of Directors - IPE – Investimentos e Participações Empresariais, SGPS, S.A. (91)   Secretary of State for Trade (91-95)   CFO – CIMPOR – Cimentos de Portugal, SGPS, S.A. (97-01)   CFO and CEO – Jerónimo Martins (01-11)   Advanced Management Program – University of Pennsylvania (05)   Vice-Chairman of the Board of Directors - Galp Energia, SGPS, S.A. (12-15)   Member of the Board of Directors - Oi, S.A. (15-18)   Chairman of the Board - AEM – Associação dos Emitentes Portugueses   Non-executive Member of the Board of Directors - NYSE Euronext   Member of the Audit Committee - NYSE Euronext   Chairman - APETRO – Associação Portuguesa de Empresas Petrolíferas
<b>EDP's Historic</b>	Chairman of the Board of the General Shareholders' Meeting and General and Supervisory Board Member of EDP since April 2018
<b>Current External Appointments</b>	Chairman of the Board of Directors and CEO - Pharol, SGPS, S.A., (since 2015)   Director in its affiliates Bratel B.V. and Bratel S.à.r.l.   Chairman of Statutory Audit Committee - Seguradoras Unidas, S.A.   Non-executive Board Member - Nutrinveste, SGPS, S.A.   Non-executive Board Member - JSC NC "KazMunayGas"

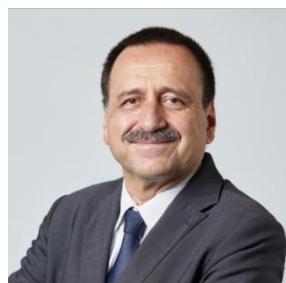
## EXECUTIVE BOARD OF DIRECTORS

	<b>Full Name</b>	ANTÓNIO LUÍS GUERRA NUNES MEXIA
	<b>Position</b>	Executive Board of Directors Chairman elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)
	<b>Skills and Experience</b>	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)
	<b>Current External Appointments</b>	Does not hold any other office or was appointed to any executive position outside EDP Group
	<b>Full Name</b>	JOÃO MANUEL MANSO NETO
	<b>Position</b>	Executive Board of Directors Member elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)
	<b>Skills and Experience</b>	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)
	<b>Current External Appointments</b>	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








<b>Full Name</b>	ANTÓNIO FERNANDO MELO MARTINS DA COSTA
<b>Position</b>	Executive Board of Directors Member elected in March 2006 (reappointed in April 2009, February 2012, April 2015 and April 2018)
<b>Skills and Experience</b>	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 - Eureko BV, Chairman - Eureko 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
<b>Current External Appointments</b>	Does not hold any other office or was appointed to any executive position outside EDP Group



<b>Full Name</b>	JOÃO MANUEL VERÍSSIMO MARQUES DA CRUZ
<b>Position</b>	Executive Board of Directors Member elected in February 2012, (reappointed in April 2015 and April 2018)
<b>Skills and Experience</b>	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)
<b>Current External Appointments</b>	Vice-Chairman - Companhia de Electricidade de Macau - CEM, S.A.   Director - KNJ Global Limitada (Macau)   Chairman – Portuguese-Chinese Chamber of Commerce and Industry   Portuguese Representative of the Supervisory Board of the European Union Chamber of Commerce in China (19)

	<b>Full Name</b>	MIGUEL STILWELL DE ANDRADE
	<b>Position</b>	Executive Board of Directors Member elected in February 2012, (reappointed in April 2015 and April 2018)
	<b>Skills and Experience</b>	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)
	<b>Current External Appointments</b>	Member of the Strategic Counsel – ISEG MBA (20)
	<b>Full Name</b>	MIGUEL NUNO SIMÕES NUNES FERREIRA SETAS
	<b>Position</b>	Executive Board of Directors Member elected in April 2015 (reappointed in April 2018)
	<b>Skills and Experience</b>	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 & 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 Brasil (08-13)
	<b>Current External Appointments</b>	CEO – EDP Brasil (14)
	<b>Full Name</b>	RUI MANUEL RODRIGUES LOPES TEIXEIRA
	<b>Position</b>	Executive Board of Directors Member elected in April 2015 (reappointed in April 2018)
	<b>Skills and Experience</b>	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)
	<b>Current External Appointments</b>	Does not hold any other office or was appointed to any executive position outside EDP Group





<b>Full Name</b>	MARIA TERESA ISABEL PEREIRA
<b>Position</b>	Executive Board of Directors Member elected in April 2018
<b>Skills and Experience</b>	Law Degree – Law School, Lisbon University (93)   Lecturer in Law of Obligations – Law School, Lisbon University (93-97)   Post-graduation in Information Society Law – Lisbon Law School (00-01)   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)
<b>Current External Appointments</b>	Does not hold any other office or was appointed to any executive position outside EDP Group



<b>Full Name</b>	VERA DE MORAIS PINTO PEREIRA CARNEIRO
<b>Position</b>	Executive Board of Directors Member elected in April 2018
<b>Skills and Experience</b>	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)
<b>Current External Appointments</b>	Member of the Board – Portuguese Institute of Corporate Governance



## PRINCIPLES AND POLICIES

- Ethics at EDP (Code of Ethics)
- EDP's Integrity Policy
- Sustainable Development Principles
- Policy on Selection of Members of the GSB and the CBD 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
- Human Rights
- Sustainable Development Goals

To read the principles and policies, please visit: [www.edp.com](http://www.edp.com).



## REPORTING PRINCIPLES

This report has been prepared in accordance with the GRI Standards: Comprehensive option

### GRI STANDARDS REPORTING PRINCIPLES

#### REPORTING QUALITY

<b>BALANCE</b> <p>The content of the Report considers both the most positive facts of the year and those less positive when materially relevant.</p>	<b>COMPARABILITY</b> <p>The information reported covers a four year time series in the material topics indicators relevant to the EDP Group's business (page 67) and enables a comparative analysis of the company's performance.</p>	<b>TRANSPARENCY</b> <p>An online glossary is provided at <a href="http://www.edp.com">www.edp.com</a>, helping to understand some of the technical terms used. In addition to the publications in pdf, a web version is also available, facilitating navigation through the different contents.</p>
<b>ACCURACY</b> <p>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.</p>	<b>TIMELINESS</b> <p>The Report has an annual frequency and covers the calendar year 2019.</p>	<b>RELIABILITY</b> <p>The internal process verification is described in page 224. External verification is an additional guarantee of the reliability of the content, regarding the indicators included in GRI Table (page 245 onwards).</p>

## 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 (additional information at [www.edp.com](http://www.edp.com)).

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 issues 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 issues are published. In this context, the Group advocates a relationship supported in trust, collaboration and shared value creation (page 173). 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 98).

### 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.

## 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).

Further details on the material themes of the EDP Group for 2019 and their meaning can be found at [www.edp.com](http://www.edp.com).

## VERIFICATION ACCORDING TO AA1000 APS 2018

Material topics (page 67) 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 2019, like in previous years, EDP was subject to verification of its compliance with the AA1000 APS (2018) type 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 60, the EDP's Goals and Targets are listed, and on page 69 the Group's Materiality matrix for 2019, 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 245.

## GRI E GLOBAL COMPACT

The table on page 245 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.



## NON-FINANCIAL STATEMENT

Consolidated and Company Non-Financial Statements Under Articles 66.<sup>th</sup>-B And 508.<sup>th</sup>-G of the Commercial Companies Code

ARTICLE 66 <sup>TH</sup> -B AND 508 <sup>TH</sup> -G	DESCRIPTION AND DUE DILIGENCE PROCESSES		ASSOCIATED RISKS	RESULTS	KEY PERFORMANCE INDICATORS
ENVIRONMENTAL POLICIES	Code of Ethics  Sustainable Development Principles  Corporate Risk Management Policy	Environmental Policy Biodiversity Policy Water Management Policy	2.5 Risk Management	3.1.5 Promotion of Renewable Energies 3.1.6 Climate Change 3.1.7 New Energy Services 3.1.8 Energy Efficiency 3.1.9 Sustainable Mobility 3.2.5 Environmental Protection	3.3 Performance indicators  Annex 'GRI Indicators'
WORKERS RELATED SOCIAL POLICIES		Business Data Governance Healthy Competition Practices Commitment 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		3.1.10 Customer Service and Satisfaction 3.1.11 Vulnerable Customers 3.2.2 Ethics and Human Rights 3.2.3 Communication and Transparency 3.2.6 People Management 3.2.7 Community Involvement and Development 3.2.8 Supplier Management 3.2.9 Health and Safety	
EQUALITY POLICIES BETWEEN MEN AND WOMEN		Diversity Policy Policy on selection of the members of the General Supervisory Board and Executive Board of Directors		3.2.1 Corporate Governance – Operation of Corporate Bodies 3.2.2 Ethics and Human Rights – Human Rights 3.2.6 People Management – Diversity / Equal Opportunities	
NON-DISCRIMINATION POLICIES		Diversity Policy Policy on selection of the members of the General Supervisory Board and Executive Board of Directors		3.2.1 Corporate Governance – Operation of Corporate Bodies 3.2.2 Ethics and Human Rights – Human Rights 3.2.6 People Management 3.1.11 Vulnerable Customers	
HUMAN RIGHTS POLICIES		Stakeholder Relationship Policy Social Investment Policy Volunteering Policy EDP Supplier Code of Conduct Sustainable Procurement Policy		3.2.2 Ethics and Human Rights 3.2.6 People Management 3.2.7 Community Involvement and Development 3.2.8 Supplier Management 3.2.9 Health and Safety	
POLICIES AGAINST CORRUPTION AND BRIBERY ATTEMPT		Healthy Competition Practices Commitment EDP Supplier Code of Conduct Sustainable Procurement Policy Integrity Policy		3.2.2 Ethics and Human Rights – Risk of Corruption/Bribery/Fraud/Money Laundering 3.2.2 Ethics and Human Rights – Responsible Political Involvement 3.2.8 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 2019 Annual Report (Chapter 3 - Performance)				



## SASB

SASB Electric Utilities & Power Generators (SICS sector) <sup>1</sup>					GRI Standard Title/ Disclosure number		2019
Topic	Accounting metric	Category	Unit of measure	Code SASB			
<b>NUMBER OF CUSTOMERS SERVED:</b>							
(1) residential,		Quantitative	Number	IF-EU-000.A		EU3	1.5 EDP in the World; Performance Indicators - Satisfaction and Customer Service - Customers by type of use
(2) commercial, and		Quantitative	Number	IF-EU-000.A		EU3	1.5 EDP in the World; Performance Indicators - Satisfaction and Customer Service - Customers by type of use
(3) industrial		Quantitative	Number	IF-EU-000.A		EU3	1.5 EDP in the World; Performance Indicators - Satisfaction and Customer Service - Customers by type of use
<b>TOTAL ELECTRICITY DELIVERED TO CUSTOMERS:</b>							
(1) residential,						I02-7	n.a
(2) commercial,		Quantitative	Megawatt hours (MWh)	IF-EU-000.B		I02-7	n.a
(3) industrial,		Quantitative	Megawatt hours (MWh)	IF-EU-000.B		I02-7	n.a
(4) all other retail and		Quantitative	Megawatt hours (MWh)	IF-EU-000.B		I02-7	n.a
(5) wholesale		Quantitative	Megawatt hours (MWh)	IF-EU-000.B		I02-7	n.a
Length of transmission and distribution lines		Quantitative	Kilometers (km)	IF-EU-000.C		EU4	1.6 Who we are
Total electricity generated, percentage by major energy source, percentage in regulated markets		Quantitative	Megawatt hours (MWh), Percentage (%)	IF-EU-000.D		EU2	Performance Indicators - Promotion of renewable energies
Total wholesale electricity purchased		Quantitative	Megawatt hours (MWh)	IF-EU-000.E			3,416,477

SASB Electric Utilities & Power Generators (SICS sector) <sup>1</sup>					GRI Standard Title/ Disclosure number	2019	
Topic	Accounting metric	Category	Unit of measure	Code SASB			
<b>GREENHOUSE GAS EMISSIONS &amp; ENERGY RESOURCE PLANNING</b>	(1) Gross global Scope 1 emissions	Quantitative	Metric tons (t) CO <sub>2</sub> -e	IF-EU-110a.1	305-4	14,362,658	
	(2) percentage covered under emissions-limiting regulations	Quantitative	Percentage (%)	IF-EU-110a.1	EU5	68.80	2
	(3) percentage covered emissions-reporting regulations	Quantitative	Percentage (%)	IF-EU-110a.1	EU5	99.90	3
	Greenhouse gas (GHG) emissions associated with power deliveries	Quantitative	Metric tons (t) CO <sub>2</sub> -e	IF-EU-110a.2	305-4	9,568,371	4
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and Analysis	n/a	IF-EU-110a.3	305-4	2.6. Strategy, Goals and Targets; 3.1.5. Promotion of renewable energies; 3.1.7. New Energy Services; 3.1.8. Energy Efficiency; CDP Climate	
	(1) Number of customers served in markets subject to renewable portfolio standards (RPS)	Quantitative	Number	IF-EU-110a.4		EDP didn't have customers served in markets subject to renewable portfolio standards (RPS)	
	(2) percentage fulfillment of RPS target by market		Percentage (%)	IF-EU-110a.4			
<b>AIR QUALITY</b>	<b>Air emissions of the following pollutants:</b>						
	(1) NO <sub>x</sub> (excluding N <sub>2</sub> O)	Quantitative	Metric tons (t)	IF-EU-120a.1	305-7	10,797.8	
	(2) Sox	Quantitative	Metric tons (t)	IF-EU-120a.1	305-7	16,307.4	
	(3) particulate matter (PM <sub>10</sub> )	Quantitative	Metric tons (t)	IF-EU-120a.1	305-7	1,662.5	
	(4) lead (Pb)	Quantitative	Metric tons (t)	IF-EU-120a.1	305-7	n.a	5
	(5) mercury (Hg);	Quantitative	Metric tons (t)	IF-EU-120a.1	305-7	0.0184	
	(1) NO <sub>x</sub> (excluding N <sub>2</sub> O)	Quantitative	Percentage (%) of NO <sub>x</sub> , SO <sub>x</sub> , PM <sub>10</sub> ; Pb and Hg	IF-EU-120a.1	305-7	100	
	(2) Sox	Quantitative	from EDP's facilities that are located in or near areas of dense population	IF-EU-120a.1	305-7	100	
	(3) particulate matter (PM <sub>10</sub> )	Quantitative		IF-EU-120a.1	305-7	100	
	(4) lead (Pb)	Quantitative		IF-EU-120a.1	305-7	n.a	5
	(5) mercury (Hg);	Quantitative		IF-EU-120a.1	305-7	100	



SASB Electric Utilities & Power Generators (SICS sector) <sup>1</sup>					GRI Standard Title/ Disclosure number	2019
Topic	Accounting metric	Category	Unit of measure	Code SASB		
<b>WATER MANAGEMENT</b>	(1) Total water withdrawn	Quantitative	Thousand cubic meters (m <sup>3</sup> )	IF-EU-140a.1	303-1	996.309 3.3 Performance indicators> Environmental protection
	(2.a) Total water consumed,	Quantitative	Thousand cubic meters (m <sup>3</sup> )	IF-EU-140a.1	303-1	21.736 3.3 Performance indicators> Environmental protection
	(2.b) percentage of each in regions with High or Extremely High Baseline Water Stress	Quantitative	Percentage (%)	IF-EU-140a.1	303-1	1% and 51% of total water withdrawn and total water consumed, respectively.
	Number of incidents of non-compliance associated with water quantity and/or quality permits, standards, and regulations	Quantitative	Number	IF-EU-140a.2	307-1	No incidents of non-compliance. This indicator is yearly reported on CDP Water Security.
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and Analysis	n/a	IF-EU-140a.3	103-1; 103-2; 103-3	CDP Water Security; www.edp.com
<b>COAL ASH MANAGEMENT</b>	- Amount of coal combustion residuals (CCR) generated	Quantitative	Metric tons (t),	IF-EU-150a.1	306-2	375,167 3.3 Performance indicators> Environmental protection
	- percentage of CCR recycled	Quantitative	Percentage (%)	IF-EU-150a.1	306-2	100% of by-products. EDP does not report the percentage of ash and slag waste recovered.
	Total number of coal combustion residual (CCR) impoundments, broken down by hazard potential classification and structural integrity assessment	Quantitative	Number	IF-EU-150a.2	306-2	Not available



SASB Electric Utilities & Power Generators (SICS sector) <sup>1</sup>					GRI Standard Title/ Disclosure number	2019
Topic	Accounting metric	Category	Unit of measure	Code SASB		
ENERGY AFFORDABILITY	Average retail electric rate for:					
	(1) residential,	Quantitative	Rate	IF-EU-240a.1		n.a
	(2) commercial, and	Quantitative	Rate	IF-EU-240a.1		n.a
	(3) industrial customers	Quantitative	Rate	IF-EU-240a.1		n.a
	Typical monthly electric bill for residential customers for (1) 500 kWh and (2) 1,000 kWh of electricity delivered per month	Quantitative	Reporting currency	IF-EU-240a.2		n.a
	Number of residential customer electric disconnections for non-payment	Quantitative	Number,	IF-EU-240a.3	EU27	3.3 Performance Indicators> Satisfaction and Customer Service> Service Reconnection
	Percentage reconnected within 30 days	Quantitative	Percentage (%)	IF-EU-240a.3	EU28; EU29	3.3 Performance Indicators> Satisfaction and Customer Service> Service Reconnection
WORKFORCE HEALTH & SAFETY	Discussion of impact of external factors on customer affordability of electricity, including the economic conditions of the service territory	Discussion and Analysis	n/a	IF-EU-240a.4	G4-DMA: Access	3.1.1 I Vulnerable Customers; Performance Indicators - Vulnerable Customers
	(1) Total recordable incident rate (TRIR)	Quantitative	Rate	IF-EU-320a.1	403-2; 403-3	2.92 6
	(2) fatality rate, and	Quantitative	Rate	IF-EU-320a.1	403-2; 403-3	0.03 I 6
END-USE EFFICIENCY & DEMAND	(3) near miss frequency rate (NMFR)	Quantitative	Rate	IF-EU-320a.1	403-2; 403-3	0.66 6
	Percentage of electric utility revenues from rate structures that are decoupled	Quantitative	Percentage (%)	IF-EU-420a.1		n.a
	Percentage of electric utility revenues from rate structures that contain a lost revenue adjustment mechanism (LRAM)	Quantitative	Percentage (%)	IF-EU-420a.1		n.a
	Percentage of electric load served by smart grid technology	Quantitative	Percentage (%) by megawatt hours (MWh)	IF-EU-420a.2		77



	Customer electricity savings from efficiency measures, by market	Quantitative	Megawatt hours (MWh)	IF-EU-420a.3	302-4	b2c (residential): 985 GWh (accumulated since 2015) b2b (industry, tertiary, agriculture): 2,050 GWh (accumulated since 2015)	
NUCLEAR SAFETY & EMERGENCY MANAGEMENT	Total number of nuclear power units, broken down by U.S. Nuclear Regulatory Commission (NRC) Action Matrix Column	Quantitative	Number	IF-EU-540a.1		n.a	
	Description of efforts to manage nuclear safety and emergency preparedness	Discussion and Analysis	n/a	IF-EU-540a.2		n.a	
GRID RESILIENCY	Number of incidents of non-compliance with physical and/or cybersecurity standards or regulations	Quantitative	Number	IF-EU-550a.1	418-I	No	
	(1) System Average Interruption Duration Index (SAIDI)	Quantitative	Minutes	IF-EU-550a.2	G4-DMA Availability and Reliability	194.0	7
	(2) System Average Interruption Frequency Index (SAIFI)		number	IF-EU-550a.2	G4-DMA Availability and Reliability	2.5	7
	(3) Customer Average Interruption Duration Index (CAIDI), inclusive of major event days		number	IF-EU-550a.2	G4-DMA Availability and Reliability	78.4	7

1. INDUSTRY COMPOSITION IS BASED ON THE MAPPING OF THE SUSTAINABLE INDUSTRY CLASSIFICATION SYSTEM (SICSTM) TO THE BLOOMBERG INDUSTRY CLASSIFICATION SYSTEM (BICS).

2. ONLY INCLUDES EMISSIONS FROM FACILITIES COVERED BY EU-ETS.

3. INCLUDES CO<sub>2</sub> AND SF<sub>6</sub> EMISSIONS FROM ALL THERMAL POWER PLANTS.

4. EDP USED NATIONAL EMISSION FACTORS (PORTUGAL, SPAIN AND BRAZIL).

5. EDP DIDN'T TRACK LEAD.

6. TOTAL RECORDABLE INCIDENT RATE (TRIR) - NUMBER OF WORK-RELATED INJURIES PER 1,000,000 HOURS WORKED DURING A ONE YEAR PERIOD (REFERENCE PERIOD).

FATALITY RATE - NUMBER OF WORK-RELATED FATALITIES PER 1,000,000 HOURS WORKED DURING A ONE YEAR PERIOD (REFERENCE PERIOD).

NEAR MISS FREQUENCY RATE (NMFR) - NUMBER OF WORK-RELATED NEAR MISSES, PER 1,000,000 HOURS WORKED DURING A ONE YEAR PERIOD (REFERENCE PERIOD).

7. WWW.EDP.COM - 13. AVAILABILITY AND RELIABILITY; PERFORMANCE INDICATORS - SERVICE QUALITY.

TCFD REPORTING RECOMENDATIONS		CDSB***	NON FINANCIAL STATEMENTS (ARTICLES 66 <sup>th</sup> -B AND 508 <sup>th</sup> -G OF COMMERCIAL LAW)				SASB**
			BUSINESS MODEL	POLICIES AND DUE DILIGENCE PROCESSES	MAIN RISKS AND THEIR MANAGEMENT	OUTCOMES	KEY PERFORMANCE INDICATORS
GOVERNANCE	a) Board's oversight	Req.01 Governance		2.2 Sustainability Organization			SASB Table – since the SASB framework refers to financially material topics, the associated quantitative and qualitative performance metrics should facilitate the development of ESG reports with CAE-level knowledge and approval that provide information on the effectiveness of a company's climate-related strategy, risk management and operational performance.
	b) Management's role	Req.01 Governance; Req. 02 Policies, Strategy and Targets		2.2 Sustainability Organization			
STRATEGY	a) Climate-related risks and opportunities	Req. 02 Policies, Strategy and Targets; Req. 03 Risks & Opportunities; Req.06 Outlook			2.5 Risk Management*; CDP Climate 2019		
	b) Impact of climate-related risks and opportunities	Req. 02 Policies, Strategy and Targets; Req. 03 Risks & Opportunities; Req.06 Outlook	2.5 Risk Management*; CDP Climate 2019				
	c) Resilience of the organization's strategy	Req. 03 Risks & Opportunities; Req.06 Outlook	3.1.6 Climate Change				
RISK MANAGEMENT	a) Processes for identifying and assessing	Req. 03 Risks & Opportunities			2.5 Risk Management*; CDP Climate 2019		
	b) Processes for managing	Req. 02 Policies, Strategy and Targets; Req. 03 Risks & Opportunities; Req.06 Outlook			2.5 Risk Management*; CDP Climate 2019		
	c) Integration into overall risk management	Req.01 Governance; Req. 03 Risks & Opportunities; Req.06 Outlook			Annual Report edp 2019 – clause 52 from 04 Corporate Governance		
METRICS AND TARGETS	a) Metrics used to assess	Req.01 Governance; Req. 02 Policies, Strategy and Targets; Req. 04 Sources of Impact; Req.05 Performance and Comparative Analysis				Environmental indicators	
	b) GHG emissions	Req. 02 Policies, Strategy and Targets; Req. 04 Sources of Impact; Req.05 Performance and Comparative Analysis				3.1.6 Climate Change	
	c) Targets	Req. 02 Policies, Strategy and Targets; Req. 04 Sources of Impact; Req.05 Performance and Comparative Analysis				2.6 Strategy, goals and targets	

\* Climate risk framework at TCFD | \*\* Sustainability Accounting Standards Board | \*\*\* Climate Disclosure Standards Board Framework. The frameworks followed by EDP are: CDP; GHG Protocol; GRI Standards; CELE (EU - ETS)



## GREEN REVENUES

The EDP Group's revenues from environmentally sustainable or green activities meets the following conditions in accordance with the Taxonomy text approved in December 2019 by the European Council, the European Commission and the European Parliament:

- They contribute to climate change mitigation through:
  - electricity generation activities from renewable sources (solar, wind, hydro);
  - the exclusion of coal-fired power generation activities;
  - electricity distribution activities through the establishment of infrastructure leading to the decarbonisation of energy systems;
  - marketing activities by supporting added value services (low carbon and energy efficiency).
- They include natural gas-fired power generation activities (transitional activity). Natural gas power plants have a level of emissions equal to the median sector/industry level, and are used to improve the efficiency of the power generation system supported by more than 66% of energy from renewable sources. The plants have an emission level of 371 gCO<sub>2</sub>/kWh.
- They are supported by EDP's Environmental Policy. The Company carries out environmental impact studies that go beyond legal compliance in all the geographies where it operates, in addition to demonstrating EDP's commitment to the protection of the environment and biodiversity.
- They underlie what EDP assumed in its main corporate documents, such as the Code of Ethics and the Principles of Sustainable Development, in application of the Universal Declaration of Human Rights, the Conventions of the International Labour Organisation, the United Nations Global Compact and the Ruggie Framework.

This is how the indicator "environmentally sustainable or green income" is reported. In 2019, the Company's income totalled 14,333 million Euros, 55% of which is green.

GREEN REVENUES	GENERATION	DISTRIBUTION	COMMERCIALIZATION	TOTAL
Total	19.8%	27.3	7.4%	54.6%

The reporting of this indicator is in line with the requirements to improve the reporting of non-financial information, in accordance with the Non-Financial Reporting Directive and with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

## MONITORISATION OF EDP'S 2020 GOALS AND TARGETS

		GOAL 2020	STATUS 2019
<b>GENERATE ECONOMIC VALUE INVESTING IN DECARBONIZATION</b>	<ul style="list-style-type: none"> <li>Renewable capacity</li> <li>Investment in RDI (aggregate)</li> <li>Smart meters (Iberia)<sup>1</sup></li> <li>Saved Energy (aggregate)</li> </ul>	<ul style="list-style-type: none"> <li>~76%</li> <li>€200M</li> <li>90%</li> <li>1 TWh</li> </ul>	<ul style="list-style-type: none"> <li>74%</li> <li>€374M</li> <li>48%</li> <li>3 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>2</sup></li> <li>Certified suppliers exposed to high H&amp;S risks, according to OHSAS 18001</li> <li>Frequency index (FI)<sup>3</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>73%</li> <li>25%</li> <li>60%</li> <li>64%</li> <li>1.74</li> </ul>
<b>IMPROVE ENVIRONMENTAL PERFORMANCE</b>	<ul style="list-style-type: none"> <li>Emissions variation vs 2005</li> <li>Assets certified according to ISO 14001</li> <li>Certified suppliers exposed to high environmental risks</li> <li>Variation in specific waste materials vs. 2015</li> </ul>	<ul style="list-style-type: none"> <li>-75%</li> <li>100%</li> <li>100%</li> <li>-20%</li> </ul>	<ul style="list-style-type: none"> <li>-66%</li> <li>96%</li> <li>79%</li> <li>-55%</li> </ul>
<b>IMPROVE TRUST</b>	<ul style="list-style-type: none"> <li>Customers satisfaction</li> <li>Recognition by the Ethisphere Institute</li> <li>Protect Human Rights in the supply chain<sup>4</sup></li> <li>Implement full stakeholders' auscultation<sup>5</sup></li> <li>Employees participating in volunteer activities</li> <li>Hours/year in volunteering 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>yes</li> <li>4<sup>th</sup> stage</li> <li>4<sup>th</sup> stage</li> <li>20%</li> <li>20,000 h</li> <li>€100M</li> <li>100%</li> <li>100%</li> </ul>	<ul style="list-style-type: none"> <li>77%</li> <li>yes</li> <li>3<sup>rd</sup> stage</li> <li>3<sup>rd</sup> stage</li> <li>24%</li> <li>23,258 h</li> <li>€136M</li> <li>n.a.<sup>6</sup></li> <li>n.a.<sup>6</sup></li> </ul>

<sup>1</sup> Target for 2030.

<sup>2</sup> Employees covered by OHSAS 18001.

<sup>3</sup> Accidents with EDP co-workers and outsourcing workers for a million worked hours.

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

<sup>5</sup> 1st stage - Definition of a stakeholder auscultation methodology; 2nd stage - Implementation of the methodology in all Business Units in Portugal; 3rd stage - Implementation of the methodology in all Geographies; 4th stage - Cover all segments of the EDP Group's stakeholders.

<sup>6</sup> Status still to be determined.



## GRI INDICATORS

### ENVIRONMENTAL INDICATORS

2019	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>ENVIRONMENTAL CERTIFICATION (ISO 14001)</b>							
ISO 14001 Certification <sup>1</sup>	%	96	98	98	95	94	95
<b>TOTAL ENERGY CONSUMPTION</b>	<b>TJ</b>	<b>201,318</b>	<b>89,496</b>	<b>65,007</b>	<b>46,740</b>	<b>18</b>	<b>57</b>
<b>PRIMARY ENERGY CONSUMPTION</b>	<b>TJ</b>	<b>184,894</b>	<b>81,258</b>	<b>65,007</b>	<b>38,605</b>	<b>18</b>	<b>5</b>
Coal	TJ	101,514	39,731	23,379	38,404	n.a.	n.a.
Fuel oil	TJ	337	315	22	n.a.	n.a.	n.a.
Natural gas	TJ	70,823	41,093	29,730	n.a.	0	0
Blast furnace gas	TJ	10,213	n.a.	10,213	n.a.	n.a.	n.a.
Coke gas	TJ	616	n.a.	616	n.a.	n.a.	n.a.
Diesel oil	TJ	173	7	30	136	n.a.	n.a.
Iron and steel industry gas	TJ	1,006	n.a.	1,006	n.a.	n.a.	n.a.
Fuel for vehicle fleet	TJ	211	112	10	66	18	5
<b>ENERGY INTENSITY <sup>2</sup></b>	<b>MJ/EUR</b>	<b>13.8</b>	<b>13.6</b>	<b>20.4</b>	<b>11.4</b>	<b>0.3</b>	<b>0.2</b>
<b>THERMAL POWER PLANT EFFICIENCY (capacity based)</b>	<b>%</b>	<b>45.9</b>	<b>46.2</b>	<b>45.0</b>	<b>35.6</b>	<b>n.a.</b>	<b>n.a.</b>
<b>ELECTRICITY CONSUMPTION</b>							
Generation self-consumption	MWh	3,383,149	2,500,743	405,552	423,133	39,555	14,165
Administrative service	MWh	33,548	24,313	2,203	5,480	1,311	241
Grid losses	%	8.9	9.6	3.6	9.9	n.a.	n.a.
<b>GHG EMISSION</b>							
<b>Direct emissions (scope 1)</b>	<b>ktCO<sub>2eq</sub></b>	<b>14,363</b>	<b>6,028</b>	<b>3,872</b>	<b>4,461</b>	<b>1</b>	<b>0</b>
Stationary combustion <sup>3</sup>	ktCO <sub>2eq</sub>	14,338	6,015	3,870	4,453	n.a.	n.a.
SF6 Emissions	ktCO <sub>2eq</sub>	9	5	1	3	0	0
Company fleet	ktCO <sub>2eq</sub>	15	8	1	4	1	0
Natural gas consumption	ktCO <sub>2eq</sub>	0.04	0.03	0.00	0.00	0.00	0.00
<b>Indirect emissions (scope 2) <sup>4</sup></b>	<b>ktCO<sub>2eq</sub></b>	<b>846</b>	<b>655</b>	<b>0</b>	<b>169</b>	<b>17</b>	<b>5</b>
Electricity consumption in office buildings	ktCO <sub>2eq</sub>	0.8	0.0	0.0	0.0	0.7	0.1
Electricity losses	ktCO <sub>2eq</sub>	824	655	0	169	n.a.	n.a.
Renewable plants self-consumption	ktCO <sub>2eq</sub>	21.3	0.0	0.0	0.0	16.2	5.1
<b>Other indirect emissions (scope 3)</b>	<b>ktCO<sub>2eq</sub></b>	<b>11,730</b>	<b>3,954</b>	<b>5,321</b>	<b>2,218</b>	<b>198</b>	<b>39</b>
Purchased goods and services (C01)	ktCO <sub>2eq</sub>	28	9	9	9	0	0
Capital Goods (C02)	ktCO <sub>2eq</sub>	349	37	63	15	195	39
Fuel and energy related activities (C03)	ktCO <sub>2eq</sub>	6,784	2,855	2,076	1,853	0	0
Upstream transportation and distribution (C04)	ktCO <sub>2eq</sub>	611	236	36	339	0	0
Business Travels (C06)	ktCO <sub>2eq</sub>	7	2	1	2	3	0
Use of sold products (C11)	ktCO <sub>2eq</sub>	3,951	814	3,137	0	0	0
<b>GHG EMISSIONS INTENSITY <sup>5</sup></b>	<b>kgCO<sub>2</sub>/EUR</b>	<b>1.1</b>	<b>1.0</b>	<b>1.2</b>	<b>1.3</b>	<b>0.0</b>	<b>0.0</b>
<b>CO<sub>2</sub> AVOIDED EMISSIONS <sup>6</sup></b>	<b>ktCO<sub>2</sub></b>	<b>24,725</b>	<b>5,652</b>	<b>2,914</b>	<b>1,928</b>	<b>11,850</b>	<b>2,381</b>
<b>TOTAL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,7</sup>	kt	14,338	6,015	3,870	4,453	n.a.	n.a.
NO <sub>x</sub>	kt	10.8	2.8	3.9	4.1	n.a.	n.a.
SO <sub>2</sub>	kt	16.3	2.0	1.5	12.8	n.a.	n.a.
Particulate matter	kt	1.66	0.04	0.10	1.52	n.a.	n.a.
Mercury	kg	18	12	3	3	n.a.	n.a.
SF6	kg	394	194	54	140	6	0
<b>SPECIFIC OVERALL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,7</sup>	g/kWh	216	266	272	464	n.a.	n.a.
NO <sub>x</sub>	g/kWh	0.2	0.1	0.3	0.4	n.a.	n.a.
SO <sub>2</sub>	g/kWh	0.2	0.1	0.1	1.3	n.a.	n.a.
Particulate matter	g/kWh	0.03	0.00	0.01	0.16	n.a.	n.a.

2019	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>SPECIFIC THERMAL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,7</sup>	g/kWh	649	583	480	1,201	n.a.	n.a.
NO <sub>x</sub>	g/kWh	0.5	0.3	0.5	1.1	n.a.	n.a.
SO <sub>2</sub>	g/kWh	0.7	0.2	0.2	3.4	n.a.	n.a.
Particulate matter	g/kWh	0.08	0.00	0.01	0.41	n.a.	n.a.
<b>TOTAL WATER WITHDRAWAL BY SOURCE</b>							
Ocean	10 <sup>3</sup> x m <sup>3</sup>	965,783	646,499	319,284	n.a.	n.a.	n.a.
Surface	10 <sup>3</sup> x m <sup>3</sup>	17,477	12,212	5,245	21	n.a.	n.a.
Water hole	10 <sup>3</sup> x m <sup>3</sup>	191	191	0	0	n.a.	n.a.
Well	10 <sup>3</sup> x m <sup>3</sup>	2	0	0	0	2	0
Municipal water supplies	10 <sup>3</sup> x m <sup>3</sup>	11,610	1,514	617	9,478	1	0
Other private entity	10 <sup>3</sup> x m <sup>3</sup>	1,247	324	922	0	n.a.	0
<b>MAIN USE OF WATER</b>							
Cooling water	10 <sup>3</sup> x m <sup>3</sup>	991,423	658,690	324,242	8,490	n.a.	n.a.
Row water	10 <sup>3</sup> x m <sup>3</sup>	4,670	1,947	1,781	942	n.a.	n.a.
Potable water	10 <sup>3</sup> x m <sup>3</sup>	181	103	10	66	3	0
<b>WASTEWATER</b>							
Wastewater from generation with treatment	10 <sup>3</sup> x m <sup>3</sup>	1,803	427	1,309	67	n.a.	n.a.
Discharge into estuarine water and sea	10 <sup>3</sup> x m <sup>3</sup>	974,516	654,114	319,729	672	n.a.	n.a.
Discharge into inland water	10 <sup>3</sup> x m <sup>3</sup>	1,783	3	1,780	n.a.	n.a.	n.a.
<b>WASTE MATERIALS</b>	<b>t</b>	<b>523,303</b>	<b>287,096</b>	<b>118,477</b>	<b>115,808</b>	<b>879</b>	<b>1,042</b>
<b>Waste</b>	<b>t</b>	<b>232,181</b>	<b>22,740</b>	<b>91,711</b>	<b>115,808</b>	<b>879</b>	<b>1,042</b>
Hazard waste	%	2.2	8.8	0.5	2.0	34.1	7.6
Non-hazard waste	%	97.8	91.2	99.5	98.0	65.9	92.4
<b>Recovered waste</b>	<b>t</b>	<b>210,846</b>	<b>21,221</b>	<b>89,081</b>	<b>98,972</b>	<b>589</b>	<b>983</b>
Recycled waste	t	126,236	17,492	87,354	20,092	494	804
Other	t	84,610	3,729	1,727	78,881	94	179
<b>Non-recovered waste</b>	<b>t</b>	<b>21,335</b>	<b>1,520</b>	<b>2,630</b>	<b>16,836</b>	<b>290</b>	<b>59</b>
<b>By-products</b>	<b>t</b>	<b>291,122</b>	<b>264,356</b>	<b>26,766</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
Gypsum	t	99,787	73,021	26,766	n.a.	n.a.	n.a.
Fly ash	t	157,253	157,253	n.a.	n.a.	n.a.	n.a.
Slag	t	34,082	34,082	n.a.	n.a.	n.a.	n.a.
Recovered waste materials	%	96	99	98	85	67	94
<b>DISTRIBUTION IN PROTECTED AREAS</b>							
<b>High voltage distribution grid in protected areas</b>	<b>km</b>	<b>1,408</b>	<b>918</b>	<b>119</b>	<b>370</b>	<b>n.a.</b>	<b>n.a.</b>
Overhead	km	1,394	904	119	370	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>15,822</b>	<b>9,159</b>	<b>930</b>	<b>5,733</b>	<b>n.a.</b>	<b>n.a.</b>
Overhead	km	14,787	8,182	879	5,725	n.a.	n.a.
Underground	km	1,035	977	51	7	n.a.	n.a.
Substations in protected areas	#	46	19	17	10	n.a.	n.a.
<b>TRANSMISSION IN PROTECTED AREAS</b>							
<b>High voltage transmission grid in protected areas</b>	<b>km</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>97</b>	<b>n.a.</b>	<b>n.a.</b>
Overhead	km	n.a.	n.a.	n.a.	97	n.a.	n.a.
Underground	km	n.a.	n.a.	n.a.	0	n.a.	n.a.
Substations in protected areas	#	n.a.	n.a.	n.a.	0	n.a.	n.a.
<b>FLOODED AREAS BY RESERVOIRS</b>	<b>ha</b>	<b>5,999</b>	<b>5,666</b>	<b>330</b>	<b>3</b>	<b>n.a.</b>	<b>n.a.</b>
<b>ENVIRONMENTAL COMPLAINTS</b>	<b>#</b>	<b>347</b>	<b>57</b>	<b>8</b>	<b>169</b>	<b>83</b>	<b>30</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> CO<sub>2</sub> emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

<sup>7</sup> Includes only stationary combustion emissions.



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>	<b>ktCO<sub>2eq</sub></b>	<b>18,429</b>	<b>9,106</b>	<b>5,345</b>	<b>3,977</b>	<b>0</b>	<b>0</b>
Stationary combustion <sup>3</sup>	ktCO <sub>2eq</sub>	18,404	9,090	5,342	3,971	n.a.	n.a.
SF6 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>	<b>ktCO<sub>2eq</sub></b>	<b>602</b>	<b>441</b>	<b>0</b>	<b>136</b>	<b>17</b>	<b>8</b>
Electricity consumption in office buildings	ktCO <sub>2eq</sub>	1.8	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>	<b>ktCO<sub>2eq</sub></b>	<b>11,334</b>	<b>3,818</b>	<b>4,707</b>	<b>2,593</b>	<b>168</b>	<b>48</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>kgCO<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> AVOIDED EMISSIONS <sup>6</sup></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>3,7</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	21.3	3.8	6.0	11.5	n.a.	n.a.
Particulate matter	kt	2.05	0.09	0.24	1.72	n.a.	n.a.
Mercury	kg	50	27	14	9	n.a.	n.a.
SF6	kg	440	246	100	92	0	3
<b>SPECIFIC OVERALL EMISSIONS</b>							
CO <sub>2</sub> <sup>3,7</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	1.1	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>3,7</sup>	g/kWh	768	719	680	1,149	n.a.	n.a.
NO <sub>x</sub>	g/kWh	0.6	0.4	0.7	1.1	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.



2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>TOTAL WATER WITHDRAWAL 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.
Surface	10 <sup>3</sup> x m <sup>3</sup>	14,403	8,880	5,518	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
<b>MAIN USE OF WATER</b>							
Cooling water	10 <sup>3</sup> x m <sup>3</sup>	1,531,530	1,107,087	416,132	8,311	n.a.	n.a.
Row 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>	1,984	456	1,464	65	n.a.	n.a.
Discharge into estuarine water and sea	10 <sup>3</sup> x m <sup>3</sup>	1,510,986	1,098,589	411,745	651	n.a.	n.a.
Discharge into inland water	10 <sup>3</sup> x m <sup>3</sup>	6,964	5,515	1,449	n.a.	n.a.	n.a.
<b>WASTE MATERIALS</b>							
<b>Waste</b>	<b>t</b>	<b>862,060</b>	<b>495,956</b>	<b>238,032</b>	<b>126,909</b>	<b>1,029</b>	<b>134</b>
Hazard waste	%	1.5	10.7	0.3	1.2	29.5	52.8
Non-hazard waste	%	98.5	89.3	99.7	98.8	70.5	47.2
<b>Recovered waste</b>	<b>t</b>	<b>272,964</b>	<b>23,301</b>	<b>177,632</b>	<b>71,192</b>	<b>738</b>	<b>102</b>
Recycled waste	t	219,972	20,907	176,137	22,212	671	47
Other	t	52,992	2,394	1,495	48,980	67	55
<b>Non-recovered waste</b>	<b>t</b>	<b>76,365</b>	<b>3,829</b>	<b>16,495</b>	<b>55,717</b>	<b>291</b>	<b>33</b>
<b>By-products</b>	<b>t</b>	<b>512,731</b>	<b>468,826</b>	<b>43,905</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>
Gypsum	t	165,785	121,880	43,905	n.a.	n.a.	n.a.
Fly ash	t	311,234	311,234	n.a.	n.a.	n.a.	n.a.
Slag	t	35,712	35,712	n.a.	n.a.	n.a.	n.a.
Recovered waste materials	%	91	99	93	56	72	76
<b>DISTRIBUTION IN PROTECTED AREAS</b>							
<b>High voltage distribution grid in protected areas</b>	<b>km</b>	<b>1,310</b>	<b>918</b>	<b>119</b>	<b>273</b>	<b>n.a.</b>	<b>n.a.</b>
Overhead	km	1,296	904	119	273	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>15,730</b>	<b>9,133</b>	<b>930</b>	<b>5,667</b>	<b>n.a.</b>	<b>n.a.</b>
Overhead	km	14,706	8,166	879	5,661	n.a.	n.a.
Underground	km	1,024	967	51	6	n.a.	n.a.
Substations in protected areas	#	47	19	17	11	n.a.	n.a.
<b>TRANSMISSION IN PROTECTED AREAS</b>							
<b>High voltage transmission grid in protected areas</b>	<b>km</b>	<b>n.a.</b>	<b>n.a.</b>	<b>n.a.</b>	<b>10</b>	<b>n.a.</b>	<b>n.a.</b>
Overhead	km	n.a.	n.a.	n.a.	10	n.a.	n.a.
Underground	km	n.a.	n.a.	n.a.	0	n.a.	n.a.
Substations in protected areas	#	n.a.	n.a.	n.a.	0	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> CO<sub>2</sub> emissions that would have occurred if the electricity generated by renewable energy sources were produced by thermal power plants. For each country, it is obtained by multiplying the net renewable energy production by the emission factor of the thermoelectric mix of that country.

<sup>7</sup> Includes only stationary combustion emissions.



## SOCIAL INDICATORS

2019	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>EMPLOYMENT</b>							
<b>Employees</b>	<b>#</b>	<b>11,660</b>	<b>5,852</b>	<b>1,720</b>	<b>3,158</b>	<b>663</b>	<b>267</b>
Executive Board of Directors	#	9	9	0	0	0	0
Senior Management	#	827	463	169	82	79	34
Supervisors	#	783	336	253	106	61	27
Specialists	#	4,528	2,210	742	1,040	335	201
Technicians	#	5,513	2,834	556	1,930	188	5
Male employees	%	75	76	70	77	73	69
Female employees	%	25	24	30	23	27	31
Females in management position	%	25	26	28	15	24	26
Senior management hired from the local community	%	92	100	88	90	60	33
<b>Employees by types of contract</b>	<b>#</b>	<b>11,660</b>	<b>5,852</b>	<b>1,720</b>	<b>3,158</b>	<b>663</b>	<b>267</b>
<b>Executive bodies</b>	<b>#</b>	<b>56</b>	<b>33</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>0</b>
Male	#	51	29	0	22	0	0
Female	#	5	4	0	1	0	0
<b>Permanent workforce</b>	<b>#</b>	<b>11,549</b>	<b>5,783</b>	<b>1,710</b>	<b>3,134</b>	<b>663</b>	<b>259</b>
Male	#	8,649	4,370	1,205	2,410	484	180
Female	#	2,900	1,413	505	724	179	79
<b>Fixed-term contracts</b>	<b>#</b>	<b>55</b>	<b>36</b>	<b>10</b>	<b>1</b>	<b>0</b>	<b>8</b>
Male	#	35	23	7	1	0	4
Female	#	20	13	3	0	0	4
<b>Employees by occupational contract</b>	<b>#</b>	<b>11,660</b>	<b>5,852</b>	<b>1,720</b>	<b>3,158</b>	<b>663</b>	<b>267</b>
<b>Full-Time</b>	<b>#</b>	<b>11,615</b>	<b>5,847</b>	<b>1,684</b>	<b>3,158</b>	<b>663</b>	<b>263</b>
Male	#	8,730	4,422	1,208	2,433	484	183
Female	#	2,885	1,425	476	725	179	80
<b>Part-time</b>	<b>#</b>	<b>45</b>	<b>5</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>4</b>
Male	#	5	0	4	0	0	1
Female	#	40	5	32	0	0	3
<b>Employees with special needs</b>	<b>#</b>	<b>163</b>	<b>88</b>	<b>21</b>	<b>54</b>	<b>0</b>	<b>0</b>
Male	#	92	50	13	29	0	0
Female	#	71	38	8	25	0	0
Foreign employees	#	261	52	80	23	57	49
<b>New employees<sup>1</sup></b>	<b>#</b>	<b>1,287</b>	<b>415</b>	<b>150</b>	<b>466</b>	<b>176</b>	<b>80</b>
Direct admissions to permanent workforce	#	1,198	364	134	455	175	70
Admissions with fixed-term contracts	#	64	41	12	0	1	10
Other admissions	#	25	10	4	11	0	0
Male	#	897	276	81	345	138	57
Female	#	358	118	58	121	38	23
<30 years	#	636	247	62	220	77	30
[30-50 years[	#	568	142	76	233	71	46
≥50 years	#	51	5	1	13	28	4
F/M new admissions rate	x	0.40	0.43	0.72	0.35	0.28	0.40
<b>Employees leaving</b>	<b>#</b>	<b>1,226</b>	<b>630</b>	<b>92</b>	<b>347</b>	<b>112</b>	<b>45</b>
Male	#	923	480	74	264	85	20
Female	#	303	150	18	83	27	25
<30 years	#	160	35	10	64	37	14
[30-50 years[	#	351	53	20	192	57	29
≥50 years	#	715	542	62	91	18	2
<b>Turnover</b>	<b>%</b>	<b>10.51</b>	<b>10.77</b>	<b>5.35</b>	<b>10.99</b>	<b>16.89</b>	<b>16.85</b>
Male	%	10.57	10.85	6.11	10.85	17.56	10.87
Female	%	10.36	10.49	3.54	11.45	15.08	30.12
<30 years	%	8.46	3.98	7.63	9.65	22.84	25.45
[30-50 years[	%	5.55	2.06	1.95	9.10	13.67	14.87
≥50 years	%	20.75	22.61	11.01	23.70	21.43	11.76
Average age of workforce	years	43	45	45	38	38	36
Average age of new admissions	years	32	30	32	32	40	34
Average age of leaving	years	50	58	53	41	40	36
Average seniority of employees	years	15	19	16	9	4	4
Seniority of leaving	years	23	34	26	11	3	2
Absenteeism rate	%	2.82	3.29	3.57	1.75	2.57	n.d.

<sup>1</sup> Net values of the employees transfer from fixed-term contracts to permanent workforce.

2019	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>Employees entitled to parental leave</b>	#	495	199	58	134	79	25
Male	#	326	140	34	102	41	9
Female	#	169	59	24	32	38	16
<b>Employees that took parental leave</b>	#	389	195	58	32	79	25
Male	#	220	136	34	n.a.	41	9
Female	#	169	59	24	32	38	16
<b>Retention rate of employees who took parental leave</b>	%	97	100	93	91	99	92
Male	%	98	100	91	n.a.	98	100
Female	%	96	100	96	91	100	88
<b>Annualized average base salary</b>							
Male	€	3,081	3,127	4,489	1,400	7,043	4,519
Female	€	3,235	3,443	3,845	1,467	6,767	3,751
Pay ratio by gender (F/M)	x	1.05	1.10	0.86	1.05	0.96	0.83
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.	6.19	5.26	13.39	5.02	5.50
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.	0.00	0.00	-19.88	1.89	n.a.
<b>TRAINING</b>							
<b>Total hours of training</b>	hours	400,504	158,959	58,738	155,825	18,765	8,217
Sustainability							
Environment	hours	1,804	636	190	769	0	209
Social and Economic	hours	498	494	4	0	0	0
Ethics	hours	4,981	1,822	848	1,933	372	6
Quality	hours	5,061	2,372	108	2,582	0	0
Languages	hours	19,742	5,320	12,714	955	47	706
Information systems	hours	36,267	14,439	12,350	5,736	2,717	1,025
Other	hours	332,150	133,876	32,524	143,851	15,629	6,270
<b>Average training per employee (h/p)</b>	h/p	34	27	34	49	28	31
<b>Executive Board of Directors</b>	h/p	5	5	n.a.	n.a.	n.a.	n.a.
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	32	35	41	18	10	24
Male	h/p	30	32	42	20	10	23
Female	h/p	36	42	37	6	10	35
<b>Supervisors</b>	h/p	45	48	48	43	27	47
Male	h/p	44	48	43	44	28	43
Female	h/p	48	45	59	38	24	52
<b>Specialists</b>	h/p	29	31	38	21	24	30
Male	h/p	32	34	37	26	21	28
Female	h/p	26	27	38	14	29	32
<b>Technicians</b>	h/p	37	20	21	66	44	38
Male	h/p	40	22	18	71	52	69
Female	h/p	21	7	30	38	17	30
Employees with training	%	97	95	97	100	100	100
<b>LABOUR RELATIONS</b>							
Collective employment agreements	%	88	99	73	99	0	44
Trade union membership	%	37	43	15	48	0	0
Union Structures	#	31	17	3	6	0	5
Hours lost due to strikes	hours	116	0	116	0	0	0
Staff engaged in further study	#	61	61	0	0	0	0
Professional Internships	#	371	278	0	40	0	53
Academic internships	#	290	109	87	94	0	0



2019	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>HEALTH AND SAFETY (H&amp;S)</b>							
Installed capacity certified by OHSAS 18001	MW	25,610	10,821	5,246	2,787	5,562	1,194
Installed capacity certified by OHSAS 18001	%	97	97	100	100	94	94
Employees covered by OHSAS 18001	%	60	30	100	100	51	78
<b>Employees</b>							
<b>Accidents <sup>1</sup></b>	<b>#</b>	<b>29</b>	<b>24</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>0</b>
Male	#	29	24	3	1	1	0
Female	#	0	0	0	0	0	0
Fatal accidents	#	0	0	0	0	0	0
<b>Frequency rate <sup>2</sup></b>	<b>Fr</b>	<b>1.50</b>	<b>2.40</b>	<b>1.02</b>	<b>0.21</b>	<b>0.78</b>	<b>0.00</b>
Male	Fr	1.94	3.20	1.42	0.26	1	0.00
Female	Fr	0.00	0.00	0.00	0.00	0.00	0.00
<b>Severity rate <sup>3</sup></b>	<b>Sr</b>	<b>90</b>	<b>131</b>	<b>97</b>	<b>2</b>	<b>114</b>	<b>0</b>
Male	Sr	117	174	135	2	114	0
Female	Sr	0	0	0	0	0	0
Total lost days due to accidents <sup>4</sup>	#	1,747	1,308	285	8	146	0
Occupational diseases	#	0	0	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>	#	82	42	21	15	4	0
Fatal accidents <sup>6</sup>	#	2	1	0	1	0	0
Working days	#	6,018,186	2,201,866	721,132	2,571,550	379,546	144,092
Frequency rate <sup>2</sup>	Fr	1.84	2.57	3.83	0.82	1.39	0.00
Severity rate <sup>3</sup>	Sr	88	168	146	18	25	0
<b>EDP employees and contractors</b>							
Frequency rate <sup>2</sup>	Fr	1.74	2.51	2.85	0.70	1.20	0.00
Severity rate <sup>3</sup>	Sr	89	154	129	15	52	0
Fatal electrical accidents involving third parties <sup>6</sup>	#	8	3	0	5	0	0
Near accidents	#	427	98	41	117	136	35
<b>Representatives elected in H&amp;S Comissions</b>							
EDP employees represented <sup>7</sup>	%	85	88	64	100	51	34
Employees representative	#	344	71	17	205	42	9
<b>H&amp;S TRAINING</b>							
<b>Employees</b>							
Awareness actions	#	1,316	465	382	87	67	315
Employees	#	14,855	4,506	2,149	5,475	249	2,476
Training hours	hours	107,337	19,069	8,128	69,386	2,005	8,749
<b>Contractors</b>							
Awareness actions	#	22,739	1,771	54	20,194	710	10
Employees	#	26,205	5,901	525	18,606	1,128	45
Training hours	hours	268,842	1,797	113	263,666	3,232	34

<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. It should be noted that a third dead was still awaiting confirmation by the end of last year of a possible relationship of the workers's death to be the incident.

<sup>7</sup> Number of represented EDP employees, by the total number of EDP employees.

2018	UN	Group	Portugal	Spain	Brazil	North America	Rest of the World
<b>EMPLOYMENT</b>							
<b>Employees</b>	<b>#</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>#</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>#</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>#</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>#</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>#</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>#</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>#</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>#</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>#</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>#</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

<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>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.d.
<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>	<b>hours</b>	<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>	<b>h/p</b>	<b>34</b>	<b>31</b>	<b>41</b>	<b>39</b>	<b>25</b>	<b>31</b>
<b>Executive Board of Directors</b>	<b>h/p</b>	<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>	<b>h/p</b>	<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>	<b>h/p</b>	<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>	<b>h/p</b>	<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>	<b>h/p</b>	<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 18001	MW	25,715	10,947	5,518	2,523	5,163	1,564
Installed capacity certified by OHSAS 18001	%	96	97	100	91	93	95
Employees covered by OHSAS 18001	%	44	28	100	44	51	73
<b>Employees</b>							
<b>Accidents<sup>1</sup></b>	<b>#</b>	<b>29</b>	<b>19</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>0</b>
Male	#	n.d.	17	4	4	n.d.	0
Female	#	n.d.	2	0	0	n.d.	0
Fatal accidents	#	2	2	0	0	0	0
<b>Frequency rate<sup>2</sup></b>	<b>Fr</b>	<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.d.	2.18	1.86	0.81	n.d.	0.00
Female	Fr	n.d.	0.79	0.00	0.00	n.d.	0.00
<b>Severity rate<sup>3</sup></b>	<b>Sr</b>	<b>110</b>	<b>158</b>	<b>112</b>	<b>57</b>	<b>9</b>	<b>0</b>
Male	Sr	n.d.	174	154	76	n.d.	0
Female	Sr	n.d.	110	0	0	n.d.	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.



## ECONOMIC INDICATORS

EDP GROUP	UN	2019	2018
<b>ECONOMIC VALUE GENERATED</b>	<b>000€</b>	<b>15,437,724</b>	<b>16,307,866</b>
Economic value distributed	000€	13,213,652	14,470,560
Economic value accumulated	000€	2,224,072	1,837,306
<b>RDI</b>	<b>000€</b>	<b>162,040</b>	<b>75,366</b>
<b>ENERGY EFFICIENCY AND SUPPLEMENTARY ENERGY SERVICES REVENUES <sup>1</sup></b>	<b>000€</b>	<b>1,032,354</b>	<b>1,442,966</b>
Energy efficiency services revenues	000€	158,376	151,468
Supplementary energy services revenues <sup>2</sup>	000€	873,978	1,291,498
<b>SUPPORT FROM PUBLIC AUTHORITIES <sup>3</sup></b>	<b>000€</b>	<b>103,105</b>	<b>47,958</b>
<b>FINES AND PENALTIES</b>	<b>000€</b>	<b>7,931</b>	<b>5,951</b>
<b>ENVIRONMENTAL MATTERS <sup>4</sup></b>	<b>000€</b>	<b>354,197</b>	<b>264,482</b>
Investments	000€	88,317	68,987
Expenses	000€	265,880	195,495
<b>SOCIAL MATTERS</b>			
Personnal costs	000€	571,088	570,909
Employee benefits	000€	49,108	80,631
Direct training investment	000€	3,756	4,043
Direct training investment per employee	€/p	322	348
HC ROI per employee	%	6.96	6.35

<sup>1</sup> Energy Efficiency and Supplementary Energy Services: services provided under energy supply, instalation 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 TABLE

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>						
I02-1	Name of the organization	5			L	
I02-2	Activities, brands, products, and services	28-29			L	
I02-3	Location of headquarters	5			L	
I02-4	Location of operations	24-25			L	
I02-5	Ownership and legal form	5			L	
I02-6	Markets served	24-29			L	
I02-7	Scale of the organization	24-25; 237; AR 241			L	
I02-8	Information on employees and other workers	237			L	3; 6
I02-9	Supply chain	www.edp.com		www.edp.com	L	
I02-10	Significant changes to the organization and its supply chain	173-176; AR 58; AR 91-95			L	
I02-11	Precautionary Principle or approach	Code of Ethics		www.edp.com	L	
I02-12	External initiatives	www.edp.com		www.edp.com> participations www.edp.com> sustainable development goals	L	
I02-13	Membership of associations	www.edp.com		www.edp.com	L	
<b>2. Strategy</b>						
I02-14	Statement from senior decision-maker	12-19			L	
I02-15	Key impacts, risks, and opportunities	52-58			L	
<b>3. Ethics and Integrity</b>						
I02-16	Values, principles, standards, and norms of behaviour	20; Code of Ethics			L	10
I02-17	Mechanisms for advice and concerns about ethics	www.edp.com		www.edp.com	L	10
<b>4. Governance</b>						
I02-18	Governance structure	39-45			L	
I02-19	Delegating authority	Ar 124-125			L	
I02-20	Executive-level responsibility for economic, environmental, and social topics	39-45			L	
I02-21	Consulting stakeholders on economic, environmental, and social topics	46; 67-70; AR 133			L	



DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
I 02-22	Composition of the highest governance body and its committees	39-42; 186; 202-220; AR 102-115; AR 144-148			L	
I 02-23	Chair of the highest governance body	39-42; 202-220; AR 111-115			L	
I 02-24	Nominating and selecting the highest governance body	39-42			L	
I 02-25	Conflicts of interest	AR 105; AR 183-185			L	
I 02-26	Role of highest governance body in setting purpose, values, and strategy	39-45; AR 116-117			L	
I 02-27	Collective knowledge of highest governance body	238			L	
I 02-28	Evaluating the highest governance body's performance	120-125; AR 174-180			L	
I 02-29	Identifying and managing economic, environmental, and social impacts	43-45; 67-70; 122-123; AR 159-173			L	
I 02-30	Effectiveness of risk management processes	122-123; AR 154-168			L	
I 02-31	Review of economic, environmental, and social topics	43-45			L	
I 02-32	Highest governance body's role in sustainability reporting	43-45; 222-224			L	
I 02-33	Communicating critical concerns	127-128; 187; AR 124-142			L	
I 02-34	Nature and total number of critical concerns	127-128; 187			L	
I 02-35	Remuneration policies	120-124; AR 171-183			L	
I 02-36	Process for determining remuneration	120-124; AR 171-183			L	
I 02-37	Stakeholders' involvement in remuneration	120-124; AR 171-183			L	
I 02-38	Annual total compensation ratio	238			L	
I 02-39	Percentage increase in annual total compensation ratio	238			L	
<b>5. Stakeholder Engagement</b>						
I 02-40	List of stakeholder groups	46			L	
I 02-41	Collective bargaining agreements	238			L	3
I 02-42	Identifying and selecting stakeholders	Stakeholders Report		www.edp.com	L	
I 02-43	Approach to stakeholder engagement	Stakeholders Report		www.edp.com	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
I02-44	Key topics and concerns raised	Stakeholders Report		www.edp.com	L	
<b>6. Reporting Practice</b>						
I02-45	Entities included in the consolidated financial statements	AR 404-412			L	
I02-46	Defining report content and topic Boundaries	67-70; 222-224			L	
I02-47	List of material topics	67-70			L	
I02-48	Restatements of information			Not applicable	L	
I02-49	Changes in reporting	67-70; 222-224			L	
I02-50	Reporting period	5; 222			L	
I02-51	Date of most recent report	222-224			L	
I02-52	Reporting cycle	5; 222			L	
I02-53	Contact point for questions regarding the report	AR – last page			L	
I02-54	Claims of reporting in accordance with the GRI Standards	222-224			L	
I02-55	GRI content index	224			L	
I02-56	External assurance	224			L	
<b>GRI 103: Management Approach</b>						<b>I to 10</b>
I03-1	Explanation of the material topic and its Boundary	67-70; Sustainability Management Approach   I.2.		www.edp.com	L	
I03-2	The management approach and its components	67-70; Sustainability Management Approach   I.2.		www.edp.com	L	
I03-3	Evaluation of the management approach	67-70; Sustainability Management Approach   I.2. Sustainability		www.edp.com	L	0
<b>GRI 200: ECONOMIC TOPICS</b>						
<b>GRI 201: Economic Performance</b>						
201-1	Direct economic value generated and distributed	182			L	
201-2	Financial implications and other risks and opportunities due to climate change	98-100; 230			L	7
201-3	Defined benefit plan obligations and other retirement plans	AR 318; AR 358-366			L	
201-4	Financial assistance received from government	243			L	



DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 202: Market Presence</b>						<b>6</b>
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	190			L	
202-2	Proportion of senior management hired from the local community	237			L	
<b>GRI 203: Indirect Economic Impacts</b>						
203-1	Infrastructure investments and services supported	165-172			L	
203-2	Significant indirect economic impacts	115-116; 165-175			L	
<b>GRI 204: Procurement Practices</b>						
204-1	Proportion of spending on local suppliers	173-175; 191-192			L	
<b>GRI 205: Anti-corruption</b>						<b>10</b>
205-1	Operations assessed for risks related to corruption	130			L	
205-2	Communication and training about anti-corruption policies and procedures	www.edp.com		www.edp.com	L	
205-3	Confirmed incidents of corruption and actions taken	130; 187			L	
<b>GRI 206: Anti-competitive Behaviour</b>						
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	131-132; 139-140; 187			L	
<b>GRI 300: ENVIRONMENTAL TOPICS</b>						<b>7; 8; 9</b>
	ISO 14001 Certified maximum net installed capacity	233			L	
<b>GRI 301: Materials</b>						
301-1	Materials used by weight or volume	188-189			L	
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	n.a.		Not applicable	L	
<b>GRI 302: Energy</b>						
302-1	Energy consumption within the organization	233			L	
302-2	Energy consumption outside of the organization	233			L	
302-3	Energy intensity	233			L	
302-4	Reduction of energy consumption	102-105; 184			L	
302-5	Reductions in energy requirements of products and services	n.a.		Not applicable to the sector	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 303: Water</b>						
303-1	Water withdrawal by source	147-148; 234			L	
303-2	Water sources significantly affected by withdrawal of water	188; 234			L	
303-3	Water recycled and reused	n.a.		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	234			L	
304-2	Significant impacts of activities, products, and services on biodiversity	148-150; www.edp.com		www.edp.com	L	
304-3	Habitats protected or restored	www.edp.com		www.edp.com	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	L	
<b>GRI 305: Emissions</b>						
305-1	Direct (Scope 1) GHG emissions	98-100; 183; 233			L	
305-2	Energy indirect (Scope 2) GHG emissions	98-100; 183; 233			L	
305-3	Other indirect (Scope 3) GHG emissions	98-100; 183; 233			L	
305-4	GHG emissions intensity	233			L	
305-5	Reduction of GHG emissions	98-100			L	
Avoided CO <sub>2</sub> emissions		95-97; 102-103; 183; 184; 233			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), sulphur oxides (SOX), and other significant air emissions	233			L	



DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 306: Effluents and Waste</b>						
306-1	Water discharge by quality and destination	188; 234			L	
306-2	Waste by type and disposal method	145-147; 188; 234			L	
306-3	Significant spills			Spills: 118; Volume spilled: 12.68 m <sup>3</sup>	L	
306-4	Transport of hazardous waste			There were no exports of hazardous materials in 2019	L	
306-5	Water bodies affected by water discharges and/or runoff	145-148		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	189			L	
<b>GRI 308: Supplier Environmental Assessment</b>						
308-1	New suppliers that were screened using environmental criteria	173-175			L	
308-2	Negative environmental impacts in the supply chain and actions taken	173-175			L	
<b>GRI 400: SOCIAL TOPICS</b>						
<b>GRI 401: Employment</b>						<b>6</b>
401-1	New employee hires and employee turnover	237			L	
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	156; Sustainability Management Approach   4.1. Labour Practices		www.edp.com	L	
401-3	Parental leave	238			L	
Absenteeism rate		237			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	L	
<b>GRI 403: Occupational Health and Safety</b>						
403-1	Workers representation in formal joint management-worker health and safety committees	239; Sustainability Management Approach   4.1. Labour Practices		www.edp.com	L	
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	179; 239			L	
403-3	Workers with high incidence or high risk of diseases related to their occupation	Health and Safety Report 2019		www.edp.com	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
403-4	Health and safety topics covered in formal agreements with trade unions	Sustainability Management Approach   4.1. Labour Practices		www.edp.com	L	
<b>GRI 404: Training and Education</b>						<b>6</b>
404-1	Average hours of training per year per employee	238			L	
404-2	Programs for upgrading employee skills and transition assistance programs	152-155			L	
404-3	Percentage of employees receiving regular performance and career development reviews	155-156			L	
<b>GRI 405: Diversity and Equal Opportunity</b>						<b>6</b>
405-1	Diversity of governance bodies and employees	186; 189			L	
405-2	Ratio of basic salary and remuneration of women to men	238			L	
<b>GRI 406: Non-discrimination</b>						<b>I; 6</b>
406-1	Incidents of discrimination and corrective actions taken	Ethics Ombudsperson Report		www.edp.com EDP was not aware of cases of this nature in 2019	L	
<b>GRI 407: Freedom of Association and Collective Bargaining</b>						<b>I; 3</b>
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	173-175			L	
<b>GRI 408: Child Labour</b>						<b>5</b>
408-1	Operations and suppliers at significant risk for incidents of child labour	173-175			L	
<b>GRI 409: Forced or Compulsory Labour</b>						<b>4</b>
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	173-175			L	
<b>GRI 410: Security Practices</b>						
410-1	Security personnel trained in human rights policies or procedures			Not material	L	



DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 411: Rights of Indigenous Peoples</b>						<b>I; 2</b>
411-1	Incidents of violations involving rights of indigenous peoples	172-173; Human Rights Report 2019			L	
<b>GRI 412: Human Rights Assessment</b>						<b>I; 2</b>
412-1	Operations that have been subject to human rights reviews or impact assessments	128-129; Human Rights Report 2019			L	
412-2	Employee training on human rights policies or procedures	238			L	
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	176			L	
<b>GRI 413: Local Communities</b>						<b>I</b>
413-1	Operations with local community engagement, impact assessments, and development programs	165-172			L	
413-2	Operations with significant actual and potential negative impacts on local communities	172-173			L	
<b>GRI 414: Supplier Social Assessment</b>						<b>I; 2</b>
414-1	New suppliers that were screened using social criteria	173-175			L	
414-2	Negative social impacts in the supply chain and actions taken	173-175			L	
<b>GRI 415: Public Policy</b>						<b>10</b>
415-1	Political contributions	130-131			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	L	
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	n.a.		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			Included in the scope of GRI 419-1 report. However, it is not considered relevant.	L	
417-3	Incidents of non-compliance concerning marketing communications			Included in the scope of GRI 419-1 report. However, it is not considered relevant.	L	



DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
<b>GRI 418: Customer Privacy</b>						I
418-I	Substantiated complaints concerning breaches of customer privacy and losses of customer data	187			L	
<b>GRI 419: Socioeconomic Compliance</b>						
419-I	Non-compliance with laws and regulations in the social and economic area	243			L	
	Environmental matters	243			L	
	Energy efficiency services revenues	243			L	
<b>G4 SECTOR SPECIFIC</b>						
<b>General standard disclosures</b>						
EU1	Installed capacity, broken down by primary energy source and by regulatory regime	183			L	
EU2	Net energy output broken down by primary energy source and by regulatory regime	183			L	
EU3	Number of residential, industrial, institutional and commercial customer accounts	185			L	
EU4	Length of above and underground transmission and distribution lines by regulatory regime.	26			L	
EU5	Allocation of CO <sub>2</sub> e emissions allowances or equivalent, broken down by carbon trading framework	AR 407			L	
<b>Economic</b>						
G4-DMA Availability and Reliability		Sustainability Management Approach   2.5. Availability and Reliability		www.edp.com	L	
EU10	Planned capacity against projected electricity demand over the long-term, broken down by energy source and regulatory regime	26			L	
G4-DMA Demand-Side Management		Sustainability Management Approach   2.6. Demand Management		www.edp.com	L	
G4-DMA Research and Development		Sustainability Management Approach   2.6. Demand Management		www.edp.com	L	
G4-DMA Plant Decommissioning		Sustainability Management Approach   2.6. Demand Management		www.edp.com	L	



DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime	184			L	
EU12	Transmission and distribution losses as a percentage of total energy	184			L	
<b>Environment</b>						
G4-DMA Materials		Sustainability Management Approach   3.2. Materials		www.edp.com	L	
G4-DMA Water		Sustainability Management Approach   3.4. Water		www.edp.com	L	
G4-DMA Biodiversity		Sustainability Management Approach   3.5. Biodiversity		www.edp.com	L	
EU13	Biodiversity of offset habitats compared to biodiversity of the affected areas	148-150; www.edp.com		www.edp.com	L	7; 8
G4-DMA Effluents and Waste		Sustainability Management Approach   3.7. Effluents and Waste		www.edp.com	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	L	
EU15	Percentage of employees eligible to retire in the next 5 and 10 years broken down by job category and by region	190			L	
EU17	Days worked by contractor and subcontractor employees involved in construction, operation & maintenance activities	239			L	
EU18	Percentage of contractor and subcontractor employees that have undergone relevant health and safety training	239			L	
G4-DMA Freedom of Assoc. Collective Bargaining		Sustainability Management Approach   4.2. Human Rights		www.edp.com	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   1.2. Sustainability		www.edp.com	L	

DISCLOSURE NUMBER	DISCLOSURE TITLE	PAGE NUMBERS	REPORT	OMISSIONS/ ADDITIONAL INFORMATION	EXTERNAL ASSURANCE	GLOBAL COMPACT
EU22	Number of people physically or economically displaced and compensation, broken down by type of project	172-173			L	I; 7; 8
<b>Product Responsibility</b>						
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	L	
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	L	
EU25	Number of injuries and fatalities to the public involving company assets including legal judgments, settlements and pending legal cases of diseases	239			L	
EU26	Percentage of population unserved in licensed distribution or service areas	Sustainability Management Approach   2.5. Availability and Reliability and 2.6. Demand-side Management		www.edp.com	L	
EU27	Number of residential disconnections for non-payment, broken down by duration of disconnection and by regulatory regime	185			L	
EU28	Power outage frequency	185			L	
EU29	Average power outage duration	185			L	
EU30	Average plant availability factor by energy source and by regulatory regime	AR 419; AR 420; AR 422			L	

\* Sector specific indicator

L - limited verification

AR - Annual Report

|||||||

Fully reported

|||||||

Partially reported

|||||||

Not reported





## ***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***

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 identified below in section “Responsibilities of the auditor”, which integrate the sustainability information included in the Sustainability Report 2019 (“Report”), for the year ended December 31, 2019, prepared by the Company for the purpose of communicating its annual sustainability performance.

### ***Responsibilities of the Executive Board of Directors***

It is the responsibility of the Executive Board of Directors to prepare the indicators identified below in section “Responsibilities of the auditor”, included in the Sustainability Report 2019, in accordance with the sustainability reporting guidelines “Global Reporting Initiative”, GRI Standards and Electric Utilities Supplement for the option “In Accordance – Comprehensive” considering 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 to maintain an appropriate internal control system that enables the adequate preparation of the mentioned information.

### ***Responsibilities of the auditor***

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.

Our work 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 and we have fulfilled other technical standards and recommendations issued by the Institute of Statutory Auditors. These standards requires that we plan and perform our work to obtain limited assurance about whether the sustainability indicators identified in Appendix “GRI Table” of the Report as “External Assurance – Limited”, are free from material misstatement.

It was also considered the AA1000 Assurance Standard (AA1000 AS, 2018 Addendum), type 2 engagement, for a moderate level of assurance. Our limited assurance engagement also consisted in carrying out procedures with the objective of obtaining a limited level of assurance as to whether the Company applied, in the sustainability information included in the Sustainability Report 2019, the GRI Standards guidelines and the principles defined in the AA1000AP Standard (2018).

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;

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**PricewaterhouseCoopers & Associados – Sociedade de Revisores Oficiais de Contas, Lda.**

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Matriculada na CRC sob o NIPC 506 628 752, Capital Social Euros 314.000

Inscrita na lista das Sociedades de Revisores Oficiais de Contas sob o nº 183 e na CMVM sob o nº 20161485

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.

- ii) Identification of the existence of internal management procedures leading to the implementation of economic, environmental and social policies;
- 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 data audited by PricewaterhouseCoopers & Associados, SROC, Lda, in the scope of the statutory audit of EDP's financial statements for the year ended in December 31, 2019;
- vii) Comparison of sustainability data from EDP Brasil included in the sustainability information with the data reported in the Annual Report 2019 from EDP Energias 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, for the option "In Accordance – Comprehensive".

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.

We believe that the procedures performed provide an acceptable basis for our conclusion.

### ***Quality control and independence***

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.

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***

Based on the work performed, nothing has come to our attention that causes us to believe that the indicators identified above in section "Responsibilities of the auditor", included in the Sustainability Report 2019, related to the year ended December 31, 2019, 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**

Without affecting the conclusion above, 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.
- 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**

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 2019, 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 2019.

March 13, 2020

PricewaterhouseCoopers & Associados  
- Sociedade de Revisores Oficiais de Contas, Lda.  
represented by:

João Rui Fernandes Ramos, R.O.C.



**AA1000**  
Licensed Assurance Provider  
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## REPORT ON THE ALLOCATION AND IMPACT OF GREEN BONDS

**€2,200M**

IN GREEN BONDS ISSUED IN  
2018-2019

As part of EDP's strategy and in order to promote greater alignment of its financial policy with its sustainability strategy, in October 2018, the Group (through EDP Finance BV) carried out its first Green Bonds issue, to the amount of 600 million Euros (Senior Debt). During the year 2019, two more Green Bond issues were made with a total amount of 1,600 million Euros: i) 1,000 million Euros of Subordinated Debt (Hybrid) in January 2019; and ii) 600 million Euros of Senior Debt in September 2019.

In accordance with EDP's Green Bond Framework, which supports the issuance of Green Bonds, the proceeds from these operations were used by the company to finance or refinance investments in a portfolio of projects eligible for green financing, thereby promoting the transition towards a low-carbon economy. This report is part of the commitment to report annually to investors as to how the financing obtained was allocated. The information included in this report is also available on the EDP website at [www.edp.com](http://www.edp.com).

EDP's Green Bond Framework was structured in accordance with ICMA's Green Bond Principles and verified externally by Sustainalytics.

The 2.2 thousand million Euros issued in Green Bonds in 2018 and 2019 had been fully allocated by 31 December 2019, of which 442 million Euros were allocated to new projects and 1,758 million Euros were allocated to existing projects. It should be noted that the amount of green financing allocated to new projects is related to wind farms that started operating from the date of issue of the respective green bonds.

The following points present the reporting of important information to investors on the application of funds from the green issues of the EDP Group's Green Bonds and on the environmental benefits resulting from these.

CHARACTERISTICS FROM GREEN BOND ISSUE	PRE-ISSUE		POST-ISSUE		
	REFERENCE PRINCIPLES	SECOND OPINION	MONITORIZATION	GREEN BONDS INDEXES	EXTERNAL VERIFICATION
	Green Bond Principles (ICMA 2018)	Sustainalytics	Register on the database of the Climate Bond Initiative (CBI)	Bloomberg Barclays MCSI 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 through the emission of 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 emissions has been fully assigned, EDP will invest the unassigned funds 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>- Generation 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 generation by the emission factor for thermally-generated electricity in the country.				



### Use of proceeds for eligible green projects

Portfolio date: December 2019

ELIGIBLE SUSTAINABILITY PROJECT PORTFOLIO	AMOUNT (EUR)	ALLOCATION OF GREEN FUNDING (2019)	AMOUNT (EUR)
<b>Existing projects ( ~ 2019)</b>		<b>Allocated to green bonds</b>	<b>2,200,000,000</b>
<b>Renewable Energy</b>			
Wind	€ 6,485,798,918		
Solar	€ 182,905,952		
<b>New projects (2019 ~ )</b>			
<b>Renewable Energy</b>			
Wind	€ 441,664,010		
Solar	€ -		
		<b>Unallocated Amount of Eligible Project Portfolio</b>	<b>4,910,368,880</b>
<b>Total Eligible Sustainability Project Portfolio</b>	<b>7,110,368,880</b>	<b>Maximum Sustainability Funding</b>	<b>7,110,368,880</b>
Percentage of Eligible Green Project Portfolio allocated to net proceeds of green funding:	30.9%		
Percentage of net proceeds of Green Bond allocated to Eligible Green Project Portfolio:	100%		

### Portfolio based green bond report according to the harmonized framework for impact reporting\*

Portfolio date: December 2019

Elegible project category Social bond principles (SBP) Green Bond Principles (GBP)	Signed amount	Share of total portfolio financing	Eligibility for Green Bonds	Allocated Amount	Installed capacity of renewable energy in MW*	Annual net production of renewable energy (MWh)*	GHG emissions avoided in tCO <sub>2</sub> *
a/	b/	c/	d/		e/	e/	e/
	EUR						
Renewable energy	7,110,368,880	100%	100%	2,200,000,000	8,582	22,451,060	14,311,493
<b>Total</b>	<b>7,110,368,880</b>	<b>100%</b>	<b>100%</b>	<b>2,200,000,000</b>	<b>8,582</b>	<b>22,451,060</b>	<b>14,311,493</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> avoided emissions in tCO<sub>2</sub>

\*2019 indicators





## ***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***

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 information identified below in section "Responsibilities of the auditor", included in the Report on the Allocation and Impact of Green Bonds ("Green Bonds Report") that is integrated in the Sustainability Report 2019, for the year ended in December 31, 2019, prepared by the Company for the purpose of disclosing its annual sustainability performance.

### ***Responsibilities of the Executive Board of Directors***

It is the responsibility of the Executive Board of Directors to prepare the Green Bonds Report, identified below in section "Responsibilities of the auditor, included in the Sustainability Report 2019, in accordance with the EDP Green Bond Framework ("Framework"), as well as to maintain an appropriate internal control system that enables the adequate preparation of the mentioned information.

### ***Responsibilities of the auditor***

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.

Our work 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 and we have fulfilled other technical standards and recommendations issued by the Institute of Statutory Auditors. These standards require that we plan and perform our work to obtain limited assurance about whether the the information included in the Green Bonds Report that is integrated in the Sustainability Report 2019, is free from material misstatement.

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;

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**PricewaterhouseCoopers & Associados – Sociedade de Revisores Oficiais de Contas, Lda.**

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Matriculada na CRC sob o NIPC 506 628 752, Capital Social Euros 314.000

Inscrita na lista das Sociedades de Revisores Oficiais de Contas sob o nº 183 e na CMVM sob o nº 20161485

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) Analysis of the procedures used for obtaining the information and data presented in the Green Bonds Report;
- 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.

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.

We believe that the procedures performed provide an acceptable basis for our conclusion.

#### ***Quality control and independence***

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.

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***

Based on the work performed, nothing has come to our attention that causes us to believe that the information identified above in section "Responsibilities of the auditor", included in the Green Bond Report that is included in the Sustainability Report 2019, 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***

This report is issued solely for information and use of the Executive 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 2019.

March 13, 2020

PricewaterhouseCoopers & Associados  
- Sociedade de Revisores Oficiais de Contas, Lda.  
represented by:

João Rui Fernandes Ramos, R.O.C.

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