# Welcome to your CDP Water Security Questionnaire 2021

# W0. Introduction

## W0.1

### (W0.1) Give a general description of and introduction to your organization.

EDP – Energias de Portugal, S.A. (EDP) is a listed, multinational vertically integrated utility company, whose ordinary shares are publicly traded in the Euronext Lisbon. The company is established and headquartered in Portugal, being organized under Portuguese laws.
Throughout its more than 40 years of history, EDP has been building a relevant presence in the world energy scene, being present in 21 countries in 4 continents. EDP has around 12 thousand employees and is present throughout the whole value chain of electricity and in the activity of gas supply: power generation, distribution and supply of electricity in Portugal, Spain and Brazil, electricity transmission in Brazil and gas supply in Portugal and Spain. Through its subsidiary EDP Renewables, EDP is also one of the largest wind power operators worldwide, with on-shore wind farms in Europe (Iberian Peninsula, France, Belgium, Italy, Poland, Romania, Greece), North America (United States of America, Canada and Mexico) and South America (Brazil, Chile), and developing off-shore wind projects in Portugal, UK, Belgium, France and the USA. Additionally, EDP generates power from photovoltaic plants in Portugal, Romania, USA and Mexico.
EDP supplies electricity to 8.6 million customers and gas to 0.7 million customers. In 2020, the company generated about 64 TWh of electricity worldwide, of which 74% from renewable energy sources and, by year end, had an installed capacity of 24 GW (79% renewable). Highlighting its renewable energy portfolio, it is well positioned for the challenges of the energy transition.
EDP's vision is to be a global energy company, leading the energy transition to create superior value. Our values are Innovation, Sustainability and Humanization and our commitments are towards accelerated and sustainable growth, building a future-proof organization and ESG excellence and attractive returns.
The company assumes the power sector's key role in the transition to a low-carbon economy and sets a strategic agenda based on organic growth focused on renewables and low exposure to CO2 and sustainability risks. EDP publishes detailed information on its financial and sustainability performance and governance practices in its Annual Report and Sustainability Report, available on www.edp.com.
Key financial figures in 2020:

Turnover: EUR 12,448 million
EBITDA: EUR 3,950 million
Net profit: EUR 801 million
Net investment: EUR 2,037 million
Net debt: EUR 12,243 million
Total assets: EUR 42,947 million
ISIN: PTEDP0AM0009
SEDOL: 4103596

# W-EU0.1a

**(W-EU0.1a) Which activities in the electric utilities sector does your organization engage in?**

Electricity generation
Transmission
Distribution
Other, please specify
Electricity and gas supply.

# W-EU0.1b

**(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.**

| | Nameplate capacity (MW) | % of total nameplate capacity | Gross electricity generation (GWh) |
|---|---|---|---|
| Coal – hard | 1 969,9 | 8,4 | 6 418,7 |
| Lignite | 0 | 0 | 0 |
| Oil | 0 | 0 | 0 |
| Gas | 2 885,6 | 12,3 | 10 009,3 |
| Biomass | 0 | 0 | 0 |
| Waste (non-biomass) | 0 | 0 | 0 |
| Nuclear | 0 | 0 | 0 |
| Fossil-fuel plants fitted with carbon capture and storage | 0 | 0 | 0 |
| Geothermal | 0 | 0 | 0 |
| Hydropower | 7 126,5 | 30,3 | 18 959,2 |
| Wind | 11 354,7 | 48,3 | 28 354,4 |
| Solar | 145,2 | 0,6 | 266,6 |
| Marine | 0 | 0 | 0 |
| Other renewable | 0 | 0 | 0 |
| Other non-renewable | 42,2 | 0,2 | 216,2 |

| | | | |
|---|---|---|---|
| Total | 23 524,1 | 100 | 64 224,4 |

# W0.2

**(W0.2) State the start and end date of the year for which you are reporting data.**

| | Start date | End date |
|---|---|---|
| Reporting year | janeiro 1, 2020 | dezembro 31, 2020 |

# W0.3

**(W0.3) Select the countries/areas for which you will be supplying data.**

Belgium
Brazil
Canada
France
Italy
Mexico
Poland
Portugal
Romania
Spain
United Kingdom of Great Britain and Northern Ireland
United States of America

# W0.4

**(W0.4) Select the currency used for all financial information disclosed throughout your response.**

EUR

# W0.5

**(W0.5) Select the option that best describes the reporting boundary for companies, entities, or groups for which water impacts on your business are being reported.**

Companies, entities or groups over which financial control is exercised

# W0.6

**(W0.6) Within this boundary, are there any geographies, facilities, water aspects, or other exclusions from your disclosure?**

Yes

# W0.6a

**(W0.6a) Please report the exclusions.**

| Exclusion | Please explain |
|---|---|
| Smaller office facilities in Spain and Brazil. | These facilities use water supplied by municipal water systems and their consumption is estimated to represent less than 0.001% of the Group's total water withdrawals (therefore considered immaterial). Such percentage does not justify the implementation of dedicated monitoring procedures for quantitative water parameters as withdrawals, discharges and consumption. |

# W1. Current state

## W1.1

**(W1.1) Rate the importance (current and future) of water quality and water quantity to the success of your business.**

| | Direct use importance rating | Indirect use importance rating | Please explain |
|---|---|---|---|
| Sufficient amounts of good quality freshwater available for use | Vital | Neutral | Direct use: for process and some cooling water processes in thermal generation, for hydro power plants and general uses. Access to sufficient amounts of good quality freshwater is vital for the operation of these assets, as they accounted for 53% of total electricity generation in 2020. A reduction in water quality/quantity could lead to operational and maintenance costs due to additional water pre-treatment systems, equipment damage and conflicts with other water users. Future dependency is expected to decrease with growth of wind and solar capacity in generation (+25% in wind capacity and 20 times solar capacity compared to 2020), according to EDP's Strategic update 2021-2025 and long-term strategy. In addition, the new Strategic update foresees the dismantling of coal by 2025.<br><br>Indirect use: in the supply chain the largest contribution from raw materials is attributed to coal for tier 1 suppliers.<br>However, access to sufficient amounts of good quality freshwater by suppliers is considered neutral, as in 2020, the purchased coal came from mines located in low water stressed areas and in medium to high water stressed areas (representing only one mine with the WRI Baseline Water Stress between 20% and 40%). Moreover, |

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| | | | coal currently accounts for 8% of our total installed capacity, and procurement is made from a vast range of alternative suppliers in different geographies.<br>Future dependency will be further reduced, as coal capacity will decrease gradually until 2025. |
| Sufficient amounts of recycled, brackish and/or produced water available for use | Vital | Not very important | Direct use: brackish water for cooling water in the refrigeration circuits of two gas power plants in Portugal, and recycled water in Pecém, a coal power plant in Brazil.<br>Sufficient amount of brackish and recycled water is vital for the operation of these assets, as they accounted for 11% of total electricity generation in 2020. Specially in Pecém, located in a water stressed region, where 14% of the effluents produced were recycled, reducing water consumption by more than 8,4 thousand cubic meters per month in 2020.<br>Future dependency is expected to decrease with growth of wind and solar capacity in generation portfolio, according to EDP's Strategic update 2021-2025 and long-term strategy.<br><br>Indirect use: in the supply chain the largest contribution from raw materials is attributed to coal for tier 1 suppliers.<br>However, access to sufficient amounts of recycled, brackish and/or produced water available for use is considered not very important, as it is not a key component of indirect operations. This type of water is considered not material and EDP sees no value on monitoring water uses from these sources, especially when in 2020, the purchased coal came from mines located in low water stressed areas and in medium to high water stressed areas (representing only one mine with the WRI Baseline Water Stress between 20% and 40%).<br>Future dependency on water from indirect uses will be further reduced, as coal capacity will decrease gradually until 2030. |

# W1.2

**(W1.2) Across all your operations, what proportion of the following water aspects are regularly measured and monitored?**

| | % of sites/facilities/operations | Please explain |
|---|---|---|
| Water withdrawals – total volumes | 100% | At a corporate level, the monitoring of total water withdrawals is done through EDP's Corporate Sustainability Information System, and its frequency depends on the operations:<br>- quarterly for thermal (coal and natural gas), wind and solar power plants, as well as distribution activities and office buildings, and data is collected directly mostly from meter readings in each facility;<br>- annually for hydro power plants, and data is collected either through direct measurements (meter readings) or by calculations, using for instance the installed capacity and the difference between downstream and upstream water levels.<br>Key Water indicators for EDP Group are published in EDP's Sustainability Report and subject to independent third-party verification. |
| Water withdrawals – volumes by source | 100% | At a corporate level, the monitoring of total water withdrawals by source is done through EDP's Corporate Sustainability Information System. Its source and frequency depend on the operations:<br>- coal and gas power plants: sea, brackish and fresh surface sources, groundwater and third-party sources, monitored on a quarterly basis and collected mostly from meter readings;<br>- wind and solar power plants, and distribution activities: groundwater and third-party sources, monitored on a quarterly basis and collected mostly from meter readings;<br>- office buildings: third-party sources monitored on a quarterly basis and collected from meter readings;<br>- hydro power plants: fresh surface water sources monitored annually and collected through meter readings or by using for instance the installed capacity and the difference between downstream and upstream water |

| | | |
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| | | levels.<br>Key Water indicators for EDP Group are published in EDP's Sustainability Report and subject to independent third-party verification. |
| Water withdrawals quality | 100% | We monitor water withdrawals quality for 100% of facilities where applicable: thermal (coal and natural gas) and hydro power plants.<br>Distribution activities and office buildings are excluded, as water is withdrawn from municipality companies. The monitoring frequency depends on the parameter and type of facility. For hydro power plants, parameters monitoring (e.g. Oxygen, Temperature, pH, conductivity, redox potential and turbidity) is mostly done every two months for all quality parameters, both at bottom and surface level, and in two different points of the reservoir. In thermal power plants, in addition to the type of parameter and facility, monitoring also depends on the process (refrigeration circuits and demineralized water processes) and withdrawal sources. Water parameters such as pH, conductivity, turbidity, chlorides, suspended solids, total organic carbon are monitored continuously, weekly or monthly. |
| Water discharges – total volumes | 100% | At a corporate level, the monitoring of total water discharges is done through EDP's Corporate Sustainability Information System, and its frequency depends on the operations:<br>- quarterly for thermal (coal and natural gas), wind and solar power plants, as well as distribution activities and office buildings, and data is collected directly mostly from meter readings in each facility;<br>- annually for hydro power plants, and data is collected either through direct measurements or by calculations, using electricity generated at the site level and the reservoir water level.<br>Key Water indicators for EDP Group are published in EDP's Sustainability Report and subject to independent third-party verification. |
| Water discharges – volumes by destination | 100% | At a corporate level, the monitoring of total water discharge volumes by destination is done through EDP's Corporate Sustainability Information System. Its destination and |

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| | | frequency depend on the operations:<br>- coal and gas power plants: discharges to sea, brackish and fresh surface sources, and sent to third-party destinations, monitored on a quarterly basis and collected mostly from meter readings;<br>- wind and solar power plants, distribution activities and office buildings: water sent to third-party destinations, monitored on a quarterly basis and collected mostly from meter readings;<br>- hydro power plants: discharges to fresh surface water destinations, monitored annually and collected through meter readings or by using for instance the installed capacity and the difference between downstream and upstream water levels.<br>Key Water indicators for EDP Group are published in EDP's Sustainability Report and subject to independent third-party verification. |
| Water discharges – volumes by treatment method | Not relevant | Since hydro power plants, wind and solar farms represent 75% of EDP's total generation capacity, as recommended in the Question-level Guidance, this water aspect is reported as not relevant. It is expected to remain not relevant due to the addition of 20GW of new renewable generation capacity foreseen in EDP's Business Plan 2021-2025, which will lead to an increase in the percentage above mentioned.<br>We monitor total water discharge volumes by treatment method in our thermal power plants, where such monitoring is either a legal requirement or an environmental management system requirement. |
| Water discharge quality – by standard effluent parameters | Not relevant | Since hydro power plants, wind and solar farms represent 75% of EDP's total generation capacity, as recommended in the Question-level Guidance, this water aspect is reported as not relevant. It is expected to remain not relevant due to the addition of 20GW of new renewable generation capacity foreseen in EDP's Business Plan 2021-2025, which will lead to an increase in the percentage above mentioned.<br>We monitor water discharge quality parameters in our thermal power plants, where such |

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| | | monitoring is either a legal requirement or an environmental management system requirement. Wastewater quality discharges from thermal power plants are publicly available on EDP's website. |
| Water discharge quality – temperature | Not relevant | Since hydro power plants, wind and solar farms represent 75% of EDP's total generation capacity, as recommended in the Question-level Guidance, this water aspect is reported as not relevant. It is expected to remain not relevant due to the addition of 20GW of new renewable generation capacity foreseen in EDP's Business Plan 2021-2025, which will lead to an increase in the percentage above mentioned.<br>We monitor water discharge temperature in our thermal power plants (wastewater and cooling water), where such monitoring is either a legal requirement or an environmental management system requirement. |
| Water consumption – total volume | 100% | At a corporate level, the monitoring of total water consumption is done through EDP's Corporate Sustainability Information System, at a quarterly basis for thermal (coal and natural gas), wind and solar power plants, as well as distribution activities and office buildings, and data is collected directly mostly from meter readings in each facility.<br>It is worth noticing that EDP considers water use in hydro power plants a non-consumptive use.<br>Key Water indicators for EDP Group are published in EDP's Sustainability Report and subject to independent third-party verification. |
| Water recycled/reused | Not relevant | Since hydro power plants, wind and solar farms represent 75% of EDP's total generation capacity, as recommended in the Question-level Guidance, this water aspect is reported as not relevant. It is expected to remain not relevant due to the addition of 20GW of new renewable generation capacity foreseen in EDP's Business Plan 2021-2025, which will lead to an increase in the percentage above mentioned.<br>In Pecém thermal power plant, EDP recycles water in its refrigeration circuits, and reuses treated water from the Effluent Treatment Station, using it as cooling water in the |

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| | | refrigeration circuits, these are monitored on annually basis. In its hydro portfolio, EDP has 2,807MW of pumping storage, representing 6% of water used for hydro power generation in 2020. |
| The provision of fully-functioning, safely managed WASH services to all workers | 100% | The required resources to guarantee a safe and healthy environment for all workers and compliance with the law are verified through internal and third-party health and safety audits. The health and safety of those contributing to EDP Group's activities - employees, service providers, contractors or subcontractors - are key priorities for the Group.<br>Within its Health and Safety Work Policy, EDP is committed to make available the required resources to guarantee a safe and healthy environment for all its workers, ensuring compliance with the law.<br>The Policy applies to all EDP Group companies, in all geographies, and requires all service providers to adopt practices in line with its underlying principles.<br>Occupational health and safety are integral parts of EDP Group's activities and are considered in all decisions: project design, construction, exploitation, HR management, procurement, customer relations, supplier relations and with the general public. |

# W-EU1.2a

**(W-EU1.2a) For your hydropower operations, what proportion of the following water aspects are regularly measured and monitored?**

| | % of sites/facilities/operations measured and monitored | Please explain |
|---|---|---|
| Fulfilment of downstream environmental flows | 100% | EDP analysed and monitored 100% of its hydro power plant flows in Iberia and Brazil. Following this assessment, EDP implemented downstream environmental flows (e-flows) where required. Both in Europe and Brazil, legislation requires the implementation of e-flow regimes as a mitigation environmental measure to improve water body ecological status and to achieve good ecological potential. EDP monitors the effectiveness of these |

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| | | e-flows and readjusts them when necessary to guarantee the ecological quality of the water bodies. This monitoring allow us to avoid operational and maintenance costs due to bad quality water that can lead to equipment damage. Until now, results point out to the increase of the ecological quality downstream. |
| Sediment loading | 100% | The potential accumulation of sediments upstream of the reservoir is regularly monitored as part of the operating standards used for hydroelectric power plants.<br>Its monitoring is carried out mainly by the direct inspection at the water intake, and indirectly by bathymetric studies or underwater inspection in the surroundings of the dam.<br>In addition to these operating standards, EDP regularly implements mitigation measures through an adequate spillway management during flood periods to promote solid flows to go downstream, simulating the natural flow.<br>Extraordinarily, and usually in small power plants, there is the mechanical transport of sediments accumulated upstream, to downstream.<br>In addition to these routine measures, EDP has in place a plan of bathymetric studies to assess the sedimentation potential in the total area of the reservoir. These studies are being planned in Portugal. |
| Other, please specify | | |

# W1.2b

**(W1.2b) What are the total volumes of water withdrawn, discharged, and consumed across all your operations, and how do these volumes compare to the previous reporting year?**

| | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|---|---|---|---|
| Total withdrawals | 203 443 767 | Higher | In 2020, water withdrawal was 28% higher than in 2019. This result is explained by the 33% increase of hydropower generation (which represents 99.7% |

| | | | |
|---|---|---|---|
| | | | of total water withdrawals) due to the better hydrological conditions in Iberia in 2020.<br><br>Specifically for hydro power plants, data was collected either through direct measurements (meter readings) or by calculations, using for instance the installed capacity and the difference between downstream and upstream water levels.<br><br>Due to the current's high hydro power contribution in the EDP Group's water performance, water withdrawals will tend to decrease or increase depending on if it is a dry or wet year, respectively. However, future water withdrawals dependency is expected to decrease with the growth of wind and solar capacity in generation portfolio, as per EDP's Strategic Update 2021-2025 and long-term strategy.<br><br>We use the following thresholds for monitoring trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower". |
| Total discharges | 203 430 237 | Higher | In 2020, water discharge was 28% higher than in 2019. This result is explained by the 33% increase of hydropower generation (which represents 99.7% of total water withdrawals) due to the better hydrological conditions in Iberia in 2020.<br><br>Specifically for hydro power plants, data was collected either through direct measurements (meter readings) or by calculations, using for instance the installed capacity and the difference between downstream and upstream water levels.<br><br>Due to the current's high hydro power contribution in the EDP Group's water performance, water discharges will tend to decrease or increase depending on if it is a dry or wet year, respectively. However, future water discharges are expected to decrease with the growth of wind and solar capacity in generation portfolio, as per EDP's Strategic Update 2021-2025 and long-term strategy. |

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|---|---|---|---|
| | | | We use the following thresholds for monitoring trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”. |
| Total consumption | 14 967 | Lower | Water consumption was obtained by withdrawals minus discharges to the same water body within, at least, the quality parameters of the licensing permits.<br><br>This definition is aligned with the information disclosed in EDP’s Sustainability Report and is a result of the 2019 revision of EDP Group’s water-related indicators (Please see EDP’s website at: www.edp.com/sites/default/files/2020-03/Water-related%20indicators_EN_23.12.19.pdf).<br><br>Thus, being now more environmentally conservative, this explains why the reported consumption differs from the CDP's definition (withdrawal minus discharges), as EDP has some powerplants in which water is discharges to a different destination from the withdrawal source.<br><br>It is worth noticing that EDP considers water use in hydro power plants a non-consumptive use.<br><br>In 2020, water consumption was 31% lower than in 2019. This is the result of the following two facts combined: 1. Reduction in the number of operating hours at Pecém Power Plant (between April and August 2020 it was completely stopped and in March and September 2020 it operated only partially); 2. Lower use of coal power plants (production at coal thermoelectric power plants decreased by 46% compared to 2019);<br>Water consumption will tend to increase or decrease depending on if it is a dry or wet year, respectively, according to the use of thermal power plants.<br><br>However, future water use dependency is expected to decrease with the growth of wind and solar capacity in generation portfolio, as per EDP’s Strategic update 2021-2025 and long-term strategy. |

| | | | |
|---|---|---|---|
| | | | We use the following thresholds for monitoring trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”. |

## W1.2d

**(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.**

| | Withdrawals are from areas with water stress | % withdrawn from areas with water stress | Comparison with previous reporting year | Identification tool | Please explain |
|---|---|---|---|---|---|
| Row 1 | Yes | Less than 1% | Much lower | WRI Aqueduct | EDP has two thermal power plants located in water stressed areas (Pecém in Brazil and Castejón in Spain), representing 0.003% of the total water withdrawals reported in question 1.2b.<br><br>There was a 58% decrease of this indicator between 2019 and 2020 due to the following facts:<br>- total water withdrawals from these power plants decreased 47% (Pecém Power Plant was stopped between April and August 2020, and in March and September 2020 it operated only partially);<br>- Total company-wide withdrawals increased 28%.<br><br>For water stress exposure assessment EDP uses the WRI Aqueduct to conduct a first high-level risk assessment, by mapping all its thermal and hydro generation assets against a widely recognized water availability indicator (Baseline Water Stress (BWS)). Wind |

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| | | | | | generation and distribution assets are excluded given their low dependency on water availability. Analysis is conducted at watershed level, using both current state and projections applying the following threshold: BWS higher than 40%, as recommended in the Question-level Guidance.<br>A downscaling analysis at local level is then done, using information gathered from National Governmental Agencies (location specific water availability indicators) and company's operational teams (asset water dependency, constraints from local competitive uses). This is done for all geographies where EDP has generation activities (Portugal, Spain and Brazil), and considering the facilities location. It is worth noticing that withdrawal sources are closely located to the facilities and, thus, water-stress classification is valid for both situations.<br><br>Assessment is updated on a 2 – 3 – year basis or whenever a new project requires it.<br><br>We use the following thresholds to monitor trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower". |

# W1.2h

**(W1.2h) Provide total water withdrawal data by source.**

| | Relevance | Volume (megaliters/year) | Comparison with | Please explain |
|---|---|---|---|---|

| | | | previous reporting year | |
|---|---|---|---|---|
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant | 202 846 178 | Higher | Fresh surface water is relevant because 99.7% of total water withdrawals comes from this source, which is used to produce hydropower, as well as some thermal energy generation.<br><br>In 2020, water withdrawal from fresh surface water was 29% higher than in 2019. This result is explained by the 33% increase of hydropower generation due to the better hydrological conditions in Iberia in 2020.<br><br>Due to the high hydro power contribution in the EDP Group's water performance (99.99% of the total fresh surface water withdrawals), water withdrawals from this source will tend to decrease or increase depending on if it is a dry or wet year, respectively.<br><br>However, future water withdrawals dependency is expected to decrease with growth of wind and solar capacity in generation portfolio, as per EDP's Strategic Update 2021-2025 and long-term strategy.<br><br>We use the following thresholds to monitor trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; |

| | | | | |
|---|---|---|---|---|
| | | | | +/- 51%: “much higher”/”much lower”. |
| Brackish surface water/Seawater | Relevant | 590 965 | Lower | Brackish surface water and seawater are relevant as they are used as cooling water in the refrigeration circuits of some thermal power plants. Two gas power plants in Portugal use brackish water (2% of total brackish and seawater withdrawal) and two coastal coal power plants in Portugal and Spain use seawater (98% of total brackish and seawater withdrawal). However, at the end of 2020, in Portugal, the Sines thermoelectric power plant was closed (1,180 GW). In 2020 there was a 40% withdrawal decrease aligned with the 40% decrease of electricity generation from these coal facilities due to the inversion in order of merit from coal to gas power plants.<br>Future dependency is expected to decrease with the shutdown of coal power plants in Iberia until 2025 and will be null after 2025, as per EDP’s Strategic Update 2021-2025 and long- term strategy.<br>We use the following thresholds to monitor trends:<br>+/- 15%: “about the same”;<br>+/- 16-50%: “higher”/”lower”;<br>+/- 51%: “much higher”/”much lower”. |
| Groundwater – renewable | Relevant | 3 | Much higher | Withdrawals from wells are relevant as they are used for human consumption along with other general uses such |

| | | | | |
|---|---|---|---|---|
| | | | | as irrigation.<br><br>The higher volume reported in 2020 when compared to the previous year reflects the higher human and general water uses .<br><br>Given the very low volumes involved and the availability of alternative sources, company dependency on this source is low and it is expected to remain low in the future.<br><br>We use the following thresholds to monitor trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”. |
| Groundwater – non-renewable | Relevant | 161 | About the same | Withdrawals from deep water holes are relevant as they are mainly used in a water-steam water circuit in one of EDP’s gas power plants.<br><br>Its electricity generation was slightly lower in 2020, when compared to 2019 (-6%), justifying the constant volume withdrawn from this source between 2019 and 2020.<br><br>Given the very low volumes involved and the availability of alternative sources, company dependency on this source is low and it is expected to remain low in the future.<br><br>We use the following thresholds to monitor trends: |

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|---|---|---|---|---|
| | | | | +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”. |
| Produced/Entrained water | Not relevant | | | Not applicable. EDP does not use produced or process water. It is not expected to be used in the future. |
| Third party sources | Relevant | 6 460 | Lower | Withdrawals from third party sources are mainly used in office buildings and in the Pecém coal power plant.<br><br>Pecém is the main user of this source (67%), being supplied by the local water supply concessionaire.<br><br>There was a 50% withdrawal decrease due to both the implementation of water reuse and recycling measures in some of its industrial processes, and a decrease of its electricity generation. In 2020 there was a reduction in the number of operating hours at Pecém Power Plant (between April and August 2020 it was completely stopped and in March and September 2020 it operated only partially).<br><br>Future dependency is expected to remain constant with the full operationalization of the water efficiency measures.<br><br>We use the following thresholds to monitor trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; |

| | | | | |
|---|---|---|---|---|
| | | | | +/- 51%: “much higher”/”much lower”. |

# W1.2i

**(W1.2i) Provide total water discharge data by destination.**

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Please explain |
|---|---|---|---|---|
| Fresh surface water | Relevant | 202 842 749 | Higher | In 2020, fresh surface water (including hydro technology) represents 99,7% of total water discharges. In this year, it increased 29%, compared to 2019. This result is explained by the 33% increase of hydropower generation due to the better hydrological conditions in Iberia in 2020.<br><br>Due to the high hydro power contribution in the EDP Group’s water performance (99.99% of the total fresh surface water discharges), water discharges to this source will tend to decrease or increase depending on if it is a dry or wet year, respectively.<br><br>However, future water discharges are expected to decrease with growth of wind and solar capacity in generation portfolio, as per EDP’s Strategic Update 2021-2025 and long-term strategy.<br><br>We use the following thresholds to monitor trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”. |
| Brackish surface water/seawater | Relevant | 587 484 | Lower | Discharges to brackish surface water and seawater are mainly of cooling water used in the refrigeration circuits of some |

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|---|---|---|---|---|
| | | | | thermal power plants. Even thought this represents <1% of total water discharges, it is still considered relevant.<br><br>Two gas power plants in Portugal discharge to brackish surface water (1% of total brackish and seawater discharges) and three coal power plants in Portugal, Spain and Brazil discharge to seawater (99% of total brackish and seawater withdrawal).<br><br>There was a 50% discharge decrease from 2019, aligned with 50% reduction in the number of operating hours at Pecém Power Plant and the 54% lower electricity generation of Sines Plant.<br><br>Future dependency is expected to be reduced with the decrease of coal capacity until 2025, as per EDP's Strategic Update 2021-2025.<br>We use the following thresholds to monitor trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower". |
| Groundwater | Not relevant | | | Not applicable. EDP does not make discharges to groundwater. It is not expected to make these discharges in the future. |
| Third-party destinations | Relevant | 4 | Much higher | Third party destinations' effluents are considered relevant because they include 100% domestic wastewater produced in all activities within the reporting boundary and sent to municipal treatment.<br><br>The increase between 2019 and |

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|---|---|---|---|---|
| | | | | 2020 basically reflects the higher human consumption and general uses.<br><br>It is expected that third-party destinations will remain constant over the years.<br><br>We use the following thresholds to monitor trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”. |

# W-EU1.3

**(W-EU1.3) Do you calculate water intensity for your electricity generation activities?**

Yes

# W-EU1.3a

**(W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.**

| Water intensity value (m3) | Numerator: water aspect | Denominator | Comparison with previous reporting year | Please explain |
|---|---|---|---|---|
| 3 186 | Freshwater withdrawals | MWh | Higher | Numerator refers to total freshwater withdrawals in EDP’s activities, as reported in W1.2h.<br><br>Information is collected directly mostly from meter readings for thermal, wind and solar power plants, distribution activities and office buildings. For hydro facilities, data is collected either through direct measurements (meter readings) or by calculations, using for instance the installed capacity and the difference between downstream and upstream water levels.<br><br>Denominator refers to total net electricity generation, collected through online systems that monitor each power plant’s |

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| | | | | electricity injection in the grid.<br><br>There was a 34% increased in 2020 (3,186 m3/MWh vs. 2,377 m3/MWh in 2019) explained by the 33% increase of hydropower generation due to the better hydrological conditions in Iberia in 2020.<br><br>Due to the high hydro power contribution in the EDP Group's water performance (99.99% of the total freshwater withdrawals), this water intensity indicator will tend to decrease or increase depending on if it is a dry or wet year, respectively.<br><br>Through EDP's Strategic update 2021-2025 and long term strategy, this water intesity indicator is expected to decrease. The Strategy establishes a change in EDP's portfolio, namely the growth of wind and solar capacity, which are very low water intensity technologies.<br><br>Nevertheless, future freshwater withdrawals will still vary significantly on an annually basis, due to the hydrological conditions in Iberia.<br><br>Water intensity indicator is being used for internal and external analysis on water dependency and efficiency in water use, to drive water performance improvement projects at operational level and to inform our water strategy.<br><br>We use the following thresholds for monitoring trends in water intensity indicator: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower". |

# W1.4

**(W1.4) Do you engage with your value chain on water-related issues?**

Yes, our suppliers

# W1.4a

## (W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

### Row 1

#### % of suppliers by number

Less than 1%

#### % of total procurement spend

1-25

#### Rationale for this coverage

Coal extraction represents the largest contribution of water consumption within EDP's tier 1 suppliers of raw materials, according to a characterization study of EDP's purchases using procurement and environmentally extended input-output data.
While coal plants are still part of EDP's portfolio, EDP keeps ensuring an active engagement with coal suppliers, so risks are monitored, including water-related ones.
This engagement is ensured through the Bettercoal Initiative, where 100% of EDP's coal suppliers contractually mandated to follow the Bettercoal Code, committing to 10 Principles, namely to natural resource sustainable management and pollution control in which water issues are included. These suppliers are requested to report on their environmental performance, including water issues, allowing EDP to better manage its risk.

#### Impact of the engagement and measures of success

Under the Bettercoal Initiative, EDP’s coal suppliers are subject to an on-site assessment and a continuous improvement plan, so the Code requirements are closely monitored.
The assessment is based on a risk approach, analysing suppliers’ performance against the Code’s commitments.
Suppliers are requested to report on management systems to address the Code's aspects, including procedures on environmental issues, and mining performance regarding risk factors or incidents related to social, human rights, business integrity and the environment. Moreover, performance from internal and third-party audits, and against media review and other sources of information is monitored.
This information allows EDP to better understand its water-related supply chain risks, monitoring them and prioritizing areas to be more closely accompanied.
The success of the engagement is evaluated by the results of the assessment, namely by the gap between the suppliers’ performance and the Code’s commitments. The impact is measured by the application, and verification by the third part, of the Bettercoal Code of coal procurement contracts.

#### Comment

# W1.4b

## (W1.4b) Provide details of any other water-related supplier engagement activity.

### Type of engagement

Onboarding & compliance

### Details of engagement

Inclusion of water stewardship and risk management in supplier selection mechanism

### % of suppliers by number

76-100

### % of total procurement spend

76-100

### Rationale for the coverage of your engagement

In addition to the coal segment, water is always present in the environmental criteria for qualifying suppliers, from the perspective of Compliance.

Tenders for supplies identified with environmental impacts or exposed to risks are classified as Environmental Critical. Thus, tender includes environmental threshold criteria that bidding suppliers must accomplish to be at the negotiation stage. Applicants must demonstrate: - A valid Environmental Certification; - Performance in the previous 3 years (fines, consumption, improvements ...); - Special criteria/technological devices.

Also, as a risk mitigation tool, EDP's Code of Conduct is a contractual obligation for tier 1 suppliers. Water issues are part of the environmental principle, where suppliers commit to comply with e.g. environmental legislation and international standards, and to identify, monitor and mitigate environmental risks and impacts.

Since those are binding conditions, 100% of the suppliers are engaged.

### Impact of the engagement and measures of success

The impact of the engagement is supported by a KPI system, which in 2020 brought beneficial/constructive results such as:
- 100% of Suppliers under Procurement obliged by EDP's Code of Conduct;
- 100% of Suppliers under Procurement engaged on disclosing Environmental Information
- 79% of Suppliers under Procurement exposed to Environmental risks with ISO certification
- 100% Environmental Critical Suppliers performance annually appraised;
- 100% Direct coal contracts made in 2020 with Bettercoal clause.

These KPIs are a way to build confidence on suppliers' operations regarding environmental issues. Engagement evolves as suppliers are required to adopt

management procedures to monitor for instance the Code of Conduct's requirements, reporting to EDP either non-compliance or compliance evidences.

The success of the engagement is evaluated through those KPIs, namely through the comparison of suppliers' performance against EDP's Code of Conduct.

**Comment**

# W2. Business impacts

## W2.1

**(W2.1) Has your organization experienced any detrimental water-related impacts?**

No

## W2.2

**(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?**

No

# W3. Procedures

## W-EU3.1

**(W-EU3.1) How does your organization identify and classify potential water pollutants associated with your business activities in the electric utilities sector that could have a detrimental impact on water ecosystems or human health?**

EDP has a third-party certification, by Lloyds, of its corporate environmental management system (CEMS), according to ISO 14001:2015. The CEMS covers the scope: "Corporate management of environmental policies and strategic environmental plans, environmental information and performance of EDP Group organisations" and it frames operation's performance at a site level.

Under this standard, EDP identifies its main environmental aspects and their materiality, considering stakeholder's expectations and the result of an internal Environmental Risk Assessment Tool, applied to all EDP Group.

This tool links environmental aspects with impacts and risks (regulatory, operational, etc.), covering both impacts on the environment (e.g.: Water pollution) but also company's dependency on natural resources (e.g.: water dependence). Also, it is through this tool that potential water pollutants are classified, according to the potential impact on the environment, using an impact scale applicable to all EDP Group that goes from low impact to a very high impact.

Additionally, for each discharge point of thermal power plants, EDP must comply with pollutant emission limits according to environmental licensing permits. Thus, the pollutants to be monitored are expressly included in these licenses, issued by the National Environmental Authorities.

Moreover, in Europe, these parameters are based on a facilities' performance level achieved with the application of the best available techniques (BAT), as considered by the European Commission. BATs evolve over time and are discussed with the economic agents of each activity sector. EDP participated in the latest BAT analysis for the large combustion plant sector. EDP monitors these pollutants with different frequencies in accordance with the environmental permits. Some examples of this are level of discharge of heavy metals and temperature level (thermal pollution).

Hydro power plants do not emit pollutants into the water. Water quality parameters are regularly monitored in the reservoir as the existence of the dams can scale up some pollution problems already present in the water upstream the reservoir. For example, when high levels of organic matter and nutrients exist due to diffuse pollution from agriculture or urban sewage discharges, the level of water eutrophication in the reservoir can increase with the consequent decrease of water quality. In critical situations, where dams exist in rivers with significant bad upstream quality, EDP has been voluntarily involved in the implementation of solutions to increase water quality in the reservoirs, mitigating the environmental impacts resulting from these situations. In formal or informal multipurpose reservoirs, EDP also actively acts in acute situations that lead to water quality decrease. A strong and common example of this situation is after strong summer fires, with the increase of ashes in the river streams or in reservoirs used afterwards for water consumption.

Finally, EDP has also in place Emergency Procedures to prevent accidental spills (ex. from oil or chemical substance), as they may become potential pollution sources, for instance causing water body's physical and chemical changes, with the decrease of oxygen in the water, and affecting fauna and flora (by coating, and by reducing the availability of food, for example). A wide range of measures are implemented, such as retention basins in transformers and in oil tanks, water/oil separators and the existence of spill absorbent materials in the most critical areas of industrial facilities.

Potential detrimental impacts on water (both for ecosystems and human health) associated with pollutants release are limited to our electricity generation activities. For our other electricity sector activities, electricity distribution and electricity and gas supply such impacts are deemed not relevant.

In EDP's supply chain, coal extraction represents the largest contribution of water consumption within EDP's tier 1 suppliers of raw materials, and coal represents 8% of EDP's total installed capacity.  EDP is a member of Bettercoal promoting site and self-assessments of the mines. 100% of its suppliers follow Bettercoal Code, which includes the commitment to natural resource sustainable management and pollution control. EDP also monitors and promotes the

Environmental Management Systems of its fuel suppliers, with 90% of critical suppliers certified in accordance with ISO 14001.

## W-EU3.1a

**(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.**

| Potential water pollutant | Description of water pollutant and potential impacts | Management procedures | Please explain |
|---|---|---|---|
| Hydrocarbons | Hydrocarbons from accidental spills and not due to a continuous discharge situation. Oil spills in thermal and hydro power plants, as well as in electricity distribution facilities, if reaching water bodies, may cause water's physical and chemical changes, with the decrease of oxygen in the water, and affecting fauna and flora (by coating, and by reducing the availability of food, for example). Accidental spill frequency is extremely low (1 situation within EDP Group in the last decade). In a qualitative scale, these impacts are considered as highly significant based on either different standards or the EDP's Environmental Risk Assessment tool. | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages<br>Community/stakeholder engagement<br>Emergency preparedness<br>Other, please specify<br>Environmental Risk Assessment Tool. | The compliance with wastewater quality standards is ensured through its treatment, monitoring and reporting to the competent authorities. Also, EDP has in place a companywide target to achieve zero environmental accidents and penalties until 2022.<br>To prevent spillage, leaching, and leakages, there are retention basins in transformers and in oil tanks, water/oil separators and spill absorbent materials in the most critical areas of industrial facilities.<br>Moreover, the collection of several kind of wastewaters in different drainage networks is a complementary procedure to mitigate risk regarding potential water pollutants' impacts: chemical wastewaters, oily wastewaters, domestic sewage and clean rain water.<br>Annually, Environmental Declarations are made for all thermal power plants in Iberia, where environmental |

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| | | | performance results are provided. These declarations are distributed to the main stakeholders. Also, visits to the industrial facilities are promoted.<br>There are emergency plans in place, as well as specific training actions and accident drills (including testing of scenarios with water damage).<br>EDP has ongoing several Environmental Risk Management Modelling for each of its critical facilities to evaluate the potential damage of oil spills and other potential environmental impacts (occurring as consequences of accidental situations), to better inform decision making. |
| Coal combustion residuals | Coal combustion residuals (fly ashes, bottom ashes and gypsum) from coal power plants rejected into the water by accident, and not due to a continuous discharge situation. These accidental leakages may have high level content of heavy metals, with potential environmental impacts both in fauna and flora, as well as in human health when the food chain is contaminated. Accident frequency is extremely low (1 situation with limited impact within EDP Group in the last decade). | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages<br>Community/stakeholder engagement<br>Emergency preparedness<br>Other, please specify<br>Environmental Risk Assessment Tool. | The compliance with effluent quality standards is ensured through waste water treatment, monitoring and report to the competent authorities. Also, EDP has in place a companywide target to achieve zero environmental accidents and penalties until 2022.<br>Coal power plants have landfills for ash and gypsum waste, equipped with sedimentation basins to prevent these kinds of wastes from reaching the water.<br>Annually, Environmental Declarations are made for all thermal power plants in Iberia, where environmental |

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| | | | performance results are provided. These declarations are distributed to the main stakeholders. Also, visits to the industrial facilities are promoted.<br>There are emergency plans in place, as well as specific training actions and accident drills (including testing of scenarios with water damage).<br>EDP has ongoing several Environmental Risk Management Modelling for each of its critical facilities to evaluate the potential damage of oil spills and other potential environmental impacts (occurring as consequences of accidental situations), to better inform decision making. |
| Thermal pollution | The discharge of hot water in EDP's thermal power plants can extraordinarily lead to a raise in temperature of the local water body. This may contribute to the decrease of dissolved oxygen and the change of the local natural environmental with adverse impacts in local fauna and flora living conditions. No significant environmental impacts have been recorded. | Compliance with effluent quality standards<br>Measures to prevent spillage, leaching, and leakages<br>Community/stakeholder engagement<br>Emergency preparedness<br>Other, please specify<br>Monitoring of waterbody temperature. | Thermal pollution is controlled at all EDP thermal power plants as there are legal limits to the temperature rise in the receiving water body.<br>Also, EDP has in place a companywide target to achieve zero environmental accidents and penalties until 2022. Annually, Environmental Declarations are made for all thermal power plants in Iberia, where environmental performance results are provided. These declarations are distributed to the main stakeholders. Also, visits to the industrial facilities are promoted.<br>Also, there are emergency |

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| | | | plans in place, as well as specific training actions and accident drills (including testing of scenarios with water damage).<br>EDP has ongoing several Environmental Risk Management Modelling for each of its critical facilities to evaluate the potential damage of oil spills and other potential environmental impacts (occurring as consequences of accidental situations), to better inform decision making. |
| | | | |

# W3.3

**(W3.3) Does your organization undertake a water-related risk assessment?**

Yes, water-related risks are assessed

# W3.3a

**(W3.3a) Select the options that best describe your procedures for identifying and assessing water-related risks.**

## Direct operations

### Coverage

Full

### Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

### Frequency of assessment

More than once a year

### How far into the future are risks considered?

More than 6 years

### Type of tools and methods used

Tools on the market
Enterprise Risk Management
International methodologies
Databases

### Tools and methods used

WRI Aqueduct
ISO 31000 Risk Management Standard
Environmental Impact Assessment
IPCC Climate Change Projections
FAO/AQUASTAT
Regional government databases
Other, please specify
Internal company methods.

### Comment

Internal company methods include, but are not limited to, standard risk identification and quantification methodologies (e.g. Monte Carlo simulations, short and long-term impact estimation on EBITDA), and an environmental corporate risk assessment tool aligned with ISO 31000 and ISO 14001:2015, which includes water-related regulation follow-up procedures at corporate, business unit and asset level, supported by a proprietary Regulation Database information system, managed at corporate level.

## Supply chain

### Coverage

Full

### Risk assessment procedure

Water risks are assessed as part of an enterprise risk management framework

### Frequency of assessment

More than once a year

### How far into the future are risks considered?

More than 6 years

### Type of tools and methods used

Tools on the market
Enterprise Risk Management

### Tools and methods used

WRI Aqueduct
ISO 31000 Risk Management Standard

### Comment

Water risks throughout the supply chain are identified, assessed and managed both in EDP's Water Risk Map, in which supply chain risks are identified as strategic, as they are important to forecast possible future restrictions in direct and indirect water use, and in EDP's assessment of generation assets' exposure to water stress locations, where current and future water stress exposure of coal mines are assessed regularly using the WRI Aquaduct through their specific coordinates.

## Other stages of the value chain

### Coverage

None

### Comment

Use of EDP's products (electricity and gas) does not involve water use. As such, we do not include other stages of the value chain water risks in our risk assessment procedures.

## W3.3b

### (W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

| | Relevance & inclusion | Please explain |
|---|---|---|
| Water availability at a basin/catchment level | Relevant, always included | Current and future water availability is vital to EDP's thermal and hydro electricity generation. Water (freshwater; or sea waterin two power plants) is used for cooling and for water-steam circuits in EDP's CCGT and coal-fired power plants in Portugal, Spain and Brazil (21% of installed capacity). Use is mostly non-consumptive (98% of withdrawals are returned to water bodies with minimal changes) but assets operation depends upon enough water being available for withdrawal. Water is also essential for electricity generation in EDP's hydroelectric power plants in Portugal, Spain and Brazil (30% of installed capacity). All water use in hydro generation depends upon enough incoming flows availability. Current and future availability is assessed through:<br>i) Climate risk assessment – periodical assessment of climate risks, according to TCFD recommendations, including the identification, quantification and consolidation of Climate Value@Risk. Physical risks as well as acute risks are identified and quantified by BUs (when the impact is >1M€). Additionally, transition risks, are also accounted. The assessment is performed for 3 time horizons (1-5y, 5-10y, and 10-30y), 3 integrated scenarios (base on IEA and IPCC reference scenarios) and for the projected and current portfolios. The evolution of physical parameters is sourced by different sources, namely World Bank, Copernicus, and local sources.<br>ii) EDP Group annual risk map – annual exercise to quantify the risks of execution of the budget and business plan. Within a wide set of risks assessed, the hydro availability and the regulatory risks are assessed according to available information, specialists' opinion, and sensitivity analysis to parameters. The time horizon is of 1y or 1-4y, |

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| | | assuming the established strategy of the Group.<br>iii) Assessment of generation assets' exposure to water stress locations. It uses WRI Aqueduct and FAO/AQUASAT (current – forecasts up to 2040) for a high-level assessment, downscaled with information from National Agencies (location specific indicators) and operational teams' inputs (local competitive uses);<br>iv) Detailed risk quantification for competitive uses and structural decrease in hydro flows in EDP Water Risk Map. Risks are aggregated according to expected frequency and impact and applying Monte Carlo simulation for short/medium (up to 5 years) and long-term time horizons (5-50 years). Financial implications are expressed by the value of maximum loss (95% percentile). |
| Water quality at a basin/catchment level | Relevant, always included | Water quality is mostly essential for the water-steam process in thermal power plants. Dry years may decrease the water quality withdrawn by the company, leading to the increase of operational costs of the water treatment process. This is an operational physical risk identified and included indirectly in the corporate risk map. The decrease of water availability is directly associated with local degradation of water quality, thus, this risk is assessed indirectly through the current and future availability assessment:<br>i) Climate risk assessment – periodical assessment of climate risks, according to TCFD recommendations, including the identification, quantification and consolidation of Climate Value@Risk. Physical risks as well as acute risks are identified and quantified by BUs (when the impact is >1M€). Additionally, transition risks, such as policy and legal risks (including additional regulatory/ legal environmental requirements) are also accounted. The assessment is performed for 3 time horizons (1-5y, 5-10y, and 10-30y), 3 integrated scenarios (base on IEA and IPCC reference scenarios) and for the projected and current portfolios (assuming the strategy defined for next years and the as is portfolio). The evolution of physical parameters is sourced by different sources, namely World Bank, Copernicus, and local sources.<br>ii) EDP Group annual risk map – annual exercise to quantify the risks of execution of the budget and business plan. Within a wide set of risks assessed, the hydro availability and the regulatory risks (including environmental risks) are assessed according to available information, specialists' opinion, and sensitivity analysis to parameters. |

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| | | The time horizon is of 1y or 1-4y, assuming the established strategy of the Group.<br>iii) Assessment of generation assets' exposure to water stress locations. It uses WRI Aqueduct and FAO/AQUASAT (current – forecasts up to 2040) for a high-level assessment, downscaled with information from National Agencies (location specific indicators) and operational teams' inputs (local competitive uses);<br>iv) Detailed risk quantification for competitive uses and structural decrease in hydro flows in EDP Water Risk Map. Risks are aggregated according to expected frequency and impact and applying Monte Carlo simulation for short/medium (up to 5 years) and long-term time horizons (5-50 years). Financial implications are expressed by the value of maximum loss (95% percentile). |
| Stakeholder conflicts concerning water resources at a basin/catchment level | Relevant, always included | Current and future stakeholder conflicts - most relevant competitive uses of water – can constraint operation of EDP's thermal and hydro power plants. Thermal power plants located in water stress areas are the most vulnerable (Castejón, Spain; Pecém, Brazil). However, Castejón CCGT Power Plant (843 MW) was sold at the end of 2020. In addition, the new Strategic Update 2021-2025 provides for the dismantling of coal by 2025, including Pecém Power Plant; In Portugal, some of EDP's hydro reservoirs are multipurpose, and operation must conciliate the needs of the different water users. Examples include Castelo de Bode reservoir, also the main water supplier to Lisbon. Risks arising from potential restrictions to operation are integrated into EDP's water risk assessment through:<br>i) Climate risk assessment – periodical assessment of climate risks, according to TCFD recommendations, including the identification, quantification and consolidation of Climate Value@Risk. Physical risks as well as acute risks are identified and quantified by BUs (when the impact is >1M€). Additionally, transition risks, are also accounted. The assessment is performed for 3 time horizons (1-5y, 5-10y, and 10-30y), 3 integrated scenarios (base on IEA and IPCC reference scenarios) and for the projected and current portfolios (assuming the strategy defined for next years). The evolution of physical parameters is sourced by different sources, namely World Bank, Copernicus, and local sources.<br>ii) EDP Group annual risk map – annual exercise to quantify the risks of execution of the budget and business plan. Within a wide set of risks assessed, the hydro |

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| | | availability and the regulatory risks are assessed according to available information, specialists' opinion, and sensitivity analysis to parameters. The time horizon is of 1y or 1-4y, assuming the established strategy of the Group.<br>iii) Detailed quantification of risks associated with competitive uses in EDP Water Risk Map. Risks are aggregated according to expected frequency and impact and applying Monte Carlo simulation for short/medium (up to 5 years) and long-term time horizons (5-50 years). Financial implications are expressed by the value of maximum loss (95% percentile). EDP cooperates with local and national competent authorities in the development of River Basin Management Plans and implementation of action plans on flood regularization, ecological flows, flow supply for touristic activities and waterbodies continuity. |
| Implications of water on your key commodities/raw materials | Not relevant, included | The most relevant commodities for EDP's operation are fossil fuels for electricity generation. Coal extraction represents the largest contribution of water consumption within all EDP's tier 1 suppliers of raw materials. This is one of the results from the assessment of potential supply chain water risks included in a characterization study of EDP's purchases.<br>The study identified sustainability impacts of EDP's supply chain, including water consumption. It was conducted using procurement data, environmentally extended input-output data and a global water resources model.<br>Water implications on fossil fuels are included in EDP's water-related risk assessment, but the risk is considered not relevant, as coal accounts for 8% of total installed capacity, and procurement is made from a vast range of alternative suppliers in different geographies.<br>Moreover, in 2020, the purchased coal came from mines located in low water stressed areas and in medium to high water stressed areas (representing only one mine with the WRI Baseline Water Stress between 20% and 40%).<br>Future dependency will be further reduced, as coal capacity will decrease until 2025, and so it is expected that this issue will continue to be evaluated as not relevant. |
| Water-related regulatory frameworks | Relevant, always included | Water-related regulation (e.g. hydro generation taxes, ecological flows legal regimes, water discharges quality requirements, regulation of the EU Water Framework Directive) can constraint the operation of EDP's thermal and hydro power plants (e.g. requirement to release ecological flows in hydro power plants), as well as increase investment and operational costs (e.g. higher investment |

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| | | associated with the installation of cooling towers that reduce water withdrawals in thermal power plants; increase in wastewater treatment costs prior to discharge). Current and future water-related regulatory and tariff risks are assessed through:<br>i) Climate risk assessment – periodical assessment of climate risks, according to TCFD recommendations, including the identification, quantification and consolidation of Climate Value@Risk. Physical risks such as chronical decrease of precipitation (and consequent water availability) as well as acute risks such as extreme precipitation events or droughts are identified and quantified by BUs (when the impact is >1M€). Additionally, transition risks, such as policy and legal risks (including additional regulatory/ legal environmental requirements) are also accounted. The assessment is performed for 3 time horizons (1-5y, 5-10y, and 10-30y), 3 integrated scenarios (base on IEA and IPCC reference scenarios) and for the projected and current portfolios (assuming the strategy defined for next years and the as is portfolio). The evolution of physical parameters is sourced by different sources, namely World Bank, Copernicus, and local sources.<br>ii) EDP Group annual risk map – annual exercise to quantify the risks of execution of the budget and business plan. Within a wide set of risks assessed, the hydro availability and the regulatory risks (including environmental risks) are assessed according to available information, specialists' opinion, and sensitivity analysis to parameters. The time horizon is of 1y or 1-4y, assuming the established strategy of the Group.<br>iii) Specific water-regulation follow-up procedures conducted at corporate, business unit and asset level (e.g. identification of emerging issues; participation in public consultations; involvement in River Basin Management Plans) and supported by a proprietary Regulation Database information system, managed at corporate level. |
| Status of ecosystems and habitats | Relevant, always included | Current and future local ecosystem and habitat status is integrated into EDP's water risk assessment in the planning phase of all new thermal and hydro generation projects. Projects undergo an Environmental Impact Assessment, including monitoring programs on water communities and fresh water habitats prior to development, and forecast of potential future impacts and design of mitigation measures. In the operation phase, risk is assessed and managed mostly at business unit level (Portugal, Spain and Brazil), |

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| | | through site-specific monitoring plans that assess any material changes on the status of water ecosystems and habitats resulting from the power plant operation. Examples of such monitoring plans/tools include:<br>i) water quality monitoring of reservoirs, encompassing biological quality parameters, physicochemical and hydromorphological parameters;<br>ii) use of limnological information collected under the monitoring of reservoirs to support the implementation process of environmental flow regimes;<br>iii) EDP also has in place a global site-specific modelling program to assess potential risks to local ecosystems. Several scenarios of accidents with potential environmental impacts, such as fires, spills, etc. are tested against a baseline environmental condition. Results inform new mitigation action plans, including monitoring plans implemented in addition to the National Environmental Authorities requirements. |
| Access to fully-functioning, safely managed WASH services for all employees | Not relevant, explanation provided | EDP provides access to clean water and suitable sanitation conditions for all employees in 100% of EDP's facilities. This is a legal requirement in the geographies where EDP operates and is a company commitment under its participation in the United Nations' Global Compact. The issue therefore poses no risks to EDP's operations and it is expected to remain not relevant to EDP's operations and, as such, it is not included in EDP's water risk assessment. |
| Other contextual issues, please specify | Not considered | No other issues factored into EDP's water related risk assessment. |

# W3.3c

**(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?**

| | Relevance & inclusion | Please explain |
|---|---|---|
| Customers | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, |

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| | | peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>As a relevant stakeholder for EDP, costumers are engaged at different levels such as: surveys, customer Ombudsman, commercial offices, dedicated websites in each geography and edponline (reserved area both on the websites and app).<br>Aiming at arising customer awareness, and at the same time promoting money savings to them, EDP has a service through which it provides efficient appliances for domestic customers. These appliances, for instance water heaters and electric storage water heaters, are not only energy efficient, but also allow customers to reduce their water bills. |
| Employees | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>As a relevant stakeholder for EDP, employees are engaged for water awareness through some initiatives. For instance, at the World Water Day and National Water Day (in Portugal, for example), water-related information is spread throughout EDP's digital channels (intranet and workplace) to raise awareness and promote efficient behaviours.<br>Also, water-saving equipment and devices were installed in the most recent EDP's new office buildings, and are also criteria to |

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| | | be implemented in the future new buildings, within the Leadership in Energy and Environmental Design (LEED) certification, such as more water efficient taps, showers and toilets. |
| Investors | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>EDP's water risk assessment includes the quantification of the potential financial impact of each identified risk on the company's EBITDA. We report the issue in several different ESG road shows or other investor surveys, when the topic is raised. Also, reporting and communication are done through the CDP Water Programme and EDP's Annual Sustainability Report. |
| Local communities | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and |

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| | | supports the water related risk assessment developed by the company.<br>At a local level, water issues are strongly dependent on the facility type and local conditions. EDP reports local environmental declarations under EMAS (Eco-Management and Audit Scheme Registers) in Portugal and when needed initiatives are taken to increase water quality or availability to local communities.<br>Engagement to support water risk assessment is also made through multistakeholder commissions on Reservoirs Management or River Basin Councils WG.<br>Current and future stakeholder conflicts (e.g. competitive uses) are then integrated into EDP's water risk management process. This involves, when necessary, the cooperation with competent authorities to ensure adequate management of shared water resources (e.g. flood regularization, ecological flows, flow for touristic activities). EDP developed a course, at EDP University, focused on Sustainability, for senior managers with a specific module on stakeholder engagement: an internal training tool to raise capacity to deal with local engagement processes where current and future stakeholder conflicts are addressed. |
| NGOs | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>EDP has in place several partnerships with NGOs, either local or national, concerning mostly environmental protection, where water is a key element considered. For instance, EDP has worked with three ENGOs within the EDP's compensatory measures to be implemented in the Baixo Sabor, so the impact of the hydro power plants would be neutralised, and the area's |

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| | | natural environment degradation trend reversed. These ENGOs assumed the role of implementing the actions on site and mediating directly with the remaining local partners. Some of the compensatory measures include water issues, for instance the enhancement of the river corridor on the Middle and Upper Sabor river and Maças River. The monitoring plan for the measures is being implemented by a local university. |
| Other water users at a basin/catchment level | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>Water users at a catchment level are considered local communities with direct interest in water issues, so engagement to support water risk assessment is also made through local initiatives or through formal multistakeholder commissions on Reservoirs Management or River Basin Councils working groups.<br>Current and future stakeholder conflicts – of which the most relevant are competitive uses – are then integrated into EDP's water risk management process. This involves, when necessary, the cooperation with the competent authorities to ensure adequate management of shared water resources by addressing issues such as: flood regularization, ecological flows or flow supply for touristic activities. EDP developed a course, at EDP University, focused on Sustainability, for senior managers with a specific module on stakeholder engagement: an internal training tool to raise capacity to deal with local engagement processes where current and future stakeholder conflicts are addressed. |
| Regulators | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, |

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| | | medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process are directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>Water regulation issues are closely followed both at corporate and Business Unit level. EDP cooperates with: Eurelectric Hydro Group and Environmental Protection WG; Portuguese Environmental Authorities, in Portugal; Consejo Nacional del Agua (Spain National Water Council) and UNESA, in Spain. In Brazil, EDP participates in the Ceará State Watershed Committee, the entity that manages local water resources in the water stress area where EDP's Pecém thermal power plant is located. |
| River basin management authorities | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>In Portugal, EDP works with the environmental authorities, namely in Public Water Bodies Programs, ecological flows regimes, Flood Risk Management Plans, the Portuguese Commission on Reservoirs Management and the River Basin Councils. In Brazil, EDP participates in the Ceará State |

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| | | Watershed Committee, the entity that manages local water resources in the water stress area where EDP's Pecém thermal power plant is located. |
| Statutory special interest groups at a local level | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>Special interest groups at a local level are integrated into EDP's stakeholder management procedures. Tourist activities, for example, are object of special attention in hydro power plants with multipurpose reservoirs. In Caniçada hydro power plant (Portugal), EDP agreed to operate its hydro power plant having in consideration a water level that allows, simultaneously, recreational activities. Another example is in the Castelo de Bode dam (Portugal) where EDP provides water for nautical sports such as kayaking, adjusting its flows to guarantee these activities when needed. |
| Suppliers | Not relevant, included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental |

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| | | Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>Assessment of potential supply chain water risks was included in a characterization study of EDP's purchases. The study identified sustainability impacts of EDP's supply chain, including water consumption. It was conducted using procurement data, environmentally extended input-output data and a global water resources model. One of the results is that coal extraction represents the largest contribution of water consumption within EDP's tier 1 suppliers of raw materials.<br><br>However, we do not anticipate a substantive impact in EDP's operation as currently 8% of EDP's installed capacity is coal based, and future dependency will be further reduced, as coal capacity will decrease until 2025. Also, risk is further mitigated by working with a vast range of alternative suppliers in different geographies.<br>Moreover, while coal power plants are still part of EDP's generation mix, EDP keeps ensuring that an active engagement is in place with all coal suppliers, so risks are monitored and managed. This engagement is ensured through the Bettercoal Initiative, where 100% of EDP's coal suppliers follow the Bettercoal Code, committing to natural resource sustainable management and pollution control. |
| Water utilities at a local level | Relevant, always included | EDP conducts a materiality analysis, assessing and setting the relevance of an issue for EDP and its stakeholders, to support the organisation's decision-making and strategy development process. Material issues obtained with this process are the ones able to affect the value creation for the company in the short, medium and long term, and at the same time, are recognized as being important for the different EDP's stakeholders. This process is updated on an annual basis and includes the following stakeholders (not exhaustive): suppliers, regulators, peers, investors, customers, employees, local communities, NGO; academia, media, etc. These are key stakeholders for EDP as they affect or are affected by the company's strategy and performance, in accordance to AA 1000 standards.<br>Water is considered a material issue inside the Environmental Issues Category, and the yearly results of this process is directly linked to the Corporate Environmental Risk Tool and supports the water related risk assessment developed by the company.<br>Current and future stakeholder conflicts – of which the most |

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| | | relevant are competitive uses, such as water supply – are integrated into EDP's water risk identification and management procedures. Special attention is paid to hydro power plants with multipurpose reservoirs, of which we operate several in Portugal, where we strive to conciliate the needs of the different water users. Examples include Castelo de Bode hydro power plant, which reservoir is also the main water supplier to the city of Lisbon. EDP has an open channel with the Portuguese main water supply company, which owns the local water uptake, to support the engagement process. |
| Other stakeholder, please specify | Not considered | No other stakeholders considered into EDP's water related risk assessment. |

# W3.3d

**(W3.3d) Describe your organization's process for identifying, assessing, and responding to water-related risks within your direct operations and other stages of your value chain.**

Identification, assessment and management of water-related risks are integrated into EDP's risk procedures and undertaken for all EDP Group within EDP's direct operations in a two-layer processes:

1) Enterprise Risk Management processes – Water business risks (e.g. water availability), regulatory risks (e.g. regulatory constraints due to increase in competitive uses) and strategic risks (e.g. climate-change induced structural change in water availability) are embedded into the EDP's corporate risk taxonomy, within ERM framework. The most relevant processes are the climate risk assessment, and EDP Group Risk Map, both use standard risk methodologies (e.g. ISO 31000, short/long-term impact on EBITDA), and conduct an assessment of risks (including water related risks) on a short to long timescale (1 to 30y) for most risks, using a long-term perspective for climate-related physical risks (e.g. structural reduction in precipitation). The water-related risks quantification process considers expected loss (average scenario) and maximum loss (worst case scenario), across different timeframes and different climate scenarios (based on IEA and IPCC-RCP climate scenarios). After this process, if regional scenarios are available, downscaling is performed;

2) In-depth Water Risk Analysis:
a) Water Risk Map. Includes business, regulatory, strategic and operational water risks, aggregated according to expected frequency and impact, applying Monte Carlo simulation for short/medium (< 5 years) and long-term time horizons (5-50 years). Financial implications are expressed by the value of maximum loss (95% percentile);
b) Assessment of generation assets' exposure to water stress locations. It uses the WRI Aqueduct and FAO/AQUASAT (current/forecasts up to 2040) for a high-level assessment, followed by downscaling with National Agencies information (water availability indicators) and operational teams' inputs (water dependency, competitive uses). Additionally, at operational

level, environmental impact assessments are conducted to mitigate water risks at local level for new projects;
c) Water regulation follow-up. It is conducted at corporate, business unit and asset level (e.g. participation in public consultations; involvement in River Basin Management Plans).
Water risks throughout the supply chain are also identified, assessed and managed both in 2a), in which risks within the supply chain are identified as strategic due to the importance of forecasts of possible future restrictions in direct and indirect water use and in 2b) where current and future water stress exposure of coal mines are assessed regularly using the WRI Aquaduct through the mines' specific coordinates.

This risk evaluation is integrated into the company's development strategy, business plan and project investment analysis (e.g. scenario analysis with water availability and regulation effects in energy prices and volumes; hydro resource evaluation integrating long-term effects of climate change and impact on new hydro capacity.

# W4. Risks and opportunities

## W4.1

### (W4.1) Have you identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes, only within our direct operations

## W4.1a

### (W4.1a) How does your organization define substantive financial or strategic impact on your business?

It is assumed that a substantial financial impact in EDP's direct operations from water-related risks will be over 1M€, which refers to the dimension of the impact assessed by BUs and/ or Group. At the moment we didn't find any material financial impact on the supply chain.
The water-related risks quantification process considers expected loss (average scenario) and maximum loss (worst case scenario), which allows for the prioritization of risks according to their materiality.
Examples include the impact of decrease in EDP hydro generation in Iberia, in a long-term perspective, resulting from climate change-induced structural decrease in precipitation (estimated additional financial impact of 15 M€ - considering the variation vs the current precipitation pattern).

## W4.1b

### (W4.1b) What is the total number of facilities exposed to water risks with the potential to have a substantive financial or strategic impact on your business, and what proportion of your company-wide facilities does this represent?

| | Total number of facilities | % company-wide facilities | Comment |
|---|---|---|---|

| | exposed to water risk | this represents | |
|---|---|---|---|
| Row 1 | 47 | 1-25 | The number of facilities exposed to water risks accounts for 15% of EDP Group's facilities: Two thermal power plants, Pecém in Brazil and Castejón in Spain, and the remaining are hydro power plants in Portugal. During 2020, EDP sold to Engie six hydroelectric power stations located in Portugal, in the Douro, totalling 1,689 MW of installed capacity: Miranda, Picote, Bemposta, Foz Tua, Baixo Sabor and Feiticeiro, of which 5 facilities are exposed to water risks. Thus, the number of facilities exposed to water risks decreased to 42. In addition, the CCGT Castejón Power Station (843 MW) was sold at the end of 2020 and the new Strategic Update 2021-2025 foresees the decommissioning of coal by 2025, including the Pecém Power Plant. |

# W4.1c

**(W4.1c) By river basin, what is the number and proportion of facilities exposed to water risks that could have a substantive financial or strategic impact on your business, and what is the potential business impact associated with those facilities?**

**Country/Area & River basin**

Portugal
Lima

**Number of facilities exposed to water risk**

2

**% company-wide facilities this represents**

Less than 1%

**% company's annual electricity generation that could be affected by these facilities**

1-25

**% company's total global revenue that could be affected**

Less than 1%

**Comment**

Facilities in Lima River Basin account for 0.6%, 1.3% and 0.5% of EDP Group's facilities, electricity generation and revenues, respectively. Identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation.

### Country/Area & River basin

Portugal

Other, please specify

Cávado

### Number of facilities exposed to water risk

5

### % company-wide facilities this represents

1-25

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

Facilities in Cávado River Basin account for 1.6%, 3.2% and 0.3% of EDP Group's facilities, electricity generation and revenues, respectively. Identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation.

### Country/Area & River basin

Portugal

Douro

### Number of facilities exposed to water risk

14

### % company-wide facilities this represents

1-25

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

1-10

### Comment

Facilities in Douro River Basin account for 4.5%, 10.4% and 2.7% of EDP Group's facilities, electricity generation and revenues, respectively.
Identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation and increase in competitive uses.

### Country/Area & River basin

Portugal

Other, please specify

Mondego

### Number of facilities exposed to water risk

12

### % company-wide facilities this represents

1-25

### % company's annual electricity generation that could be affected by these facilities

Less than 1%

### % company's total global revenue that could be affected

Less than 1%

### Comment

Facilities in Mondego River Basin account for 3.8%, 0.9% and 0.4% of EDP Group's facilities, electricity generation and revenues, respectively. Identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation.

### Country/Area & River basin

Portugal

Tejo

### Number of facilities exposed to water risk

10

### % company-wide facilities this represents

1-25

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

Less than 1%

### Comment

Facilities in Tejo River Basin account for 3.2%, 2.3% and 0.6% of EDP Group's facilities, electricity generation and revenues, respectively. Identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation.

### Country/Area & River basin

Portugal
Guadiana

### Number of facilities exposed to water risk

2

### % company-wide facilities this represents

Less than 1%

### % company's annual electricity generation that could be affected by these facilities

Less than 1%

### % company's total global revenue that could be affected

Less than 1%

### Comment

Facilities in Guadiana River Basin account for 0.6%, 0.8% and 0.2% of EDP Group's facilities, electricity generation and revenues, respectively. Identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation.

### Country/Area & River basin

Spain
Ebro

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

Less than 1%

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

1-10

### Comment

Castejón Natural Gas power plant account for 0.3%, 2.5% and 2.0% of EDP Group's facilities, electricity generation and revenues, respectively. It is located in a water stress area identified through EDP's water stress exposure assessment: high level mapping using the WRI Aqueduct, followed by a local level assessment using specific water availability indicators from national agencies and internal knowledge of company's operational teams.

### Country/Area & River basin

Brazil

Other, please specify

Atlântico Nordeste Oriental

### Number of facilities exposed to water risk

1

### % company-wide facilities this represents

Less than 1%

### % company's annual electricity generation that could be affected by these facilities

1-25

### % company's total global revenue that could be affected

1-10

### Comment

Pecém Coal power plant account for 0.3%, 2,5% and 1,6% of EDP Group's facilities, electricity generation and revenues, respectively. It is located in a water stress area identified through EDP's water stress exposure assessment: high level mapping using the WRI Aqueduct, followed by a local level assessment using specific water availability indicators from national agencies and internal knowledge of company's operational teams.

## W4.2

**(W4.2) Provide details of identified risks in your direct operations with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.**

### Country/Area & River basin

Portugal

Other, please specify

All portuguese river basins in 4.1c.

### Type of risk & Primary risk driver

Physical

Increased water scarcity

### Primary potential impact

Reduced revenues from lower sales/output

### Company-specific description

Structural reduction of water availability with impact in hydro generation mainly in Portugal. This risk was evaluated considering the RCP scenarios (2.6, 4.5 and 8.5) and their respective variations regarding the average precipitation for 2025, 2030 and 2050, which were provided by World Group Bank and Copernicus data sources. It is projected a structural reduction of water availability of ~10% to 15% in Portugal.
The company's exposure to this risk was reduced with the sale of the hydro assets in 2020 in Portugal, and EDP manages this risk through a diversified generation portfolio in terms of technologies and geographies.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Medium-high

**Likelihood**

Likely

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

15 000 000

**Potential financial impact figure - minimum (currency)**

**Potential financial impact figure - maximum (currency)**

**Explanation of financial impact**

Based on data provided by World Group Bank and Copernicus data sources, it is expected a structural reduction of water availability of ~10% to 15% in Iberia in 2050, depending on the RCP scenario. The estimated financial impacts, on a yearly basis, considers the RCP scenarios (RCP 2.6, RCP 4.5 and RCP 8.5) for a 30-year time horizon (until 2050), assuming EDP's defined strategy for the different time horizons (closure of thermal power plants, investment in renewables and the end of some hydro concessions), considering the maximum loss at P95%. The value presented corresponds to the incremental variation compared to today and is an accumulated estimate for the considered period of analysis.

**Primary response to risk**

Other, please specify

Generation portfolio diversification

**Description of response**

EDP manages this risk through a diversified generation portfolio in terms of technologies and geographies. EDP accumulated net expansion investment for the period of 2021-2025 in renewables is ~ EUR 19 bn, i.e. ~EUR 3.8 bn per year, distributed across

diversified markets and technologies. EDP's Strategic Update 2021-2015 investments in new generation capacity are also diversified: addition of 20 GW (40% solar, 51% wind on-shore and offshore, 7% solar DG and 2% storage) 45% of which in North America, 35% in EU,15% in Latin America and 5% in rest of world. Geographic diversification significantly reduces the risk, as structural reduction in precipitation is not likely to occur in all geographies and with same magnitude.

EDP developed a specific Water Risk Map and conducts a periodic assessment of generation assets exposure to water stress areas, using a high level mapping tool (WRI Aqueduct) and local level analysis (site specific data from local authorities and information on assets specific operating conditions from local company staff). All new power plant project valuation considers sensitivities to lower inflows scenarios, thus enabling informed decision making.

### Cost of response

3 800 000 000

### Explanation of cost of response

Major risk mitigation process is EDP's diversification strategy for generation portfolio growth. EDP accumulated net expansion investment for the period of 2021-2025 in renewables is ~ EUR 19 bn, i.e. ~EUR 3.8 bn per year, distributed across diversified markets and technologies.

### Country/Area & River basin

Brazil

Other, please specify

Atlântico Nordeste Oriental.

### Type of risk & Primary risk driver

Physical

Increased water stress

### Primary potential impact

Increased operating costs

### Company-specific description

Pecém coal-fired plant has been identified as a generation asset at risk from water stress location in EDP's Water Stress Exposure Assessment. A high-level assessment revealed a Baseline Water Stress indicator over 40% (threshold recommended in the Question-level Guidance), according to the WRI Aqueduct. Also, Water stress situation was confirmed by information from National Information Systems on Water Resources. Pecém is installed at the industrial and Port Complex of Pecém, where multiple other water users, namely industrial, are also present. Water for plant operation is provided by the municipal water and sewage concessionaire. Projected increase in both water scarcity in the region and competitive uses is foreseen to have a potential negative financial effect for the company: higher operation costs (rising water tariffs and taxes)

and limitations to operation.
Additionally, a structural reduction of water availability with impact in hydro generation in Brazil is expected, with a reduction of ~10% to 40% in 2050. This risk was evaluated considering the RCP scenarios (2.6, 4.5 and 8.5) and their respective variations regarding the average precipitation for 2025, 2030 and 2050, which were provided by World Group Bank and Copernicus data sources.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

Medium

**Likelihood**

Likely

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

**Potential financial impact figure - minimum (currency)**

5 000 000

**Potential financial impact figure - maximum (currency)**

20 000 000

**Explanation of financial impact**

Based on data provided by World Group Bank and Copernicus data sources, it is expected a structural reduction of water availability of ~10% to 40% in Brazil in 2050, depending on the RCP scenario. The estimated financial impacts, on a yearly basis, considers the RCP scenarios (RCP 2.6, RCP 4.5 and RCP 8.5) for a 30-year time horizon (until 2050), assuming EDP's defined strategy for the different time horizons (closure of thermal power plants, investment in renewables and the end of some hydro concessions), considering the maximum loss at P95%. The value presented corresponds to the incremental variation compared to today and is an accumulated estimate for the considered period of analysis. In particular for Pecem's risk, the impact is only up to 2025, as EDP concession end afterwards.

Increase in water stress leads to new regulatory constraints, namely with an increase of water tariffs and taxes, as well as potential limits to operation.
It was assumed that a drought event generates an Emergency Water Tax (EWT) in Pecém. The EWT is an additional value to the usual amount charged for each cubic meter consumed.
Thus, the future potential financial impact figures were calculated using an average of the EWT per each MWh generated, and an expected minimum and maximum electricity generation in a year.

### Primary response to risk

Adopt water efficiency, water reuse, recycling and conservation practices

### Description of response

EDP manages this risk through a diversified generation portfolio in terms of technologies and geographies. EDP accumulated net expansion investment for the period of 2021-2025 in renewables is ~ EUR 19 bn, i.e. ~EUR 3.8 bn per year, distributed across diversified markets and technologies. EDP's Strategic Update 2021-2015 investments in new generation capacity are also diversified: addition of 20 GW (40% solar, 51% wind on-shore and offshore, 7% solar DG and 2% storage) 45% of which in North America, 35% in EU,15% in Latin America and 5% in rest of world. Geographic diversification significantly reduces the risk, as structural reduction in precipitation is not likely to occur in all geographies and with same magnitude.

EDP invested in water reuse and recycling initiatives in Pecém power plant: water recycling in its refrigeration circuits and treated water reuse from the Effluent Treatment Station, using it as cooling water in the refrigeration circuits. Also, EDP participates in the region's Watershed Committee, the entity that manages the state's water resources, and are involved in negotiations with the local State Government regarding the final value for the water emergency tax announced in the September 2016.

### Cost of response

3 800 000 000

### Explanation of cost of response

EDP accumulated net expansion investment for the period of 2021-2025 in renewables is ~ EUR 19 bn, i.e. ~EUR 3.8 bn per year, distributed across diversified markets and technologies.

## W4.2c

### (W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

| | Primary reason | Please explain |
|---|---|---|
| Row 1 | Risks exist, but no substantive impact anticipated | Coal extraction represents the largest contribution of water consumption within EDP's tier 1 suppliers of raw materials. This is according to the characterization study of EDP's supply chain through which economic, social and environmental impacts were identified, including water consumption. The study was conducted using procurement data, environmentally extended input-output data and a global water resources model.<br><br>Restrictions to coal suppliers' operations in water stress areas can potentially impact supply and price in international markets. However, we do not anticipate a substantive impact as in 2020, the purchased coal |

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| | | came from mines located in low water stressed areas and in medium to high water stressed areas (representing only one mine with the WRI Baseline Water Stress between 20% and 40%). Coal currently accounts for 8% of EDP's total electricity generation installed capacity, and procurement is made from a vast range of alternative suppliers in different geographies.<br><br>Future dependency will be further reduced, as coal capacity will decrease until 2025, and will be null after 2025, as per EDP's Strategic Update 2021-2025and long-term strategy. |

# W4.3

**(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes, we have identified opportunities, and some/all are being realized

# W4.3a

**(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.**

**Type of opportunity**

Resilience

**Primary water-related opportunity**

Increased resilience to impacts of climate change

**Company-specific description & strategy to realize opportunity**

A severe impact of climate change is related with a structural reduction of water availability, affecting the productivity of EDP's hydro generation. The adjustment of EDP's generation portfolio is already in place and will increase the resilience to water risks.

EDP's strategy for the next years will focus on a diversified generation portfolio in terms of technologies and geographies. EDP accumulated net expansion investment for the period of 2021-2025 in renewables is ~ EUR 19 bn, i.e. ~EUR 3.8 bn per year, distributed across diversified markets and technologies. EDP's Strategic Update 2021-2015 investments in new generation capacity are also diversified: addition of 20 GW (40% solar, 51% wind on-shore and offshore, 7% solar DG and 2% storage) 45% of which in North America, 35% in EU,15% in Latin America and 5% in rest of world.

EDP already started pursuing this strategy, through the sale in 2018 of small-hydro power plants, and the sale of other hydro assets announced in late 2019, reinvesting in other geographies and technologies, reducing exposure to water risks and increase EDP's portfolio resilience.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

5 000 000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact**

The estimated financial impact, on a yearly basis, considers the IEA SDS, STEPS and CPS scenarios for a 10-year time horizon (until 2030), assuming EDP's defined strategy for the different time horizons (closure of thermal power plants, investment in renewables and the end of some hydro concessions).The presented value corresponds to the maximum gain at P95%, and it is an accumulated value for the time period considered.

# W5. Facility-level water accounting

## W5.1

**(W5.1) For each facility referenced in W4.1c, provide coordinates, water accounting data, and a comparison with the previous reporting year.**

**Facility reference number**

Facility 1

**Facility name (optional)**

2 Hydro power plants in Lima river basin.

**Country/Area & River basin**

Portugal

Lima

**Latitude**

41,866054

**Longitude**

-8,241919

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Hydropower

**Total water withdrawals at this facility (megaliters/year)**

2 603

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

2 603

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

2 603

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

2 603

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

0

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the river basin.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, by mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying the threshold BWS > 40%, as recommended in the Question-level Guidance. A downscaling analysis at local level is then performed for all power plants identified in water-stressed areas, using information from National Governmental Agencies (location specific indicators) and company's operational teams (asset water dependency, local competitive uses).

Withdrawal and discharge volumes (from and to fresh surface water - River) were obtained by direct measurements (meter readings) or by calculations, using e.g. the installed capacity and the difference between downstream and upstream water levels.

The increases in both withdrawal and discharge volumes (+11%) are explained by the increase of hydro generation due to the better hydrological conditions in Iberia in 2020 (+14% of total Lima river basin electricity generation). Withdrawal and discharge will tend to decrease or increase depending on if it is a dry or wet year, respectively.

Water use in hydro power plants is considered a non-consumptive use (withdrawal = discharge). The zero volumes mean that there was no withdrawals or discharges from/to those sources.

Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

### Facility reference number

Facility 2

### Facility name (optional)

5 Hydro power plants in Cávado river basin.

### Country/Area & River basin

Portugal

Other, please specify

Cávado

### Latitude

41,61674

### Longitude

-8,36298

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Hydropower

**Total water withdrawals at this facility (megaliters/year)**

4 463

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

4 463

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

4 463

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

4 463

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

0

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the river basin.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying BWS > 40% (Question-level Guidance). A downscaling analysis is then performed for all assets in water-stressed areas, using information from National Governmental Agencies (site specific indicators) and EDP's teams (asset water dependency, local competitive uses).

Withdrawal and discharge volumes (from and to fresh surface water - River) were obtained by direct measurements (meter readings) or calculations, using e.g. the installed capacity and the difference between downstream and upstream water levels.

The slight increase in both withdrawals and discharges (+9%) is explained by: 1) increase of hydro generation due to the better hydrological conditions in Iberia in 2020 (+42% of total Cávado river basin electricity generation); 2) 4 of the power plants have pumps, making it less dependent on affluents and weather patterns.

Withdrawal and discharge will tend to decrease or increase depending on if it is a dry or wet year, respectively.

Water use in hydro power plants is considered a non-consumptive use (withdrawal equals discharge).

The zero volumes mean that there was no withdrawals or discharges from/to those sources.

Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

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### Facility reference number

Facility 3

### Facility name (optional)

14 Hydro power plants in Douro river basin.

### Country/Area & River basin

Portugal

Douro

**Latitude**

41,153052

**Longitude**

-7,779113

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Hydropower

**Total water withdrawals at this facility (megaliters/year)**

77 435

**Comparison of total withdrawals with previous reporting year**

Higher

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

77 435

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

77 435

**Comparison of total discharges with previous reporting year**

Higher

**Discharges to fresh surface water**

77 435

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

### Discharges to third party destinations

0

### Total water consumption at this facility (megaliters/year)

0

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the river basin.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, by mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying the threshold BWS > 40%, as recommended in the Question-level Guidance. A downscaling analysis at local level is then performed for all power plants identified in water-stressed areas, using information from National Governmental Agencies (location specific indicators) and company's operational teams (asset water dependency, local competitive uses).

Withdrawal and discharge volumes (from and to fresh surface water - River) were obtained by direct measurements (meter readings) or by calculations, using for instance the installed capacity and the difference between downstream and upstream water levels.

The increase in both withdrawals and discharges (+28%) is explained by the increase of hydropower generation due to the better hydrological conditions in Iberia in 2020 (+44% of total Douro river basin electricity generation). Withdrawal and discharge will tend to decrease or increase depending on if it is a dry or wet year, respectively. Water use in hydro power plants is considered a non-consumptive use (withdrawal equals discharge). All the zero volumes mean that there was not any withdrawal or discharge from/to those sources.

Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

### Facility reference number

Facility 4

### Facility name (optional)

12 Hydro power plants in Mondego river basin.

### Country/Area & River basin

Portugal

Other, please specify

Mondego

**Latitude**

40,385266

**Longitude**

-8,043322

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Hydropower

**Total water withdrawals at this facility (megaliters/year)**

4 076

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

4 076

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

4 076

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

4 076

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

### Discharges to third party destinations

0

### Total water consumption at this facility (megaliters/year)

0

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the river basin.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, mapping all thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying BWS > 40% (Question-level Guidance). A downscaling analysis is then performed for all assets in stressed areas, using information from National Governmental Agencies (site specific indicators) and EDP's teams (water dependency, local competitive uses).

Withdrawals and discharges (from and to fresh surface water - River) were obtained by direct measurements (meter readings) or calculations, using e.g. the installed capacity and the difference between downstream and upstream water levels.

The slight decrease in withdrawals and discharges (-15%) is explained by: 1) The residual increase (+0,3%) of Mondego river basin electricity generation; 2) 71% of withdrawals and discharges in 2020 were from 2 power plants with pumps, being less dependent on affluents and weather patterns.

Withdrawal and discharge will tend to decrease or increase depending on if it is a dry or wet year, respectively.

Water use in hydro power plants is considered a non-consumptive use (withdrawal equals discharge).
The zero volumes mean there was no withdrawals or discharges from/to those sources.
Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

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### Facility reference number

Facility 5

### Facility name (optional)

10 Hydro power plants in Tejo river basin.

### Country/Area & River basin

Portugal
Tejo

**Latitude**

39,480479

**Longitude**

-7,991989

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Hydropower

**Total water withdrawals at this facility (megaliters/year)**

13 780

**Comparison of total withdrawals with previous reporting year**

Much higher

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

13 780

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

13 780

**Comparison of total discharges with previous reporting year**

Much higher

**Discharges to fresh surface water**

13 780

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

### Discharges to third party destinations

0

### Total water consumption at this facility (megaliters/year)

0

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the river basin.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, by mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying the threshold BWS > 40%, as recommended in the Question-level Guidance. A downscaling analysis at local level is then performed for all power plants identified in water-stressed areas, using information from National Governmental Agencies (location specific indicators) and company's operational teams (asset water dependency, local competitive uses).

Withdrawal and discharge volumes (from and to fresh surface water - River) were obtained by direct measurements (meter readings) or by calculations, using for instance the installed capacity and the difference between downstream and upstream water levels.

The high increase in both withdrawals and discharges (+79%) is explained by the increase of hydro generation due to the better hydrological conditions in Iberia in 2020 (+136% of total Tejo river basin electricity generation). Withdrawal and discharge will tend to decrease or increase depending on if it is a dry or wet year, respectively. Water use in hydro power plants is considered a non-consumptive use (withdrawal equals discharge). All the zero volumes mean that there was not any withdrawal or discharge from/to those sources.
Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

### Facility reference number

Facility 6

### Facility name (optional)

2 Hydro power plants in Guadiana river basin.

### Country/Area & River basin

Portugal
Guadiana

### Latitude

38,046951

**Longitude**

-7,650575

**Located in area with water stress**

No

**Primary power generation source for your electricity generation at this facility**

Hydropower

**Total water withdrawals at this facility (megaliters/year)**

3 487

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

3 487

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

0

**Total water discharges at this facility (megaliters/year)**

3 487

**Comparison of total discharges with previous reporting year**

About the same

**Discharges to fresh surface water**

3 487

**Discharges to brackish surface water/seawater**

0

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

### Total water consumption at this facility (megaliters/year)

0

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the river basin.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying BWS > 40% (Question-level Guidance). A downscaling analysis is then performed for all assets in water-stressed areas, using information from National Governmental Agencies (site specific indicators) and EDP's teams (asset water dependency, local competitive uses).

Withdrawal and discharge volumes (from and to fresh surface water - River) were obtained by direct measurements (meter readings) or calculations, using e.g. the installed capacity and the difference between downstream and upstream water levels.

Both facilities have pumps, and due to the Alqueva's reversible system, electricity generation is less dependent on affluent volume and weather patterns. This explains the slight variation in both withdrawals and discharges (+4%), despite the better hydrological conditions in Iberia in 2020.

Withdrawal and discharge will tend to decrease or increase depending on if it is a dry or wet year, respectively, and on the competitive uses.

Water use in hydro power plants is considered a non-consumptive use (withdrawal equals discharge).

All the zero volumes mean that there was not any withdrawal or discharge from/to those sources.

Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

### Facility reference number

Facility 7

### Facility name (optional)

Castejón.

### Country/Area & River basin

Spain

Ebro

**Latitude**

42,0833

**Longitude**

-1,6

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

Gas

**Total water withdrawals at this facility (megaliters/year)**

2 034

**Comparison of total withdrawals with previous reporting year**

About the same

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

2 033

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

1

**Total water discharges at this facility (megaliters/year)**

449

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

448

**Discharges to brackish surface water/seawater**

0

### Discharges to groundwater

0

### Discharges to third party destinations

1

### Total water consumption at this facility (megaliters/year)

1 594

### Comparison of total consumption with previous reporting year

About the same

### Please explain

Coordinates are given at the center of the power plant.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, by mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying BWS > 40%, as recommended in the Question-level Guidance. A downscaling analysis at local level is then performed for all power plants identified in water-stressed areas, using information from National Governmental Agencies (location specific indicators) and company's operational teams (asset water dependency, local competitive uses).
Withdrawal and discharge volumes (fresh surface water – River; Third party - municipal company) were collected mostly directly from meter readings. Castejón's electricity generation has decreased 25% (vs. 2019) despite to the inversion in order of merit from coal to gas, and the better hydrological conditions in Iberia in 2020. In addition, the CCGT Castejón Power Station (843 MW) was sold at the end of 2020.

Water consumption equals withdrawals minus discharges to the same water body within, at least, the quality parameters of the licensing permits. There will be no future dependence on EDP in terms of volumes of withdrawal, unloading and consumption of Castejón, since it was sold at the end of 2020.

All the zero volumes mean that there was not any withdrawal or discharge from/to those sources.
Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

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### Facility reference number

Facility 8

### Facility name (optional)

Pecém.

### Country/Area & River basin

Brazil

Other, please specify

Atlântico Nordeste Oriental

**Latitude**

-4

**Longitude**

-38,87542

**Located in area with water stress**

Yes

**Primary power generation source for your electricity generation at this facility**

Coal - hard

**Total water withdrawals at this facility (megaliters/year)**

4 260

**Comparison of total withdrawals with previous reporting year**

Much lower

**Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes**

0

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

0

**Withdrawals from groundwater - non-renewable**

0

**Withdrawals from produced/entrained water**

0

**Withdrawals from third party sources**

4 260

**Total water discharges at this facility (megaliters/year)**

418

**Comparison of total discharges with previous reporting year**

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

418

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

**Total water consumption at this facility (megaliters/year)**

4 260

**Comparison of total consumption with previous reporting year**

Much lower

**Please explain**

Coordinates are given at the center of the power plant.

EDP uses the WRI Aqueduct to conduct a high-level water stress assessment, mapping all its thermal and hydro assets against the Baseline Water Stress (BWS; watershed level), applying BWS > 40% (Question-level Guidance). A downscaling analysis is then performed for all assets in water-stressed areas, using information from National Governmental Agencies (site specific indicators) and EDP's teams (asset water dependency, local competitive uses).

Withdrawals and discharges (3rd party source - municipal company) were collected mostly from meter readings.

Pecém's electricity generation decreased 57% (vs. 2019), explaining the lower values in comparison with 2019 for withdrawals, discharges and consumption.

Water consumption will tend to increase or decrease depending on if it is a dry or wet year, respectively, according to the use of thermal power plants.

Water consumption equals withdrawals minus discharges to the same water body within, at least, the quality parameters of the licensing permits. In Pecém, of all the water consumed, none was returned to the same water body.

Withdrawal, discharge and consumption are expected to remain steady in the future. The new Strategic Update 21-25 foresees the decommissioning of coal.

The zero volumes mean there was no withdrawals or discharges from/to those sources. Thresholds used: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

# W5.1a

## (W5.1a) For the facilities referenced in W5.1, what proportion of water accounting data has been externally verified?

### Water withdrawals – total volumes

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water volumes withdrawn are shared and validated by the competent environmental authority.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water withdrawals – volume by source

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water volumes withdrawn by source are shared and validated by the competent environmental authority.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for all operations with environmental impacts.

## Water withdrawals – quality

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water quality indicators are shared and validated by the competent environmental authority.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water discharges – total volumes

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water discharges are shared and validated by the competent environmental authority.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water discharges – volume by destination

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water discharges by destination are shared and validated by the competent environmental authority.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water discharges – volume by treatment method

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water discharges by treatment method are controlled by the competent environmental authority.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.

EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water discharge quality – quality by standard effluent parameters

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water discharge quality is controlled by the competent environmental authority, under the environmental permits.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water discharge quality – temperature

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water quality of cooling water are controlled by the competent environmental authority, under the environmental permits.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

## Water consumption – total volume

### % verified

76-100

### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators.
Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
Water consumption is shared and validated by the competent environmental authority.

85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

### Water recycled/reused

#### % verified

76-100

#### What standard and methodology was used?

EDP's Sustainability Report is externally verified, including GRI water indicators. Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS.
85% of EDP's facilities identified as exposed to water risks are certified in accordance to ISO 14001, having this water aspect monitored and externally verified.
EDP commits to achieve 100% ISO 14001 certification by 2020 for operations with environmental impacts.

# W6. Governance

## W6.1

### (W6.1) Does your organization have a water policy?

Yes, we have a documented water policy that is publicly available

## W6.1a

### (W6.1a) Select the options that best describe the scope and content of your water policy.

| | Scope | Content | Please explain |
|---|---|---|---|
| Row 1 | Company-wide | Description of business dependency on water<br>Description of business impact on water<br>Description of water-related performance standards for direct operations | All former Environmental Policies in place within the EDP Group (including a Water Management Policy) were aggregated in a single Environmental Policy.<br>This aims to guarantee a better corporate management approach, assuming all key environmental issues will have to follow the same commitments, when applicable.<br><br>EDP recognizes the Environment as a strategic management element, aiming to reduce the impacts and dependencies of its activity through a set of commitments, namely: i) Protect the Environment and integrate its components within decision-making processes at the different stages of development, construction, operation, |

| | | | |
|---|---|---|---|
| | | Description of water-related standards for procurement<br>Company water targets and goals<br>Commitment to align with public policy initiatives, such as the SDGs<br>Commitments beyond regulatory compliance<br>Commitment to water-related innovation<br>Commitment to stakeholder awareness and education<br>Commitment to water stewardship and/or collective action | and decommissioning of infrastructure; ii) Properly manage environmental risk, in particular pollution prevention and emergency response; iii) Promote ongoing improvement in environmental processes, practices, and performance, stimulating Research and Development and Innovation; iv) Comply with applicable environmental legislation; v) Consider the relevant expectations of the main stakeholders in decision-making processes; vi) Extend the management and improvement of environmental performance to the value chain, particularly by including environmental criteria in the selection of suppliers; vii) Communicate our performance in a regular and transparent manner to all stakeholders, in particular to local communities; viii) Raise awareness regarding the need to improve individual and collective environmental performance, thereby contributing to the public debate; vix) Consider the commitments of this Policy when making decisions during due diligence processes related to mergers and acquisitions.<br><br>Water is a key natural resource for EDP. EDP depends on it to operate its facilities, and it is recognized the adverse environmental impacts resulting from EDP's activities. Under EDP's Environmental Policy, it is explicit the commitment to promote the efficient use of natural resources, namely the use and sustainable management of water in all processes, operations and installations.<br><br>The water commitment is part of the axis of the circular economy: pay special attention to the water resource, promoting its sustainable management, either by minimizing its consumption or by mitigating the impacts on its quality.<br><br>To complement the new Environmental Policy, EDP has published in its website a clear understanding of what the water means to the company as well as its management approach, supporting company's performance.<br>1 |

[1]EDP_Environmental_policy_with water.pdf

# W6.2

**(W6.2) Is there board level oversight of water-related issues within your organization?**

Yes

# W6.2a

**(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.**

| Position of individual | Please explain |
|---|---|
| Director on board | A Director on EDP Corporate Executive Board has formal responsibility over sustainability issues (CSO), including water. The Director currently in charge is assigned with all the company's cross-cutting critical themes, namely risk management and sustainability.<br>This Director is responsible for: approving/submitting to Board's approval the company's water targets, policies and actions; ensuring inclusion of water risks (e.g. exposure of generation assets to water stress locations, new water taxes) in the company's risk profile; integrating water-related issues into electricity generation investment/divestment analysis (e.g. water dependency vs water stress locations, regulatory issues, price volatility-volume fluctuation for hydro generation); reporting on levels of EDP's performance on water issues to EDP's General and Supervisory Board (GSB), the highest-level corporate body below the General Shareholders Meeting, which includes a Corporate Governance and Sustainability Committee, headed by the GSB chairman. |

# W6.2b

**(W6.2b) Provide further details on the board's oversight of water-related issues.**

| | Frequency that water-related issues are a scheduled agenda item | Governance mechanisms into which water-related issues are integrated | Please explain |
|---|---|---|---|
| Row 1 | Scheduled - some meetings | Monitoring implementation and performance<br>Overseeing acquisitions and divestiture<br>Overseeing major capital expenditures<br>Providing employee incentives<br>Reviewing and guiding annual budgets | The governance mechanisms in place to oversight water related issues is integrated in the overall mechanism in place for all sustainability issues. The executive Director in charge of sustainability oversees the Corporate Sustainability and Risk Management Offices and supports the Sustainability Committee, chaired by the President of the executive Board, where the top management of the most relevant business units discusses the Group's sustainability performance and its annual Operational Environment and Sustainability Plan. On a monthly basis, the executive Board is briefed by the company's Corporate Sustainability Officer (CSO) on sustainability issues, including water issues, such as i) regular updates on the implementation of the |

| | | | |
|---|---|---|---|
| | | Reviewing and guiding business plans<br>Reviewing and guiding major plans of action<br>Reviewing and guiding risk management policies<br>Reviewing and guiding strategy<br>Reviewing and guiding corporate responsibility strategy<br>Setting performance objectives | company's policies, actions and targets on sustainability issues, including water-related issues (e.g. performance against targets); ii) Water-stress risk assessment revision and acute situations of potential impact on electricity generation; iii) results of in-depth water risk analysis (e.g. Water Risk Map); iv) inputs for analysis of investments/divestments on electricity generation, impacting business plans and annual budgets (e.g. water dependency vs exposure to water stress locations); v) proposal for new water policies, actions and targets. On a regular basis (~monthly), the most relevant water-related issues are taken to the Executive Board meetings (held in a weekly base). Moreover, sustainability performance against targets (including water related issues) as well as other strategic sustainability issues, mostly linked to climate change (water included) are reported to EDP's General and Supervisory Board (at least twice a year). Additionally, the CEO and CSO chair the environment and Sustainability Board, an external advisory Board, dependent on the Executive Board of Directors and comprised by 5 experts (one of which in water issues) elected at the general shareholders' meeting. This corporate body is periodically (2-4 times/year) consulted for advising and supporting corporate sustainability strategy, with water related issues a constant issue for debate. |

# W6.3

**(W6.3) Provide the highest management-level position(s) or committee(s) with responsibility for water-related issues (do not include the names of individuals).**

### Name of the position(s) and/or committee(s)

Other C-Suite Officer, please specify

Head of Corporate Sustainability Office.

### Responsibility

Both assessing and managing water-related risks and opportunities

### Frequency of reporting to the board on water-related issues

More frequently than quarterly

### Please explain

Highest-level of responsibility below Board lies with the Head of EDP's Corporate Sustainability Department (CSD), who is also Head of the Corporate Risk Management Department, facilitating the integration of water-related issues into the company's risk profile and procedures.
Corporate departments are headed by the company's most senior managers. The Head of CSD is responsible for assisting the Executive Board of Directors (EBD) in defining policies, actions and targets, including those related to water, and monitoring their implementation at the Business Unit level.
The Head of CSD reports directly to the company's EBD in charge of sustainability. Monthly reports include updates on the implementation/proposal for new water-related policies, actions and targets; identification of potential water shortage and associated impact on electricity generation; in-depth water risk analysis; water-related inputs for analysis of investments/divestments.

# W6.4

**(W6.4) Do you provide incentives to C-suite employees or board members for the management of water-related issues?**

| | Provide incentives for management of water-related issues | Comment |
|---|---|---|
| Row 1 | Yes | |

# W6.4a

**(W6.4a) What incentives are provided to C-suite employees or board members for the management of water-related issues (do not include the names of individuals)?**

| | Role(s) entitled to incentive | Performance indicator | Please explain |
|---|---|---|---|
| Monetary reward | Board/Executive board<br>Director on board<br>Corporate executive team<br>Chief Executive Officer (CEO)<br>Chief Financial Officer (CFO)<br>Chief Operating Officer (COO)<br>Chief Purchasing Officer (CPO)<br>Chief Risk Officer (CRO) | Reduction in consumption volumes<br>Improvements in efficiency - direct operations | Members of EDP Corporate Executive Board of Directors (EBD), in accordance with the Board's remuneration policy, have the company's sustainability performance factored into their multiannual variable remuneration.<br><br>EDP has in place the following KPIs linked to EBD's variable remuneration, also extended to all employees at a corporate level:<br><br>i) EDP's performance in the DJSI Index. This index includes the level of EDP's performance on water strategy and risk analysis, and water eco-efficiency, where performance on withdrawals, discharges and consumption are reported and a short-term target for water consumption is defined; |

| | | | |
|---|---|---|---|
| | Chief Sustainability Officer (CSO) | | ii) ISO 14001 environmental certification target applied to 100% of all Group activities with significant environmental aspects. The scope includes the linkage between water efficient use and impacts on the environment, as well as EDP's dependency on water.<br><br>These indicators were chosen to allow a two-layer assessment where water performance and risks are key issues included:<br>- A holistic performance of EDP's sustainability strategy, evaluated by an external stakeholder (DJSI Index KPI);<br>- A more operational indicator, regarding specificities of EDP's operational activities (ISO 14001).<br>This rational allows an alignment between internal KPIs and external analysis about EDP's performance. |
| Non-monetary reward | No one is entitled to these incentives | | |

# W6.5

**(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?**

Yes, direct engagement with policy makers

Yes, trade associations

# W6.5a

**(W6.5a) What processes do you have in place to ensure that all of your direct and indirect activities seeking to influence policy are consistent with your water policy/water commitments?**

The company's Water Management Teams allow the Corporate Centre and Business Units (BUs) alignment on water-related issues, and support the implementation of EDP's Environmental Policy, and its Water Management approach. This alignment is extended to the different company's operational commitments in all activities – including direct and indirect policy engagement - across geographies.

Following this policy, which consider external stakeholders expectations in decision making processes, EDP has dedicated structures in each geography, where it operates thermal and hydro assets, that manage the relation with supervisory bodies and other public policy makers: Corporate Regulation and Competition Department (Portugal), Regulation and Institutional Relationship Department (Spain) and Regulatory Issues Department (Brazil). These ensure the

overall alignment of policy engagement activities with the corporate water strategy and contribute to properly manage environmental risks linked to water management. If any inconsistency is detected, it is taken to the Sustainability Committee to be discussed, and decisions are then implemented by BUs.
Examples include participation in drafting River Management Plans in the Portuguese Commission on Reservoirs and in the Spanish National Water Council. In Brazil, for Pecém, EDP holds regular meetings with Ceará State authorities. Engagement in international water regulation (e.g. EU Water Framework Directive) is conducted via trade associations.

## W6.6

**(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?**

Yes (you may attach the report - this is optional)

RC20_EDP_EN.pdf

# W7. Business strategy

## W7.1

**(W7.1) Are water-related issues integrated into any aspects of your long-term strategic business plan, and if so how?**

| | Are water-related issues integrated? | Long-term time horizon (years) | Please explain |
|---|---|---|---|
| Long-term business objectives | Yes, water-related issues are integrated | 11-15 | Water-related issues are integrated into several of EDP's long-term business objectives, namely:<br>i) Low carbon generation: water availability as hydroelectric generation is an important source of renewable, non-air polluting, CO2 free electricity and is key to achieving our 2030 target of reducing CO2/kWh by 98% from 2015 levels. Currently, 79% of EDP's generation portfolio is based on renewable sources, with hydro making up to 30% of total installed capacity.<br>ii) Low risk profile: at a strategic level, water related risks (e.g. physical risks like exposure to water stress locations or regulatory risks like new water taxes or fees) are now subject to periodic assessment processes, contributing to the company's low risk profile. |
| Strategy for achieving | Yes, water-related issues are integrated | 11-15 | Strategy to achieve the above mentioned long-term objectives includes:<br>i) Low carbon generation: long-term investment in |

| | | | |
|---|---|---|---|
| long-term objectives | | | renewable generation portfolio, mainly in wind and solar. EDP's Business Plan 2021-2025 plans to invest €24 bn, of which 80% in renewable generation capacity. ii) Low risk profile: Geographic diversification of hydro generation capacity additions is a risk reduction strategy as structural reduction in precipitation, as foreseen in IPCC scenarios, is not likely to occur in all geographies with same magnitude. |
| Financial planning | Yes, water-related issues are integrated | 11-15 | Water-related issues are integrated into several aspects of our financial planning, namely:<br>i) Capital allocation (Planning for new locations): all EDP new electricity generation investments go through a detailed analysis which considers water dependency vs exposure to water stress locations, as well as water related regulatory and reputational risks, namely those arising from competitive uses. For new hydroelectric installed capacity, project investment analysis undergoes hydro resource evaluation encompassing scenario analysis of price volatility and changes due to volume fluctuations.<br>ii) Change in revenues and expenditures (constraints to generation asset operation): In Brazil, the extreme drought context of recent years forced power producers to meet their short positions through electricity purchases at high market spot prices. EDP has hydroelectric generation assets in that country and joined the hydro risk renegotiation deal (with retroactive effects to January 2015) proposed by the Brazilian regulator, which materially limits the level of risk associated to the volatility in hydro generation. |

# W7.2

**(W7.2) What is the trend in your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) for the reporting year, and the anticipated trend for the next reporting year?**

### Row 1

**Water-related CAPEX (+/- % change)**

-109

**Anticipated forward trend for CAPEX (+/- % change)**

36

**Water-related OPEX (+/- % change)**

-7

### Anticipated forward trend for OPEX (+/- % change)

-4

### Please explain

Water-related CAPEX includes investments in Business as Usual projects, namely to restore the operating conditions of equipment and structures, and to ensure the safety exploitation of assets, as well as investments in Growth and Optimization projects such as floating solar panels. The 109% decrease was mainly due to lower maintenance in Portugal's hydroelectric power plants.

The 36% increase in the anticipation of the future CAPEX trend is explained by the investment in the flows regulation program to safeguard aquatic life.

Water-related OPEX includes for instance costs related to infrastructure maintenance and repair. The 7% decrease was mainly due to the sale of six hydroelectric power stations located in Portugal (in the Douro, totalling 1,689 MW of installed capacity) at the end of 2020, according to EDP's strategic update of 2021-2025.

OPEX anticipated trend for the next reporting year is expected to remain constant, aligned with 2020.

## W7.3

### (W7.3) Does your organization use climate-related scenario analysis to inform its business strategy?

| | Use of climate-related scenario analysis | Comment |
|---|---|---|
| Row 1 | Yes | EDP uses IEA scenarios to assess climate-related transition risks, integrating IEA's 450 Scenario, CPS (Current Policy Scenario) and NPS (New Policy Scenario) into energy planning exercises and to evaluate impacts on the entire business portfolio up to 2030, considering the Business Plan.<br><br>EDP also used a scenario developed by SBTi adapted from the IPCC scenarios for 1.5ºC for setting its GHG reduction Science Based Target, formally approved by the Science Based Target Initiative in 2017 and updated in 2020 through the voluntary update process.<br><br>EDP uses IPCC scenarios to assess climate-related physical risks, considering forecasts for the long-term evolution of precipitation patterns and temperature. The RCP 8.5 Scenario (business as usual), RCP 4.5 and 2.6 Scenarios (aggressive CO2 emission reductions) are used to identify the |

| | | |
|---|---|---|
| | | most relevant chronic and acute risks and evaluate potential impacts on EDP's electricity generation and distribution activities until 2050. |

# W7.3a

**(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?**

Yes

# W7.3b

**(W7.3b) What water-related outcomes were identified from the use of climate-related scenario analysis, and what was your organization's response?**

| | Climate-related scenarios and models applied | Description of possible water-related outcomes | Company response to possible water-related outcomes |
|---|---|---|---|
| Row 1 | RCP 2.6<br>Other, please specify<br>IPCC SRES A2, A1B, B1 | EDP assesses climate-related physical risks through IPCC's RCP 8.5 Scenario (BaU), RCP 6.0, 4.5 and 2.6 Scenarios (aggressive CO2 emission reductions), to identify the most relevant chronic and acute risks and evaluate potential impacts on electricity generation and distribution from up to 2050.<br>Under IPCC-RCP projections, average precipitation in Iberia is expected to decrease by up to 10% by 2035, compared with the 1986-2005 period. Up to 2100, EEA and IPCC forecast average decreases of annual precipitation in Iberia ranging from 10-30%. Hydro generation in Iberia accounts for 78% of the Group's hydro capacity. Thus, a structural decrease in precipitation can negatively affect EDP's revenues.<br>Also, with IPPC SRES A2, A1B and B1, EDP assessed the risk from the number, duration and magnitude increase of extreme events, such as temperature extremes (contribution for water scarcity). | EDP manages the risk mainly through a diversified generation portfolio in terms of technologies and geographies.<br>EDP's Business Plan 2021-2025 plans to invest €24 bn, of which 80% in renewable generation capacity. We will accelerate our renewables growth, namely in Europe and North America, seeking to double our installed capacity in wind and solar in the next 5 years, adding 4 GW per year.<br>Geographic diversification significantly reduces the risk, as structural reduction in precipitation is not likely to occur in all geographies and with same magnitude.<br>EDP developed a specific Water Risk Map and conducts a periodic assessment of generation assets exposure to water stress areas, using a high level mapping tool (WRI Aqueduct) and local level analysis (site specific data from local authorities and information on assets specific operating conditions from local company staff). This assessment is updated on a 2-3 year basis or whenever a new project |

| | | | |
|---|---|---|---|
| | | | requires it. All new power plant project valuation considers sensitivities to lower inflows scenarios, thus enabling informed decision making. |

## W7.4

### (W7.4) Does your company use an internal price on water?

#### Row 1

**Does your company use an internal price on water?**

Yes

**Please explain**

EDP uses an internal price on water to measure its exposure to risks or opportunities from water-related issues. A range up to 5€/m3 is used and calculated taking in consideration different approaches, such as:

- Cost of an average MWh not generated by a hydro facility due to competitive uses (e.g. E-flows; increase in domestic consumption in multipurpose reservoirs; etc.) or decrease in precipitation during the fiscal year;
- Cost of water treatment for thermal process, varying with water quality parameters.

# W8. Targets

## W8.1

### (W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

| | Levels for targets and/or goals | Monitoring at corporate level | Approach to setting and monitoring targets and/or goals |
|---|---|---|---|
| Row 1 | Company-wide targets and goals<br>Business level specific targets and/or goals<br>Site/facility specific targets and/or goals<br>Country level targets and/or goals | Targets are monitored at the corporate level<br>Goals are monitored at the corporate level | Goals and targets are set to measure EDP Group's progress on water management, within specific commitments assumed by EDP in its Group's Environmental Policy, particularly in using water resource sustainably, a strategic priority for the company.<br><br>Company-wide and business level specific target are set considering the evolution of EDP's portfolio. By 2025, EDP will be coal free with all European coal power plants decommissioned. Additionally, by 2030 no thermal power plants will exist in EDP's portfolio.<br><br>Thermal power plants account for more than 99% of the |

| | | | |
|---|---|---|---|
| | | | total fresh water withdrawals of EDP Group. Thus, due to its corporate impact, it is also within this business scope that targets are defined, combined with the following geographic specificities:<br>- Higher operational risk from current and forecast structural reduction in precipitation (Portugal);<br>- Water stress exposure (Brazil).<br><br>Site/facility specific targets and goals including water stress regions targets are set considering the best technologies/ processes to reduce water consumptions in these regions. |

# W8.1a

**(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.**

**Target reference number**

Target 1

**Category of target**

Water consumption

**Level**

Company-wide

**Primary motivation**

Risk mitigation

**Description of target**

78% reduction of EDP Group’s total fresh water consumption between 2015 and 2025.

**Quantitative metric**

% reduction in total water consumption

**Baseline year**

2015

**Start year**

2015

**Target year**

2025

**% of target achieved**

96

### Please explain

EDP Group’s total fresh water consumption has decreased 75% between 2015 and 2020, in line with the planned progress (target has been achieved in 96%).

In the last 4 years, freshwater consumption has been decreasing due to the following facts:
- 2017: implementation of water efficiency measures in some industrial processes of Pecém coal power plant, which accounts for almost half of EDP Group’s fresh water consumption;
- 2018: Good hydrologic conditions in Iberia, which means less use of thermal power plants;
- 2019: there was a small decrease of freshwater consumption, due to the inversion in order of merit from coal to gas
-2020: the specific consumption of fresh water decreased -37% compared to 2019, mainly due to the reduction in the EDP Group's coal-fired electricity production (-46% vs. 2019), and to the inversion in order of merit from coal to gas.

In addition to risk mitigation, this target was also defined to reduce costs and EDP’s environmental impacts.

### Target reference number

Target 2

### Category of target

Water pollution reduction

### Level

Company-wide

### Primary motivation

Reduced environmental impact

### Description of target

Achieve zero environmental accidents and penalties. This target is part of EDP Group’s Strategic Goals for 2022.

### Quantitative metric

Other, please specify

Zero environmental accidents and penalties.

### Baseline year

2018

### Start year

2018

### Target year

2022

### % of target achieved

100

### Please explain

There were no environmental accidents or penalties in 2019. This target is part of EDP Group's Strategic Goals for 2022.

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### Target reference number

Target 3

### Category of target

Water, Sanitation and Hygiene (WASH) services in the workplace

### Level

Business activity

### Primary motivation

Cost savings

### Description of target

Annually, an absolute threshold is defined for potable water consumption (e.g. human consumption, baths, cleaning, some irrigation) in all thermal power plants in Portugal. This target is defined annually and takes into account past and projected consumptions. This target was defined to reduce costs and EDP's environmental impacts.

### Quantitative metric

Other, please specify

Consumption below a predefined threshold.

### Baseline year

2020

### Start year

2020

### Target year

2020

### % of target achieved

100

### Please explain

This target was set in early January 2020 and was expected to be achieved by the end of December 2020. At the end of 2020, the consumption was below the target: 54% of the predefined threshold. The reduction in potable water consumption was mainly due to the decrease activity of the Sines Thermoelectric Power Plant, in Portugal.

**Target reference number**

Target 4

**Category of target**

Water consumption

**Level**

Site/facility

**Primary motivation**

Risk mitigation

**Description of target**

A specific water consumption target (m3/MWh) was defined to the single thermal power plant of EDP in Brazil, located in a water stressed region.
This target was defined to allow a yearly monitoring of water consumption in Pecém, located in a water stressed region, taking into account historical data, weather and market conditions.
In addition to risk mitigation, this target was also defined to reduce costs and EDP's environmental impacts.

**Quantitative metric**

Other, please specify

Consumption below a predefined threshold.

**Baseline year**

2020

**Start year**

2020

**Target year**

2020

**% of target achieved**

100

**Please explain**

This target was set in early January 2020 and was expected to be achieved by the end of December 2020. At the end of 2020, the specific water consumption was below the target: 47% of the predefined threshold. In 2020 the Pecém thermal plant operated 50% less time than in 2019.

# W8.1b

**(W8.1b) Provide details of your water goal(s) that are monitored at the corporate level and the progress made.**

**Goal**

Engagement with public policy makers to advance sustainable water management and policies

**Level**

Country level

**Motivation**

Reduced environmental impact

**Description of goal**

EDP Invited Chair is a partnership established to develop and test new freshwater biodiversity monitoring methodologies. The goal is to develop scientific knowledge supporting biomonitoring using DNA metabarcoding to better supported future water management policies.

The partnership work developed with researchers will allow for increased effectiveness in monitoring and mitigating the biodiversity impacts on aquatic ecosystems, essentially caused by energy hydropower generation.

In close coordination with the national authority, the actions take place in the following actions of research:

i. Early detection of zebra mussels (invasive alien species) in reservoirs: with the aim of demonstrating the potential of environmental DNA for detecting and quantifying the relative abundance of zebra mussels (Dreissena polymopha) in reservoirs and, in addition, to compare the costs and efficiency of DNA-based methods with the methods currently used.

ii. Characterization of fish communities in reservoirs: with the aim of developing and optimizing molecular methods to characterize the composition and relative abundance of fish species in reservoirs, as well as the temporal and spatial variation due to these parameters.

iii. Monitoring of ecological quality of water courses: with the aim of developing and optimizing ecological quality assessment methodologies based on molecular methods, primarily using macroinvertebrates as indicator organisms.

**Baseline year**

2018

**Start year**

2018

**End year**

2021

**Progress**

The activities of the new EDP Chair in Biodiversity started in December 2018 with an international meeting of experts, where the implementation of eDNA techniques for environmental water monitoring in Portugal was discussed. This event brought together national and European experts on molecular methodologies with elements of public administration, companies (including EDP) and other sectors of society.

The evaluation of success is measured by the number of scientific publications on the subject. Until December 2020, 35 articles were published in international scientific journals with relevance to the objectives of the EDP Biodiversity Chair.

# W9. Verification

## W9.1

**(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?**

Yes

Sustainability Report EDP 2020.pdf

## W9.1a

**(W9.1a) Which data points within your CDP disclosure have been verified, and which standards were used?**

| Disclosure module | Data verified | Verification standard | Please explain |
|---|---|---|---|
| W0 Introduction | - Electricity generation: nameplate capacity and the generation by power source (W-EU0.1b). | ISAE 3000 | Verification of identified data points is within the scope of the independent assurance of EDP Sustainability Report. Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS, for each annual edition of the report. The report is prepared according to the Global Reporting Initiative GRI Standards - “Comprehensive Option” and the G4 Electric Utilities Sector Disclosures. Information is consolidated at EDP Group level following the financial consolidation rules applied by the company. For 2019 data, all indicators were verified with a limited level of assurance, including the identified data points verified within the scope of GRI G4-EU1 and GRI G4-EU2 indicators (Electricity generation installed capacity and output per energy source). |

| | | | |
|---|---|---|---|
| W1 Current state | - Water aspects regularly measured and monitored (W1.2; W-EU1.2a)<br>- Total water withdrawn, discharged and consumed (W1.2b)<br>- Total water withdrawals - by source (W1.2h)<br>- Total water discharges - by destination (W1.2i)<br>- % of total water use recycled or reused | ISAE 3000 | Verification of identified data points is within the scope of the independent assurance of EDP Sustainability Report. Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS, for each annual edition of the report. The report is prepared according to the Global Reporting Initiative GRI Standards - “Comprehensive Option” and the G4 Electric Utilities Sector Disclosures. Information is consolidated at EDP Group level following the financial consolidation rules applied by the company. For 2019 data, all indicators were verified with a limited level of assurance, including the identified data points verified within the scope of: i) GRI 103-2 indicator (Water management approach and its components); ii) GRI 303-1 indicator (Total water withdrawals by source); iii) GRI 306-1 (Total water discharge by destination); iv) GRI 303-3 (% of recycled and reused water) indicators. Verified values exclude use of water in hydroelectric generation. |
| W2 Business impacts | - Penalties, fines and/or enforcement orders (W2.2, W2.2.a, W2.2.b) | ISAE 3000 | Verification of identified data points is within the scope of the independent assurance of EDP Sustainability Report. Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS, for each annual edition of the report. The report is prepared according to the Global Reporting Initiative GRI Standards - “Comprehensive Option” and the G4 Electric Utilities Sector Disclosures. Information is consolidated at EDP Group level following the financial consolidation rules applied by the company. For 2019 data, all indicators were verified with a limited level of assurance, including the identified data points verified within the scope GRI 307-1 indicators (Non-compliance with environmental laws and regulations – fines and penalties). |
| W3 Procedures | - Potential water pollutants with detrimental impact on water ecosystems or | ISAE 3000 | Verification of identified data points is within the scope of the independent assurance of EDP Sustainability Report. Assurance is conducted by an independent third party |

| | | | |
|---|---|---|---|
| | human health (W-EU3.1; W-EU3.1a) | | according to ISAE 3000 and AA1000AS, for each annual edition of the report. The report is prepared according to the Global Reporting Initiative GRI Standards - “Comprehensive Option” and the G4 Electric Utilities Sector Disclosures. Information is consolidated at EDP Group level following the financial consolidation rules applied by the company. For 2019 data, all indicators were verified with a limited level of assurance, including the identified data points verified within the scope of GRI 306-5 (Water bodies affected by water discharges) and GRI 303-2 (Water sources significantly affected by water withdrawals) indicators. |
| W6 Governance | - Water policy (W6.1, W6.1a)<br>- Board level oversight and management responsibilities (W6.2, W6.2a, W6.3) | ISAE 3000 | Verification of identified data points is within the scope of the independent assurance of EDP Sustainability Report. Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS, for each annual edition of the report. The report is prepared according to the Global Reporting Initiative GRI Standards - “Comprehensive Option” and the G4 Electric Utilities Sector Disclosures. Information is consolidated at EDP Group level following the financial consolidation rules applied by the company. For 2019 data, all indicators were verified with a limited level of assurance, including the identified data points verified within the scope of GRI 103-2 indicator (Water management approach and its components). |
| W8 Targets | - Corporate water targets and goals (W8.1, W8.1a, W8.1b) | ISAE 3000 | Verification of identified data points is within the scope of the independent assurance of EDP Sustainability Report. Assurance is conducted by an independent third party according to ISAE 3000 and AA1000AS, for each annual edition of the report. The report is prepared according to the Global Reporting Initiative GRI Standards - “Comprehensive Option” and the G4 Electric Utilities Sector Disclosures. Information is consolidated at EDP Group level following the financial consolidation rules applied by the company. For 2019 data, all indicators were verified with |

| | | | |
|---|---|---|---|
| | | | a limited level of assurance, including the identified data points verified within the scope of GRI 103-2 indicator (Water management approach and its components). |

# W10. Sign off

## W-FI

**(W-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.**

EDP Strategic Update 21-25_WEBSITE.pdf

## W10.1

**(W10.1) Provide details for the person that has signed off (approved) your CDP water response.**

| | Job title | Corresponding job category |
|---|---|---|
| Row 1 | Member of EDP Executive Board with formal responsibility over sustainability, risk and other company's cross-cutting critical themes. | Director on board |

## W10.2

**(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].**

Yes

# Submit your response

**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

| | I am submitting to | Public or Non-Public Submission |
|---|---|---|
| I am submitting my response | Investors | Public |

**Please confirm below**

I have read and accept the applicable Terms