Welcome to your CDP Water Security Questionnaire 2022

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 28 markets 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), and developing off-shore wind projects in Portugal, UK, Belgium, France, Poland, USA and South Korea. Additionally, EDP generates power from photovoltaic plants in Portugal, Romania, USA, Mexico, Brazil, Vietnam, Singapore and in other APAC markets.
EDP supplies 9.3 million customers. In 2021, the company generated about 61 TWh of electricity worldwide, of which 75% from renewable energy sources and, by year end, had an installed capacity of around 25 GW (80% 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 2021:
Turnover: EUR 14,983 million

EBITDA: EUR 3,723 million
Net profit: EUR 657 million
Net investment: EUR 2,551 million
Net debt: EUR 11,565 million
Total assets: EUR 50,994 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	1 970,2	8	8 264,5
Lignite	0	0	0
Oil	0	0	0
Gas	2 885,6	11,8	6 600,5
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	7 126,7	29,1	15 421,4
Wind	11 845,1	48,4	29 675,7
Solar	644,8	2,6	736,4
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	22,8	0,1	174,2
Total	24 495,3	100	60 872,7

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, 2021	dezembro 31, 2021

W0.3

(W0.3) Select the countries/areas in which you operate.

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

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.

W0.7

(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, an ISIN code	PTEDP0AM0009

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	Primary use in direct operations: is linked to 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 50% of total electricity generation in 2021. Its importance it's considered vital as 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, as these are less water-demanding solutions. In addition, the new Strategic update foresees the dismantling of coal by 2025. Primary use in indirect operations: in the supply chain the largest contribution from raw materials is attributed to coal for tier 1 suppliers. However, access to sufficient amounts of good quality freshwater by suppliers is considered neutral, as in 2021, 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, coal currently accounts for 8% of our total installed capacity, and procurement is made from a vast range of alternative suppliers in different geographies. 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	Primary use in direct operations: brackish water is used as cooling water in the refrigeration circuits of two gas power plants in Portugal, and recycled water in Pecém, a coal power plant in Brazil. Sufficient amount of brackish and recycled water is vital for the operation of these assets, as they accounted for 12% of total electricity generation in 2021. Specially in Pecém, located in a water stressed region, where 29% of the effluents produced were recycled, reducing water consumption by more than 10,9 thousand cubic meters, on average, per month in 2021. 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, as these are technologies less dependent on water. Primary use in indirect operations: in the supply chain the largest contribution from raw materials is attributed to coal for tier 1 suppliers. However, access to sufficient amounts of recycled, brackish and/or produced water available for use is considered not very important. This type of

			water is considered not material as the purchased coal in 2021 came from just one mine located in a high-medium water stress area (WRI Baseline Water Stress between 20% and 40%) and 89% of the water used in it's mining processes comes from rain runoff and coal seams (mining water), i.e., water recycled. 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: - 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; - annually for hydropower plants, data is collected either by direct measurements (meter readings: turbined water flow and all ecological flows) or by calculations of the turbined water flow using capacity and the difference between downstream and upstream water levels. 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: - 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; - wind and solar power plants, and distribution

		activities: groundwater and third-party sources, monitored on a quarterly basis and collected mostly from meter readings; - office buildings: third-party sources monitored on a quarterly basis and collected from meter readings; - hydro power plants: fresh surface water sources monitored annually and collected through meter readings or by calculations of the turbined water flow. 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 and hydro power plants. 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 hydropower plants, the monitoring of parameters (e.g. oxygen, temperature, pH, conductivity, redox potential and turbidity) depends on the type of reservoir. In small reservoirs, 4 samples/year are done, both at bottom and surface levels and in two different points of the reservoir. In cascade reservoirs, monitoring occurs every year (6 samples/year). 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: - 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; - annually for hydropower plants, data is

		collected through calculations using water levels and floodgate opening. 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 frequency depend on the operations: - 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; - 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; - hydro power plants: discharges to fresh surface water destinations, monitored annually and collected either by meter readings or by calculations of the turbined water flow using capacity and the difference between downstream and upstream water levels. 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 80% 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. 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 80% 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. We monitor water discharge quality parameters in our thermal power plants, where such 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 80% 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. 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. It is worth noticing that EDP considers water use in hydro power plants a non-consumptive use. 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 80% 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. 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 refrigeration circuits, these are monitored on annually basis. In its hydro portfolio, EDP has 2,358MW of pumping storage, representing 6% of water used for hydro power generation in 2021.
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. 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. 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. 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 e-flows and readjusts them when necessary to guarantee the ecological quality of the water bodies. This monitoring allows 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. 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. 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. Extraordinarily, and usually in small power plants, there is the mechanical transport of sediments accumulated upstream, to downstream. 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		N/A

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	199 741 127	About the same	In 2021, water withdrawal was 2% lower than in 2020. This result is explained by the 19% decrease of hydropower generation (which represents 99.8% of total water withdrawals) due to the worse hydrological conditions in Iberia in 2021. In addition, at the end of 2020, EDP sold 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, reducing its overall water risk exposure. 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. 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 medium/long-term strategy (sustainability commitments). We use the following thresholds for monitoring trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".

Total discharges	199 726 487	About the same	In 2021, water discharge was 2% lower than in 2020. This result is explained by the 19% decrease of hydropower generation (which represents 99.8% of total water withdrawals) due to the worse hydrological conditions in Iberia in 2021. In addition, at the end of 2020, EDP sold 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, reducing its overall water risk exposure. 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. 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, according with EDP's Strategic Update 2021-2025 and medium/long-term strategy (sustainability commitments). We use the following thresholds for monitoring trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".
Total consumption	16 248	About the same	In 2021, water consumption was 9% higher than in 2020. This is the result of the following facts: there was a significant increase in electricity generation from coal-fired power stations in Spain and Brazil (+40% vs. 2020), as a result of the increase in natural gas prices on international markets and the extreme drought in Brazil. 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. The total water consumption reported by EDP does

			not match the difference between withdrawals and discharges as the company defines water consumption as withdrawals minus discharges to the same water body within, at least, the quality parameters of the licensing permits. In some of EDP's powerplants, the water is discharged to a different water body than the withdrawal source, explaining the difference obtained. The definition used here is aligned with the information disclosed in EDP's Sustainability Report (as per revision in 2019, www.edp.com/sites/default/files/2020-03/Water-related%20indicators_EN_23.12.19.pdf). It should also be noted that EDP considers water use in hydro power plants a non-consumptive use. However, future water use dependency is expected to decrease with the growth of wind and solar capacity in generation portfolio, according with EDP's Strategic update 2021-2025 and medium/long-term strategy (sustainability commitments). 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 higher	WRI Aqueduct	EDP has one thermal power plant located in water stressed areas (Pecém in Brazil), representing 0.005% of the total water withdrawals reported in question 1.2b.

					There was a 46% increase of this indicator between 2020 and 2021 due to the following facts: - total water withdrawals from this power plant increased 44% (compared to 2020 there was a significant increase in electricity generation from Pecém power plant (+115%) due to the extreme drought in Brazil) - total company-wide withdrawals decreased 2%. 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 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. 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 this situation. Assessment is updated on a 2 – 3 – year basis or whenever a new project requires it. 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 previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	199 386 898	About the same	Fresh surface water is relevant because 99.8% of total water withdrawals comes from this source, which is used to produce hydropower, as well as some thermal energy generation. In 2021, water withdrawal from fresh surface water was 2% lower than in 2020. This result is explained by the 19% decrease of hydropower generation due to the worse hydrological conditions in Iberia in 2021. 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. 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. 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	343 953	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 (3% of total brackish and seawater withdrawal) and one coastal coal power plant in Spain use seawater (97% of total brackish and seawater withdrawal). At the end of 2020, in Portugal, the Sines thermoelectric power plant was closed (1,180 GW), so, in 2021 there was a 42% withdrawal decrease, also aligned with the 17% decrease of electricity generation from these coal facilities.

				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. We use the following thresholds to monitor trends: +/- 15%: "about the same"; +/- 16-50%: "higher"/"lower"; +/- 51%: "much higher"/"much lower".
Groundwater – renewable	Relevant	3	About the same	Withdrawals from wells are relevant as they are used for human consumption along with other general uses such as irrigation. The volume reported in 2021 when compared to the previous year reflects the same human and general water uses. 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. 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	142	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 .

				Its electricity generation was slightly lower in 2021, when compared to 2020 (-11%), justifying the constant volume withdrawn from this source between 2020 and 2021. 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. We use the following thresholds to monitor trends: +/- 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	10 131	Much higher	Withdrawals from third party sources are mainly used in office buildings and in the Pecém coal power plant. Pecém is the main user of this source (89%), being supplied by the local water supply concessionaire. There was a 57% withdrawal increase due to the significant increase in electricity generation from Pecém power plant (+115% vs. 2020) due to the extreme drought in Brazil. In 2020, Pecém power plant operated only partially (50% less time

				than in 2019). However, water reuse and recycling measures have been implemented in some of its industrial processes to reduce electricity generation. Future dependency is expected to remain constant with the full operationalization of the water efficiency measures. 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	199 384 201	About the same	In 2021, fresh surface water (including hydro technology) represents 99,8% of total water discharges. In this year, it decreased 2%, compared to 2020. This result is explained by the 19% decrease of hydropower generation due to the worse hydrological conditions in Iberia in 2021. 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. 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. 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	342 282	Lower	There was a 42% decrease in discharges from 2020 justified by the increase in the price of natural gas, which offset the 34% reduction in energy production from natural gas in 2021 and the closure of the Sines coal plant in Portugal at the end of 2020. Future dependency is expected to be reduced with the decrease of coal capacity until 2025, as per EDP's Strategic Update 2021-2025. Discharges to brackish surface water and seawater are mainly of cooling water used in the refrigeration circuits of some thermal power plants. Even though this represents <1% of total water discharges, it is still considered relevant. Two gas power plants in Portugal discharge to brackish surface water (2% of total brackish and seawater discharges) and two coal power plants in Spain and Brazil discharge to seawater (98% of total brackish and seawater

				withdrawal). 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	Lower	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. The decrease between 2020 and 2021 (-17%) reflects the lower human consumption and general uses. It is expected that third-party destinations will remain constant over the years. We use the following thresholds to monitor trends: +/- 15%: “about the same”; +/- 16-50%: “higher”/”lower”; +/- 51%: “much higher”/”much lower”.

W1.3

(W1.3) Provide a figure for your organization’s total water withdrawal efficiency.

	Revenue	Total water withdrawal volume (megaliters)	Total water withdrawal efficiency	Anticipated forward trend
Row 1	14 982 909 467	199 741 127	75,0116397761	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, through EDP's Strategic update 2021-2025 and long-term strategy, future water withdrawal efficiency is expected to increase. The Strategy establishes a change in EDP's portfolio, namely the growth of wind and solar capacity, which are very low water intensity technologies.

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
3 314	Freshwater withdrawals	MWh	About the same	There was a very slight increase of only 4% in 2021 (3,314 m3/MWh vs. 3,186 m3/MWh in 2020) explained by the 19% decrease of hydropower generation due to the worse hydrological conditions in Iberia in 2021. Numerator refers to total freshwater withdrawals in EDP's activities, as reported in W1.2h. Denominator refers to total net electricity generation, collected through online systems that monitor each power plant's electricity injection in the grid. 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. 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. 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. Through EDP's Strategic update 2021-2025 and long-term strategy, this water intensity 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. Nevertheless, future freshwater withdrawals will still vary significantly on an annually basis, due to the hydrological conditions in Iberia. 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

N/A

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 engagement strategy adopted aims to build confidence on suppliers' operations regarding environmental issues, including water management. 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. For example, by requiring a valid ISO 14001 certification, EDP ensures that water issues have been included in the supplier's management system, as these are key for this certification.

The impact of the engagement is supported by a KPI system, which in 2021 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
- 36% of Suppliers under Procurement exposed to Environmental risks with ISO certification (this low percentage is due to new business in regions where ISO certifications are less practiced and unstable criteria in supply risk classification);
- 100% Environmental Critical Suppliers performance annually appraised;
- 100% Direct coal contracts made in 2021 with Bettercoal clause.

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

Comment

N/A

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 100% of critical suppliers certified in accordance with ISO 14001.

For the other suppliers that are defined as critical (mostly fuel suppliers), EDP monitors and promotes the Environmental Management Systems, with 100% of 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	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement Emergency preparedness Other, please specify Environmental Risk Assessment Tool.	1) 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. This indicator measures the success of the management procedures in place to minimise the adverse impacts of potential water pollutants. EDP quantifies and monitors environmental near misses: in 2021 there were 116 (with hydrocarbons and other chemical substances) and zero environmental accidents. An environmental near miss is considered to be a deviation from normal operating conditions (incident) with the potential to result in an environmental accident, but without materializing

	as highly significant based on either different standards or the EDP's Environmental Risk Assessment tool.		it. Their analysis allows preventive measures to be defined in order to avoid accidents. 2) 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. 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. 3) Community/Stakeholders engagement: 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. 4) For each one of the power plants there are emergency plans in place, as well as specific training actions and accident drills (including testing of scenarios with water damage). 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. The success of the mitigation of environmental impacts, part of EDP's Environmental Policy, is ensured and measured by environmental management systems certified in accordance with ISO 14001, aligned with a Corporate Environmental Management System. All the management procedures in the 3rd column are covered by this alignment.
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 Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement Emergency preparedness Other, please specify Environmental Risk Assessment Tool.	1) 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. This indicator measures the success of the management procedures in place to minimise the adverse impacts of potential water pollutants. EDP quantifies and monitors near environmental misses: in 2021 there were 116 (with hydrocarbons and other chemical substances) and zero environmental accidents. An environmental near miss is considered to be a deviation from normal operating conditions (incident) with the potential to result in an environmental accident, but without materializing it. Their analysis allows preventive measures to be defined in order to avoid accidents.

			2) Measures to prevent spillage, leaching, and leakages: Coal power plants have landfills for ash and gypsum waste, equipped with sedimentation basins to prevent leakage to soil and water bodies. In addition, piezometric networks are in place to monitor groundwater quality in situations where risk of contamination is not negligible. By 2025 EDP will be coal-free with all coal-fired power plants decommissioned, so this situation is transitional. 3) Community/stakeholder engagement: 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. 4) Emergency preparedness: There are emergency plans in place, as well as specific training actions and accident drills (including testing of scenarios with water damage). 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. The success of the mitigation of environmental impacts, part of EDP's Environmental Policy, is ensured and measured by

			environmental management systems certified in accordance with ISO 14001, aligned with a Corporate Environmental Management System. All the management procedures in the 3rd column are covered by this alignment.
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 Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement Emergency preparedness Other, please specify Monitoring of waterbody temperature.	1) The compliance with wastewater quality standards is ensured through the control of thermal pollution at all EDP thermal power, guaranteeing the legal limits regarding temperature rise in the receiving body of water. Also, EDP has in place a companywide target to achieve zero environmental accidents and penalties until 2022. This indicator measures the success of the management procedures in place to minimise the adverse impacts of potential water pollutants. EDP quantifies and monitors environmental near misses: in 2021 there were 116 (with hydrocarbons and other chemical substances) and zero environmental accidents. An environmental near miss is considered to be a deviation from normal operating conditions (incident) with the potential to result in an environmental accident, but without materializing it. Their analysis allows preventive measures to be defined in order to avoid accidents. 2) Measures to prevent spillage, leaching, and leakages: Thermal power plants are equipped with containment basins

			to prevent the occurrence of spills, leaching and leaks. Periodic inspections are also carried out on equipments with potential risk of spilling oils or other chemicals. 3) Community/stakeholder engagement: 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. 4) Emergency preparedness: Also, there are emergency plans in place, as well as specific training actions and accident drills (including testing of scenarios with water damage). 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. The success of the mitigation of environmental impacts, part of EDP's Environmental Policy, is ensured and measured by environmental management systems certified in accordance with ISO 14001, aligned with a Corporate Environmental Management System. All the management procedures in the

			3rd column are covered by this alignment.

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.

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Annually

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 and standards
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.

Contextual issues considered

Water availability at a basin/catchment level

Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

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.

Value chain stage

Supply chain

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

Annually

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

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Implications of water on your key commodities/raw materials
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs
Regulators
Suppliers
Water utilities at a local level
Other water users at the basin/catchment level

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 Aqueduct through their specific coordinates.

W3.3b

(W3.3b) 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, regulatory risks and strategic risks 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 on a short to long timescale (1 to 30y) for most risks, using a long-term perspective for climate-related physical. The water-related risks quantification process considers expected and maximum loss, across different timeframes and different

climate scenarios (based on International Energy Agency, and IPCC-RCP climate scenarios). After this process, if regional physical scenarios are available (on governmental databases, downscaling is performed for physical variables).

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 and long-term time horizons. 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 and regional government databases, through site specific data from local authorities and operational teams' inputs regarding information on assets specific operating conditions. 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.
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 Aqueduct 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).

Costumers: EDP provides efficient appliances for domestic customers aiming at arising customer awareness and promoting money savings to them.
Employees: Promotion of initiatives to raise awareness and promote efficient behaviours
Local Communities: EDP takes the local situation into account and when needed initiatives are taken to increase water quality or availability.
Investors: investors are informed of the quantification of the potential financial impact of each identified risk on the company's EBITDA.
NGOs: The inclusion of NGOs passes through their involvement in solving local issues so the impact in the local communities can be neutralized.
Water users at a catchment and local levels: these local communities are considered to adequate the management of shared water resources by addressing potential issues:
Regulators: potential impacts on the company of changes to the different regulatory contexts can present a challenge to EDP.
Suppliers: coal extraction is the largest contribution of water consumption within EDP's tier 1 suppliers of raw materials so the engagement with suppliers ensures that risks are managed.
Water availability at a basin/catchment level: All water use in hydro generation depends upon enough incoming flows availability.
Water quality: Water quality is mostly essential for the water-steam process in thermal power plants.

Stakeholder conflicts: Current and future stakeholder conflicts can constraint operation of EDP's thermal and hydro power plants.
Implications of water on your key commodities: since coal extraction represents the largest contribution of water consumption EDP keeps ensuring that an active engagement is in place with all coal suppliers, so risks are monitored and managed.
Water regulation: Water regulation can constraint the operation of EDP's thermal and hydro power plants as well as increase investment and operational costs.
Status of ecosystems and habitats: ecosystem and habitat status are integrated in order to forecast potential impacts and design of mitigation measures.
Access WASH services: EDP provides access to clean water and suitable sanitation conditions for all employees in 100% of EDP's facilities. This is a legal requirement.

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?

A substantive financial impact with materiality for EDP Group considers risks over 1M€ (equivalent to around 1% of the business activity with lower EBITDA, in order to be exhaustive and guarantee that all relevant risks, as of today and prospective, are included). At the moment we didn’t find any material financial impact on the supply chain.
EDP Group is composed by several business units across the energy markets value chain (generation, transmission, distribution, retail & services). Each business has its own particularities and climate risks. Recognizing the relevance of climate change impacts in its businesses, EDP created an annual procedure for the climate risks and opportunities assessment in order to know more about its climate resilience and adjust strategic plans accordingly. The climate-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, across different timeframes and different climate scenarios (based on IEA and IPCC-RCP climate scenarios).
Because all BUs have their own realities and risks, the assessment of climate risks is the result of individual assessments at BU level, which are consolidated at Group level concluding the most relevant climate risks and opportunities.
EDP discloses risks publicly broke down by the level of impact expected in its annual EBIDTA in two categories: <100M€ and >100M€. EDP’s most recent assessment concluded the company is quite resilient to climate change with no risks >100M€ (~2.5% of 2021 EBITDA, in terms of P95%, assuming a 10y impact of RCP 2.6 scenario).

An example of a climate chronic risk with relevant impact is the reduction of precipitation. This risk affects several business units with relevant expression in EDP Group consolidated EBITDA (~0.5%-1% depending on the climate scenario), namely EDP Produção (Portuguese generation unit) and EDP BR, with a reduction of hydro plant profitability of around 10-15% in PT and 10-40% in BR (2050 estimates).
Climate risks assessment is presented in Risk Committee and approved by the EBoD and the conclusions are ultimately publicly reported in EDP's Sustainability Report according to TCFD recommendations.

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 exposed to water risk	% company-wide facilities this represents	Comment
Row 1	41	1-25	The number of facilities exposed to water risks accounts for 13% of EDP Group's facilities: one thermal power plant, Pecém in Brazil, and the remaining are hydro power plants in Portugal. During 2020, EDP sold 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, reducing its overall water risk exposure. In addition, the CCGT Castejón Power Station (843 MW) was sold at the end of 2020. Thus, the number of facilities exposed to water risks decreased from 47 to 41. 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. Water for plant operation is provided by the municipal water and sewage concessionaire. The hydro power plants located in the basins of the Lima, Cávado, Mondego, Tejo and Guadiana rivers are identified in EDP Water Risk Map as being exposed to risks of climate change induced structural decrease in precipitation. Nine facilities located in Douro River Basin are induced structural decrease in precipitation and increase in competitive uses, so

			it is also identified in EDP Water Risk Map as being exposed to risks of climate change. 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%, 1.4% 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

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%, 3.4% 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

Portugal
Douro

Number of facilities exposed to water risk

9

% 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 2.8%, 5.1% and 1.2% 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 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 3.7%, 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 3.1%, 2.4% 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
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

Brazil

Other, please specify

Atlântico Nordeste Oriental (Pecém)

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%, 5.7% and 2.9% 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 (regional government databases) 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

Chronic physical

Changing precipitation patterns and types (rain, hail, snow/ice)

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. Impact of physical variables, namely a structural reduction of water availability is assessed within EDP Group, by considering all assets which are impacted by a reduction in average precipitation, namely hydro and some thermal power plants. The analysis is performed for 3 different scenarios (RCP 2.6, RCP 4.5 and RCP 8.5) and for a 30-year time horizon (until 2050) and based on the World Group Bank and Copernicus data sources, it is expected a structural reduction of average precipitation of ~10% to 15% in Portugal (depending on the RCP scenario), which are geographies mostly affected by water availability reduction.

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.

If the average precipitation is lower than expected there is a mismatch between the energy integrated position, i.e., lower hydro generation than contracted, which requires to buy energy from the market with a higher price due to generation mix with more thermal. As a result, financial accounts at the end of the year may have a significant gap vs projections. For example, 2017 was a very dry year in Iberia and recurring EBITDA declined 44% YoY, to €603m, due to a more expensive generation mix (€34/MWh vs. €20/MWh in 2016), stemming from the replacement of lower-cost hydro production (22% weight in generation mix vs. 45% in 2016) by coal and CCGT’s. Recently, EDP's financial performance in the 1Q2022 was strongly impacted by the extreme drought in Portugal. In winter 21/22, the driest in the last 90 years, resulted in a record shortfall of EDP's hydro production in the Iberian market of 2.6TWh compared to the historical average. This hydro shortfall resulted in the need to purchase electricity in the Iberian wholesale market, in order to satisfy the consumption of the customer portfolio, in a quarter of historical maximum prices (average electricity price €229/MWh in the 1Q22, a rise of 407% YoY). The strong increase in the cost of electricity sold implied a €0.4bn loss in 1Q22 in terms of EBITDA, which justifies the negative net result of -€76m recorded by EDP in the 1Q22 (a decrease of €256m YoY). The cost of response to this risk is related to the EDP’s Group diversification strategy.

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. In terms of analysis breakdown, the following was used: (1) analysis of the potential of precipitation reduction on each geography where the Group detains hydro plants (Portugal reduction of 10-15% and Brazil 10-40% for 2050, which means an average of 5-7,5% in Portugal and 5-20% in Brazil for the 30 year period considered, (2) overview of average production in terms of TWh and potential reduction due to diminished precipitation volumes (in 2050 of ~0.5-1TWh in Portugal and ~0-2TWh in Brazil, in period average of 0.25-0.5TWh in Portugal and 0-1TWh in Brazil) – in Brazil, there is also a potential increase in operational costs of a thermal plant in Brazil, however when looking to the aggregated period there is no expression as it will have impact only in 2025, and (3) pricing of reduction of production considering expected energy market prices, an average of the period of 50€/MWh (in Portugal and Brazil), which means in the scenario 2.6: 0.25TWh*50€/MWh+~0 TWh *50€/MWh=12.5M€, and in the scenario 8.5: 0.5TWh*50€/MWh+1TWh*50€/MWh=75M€, the difference vs the reported value of 15M€ and 50M€ is explained by geographical diversification which in the scenario 2.6 increases the risk in 2.5M€ and in scenario 8.5 reduces the risk in 25M€. The reported values traduced the average financial impact from 15,000,000 to 50,000,000 euros, on a yearly basis. This impact is evaluated assuming (1) EDP's defined strategy for the different time horizons (closure of thermal power plants, investment in renewables and the end of some hydro concessions); and (2) incremental variation compared to today; and is the accumulative maximum loss at P95% for each year and scenario. 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 water reduction risk through a business, tech. and geographical diversified generation portfolio. In EDP's Strategy 2021-2025, the acc. net investment in renewables is EUR 24 bn (EUR 3.8 bn/ year) across diversified businesses, i.e., 80% renewables, 15% networks and 5% client solutions & energy management. Specific investments in generation capacity additions (20GW) technologically diversified: 40% solar, 51% wind on-shore/ offshore, 7% solar DG and 2% storage, and geographically diversified: 45% in NA, 35% in EU, 15% in LatAm and 5% in the RoW. In 2021 EDP entered in Asia-Pacific market, acquiring Sunseap (EDPR's 87.4% stake, 540 MW of operational/ under construction solar projects and a sizeable portfolio at different stages of development, incl. 5.5 GW of renewable). Diversification reduces risk, as reduction in precipitation not likely to occur in all geographies and with same magnitude, and is not a risk for other businesses/ technologies. EDP Group has periodic processes to monitor this risk: Climate risk assessment: annual exercise to assess and quantify impact of structural reduction on precipitation within all BUs in EDP; Business plan, budget and risk map: annual exercise, focused in short/ medium term, considering hydro productivity projections to define and shape EDP's hedging strategy; Risk report and risk appetite dashboard: fortnightly and quarterly reports, with overview of hydro volumes, giving info on assets profitability/ vulnerability.

EDP developed a 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. All new power plant project valuation considers sensitivities to lower inflows scenarios, enabling informed decision making.

Water availability is a critical risk for EDP. If it is lower than expected there is a mismatch between the energy integrated position, i.e., lower hydro generation than contracted, which requires to buy energy from the market with a higher price due to generation mix with more thermal. As a result, financial accounts at the end of the year may have a significant gaps vs projections. For example in 2017 there was a very dry season in Iberia and recurring EBITDA declined 44% YoY, to €603m, due to a more expensive generation mix (€34/MWh vs. €20/MWh in 2016), stemming from the replacement of lower-cost hydro production (22% weight in generation mix vs. 45% in 2016) by coal and CCGT's.

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 with low dependence on water availability (i.e. wind and solar generation) 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 (Pecém)

Type of risk & Primary risk driver

Chronic physical

Changing precipitation patterns and types (rain, hail, snow/ice)

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 the National's Information Systems on Water Resources. Pecém is installed at the industrial and Port Complex of Pecém, Brazil, where multiple other water users, namely industrial, are also present. Water for plant operation is provided by the municipal water and sewage concessionaire. In the situation of precipitation reduction, EDP may be impacted through increased operational cost (rising water tariffs and taxes), as Pecém thermal plant needs the use of water for refrigeration. Additionally, considering competitive uses the use of water for refrigeration may be constrained through rationing measures that limit the operation.

The impact of physical variables, namely a structural reduction of water availability is assessed within EDP Group, by considering all assets which are impacted by a reduction in average precipitation, namely hydro and some thermal power plants. The analysis is performed for 3 different scenarios (RCP 2.6, RCP 4.5 and RCP 8.5) and for a 30-year time horizon (until 2050) and based on the World Group Bank and Copernicus data sources, it is expected a structural reduction of average precipitation of ~10% to 40% in Brazil in 2050 (depending on the RCP scenario), which are geographies mostly affected by water availability reduction.

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

In terms of analysis breakdown the following was used: (1) analysis of the potential of precipitation reduction on each geography where the Group detains hydro plants (Portugal reduction of 10-15% and Brazil 10-40% for 2050, which means an average of 5-7,5% in Portugal and 5-20% in Brazil for the 30 year period considered, (2) overview of average production in terms of TWh and potential reduction due to diminished precipitation volumes (in 2050 of ~0.5-1TWh in Portugal and ~0-2TWh in Brazil, in period average of 0.25-0.5TWh in Portugal and 0-1TWh in Brazil) – in Brazil, there is also a potential increase in operational costs of a thermal plant in Brazil, however when looking to the aggregated period there is no expression as it will have impact only in 2025, and (3) pricing of reduction of production considering expected energy market prices, an average of the period of 50€/MWh (in Portugal and Brazil), which means in the scenario 2.6: 0.25TWh*50€/MWh+~0 TWh *50€/MWh=12.5M€, and in the scenario 8.5: 0.5TWh*50€/MWh+1TWh*50€/MWh=75M€, the difference vs the reported value of 15M€ and 50M€ is explained by geographical diversification which in the scenario 2.6 increases the risk in 2.5M€ and in scenario 8.5 reduces the risk in 25M€. The reported values traduced the average financial impact from 15,000,000 to 50 ,000,000 euros, on a yearly basis. This impact is evaluated assuming (1) EDP's defined strategy for the different time horizons (closure of thermal power plants, investment in renewables and the end of some hydro concessions); and (2) incremental variation compared to today; and is the accumulative maximum loss at P95% for each year and scenario. 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 ends 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 invested in water reuse and recycling in Pecém plant: water recycling in refrigeration circuits and treated water reuse from the Effluent Treatment Station, using it as cooling water for refrigeration circuits. Also, EDP participates in the region's Watershed Committee, responsible for state's water resources management, and actively participated in negotiations with State Government for the final value of water

emergency tax announced in the Sep-2016.
In 2021, Brazil had a historically dry season, leading to an increase in Pecém production (3,417 GWh). Pecem's availability was in line with last year (94%), however non-manageable expenses impacted gross profit - 61% higher due to increase in coal costs (dollar-indexed coal market and the reduction in supply). Also, Pecém has a fixed revenue of R$80.5m/ month, annually adjusted by inflation, -last update in Nov-21 of +10% YoY.
EDP manages water reduction risk through a business, tech. and geographical diversified generation portfolio. In EDP's Strategy 2021-2025, the acc. net investment in renewables is EUR 24 bn (EUR 3.8 bn/ year) across diversified businesses, i.e., 80% renewables, 15% networks and 5% client solutions & energy management. Specific investments in generation capacity additions (20GW) technologically diversified: 40% solar, 51% wind on-shore/ offshore, 7% solar DG and 2% storage, and geographically diversified: 45% in NA, 35% in EU, 15% in LatAm and 5% in the RoW. In 2021 EDP entered in Asia-Pacific market, acquiring Sunseap (EDPR's 87.4% stake, 540 MW of operational/ under construction solar projects and a sizeable portfolio at different stages of development, incl. 5.5 GW of renewable). Diversification reduces risk, as reduction in precipitation not likely to occur in all geographies and with same magnitude, and is not a risk for other businesses/ technologies. EDP Group has periodic processes to monitor this risk: Climate risk assessment: annual exercise to assess and quantify impact of structural reduction on precipitation within all BUs in EDP Group; Business plan, budget and risk map: annual exercise, focused in short/ medium term, considering hydro productivity projections to define and shape EDP's hedging strategy; Risk report and risk appetite dashboard: fortnightly and quarterly reports, with overview of hydro volumes, giving info on assets profitability/ vulnerability.

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 with low dependence on water availability (i.e., wind and solar generation) 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. 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 2021, 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%). 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. Future dependency is being further reduced, as coal capacity will decrease until 2025, and will be null after 2025, according to EDP's Strategic Update 2021-2025 and medium/long-term strategy (sustainability commitments).

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.

According to EDP's Strategic Update 2021-2025, the accumulated net expansion investment for that period in renewables is ~EUR 24 bn, i.e., ~EUR 3.8 bn per year, distributed across diversified markets and businesses (generation, networks and retail & services), distributed as followed 80% in renewable generation, 15% in networks and 5% in clients solutions and energy management. Additionally, in specific investments in new generation capacity (total of additional 20GW) are technologically diversified: 40% solar, 51% wind on-shore and offshore, 7% solar DG and 2% storage, as well as

geographically diversified: 45% in North America, 35% in EU, 15% in Latin America and 5% in the rest of the world. Recently, in 2021 EDP entered in Asia-Pacific market through the acquisition of Sunseap (EDPR ‘s 87.4% stake, 540 MW of operational and under construction solar projects and a sizeable portfolio at different stages of development, namely 5.5 GW of renewable projects). Diversification significantly reduces the risk, as structural reduction in precipitation is not likely to occur in all geographies and with same magnitude, and is not a risk for other businesses and technologies. Additionally, EDP Group has several periodic processes that allows to monitor this risk, namely: (1) Climate risk assessment process: annual exercise to assess and quantify the impact of a structural reduction on average precipitation within all BUs in EDP Group; (2) Business plan, budget and risk map processes: annual exercise, more focused in the short/ medium term, takes into account hydro productivity projections to define and shape EDP’s hedging strategy; (3) Risk report and risk appetite dashboard: fortnightly and quarterly, respectively, gives an overview of hydro volumes, providing information on assets profitability/ precipitation vulnerability.

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)

2 540

Comparison of total withdrawals with previous reporting year

About the same

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

2 540

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)

2 540

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

2 540

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 (-2,4%) are explained by the 19% decrease of hydro generation due to the worse hydrological conditions in Iberia in 2021 (-3% 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)

4 755

Comparison of total withdrawals with previous reporting year

About the same

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

4 755

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)

4 755

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

4 755

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 (+6,5%) is explained by: i) decrease of hydro generation due to the worse hydrological conditions in Iberia in 2021 (+1% of total Cávado river basin electricity generation); ii) 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”.

Facility reference number

Facility 3

Facility name (optional)

9 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)

79 783

Comparison of total withdrawals with previous reporting year

About the same

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

79 783

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)

79 783

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

79 783

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 slight increase in both withdrawals and discharges (+3%) is explained by the decrease of hydropower generation due to the better hydrological conditions in Iberia in 2021 and the sale to Engie of five hydroelectric plants.
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)

4 684

Comparison of total withdrawals with previous reporting year

About the same

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

4 684

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)

4 684

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

4 684

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 increase in withdrawals and discharges (+15%) is explained by the increase (+4%) of Mondego river basin electricity generation. 74% of withdrawals and discharges in 2021 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”.

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)

15 675

Comparison of total withdrawals with previous reporting year

About the same

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

15 675

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)

15 675

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

15 675

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 (+13,8%) is explained by the decrease of hydropower generation due to the better hydrological conditions in Iberia in 2021 (-2 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)

3 449

Comparison of total withdrawals with previous reporting year

About the same

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

3 449

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)

3 449

Comparison of total discharges with previous reporting year

About the same

Discharges to fresh surface water

3 449

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 (-1%), despite the worst hydrological conditions in Iberia in 2021.

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)

Pecém.

Country/Area & River basin

Brazil

Other, please specify

Atlântico Nordeste Oriental (Pecém)

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)

9 042

Comparison of total withdrawals with previous reporting year

Much higher

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

9 042

Total water discharges at this facility (megaliters/year)

1 065

Comparison of total discharges with previous reporting year

Much higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

1 065

Discharges to groundwater

0

Discharges to third party destinations

0

Total water consumption at this facility (megaliters/year)

9 042

Comparison of total consumption with previous reporting year

Much higher

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 increased 115% (vs. 2020) due to the extreme drought in Brazil, explaining the much higher values in comparison with 2020 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.
It is expected that the values will remain stable. The 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 third party verified?

Water withdrawals – total volumes

% verified

76-100

Verification standard 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.

Water withdrawals – volume by source

% verified

76-100

Verification standard 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.

Water withdrawals – quality by standard water quality parameters

% verified

76-100

Verification standard 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.

Water discharges – total volumes

% verified

76-100

Verification standard 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.

Water discharges – volume by destination

% verified

76-100

Verification standard 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.

Water discharges – volume by final treatment level

% verified

76-100

Verification standard 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.

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard 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.

Water consumption – total volume

% verified

76-100

Verification standard 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.

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 Description of business impact on water Description of water-related performance standards for direct operations Description of water-related standards for procurement Company water targets and goals Commitment to align with public policy initiatives, such as the SDGs Commitments beyond regulatory compliance Commitment to water-related innovation Commitment to stakeholder awareness and education	All former Environmental Policies in place within the EDP Group (including a Water Management Policy) were aggregated in a single Environmental Policy. This aims to guarantee a better corporate management approach, assuming all key environmental issues will have to follow the same commitments, when applicable. 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. 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. 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, 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)

		Commitment to water stewardship and/or collective action	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. 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: Water management approach. 1, 2

[1]EDP_Environmental_policy.pdf

[2]Water management approach.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. 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. The current Director has over 27 years of experience, 24 years of which in the energy sector. In the last 14 years, he assumed responsibilities in EDP Brasil, first as Vice-President responsible for New Business Development, Commercialization and Renewables, and in 2014 as CEO of EDP Energias do Brasil, with responsibility for its corporate sustainability office.

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 Overseeing acquisitions and divestiture Overseeing major capital expenditures Providing employee incentives Reviewing and guiding annual budgets Reviewing and guiding business plans Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate	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 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).

		responsibility strategy Setting performance objectives	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.

W6.2d

(W6.2d) Does your organization have at least one board member with competence on water-related issues?

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	The criteria used to assess the board member's competence in water issues is his proven experience in the field. The current Director has over 27 years of experience, 24 years of which in the energy sector. In the last 14 years, he assumed responsibilities in EDP Brasil, first as Vice-President responsible for New Business Development, Commercialization and Renewables, and in 2014 as CEO of EDP Energias do Brasil, with responsibility for its corporate sustainability office. These responsibilities included a close oversight of water resources management, both from an operational point of view (business) and from an environmental point of view (availability and impacts). He also was President of the Board of Directors of EDP Gestão da Produção de Energia, since July 2020, in Portugal.

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

Assessing water-related risks and opportunities
Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

Quarterly

Please explain

Quarterly reports communicated to the board 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.
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.

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	N/A

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 Director on board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO)	Reduction in consumption volumes 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. EDP has in place the following KPIs linked to EBD's variable remuneration, also extended to all employees at a corporate level:

	Chief Operating Officer (COO) Chief Purchasing Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO)		i) Reduction in consumption volumes: 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 reduction of freshwater consumption is defined (78% consumption reduction); ii) Improvements in efficiency: ISO 14001 environmental certification target applied to 100% of all Group activities with significant environmental aspects. The scope of this certification includes the linkage between water efficient use and impacts on the environment, as well as EDP's dependency on water. These indicators were chosen to allow a two-layer assessment where water performance and risks are key issues included: - A holistic performance of EDP's sustainability strategy, evaluated by an external stakeholder (DJSI Index KPI); - A more operational indicator, regarding specificities of EDP's operational activities (ISO 14001). 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		N/A

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 stakeholder's 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)

EDP Annual Report 2021.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: 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, 80% of EDP's generation portfolio is based on renewable sources, with hydro making up to 29% of total installed capacity. 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 long-term objectives	Yes, water-related issues are integrated	11-15	Strategy to achieve the above mentioned long-term objectives includes: i) Renewable: long-term investment in renewable generation portfolio, mainly in wind and solar, which are not significantly, with low water-dependant risk profile. EDP's Business Plan 2021-2025 plans to invest €24 bn, of which 80% in renewable generation capacity. EDP has set demanding targets for 2025 and for 2030 for increasing the % of renewable installed capacity and electricity production, considering 2015 as baseline. These targets support the Group's ambition to abandon coal generation (EDP's most water-intensive activity) by 2025 (major water consumption technology) and be carbon neutral by 2030. By 2030, the Group intends to have 100% of renewable installed capacity and 100% of renewable electricity generation. So, for the 10-year time horizon (2021-2030), the strategy defined by EDP includes the closure of thermal power stations (water intensity use), investment in renewable energies (with low water risk profile) and end of some hydroelectric concessions. All this strategy contribute to less water dependency in the future. ii) Low risk profile: Geographic diversification of the existing hydro generation capacity 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 on the long-term, namely: 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. 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)

-11

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

31

Water-related OPEX (+/- % change)

-16

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

-7

Please explain

Water-related CAPEX includes investments in Business as Usual projects, 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 11% decrease was due to lower maintenance in Portugal's hydroelectric power plants.

The 31% increase in the anticipation of the future CAPEX trend is explained due to lower realisations in 2021, which implies the deferral of capex to the following year.

Water-related OPEX includes costs related to infrastructure maintenance and repair. The 16% decrease was due to the sale of six hydroelectric power stations located in Portugal (in Douro, totalling 1,689 MW of installed capacity) at the end of 2020, according to EDP's strategic update of 21-25. OPEX anticipated trend for the next reporting year is expected to remain constant, aligned with 2021, as no significant changes are expected in the portfolio.

W7.3

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

	Use of 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. 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. 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) Provide details of the scenario analysis, what water-related outcomes were identified, and how they have influenced your organization's business strategy.

	Type of scenario analysis used	Parameters, assumptions, analytical choices	Description of possible water-related outcomes	Influence on business strategy
Row 1	Water-related Climate-related	Climate scenarios have a strong influence on the availability and consequent quality of water, therefore they are fundamental for water risk analysis. EDP has developed aggregated	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,	Climate-related physical risks, both chronic (structural reduction in precipitation) and acute (increased frequency and severity of extreme weather events) are

		scenarios, based on physical and transition scenarios to assess the impact of climate risks and opportunities. Regarding physical scenarios, EDP uses IPCC scenarios (RCP 8.5, RCP 4.5 and RCP 2.6) to assess climate-related physical risks, taking into account forecasts for the long-term evolution of precipitation and temperature. EDP identifies the most relevant chronic and acute risks and evaluate potential impacts on its electricity generation and distribution activities from present time until 2050, as physical risks require a long-term analysis to identify any structural change in their pattern or frequency/severity of occurrence. Physical parameters are updated based on data sources aligned with RCP scenarios (e.g., World Bank Group, Copernicus, and some local data sources) and BUs access and quantify the impact of those changes in their businesses. Results highlighted two key risks (with higher impact for the RCP 8.5): - structural reduction of water availability in Iberia and Brazil, affecting the productivity of hydroelectric generation assets in Portugal, Spain and Brazil (chronic physical risk); - and increased occurrence and severity of extreme weather events (precipitation	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. Also, with IPPC SRES A2, A1B and B1, EDP assessed the risk from the number, duration and magnitude increase of extreme events, such as extremes temperatures contributing to water scarcity.	expected to impact EDP's operations, causing a reduction in electricity output of our hydro generation assets. Impact is expected to be intensified in the long-term and have a medium-high impact on EDP's revenues from electricity generation as well as operational and capital cost from damage recovery. New opportunity from water pumping downsizes MW exposure to water dependency reduction at local level: this is an important storage mechanism to respond to system flexibility. EDP already has the operational capacity installed to face any challenge coming from this scenario. Additionally, as the penetration of other renewables increases in the assets portfolio, the vulnerability that EDP has towards variations in precipitation volumes diminishes. Ensuring the resilience is a concern within EDP. With the effect of climate change being felt, it is essential to carry out an internal and ongoing analysis of the physical risks to which the infrastructures may be

		extremes, floods, wildfires, landslides and extreme winds), causing damage to our electricity distribution assets (acute physical risk). EDP's business strategy is shaped in order to mitigate chronic risk through a diversified generation portfolio in terms of technologies and geographies. Additionally, EDP considers the Aqueduct tool, which projections are based on a BAU scenario using SSP2 and RCP8.5 for 2030 and 2040. 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.		subject. EDP has set a goal to have Adaptation Plans in place in its Business Units by 2022 which ensure the resilience of infrastructures that may be exposed to extreme events of higher intensity and frequency.

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.

W7.5

(W7.5) Do you classify any of your current products and/or services as low water impact?

	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain
Row 1	Yes	The products and services provided by EDP classified as low water impact are: 1) transmission and distribution operations; 2) renewable PPA (wind and solar) and 3) the sale of low carbon services, such as electric mobility solutions, energy efficiency solutions and decentralized solar solutions. These services are not associated with direct water consumption in their activities and maintenance.	For transmission and distribution operations the total water consumption was 36 904 m3 and for renewable PPA was 7 791 m3. Water consumption related to the supply of products and services by EDP, classified as having a low water impact, represents only 0,01% of the total water used by the Group. These operations are characterized by low water consumption index for operation and maintenance of its activities when compared with conventional operations of electric energy generation (such as hydroelectric and thermoelectric power plants, for example), especially the distribution operations. The Group offers a variety of solutions aimed at the specific needs of various customer segments, through a diverse and competitive set of products and

			services that avoid emissions in the final consumption of energy. The direct water consumption of this activity is mainly associated with the administrative activity of the operation and is considered non-material.

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 Business level specific targets and/or goals Site/facility specific targets and/or goals Country level targets and/or goals	Targets are monitored at the corporate level 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. 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. Thermal power plants account for more than 99% of the total freshwater 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: - Higher operational risk from current and forecast structural reduction in precipitation (Portugal); - Water stress exposure (Brazil). 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 freshwater consumption between 2015 and 2025.

Quantitative metric
% reduction in total water consumption

Baseline year
2015

Start year
2015

Target year
2025

% of target achieved
68

Please explain
EDP Group’s total freshwater consumption has decreased 68% between 2015 and 2021, in line with the planned progress (target has been achieved in 87%).

In the last 4 years, freshwater consumption has been decreasing due to the following facts:
- 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 freshwater 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.

- 2021: the specific consumption of freshwater changed in 2021 (+35% compared to 2020), which is justified by the increase in coal-fired electricity generation in EDP group (30% more than 2020).

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

No environmental accidents or penalties with impacts on water.

Baseline year

2018

Start year

2018

Target year

2022

% of target achieved

100

Please explain

There were no environmental accidents or penalties with impacts on water.
There were no environmental accidents or penalties in 2021. This target is part of EDP Group's Strategic Goals for 2022.

Target reference number

Target 3

Category of target

Water consumption

Level

Country level

Primary motivation

Risk mitigation

Description of target

Annually, an absolute threshold is defined for process water consumption used in water-steam circuits in all thermal power plants in Portugal. This target is defined annually and considers past and projections of the hydrological conditions in Iberia. 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

2021

% of target achieved

100

Please explain

This target was set at the end of 2020 and was expected to be achieved by the end of December 2021. At the end of 2021, the consumption was below the target: 54% of the predefined threshold. The reduction in water consumption was mainly due to the 34% decrease in energy production from natural gas in 2021 and the closure of the Sines coal plant in Portugal at the end of 2020.

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 research work will allow for increased effectiveness in monitoring and mitigating the biodiversity impacts on aquatic ecosystems, essentially caused by hydropower generation.

The goal is to develop scientific knowledge supporting biomonitoring using DNA metabarcoding to better supported future water management policies, with recognition by the responsible national authorities and the possibility of developing tools for the internalisation of monitoring activities.

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 their relative abundance 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 knowledge developed (number of scientific publications on the subject), the partners involved and the success of protocols tested, which even resulted in the development of a PCR kit (polymerase chain reaction - a useful technique given its specificity and speed), which was eventually internalised in internal monitoring routines.

Until December 2021, 47 articles were published in international scientific journals (i.e. 15.7 articles/year) and 11 theses for attainment of an academic degree, with relevance to the objectives. The target was achieved according to the predefined threshold: to exceed the scientific production of the previous Chair (2012-2017), where 56 articles were published in 5 years, i.e. 11.2 articles/year.

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

EDP Sustainability Report 2021.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 2021 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) - Total water withdrawn, discharged and consumed (W1.2b) - Total water withdrawals - by source (W1.2h) - Total water discharges - by destination (W1.2i) - % 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 2021 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 2021 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	ISAE 3000	Verification of identified data points is within the scope of the independent assurance of

	detrimental impact on water ecosystems or human health (W-EU3.1; W-EU3.1a)		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 2021 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) - 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 2021 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 2021 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.

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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's Executive Board of Directors with formal responsibility over sustainability, risk and other company's crosscutting critical themes.	Board/Executive 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 understand that my response will be shared with all requesting stakeholders	Response permission

Please select your submission options	Yes	Public

The European Climate Pact Submission

Please indicate your consent for CDP to showcase your disclosed environmental actions on the European Climate Pact website as pledges to the Pact.

Yes, we wish to pledge to the European Climate Pact through our CDP disclosure

Please confirm below