

W0. Introduction

W0.1

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

In April 2016, Tokyo Electric Power Company (TEPCO) transitioned to a holding company system by reorganizing into three independent businesses: fuel & thermal power generation, general power transmission and distribution, and retail electricity. In 2019, integrated the fuel procurement and thermal power generation business with JERA Co., Ltd. The group currently consists of operating companies that are responsible for the renewable energy and nuclear energy power generation businesses, power transmission and distribution businesses, and retail businesses. TEPCO Group is responsible for the energy supply infrastructure centered on the Tokyo metropolitan area including the capital Tokyo. The amount of electricity sold by TEPCO is about one-third that of Japan as a whole, and it is one of the largest electric power companies in Japan. We have been supporting the economic activities of the Tokyo metropolitan area and the lives of local customers for about 70 years.

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 (Gas transport and distribution)

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	0	0	0
Lignite	0	0	0
Oil	58	0.32	157
Gas	0	0	0
Biomass	0	0	0
Waste (non-biomass)	0	0	0
Nuclear	8212	45.12	0
Fossil-fuel plants fitted with carbon capture and storage	0	0	0
Geothermal	0	0	0
Hydropower	9879	54.28	12883
Wind	21	0.12	37
Solar	30	0.16	29
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	18200	100	13106

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	April 1 2021	March 31 2022

W0.3

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

- Japan

W0.4

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

JPY

## 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
Overseas Offices (Washington, London, Beijing)	Due to the small leased office space (about 10 employees), the total amount of water used is as small as about 1,000 tons per year, which is only about 0.1% of the amount of total company-wide water used in Japan, so the water risk of these three offices is very small.

## 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	JP3585800000

## 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	Important	Important	<p>As for direct use, sufficient amounts of freshwater are important because they are necessary for electricity production. Freshwater is directly used in hydroelectric power plants, which consists 98% of the TEPCO Group's electricity generation in FY2021. In the future, we promote renewable energy to be a main energy sources, and hydropower plants are expected to reinforce output.</p> <p>At that time, the degree of water dependence per unit of power generation is expected to be reduced by reducing the loss of water use, and even if the amount of power generation increases, the amount of water withdrawal and the degree of water dependence will not change significantly.</p> <p>As for indirect use, in April 2019, TEPCO Fuel &amp; Power Co., Ltd. transferred the thermal power generation businesses, etc. to JERA Co., Ltd., which is a major supplier for TEPCO Energy Partner, a retail company. As a result, the use of water from thermal power generation has shifted from direct operation to indirect use, but the importance to have sufficient fresh water available not changed.</p> <p>On the other hand, since JERA has shown a policy to abolish all inefficient coal-fired power plants by 2030, we believe that the amount of water watered to coal stockyards will decrease in the future, and the degree of water dependence will decrease.</p> <p>About water quality, our company has been treating contaminated water generated by the Fukushima Daiichi Nuclear Power Plant accident properly and has stored it in tanks. We have plans to dilute the stored water in the tank and carry it to 1 km off the coast via release tunnel for discharge under continuous monitoring.</p> <p>At hydroelectric power plants, maintaining the quality of withdrawals is important not only to maintain the ecosystem and natural environment, but also to avoid collisions with stakeholders such as local river authorities and nearby residents.</p> <p>Maintaining freshwater quality and securing water volume will continue to be important factors for our business.</p>
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Vital	<p>The nuclear power plant is currently out of operation, but if it is restarted, the boiler water used for the steam turbine will be reused and it is necessary for power generation, so we judge it to be important.</p> <p>In the future, when nuclear power plants are to be restarted, we will move in the direction of increasing dependence on water, but on the other hand, boiler water is circulated and reused while removing impurities, and the amount of recycled water used does not increase, so we believe that the impact will be limited.</p> <p>Regarding indirect use, the reuse of boiler water that was being carried out at thermal power plants will be treated as indirect use due to the transfer of the thermal power generation business to JERA.</p> <p>The recycled boiler water is indispensable for operation, such as being used for steam turbines for thermal power generation, and if nuclear power is to be restarted, the power supply from JERA will decrease, so the degree of water dependence will also decrease, but if it is not, it is expected to be used to the same extent in the future.</p>

## (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%	Water withdrawals are measured and monitored at all of our power plants and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At all of our hydroelectric power plants, we submit data of yearly water withdrawals based on the agreement with national or prefectural governments depended on river manager where they are located. Total volumes of water withdrawals are always monitored by watching water level, flow meters, and operation hours of pumps.
Water withdrawals – volumes by source	100%	Water withdrawals per each sources are measured and monitored at all of our power plants and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At all of our hydroelectric power plants power plants, we submit data of yearly water withdrawals based on the agreement with national or prefectural governments depended on river manager where they are located. Total volumes of water withdrawals are always monitored by watching water level, flow meters, and operation hours of pumps.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	At hydroelectric power plants, the turbidity of the water taken in is constantly monitored by a turbidity meter. At nuclear power plants (when in operation), seawater temperature is constantly measured by thermistors during water intake used for indirect cooling facilities. This data is useful for grasping temperature of the sea water difference between withdrawals and discharges.
Water discharges – total volumes	100%	Water discharges are measured and monitored at all of our power plants and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At all of our hydroelectric power plants, we submit data of yearly water discharges based on the agreement with national or prefectural governments depended on river manager where they are located. Total volumes of water discharges are always monitored by watching water level, flow meters, and operation hours of pumps.
Water discharges – volumes by destination	100%	Water discharges by destination are measured and monitored at all of our power plants and offices every fiscal year in our environmental management system. At all of our hydroelectric power plants power plants, we submit data of yearly water discharges based on the agreement with national or prefectural governments depended on river manager where they are located. Total volumes of water discharges are always monitored by watching water level, flow meters, and operation hours of pumps.
Water discharges – volumes by treatment method	100%	Water discharges by treatment method are measured and monitored at all of our power plants and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At all of our hydroelectric power plants, we submit data of yearly water discharges based on the agreement with national or prefectural governments depended on river manager where they are located. Volume of wastewater from the treatment facility is constantly monitored by flow meters in nuclear power plants (if they are working).
Water discharge quality – by standard effluent parameters	100%	The quality of water discharges is measured and monitored on regular basis at all of our power plants and offices based on standards effluent parameters in our environmental management system. Regarding water quality monitoring, based on laws and administrative guidelines, pH, COD, oil film, etc. are constantly monitored with water quality measuring equipment such as pH meters, and heavy metals are chemically analysed every year.
Water discharge quality – temperature	100%	In nuclear power plants (if they are working), the temperature of discharged water to the sea which is used for the indirect cooling is constantly monitored by the thermistor. On the other hand, there is no obligation to constantly monitor the water temperature at hydroelectric power plants.
Water consumption – total volume	100%	Water consumption is measured and monitored at all of our power plants and offices every fiscal year in our environmental management system. It is calculated by the difference between withdrawals and discharges which are monitored on regular basis.
Water recycled/reused	100%	Some offices recycle rainwater and use it to drain toilets, and every year, the amount of rainwater recycled is constantly measured with a water meter and reported to the municipalities.
The provision of fully-functioning, safely managed WASH services to all workers	100%	We continuously monitor if we are providing safe drinking water and sanitation to all of our employees at all of our facilities. We respect our employees' character and individuality and are committed to providing them with a good working environment. Drinking water is provided from the public waterworks bureau, and residual chlorine concentration data etc. are confirmed every day.

## 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
Fulfillment of downstream environmental flows	100%	At all of our hydroelectric power plants, we submit data of yearly water discharges based on the agreement with national or prefectural governments depended on river manager where they are located, and discharge water in compliance with river maintenance flow. And also facilities to detect the oil film are installed, and when it is detected it is collected so as not to affect the downstream area.
Sediment loading	100%	We measure the sediment loading at all hydroelectric power plants on regular basis. We carry out dredging of volume sediment in dam as needed.
Other, please specify	100%	For measures of heavy rainfall, we manage and check the equipment near the river more than once / year and increase the priority of replacement and detoxification treatment so as not to flow out oils when the river flood occurs.

## 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	49463400	About the same	In FY2021, freshwater surface water, which accounts for a large proportion of the total water intake, increased slightly compared to the previous year, and the total water intake also increased slightly, but it was evaluated to be about the same because it fluctuated within 10%. In the field of hydroelectric power generation, by 2023, we aim to increase power generation by 100 million kWh / year or more compared to the 2018 result by * Balancing the increase in power generation volume by renovating equipment over time and improving the reliability of equipment * Shortening the work stoppage period through improvement activities - Prevention of troubles by utilizing digital technology and data, and reduction of losses through integrated operation of water systems, etc. (However, Excludes the impact of the stoppage and flood rates caused by equipment renovation work of aging facilities). Although the amount of water intake of hydroelectric power generation, which accounts for the majority of the total water intake, is expected to increase with the increase in the amount of hydroelectric power generation, the water consumption does not increase . Because, the amount of water intake and drainage at hydroelectric power plants are the same, and the amount of drainage increases as the amount of water intake increases.
Total discharges	49463282	About the same	In FY2021, freshwater surface water, which accounts for a large proportion of the total amount of drainage water, increased compared to the previous year, but it was evaluated to be almost the same with fluctuations within 10%. In the field of hydroelectric power generation, by 2023, we aim to increase power generation by 100 million kWh / year or more compared to the 2018 result by * Balancing the increase in power generation volume by renovating equipment over time and improving the reliability of equipment * Shortening the work stoppage period through improvement activities - Prevention of troubles by utilizing digital technology and data, and reduction of losses through integrated operation of water systems, etc. (However, Excludes the impact of the stoppage and flood rates caused by equipment renovation work of aging facilities). Although the amount of water intake of hydroelectric power generation, which accounts for the majority of the total water intake, is expected to increase with the increase in the amount of hydroelectric power generation, the water consumption does not increase . Because, the amount of water intake and drainage at hydroelectric power plants are the same, and the amount of drainage increases as the amount of water intake increases.
Total consumption	118	About the same	In FY2021, there was no change in the business form as in the previous year, it was evaluated to be almost the same with fluctuations within 10%. In the field of hydroelectric power generation, by 2023, we aim to increase power generation by 100 million kWh / year or more compared to the 2018 result by * Balancing the increase in power generation volume by renovating equipment over time and improving the reliability of equipment * Shortening the work stoppage period through improvement activities - Prevention of troubles by utilizing digital technology and data, and reduction of losses through integrated operation of water systems, etc. (However, Excludes the impact of the stoppage and flood rates caused by equipment renovation work of aging facilities). Although the amount of water intake of hydroelectric power generation, which accounts for the majority of the total water intake, is expected to increase with the increase in the amount of hydroelectric power generation, the water consumption does not increase . Because, the amount of water intake and drainage at hydroelectric power plants are the same, and the amount of drainage increases as the amount of water intake increases.

**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	No	<Not Applicable >	<Not Applicable >	WRI Aqueduct	Our hydroelectric power plants are located in Tochigi, Gunma, Kanagawa, Yamanashi, Shizuoka, Fukushima, Niigata and Nagano prefectures, central part of Honshu island of Japan and we have confirmed whether we have water stress in these areas. For confirming water stress, WRI Aqueduct widely used as a water risk assessment method is adopted. If Aqueduct tells the evaluation as High or Extremely high, over 40% of water stress, we judge there are water stressed area. According to the evaluation by Aqueduct, the hydroelectric power generation area is evaluated as Medium-high (water stress 20-40%) at the maximum. So there is no power plants located in water stressed area and there is no water intake from the drought area. Not only water intake, but also water discharge we consider water risks. We secure the maintenance flow rate prescribed by the Ministry of Land, Infrastructure and Transport at all hydropower plants, so there is no water competition with the downstream area. Since last fiscal year this risk situation has not changed. We continually collect information on the fact that power plants are not located in stressed areas.

**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	49462537	About the same	Freshwater surface water intake is highly relevant to the business as it is used for power generation at hydroelectric power plants. The same amount of this intake water is drained without being consumed. The amount of freshwater surface water in 2021 increased from the previous year's result of 47,419,391 mega liters, but it was evaluated to be about the same. This is due to an increase in the amount of water taken in for hydroelectric power generation due to the stable operation of hydroelectric power generation, which accounts for the majority of freshwater surface water intake. However, the increase was about 4%, which was within 10% of the standard. Since hydropower is as important as the role of renewable energy, TEPCO plans to strengthen the capacity of hydropower plants, but is challenging to innovate more efficient equipment and operations. Therefore, water consumption is expected to remain at the same level in the future.
Brackish surface water/Seawater	Relevant	0	About the same	Seawater intake is highly relevant to the business as it is used for indirect cooling of condensers at nuclear power plants. In addition, the same amount of this taken water is drained to the sea area without being consumed. After the 2011 Fukushima Daiichi nuclear power plant accident, all nuclear power plants have been shut down, so the amount of seawater intake is 0. This seawater is used as indirect cooling water and plays a role in cooling the steam transfer in the condenser.
Groundwater – renewable	Relevant	144	About the same	Groundwater accounts for a large proportion of the inflow to the reactor building at the Fukushima Daiichi Nuclear Power Station. Therefore, this reduction in the amount of water means a reduction in the amount of water contaminated by radioactive substances, so it can be said that it is relevant to the decommissioning business. The amount of groundwater decreased from 154 mega liters in the previous year due to the progress of measures such as the impermeable wall to control the inflow to the reactor building of the Fukushima Daiichi Nuclear Power Station. However, since the decrease rate was about 6%, which was within 10% of the standard, it was evaluated as comparable to the previous year's reported value. This also contributes to reducing the amount of water contaminated with radioactive substances. This amount has decreased from about 470m3/day (FY2014 average) to about 130m3 / day (2021), and we plan to reduce it to about 100m3 / day by 2025.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	We do not use any non-renewable groundwater now and in the future because there are no processes and facilities using non-renewable groundwater in our electric power systems.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	We do not use any produced water now and in the future because there are no processes and facilities using produced water in our electric power systems.
Third party sources	Relevant	719	Lower	Water of third party sources is relevant because it is used for power generation in island internal combustion power plants and for drinking in all offices. In 2021, the amount of water taken from the municipal water supply decreased by 13% from 828 mega liters in 2020. This reflects the employees' awareness of saving water when using domestic water.

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	49462389	About the same	The water used for power generation at hydroelectric power plants is drained to the surface water of fresh water, so it is highly relevant to the business. The same amount of this intake water is drained without being consumed. The amount of drainage water is almost the same as the amount of water taken from the hydroelectric power plant approved by the Ministry of Land, Infrastructure, Transport and Tourism. Although the amount of drainage water in 2021 increased from 47,419,231 mega liters in the previous year, the change was about 4%, which was within 10%, and it is evaluated that it was not a big change from the previous year. Since hydropower is as important as the role of renewable energy, TEPCO plans to strengthen the capacity of hydropower plants. Therefore, water consumption is expected to remain at the same level in the future.
Brackish surface water/seawater	Relevant	335	Lower	The water used for indirect cooling of the condenser at the nuclear power plant is drained to seawater, so it is highly relevant to the business. The same amount of this intake water is drained without being consumed. We use seawater for making it steam and indirectly cooling condensers at nuclear power plants, then discharge to the sea. However after the accident of Fukushima Daiichi nuclear power plant in 2011, all the nuclear power plants have been shut down, so the amount of seawater withdrawals at nuclear power plants is 0. On the other hand, some of the water used for cooling at the island internal-combustion power plant is drained to the sea area after treatment. Also domestic wastewater from power plants facing the sea, such as nuclear power plants, is treated with septic tanks and discharged into the sea. The amount of these wastewater was about the same as the previous year's 352 mega liter / year.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	There is no plants and facilities which penetrate and drain water into the ground now. And we do not introduce these systems in the future.
Third-party destinations	Relevant	558	Lower	Since wastewater to a third party used for domestic water is a pay-as-you-go rate, saving water contributes to cost reduction in addition to consideration for water resources, and is related to our business. We continue saving domestic use of water, and the volume of discharge to third-party destinations will be almost the same in the future.

W1.2j

**(W1.2) Within your direct operations, indicate the highest level(s) to which you treat your discharge.**

	Relevance of treatment level to discharge	Volume (megaliters/year)	Comparison of treated volume with previous reporting year	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Because there is no facility that applies the applicable processing method.
Secondary treatment	Relevant	335	Lower	1-10	BOD etc. contained in domestic wastewater generated at nuclear power plants along the sea, internal-combustion power generation plants of islands, offices in urban areas, etc. are removed by the merger type disposal turning tanks in order to comply with statutory drainage standards for sea areas. After that, we discharge the treated water to the sea area. We maintain and manage the merger type disposal turning tank based on laws and regulations, and monitor the quality (pH, COD, etc.), which are the standards of the sea area stipulated by the Water Pollution Control Law) and the amount of discharged water, and manage and comply with them so that they do not exceed the standards.
Primary treatment only	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Because there is no facility that applies the applicable processing method.
Discharge to the natural environment without treatment	Relevant	49462389	About the same	31-40	The water taken from the river etc. at the hydroelectric power plant is released to the river as it is because they bring no change in water quality. When releasing water, we comply with the drainage standards for rivers stipulated by local governments based on the Water Pollution Control Law.
Discharge to a third party without treatment	Relevant	558	About the same	61-70	The water used in offices, etc. is discharged untreated because it complies with the standards for wastewater quality and the amount of drainage of public sewers stipulated by law. We have not made any changes to our business operations that would generate wastewater that exceeds these standards.
Other	Not relevant	<Not Applicable>	<Not Applicable>	<Not Applicable>	Because there is no facility that applies the applicable processing method.

**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	4841579 000000	49463400	97882.050 1623423	According to the income and expenditure outlook published in the 4th Comprehensive Special Business Plan, the operating revenue of the electric power business in FY2030 will increase by about 10% compared to FY2021. On the other hand, if the total water intake does not fluctuate significantly due to the stable operation of hydroelectric power generation, which accounts for most of the total water intake, the water intake efficiency is considered to increase.

**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
5.7	Other, please specify (Water withdrawals for Hydropower generation)	Other, please specify (Hydropower generation kWh)	About the same	The amount of water intake (m3) per hydroelectric power generation (kWh) in FY2021 was 5.7, which is almost the same level as 5.6 in FY2020. This is because the soundness of the equipment was maintained by renovating the equipment of small and medium-sized hydroelectric power plants over the years. In the future, in the hydroelectric power generation sector, <ul style="list-style-type: none"> <li>· Achieving both increased power generation and improved equipment reliability by refurbishing equipment over time</li> <li>· Shortening the work suspension period through improvement activities</li> <li>· Preventing troubles by utilizing digital technology and data, and reducing losses through integrated water system operation. As a result, we are aiming to increase the amount of power generated by 240 million kWh / year or more in 2030 compared to the actual results in 2018 (however, excluding the effects of suspension and flood rate due to equipment repair work of aged equipment). In this way, we assume that this intensity will be decreased in the future because of the improvement of hydroelectric power equipment.</li> </ul>

**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**

76-100

**% of total procurement spend**

76-100

**Rationale for this coverage**

We request all suppliers to considerate efficient use of water and resources and answer various questionnaires including environmental considerations by the procurement basic policy and green procurement guidelines, explained by the president and presented on websites.

With the global trend of SDGs, it is expected that social demands on water security will continue to increase in the future, and businesses that do not adequately address water risks will also increase business interruption risks.

Since the suspension of the business of a supplier poses a great risk to our company, we are targeting all suppliers.

We purchase products and services considering various environmental burdens over the full product life cycle from resource extraction to disposal. Also we positively accept "eco-proposals" from suppliers according to the guidelines.

As a result, we purchase the environment-friendly products including hydroelectric power equipment which uses water more efficiently with the highest priority and suppliers benefit from that .

We also require consolidated subsidiaries that make up the value chain to submit water usage.

Through this, we disclose data related to water use by the entire TEPCO Group and clarify consideration for water resources as a supply chain.

In addition, we ask consolidated subsidiaries to report water risks and these responses at engagements about environmental management.

In near future, we plan to release supply chain's data, and we think this would be an incentive for us and also consolidated subsidiaries known as an environmentally-friendly group to the society.

**Impact of the engagement and measures of success**

For increasing cooperate value of both TEPCO and corporations affiliated equity-method, we work on environmental consideration measures at supply chains. We also require consolidated subsidiaries that make up the value chain to submit water usage. Through this, we disclose data related to water use by the entire TEPCO Group and clarify consideration for water resources as a supply chain. This disclosure clarifies consideration for the sustainability of water resources as a supply chain and improves ESG evaluation as a company. In addition, we ask consolidated subsidiaries to report water risks and these responses at engagements about environmental management. For example, an affiliated company, TEPCO Town Planning Co. Ltd, have managed and renovated the printing method of electric pole advertisement of their suppliers so that they reduce water consumption from 4,600 liters per a year to 0. In addition, the printing process renovation work not only to reduce the amount of water used, but also to eliminate to use chemicals (organic solvents) and the need to use protective masks. It contribute the surrounding environment protected and employees making it easier to work. Moreover, it has been improved productivity due to process changes also improved earnings . In this way, we feedback the total volume of water consumptions of consolidated subsidiary, and share the importance of considering water resources.

We share good practices that lead to the reduction of water consumption and productivity improvement by TEPCO group company e-mail magazine and promote horizontal expansion among group companies.

**Comment**

**W1.4b**

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

**Type of engagement**

Incentivizing for improved water management and stewardship

**Details of engagement**

Demonstrable progress against water-related targets is incentivized in your supplier relationship management

**% of suppliers by number**

76-100

**% of total procurement spend**

76-100

**Rationale for the coverage of your engagement**

We present procurement basic policy, green procurement guidelines and TEPCO Group sustainable procurement guideline to all suppliers, we request all corporations affiliated equity-method to submit actual results of water consumptions.

We present basic procurement policies, green procurement guidelines and TEPCO Group sustainable procurement guideline to all suppliers, and require all suppliers to consider water resources.

We request that our business partners carefully read and understand the TEPCO Group Sustainable Procurement Guidelines, and share and comply with the spirit of these guidelines throughout their supply chains. In addition, as a proof that the spirit of this guideline has been shared and agreed upon, the "TEPCO Group Sustainable Procurement Guideline Compliance Confirmation" is requested to be signed and submitted.

By submitting this confirmation and disclosing their environmentally friendly efforts, our business partners will have an advantage in doing business with us.

We are also asking consolidated subsidiaries, which are also in the supply chain, for actual water consumption. In addition, we ask consolidated subsidiaries to report water risks and these responses at engagements about environmental management.

**Impact of the engagement and measures of success**

For increasing cooperate value of both TEPCO and corporations affiliated equity-method, we work on environmental consideration measures at supply chains. We feedback the total volume of water consumptions of corporations affiliated equity-method, and share the importance of considering water resources. In the "Basic Procurement Policy", as an environmental consideration, by promoting the priority purchase of materials and equipment with less environmental impact, we will contribute to low carbonization, conserve biodiversity, and use resources and water efficiently. Through this, we clearly state that we will strive to build a sustainable society, confirm our efforts for environmental management systems in our engagement with our business partners, and reduce the risks associated with water resources.

Through this, we can clearly state that we will strive to build a sustainable society, confirm our efforts for environmental management systems in our engagement with our business partners, and reduce the risks associated with water resources. We see these as beneficial achievements.

Evaluations are made using check sheets and evaluation sheets regarding water consumption, etc. provided by the supply chain. As items, we evaluate whether the proper flow rate of the river used is maintained and the status of compliance with environmental standards such as drainage standards. The results of these evaluations determine the success of engagement with the supply chain.

**Comment**

## W2. Business impacts

### W2.1

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

No

### W2.2

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

No

## W3. Procedures

### W-EU3.1

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

Through our environmental management system, we ascertain emissions volumes, consumption volumes, and retention volumes for PCB (polychlorinated biphenyl) waste, toxic substances subject, ozone depleting substances, and asbestos. Substances subject to management are managed appropriately in accordance with applicable laws and we work towards emissions reduction by promoting switching to products not containing applicable substances. Through the environmental management system, we grasp the amount of PCB (polychlorinated biphenyl) waste, target harmful substances, ozone-depleting substances, asbestos emissions, consumption, and retention. Controlled substances are properly controlled in accordance with applicable laws, and we are working to reduce emissions by promoting the switch to products that do not contain applicable substances. If a hydroelectric power plant is damaged by flood damage caused by heavy rain, there is a risk that PCBs in products and waste will flow out into rivers. This is due to the fact that PCBs have chemical stability such as high no flammability and high electrical insulation, so they are used in transformers, capacitors, ballasts, etc., and also in electrical equipment. In order to prevent such outflow, we are promoting the early treatment of PCB waste, including the supply chain, based on the PCB Special Measures Law. In the unlikely event that it becomes apparent, the risk of leakage can be sufficiently reduced by installing a waterproof barrier, etc., and an oil film detection shutoff valve, etc. In addition, we are strictly handling leakage countermeasures and waste disposal appropriately for our power producers in the value chain as well as our company.

### 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
Other, please specify (PCB)	Since PCB has chemically stable properties such as high incombustibility and high electrical insulation, it is used for transformers, capacitors, ballasts, etc., and we use them for the electrical equipment. If a hydroelectric power plant is damaged by flood damage caused by heavy rain, there is a risk that PCBs in products and waste will flow out into rivers. This is due to the fact that PCBs have chemical stability such as high no flammability and high electrical insulation, so they are used in transformers, capacitors, ballasts, etc., and also in electrical equipment.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement Emergency preparedness Management procedure under development	Through our environmental management system, we ascertain emissions volumes, consumption volumes, and retention volumes for PCB (polychlorinated biphenyl) waste, toxic substances subject, ozone depleting substances, and asbestos. Substances subject to management are managed appropriately in accordance with applicable laws and we work towards emissions reduction by promoting switching to products not containing applicable substances. By installing waterproof barrier etc. and installing oil film detection shutoff valves etc., leakage risk is sufficiently reduced. In addition, we are strictly handling leakage countermeasures and waste disposal appropriately for our power producers in the value chain as well as our company. According to ISO14001, the PCB leak response procedure assuming an emergency is tested once a year to confirm that it works in an emergency. And the progress of the procedure and the implementation status of the test are confirmed in the internal environmental audit. According to ISO14001, emergency PCB leak response procedures are tested annually to ensure that they work in an emergency. The success or failure of the above management methods is evaluated by checking the effectiveness, progress, and implementation status of the procedure in an internal environmental audit.

### W3.3

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

Yes, water-related risks are assessed



**(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

International methodologies and standards

Databases

**Tools and methods used**

WRI Aqueduct

WWF Water Risk Filter

Environmental Impact Assessment

Life Cycle Assessment

Regional government databases

Other, please specify (Cabinet Office, Central disaster prevention meeting September 6, 2012, (2) About metropolitan area large-scale flood measures general rules [decision matter])

**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**

TEPCO practices comprehensive risk management. We believe that water risks have to be dealt with in a comprehensive manner as part of a company-wide risk assessment, because water risks could significantly affect our operations. For example, a reduced availability of water could affect the amount of electricity generated at our hydroelectric power plants. Our hydroelectric power plants are located in Tochigi, Gunma, Kanagawa, Yamanashi, Shizuoka, Fukushima, Niigata and Nagano prefectures, central part of Honshu island of Japan and we have confirmed whether we have water stress in these areas. For confirming water stress, WRI Aqueduct is adopted. According to the evaluation by Aqueduct, the "Baseline Water Stress" of the hydroelectric power generation area is evaluated as Medium-high at the maximum, we judge that there is no power plants located in water stressed area and no water intake from the drought area. According to Aqueduct's tool, the change from baseline in water stress in our business areas over the next 20 years is nearly normal. We continually secure the maintenance flow rate prescribed by the Ministry of Land, Infrastructure and Transport at all hydropower plants, so we assume that there will rarely be water competition with the downstream area in the future, too. If drought occurs in the downstream area, we cooperate at supplying water for tap water at the request of local governments. In addition, our nuclear power plants are not located in water stressed areas because of using sea water for cooling. In the current and future prospects we continuously collect information on the fact that power stations are not located in water stressed areas. We have confirmed that water risks are sufficiently low by conducting the same assessment for businesses who operate power generation business in the value chain. The Risk Management Committee, chaired by the president of TEPCO as the chief risk management executive, plays a central role in assessing and evaluating risks (Including water risks) related to direct operations and supply chain that could have a particularly serious impact on business. Its deliberations are reflected in annual management plans, which are approved by board.

**Value chain stage**

Supply chain

**Coverage**

Full

**Risk assessment procedure**

Water risks are assessed as part of other company-wide risk assessment system

**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

International methodologies and standards  
Databases

#### Tools and methods used

WRI Aqueduct  
Environmental Impact Assessment  
Life Cycle Assessment  
Regional government databases

#### 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

TEPCO practices comprehensive risk management. We believe that water risks have to be dealt with in a comprehensive manner as part of a company-wide risk assessment, because water risks could significantly affect our operations. For example, a reduced availability of water could affect the amount of electricity generated at our hydroelectric power plants. Our hydroelectric power plants are located in Tochigi, Gunma, Kanagawa, Yamanashi, Shizuoka, Fukushima, Niigata and Nagano prefectures, central part of Honshu island of Japan and we have confirmed whether we have water stress in these areas. For confirming water stress, WRI Aqueduct is adopted. According to the evaluation by Aqueduct, the "Baseline Water Stress" of the hydroelectric power generation area is evaluated as Medium-high at the maximum, we judge that there is no power plants located in water stressed area and no water intake from the drought area. According to Aqueduct's tool, the change from baseline in water stress in our business areas over the next 20 years is nearly normal. We continually secure the maintenance flow rate prescribed by the Ministry of Land, Infrastructure and Transport at all hydropower plants, so we assume that there will rarely be water competition with the downstream area in the future, too. If drought occurs in the downstream area, we cooperate at supplying water for tap water at the request of local governments. In addition, our nuclear power plants are not located in water stressed areas because of using sea water for cooling. In the current and future prospects we continuously collect information on the fact that power stations are not located in water stressed areas. We have confirmed that water risks are sufficiently low by conducting the same assessment for businesses who operate power generation business in the value chain. The Risk Management Committee, chaired by the president of TEPCO as the chief risk management executive, plays a central role in assessing and evaluating risks(Including water risks) related to direct operations and supply chain that could have a particularly serious impact on business. Its deliberations are reflected in annual management plans, which are approved by board.

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### 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.

Since various factors and stakeholders are related to water risk in our business, we evaluate various factors. Due to the global trend of SDG's, it is predicted that social demands regarding water security will continue to increase, and businesses with insufficient measures against water risk will also increase the risk of business interruption. Since the suspension of business of a business partner poses a great risk to us, we target all business partners.

TEPCO practices comprehensive risk management to prevent accidents or disasters. We believe that water risks have to be dealt with in a comprehensive manner as part of a company-wide risk assessment, because water risks could significantly affect our operations. For example, a reduced availability of water could affect the amount of electricity generated at our hydroelectric power plants. Our hydroelectric power plants are located in Tochigi, Gunma, Kanagawa, Yamanashi, Shizuoka, Fukushima, Niigata and Nagano prefectures, central part of Honshu island of Japan and we have confirmed whether we have water stress in these areas. For confirming water stress, WRI Aqueduct widely used as a water risk assessment method is adopted. According to the evaluation by Aqueduct, the "Baseline Water Stress" of the hydroelectric power generation area is evaluated as Medium-high at the maximum, we judge that there is no power plants located in water stressed area and there is no water intake from the drought area. We secure the maintenance flow rate prescribed by the Ministry of Land, Infrastructure and Transport at all hydropower plants, so there is no water competition with the downstream area. We recognize that this Aqueduct tool tells us higher water stress of our operation areas next 20 years. However, we consider the "Future Water Stress" results of Aqueduct, but we believe that we should assess the water risks by specific river / basin and hydroelectric power plants locations actually. We continually secure the maintenance flow rate prescribed by the Ministry of Land, Infrastructure and Transport at all hydropower plants, so we assume that there will rarely be water competition with the downstream area in the future, too. If drought occurs in the downstream area, we cooperate at supplying water for tap water at the request of local governments. In addition, it is judged that seawater is used for cooling water of nuclear power plants, and they are not located in water stressed areas. In the current and future prospects we continuously collect information on the fact that power stations are not located in water stressed areas. We have confirmed that water related risks are sufficiently low by conducting the same assessment for businesses who operate power generation business in the value chain. The Risk Management Committee, chaired by the president of TEPCO as the chief risk management executive, plays a central role in assessing and evaluating risks related to direct operations and supply chain that could have a particularly serious impact on business. Its deliberations are reflected in annual management plans. And annual management plans are approved by board. Risks associated with water are also assessed and evaluated in this process in consideration of those stemming from economic and climatic conditions, industry deregulation, equipment and operations, and interest rate fluctuation. Risks specific to each risk management unit (head office departments, offices, and power plants) are managed and addressed by each risk manager. Risks common to all risk management units are addressed by internal committees.

## W4. Risks and opportunities

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### W4.1

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#### (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

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

The materiality of key issues is assessed from two perspectives, social impact and financial

impact. The TEPCO Group's most important mission is to fulfill its responsibilities to Fukushima. Therefore, "Fukushima responsibilities" has been identified as having the most

social impact. Management issues that have a large social and financial impact are selected

by the Board of Directors, which audits and supervises them.

Please see 26p in our integrated report 2020-2021. ([https://www.tepco.co.jp/en/wp-content/uploads/TP20-21\\_EN\\_web.pdf](https://www.tepco.co.jp/en/wp-content/uploads/TP20-21_EN_web.pdf))

The business environment surrounding the TEPCO Group is in a difficult situation, and if some important risks are realized, it may have a significant impact on the business. We cite "decommissioning of the Fukushima Daiichi Nuclear Power Station" as the most important risk judged based on the degree of impact on the business and the possibility of occurrence. Among the risks assumed in "Decommissioning of Fukushima Daiichi Nuclear Power Station", water risk is related to ALPS treated water, and the specifics are as follows. ALPS treated water is scheduled to be disposed of based on the basic policy of the Japanese government, but there is a possibility that this cannot be steadily implemented due to delays in preparatory work and lack of understanding from the local community and society. If a series of decommissioning efforts, including the disposal of ALPS treated water, do not proceed smoothly, it may affect the Group's business performance, financial position and business operations.

### W4.1b

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#### (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	1	Less than 1%	The facility exposed serious water risks is only Fukushima Daiichi Nuclear Power Station. TEPCO has 180 power generation plants (as of the end of FY2021), and the proportion of total operations is 0.5%.

### W4.1c

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**(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**

Japan	Other, please specify (Pacific Ocean)
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**Number of facilities exposed to water risk**

1

**% company-wide facilities this represents**

Less than 1%

**Production value for the metals & mining activities associated with these facilities**

<Not Applicable>

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

Less than 1%

**% company's global oil & gas production volume that could be affected by these facilities**

<Not Applicable>

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

21-30

**Comment**

Currently, TEPCO's business is proceeding based on the Nuclear Damage Compensation Facility Fund and the 4th Comprehensive Special Business Plan drafted by TEPCO. The risks in our business appear to be delays, incomplete execution or revision of this plan.

When we determine if there is such a substantive change, we take into account factors such as the gap between the plan and achievement, and the achievability of the plan, which reflects the results of our risk evaluation. There can be no single, pre-determined quantitative threshold with which we can determine if a change is substantive or not. Our determination is rather comprehensive, based on multiple criteria, which include qualitative ones. This definition of 'substantive change' applies to our direct operations and supply chain, but we do not anticipate such a substantive change in our supply chain. Our Revised Comprehensive Special Business Plan deeply concerns our whole business, operations, revenue or expenditure. Decommissioning of the Fukushima Daiichi Nuclear Power Station plays an important role in this plan, and contaminated water management is an important factor. The cost of decommissioning the Fukushima Daiichi Nuclear Power Station is estimated at approximately 8 trillion yen which includes the cost of contaminated water treatment. As for the decommissioning reserve, we plan to allocate approximately 84 billion yen to the contaminated water countermeasure program from FY2021 to FY2023. The solution of contaminated water problems will lead to the success of the abolition project to complete a comprehensive special business plan within a set period.

**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**

Japan	Other, please specify (Pacific Ocean)
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**Type of risk & Primary risk driver**

Chronic physical	Inadequate infrastructure
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**Primary potential impact**

Increased operating costs

**Company-specific description**

In 2021, the amount of contaminated water generated could be suppressed to about 130 m<sup>3</sup> / day due to the results of multi-layered measures against contaminated water. In addition, the treatment of accumulated water in the building (excluding the Unit 1 to 3 reactor building, process main building, and high temperature incinerator building) has been completed.

On the other hand, we recognize that the tanks on the premises of the power plant that store ALPS treated water, etc. have the risk of future natural disasters and leaks. So, we have been continuously monitoring the tanks for leaks and properly maintained and managed in preparation for future natural disasters. It is necessary to continue bearing the operating costs for this.

The capacity of the tank is expected to reach the planned capacity after the fall of 2022, and given the restrictions on the site, we will carefully consider how to effectively utilize the entire site. Regarding ALPS treated water, the government decided in April 2021 "Basic policy on disposal of treated water such as multi-nuclide removal equipment at the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company Holdings, Inc." As the implementing body, TEPCO will ensure compliance with the matters required by this basic policy, and will take the initiative in ensuring safety and thoroughly implementing rumours. In addition, we will work to reflect guidance and advice from experts such as the IAEA and listen to the opinions of related parties, and we are planning to construct the infrastructure, that is, to install ALPS treated water dilution and discharge equipment and related facilities, and to release ALPS treated water to the ocean. Decommissioning of the Fukushima Daiichi Nuclear Power Station plays an important role in this plan, and contaminated water management is an important factor. The cost of decommissioning the Fukushima Daiichi Nuclear Power Station is estimated at approximately 8 trillion yen which includes the cost of contaminated water treatment. As for the decommissioning reserve, we plan to allocate approximately 120 billion yen to the contaminated water countermeasure program from FY2022 to FY2024. The solution of contaminated water problems will lead to the success of the abolition project to complete a comprehensive special business plan within a set period.

**Timeframe**

More than 6 years

**Magnitude of potential impact**

High

**Likelihood**

Virtually certain

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

119772475000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact**

The cost of decommissioning the Fukushima Daiichi Nuclear Power Station is estimated at approximately 8 trillion yen which includes the cost of contaminated water treatment. As for the decommissioning reserve, we plan to allocate approximately 120 billion yen to the contaminated water countermeasure program from FY2022 to FY2024. This cost corresponds to the contaminated water countermeasure cost in the "Plan for Recovery of Reserve Fund for Decommissioning, etc." approved by the Minister of Economy, Trade and Industry in April 2022.

**Primary response to risk**

Improve pollution abatement and control measures

**Description of response**

At the Fukushima Daiichi Nuclear Power Station, some of the groundwater flowing from the mountain-side to the sea is entering into the nuclear reactor building at a rate of about 130 tons/day, converting into newly contaminated water. For this reason, we are implementing various measures to counter the risk of contaminated water flowing into the port of the power station and flowing out from the storage tanks. Specifically, contaminated water are treated as Multiple facilities including a Multi-nuclide Removal Facility (Advanced Liquid Processing System = ALPS),"Groundwater Bypass System" serves to reduce the amount of contaminated water flowing into the reactor building, and This land-side impermeable wall consists of frozen soil using a frozen construction method that can ensure excellent prevention of water seepage in order to block the flow of groundwater, etc. are set up. Based on "Decommissioning Medium- and Long-Term Execution Plan 2022", we will proceed with decommissioning work safely, steadily, systematically and rationally. Regarding measures against contaminated water, we continue to implement multi-layered measures, aiming to further reduce the amount of contaminated water generated, and promote the treatment of contaminated water that accumulates in the building. In addition, we are considering ways to deal with the risk of heavy rainfall disasters in the future. The cost corresponds to the contaminated water countermeasure cost in the "Plan for Recovery of Reserve Fund for Decommissioning, etc." approved by the Minister of Economy, Trade and Industry in April 2022.

ALPS treated water is being studied to allow for appropriate management and discharge. In February 2022, our management of ALPS treated water was reviewed by IAEA. They evaluated the safety of ALPS treated water facilities as "having the appropriate preventative measures in the design and operating procedures of facilities" and described the radiation impact assessment as "comprehensive and detailed analysis, confirming that the impact of radiation on humans as being significantly smaller than the standard set by the Japanese regulatory authority."

Based on the government's instructions, preparations are underway to dilute the ALPS treated water, then carry the water out 1 km off the coast via release tunnel and discharge it. The effects on the marine environment is continuously monitored before and after discharge, and any changes in the marine environment will be investigated.

**Cost of response**

119772475000

**Explanation of cost of response**

The cost of decommissioning the Fukushima Daiichi Nuclear Power Station is estimated at approximately 8 trillion yen which includes the cost of contaminated water treatment. As for the decommissioning reserve, we plan to allocate approximately 120 billion yen to the contaminated water countermeasure program from FY2022 to FY2024. The cost corresponds to the contaminated water countermeasure cost in the "Plan for Recovery of Reserve Fund for Decommissioning, etc." approved by the Minister of Economy, Trade and Industry in April 2022.

**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	TEPCO conducts a comprehensive risk assessment every 6 months. We have also confirmed that the supply chain that operates the hydroelectric power generation business complies with the minimum maintenance water volume stipulated by law, and evaluates that there are no compliance issues. We believe that the risks have been sufficiently reduced, as there have been no operational disruptions that would have a significant impact on the continuity of the hydroelectric power generation business. The main sources of water intake are river water for hydroelectric power generation and municipal water for domestic use. Those who intend to use the running water of a river must obtain the permission of the river manager pursuant to the provisions of the Ordinance of the Ministry of Land, Infrastructure, Transport and Tourism. Regarding the construction and management of water and sewage, the responsibilities of the national government, local governments, and the people are stipulated by the Water Supply Law. In this way, the risk related to water supply is evaluated to be low because it is regulated by law and controlled by the government. In addition, when the "WRI Aqueduct Water Risk Atlas" tool was used to evaluate the baseline regulation and reputation risk of the intake area, and the water supply forecast for 2030, the former was "low" and the latter was "100-300 cm", and this confirms that the risk is low.

**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**

Efficiency

**Primary water-related opportunity**

Cost savings

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

Water usage in all TEPCO offices are measured and monitored every fiscal year in our environmental management system. Very challenging targets (-15%) for the years FY2001-2005 were set against FY2000 benchmark, and resulted in a 39% decrease in FY2005. We pasted posters to pay attention employees for saving water. By introducing this activity as an environmentally friendly activity in the CSR report, not only will it motivate employees, but it will also solve social issues related to water resources and at the same time achieve cost reductions related to water usage. We recognize this as a strategic opportunity to improve corporate value. This initiative is expected to reduce costs by approximately 100 million yen for the entire campaign. From FY2006 onwards, we have been aiming to maintain the reduced level of water usage we achieved in FY2005 since we realized we came to a point where a further reduction of water usage is extremely difficult. As a strategy to achieve on an ongoing basis, we have been monitoring our water usage in our offices every fiscal year. TEPCO has developed the group environmental policy, and for this policy, we reduce environmental burdens, manage risks of environmental pollution and take action for sure. We reduce water consumption following this policy. We monitor water consumption and publish it on our web site. We are able to show our corporate activities that we considerate water resource to the public.

**Estimated timeframe for realization**

Current - up to 1 year

**Magnitude of potential financial impact**

Low

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

60000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact**

The cost impact of water is really low because we could keep same level of water consumption we achieved in FY 2005. Now, we consume approximately 1,000,000t of domestic use of water / year. Since we were able to reduce 15% from then, and this means we reduce about 150,000t of domestic use of water compared to FY2005 at offices. If we assume 1t of domestic use of water as 400 JPY, we could say that we reduce about 60,000,000 JPY per year.

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**Type of opportunity**

Markets

**Primary water-related opportunity**

Stronger competitive advantage

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

Hydroelectric power generation is really important as a role of renewable energy. Customer needs for renewable energy are also growing thanks to the framework such as RE100. So we are going to reinforce the capacity of hydroelectric plants. In Japan, we use subsidies for equipment investment costs under the national FIT system. Kanagawa hydroelectric power plant in Fukushima prefecture started operation in 1919 and has a maximum capacity of 6,500kW. In 2019, at this hydroelectric power plant, the FIT system was used to upgrade to a more efficient generator, increasing the output to 7100kW. The amount of water intake will not change. In other words, it has made it possible to produce more electricity more efficiently. In addition, by promoting the planned repowering of deteriorating hydroelectric power stations, we aim to increase maximum output, improve facility reliability and increase longevity. Overseas, we have started the hydroelectric power business in Vietnam at first in 2018 and Georgia as a second in 2020. We have advantages of our long-established technological capabilities, and we are aiming to expand the overseas projects further.

**Estimated timeframe for realization**

More than 6 years

**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)**

100000000000

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

<Not Applicable>

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

<Not Applicable>

**Explanation of financial impact**

We aim to achieve a profit level of 100 billion yen by FY2030 of our renewable energy business including hydroelectric power generation.

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**W5. Facility-level water accounting**

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**W5.1**

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(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)**

Fukushima Daiichi Nuclear Power Station

**Country/Area & River basin**

Japan	Other, please specify (Pacific Ocean)
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**Latitude**

37.42

**Longitude**

141.03

**Located in area with water stress**

No

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

Not applicable

**Oil & gas sector business division**

<Not Applicable>

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

193

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

Lower

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

75

**Withdrawals from brackish surface water/seawater**

0

**Withdrawals from groundwater - renewable**

118

**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)**

75

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

Lower

**Discharges to fresh surface water**

0

**Discharges to brackish surface water/seawater**

75

**Discharges to groundwater**

0

**Discharges to third party destinations**

0

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

118

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

About the same

**Please explain**

Due to the progress of measures against contaminated water, the amount of contaminated water accumulated in the reactor building and underground of the building decreased, resulting in a slight decrease in groundwater consumption, but compared to the previous year's 129 mega liters, the rate of decline was less than 10%, so it was evaluated as almost the same. This groundwater is properly treated and stored in tanks on site.

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**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water withdrawals – volume by source**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water withdrawals – quality by standard water quality parameters**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water discharges – total volumes**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water discharges – volume by destination**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water discharges – volume by final treatment level**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water discharges – quality by standard water quality parameters**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

**Water consumption – total volume**

**% verified**  
Not verified

**Verification standard used**  
<Not Applicable>

**Please explain**

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**W6. Governance**

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**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.

Row	Scope	Content	Please explain
1	Company-wide	<p>Description of business dependency on water</p> <p>Description of business impact on water</p> <p>Description of water-related performance standards for direct operations</p> <p>Description of water-related standards for procurement</p> <p>Reference to international standards and widely-recognized water initiatives</p> <p>Company water targets and goals</p> <p>Commitment to align with public policy initiatives, such as the SDGs</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to water-related innovation</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>●Commitment to stakeholder-... ●Description of water-related standards-...                      TEPCO Group Environmental Policy includes consideration for water resources. This is because in our business domain, including the hydroelectric power generation business, it is essential to pay close attention to trends related to water stress and collaborate with stakeholders.</p> <p>●Description of business-... ●Description of water-related performance-...                      In direct operation, the amount of power generated by hydroelectric power generation is 12,883GWh, which is about 98% of the total, and in terms of power procurement, hydroelectric power generation companies are included in the supply chain.</p> <p>●Reference to-... ●Commitment to align-... ●Commitment to water stewardship-...                      We are participating in a water project led by the Ministry of the Environment, and are promoting efforts such as effective use of water resources in business activities and water-saving drainage. Especially in Oze, with contributing SDG No.15, we aim to protect and recover water related ecosystem and acquire FSC certification continually.</p> <p>●Description of business impact-...                      The water used in the hydropower generation is properly treated and its quality confirmed, but it may affect the water environment during drainage. In addition, contaminated water was generated inside the reactor building due to the Fukushima Daiichi Nuclear Power Station accident.</p> <p>●Company water-...                      The goal for contaminated water management at Fukushima Daiichi Nuclear Power Station is to reduce the amount of contaminated water generated to around 100m3/day by 2025 and to reduce the stagnant water in the reactor building to about half of the end of FY2020 levels by around FY2022 to FY2024.</p> <p>●Commitments beyond regulatory-...                      By the agreement with the local government where the power plants are located, water discharges are conducted with each standards that are stricter than legal regulations.</p> <p>●Commitment to water-related-...                      R&amp;D is being carried out to properly implement decommissioning measures, including measures against contaminated water at the Fukushima Daiichi Nuclear Power Station.</p> <p>●Acknowledgement of the human-... ●Commitment to safely-...                      Respect for the human rights of employees is being promoted by ensuring the safety of drinking water and developing toilets that take diversity into consideration.</p> <p>●Recognition of environmental-...                      Water risks caused by floods are managed in the business execution as natural disaster risks due to climate change.</p>

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
President	<p>President and Representative Executive Officer, who is responsible for installing water pollution control facility, as a member of the Board of Directors, monitors the execution status and is responsible. President is also the head of the Risk Management Committee and ESG Committee. The Risk Management Committee grasps and evaluates the risk that has a significant impact on management such as the decommissioning of Fukushima Daiichi Nuclear Power, and reflects the business plan for each year.</p> <p>The Risk Management Committee, chaired by the president, identifies and evaluates various risks.</p> <p>The actual situation of the president's decision-making regarding measures against Fukushima Daiichi Nuclear Contaminated Water is as follows; the president manages the Fukushima Daiichi Nuclear Decommissioning Company, an organization under the direct control of the president, and applied to the Nuclear Regulatory Commission for the "Application for Change of Implementation Plan for Specified Nuclear Facilities of Fukushima Daiichi Nuclear Power Station" regarding the basic design of ALPS treated water dilution and discharge equipment and related facilities on December 21, 2021.</p> <p>The Board of Directors also monitors the execution status of the Decommissioning Project of the Fukushima Daiichi Nuclear Power Plant, including contaminated water treatment, as reported by executive officers (Chief Decommissioning Officer: CDO).</p>

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 responsibility strategy Reviewing innovation/R&D priorities Setting performance objectives	We have formulated action plans for business execution (business plan) including risk management issues and select responsible officers (executive officers). In addition, we report to the Board of Directors on the status of business execution quarterly, and are supervised strategies, action plans (actions) and performance targets, including revisions as necessary. CDO (Chief Decommissioning Officer) was appointed as the chief executive officer of the decommissioning project of Fukushima Daiichi Nuclear Power Plant including contaminated water countermeasures. And the action plan for contaminated water measures was formulated and enforced at the "Management Committee of the Decommissioning Company" where CDO is in charge. Execution status is reported to the Board of Directors at least every quarter, and supervised.

**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	Primary reason for no board-level competence on water-related issues	Explain why your organization does not have at least one board member with competence on water-related issues and any plans to address board-level competence in the future
Row 1	Yes	Work history and experience of individual directors	<Not Applicable>	<Not Applicable>

**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)**

President

**Responsibility**

Assessing future trends in water demand  
 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**

The president has been appointed Chief of the Special Task Force on Nuclear Reform, responsible for the decommissioning project of the Fukushima Daiichi Nuclear Power Station, including measures against contaminated water. Measures for contaminated water and treated water have been taken based on the "TEPCO Fukushima Daiichi Nuclear Power Station Decommissioning Medium- to Long-Term Roadmap", and the progress is one of the important management issues. As a result, it is reported and supervised by the Board of Directors quarterly.

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

Risk committee

**Responsibility**

Assessing future trends in water demand  
 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**

Reports to the Risk Committee are made whenever important matters arise.

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

Sustainability committee

**Responsibility**

Assessing future trends in water demand  
 Assessing water-related risks and opportunities  
 Managing water-related risks and opportunities

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

Half-yearly

**Please explain**

The Sustainability Committee meets twice a year and reports on the status of water risks each time.

W6.4

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

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

W6.4a

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

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Board/Executive board Director on board Chief Sustainability Officer (CSO) Other C-suite Officer (Chief Decommissioning Officer) Other, please specify (All employees)	Reduction of water withdrawals Reduction in consumption volumes Improvements in waste water quality - direct operations Implementation of water-related community project	TEPCO Renewable Power promote the main power source of renewable energy, and aims to achieve a net profit of about 100 billion yen annually by 2030 and to increase the amount of domestic hydropower generated by 100 million kWh/year or more in 2023 compared to the actual results in 2018. These achievements will be used in the evaluation of the company's president, who also serves as a director of TEPCO Holdings, and will be an incentive. In determining the productivity-linked remuneration, based on the policy for the determination of the contents of remuneration, etc. for each Director and Executive Officer, which was set forth by the Compensation Committee, aiming to achieve the targets of the 4th Comprehensive Special Business Plan, to ensure that Executive Officer are willing and responsible and the results of these efforts are appropriately reflected, results of the Company and individual performance (cost reduction indicators and other KPIs for each division in charge, including indicators of water risks) in the management plan are set out as indicators in the productivity-linked remuneration. The executive officer responsible for ESG is responsible for water-related issues to obtain the highest ESG rating among Japanese electric power companies, and the result of this challenge is reflected in personal rewards. In addition, we have established an award and bounty system for all employees who have obtained national qualifications for water pollution control.
Non-monetary reward	Board/Executive board Director on board Other C-suite Officer (Chief Decommissioning Officer)	Reduction of water withdrawals Reduction in consumption volumes Implementation of water-related community project	"Mid-and-Long-Term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station" which has been decided by the governmental organization, the Inter-Ministerial Council for Contaminated Water and Decommissioning Issues, tells TEPCO has a responsibility to conclude the accident of the Fukushima Daiichi Nuclear Power Station. The goal for the end of decommissioning project is after 30-40 years when fuel debris removal starts, each year the implementation status is reviewed. It will be disincentives for Chief Decommissioning Officer (CDO) if the schedule of decommissioning project completion delays. The targets of individual performance of Executive Officers were largely achieved according to the evaluation performed based on indicators and KPIs set for each Executive Officer. The amount of groundwater decreased due to the progress of measures such as permafrost walls to control the inflow to the reactor building of the Fukushima Daiichi Nuclear Power Station. This also contributes to reducing the amount of water contaminated with radioactive substances. This amount has decreased from about 470m3/day (FY2014 average) to about 130m3 / day (2021), and we plan to reduce it to about 100m3 / day by 2025.

**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

**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?**

In regulatory review concerning thermal power plants and nuclear power plants installed in coastal areas in Japan, engagement is being implemented for administrative organizations. As the review of wastewater regulation by national government and local governments may have financial influences such as facility operation and additional equipment installation, we evaluate the necessity of additional conservation measures, and the contents of engagement are group environmental policy and business plan. We confirm to the partner in charge of correspondence whether it is consistent with that. If they do not agree, they are seeking policy change through industry groups such as Federation of Electric Power Companies of Japan (FEPC), and so on.

**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)

[https://www.tepco.co.jp/about/ir/library/securities\\_report/pdf/202206-j.pdf](https://www.tepco.co.jp/about/ir/library/securities_report/pdf/202206-j.pdf) The securities report for FY2021 is attached.

**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	In order to conclude the accident of the Fukushima Daiichi Nuclear Power Station happened in March of 2011, the governmental organization, the Inter-Ministerial Council for Contaminated Water and Decommissioning Issues has decided on a "Mid-and-Long-Term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station". For the settlement of the accident, we have so far a comprehensive special business plan (certified on May 9, 2012), a second comprehensive special business plan (certified on January 15, 2014), and a third comprehensive special business plan (certified on May 18, 2017) has been formulated. And in July 2021, the 4th Comprehensive Special Business Plan was formulated and certified. In these comprehensive special business plans, it shows about the business strategy for the settlement of the accident. Especially for decommissioning, In March 2022, we announced the Mid-and-Long-Term Decommissioning Action Plan 2022 to show the main work process of the entire decommissioning to achieve the goals set forth in a Mid-and-Long-Term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station and the NRA risk map. The Mid-and-Long-Term Decommissioning Action Plan 2022 describes specific plans for countermeasures against contaminated water and treated water. It consists of a short-term plan for the last three years and a medium- to long-term plan from 2025 to the end of 2033.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	11-15	In order to conclude the accident of the Fukushima Daiichi Nuclear Power Station happened in March of 2011, we had so far formulated three comprehensive special business plans(certified on May 9, 2012, January 15, 2014, and May 18, 2017) . And in July 2021, the 4th Comprehensive Special Business Plan was formulated and certified. In these plans, it shows about the business strategy for the settlement of the accident. Especially for decommissioning, In March 2022, we announced the Mid-and-Long-Term Decommissioning Action Plan 2022 to show the main work process of the entire decommissioning to achieve the goals set forth in a Mid-and-Long-Term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station, which decided on by the governmental organization, and the NRA risk map. This Action Plan 2022 describes specific plans for countermeasures against contaminated water and treated water. It consists of a short-term plan for the next three years and a medium- to long-term plan from 2025 to the end of 2033. Within the company, contaminated water management is reported by a board of directors and developed strategies. For achieving long-term decommissioning objectives, Nuclear Damage Compensation and Decommissioning Facilitation Corporation reviews technical development by "Technical Strategic Plan for Decommissioning of the Fukushima Daiichi Nuclear Power Station of Tokyo Electric Power Company Holdings, Inc "
Financial planning	Yes, water-related issues are integrated	11-15	The Fourth Comprehensive Special Business Plan, which was certified in July 2021, states a large amount of funds is necessary for compensation, decommissioning (including contaminated water countermeasures and ALPS treatment countermeasures) and future improvement of corporate value while realizing a stable supply of electricity. So it states that we will establish a profit base that can generate a large amount of funds for a long period of time. In order to contribute to medium- to long-term profit expansion and corporate value improvement, we will make strategic investments of up to 1 trillion yen in the 10 years from 2021 to 2030 and aim to generate additional 150 billion yen in ordinary income after 2030. In addition, in the 10-year plan from 2021 to 2030, it is estimated that 450 billion yen will be spent on stabilization measures for the Fukushima Daiichi Nuclear Power Station, including the management and treatment of radioactively contaminated water.

**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)**

-55

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

-10

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

-6

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

0

**Please explain**

The CAPEX is calculated from the amount recorded for the contaminated water countermeasures, out of the planned amount for the recovery of the decommissioning fund of the Decommissioning Fund of the Nuclear Damage Compensation and Decommissioning Support Organization Act. In 2021, we were able to reduce the amount of contaminated water generated to about 130 m3 per day, and we will continue to implement further measures in the future.

The CAPEX in FY2022 is expected to decrease by 10% in FY2021. The OPEX is calculated from the amount recorded at the end of 2021 as the cost of stabilizing and maintaining contaminated water countermeasures at the Fukushima Daiichi Nuclear Power Station, which occurs regularly every year. The cost in FY2021 was almost the same scale as in FY2020, and the OPEX in FY2022 is expected to be the same scale as FY2021.

**W7.3**

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

	Use of scenario analysis	Comment
Row 1	Yes	According to the scenario analysis method in the TCFD recommendations, we have identified multiple climate scenarios including the 1.5 ° C scenario and analysed the resilience of the TEPCO Group's business strategy. Based on the impact of climate change on "water resources" in the scenario analysis conducted in 2021, opportunities and risks related to it are identified and quantitative assessments are disclosed. The contents of the scenario analysis are reported to the ESG Committee, which is made up of officers such as the representative executive officer and president who is also a director and the president of the core operating company. The summary of results of scenario analysis, opportunities and risks was published in the 2021 Integrated Report. In addition, in order to identify water risks, we used the "WRI Aqueduct Water Risk Atlas" tool to verify water stress in the areas where TEPCO Group's facilities are located.

**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	In order to identify water risks, we verified the water stress in the area where the TEPCO group's facilities are located using the 2030 and 2040 forecasts of future water stress of the "WRI Aqueduct Water Risk Atlas" tool.	As a business opportunity related to the transition to climate change, it has been identified that customer needs for renewable energy including hydropower generation will continue to expand as demand-side electrification expands to realize decarbonized society in line with the Paris Agreement. We have set a target of halving CO2 from electricity sold in 2030 and a target of carbon neutral in 2050. To achieve this, hydroelectric power generation, which is the main power source of our renewable energy, is important as clean energy that does not emit CO2.	While referring to the results of scenario analysis, we will carry out risk assessment based on the actual water usage conditions at specific rivers and basins, as well as at locations such as power plants, and continue to strive for risk management. In the future, we will consider long-term strategies for the impact of physical risks such as floods due to climate change on the TEPCO group's facilities. In April 2020, the renewable energy business was spun off and "TEPCO Renewable Power Co., Ltd.(RP)" was established. By splitting the company, we will specialize in renewable energy power sources with the aim of raising awareness of renewable energy in the Toden Group, collaborate with domestic and overseas partners, and take responsibility for swift decision-making for large-scale investment. Aim to grow the renewable energy business by clarifying authority and making financing flexible. In addition, aiming to position renewable energy as one of the independent "main power sources" that does not depend on the system, we will contribute to the realization of a sustainable society by supplying stable and inexpensive electricity at home and abroad. Regarding financial and strategic definitions, RP will promote development quickly and steadily under the clarification of responsibilities and authority, and will sustainably expand the scale of business and profits. Through these efforts, we aim for a net profit of approximately 30 billion yen in 2023 and 100 billion yen annually by 2030.

**W7.4**

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

**Row 1**

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

No, but we are currently exploring water valuation practices

**Please explain**

At present, we have not introduced water pricing because our hydro and thermal power plants are not uniformly located in the water stress area. However, we are examining the future risks of climate change physical risks and WRI Aqueduct's water risks, and considering what kind of water pricing mechanism is effective in accordance with the results. At the time of new and expansion of power plants in and outside Japan, we would like to conduct environmental impact assessment appropriately and implement water pricing in advance if water stress is not uniform.

**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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	Yes	The definitions for classifying our hydroelectric power generation as having a small impact on water resources are that it is low water consumption among similar hydropower systems and can actually be suppressed under the rule of controlling water intake and maintaining drainage quality, and that it does not affect the water quality and quantity in the downstream area, which is the drainage destination.	<Not Applicable>	The intake and drainage of our hydroelectric power plant are the same amount and there is no consumption. We have introduced pumped storage power generation that reuses water. In addition, we are promoting systematic repowering of aging hydroelectric power plants to increase maximum output, improve equipment reliability, and extend the service life, enabling efficient operation. The amount of water intake is controlled to secure the maintenance flow rate by permission of the Ministry of Land, Infrastructure, Transport and Tourism to use river water. From above, we think the amount of water intake can be suppressed. If a drought occurs in the downstream area, we will cooperate in supplying tap water at the request of the local government. When river flooding is expected due to heavy rain, it will be discharged in advance from the dam based on the hydraulic control agreement with the national government.

**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 Brand/product specific targets and/or goals Basin specific targets and/or goals	Targets are monitored at the corporate level Goals are monitored at the corporate level	At nuclear power plants facing sea areas, the COD wastewater standards stipulated in the Water Pollution Control Law are applied when discharging wastewater into the sea area. In this case, the COD concentration and total amount of discharged water (concentration multiplied by the amount of wastewater) are subject to regulation, so the goal is to measure the concentration and amount of wastewater and clear the standard. In this way, we monitor the amount, COD and etc. of discharging water constantly whether it is complied with the effluent standard by law. In addition, we voluntarily set a goal that we discharge water to the public area with reducing environmental burdens as possible as we can. And we reduce water consumption by collecting, purifying and recycling water for boilers. This procedure also contribute to reduce in costs. On the other hand, in hydroelectric plants, we constantly monitor discharging water not to outflow of oil to lower stream to clear the wastewater standards of the Water Pollution Control Law. We recognize water risks are really small by checking WRI Aqueduct evaluation for both nuclear power plants and hydroelectric plants' locations. In the office, employees continue to save water for the purpose of effective utilization for the purpose of reducing water charges and risks related to the sustainability of water resources, and due to continuous improvement, it is lower than the previous year's results. We have set such reduction targets. us quo. This goal also contributes to reduce in costs. In contaminated water management in Fukushima Daiichi Nuclear Power Station, we proceed the road map as mentioned "Comprehensive Special Business Plan" which has decided by Nuclear Damage Compensation and Decommissioning Facilitation Corporation and TEPCO. This business plan has authorized by the competent ministers of Office for Nuclear Damage Compensation Facilitation Corporation in Cabinet Office and Agency for Natural Resources and Energy in the Ministry of Economy, Trade and Industry. It is really important for TEPCO not only to continue business but also to manage risks.

**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**

Monitoring of water use

**Level**

Company-wide

**Primary motivation**

Reduced environmental impact

**Description of target**

Under the medium-term goal from FY 2001 to FY 2005, each TEPCO employee has worked on energy and resource saving in offices. The extremely difficult reduction target (-15%) of office water use was set based on approximately 2.2 million tons in FY 2000 results. In FY 2005, we reduced water use to 1.34 million tons and achieved a 39% reduction. We introduce this activity as an environmentally conscious activity in our integrated report and show that we contribute to the development of a sustainable society. This water saving effort has been continued since FY 2006, and the amount of water used in FY 2020 was 0.828 million tons and 0.719 million tons in FY2021. So that we have continually achieved the water consumption target.

**Quantitative metric**

% sites monitoring water withdrawals total volumes

**Baseline year**

2005

**Start year**

2006

**Target year**

2022

**% of target achieved**

100

**Please explain**

Water usage in all TEPCO offices are measured and monitored every fiscal year in our environmental management system. Very challenging targets were set against FY2000 benchmark, and resulted in a 39% decrease in FY2005. This initiative was a campaign in which all TEPCO employee is engaged to reduce water usage as well as energy and other resources usage in offices, and the cost reduction of this whole campaign is estimated at about a hundred million JPY. As a strategy to achieve on an ongoing basis, we have been monitoring our water usage in our offices and all facilities every fiscal year. Recently, we are gradually replacing water-saving toilets. We continue to monitor water consumption and publish it on our integrated report and web site. We are able to show our consideration for water resource to the public.

**W8.1b**

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

**Goal**

Other, please specify (Contaminated water management)

**Level**

Site/facility

**Motivation**

Risk mitigation

**Description of goal**

In TEPCO's business, hydroelectric plants have small water risks, because they are located in smaller water risk areas. On the other hand, proceeding decommissioning project for Fukushima Daiichi Nuclear Power Stations as the road map mentioned "Comprehensive Special Business Plan" which has decided by Nuclear Damage Compensation and Decommissioning Facilitation Corporation and TEPCO, is really important for us to continue our business, and we have a responsibility to revitalize Fukushima. Especially for contaminated water management, "The Mid-and-long-term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station" set a goal to reduce the daily amount of polluted water generated at the Fukushima Daiichi Nuclear Power Station to 100 m3 within 2025. TEPCO has formulated an action plan to reduce the amount of contaminated water and reduce the risk from contaminated water in order to achieve the targets of this roadmap. Due to multi-layered measures such as installation of land-side impermeable walls and sub-drains, the amount of polluted water generated was reduced from 540 m3/day (May 2014) to 130 m3/day (FY2021). Also we have the target for reducing the stagnant water in the reactor building to about half of the end of FY2020 levels by around FY2022 to FY2024. In addition, preparations for installing a new discharge tunnel and starting the release of diluted ALPS treated water into the ocean are underway.

**Baseline year**

2011

**Start year**

2016

**End year**

2025

**Progress**

We have achieved the schedule goal mentioned "Mid-and-Long-Term Roadmap towards the Decommissioning of TEPCO's Fukushima Daiichi Nuclear Power Station". Specifically, completion of the contaminated water treatment (RO concentrated salt water) in May 2015 by fully utilizing the polynuclear species removal equipment and the high performance polynuclear removal equipment. Regarding "REDIRECT" measures, we proceed pump-up of groundwater from the well near the facilities (operating from September 2015), and installed the Land-side Impermeable Wall (starting freezing in March 2016), etc. As for "RETAIN" countermeasures, installation of Sea-side impermeable wall (closing in October 2015), etc. are carried out in FY2015. For contaminated water management, we have been making progress and have achieved reduction of stagnant contaminated water in buildings from 540 m3/day (May 2014) to 130 m3/day (FY2021). We aim to reduce contaminated water generation as 100 m3 / day within 2025.

Regarding the reduction of stagnant water in the reactor building, we have completed the treatment of contaminated water that stays inside some buildings in FY2020.

In preparation to discharge the treated water from the discharge tunnel into the sea, we submitted Application Documents for Approval to Amend the Implementation Plan for Fukushima Daiichi Nuclear Power Station Specified Nuclear Facility to NRA in December 2021 following the "Basic Policy" by the Japanese government in April 2021.

**W9. Verification**

**W9.1**

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

No, we are waiting for more mature verification standards and/or processes

**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.**

**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	The President and Representative Executive Officer, who is a member of the Board of Directors and a chairman of the ESG Committee.	President

**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

#### Please confirm below

I have read and accept the applicable Terms