

CDP Water Security 2023 Questionnaire

W0. Introduction

W0.1

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

Company Name: Tohoku Electric Power Co., Inc.

Established: May 1, 1951

Capital: 251.4 billion yen

Total Assets (as of March 31, 2022): 3,928.9 billion yen (consolidated: 4,725.6 billion yen)

Operating revenue (FY2021): 1,566.2 billion yen (consolidated: 2,104.4 billion yen)

Ordinary income (FY2021): -86.8 billion yen (consolidated: -49.2 billion yen)

Representatives (as of July 31, 2022)

- Representative Director & Chairman of the Board: Jiro Masuko

- Representative Director & President: Kojiro Higuchi

Number of shareholders (as of March 31, 2022): 189,131

Supply area: Prefectures of Aomori, Iwate, Akita, Miyagi, Yamagata, Fukushima, Niigata and others.

Number of employees (as of March 31, 2022): 4,927 (consolidated: 24,833)

Electricity sales (FY2021): Lighting (Residential) 20,990 GWh, Power: 46,356 GWh, Total: 67,346 GWh

W-EU0.1a

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

Electricity generation

Transmission

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 | 3,750 | 22.5 | 27,008 |
| Lignite | 0 | 0 | 0 |

| | | | |
|---|----------|------|--------|
| Oil | 600 | 3.6 | 1,504 |
| Gas | 6,899 | 41.3 | 23,313 |
| Biomass | 50 | 0.3 | 66 |
| Waste (non-biomass) | 0 | 0 | 0 |
| Nuclear | 2,750 | 16.5 | 0 |
| Fossil-fuel plants fitted with carbon capture and storage | 0 | 0 | 0 |
| Geothermal | 188.8 | 1.1 | 687 |
| Hydropower | 2,450 | 14.7 | 8,028 |
| Wind | 0 | 0 | 0 |
| Solar | 4.5 | 0 | 6 |
| Marine | 0 | 0 | 0 |
| Other renewable | 0 | 0 | 0 |
| Other non-renewable | 0 | 0 | 0 |
| Total | 16,692.3 | 100 | 60,612 |

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 | 01/04/2021 | 31/03/2022 |

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.

Other, please specify

The scope of reporting includes Tohoku Electric Power Co., Inc. and its major subsidiary Tohoku Electric Power Network Co., Inc.

W0.6

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

No

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 | JP3605400005 |

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 | Not very important | <p>(1) Direct use</p> <p>At our hydroelectric power stations, which account for about 15% of our power generating capacity, we use fresh water sourced from rivers to power water turbines by withdrawing reservoir water via pipes and other facilities from our dams built on rivers or from dams and other facilities managed by local governments.</p> <p>The fresh water from nearby rivers or water supplied by waterworks services (sourced mainly from rivers) is used as industrial plant water to operate steam turbines at nuclear and thermal power stations.</p> <p>Since any interruption of this supply can affect the volume of power generated by hydroelectric power, thermal power, or nuclear power facilities, we believe direct use of fresh water is important.</p> <p>For hydroelectric power generation in particular, since we operate the largest number of hydroelectric power stations in Japan on an individual company basis (205 stations) and</p> |

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| | | | <p>expect to make the most of hydroelectric power as a renewable energy source into the future, any decrease in the available volume of water may significantly impact our ability to generate clean energy, as well as our earnings.</p> <p>Since we expect no major changes in the power generation process in the future and will continue to use fresh water for power generation at nuclear power stations, thermal power stations, and hydroelectric power stations, our assessment of its importance will remain unchanged.</p> <p>(2) Indirect use Major suppliers in our power generation business supply coal, natural gas, petroleum, and other fossil fuels. High quality fresh water is less important for the extraction and processing of fossil fuels. To ensure a stable supply of energy, we strive to diversify and distribute our fuel procurement sources; indirect use of fresh water is of limited importance. We anticipate no future changes in its importance because we expect no major changes in power generation processes or in our relationships with suppliers.</p> |
| Sufficient amounts of recycled, brackish and/or produced water available for use | Not important at all | Not very important | <p>(1) Direct use We do not use recycled water, brackish water, or produced water. The availability of recycled, brackish, and/or produced water is unimportant.</p> <p>(2) Indirect use Major suppliers in our power generation business supply coal, natural gas, petroleum, and other fossil fuels. While water other than fresh water, such as sea water and recycled water, is used in the processing of fossil fuels—mainly for cooling and similar purposes—we strive to diversify and distribute our fuel procurement sources to ensure a stable energy supply. For this reason, the indirect use of water other than fresh water is of limited importance. We anticipate no future changes in its importance because we expect no major changes in power generation processes or in our relationships with suppliers.</p> |

W1.2

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

| | % of sites/ facilities/ operations | Frequency of measurement | Method of measurement | Please explain |
|---------------------------------------|---|-------------------------------------|---|---|
| Water withdrawals - total volume | 100% | Yearly | We check total water intake by water source. | As part of our environmental management efforts, we check total water intake of all power stations and other sites annually. |
| Water withdrawals - volumes by source | 100% | Continuously | (2) Freshwater (river water): We measure and monitor freshwater use at hydroelectric power stations by constantly monitoring water levels in reservoirs and canals along with power generation output and by converting these measurements to water flows. At nuclear and thermal power stations, water volumes are monitored using integrated flow meters. | <p>As part of environmental management efforts, we measure and monitor water intake at all power stations and other sites annually. In our businesses, we use (1) freshwater (water purchased from third parties), (2) freshwater (river water), and (3) sea water (cooling water). We monitor various data, including water levels and flows, as part of facility management efforts, and communicate this information to national and local governments and to the public. The scope encompasses all power stations and other sites. We have elected to provide information on measurement frequencies and methods for (2) freshwater (river water), which accounts for a significant volume of water intake.</p> <p>(1) Freshwater (water purchased from third parties) and (3) sea water (cooling water) are monitored as follows: (1) Freshwater (water purchased from third parties)</p> |

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| | | | | <p>Measurement frequency: Monthly</p> <p>Measurement method: Water purchased (intake) is measured and monitored using bills from local governments.</p> <p>(3) Sea water (cooling water)</p> <p>Checked by conversion from sea water pump rated flow and power plant usage rate (daily).</p> |
| Water withdrawals quality | 100% | Daily | <p>(1) Freshwater (river water): We constantly monitor the turbidity of water used at hydroelectric power stations and conduct water quality surveying about once a month for items as specified in water use regulations, etc.</p> | <p>The scope encompasses all power stations and other sites.</p> <p>Regarding measurement frequencies and methods, we provide water use at hydroelectric power stations under (1) freshwater (river water).</p> <p>In the catchments of (pumping-up) hydroelectric power stations, operations are based on constant measurements of turbidity obtained with turbidimeters. We strive to preserve water quality through monthly water quality surveys of the parameters stipulated as subject to frequent measurement based on water use regulations and other rules and regulations.</p> <p>Other (1) freshwater (river water) used as industrial water and (2) sea water (cooling water) are monitored as follows:</p> <p>(1) Freshwater (river water)</p> <p>Measurement frequency: Daily</p> |

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| | | | | <p>Measurement method: Water used as industrial water by thermal power stations and other facilities is monitored daily based on the results of measurement by local governments (turbidity, pH, temperature, hardness, etc.).</p> <p>Description: Industrial water from fresh river water or water supplied by waterworks services (sourced mainly from rivers) is used as plant water for power generation or other purposes. We check its water quality (pH, turbidity, hardness components, etc.) for this purpose, using sources such as instrument readings and results of analysis published by local governments.</p> <p>(2) Sea water (cooling water)</p> <p>Measurement frequency: Constant</p> <p>Measurement method: Intake and discharge sea water temperature is constantly measured and monitored using thermometers.</p> <p>Description: At nuclear and thermal power stations, based on arrangements with local governments, we constantly monitor seawater temperature at water intake and discharge points using thermometers.</p> |
| Water discharges - total volume | 100% | Yearly | This is monitored by totaling water discharge | As part of our environmental management efforts, we calculate total water |

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| | | | by discharge destination. | discharge at all power stations and other sites, as our total water discharge. |
| Water discharges - volumes by destination | 100% | Continuously | (1) Fresh groundwater (river water): Water intake at hydroelectric power stations is measured based on the assumption that water discharge is identical. | <p>As part of our environmental management efforts, we measure and monitor water discharge at all power stations and other sites. In our businesses, we release water through (1) fresh groundwater (river water), (2) sea water, and (3) third-party discharge. We check and ascertain data such as water levels, flows, and purchased volumes as part of facility management, and for notification to national and local governments and disclosure purposes.</p> <p>Under measurement frequency and methods, we describe typical information for (1) fresh groundwater (river water), which accounts for the largest volume of water discharge. (2) Sea water and (3) third-party discharge are outlined below:</p> <p>(2) Sea water This refers to water discharged after plant processing and cooling water at nuclear and thermal power stations. Each is measured as described below:</p> <p>(i) Plant processing water Measurement frequency: Constant Measurement method: Measured using flow meters and discharge tank water level gauges</p> |

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| | | | | <p>(ii) Cooling water Measurement frequency: Annual Measurement method: Water discharge is monitored using water intake, since this water is released without any consumption.</p> <p>(3) Third-party discharge This mainly refers to tap water used at and discharged from business sites. Measurement frequency: Monthly Measurement method: Monitored based on the assumption that it is identical to water volume purchased from the waterworks system</p> |
| Water discharges - volumes by treatment method | 100% | Continuously | For river water used by hydroelectric power stations, which is released without any consumption, intake and outtake are identical. These values are measured constantly (hourly). | <p>Water discharge is processed differently by water use method. We employ tertiary treatment or no processing. Regarding measurement frequencies and methods, for unprocessed discharge, we provide river water discharge at hydroelectric power stations that release significant volumes of water, as typical examples. These use water only as potential energy to rotate turbines, returning it to the river unprocessed. Other processing methods include no processing (sea water) and tertiary treatment. Details are provided below:</p> |

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| | | | | <p>Unprocessed discharge (sea water)</p> <p>This refers to sea water used as cooling water at nuclear and thermal power stations. It is used to cool turbine steam and is released unprocessed to the sea after thermal exchange, with no consumption.</p> <p>Measurement frequency: Annual</p> <p>Measurement method: Water discharge is monitored using water intake, since this water is released without any consumption.</p> <p>Tertiary-treated discharge</p> <p>Plant water used at nuclear and thermal power stations is released after processing based on the Water Pollution Prevention Act and agreements with local governments.</p> <p>Measurement frequency: Constant</p> <p>Measurement method: Measured using flow meters and discharge tank water level gauges.</p> <p>Tap water used at each site is released into the public sewer system.</p> |
| <p>Water discharge quality - by standard effluent parameters</p> | <p>100%</p> | <p>Continuously</p> | <p>These are measured and monitored as described below, based on laws, regulations, agreements with local governments, and other provisions.</p> <p>Constant monitoring is conducted using</p> | <p>The scope encompasses nuclear and thermal power stations, which use heat and potential energy only and use water for purposes other than tap water.</p> <p>(1) Nuclear power stations</p> <p>We measure substances that are potentially harmful to water ecosystems or</p> |

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| | | | <p>instruments that satisfy national standards.</p> | <p>human health using analytical and other equipment based on manuals conforming to the Water Pollution Prevention Act, the Reactor Regulation Act, and agreements with local governments. This is conducted using the methods and frequencies specified for each measurement item. Management efforts seek to ensure that base levels are not exceeded, and we report the results of measurement to local governments.</p> <p>(2) Thermal power stations We measure substances that are potentially harmful to water ecosystems or human health using analytical and other equipment based on manuals conforming to the Water Pollution Prevention Act and agreements with local governments on a monthly basis. Management efforts seek to ensure that base levels are not exceeded, and we report the results of measurement to local governments. We have entered constant monitoring by permanently deployed instruments as a typical example of monitoring frequencies and methods. We also undertake measurements through manual analysis periodically, based on in-house standards and</p> |
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| | | | | <p>manuals conforming to Japanese regulations and standards.</p> <p>Some examples of subjects of monitoring are provided below:</p> <p>pH, oil film (constant), ss, n-hexane (once a month), COD (once a year)</p> |
| Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances) | 100% | Yearly | <p>Under the Act on the Assessment Releases of Specified Chemical Substances in the Environment, we ascertain volumes released into water using the calculation methods specified by the Japanese government and related agencies.</p> <p>At nuclear and thermal power stations, we measure harmful substances as prescribed by laws and regulations at least once a year, mainly through manual analysis.</p> <p>This manual analysis is conducted based on in-house standards and manuals conforming to Japanese regulations and standards.</p> | <p>For all our power stations and other sites, we disclose information on harmful substances and other substances identified under the Act on the Assessment Releases of Specified Chemical Substances in the Environment as part of our environmental management, and individual sites report any excesses over regular levels to their local governments.</p> <p>We employ results of measurement of harmful substances at our nuclear and thermal power stations in management efforts to ensure that base levels are not exceeded, and we report the results of measurement to local governments and attain community understanding.</p> |
| Water discharge quality – temperature | 100% | Continuously | <p>Nuclear and thermal power stations measure and monitor the temperature of seawater discharge constantly.</p> | <p>Facilities subject to these efforts include nuclear and thermal power stations that use seawater as cooling water.</p> <p>While they operate, nuclear and thermal power plants use sea water to cool the steam used in steam turbines through thermal</p> |

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| | | | | exchange. We monitor and manage water discharge temperatures to ensure that any increases in temperature do not exceed the levels agreed upon with local governments. |
| Water consumption – total volume | 100% | Yearly | We measure differences between total water intake and total water discharge. | While we do ascertain our current water use, we do not use this information in environmental management. We plan to make progress in areas such as disclosure of water use within the coming few years. |
| Water recycled/reused | 100% | Continuously | We use permanently deployed instruments to check water circulation and supply levels and estimate this using the difference between the two. | At coal-fired power plants, which use particularly high volumes of freshwater, we reuse water through recirculation and reuse some discharge water on the plant site. |
| The provision of fully-functioning, safely managed WASH services to all workers | 100% | Daily | At coal-fired power plants, which use particularly high volumes of freshwater, we reuse water through recirculation and reuse some discharge water on the plant site. | We consider it important to provide fully managed water, sanitation, and hygiene (WASH) services to all employees in all of our business sites. We constantly check for any abnormalities based on information concerning water quality and other topics provided by waterworks bureaus and other agencies and on results of inspections. |

W-EU1.2a

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

| | % of sites/facilities/operations measured and monitored | Please explain |
|--|---|----------------|
|--|---|----------------|

| | | |
|--|--------------|---|
| Fulfilment of downstream environmental flows | 100% | Based on the requirements specified in permits for use of river water in power generation and the Japanese government's power generation guidelines (on maintaining steady river flows when renewing rights to use water for power generation), we discharge sufficient volumes of water to maintain steady river flows downstream. We measure and monitor flows constantly to ensure steady river flows. |
| Sediment loading | 100% | We also undertake annual depth measurements and dredging for sedimentation in reservoirs in a regular basis at hydroelectric power stations. |
| Other, please specify | Not relevant | No other related information. |

W1.2b

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

| | Volume (megaliters/year) | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Five-year forecast | Primary reason for forecast | Please explain |
|-------------------|--------------------------|---|--|--------------------|--|---|
| Total withdrawals | 114,763,151 | About the same | Change in accounting methodology | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. | While we have included sea water (cooling water), which was not recorded last year, it accounts for less than 10% of total water use, and total intake is largely constant. Since power generation processes are unlikely to change, we |

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|------------------|-------------|----------------|----------------------------------|----------------|--|--|
| | | | | | | expect these figures to remain relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. |
| Total discharges | 114,755,536 | About the same | Change in accounting methodology | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. | While we have included sea water (cooling water), which was not recorded last year, it accounts for less than 10% of total water use, and total intake is largely constant. Since power generation processes are unlikely to change, we expect these figures to remain relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. |

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|-------------------|-------|----------------|--|----------------|--|--|
| Total consumption | 7,615 | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. | Since power generation processes are unlikely to change, we expect these figures to remain relatively constant, aside from fluctuations due to volumes of power generated and inspections at nuclear and thermal power stations. |
|-------------------|-------|----------------|--|----------------|--|--|

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress, provide the proportion, how it compares with the previous reporting year, and how it is forecasted to change.

| | Withdrawals are from areas with water stress | Identification tool | Please explain |
|-------|--|--|--|
| Row 1 | No | WRI Aqueduct (Aqueduct (water pipes and canals)) | Our nuclear, thermal, and hydroelectric power stations are located in Aomori, Iwate, Akita, Miyagi, Yamagata, Fukushima, and Niigata prefectures. We undertake reviews to identify water stress in these regions. Water stress is assessed using the WRI Water Aqueduct water risk evaluation tool. Since the results of Water Aqueduct evaluations show overall water risk levels of low or low to moderate in the regions in which our power stations are located, we have concluded that we do not withdraw water from areas experiencing water stress. |

W1.2h

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

| | Relevance | Volume (megaliters/year) | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Please explain |
|--|--------------|--------------------------|---|--|--|
| Fresh surface water, including rainwater, water from wetlands, rivers, and lakes | Relevant | 108,390,161 | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections conducted. | At hydroelectric power stations, we use river water to power water turbines in the power generation process by withdrawing reservoir water, via pipes or other facilities, from our dams built on rivers or from dams and other facilities managed by local governments. We monitor water levels in reservoirs and canals, along with power generation output and convert these measurements to water flows. Water from nearby rivers or water supplied by waterworks services (sourced mainly from rivers) is used as industrial plant water to operate steam turbines at nuclear and thermal power stations. Intake volumes are monitored using integrated flow meters. |
| Brackish surface water/Seawater | Relevant | 6,372,688 | This is our first year of measurement | Other, please specify First year of measurement | Sea water intake is used as cooling water at nuclear and thermal power stations and released after thermal exchange. |
| Groundwater – renewable | Not relevant | | | | We operate no equipment that uses renewable groundwater. |

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|-----------------------------|--------------|-----|----------------|---|---|
| Groundwater – non-renewable | Not relevant | | | | We operate no equipment that uses non-renewable groundwater. |
| Produced/ Entrained water | Not relevant | | | | We operate no equipment that uses produced/entrained water. |
| Third party sources | Relevant | 302 | About the same | Other, please specify No major change in number of employees | We purchase tap water from local governments for uses such as drinking water at Group business sites. The volume of such water used is identified from invoices and other sources. Under our environmental management system, we manage this water on a monthly basis and conduct assessments roughly once every half-year. We provide feedback to each business site based on the results. |

W1.2i

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

| | Relevance | Volume (megaliters/ year) | Comparison with previous reporting year | Primary reason for comparison with previous reporting year | Please explain |
|---------------------|-----------|---------------------------|---|---|--|
| Fresh surface water | Relevant | 108,379,666 | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due | All water withdrawn from rivers at hydroelectric power stations is used in the power generation process and returned to rivers as is. For this reason, this type of water is relevant to our businesses. Since the |

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| | | | | to volumes of power generated and inspections conducted. | entire water intake is released, discharge and intake volumes are identical. We measure and monitor intake by monitoring water levels in reservoirs and canals along with power generation output and converting these measurements to water flows. |
| Brackish surface water/ seawater | Relevant | 6,375,569 | Higher | Other, please specify Added sea water used as cooling water. | Water from nearby rivers or water supplied by waterworks services (sourced mainly from rivers) is used as industrial plant water at nuclear and thermal power stations. Since treated surplus water from these sources is discharged to the sea, this type of water is relevant to our businesses. Discharge volumes are monitored based on flow meter readings and discharge tank water levels. |
| Groundwater | Not relevant | | | | None of our businesses discharges water underground. |
| Third-party destinations | Relevant | 302 | About the same | Other, please specify No major change in number of employees | We purchase tap water from local governments and other providers for various purposes, including use as drinking water at business sites and other facilities. Water generated by or remaining from these uses is discharged to public sewer systems. |

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| | | | | | Water discharged is estimated as the same volume as that of purchased tap water. |
|--|--|--|--|--|--|

W1.2j

(W1.2j) 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 | Primary reason for comparison with previous reporting year | % of your sites/facilities/operations this volume applies to | Please explain |
|--------------------|---|--------------------------|---|--|--|---|
| Tertiary treatment | Relevant | 2,880 | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections conducted. | 100% | Thermal power stations discharge water. Plant water used to drive steam turbines is eventually recycled and discharged to the sea. Since it contains impurities and other contamination, in compliance with the Water Pollution Prevention Act and pollution prevention agreements with local governments, this water discharge is treated to meet water discharge standards in various ways, including coagulating |

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| | | | | | <p>sedimentation, filtration, and purification. In general, we measure and monitor water quality based on pH, COD, SS, and other established parameters. These discharge volumes are continually monitored based on flow meter readings and discharge tank water levels.</p> <p>Nuclear power stations discharge water. Since it contains impurities and other contamination, in compliance with the Water Pollution Prevention Act, the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors, and other applicable laws and regulations, this water discharge is treated by a combination of various methods, including filtration,</p> |
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| | | | | | | desalination, and evaporative concentration, based on the quality of the water discharged. In general, we measure and monitor water quality based on pH, COD, SS, and other established parameters. These discharge volumes are continually monitored based on flow meter readings and discharge tank water levels. |
| Secondary treatment | Not relevant | | | | | This type of water does not pertain to our businesses because we employ no treatment or tertiary or later treatment in our treatment of discharged water and do not subject any discharge to secondary treatment only. |
| Primary treatment only | Not relevant | | | | | This type of water does not pertain to our businesses because we employ no treatment or tertiary or later treatment in our |

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|--|----------|-------------|----------------|--|------|--|
| | | | | | | treatment of discharged water. We do not subject any discharge to primary treatment only. |
| Discharge to the natural environment without treatment | Relevant | 114,752,354 | About the same | Other, please specify Since power generation processes are unlikely to change, this figure is relatively constant, aside from fluctuations due to volumes of power generated and inspections conducted. | 100% | All water withdrawn from rivers at hydroelectric power stations is used in the power generation process. Since the power generation process has no effect on water quality, discharge and intake volumes are identical. We measure intake by monitoring water levels in reservoirs and canals along with power generation output and converting these measurements to water flows. While nuclear power stations do withdraw sea water as cooling water for use in condensers and discharge the water as is, the water used in this way is not contaminated by chemical or |

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| | | | | | <p>radioactive substances.</p> <p>None of the water is consumed and the intake volume is managed when discharging industrial water into the sea. Since it is not subjected to constant measurement and monitoring, it is exempt from reporting requirements. Although intake and discharge volumes are not continually monitored, we measure and record water temperature at water intake and discharge points based on safety agreements and other arrangements with local governments.</p> <p>Similarly, while thermal power stations do withdraw and discharge sea water as cooling water for use in condensers, the water quality remains unchanged during the power</p> |
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| | | | | | | <p>generation process. In addition, none of the water is consumed and the intake volume is managed when discharging industrial water into the sea. Since it is not subjected to constant measurement and monitoring, it is exempt from reporting requirements. Although intake and discharge volumes are not continually monitored, we measure and record water temperature at water intake and discharge points constantly based on pollution prevention agreements and other arrangements with local governments.</p> |
| Discharge to a third party without treatment | Relevant | 302 | About the same | Other, please specify No major change in number of employees | 100% | We purchase tap water from local governments and other providers for various purposes, including use as drinking water at business sites |

| | | | | | | |
|-------|--------------|--|--|--|--|--|
| | | | | | | and other facilities. Water generated by or remaining from these uses is discharged to public sewer systems after use. Water discharged is estimated as the same volume as that of purchased tap water. The volume purchased from third parties (e.g., local governments) is measured and monitored once a month based on invoices. We are not aware of the highest level of treatment by the third parties (public sewers) at the discharge destinations. |
| Other | Not relevant | | | | | No other relevant treatment methods. |

W1.2k

(W1.2k) Provide details of your organization’s emissions of nitrates, phosphates, pesticides, and other priority substances to water in the reporting year.

| | Emissions to water in the reporting year (metric tonnes) | Category(ies) of substances included | List the specific substances included | Please explain |
|-------|--|--------------------------------------|---------------------------------------|--|
| Row 1 | 0 | Nitrates Phosphates | No subject substances were emitted. | These are ascertained based on periodic analysis and Japan’s PRTR Act. No such |

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|--|--|---|--|-------------------------------|
| | | Priority substances listed under the EU Water Framework Directive | | emissions occurred in FY2021. |
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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 | 1,566,203,000,000 | 114,763,151 | 13,647.2638329702 | Since the power generation process is unlikely to change, we expect these figures to remain relatively constant except for fluctuations due to volumes of power generated and inspections conducted at nuclear and thermal power stations. |

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 (m ³) | Numerator: water aspect | Denominator | Comparison with previous reporting year | Please explain |
|---|-------------------------|-------------|---|--|
| 1,895.92 | Total water withdrawals | MWh | About the same | As an indicator of water intensity, we measure and manage total water intake divided by the volume of water used in the power generation process. This value can be used to ascertain the volume of water used for the given power volume generated by the Group. We believe this contributes to an improved understanding and the promotion of efficient use of water resources. Specifically, by improving generating efficiency through new construction and renovation of hydroelectric power stations, we can |

| | | | | |
|--|--|--|--|---|
| | | | | <p>generate more electricity using the same volume of water and suppress fuel consumption for thermal power generation.</p> <p>We expect no major changes in our power generation processes and intend to continue making the most of the abundant hydroelectric power sources available in the Tohoku and Niigata regions. In light of considerations such as improvements in the power generation efficiency of our facilities, we expect water intensity to decrease gradually in the future, except for fluctuations due to volumes of power generated and inspections.</p> |
|--|--|--|--|---|

W1.4

(W1.4) Do any of your products contain substances classified as hazardous by a regulatory authority?

| | Products contain hazardous substances | Comment |
|-------|---------------------------------------|--|
| Row 1 | No | Our product, electricity, does not contain any harmful substances. |

W1.5

(W1.5) Do you engage with your value chain on water-related issues?

| | Engagement | Primary reason for no engagement | Please explain |
|--|------------|----------------------------------|--|
| Suppliers | Yes | | |
| Other value chain partners (e.g., customers) | No | Judged to be unimportant | There are no cooperative projects with customers concerning water issues at present. |

W1.5a

(W1.5a) Do you assess your suppliers according to their impact on water security?

Row 1

Assessment of supplier impact

No, we do not assess the impact of our suppliers and have no plans to do so within the next two years.

Please explain.

Our primary suppliers extract fossil fuels and other resources. They use sea water, recycled water, and other water as cooling water in fossil-fuel processing. Although we do not conduct impact assessments of these suppliers, we do ascertain the state of effective use of water resources through CSR surveys. If any issues are identified, we ascertain conditions through interviews and other means and request improvements. Since quality freshwater is not vital for fossil-fuel extraction and refining processes, we believe the current practice of ascertaining conditions through surveys is sufficient.

W1.5b

(W1.5b) Do your suppliers have to meet water-related requirements as part of your organization’s purchasing process?

| | Suppliers have to meet specific water-related requirements | Comment |
|-------|--|---|
| Row 1 | No, and we do not plan to introduce water-related requirements within the next two years | Although this is not a contractual requirement, we identify effective use of water resources though CSR surveys. If any issues are identified, we ascertain conditions through interviews and other means and request improvements. |

W1.5d

(W1.5d) Provide details of any other water-related supplier engagement activity.

Type of engagement

Information collection

Details of engagement

Other, please specify

We conduct CSR surveys on the use of water resources at least once every few years.

% of suppliers by number

100%

Rationale for your engagement

To fulfil our corporate social responsibility, we have formulated a Basic Policy of Procurement and ask suppliers to exercise consideration for the environment. We also survey regular suppliers.

Impact of the engagement and measures of success

Since at this stage we are ascertaining current conditions and conducting interviews on any concerns, we have yet to perform detailed assessments. In certain cases, we demand improvements or other measures.

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?

| | Water-related regulatory violations | Comment |
|-------|-------------------------------------|---------|
| Row 1 | No | |

W3. Procedures

W3.1

(W3.1) Does your organization identify and classify potential water pollutants associated with its activities that could have a detrimental impact on water ecosystems or human health?

| | Identification and classification of potential water pollutants | How potential water pollutants are identified and classified |
|-------|---|---|
| Row 1 | Yes, we identify and classify our potential water pollutants | <p>[Policies and processes intended to identify and categorize potential water pollutants]</p> <p>We identify and manage subject substances and emissions based on the Water Pollution Prevention Act, the Soil Contamination Countermeasures Act, the PCB Special Measures Act, the Act on the Assessment Releases of Specified Chemical Substances in the Environment, and other environmental laws and regulations as well as agreements with local governments.</p> <p>When establishing a new power plant, we carry out environmental impact assessments under the Environmental Impact Assessment Act, which establishes procedures on prevention and mitigation of environmental impacts on water, air, etc., and explain the specifics to local governments and local residents. Based on the results of such assessments, we implement various measures with consideration for the surrounding air, water, and natural environment, and we strive to protect the environment in the vicinity. We also conduct voluntary environmental assessments when setting up power plants and other</p> |

| | | |
|--|--|--|
| | | <p>facilities that also include aspects not addressed by laws and ordinances.</p> <p>[Details of applicable regulations]</p> <p>In addition to the base values for regulated substances identified in the Water Pollution Prevention Act, the Soil Contamination Countermeasures Act, and other laws and regulations, for some items we comply with base levels even stricter than those of laws and regulations, as established under agreements with local governments.</p> <p>[Measurement indicators and other indicators used to identify pollutants]</p> <p>We identify pollutants with reference to emissions standards, etc., through sampling and analysis based on the methods established in environmental standards and elsewhere.</p> |
|--|--|--|

W3.1a

(W3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants on water ecosystems or human health associated with your activities.

Water pollutant category

Other physical pollutants

Description of water pollutant and potential impacts

Temperature rises from thermal exchange of cooling water qualify as another physical pollutant. Nuclear and thermal power plants use sea water for thermal exchange to cool the steam used in steam turbines, releasing the water at depth in the sea as thermal discharge water. The Environmental Impact Assessment Act and other laws and ordinances identify thermal discharge water as subject to predictive assessment of water temperature, to avoid impacting aquatic ecosystems through temperature increases in the water and effects of flows of thermal discharge water on the terrain, aquatic migrations, seafloor creatures, and fisheries. To attain the understanding of the community, we believe it's important to identify substances that could affect the surrounding environment.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Discharge treatment using sector-specific processes to ensure compliance with regulatory requirements

Please explain.

At nuclear power stations, we conclude safety agreements with relevant individual local governments that address environmental concerns. As part of these efforts, together with relevant local governments, we survey the impact of thermal discharge water in the

water near nuclear power stations (i.e., physical surveys of matters such as water temperature, salinity, and current and biological surveys on matters such as eggs, fry, and plankton). If results are outside norms, we make the reasons clear. Results of thermal discharge water environmental impact surveys are studied and evaluated by third-party committees established by individual prefectures, and improvements are made in response to any issues identified as a result. The results of study, assessment, and improvement are announced by the local governments. The following have been identified as possible impacts of thermal discharge water on the natural environment: impacts on aquatic creatures due to rising temperatures in the surrounding water; the geological effects of thermal discharge water flows; and impacts on fish migration and benthic organisms, as well as impact on commercial fisheries. Water is discharged to the sea in front of the power station while measuring water temperature to maintain differences in temperature at water intake and discharge points below a certain level (7°C).

At thermal power stations, we conclude pollution prevention agreements with relevant individual local governments that address environmental concerns. Considering regional characteristics, we apply stricter values than those in national regulations, according to which we measure temperature differences between the water at intake and discharge and report the results to relevant local governments. Water is discharged to the sea in front of the power station in a manner designed to keep these figures at or below the levels specified in these agreements.

We control differences in temperature at water intake and discharge points at these power stations via the constant monitoring and control of circulation pumps. We also constantly remove shellfish that can adhere to heat exchangers and impede their efficiency. In certain cases, we restrain power-generating loads to conform to the regulatory values agreed upon with local governments on differences in temperature at water intake and discharge points.

In building a new power station, alongside environmental impact assessments based on the Environmental Impact Assessment Act, which establishes procedures for avoiding and reducing environmental impacts such as those on water and air, we explain the specifics to local governments and local residents. Based on the results of these environmental assessments, we strive to protect the local environment in various ways that reflect consideration for the surrounding air, water, and natural environments. Even in aspects not addressed by laws and ordinances, we undertake voluntary environmental assessments when building new power stations.

As a member of the local community, in pursuing our business activities, the Group complies thoroughly with environmental laws and regulations across our entire value chain. Applicable policies and procedures are the same as with our direct operations.

W3.3

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

Yes, water-related risks are assessed.

W3.3a

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

Value chain stage

- Direct operations
- Supply chain

Coverage

- Full

Risk assessment procedure

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

Frequency of assessment

- More than once a year

How far into the future are risks considered?

- More than 6 years

Type of tools and methods used

- Tools on the market
- Enterprise Risk Management
- International methodologies and standards
- Databases

Tools and methods used

- WRI Aqueduct
- Enterprise Risk Management
- Environmental Impact 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
- 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
- Regulators

Suppliers
 Water utilities at a local level
 Other water users at the basin/catchment level

Comment

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.

| | Rationale for approach to risk assessment | Explanation of contextual issues considered | Explanation of stakeholders considered | Decision-making process for risk response |
|-------|--|---|---|--|
| Row 1 | <p>We implement appropriate management of water resources as required by laws, regulations, etc. Additionally, we deploy widely used tools to assess water risks, including WRI’s Aqueduct. The scope of assessment is our service area of Aomori, Iwate, Akita, Miyagi, Yamagata, Fukushima, and Niigata prefectures. Through these efforts, we seek to identify any regions subject to water stress within this scope.</p> | <p>Water availability at a basin/catchment level Industrial water from nearby rivers or water supplied by waterworks services (sourced mainly from rivers) is refined to high levels of purity for use as plant water at nuclear and thermal power stations. An inability to secure industrial water could make it difficult to operate the power stations, resulting in a decrease in power generated. For this reason, we conduct site surveys and confirm past water-flow volumes at the time of construction to assess volumes of water resources and select points where water will be withdrawn and withdrawal volumes. At hydroelectric power stations, we use fresh water sourced from</p> | <p>Customers A power station relies on the trust of its stakeholders, including the community and customers. Violations of laws and regulations or of the provisions of agreements with local authorities can call into question our approach as a business rooted in the community.</p> <p>Employees Providing Water, Sanitation, and Hygiene (WASH) services to employees is a key consideration because the absence thereof would pose challenges to employees in carrying out their duties. We check constantly for anomalies based on information provided by waterworks bureaus and other agencies and on inspection results.</p> | <p>Each year, the Group surveys climate risks and opportunities over the short, medium, and long term and ascertains their business and financial impacts. Since water risks such as those of drought and flooding are caused by climate risks, they are identified and assessed as part of this process. Specifically, we identify climate risks and resulting water risks in direct operations by each section and throughout the supply chain as a whole and assess the impact of each risk factor on the division responsible. Impact assessment is conducted based on data announced by the Japan Meteorological Agency (JMA), the Sendai Regional Headquarters of the JMA, and other</p> |

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|--|--|--|--|---|
| | | <p>rivers to power water turbines by withdrawing reservoir water, via pipes and other facilities, from our dams built on rivers or from dams and other facilities managed by local governments. If we were unable to secure enough river water, then power generated could decrease. For this reason, it is essential to assess available water resources in the river basin.</p> <p>Water quality at a basin/catchment level</p> <p>Industrial water from nearby rivers or water supplied by waterworks services that is sourced mainly from rivers is refined to high levels of purity for use as plant water at nuclear and thermal power stations. The water quality of water intake is assessed because failure to satisfy water-quality standards could affect operation of power stations, resulting in a decrease in power generated. Stakeholder conflicts concerning water resources at a basin/catchment level</p> <p>At hydroelectric power stations, since there will be other water users in</p> | <p>Investors</p> <p>Violations of laws and regulations can not only impact our business due to operational suspension, but also pose the risk of alienating investors and difficulty raising funds, given growing ESG awareness in recent years, as these are issues related to our compliance. In light of growing environmental awareness among investors, we also disclose environmental information, including information related to water, in our Integrated Report. We engage in ESG dialogue with shareholders as part of our IR activities to improve transparency and enhance communication.</p> <p>Local communities</p> <p>This item was selected because we maintain constant close ties with the communities in which power plants and other facilities are located in various ways, including environmental assessments of construction work and reports on managerial status during operation.</p> <p>Regulators</p> <p>There is a possibility that strengthening of</p> | <p>authorities, including projections of precipitation, numbers of days on which the maximum temperature is 35°C or more, and numbers of days on which the temperature stays below 0°C, along with other forecasts. We also use WRI Aqueduct and WWF Water Risk Filter assessments, and consider past disasters caused by typhoons and other causes and scenario analysis based on them. The findings are assessed from the perspectives of conceivable external environmental changes, phenomena with negative effects on our company, subjects and degrees of resulting damage to our company, and estimates of financial losses resulting from such damage, and the divisions in charge formulate countermeasures to avoid and mitigate such damage. Study of medium-term environmental plans, including the risks identified and assessed through this process and responses to them, is subjected to oversight by the Board of Directors through proposals and reports submitted based on deliberations in the</p> |
|--|--|--|--|---|

| | | | | |
|--|--|--|--|--|
| | | <p>the river basin, in operating the power stations we obtain the understanding of local governments and local residents in addition to consensus-building with stakeholders.</p> <p>Water regulations framework In nuclear, thermal, and hydroelectric power generation, water is discharged into public water bodies such as rivers and the sea. Accordingly, compliance with the Water Pollution Prevention Act, the River Act, and other environmental laws and agreements with local authorities is important. Violations can affect public confidence in the Group and result in suspended operations and reductions in the power generated.</p> <p>State of ecosystems and habitats The thermal discharge water from nuclear and thermal power stations, and dam-building related to hydroelectric power generation could impact marine and river-basin ecosystems.</p> <p>Access to WASH services Providing Water,</p> | <p>regulations on water intake and discharge by authorities could have impacts such as restriction on power generation output or rising power-generation costs in our power generation business.</p> <p>Suppliers Some of our suppliers do use significant volumes of water.</p> <p>Local water utilities At thermal power stations, we purchase the industrial water and tap water used for drinking water and other uses at each business site from individual waterworks operators. Since the stable supply and quality of this water impacts power station operations and employee job performance, they are key factors in water risk assessments. We periodically monitor the volumes and quality of water purchased from waterworks operators and work in close partnership with the operators.</p> <p>Other water users in the river basin/watershed Use of water resources for hydroelectric power generation creates</p> | <p>Committee of Environmental Management, which meets several times each year, and the Promotion Council of Carbon Neutrality and Environmental Management, which is chaired by the President. Each business-execution section also submits proposals and reports to the Board as necessary regarding the formulation and implementation of business plans. A structure is in place for reporting water risks having major impacts on management in particular to the Board of Directors through an interdisciplinary companywide integrated risk management framework, in combination with non-water risks. Chaired by the President, the Integrated Risk Management Council meets twice annually to provide guidance and advice on assessing the state of management of risks important to business administration, including water risks, and implementing and deploying risk-management activities, among other topics. The results of these deliberations are</p> |
|--|--|--|--|--|

| | | | | |
|--|--|---|--|---|
| | | <p>Sanitation, and Hygiene (WASH) services to employees is a key consideration because the absence thereof would pose challenges to employees in carrying out their duties. We check constantly for anomalies based on information provided by waterworks bureaus and other agencies and on inspection results.</p> | <p>various risks for downstream water users after the water is discharged. We assess impacts on such users at all times. We announce the results of environmental impact assessments both during dam construction and after operations begin. Through dialogue with local residents and communities, we identify factors that can impact residents and assess the risk of conflicts.</p> | <p>provided as feedback to each business execution section and related committees, to enhance risk-management activities.</p> |
|--|--|---|--|---|

W4. Risks and opportunities

W4.1

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

No

W4.1a

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

We are currently proceeding with structural reforms of the power supply business to enhance its competitive strengths and secure stable earnings. At the same time, we seek to achieve a large-scale transformation of our business model through the strategic investment of management resources into a growth business to realize a smart society. To transform our business model and improve our ability to generate the required cash flow, we have set a financial target of JPY320 billion in consolidated cash income by FY2024. Any obstacles to achieving this target will have significant financial impact. In particular, in our core electricity business, it is vital to secure the power generation and distribution facilities needed to deliver a stable supply of power. We recognize facility risks that would result in damage to facilities or the long-term suspension of power supply as important operational risks. These risks include climate change and its consequences for the water supply, typically acute or chronic physical risks, chiefly under the 4°C scenario. In the short-term (through 2025), medium-term (through

2030), and long-term (through c. 2050) time perspectives, we calculate and assess financial impact by using an assessment model that incorporates assumptions based on similar events, both internal and external, referring to the scale of losses we incurred from large-scale natural disasters in the past. We define a potential financial impact as small, moderate, or large along the axis of anticipated companywide losses. For example, we define the risk of reduced power generation output due to changing precipitation patterns as a water-related risk with moderate financial impact over the long term.

W4.2b

(W4.2b) Why does your organization not consider itself exposed to water risks in its 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 | <p>A sufficient supply of quality fresh water is essential for nuclear, thermal, and hydroelectric power station operations. Water shortages caused by drought may significantly affect our ability to secure fresh water.</p> <p>However, we believe our nuclear power stations are not exposed to water risks. We have secured, using freshwater tanks and other facilities, sufficient surplus capacity for the water supply needed by the plants, in anticipation of the inability to secure river water intake due to a problem related to intake facilities.</p> <p>At thermal power stations, we secure surplus water capacity in freshwater tanks, transport industrial water from other power stations, and deploy mobile desalination equipment as countermeasures in the event that drought and water shortages make it difficult to secure industrial water. Accordingly, none of our thermal power stations have been subject to load restrictions or power generation stoppages and we assume that they are not exposed to water risks.</p> <p>In addition to the above considerations, our main business territory—the Tohoku and Niigata region—is a very broad area of 79,531 km², accounting for one-third of the land mass of Honshu Island and about 20% of Japan’s entire land mass. We operate nuclear power stations in Aomori and Miyagi prefectures and thermal power stations along the Pacific and Japan Sea coasts in Aomori, Akita, Miyagi, Fukushima, and Niigata prefectures. These facilities are unlikely to suffer from simultaneous water shortages.</p> <p>At hydroelectric power stations, while drought may reduce power generation volumes and increase fuel costs, since earnings can be adjusted using the drought reserves system, we consider the likely financial impact to be minimal.</p> <p>According to World Resources Institute (WRI) Aqueduct and WWF Water</p> |

| | | |
|--|--|--|
| | | Risk Filter assessments, the bulk of our business territory of the Tohoku and Niigata area is assessed to pose Low risk, while some other areas pose Low-Moderate risk. Thus, we believe the risk posed by drought is limited. |
|--|--|--|

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 | The major suppliers on whom we depend in our power generation business supply fossil fuels such as coal, natural gas, and petroleum. Quality fresh water is relatively unimportant to the processes of fossil fuel extraction and refining. Fossil fuel refining processes depend on water other than fresh water, such as sea water and recycled water, chiefly for use as cooling water. We do not recognize a major risk here because the risks are distributed; we are currently striving to diversify and distribute our fuel procurement sources in order to ensure a stable supply of energy. We send CSR surveys to suppliers to monitor their use of water resources; if any concerns are identified, we meet with them individually and take other steps to identify their operational status and ask them to make improvements. |

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

Improved water efficiency in operations

Company-specific description & strategy to realize opportunity

Under the Group's Medium-to Long-Term Vision, "Working alongside next," which envisions our aspirations for the 2030s, we aim to be a group of companies growing in step with sustained societal progress by helping to establish a smart society for a new age, starting in Tohoku. This vision includes, as Priority 1, "Change: Thoroughly enhancing our competitive strengths through power supply business reforms," under which we identify as the goals of practical hydroelectric power generation initiatives the maintenance and expansion of power generating capacity (as expressed in kWh) by renovating aging facilities.

Specifically, by putting water resources to effective use through new construction and renovations of hydroelectric power stations, we can boost power generation efficiency without changing the volumes of water used, thereby suppressing increases in fuel costs accompanying the expanded use of thermal power during droughts. Boosting hydroelectric power generation also generates business opportunities for the Group through participation in non-fossil fuel value trading markets, contributing to sales growth. These water-related opportunities will strengthen our ability to generate the cash flow required for business model transformation, and help us achieve our financial target of JPY320 billion yen in consolidated cash income by FY2024.

We regard these opportunities as strategic opportunities for the Group. In September 2017, we completed large-scale renovations at the aging Kanose Power Station. Reducing the number of water turbines from six to two and adopting high-efficiency vertical shaft water turbines made it possible to increase maximum output by about 10%, from 49,500 kW to 54,200 kW, without affecting water use in any way. The changes also make it possible to increase maximum output by increasing water intake from 290.00 m³/s to 315.00 m³/s and making use of surplus capacity, without changing the existing water turbines or other facilities. Seeking the stable operation of this power station with safety afforded top priority, we are striving to put hydroelectricity to more effective use as a renewable domestic energy source. This, in turn, will help achieve our vision for the 2030s as described in the Medium-to Long-Term Vision "Working alongside next."

Estimated timeframe for realization

More than 6 years

Magnitude of potential financial impact

Low-medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

40,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

While the impact has not been quantified financially, boosting the hydroelectric power supply through new construction and renovations can have a positive impact on finances by reducing use of thermal power generation and associated fuel costs. Estimates show that an increase of 1% in hydroelectric power generation can cut fuel costs by about JPY1 billion (impact on revenues and expenditures per 1% of the FY2021 water output rate). In FY 2021, we generated 8,028 GWh of electricity from hydroelectric power, and the volume generated by pumping up hydroelectric power generation fell by 314 GWh to a total of 7,714 GWh. The increase in maximum output capacity at Kanose Power Station 2 resulted in an increase of about 3.1 GWh in power generation per year, and this accounted for about 0.04% of the hydroelectric power generated in FY2021. Since fuel costs decrease JPY1 billion for each 1% increase in hydroelectric power generation, fuel costs at the 0.04% level fell by about JPY40 million.

W6. Governance

W6.1

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

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

W6.1a

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

| | Scope | Content | Please explain |
|-------|--------------|--|---|
| Row 1 | Company-wide | Description of business dependency on water Description of business impact on water Commitment to reduce water withdrawal and/or consumption volumes in direct operations Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace Commitment to the conservation of freshwater ecosystems | The abundant water resources of the Tohoku and Niigata regions are essential to our business operations. In addition to using sea water as cooling water at nuclear and thermal power stations, we use river water as plant water and to power water turbines at hydroelectric power stations. The Tohoku Electric Power Group sees environmental conservation as a key management topic. We seek to steadily implement environmental initiatives alongside the community based on the Tohoku Electric Power Group Environmental Policy. As a shared understanding among all employees is essential to environmental initiatives and continued efforts even in an ever-changing business environment, the Tohoku Electric Power Group Environmental Policy was established and is deployed to make its basic vision a core part of organizational and site culture. Since our business operations have an impact on the environment as we use water as an energy resource in the power generation business, we manage water-related |

| | | | |
|--|--|---|--|
| | | <p>Reference to company water-related targets</p> | <p>matters in accordance with this policy.</p> <p>We strive to secure a stable supply of energy while balancing environmental and economic considerations and making safety a top priority, with a particular focus on four environmental action principles: Appreciate the earth's bounty and make careful use of its limited resources; minimize environmental impact; safeguard and coexist with the rich natural environment; and think and act with the local communities and our customers in mind. In formulating this policy, we organized our basic environmental courses of action from the four perspectives of proceeding as a group of companies that moves forward alongside the community, as an energy supplier, as a citizen of the planet, and as an organization that works together with local communities and customers, which when taken together represent our vision.</p> <p>The Tohoku Electric Power Group Environmental Policy identifies water as an important element, since it is used as an energy resource and has an appreciable environmental impact. Our policy identifies the following specific aspects concerning water and guides our business operations:</p> <p><Business dependency on water></p> <p>The hydroelectric power generation business depends on the abundant water resources in the Tohoku and Niigata regions. As a citizen of the planet, we strive to utilize this limited resource within the planetary boundaries while also reducing the resulting environmental impact to the extent possible.</p> <p><Business impact on water></p> <p>As an energy business, our unchanging mission is to achieve stable energy supplies, environmental protection, and economic performance simultaneously, with safety kept paramount. We recognize that this business inevitably will have an impact on the environment, and thus that it is our ongoing responsibility to keep this impact as small as possible.</p> <p>In nuclear, thermal, and hydroelectric power generation, water is discharged into public waters such as rivers and the sea. Accordingly, we comply with water-related regulations such as the Water Pollution Prevention Act, the River Act, and other environmental laws and agreements with local authorities, aiming to keep our environmental impact to as low a level as possible.</p> |
|--|--|---|--|

| | | | |
|--|--|--|---|
| | | | <p><Commitment to reduce water withdrawal and/or consumption volumes in direct operations> By putting water resources to effective use through new construction and renovations of hydroelectric power stations as specified in our medium- to long-term vision, we can boost power generation efficiency by using water resources more efficiently. This improves water intensity and reduces water intake without affecting power generation.</p> <p><Commitment to safely managed Water, Sanitation and Hygiene (WASH) in the workplace> We consider it important to provide fully managed water, sanitation and hygiene (WASH) services to all employees in all of our business sites. We constantly check for any abnormalities based on information concerning water quality and other topics and on results of inspections.</p> <p><Commitment to the conservation of freshwater ecosystems> We employ full consideration to ensure that the environmental impact of our business activities does not affect ecosystems, and we implement measures to protect freshwater ecosystems through means such as maintenance of biotopes at thermal power stations and installation of fish channels at hydroelectric power stations.</p> <p><Reference to company water-related targets> We have established a medium-term environmental plan based on the Tohoku Electric Power Group Environmental Policy, which sets targets such as developing 2 million kW of renewable energy swiftly, including new development of hydroelectric power stations, in 2030 or later, and the goal of compliance with environmental laws and regulations, including the Water Pollution Prevention Act and other water-related environmental laws and regulations.</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 or committee | Responsibilities for water-related issues |
|-------------------------------------|--|
| Board Chair | <p>The chairperson chairs the board of directors. The board of directors makes decisions concerning important matters of business execution related to climate change and water and receives periodic reports from directors on the status of duties related to climate change to oversee the performance of their duties. Since many water risks are related to climate change, water-related issues are also subject to oversight by the board of directors. For example, the Group’s current Medium-to Long-Term Vision “Working alongside next” includes as Priority 1, “Change: Thoroughly enhancing our competitive strengths through power supply business reforms.” One measure under this priority item calls for developing 2 million kW of renewable energy centered on the Tohoku and Niigata regions. The Group Medium-to Long-Term Vision “Working alongside next” has been approved by the board of directors. The progress of measures to develop renewable energy, including hydroelectric power, is reported to the board of directors periodically and subject to oversight, including reviews and guidance as needed.</p> <p>These decisions on “Working alongside next” were made in 2020, within two years from the base year of 2021. Progress is monitored and review and guidance undertaken and provided annually.</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 major capital expenditures Reviewing and guiding annual budgets Reviewing and guiding business plans | <p>The board of directors makes decisions concerning important Group business matters, including important management-related plans, as well as soliciting and reviewing reports from directors on the state of business execution and facilitating mutual oversight among directors on the performance of their duties.</p> <p>With regard to climate-related and water-related issues, in addition to deciding on important matters of business execution it receives periodic reports from directors on the state of business execution</p> |

| | | |
|--|--|--|
| | <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Setting performance objectives</p> | <p>and facilitates mutual oversight among directors on the performance of their duties.</p> <p>For example, the Group’s current Medium-to Long-Term Vision “Working alongside next” includes as Priority 1, “Change: Thoroughly enhancing our competitive strengths through power supply business reforms.” One measure under this priority item calls for developing 2 million kW of renewable energy centered on the Tohoku and Niigata regions. The Group Medium-to Long-Term Vision “Working alongside next” has been approved by the board of directors, and the progress of measures to develop renewable energy, including hydroelectric power, is reported to the board of directors periodically and subjected to oversight, including review and guidance as needed.</p> |
|--|--|--|

W6.2d

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

| | Board member(s) have competence on water-related issues | Criteria used to assess competence of board member(s) on water-related issues |
|-------|---|---|
| Row 1 | Yes | Based on the policies on nominating candidate directors, to realize the Group’s medium- to long-term vision (“Working alongside next”) we identify as the capabilities required for Company directors “imagination, decisiveness, tenacity, sensitivity, and integrity.” We also have clarified the skills required of the board of directors in a skills matrix. In this way, we have formulated standards to enable objective and transparent choices in nomination of directors. |

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)

Chief Executive Officer (CEO)

Water-related responsibilities of this position

- Managing water-related risks and opportunities
- Managing public policy engagement that may impact water security
- Integrating water-related issues into business strategy

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain.

The President is the chair of the Promotion Council of Carbon Neutrality and Environmental Management, where we deliberate on company-wide environmental management, including climate change and water issues, from a comprehensive perspective and promote environmental management targeting sustainable development with the local community.

The President has established, under the Promotion Council of Carbon Neutrality and Environmental Management, the Committee of Environmental Management which is chaired by a Managing Executive Officer and deliberates on company-wide environmental management policies and plans, individual measures, and performance evaluation across divisions, including climate change and water issues. The Committee of Environmental Management also submits proposals and reports to the Promotion Council of Carbon Neutrality and Environmental Management.

In evaluating the policies, plans, individual measures, and results of company-wide environmental management, we have formulated the Medium-Term Environmental Plan, which identifies as its pillars “Further intensification of measures to counter climate change,” “Comprehensive environmental protection,” and “Maintenance and promotion of communication with communities.” The President is responsible of the policy in formulating the Medium-Term Environmental Plan. We are implementing a plan-do-check-act (PDCA) cycle of measures to address water-related issues, including development of 2 million kilowatts of renewable energy, including hydroelectric power, mainly in the Tohoku region and Niigata prefecture; compliance with environmental laws and regulations; and ascertaining and managing climate-related risks and opportunities, including water-related risks.

In addition, we have established an environmental management organization under the leadership of the Chief Environmental Officer, a Managing Executive Officer appointed by the President, to oversee companywide activities as part of our environmental management. Heads of sections and sites serve as the persons responsible for environmental management, promoting environmental activities as part of our business activities. In business execution, we properly ascertain and comply with various applicable laws and regulations, including those that are related to water. In the event of an emergency we respond swiftly and appropriately to minimize resulting damage in addition to taking necessary initial responses immediately in corporation with relevant parties. In the event of an emergency that requires immediate judgment and decisions by top management, we establish an emergency task force, chaired by the president of the affected company or an executive or other person appointed by that president, to respond to the situation.

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 | Contribution of incentives to the achievement of your organization’s water commitments | Please explain |
|-----------------|---|--|---|---|
| Monetary reward | Director on board Other, please specify All employees | Improvements in water efficiency – direct operations | The Tohoku Electric Power Group Medium-/Long-Term Vision calls for developing 2 million kW of renewable energy, mainly in the six Tohoku prefectures and Niigata Prefecture. This includes development of hydroelectric power facilities, and achievement of this goal is related to more efficient use of water as well. Results of these efforts are utilized in evaluation and incentives by the Nomination and Compensation Advisory Committee. We also have established a system of rewards for all employees who have earned the national water-quality qualification of pollution control supervisor (water quality). | Our policy on compensation for Directors (excluding Directors serving as members of the Audit and Supervisory Committee) is intended to improve Directors’ performance over the medium to long term and to increase their motivation to contribute to increasing corporate value, by making clear the links among compensation, performance, and stock price. The Tohoku Electric Power Group Medium-/Long-Term Vision includes the aims of developing 2 million kW of renewable energy and thorough renovation of aging hydroelectric facilities to improve generating efficiency. Since this will contribute to enhancing our ability to generate the cash needed for business model transformation and affect consolidated cash income, executive compensation is linked to the state of achievement of water-related initiatives. In addition, maintenance and expansion of generating |

| | | | | |
|---------------------|--|--|--|---|
| | | | | capacity through full renovation of aged facilities and development of new power sources will contribute to our ability to address the water-related risk of decreasing hydroelectric power generation capacity due to changing precipitation patterns. |
| Non-monetary reward | No one is entitled to these incentives | | | Because no nonfinancial compensation is provided at present. |

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, trade associations

W6.5a

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

Information on developments that could impact the power business, such as those concerning policies and regulations on water, is shared at the management level through the Federation of Electric Power Companies of Japan, an industry association, and as a result we are able to reflect it in management strategies. The Federation of Electric Power Companies of Japan was established in 1952. Its membership consists of the 10 major power companies across Japan. Its main duties are publicity and awareness-raising regarding the electricity business, collecting and distributing data, information, etc. on the electricity business, conducting surveys, research, and preparation of statistics on the electricity business, and expressing opinions concerning the electricity business.

In particular, in making decisions on important matters such as public policy related to the power business, the Federation checks on the views of member companies and reflects these in expressing the industry perspective. We too offer our opinions in light of our own policies, and in the event of a conflict with our policies we express our opinions with the aim of ensuring that the views expressed by the industry conform with our policies.

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)

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 | <p>In response to the water risk of decreased hydroelectric power generation due to changing precipitation patterns, our long-term business goals include improving the efficiency of water use (for example, by thoroughly renovating aging facilities). Details of this long-term business goal are reviewed below.</p> <p>The Tohoku Electric Power Group’s medium- to long-term vision, “Working alongside next,” states the following: “...renewable energy is positioned as a power source that will play a part in our future power supply portfolio and boost our capacity to be a responsible entity for renewable energy business in the six Tohoku and Niigata prefectures. We are committed to the new development and business participation required to reach two million kilowatts, centered on wind power generation, while utilizing the know-how that the Group has cultivated so far, including hydroelectric power generation, solar power generation, geothermal power generation and biomass power generation. We will prioritize the investment of management resources.”</p> <p>A major initiative based on the medium- to long-term vision “Working alongside next” in hydroelectric power generation using water resources is to promote comprehensive renovations of aging facilities, including groupwide efforts to promote development activities, including the development of the Naruse Power Station. Major projects include the Naruse Power Station in Kami, Kami-gun, Miyagi Prefecture (slated to come online FY2034; output: 2,300 kW), and the</p> |

| | | | |
|---|---|-------|--|
| | | | <p>Shinkamimatsuzawa Power Station in Aomori, Aomori Prefecture (slated to come online November 2031; output: 9,400 kW). Capacity enhancements through such maintenance and expansion of power generating capacity (as expressed in kWh) by renovating aging facilities and development of new sources contribute to responding to the water-related risk of decreased hydroelectric power generation due to changing precipitation patterns.</p> <p>The Group’s Medium-to Long-Term Vision “Working alongside next” identifies the years FY2020-2024 as a period of business model transformation and the years FY2025-2030 as a period of accelerated growth. As we aim to achieve our goals for the 2030s, we also will aim to develop 2 million kW of renewable energy swiftly in 2030 or later. Accordingly, we have identified “11-15 years” as the subject period.</p> |
| Strategy for achieving long-term objectives | Yes, water-related issues are integrated. | 11-15 | <p>In response to the water risk of decreased hydroelectric power generation due to changing precipitation patterns, our long-term business goals include improving the efficiency of water use (for example, by thoroughly renovating aging facilities), and measures toward this aim are reflected in our strategies as well. The strategies are outlined below:</p> <p>We consider renewables to be an important power source in our portfolio, and we are striving, as a responsible business operator, to develop renewable energy in the six Tohoku prefectures and in Niigata Prefecture.</p> <p>To realize our Medium-to Long-Term Vision “Working alongside next,” we are aiming to develop 2 million kW of renewable energy swiftly in 2030 or later. As of March 2023, we are participating in 27 development projects (for output of approximately 600,000 kW if all projects are commercialized successfully). To help achieve the target of developing 2 million kW of renewable energy, the Group’s medium-term plan for FY2022 calls for enhancement of internal development of renewables and expanding the geographical scope of such development. Identifying as medium-to long-term growth fields the business of renewable energy, including enhancement of</p> |

| | | | |
|--------------------|---|-------|---|
| | | | <p>power transmission and distribution networks, and businesses to realize a smart society, we are aiming to grow these businesses.</p> <p>A major initiative related to the hydroelectric power generation to achieve a target of generating 2 million kW from renewable energy based on the medium- to long-term vision, “Working alongside next” includes groupwide efforts to promote development activities, including the development of the Naruse Power Station. Major projects include the Naruse Power Station in Kami, Kami-gun, Miyagi Prefecture (slated to come online FY2034; output: 2,300 kW), and the Shinkamimatsuzawa Power Station in Aomori, Aomori Prefecture (slated to come online November 2031; output: 9,400 kW).</p> <p>In addition to new development of renewable energy sources, we also are striving to introduce and expand renewable energy sources from the abundant resources in the region, through activities throughout the life cycle from development through operation and maintenance of renewable energy facilities as well as promoting thorough renovations of aging facilities.</p> <p>Such development of new sources and maintenance and expansion of power generating capacity (as expressed in kWh) and thorough renovations of aging facilities will contribute to responding to the water-related risk of decreased hydroelectric power generation due to changing precipitation patterns. The Group’s Medium-to Long-Term Vision “Working alongside next” identifies the years FY2020-2024 as a period of business model transformation and the years FY2025-2030 as a period of accelerated growth. As we aim to achieve our goals for the 2030s, we also will aim to develop 2 million kW of renewable energy swiftly in 2030 or later. Accordingly, we have identified “11-15 years” as the subject period.</p> |
| Financial planning | Yes, water-related issues are integrated. | 11-15 | We are raising funds to improve the efficiency of water use (for example, by thoroughly renovating aging facilities) in response to the water risk of decreased |

| | | |
|--|--|---|
| | | <p>hydroelectric power generation due to changing precipitation patterns. Details are outlined below:</p> <p>The Tohoku Electric Power Group’s medium- to long-term vision, “Working alongside next” identifies renewable energy as a power source that will play a part in our power supply portfolio. We are striving, as a responsible business operator, to develop renewable energy in the six Tohoku prefectures and in Niigata Prefecture. To help achieve the target of developing 2 million kW of renewable energy, the Group’s medium-term plan for FY2022 calls for enhancement of internal development of renewables and expanding the geographical scope of such development. Identifying as medium-to long-term growth fields the business of renewable energy, including enhancement of power transmission and distribution networks, and businesses to realize a smart society, we are aiming to grow these businesses.</p> <p>To realize our medium- to long-term financial strategies by expanding the renewable energy business and securing diversity of means of fund raising, with the Tohoku Electric Power Green Bonds issued in February 2020 we became the first among the former general electric power businesses in Japan to issue green bonds, which can be issued only to fund projects planned to contribute to domestic or international environmental improvements, such as renewable energy development. The first green bonds raised JPY5 billion, and the Second Tohoku Electric Power Green Bonds, issued in September 2020, raised JPY10 billion. Both of these issues had maturities of 10 years. Plans call for allocating the funds raised to projects related to development, construction, operation, and renovations of hydro, wind, geothermal, solar, and biomass power.</p> <p>We also are raising funds through green loans, use of which is restricted to funding eco-friendly projects in areas such as renewable energy development. For example, in October 2021 we raised funds through green</p> |
|--|--|---|

| | | | |
|--|--|--|--|
| | | | <p>loans for use in covering costs related to construction work in response to aging facilities at the Chojahara Power Plant (located in Yamagata Prefecture; maximum output 12,400 kW), a facility operated by Group member company Tohoku Sustainable & Renewable Energy Co., Inc. In this way, funds raised through green loans are being used to cover the costs of construction work and work in response to aging facilities at hydroelectric power plants operated by Tohoku Sustainable & Renewable Energy Co., Inc.</p> <p>Such capacity enhancements and maintenance and expansion of power generating capacity (as expressed in kWh) by renovating aging facilities and development of new sources contribute to responding to the water-related risk of decreased hydroelectric power generation due to changing precipitation patterns.</p> <p>The Group's Medium-to Long-Term Vision "Working alongside next" identifies the years FY2020-2024 as a period of business model transformation and the years FY2025-2030 as a period of accelerated growth. As we aim to achieve our goals for the 2030s, we also will aim to develop 2 million kW of renewable energy swiftly in 2030 or later. Accordingly, we have identified "11-15 years" as the subject period.</p> |
|--|--|--|--|

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)

-13.7

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

16

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

1.2

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

6.9

Please explain.

Since the amount invested includes sensitive management information, water-related capital expenditures (CAPEX) indicate trends in changes in the increase in book value (mainly expenditures related to new acquisition of hydroelectric power facilities) of Tohoku Electric Power's hydroelectric power generation facilities from FY2020 to FY2021. Water-related operating expenses (OPEX) indicate trends in changes in hydroelectric power generation expenses (labor, maintenance, and other expenses related to the hydroelectric power generation business) of Tohoku Electric Power's hydroelectric power from FY2020 to FY2021. The increase in the book value of hydroelectric power generation facilities reflects mainly the price of new acquisition of hydroelectric power generation facilities. It varies slightly from year to year. We are pursuing continual capital investments with a target of generating 2 million kW from renewables. OPEX remained largely unchanged from FY2020 to FY2021 since no hydroelectric power stations were newly opened or closed and there were no changes to power generation processes during the period.

Water-related CAPEX in the next reporting year shows the trend in changes in the increase in book value (mainly expenditures related to the acquisition of hydroelectric power facilities) of Tohoku Electric Power's hydroelectric power generation facilities in FY2022, while water-related OPEX in the next reporting year shows the trend in changes in hydroelectric power generation expenses (labor, maintenance, and other expenses related to the hydroelectric power generation business) of Tohoku Electric Power's hydroelectric power in FY2022.

W7.3

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

| | Use of scenario analysis | Comment |
|-------|--------------------------|---------|
| Row 1 | Yes | |

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 | Climate-related | We announced our support for TCFD in April 2019. While using climate scenarios such as the IEA2050 Net Zero | Under the 1.5°C and 2°C scenarios, which anticipate significant transition risks, we expect significant | Identifies renewable energy as a power source that will play a part in our future power supply portfolio, and to be a responsible operator |

| | | | | |
|--|--|--|--|--|
| | | <p>Scenario as transition risk scenarios and RCP8.5 and other representative climate scenarios (e.g., 2°C, 4°C, and 1.5°C scenarios) as physical risk scenarios in accordance with the scenario analysis methods presented in TCFD's recommendations, we currently are identifying companywide risks and opportunities related to climate change and analyzing their impacts over the medium-to long-term time horizon of 2050 and beyond, concerning the power supply business, our core business, and businesses to realize a smart society.</p> | <p>progress toward the decarbonization of power sources and electrification in various ways, including reducing the role of thermal power generation in policy, market, and other aspects as measures are taken to establish a carbon-zero society. Anticipated countermeasures and opportunities include improving the efficiency of thermal power and expanding development of renewable energy including hydroelectric power generation. Under the 4°C scenario, which anticipates considerable physical risk, we expect increased damage to our facilities and obstacles to power supply as a result of increasingly frequent and severe climate-related disasters, as acute risks resulting from manifestation of the effects of climate change, and increasing importance of electricity supply resilience in light of anticipated impacts on hydroelectric power generation due to changes in precipitation and snowfall patterns, as chronic risks. For example, if change in annual rain and snowfall patterns results in decreased snow melt</p> | <p>of renewable energy businesses in the six Tohoku and Niigata prefectures, we will work on new power development and entry to new business fields with the goal of generating 2 million kW from renewable energy through mainly wind, but also hydroelectric, solar, geothermal, and biomass power generation, while utilizing the expertise that the Group has cultivated to date. It calls for us to prioritize the investment of management resources to the development focused on the six Tohoku and Niigata prefectures with abundant renewable resources. In addition, under this vision we are exploring development of new businesses such as operation and maintenance (O&M) throughout the renewable energy life cycle and the power-source replacement business, while also evolving our business foundations with an emphasis on ESG, as another focus of the vision. We have decided to take steps such as mitigating and adapting to climate change and addressing water issues caused by climate change, as well as enhancing disclosure of environmental information, by promoting environmental management under the Tohoku Electric Power Group Environmental</p> |
|--|--|--|--|--|

| | | | | |
|--|--|--|---|--|
| | | | <p>and summer drought, there is a risk that hydroelectric power generation could decrease due to reduced water flows available for hydroelectric power stations. Since as a company that operates 205 hydroelectric plants, which is the largest number of this type of plants run by any company in Japan (on an individual company basis), we would prefer to continue utilizing hydroelectric power generation to the maximum extent as a renewable energy source.</p> | <p>Policy. Based on the results of analysis of the 1.5°C, 2°C, and 4°C scenarios above, the courses of action under the Tohoku Electric Power Group's Medium-to Long-Term Vision "Working alongside next" are thought to be effective as responses to climate change and water-related strategies as well, and we are using these results of scenario analysis in checking the course of action of our business strategies.</p> <p>For example, in hydroelectric power generation using water resources, our efforts include promoting comprehensive renovations of aging facilities and groupwide efforts to promote development activities, including the development of the Naruse Power Station in Kami, Kami-gun, Miyagi Prefecture (slated to come online FY2034; output: 2,300 kW), and the Shinkamimatsuzawa Power Station in Aomori, Aomori Prefecture (slated to come online November 2031; output: 9,400 kW).</p> |
|--|--|--|---|--|

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, and we do not anticipate doing so within the next two years.

Please explain.

We have no plans to use an internal price on water within the next two years.

W7.5

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

| | Products and/or services classified as low water impact | Definition used to classify low water impact | Please explain |
|-------|---|---|--|
| Row 1 | Yes | We use the definition “improves power generating efficiency without changing water use by making effective use of water resources through new construction and renovations of hydroelectric power stations” to classify low water impact. | In September 2017, we completed large-scale renovations at the aging Kanose Power Station. Reducing the number of water turbines from six to two and adoption of high-efficiency vertical shaft water turbines made it possible to increase maximum output by about 10%, from 49,500 kW to 54,200 kW, without changing water use. Through stable operation of the power station while prioritizing safety, we continue striving to put hydroelectricity to more effective use as a renewable domestic energy source. We strive through these efforts to mitigate and control water intake per unit of power generated and impacts on river environments. |

W8. Targets

W8.1

(W8.1) Do you have any water-related targets?

No, and we do not plan to within the next two years.

W8.1c

(W8.1c) Why do you not have water-related target(s) and what are your plans to develop these in the future?

| | Primary reason | Please explain |
|-------|---|--|
| Row 1 | Judged to be unimportant, explanation provide | Because the bulk of our water use is taken in and released in the same volumes instead of being consumed. Examples include use of freshwater in hydroelectric power generation and sea water as cooling water. |

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 do not currently verify any other water information reported in our CDP disclosure.

W10. Plastics

W10.1

(W10.1) Have you mapped where in your value chain plastics are used and/or produced?

| | Plastics mapping | Value chain stage | Please explain |
|-------|------------------|-------------------|---|
| Row 1 | Yes | Product use phase | We use plastics mainly as vessels and similar utensils. To the extent possible, we reuse these. We dispose of them appropriately as industrial waste to enable recycling or thermal recovery as much as possible. |

W10.2

(W10.2) Across your value chain, have you assessed the potential environmental and human health impacts of your use and/or production of plastics?

| | Impact assessment | Please explain |
|-------|---|--|
| Row 1 | Not assessed - and we do not plan to within the next two years. | We use and dispose of some 1,000 t of plastics per year. Since we dispose of them appropriately as industrial waste, we consider their impact to be minor. |

W10.3

(W10.3) Across your value chain, are you exposed to plastics-related risks with the potential to have a substantive financial or strategic impact on your business? If so, provide details.

| | Risk exposure | Please explain |
|-------|---|--|
| Row 1 | Not assessed - and we do not plan to within the next two years. | We use and dispose of some 1,000 t of plastics per year. Since we dispose of them appropriately as industrial waste, we consider their impact to be minor. |

W10.4

(W10.4) Do you have plastics-related targets, and if so what type?

| | Targets in place | Please explain |
|-------|---|---|
| Row 1 | No – and we do not plan to within the next two years. | <p>We use and dispose of some 1,000 t of plastics per year. Since we dispose of them appropriately as industrial waste, we consider their impact to be minor.</p> <p>We have set the following qualitative targets:</p> <ul style="list-style-type: none"> ◆ Selecting products using less volumes of plastics or alternative products to the extent possible ◆ Maintaining and increasing the recycling rate to encourage recycling of plastic waste |

W10.5

(W10.5) Indicate whether your organization engages in the following activities.

| | Activity applies | Comment |
|--|------------------|---------|
| Production of plastic polymers | No | |
| Production of durable plastic components | No | |
| Production / commercialization of durable plastic goods (including mixed materials) | No | |
| Production / commercialization of plastic packaging | No | |
| Production of goods packaged in plastics | No | |
| Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services) | No | |

W11. Signoff

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.

W11.1

(W11.1) Provide details for the person that has signed off (approved) your CDP water response.

| Job title | Corresponding job category |
|-----------|----------------------------|
|-----------|----------------------------|

| | | |
|----------|---|------------------------------------|
| Row 1 | Managing Executive Officer/General Manager, Corporate Strategy Division | Environment/Sustainability manager |
|----------|---|------------------------------------|

Submit your response

In which language are you submitting your response?

Japanese

Please confirm how your response should be handled by CDP.

| | I understand that my response will be shared with all requesting stakeholders | Public or Non-Public Submission |
|---------------------------------------|---|---------------------------------|
| Please select your submission options | Yes | Non-public |

Please indicate that your organization will allow CDP to share your information with the Pacific Institute to support the Water Action Hub website.

No

Confirm the following:

We have read and consent to the applicable conditions.