CDP

Module: Introduction

Page: W0. Introduction

W0.1

Introduction

Please give a general description and introduction to your organization.

Tokyo Electric Power Company, Incorporated (TEPCO) was established in 1951 to supply electric power to the Tokyo metropolitan area, and for more than half a century it has continued to support society and public life with high-quality electric power.

The Tohoku-Chihou-Taiheiyou-Oki Earthquake, which struck on March 11, 2011, precipitated a serious accident at Fukushima Daiichi Nuclear Power Station. TEPCO has seen considerable weakening in its financial standing and income structure due to factors associated with the aforementioned event, such as the recording of substantial expenses and losses and an increase in fuel costs accompanying the suspension of nuclear power generation. In short, TEPCO has been confronted with an unprecedented major crisis.

Addressing the situation, TEPCO, along with the Nuclear Damage Compensation and Decommissioning Facilitation Corporation (NDF), formulated the Comprehensive Special Business Plan, putting together a program of drastic streamlining, management reforms, and other steps. Simultaneously, TEPCO strengthened its financial position through the issuance of preferred stocks totaling ¥1 trillion, with the NDF as allottee.

As a result of the above, including such initiatives as exhaustive cost reductions, in the year ended March 31, 2015, TEPCO was able to achieve profitability for a second consecutive year. Moreover, in anticipation of the full liberalization of the electric power industry, TEPCO has decided to shift to a holding company System in April 2016, with the aim of simultaneously fulfilling its responsibilities to the communities of Fukushima and boosting its competitiveness. Once inaugurated, the holding company will assume full responsibilities regarding the payment of compensation, the decommissioning of the nuclear reactors, and the revitalization of Fukushima. Meanwhile, the TEPCO Group will optimally reallocate its management resources, with each operating subsidiary implementing business strategies best suited to its respective characteristics. In these ways, the TEPCO Group will enhance its overall corporate value.

Please note the provided information is public and is available in our website http://www.tepco.co.jp/en/index-e.html

W0.2

Reporting year

Please state the start and end date of the year for which you are reporting data.

Period for which data is reported

Tue 01 Apr 2014 - Tue 31 Mar 2015

W0.3

Reporting boundary

Please indicate the category that describes the reporting boundary for companies, entities, or groups for which water-related impacts are reported.

Companies, entities or groups over which financial control is exercised

W0.4

Exclusions

Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?

Yes

W0.4a

Exclusions

Please report the exclusions in the following table

Exclusion	Please explain why you have made the exclusion
Overseas Offices (Washington, London, Beijing)	Since each office is a small leased space (about 10 employees) where the amount of water usage is small, water-related risk associated with these 3 offices is negligible.

Further Information

Module: Current State

Page: W1. Context

Please rate the importance (current and future) of water quality and water quantity to the success of your organization

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital for operations	Important	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production. Freshwater is directly used to generate power at hydro power plants, and it is also used to produce and cool steam at nuclear and thermal power plants. They are also necessary for many of our suppliers, in particular coal producers. They need lots of water to extract and wash coal.
Sufficient amounts of recycled, brackish and/or produced water available for use	Not very important	Not very important	We do not believe that recycled, brackish or produced water is important to our business operations, because we mostly rely on freshwater in our operations. Likewise, we are not aware that any of our major suppliers uses a sizeable amount of recycled, brackish or produced water. This is why we reckon that recycled, brackish or produced water is not very important to our suppliers.

W1.2

For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals- total volumes	76-100	Water withdrawals are measured and monitored at all of our power stations and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At some power stations or offices, we submit yearly data based on the agreement with local governments where they are located.
Water withdrawals- volume by sources	76-100	Water withdrawals by sources are measured and monitored at all of our power stations and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At some power stations or offices, we submit yearly data based on the agreement with local governments where they are located.
Water discharges- total volumes	76-100	Water discharges are measured and monitored at all of our power stations and offices every fiscal year as INPUT/OUTPUT material flow in our environmental management system. At some power stations, we submit yearly data based on the agreement with local governments where they are located.
Water discharges- volume by destination	76-100	Water discharges by destination are measured and monitored at all of our power stations and offices every fiscal year in our environmental management system. At some power stations, we submit yearly data based on the agreement with local governments where they are located. And water discharge destinations are fixed by the location of each power plant.
Water discharges- volume by treatment method	76-100	Water discharges by treatment method are measured and monitored at all of our power stations and offices every fiscal year in our environmental management system. At some power stations, we submit yearly data based on the agreement with local governments where they are located.
Water discharge quality data- quality by standard effluent parameters	76-100	The quality of water discharges is measured and monitored at all of our power stations and offices based on standards effluent parameters in our environmental management system. The monitoring frequency depends on measurement items or guidance of public administrations; hourly, daily, monthly, yearly, etc.
Water consumption- total volume	76-100	Water consumption is measured and monitored at all of our power stations and offices every fiscal year in our environmental management system.
Facilities providing fully- functioning WASH services for all workers	76-100	TEPCO continuously monitors if we are providing all of our employees at all of our facilities with safe drinking water and sanitation. We respect our employees' character and individuality and are committed to providing them with a good working environment.

W1.2a

Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	5570000	About the same	The figure is the quantity of water intake at our hydroelectric plants, approved by the Ministry of Land, Infrastructure, Transport and Tourism.
Brackish surface water/seawater	40082256	About the same	The figure is the quantity of designed seawater intake at our thermal power plants in operation. The seawater is used in heat exchangers in the condensers at each plant, but that does not accompany consumption. Note that all of our nuclear power plants have stopped their operation since 2011.
Rainwater	0	About the same	The volume of rainwater used in a few offices as flush toilet water is quite small.
Groundwater - renewable	278	Lower	The volume of renewable groundwater was lower thanks to the effect of the inflow prevention countermeasure of groundwater at Fukushima Daiichi Nuclear Power Station.
Groundwater - non- renewable	0	Not applicable	We do not use any non-renewable groundwater.
Produced/process water	0	Not applicable	We do not use any produced or process water.
Municipal supply	1062	About the same	The figure is total amount of industrial water used in thermal power plants and municipal

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
			supply water used in offices, and it is almost the same as that in the previous year.
Wastewater from another organization	0	Not applicable	We do not use any wastewater from another organization.
Total	45653596	About the same	The total volume of water withdrawn was almost the same as that in the previous year.

W1.2b

Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	5570000	About the same	The figure is the same as the quantity of water intake at our hydroelectric plants, approved by the Ministry of Land, Infrastructure, Transport and Tourism. We assume the volume of water discharge should be the same as the volume of water intake.
Brackish surface water/seawater	40082262	About the same	The volume of discharge into the sea was almost the same as that in the previous year.
Groundwater	0	About the same	Almost all of the water withdrawals at the Fukushima Daiichi Nuclear Power Station is stored for purification for the time being, and not discharged in the contaminated state. We estimate that the quantity of water leaked to the sea or groundwater was quite small, in the region of a few thousand litters in total, which is 0.00 million litter if we round the number to two decimal places.
Municipal/industrial wastewater treatment plant	1050	About the same	The volume of discharge into sewage systems was almost the same as that in the previous year.
Wastewater for another organization	0	Not applicable	
Total	45653312	About the same	The total volume of discharge was almost the same as that in the previous year.

W1.2c

Water consumption: for the reporting year, please provide total water consumption data, across your operations

Consumption (megaliters/year)	How does this consumption figure compare to the last reporting year?	Comment
284	Lower	Most of the water consumption given here is in fact the amount of water newly stored at the Fukushima Daiichi Nuclear Power Station in FY2014. Almost all of the water withdrawals at the Fukushima Daiichi Nuclear Power Station is stored for purification for the time being. Depending on the amount of the water withdrawals, the amount of water consumption (water storage) in FY2014 was lower compared to that in FY2013.

W1.3

Do you request your suppliers to report on their water use, risks and/or management?

No

W1.3a

Please provide the proportion of suppliers you request to report on their water use, risks and/or management and the proportion of your procurement spend this represents

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage

W1.3b

Primary reason	Please explain
Assessed risk but no risk found	TEPCO undertakes comprehensive risk assessments six-monthly. So far substantive water risks associated with our suppliers have not been identified. For example, we understand that a sizeable amount of freshwater is used by our suppliers of coal when they extract and wash coal, but we are not aware of any single coal supplier that faces immediate water-related risks. We will, however, continue to evaluate water risk in our supply chain in terms of its impact and its likelihood of occurrence, and when we detect any significant water risk, we will take measures against it.

W1.4

Has your organization experienced any detrimental impacts related to water in the reporting year?

Yes

W1.4a

Please describe the detrimental impacts experienced by your organization related to water in the reporting year

Country	River basin	Impact indicator	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
Japan	Other: Adjoining groundwater flow and the Pacific coast of Fukushima Daiichi Nuclear Power Station	Phys- Declining water quality	Constraint to growth	The Fukushima Daiichi Nuclear power station was attacked by a huge tsunami caused by the Tohoku-Chihou-Taiheiyou-Oki Earthquake on March 11 2011. After that, at this Power Station, approximately 150 tons per day of groundwater, which naturally runs from the mountain side to the ocean, flow into reactor buildings and become newly contaminated water. Though we have taken various countermeasures against this situation, it caused declining water quality and negative media coverage and that have had the negative impact on our finance situation and strategies for growth.	Over 4 years Contaminated water situation was ascertained in Dec. 2011, and treatment management is currently in process.	After the Fukushima Daiichi accident, decommissioning plan is proceeded based on "Mid-and-long-term Roadmap towards Restoration from the Accident at Fukushima Daiichi Nuclear Power Station", and 1 trillion JPY is reserved for it. But in consideration of the current situation at the Fukushima Daiichi Nuclear Power Station and various risks related to contaminated water, the government has required TEPCO additional expenditure expansion for more 1 trillion JPY within the next decade.	Increased capital expenditure	Risks are estimated that the contaminated water may flow out to the port or leak from the storing tanks. And we have taken various countermeasures based on the three basic principles for water management, "REMOVE the source of water contamination", "REDIRECT fresh water from contaminated areas", and "RETAIN contaminated water from leakage". These countermeasures require capital expenditure and highly specialized and new technologies.

W1.4b

Please choose the option below that best explains why you do not know if your organization experienced any detrimental impacts related to water in the reporting year and any plans you have to investigate this in the future

Primary reason	Future plans

Further Information

Module: Risk Assessment

Page: W2. Procedures and Requirements

W2.1

Does your organization undertake a water-related risk assessment?

Water risks are assessed

Please select the options that best describe your procedures with regard to assessing water risks

Risk assessment procedure	Coverage	Scale	Please explain
Comprehensive company-wide risk assessment	Direct operations and supply chain	All facilities and suppliers	TEPCO practices comprehensive risk management to prevent accidents or disasters. We believe that water risks have to be dealt with in a comprehensive manner as part of a company-wide risk assessment, because water risks could significantly affect our operations. For example, a reduced availability of water could affect the amount of electricity generated at our hydro power plants, and a restricted supply of industrial water could affect the amount of electricity generated at our thermal power plants. The Risk Management Committee, chaired by the president of TEPCO as the chief risk management executive, plays a central role in assessing and evaluating risks related to direct operations and supply chain that could have a particularly serious impact on business. Its deliberations are reflected in annual management plans. Risks associated with water are also assessed and evaluated in this process in consideration of those stemming from economic and climatic conditions, industry deregulation, equipment and operations, and interest rate fluctuation. Risks specific to each risk management unit (head office departments, offices, and power plants) are managed and addressed by each risk manager. Risks common to all risk management units are addressed by internal committees.

W2.3

Please state how frequently you undertake water risk assessments, what geographical scale and how far into the future you consider risks for each assessment

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Six-monthly or more frequently	River basin	>6 years	Water risks are assessed six-monthly in TEPCO comprehensive risk management and more frequently in each risk management unit. Risks are assessed for river basins where each facility is located and considered into the future as far as they can be assumed.

W2.4

Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?

Yes, evaluated over the next 10 years

W2.4a

Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?

After the Fukushima Daiichi accident, TEPCO's business has been proceeded based on the "Comprehensive Special Business Plan" drafted by the Nuclear Damage Liability Facility Fund and TEPCO. Therefore, the success of TEPCO's growth strategy depends on the accomplishment of this plan. The decommissioning of the Fukushima Daiichi Nuclear Power Station occupies an important role in this plan, and contaminated water management is a key factor of it. TEPCO's growth strategy therefore rests greatly on how we can control the contaminated water, and this particular water risk is, and will be, the single most important risk for us now and in the foreseeable future. When our risk assessment is revised, that will, as necessary, be reflected in this plan. In fact, re-evaluated risks related to contaminated water contributed to revising the plan, as the "New Comprehensive Special Business Plan", and additional expenditure expansion for the decommissioning project has required in it, which made us revise our growth strategy.

W2.4b

What is the main reason for not having evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?

Main reason	Current plans	Timeframe until evaluation	Comment	
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W2.5

Please state the methods used to assess water risks

Method	Please explain how these methods are used in your risk assessment
Internal company knowledge Life Cycle Assessment Regional government	We make use of various methods and databases to assess water-related risks in our direct operations and supply chain. Regional government databases offer information on regulations, water tariffs and basin management plans of each administrative area. TEPCO uses information obtained from regional government databases for us to be in compliant with regulations applicable to our water withdrawals and discharges, and to better manage water-related costs. When we construct a new power plant, environmental impact

Method	Please explain how these methods are used in your risk assessment
databases Other: Environmental Impact Assessment	assessment is conducted as required by the Environmental Impact Assessment Act. We assesses impact from water withdrawals and discharges on the ecosystems and habitats. As for contaminated water management at the Fukushima Daiichi nuclear power station, there is no domestic and international standardized methods to assess risks. Therefore, measures are taken based on internal company knowledge from operational management in nuclear power plant or new developing technologies. We also make use of internal company knowledge when we assess risks from stakeholder conflicts. When we assess water risks in our supply chain, we mostly use Life Cycle Assessment.

W2.6

Which of the following contextual issues are always factored into your organization's water risk assessments?

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production. We always obtain information on water availability and quality of each region from regional government databases, and assesses its impact on our business.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	Water regulations and tariffs are different among administrative regions. If we are to better respond to these, we need to monitor if there will be any changes to water regulations and tariffs. When we do this, we mostly rely on regional government databases.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production, and any stakeholder conflicts concerning water resources may have some negative impact on our business. We keep collecting information on potential conflicts from various sources, especially our internal company knowledge accumulated in our power plants, and prepare to deal with them as our risk management.
Current implications of water on your key commodities/raw materials	Relevant, included	We understand that a sizeable amount of freshwater is used by some of our suppliers, especially coal producers. They need lots of water to extract and wash coal. We make use of life cycle assessment, drawing upon the latest studies by Central Research Institute of Electric Power Industry or other institutes, as well as our internal company knowledge on where our suppliers are located, when we consider potential water risks in our suppy chain.
Current status of ecosystems and habitats at a local level	Relevant, included	When we construct a new power plant, environmental impact assessment is conducted as required by the Environmental Impact Assessment Act. We assesses impact from water withdrawals and discharges on the ecosystems and habitats so that our operations will not disrupt them.
Current river basin management plans	Relevant, included	Any changes to river basin management plans may have some impact on our water withdrawals and discharges. We refer to regional government databases and keep in touch with each local government to collect information concerned to prepare to respond to them in a timely manner.
Current access to fully-functioning WASH services for all employees	Relevant, included	TEPCO is committed to creating a fair and secure working environment to all employees, and helps them maintain and improve their health. And we ensure the safety of water by providing fully-functioning WASH services at all power plants and offices. We continuously monitor if we are providing all of our employees at all of our facilities with safe drinking water and sanitation. Failure to do so will entail significant risk. We take into account the information gained through this monitoring when we evaluate water-related risks.
Estimates of future changes in water availability at a local level	Relevant, included	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production. Future changes in water availability may have serious impact on our business. We always obtain information on water availability of each region from regional government databases, and assesses its impact on our business.
Estimates of future potential regulatory changes at a local level	Relevant, included	Water regulations and tariffs are different among administrative regions. Future potential regulatory changes may have some impact in our water withdrawal and discharge. If we are to better respond to these, we need to monitor if there will be any changes to water regulations and tariffs. When we do this, we mostly rely on regional government databases.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production, and any future potential stakeholder conflicts concerning water resources may have some negative impact on our business. We keep collecting information on potential conflicts from various sources, especially our internal company knowledge accumulated in our power plants, and prepare to deal with them as our risk management.
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	We understand that a sizeable amount of freshwater is used by some of our suppliers, especially coal producers. They need lots of water to extract and wash coal. We make use of life cycle assessment, drawing upon the latest studies by Central Research Institute of Electric Power Industry or other institutes, as well as our internal company knowledge on where our suppliers are located, when we consider potential water risks in our suppy chain.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Referring to the regional government databases or through dialogue with experts, we are gethering information of estimates of future potential changes in the status of ecosystems and habitats which are expected to have some impact on our business.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production. Future changes in water availability may have serious impact on our business. We always obtain information on water availability of each region from regional government databases, and assesses its impact on our business, considering multiple scenarios.
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	Water regulations and tariffs are different among administrative regions. Future potential regulatory changes may have some impact in our water withdrawal and discharge. If we are to better respond to these, we need to monitor if there will be any changes to water regulations and tariffs, and assess risks with multiple scenarios. When we do this, we mostly rely on regional government databases.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	Sufficient amounts of good quality freshwater are vital for our direct operations because they are necessary for electricity production, and any future potential stakeholder conflicts concerning water resources may have some negative impact on our business. We keep collecting information on potential conflicts from various sources, especially our internal company knowledge accumulated in our power plants, and prepare to deal with them, considering multiple scenarios, as our risk management.
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included	We understand that a sizeable amount of freshwater is used by some of our suppliers, especially coal producers. They need lots of water to extract and wash coal. We make use of life cycle assessment, drawing upon the latest studies by Central Research Institute of Electric Power Industry or other institutes, as well as our internal company knowledge on where our suppliers are located, when we consider potential water risks in our suppy chain with multiple scenarios.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Referring to the regional government databases or through dialogue with experts, we are gethering information of estimates of future potential changes in the status of ecosystems and habitats which are expected to have some impact on our business. We asses risks from future changes in the status of ecosystems and habitats, considering multiple scenarios.

Which of the following stakeholders are always factored into your organization's water risk assessments?

Stakeholder	Choose option	Please explain
Customers	Relevant, included	Facing electricity deregulation in Japan, TEPCO needs to prevent customers from defecting. Since our water issues (especially contaminated water issues) may have some impact on our reputation, we are working on collecting opinions from customers on water issues and improving transparency of information disclosed so that our credibility is enhanced.
Employees	Relevant, included	TEPCO is committed to creating a fair and secure working environment to all employees, and helps them maintain and improve their health. And we ensure the safety of water by providing fully-functioning WASH services at all power plants and offices. Failure to do so will entail significant risk. We continuously monitor if we are providing all of our employees at all of our facilities with safe drinking water and sanitation. We take into account the information gained through this monitoring when we evaluate water-related risks.
Investors	Relevant, included	Since our water issues (especially contaminated water issues) may have some impact on our reputation, which in turn may influence investors' behavior, we are working on promptly disclosing correct data and accurate information on contaminated water in which investors seem keenly interested.
Local communities	Relevant, included	Relationships with local communities are essential to our business. Water risks of each of our facilities are informed to the local community where it is located. We are working on reflecting opinions and securing transparency in close communications.
NGOs	Relevant, included	In dialogue with NGOs, we are working on reflecting opinions from them and securing transparency. We are working on promptly disclosing correct data and accurate information on contaminated water in which NGOs seem keenly interested.
Other water users at a local level	Relevant, included	Water risks are common issues for local users. In dialogue with them, we are working on information exchange and sharing countermeasures especially in case of water shortages.
Regulators	Relevant, included	Legislative amendments may have some impact on our business. We are working on getting a situation of status change in close communications with regulators concerning water issues, especially Ministry of Environment or Ministry of Land, Infrastructure, Transport and Tourism.
River basin management authorities	Relevant, included	A status change in river basin management plan may have some impact on our facilities' operations. We maintain close communications with local management authorities concerning water issues, and are working on information exchange.
Statutory special interest groups at a local level	Relevant, included	In dialogue with local statutory special interest groups, we are working on reflecting opinions and securing transparency in close communications.
Suppliers	Relevant, included	We understand that a sizeable amount of freshwater is used by some of our suppliers, especially coal producers. They need lots of water to extract and wash coal. We make use of life cycle assessment, drawing upon the latest studies by Central Research Institute of Electric Power Industry or other institutes, as well as our internal company knowledge on where our suppliers are located, when we consider potential water risks in our supply chain. Our understanding to date is that water risks in our supply chain is insignificant, which is why we do not directly engage our suppliers to obtain further information from them.
Water utilities/suppliers at a local level	Relevant, included	Water supply stability and tariffs are significant factors in our water risk assessment. Since they are different depending on the local water utilities, each of our facilities is considering the supply stability and tariffs under its contract and continues close communication with them.
Other		

W2.8

Please choose the option that best explains why your organisation does not undertake a water-related risk assessment

Primary reason	Please explain

Further Information

Module: Implications

Page: W3. Water Risks

W3.1

Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?

Yes, direct operations only

W3.2

Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk

Currently, TEPCO's business is proceeded based on "Comprehensive Special Business Plan" drafted by the Nuclear Damage Liability Facility Fund and TEPCO. The substantive change in our business is supposed to be the delay, incomplete execution or revision of this plan. When we determine if there is such a substantive change, we take into account factors such as the gap between the plan and achievement, and the achievability of the plan, which reflects the results of our risk evaluation. There can be no single, pre-determined quantitative threshold with which we can determine if a change is substantive or not. Our determination is rather comprehensive, based on multiple criteria, which include qualitative ones. This definition of 'substantive change' applies to our direct operations and supply chain, but we do not anticipate such a substantive change in our supply chain.

Our Comprehensive Special Business Plan deeply concerns our whole business, operations, revenue or expenditure. The decommissioning of the Fukushima Daiichi Nuclear Power Station occupies an important role in this plan, and contaminated water management, which is our biggest risk, is a key factor of it. In 2014, re-evaluated risks related to contaminated water contributed to revising the Comprehensive Special Business Plan, and the additional expenditure expansion has required for more 1 trillion JPY within the next decade.

The solution of contaminated water issues would lead to the success of the decommissioning project, which would help complete the Comprehensive Special Business Plan in a defined period.

W3.2a

Please provide the number of facilities* per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure and the proportion this represents of total operations company-wide

Country	River basin	Number of facilities exposed to water risk	Proportion of total operations (%)	Comment
Japan	Other: Adjoining groundwater flow and the Pacific coast of Fukushima Daiichi Nuclear Power Station	1	Less than 1%	The facility exposed serious water risks is only Fukushima Daiichi Nuclear Power Station. TEPCO has 196 power generation stations (as of the end of FY2014), and the proportion of total operations is 0.5%.

W3.2b

Please provide the proportion of financial value that could be affected at river basin level associated with the facilities listed in W3.2a

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected within the river basin	Comment
Japan	Other: Adjoining groundwater flow and the Pacific coast of Fukushima Daiichi Nuclear Power Station	% generation capacity	6-10	The generation capacity of Fukushima Daiichi Nuclear Power Station is 4,696MW, and its percentage composition of total TEPCO's capacity (66,472MW) is 7.1%.

W3.2c

Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
Japan	Other: Adjoining groundwater flow and the Pacific coast of Fukushima Daiichi Nuclear Power Station	Physical- Pollution of water source	Constraint to growth	Currently, TEPCO's business is proceeded based on the "Comprehensive Special Business Plan", and the contaminated water management is a significant component factor in this plan. In 2014, re-evaluated risks related to contaminated water contributed to revising the Comprehensive Special Business Plan, and the additional expenditure expansion has required for more 1 trillion JPY within the next decade. This was exactly a substantive change in our business,	>6 years	Highly probable	High	Increased capital expenditure	According to the "New Comprehensive Special Business Plan" revised in 2014, the additional expenditure expansion for decommissioning of the Fukushima Daiichi Nuclear Power Station has required for more 1 trillion JPY within the next decade.	The breakdown of 1 trillion JPY expenditure is supposed to be 740 billion JPY for investment in the improvement for labor environment (e.g. building a new office) or investment in measures for contaminated water (e.g. expansion and reinforcement of purification facilities), and 300 billion JPY for subcontract cost (e.g. radiation control or operating the facilities) or repair costs (e.g. maintenance and inspection)

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				because the Plan deeply concerns our whole business, operations, revenue or expenditure. Therefore, we need to work on various risk reduction measures.						within the next decade.

W3.2d

Please list the inherent water risks that could generate a substantive change in your business operations, revenue or expenditure, the potential impact to your supply chain and the strategies to mitigate them

Count	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
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W3.2e

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your direct operations that could generate a substantive change in your business, operations, revenue or expenditure

ry reason Please explain

W3.2f

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your supply chain that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
Risks exist, but no substantive impact anticipated	TEPCO undertakes comprehensive risk assessments six-monthly. So far substantive water risks associated with our suppliers have not been identified. For example, we understand that a sizeable amount of freshwater is used by our suppliers of coal when they extract and wash coal, but we are not aware of any single coal supplier that faces immediate water-related risks. We will, however, continue to evaluate water risk in our supply chain in terms of its impact and its likelihood of occurrence, and when we detect any significant water risk, we will take measures against it.

W3.2g

Please choose the option that best explains why you do not know if your organization is exposed to water risks that could generate a substantive change in your business operations, revenue or expenditure and discuss any future plans you have to assess this

Primary reason	Future plans
Primary reason	Future plans

Further Information

Page: W4. Water Opportunities

W4.1

Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?

W4.1a

Please describe the opportunities water presents to your organization and your strategies to realize them

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Please explain
Company- wide	Cost savings	Water usage in all TEPCO offices are measured and monitored every fiscal year in our environmental management system. Very challenging targets (-15%) for the years FY2001-2005 were set against FY2000 benchmark, and resulted in a 39% decrease in FY2005. This initiative was a campaign in which each TEPCO employee is engaged to reduce water usage as well as energy and other resources usage in offices, and the cost reduction of this whole campaign is estimated at about a hundred million JPY. From FY2006 onwards, we have been aiming to maintain the reduced level of water usage we achieved in FY2005 since we realized we came to a point where a further reduction of water usage is extremely difficult.	Current-up to 1 year	We have been monitoring our water usage in our offices every fiscal year. We have been successful in maintaining the reduced level we achieved in FY2005, and we are confident that we will be able to maintain the reduced level of water usage in foreseeable future as well.

W4.1b

Please choose the option that best explains why water does not present your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain

W4.1c

Please choose the option that best explains why you do not know if water presents your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain

Further Information

Module: Accounting

Page: W5. Facility Level Water Accounting (I)

W5.1

Water withdrawals: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain
Facility 1	Japan	Other: Adjoining groundwater flow and the Pacific coast of Fukushima Daiichi Nuclear Power Station	Fukushima Daiichi Nuclear Power Station	278	Lower	The effect of the inflow prevention countermeasure of groundwater

Further Information

Page: W5. Facility Level Water Accounting (II)

W5.1a

Water withdrawals: for the reporting year, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.1

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non- renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 1	0	0	0	278	0	0	0	0	The amount of underground water poured into Fukushima Daiichi Nuclear Power Station

W5.2

Water discharge: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain
Facility 1	0	About the same	Almost all of the water withdrawals at the Fukushima Daiichi Nuclear Power Station is stored for purification for the time being, and not discharged in the contaminated state. We estimate that the quantity of water leaked to the sea or groundwater was quite small, in the region of a few thousand litters in total, which is 0.00 million litter if we round the number to two decimal places.

W5.2a

Water discharge: for the reporting year, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.2

Facility reference number	Fresh surface water	Municipal/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
Facility 1	0	0	0	0	0	Almost all of the water withdrawals at the Fukushima Daiichi Nuclear Power Station is stored for purification for the time being, and not discharged in the contaminated state. We estimate that the quantity of water leaked to the sea or groundwater was quite small, in the region of a few thousand litters in total, which is 0.00 million litter if we round the number to two decimal places.

W5.3

Water consumption: for the reporting year, please provide water consumption data for all facilities reported in W3.2a

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain
Facility 1	278	Lower	The figure given is in fact the amount of water newly stored at the Fukushima Daiichi Nuclear Power Station in FY2014. Almost all of the water withdrawals at the Fukushima Daiichi Nuclear Power Station is stored for purification for the time being. Depending on the amount of the water withdrawals, the amount of water consumption (water storage) in FY2014 was lower compared to that in FY2013.

W5.4

For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- total volumes	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.
Water withdrawals- volume by sources	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.
Water discharges- total volumes	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.
Water discharges- volume by destination	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.

Water aspect	% verification	What standard and methodology was used?
Water discharges- volume by treatment method	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.
Water discharge quality data- quality by standard effluent parameters	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.
Water consumption- total volume	Not verified	We have been examining the costs and benefits of having our water-related performance metrics externally verified, but have not reached a conclusion.

Further Information

Module: Response

Page: W6. Governance and Strategy

W6.1

Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
Board of individuals/Sub-set of the Board or other committee appointed by the Board	Scheduled- annual	The Director in charge of the environment is responsible for water issues generally. The director serves as the chairperson of the council of environment strategies, and water issues are discussed in this council every fiscal year. As for contaminated water management at the Fukushima Daiichi nuclear power station, the Managing Executive Officer in charge of decommissioning plan is responsible for it. And the situation concerned is reported to the board of directors as necessary.

W6.2

Is water management integrated into your business strategy?

Yes

W6.2a

Please choose the option(s) below that best explain how water has positively influenced your business strategy

Influence of water on business strategy	Please explain
Publicly demonstrated our commitment to water	As for contaminated water management at the Fukushima Daiichi nuclear power station, all of the information about the event occurred and data concerned are kept updated promptly on our website in order to provide interested parties with timely information they need and enhance our credibility. We believe that this has helped us regain some credibility and maintain our reputation, by demonstrating our commitment to solving the issue.

W6.2b

Please choose the option(s) below that best explains how water has negatively influenced your business strategy

Influence of water on business strategy	Please explain
Increased capital expenditure	The contaminated water issues at the Fukushima Daiichi Nuclear Power Station had a significant impact on our finance situation, and it is deeply concerned with our business strategies. At the end of FY2014, 986 billion JPY added up as the expenses for the decommission plan, and about 30 percent of this expenses (approx. 290 billion JPY) is accounted for the contaminated water management.

W6.2c

Please choose the option that best explains why your organization does not integrate water management into its business strategy and discuss any future plans to do so

Primary reason Please explain

W6.3

Does your organization have a water policy that sets out clear goals and guidelines for action?

Yes

W6.3a

Please select the content that best describes your water policy (tick all that apply)

Content	Please explain why this content is included
Publicly available Company-wide Incorporated within group environmental, sustainabiilty or EHS policy	Water policy of TEPCO is divided into general water management and contaminated water management. The former is intended to reduce environmental impact and to conserve energy and resources, and it is included in TEPCO's Environmental Policy. The latter is intended to mitigate risk actualized as an urgent issue, and it is referred to in the "Conprehensive Special Buisiness Plan" as a significant component factor. Both of them are related in financial conditions directly or indirectly, and necessary for our sustainable growth, and described in the "TEPCO Group Action Plan".

W6.4

How does your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting year compare to the previous reporting year?

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
+2	+2	The expenditures in 2014 have increased compared to previous fiscal year caused by the evaluated risks related to contaminated water at the Fukushima Daiichi Nuclear Power Station. Additional CAPEX is for investment in the expansion and reinforcement of purification facilities and investment in the replacement of the storage tanks, and additional OPEX is for subcontract and repair costs.

Further Information

Page: W7. Compliance

W7.1

Was your organization subject to any penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations in the reporting year?

No

W7.1a

Please describe the penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations and your plans for resolving them

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
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W7.1b

What proportion of your total facilities/operations are associated with the incidents listed in W7.1a

Please indicate the total financial impacts of all incidents reported in W7.1a as a proportion of total operating expenditure (OPEX) for the reporting year. Please also provide a comparison of this proportion compared to the previous reporting year

Impact as % of OPEX Comparison to last year

Further Information

Page: W8. Targets and Initiatives

W8.1

Do you have any company wide targets (quantitative) or goals (qualitative) related to water?

Yes, targets and goals

W8.1a

Please complete the following table with information on company wide quantitative targets (ongoing or reached completion during the reporting period) and an indication of progress made

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base- line year	Target year	Proportion of target achieved, % value
Reduction in consumptive volumes	Other: initiative to internal energy and resource conservation	Medium-term targets for the years FY2001-2005 have engaged each TEPCO Employee in the tackle to conserve energy and resources. Very challenging reduction target (-15%) in water usage in offices were set against FY2000 benchmark. As a result, we achieved a 39% reduction in FY2005. From FY2006 onwards, we have been aiming to maintain the reduced level of water usage we achieved in FY2005 since we realized we came to a point where a further reduction of water usage is extremely difficult. Therefore, our current target is to keep our water usage at the FY2005 level.	% reduction of water sourced from municipal supply	2005	2014	100%

W8.1b

Please describe any company wide qualitative goals (ongoing or reached completion during the reporting period) and your progress in achieving these

Goal	Motivation	Description of goal	Progress
Other: Conservation of ecosystems	Shared value	Water and forest resources are essential to electric power companies. We expect all the employees of TEPCO should work on nature protection aggressively to prevent exhaustion of natural resources, and we believe these activities would help local communities and society understand our business. Protection activity in Oze with rich water is one such example that symbolizes our nature protection activities, and protection in Oze is also related to employee's environment conscious improvement. TEPCO owns about 70% of the Oze National Park Special Protection Area (approx. 16,000 ha), which corresponds to about 40% of the entire national park. In 2005 it won recognition as a wetland of international importance under the Ramsar Convention. We recognize the beautiful nature of Oze and its watershed protection forest as a national asset, and as our social responsibility as owner of the land, we have spent more than half-century protecting the beautiful environment. The goals of our activies in Oze are to preserve the natural environment or biodiversity and to restore the damaged marshland or watershed protection forest. And we will continue this activities as long as we own it to deliver this asset to the next generations.	To allow visitors to experience the nature of Oze up close while minimizing any impact on the natural elements, wooden boardwalks through the park over a total distance of around 65 kilometers. TEPCO is restoring and renewing about 20 kilometers of those boardwalks in Gunma Prefecture. In the harsh natural environment of wetlands, these boardwalks have tobe replaced every 10 years or so, and we carry out systematic maintenance every year. And we have been working to recover marshland vegetation since 1969 at Ayame Daira, located south of the Ozegahara Wetlands, once known as Japan's "heavenly paradise." The mountain climbing boom of the 1960s and the rapid increase in hikers devastated much of this area. Located in the frigid zone, Oze has a very delicate ecosystem, with a layer of peat (formed by dead plants and animals that do not decompose) that grows no more than 1 mm per year. To restore overtrodden this area (approx. 1 ha) to its original state, TEPCO has systematically planeted seeds of mitakesuge sedge, which grows over the entire Oze mashland. Steady efforts to create a green foundation for the marshland and stimulate a recovery of Oze's unique ecosystem continue today. We have so far succeeded in restoring as much as approximately 90% of the marshland's original green landscape.

W8.1c

Please explain why you do not have any water-related targets or goals and discuss any plans to develop these in the future

Module: Linkages/Tradeoff

Page: W9. Managing trade-offs between water and other environmental issues

W9.1

Has your organization identified any linkages or trade-offs between water and other environmental issues in its value chain?

Yes

W9.1a

Please describe the linkages or trade-offs and the related management policy or action

Environmental issues	Linkage or trade- off	Policy or action
Biodiversity conservation	Linkage	TEPCO owns about 70% of the Oze National Park Special Protection Area (approx. 16,000 ha), which corresponds to about 40% of the entire national park. We inherited the land in the early 1900s at the time of establishment from a precedent electric power company, which originally acquired the land with the aim of utilizing its abundant water resources for power generation. When the power generation plan was abandoned thereafter, we have been keeping watershed protection forest in good condition, contributing to the stable hydraulic power generation of the lower basin, and protecting the biodiversity there.

Further Information

Module: Sign Off

Page: Sign Off

W10.1

Please provide the following information for the person that has signed off (approved) your CDP water response

Name	Job title	Corresponding job category
Hiroshi Yamaguchi	Executive Vice President, Member of the Board of Directors	Board/Executive board

W10.2

Please select if your organization would like CDP to transfer your publicly disclosed response strategy from questions W1.4a, W3.2c and W3.2d to the CEO Water Mandate Water Action Hub.

No

Further Information

CDP 2016 Water 2016 Information Request