

Welcome to your CDP Water Security Questionnaire 2023

W0. Introduction

W0.1

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

NEC was established on July 17 1899 by Kunihiko Iwadare and his colleague as Japan's first joint venture corporation with a foreign-capitalized company (Western Electric in the U.S.: current Alcatel-Lucent). NEC Group consists of NEC Corporation and its affiliate companies, mainly consolidated subsidiaries. NEC Group has five major business areas: Public Solutions Business, Public Infrastructure Business, Enterprise Business, Network Services Business, and Global Business. Affiliate companies take part in these businesses according to their roles, such as designing, development, manufacturing, sales, and offering of services.

The business outline is as follows.

Public Solutions Business: NEC provides IT systems and network systems to local governments, medical institutions, electric power companies and others, while operating branch offices throughout Japan and developing business closely related to each region.

Public Infrastructure Business: NEC provides governments, governmental agencies, broadcasting stations and others with social infrastructure, such as large-scale mission-critical systems and network systems that enable people to live with peace of mind and comfort.

Enterprise Business: NEC provides IT solutions in manufacturing, retail and services, and finance in the private sector, helping customers to launch new services. We will resolve social issues and create value for customers through value chain innovation utilizing ICT assets as IoT and AI.

Network Services Business: NEC provides network control platform systems and operating services for operations management, along with equipment for network implementation. NEC's wealth of experience in large-scale network implementation and strong technical capabilities help us contribute to the resolution of social issues by providing safe, reliable, and efficient high-value-added networks for the age of IoT through the creation of value with our clients and business partners.

Global Business: NEC provides biometric authentication solutions, software services for service providers, and large-scale energy storage systems for international markets. Utilizing advanced technologies related to AI and IoT, NEC contributes to solving social issues including the realization of safe, secure, efficient and fair communities.

W0.2

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

	Start date	End date
Reporting year	April 1, 2022	March 31, 2023

W0.3

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

- Argentina
- Brazil
- Canada
- Chile
- China
- Colombia
- Denmark
- Germany
- Hungary
- Japan
- Philippines
- Portugal
- Saudi Arabia
- Singapore
- South Africa
- Taiwan, China
- Thailand
- Turkey
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Viet Nam

W0.4

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

- JPY

W0.5

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

- Companies, entities or groups over which financial control is exercised

W0.6

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

Yes

W0.6a

(W0.6a) Please report the exclusions.

Exclusion	Please explain
1. Small offices 2. Tenants without production facilities 3. Other facilities with an estimated water usage of 0.5% or less of the total	Small offices with approximately a few dozen employees, where the water usage of the facility is estimated to be 0.5% or less of the total, and tenants without production facilities that only use domestic water such as drinking water are excluded from the report. These facilities use water for WASH services only and do not use water for production purposes. It is estimated that the total water usage of the excluded facilities accounts for 7% of the Group's overall water usage. Locations with water risks such as data centers and manufacturing facilities are not subject to exclusion, and are included in this report.

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	JP3733000008

W1. Current state

W1.1

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

	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital	Important	NEC uses freshwater mainly for cooling the equipment of production plants and air-conditioning. Freshwater is "vital" because if we are unable to use freshwater, we would be unable to carry out cooling of equipment and air-conditioning, resulting in a disturbance in production. In particular, we have 9 data centers in

			<p>Japan and overseas, and expand its business. A large amount of cooling water is used in the data center to maintain the equipments. If this water is not available and the equipments stop, it will be a great damage to not only our business but also the customers using the data center. Therefore, sufficient amounts of a good quality freshwater is "vital".</p> <p>In terms of indirect usage, water is classified as "Important" since large amounts of water is used in the cleaning process of manufacturing semiconductors and liquid crystals, which are procured via a global supply chain and are vital components in products manufactured by NEC. Insufficient quantity and quality of water could hinder the production of semiconductors and liquid crystals, which could in turn disrupt procurement and adversely impact the production of NEC products.</p> <p>Future dependence on water is expected to remain unchanged for direct use and declining for indirect use. The reason is that NEC's main business is expected to be centered on the software business and service business, and the hardware product business is expected to shrink.</p>
<p>Sufficient amounts of recycled, brackish and/or produced water available for use</p>	<p>Not very important</p>	<p>Not very important</p>	<p>At some of the NEC Group's production plants, used fresh water is reused as reclaimed water for cooling facilities. In addition, wastewater reuse systems have been installed in restrooms and hot water supply rooms to reuse some of the wastewater in the facilities as gray water. The percentage of reclaimed water to total usage is low, and we expect this situation to remain unchanged in the future, so our reliance on it remains low.</p> <p>With regard to indirect use, NEC believes that the impact of the shortage of reclaimed water will be small. One reason for this is that NEC has been downsizing its hardware product business in recent years and shifting its core business to software product and service businesses. Since this trend is expected to continue in the future, NEC's dependence on recycled water is expected to remain low.</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 volumes	100%	Continuously	The volume of renewable groundwater withdrawals is measured with the Hydrometer once a month. The volume of third-party sources is grasped with a bill sent to sites once every one or two months.	The total volume of water withdrawals is recorded at all sites. Approximately 70 percent of the total volume of water withdrawals is clean water (third-party sources), and the rest (30 percent) is renewable groundwater. Each site inputs the volume of water withdrawals into a database once every two to six months. The total volume used in the whole NEC Group is aggregated once every six months.
Water withdrawals – volumes by source	100%	Continuously	The volume of renewable groundwater withdrawals is measured with the Hydrometer once a month. The volume of third-party sources is grasped with a bill sent to sites	Water withdrawals – volumes by source 100% The total volume of water withdrawals is recorded at all sites. Approximately 70 percent of the total volume of water withdrawals is clean water (third-

			once every one or two months.	party sources), and the rest (30 percent) is renewable groundwater. Each site inputs the volume of water withdrawals into a database once every two to six months. The total volume used in the whole NEC Group is aggregated once every six months.
Water withdrawals quality	100%	Continuously	In accordance with the Building Sanitation Management Law, residual chlorine measurement is conducted once a week.	We prepare for risks by setting voluntary standards that are stricter than laws and regulations.
Water discharges – total volumes	100%	Continuously	The volume of water discharge is grasped with a bill that is sent to sites once every one or two months based on the sewer meter. Some sites that do not use the sewer meter are charged according to the total volume of water withdrawals minus the amount of evaporation from the cooling tower. The measurement	The total volume of water discharge is recorded at all sites. Approximately 80 percent of the drainage destination is sewerage systems (third-party destinations). The rest (20 percent) is rivers. The destination of almost all sites is one of these two. Each site inputs the volume of water discharge into a database once every two to

			<p>and the report are conducted every day.</p> <p>The volume of discharge into rivers is recorded with the flowmeter monthly.</p>	<p>six months. The total volume of water discharge in the whole NEC Group is aggregated once every six months.</p>
Water discharges – volumes by destination	100%	Continuously	<p>The volume of water discharge is grasped with a bill that is sent to sites once every one or two months based on the sewer meter. Some sites that do not use the sewer meter are charged according to the total volume of water withdrawals minus the amount of evaporation from the cooling tower. The measurement and the report are conducted every day.</p> <p>The volume of discharge into rivers is recorded with the flowmeter monthly.</p>	<p>The total volume of water discharge is recorded at all sites. Approximately 80 percent of the drainage destination is sewerage systems (third-party destinations). The rest (20 percent) is rivers. The destination of almost all sites is one of these two. Each site inputs the volume of water discharge into a database once every two to six months. The total volume of water discharge in the whole NEC Group is aggregated once every six months.</p>
Water discharges – volumes by treatment method	100%	Continuously	<p>The total volume of water discharge from production facilities is recorded by water discharge meter once every</p>	<p>We can grasp the total volume of water discharges at non-production facilities, since water is used for domestic use only and is drained to</p>

			six months as the volume that has to be treated.	the sewer without the need for in-house water discharge treatment. Production facilities need to treat effluent.
Water discharge quality – by standard effluent parameters	100%	Daily	We measure pH using a pH meter continuously and ensure that treatment is properly conducted.	Since water is used for domestic use only at non-production facilities, we believe that there is no problem in water discharge quality. At production facilities, effluent is properly treated with microorganisms or chemical agents to comply with the effluent standards. The pH of the water is monitored 24 hours a day, and an alert is automatically raised when abnormal values are detected. As the drainage will be intercepted when an abnormal value is detected, only completely treated effluent is discharged. A monthly report from each site is checked to make sure that proper treatment is conducted at all

				sites of the NEC Group.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	100%	Continuously	We take water samples and ask the analysis center to measure the concentration every week.	NEC measures the phosphorus concentration once a week. We referred to the wastewater measurement results of the plant described in the "water quality measurement analysis report". Phosphorus emissions to water were calculated by multiplying the average phosphorus concentration by the wastewater discharge. We always confirm that the standard value is not exceeded.
Water discharge quality – temperature	100%	Continuously	Monitoring of effluent temperature using thermometer is carried out once every one to six months according to the Sewerage Service Act, to make sure that the standards required by the Act are met.	The risk associated with effluent temperature is estimated to be low because we don't have any process that discharges high-temperature or low-temperature water.
Water consumption – total volume	100%	Daily	The volume of evaporation is measured by hydrometer	Most of water consumption is evaporation from the cooling tower.

			<p>attached to cooling tower every day. The calculated result is used for calculation of the volume of water discharge.</p>	<p>The total water consumption in the whole NEC Group is calculated as the difference between the volume of water withdrawals and the volume of water discharge recorded in the database, and reviewed once every six months. The data is collected by NEC group's environment related system called GGX and verified by a third party.</p>
Water recycled/reused	100%	Monthly	<p>The volume of the water recycled from the tank is constantly monitored by the flowmeter at each business site, and the volume of water is monitored every month.</p>	<p>Used water that will be reused is stored in a tank to be treated for recycling. The total volume of recycled water in the whole NEC Group is aggregated once every six months.</p>
The provision of fully-functioning, safely managed WASH services to all workers	100%	Daily	<p>Chloride concentration, odor, color, etc. of the water provided to employees are measured and checked every day according to Water Supply Act.</p>	<p>Most of the water used by employees is clean water (third party sources), but some sterilized groundwater is also used. We ensure that safe and high-quality water is provided to</p>

				employees at all sites.
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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	2,067	About the same	Increase/decrease in business activity	About the same	Increase/decrease in business activity	The amount of total water withdrawn was about the same as the previous year. Reasons for this include the impact of our business restructuring and the implementation of water reduction measures. From FY2023, we do not plan to increase the number of production companies, so we expect no significant increase.
Total discharges	1,658	About the same	Increase/decrease in business activity	About the same	Increase/decrease in business activity	The amount of total water discharged was about the same as

						<p>the previous year. Reasons for this include the impact of our business restructuring and the implementation of water reduction measures. From FY2023, we do not plan to increase the number of production companies, so we expect no significant increase.</p>
Total consumption	409	Lower	Increase/decrease in business activity	About the same	Increase/decrease in business activity	<p>The amount of total water consumed was less than the previous year. Reasons for this include the impact of our business restructuring and the implementation of water reduction measures. From FY2023, we do not plan to increase the number of production companies,</p>

							so we expect no significant increase.
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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	% withdrawn from areas with water stress	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Five-year forecast	Primary reason for forecast	Identification tool	Please explain
Row 1	Yes	1-10	About the same	Other, please specify Expanding the sites targeted for screening increased withdrawal rates due to more areas with water stress, but volumes at each site stayed unchanged from the previous year.	About the same	Increase/decrease in business activity	WRI Aqueduct	The tool used for water risk assessment is WRI's "Aqueduct Global Maps 3.0 Data." We conduct a survey every year at Group companies with production sites in Japan and overseas. The items used for risk assessment are the overall water risk indicator, as well as specific indicators

								<p>like flood risk and drought risk. We classify locations as being at risk if they have an assessed risk level of "Extremely High" or "High." However, we have determined that these sites have implemented adequate measures to address the identified risks.</p> <p>One of the main water risks for our company is flooding. In our production plant located in the Chao Phraya Basin in Thailand, which is one of the specific regions affected, a large-scale flood occurred in 2011.</p>
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								<p>Additionally, Aqueduct currently indicates that this region has a "High" water risk in terms of riverine flooding. The risk of untreated wastewater being directly discharged into sewage is assessed as "High," and the risk related to water withdrawal is assessed as "Extremely High." The government and local community in the industrial park where this plant is located have collaborated to install embankments and implement business continuity plan (BCP) measures.</p>
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								<p>Sufficient training has been conducted, and water storage tanks have been installed. According to Aqueduct's risk assessment, other locations such as two sites in China and one site in the Philippines are also rated as "High." However, considering factors such as the absence of water usage for production purposes and the implementation of appropriate measures to address risks, the actual water risk is assessed as relatively low.</p>
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					use it from now on as well.
Brackish surface water/Seawater	Not relevant				We do not use “Brackish surface water/seawater”, as a source of withdrawals, and do not intend to use it from now on as well.
Groundwater – renewable	Relevant	985	About the same	Increase/decrease in business activity	It is relevant and important as it accounts for 48 percent of all water withdrawal. The amount of water withdrawal was about the same as the previous year. Production volume increased slightly, but remained at the same level as last year due to ongoing water conservation and other water use reduction activities. We use groundwater for part of the production activity at Fuchu facility in Japan as cooling water and so on. From fiscal 2023, we do not plan to increase the number of

					production companies, so we expect no significant increase.
Groundwater – non-renewable	Not relevant				We do not use “Groundwater – non-renewable”, as a source of withdrawals, and do not intend to use it from now on as well.
Produced/Entrained water	Not relevant				In the current process of production, produced/process water is not generated, and will not be generated in the future as well.
Third party sources	Relevant	1,081	About the same	Increase/decrease in business activity	It is important because it is public and accounts for about 52% of all water withdrawal. The amount of water withdrawal was about the same as the previous year. Production volume increased slightly, but remained at the same level as last year due to ongoing water conservation and other water use reduction

					<p>activities.</p> <p>In production systems, water is used as a coolant and other functions, and it is also used in such areas as restrooms and cafeterias.</p> <p>From fiscal 2023, we do not plan to increase the number of production companies, so we expect no significant increase.</p>
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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	288	Lower	Increase/decrease in business activity	"Fresh surface water" is relevant, because wastewater of some factories are discharged to fresh surface water.
Brackish surface water/seawater	Not relevant				There was no discharge to Brackish surface water / seawater in the past. There are

					no plans for that in the future.
Groundwater	Not relevant				There was no discharge to Groundwater in the past. There are no plans for that in the future.
Third-party destinations	Relevant	1,370	About the same	Increase/decrease in business activity	In fiscal 2022, 83 percent of discharge was to sewage systems. So "third-party destinations" are relevant. The amount of water discharge was about the same as the previous year. Production volume increased slightly, but remained at the same level as last year due to ongoing water conservation and other water use reduction activities. From fiscal 2023, we do not plan to increase the number of production companies, so we expect no significant increase.

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	42	About the same	Increase/decrease in business activity	1-10	1. A rationale for the level of treatment applied to our discharge Wastewater from NEC is mainly domestic wastewater and air conditioning drain water. These contain contaminants such as phosphorus and nitrogen. Tertiary treatment is carried out to deal with contaminants such as phosphorus and nitrogen.

						<p>Specifically , when wastewater treatment is required by the Water Pollution Control Law and local ordinances , NEC installs septic tanks and performs wastewater treatment (primary treatment + secondary treatment + tertiary treatment). As a result, phosphorus, nitrogen, etc. can be controlled below the standard value. For example, process wastewater related to cable production is filtered and neutralized at a regeneration treatment</p>
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						<p>facility, and treated with activated carbon adsorption, nitrification, and denitrification. In addition, we are monitoring the pH value of the air conditioning drain water.</p> <p>2. Whether the company complies with any regulatory or voluntary standards</p> <p>Voluntary standard values are set based on the Water Pollution Control Law and prefectural ordinances . The results of the analysis indicate that the voluntary</p>
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						standard values are not exceeded.
Secondary treatment	Not relevant					At NEC, we perform tertiary treatment in all cases where the need is recognized by laws and regulations . If there is no need, primary treatment is carried out or the wastewater is discharged directly into the sewage system. Therefore, there is no wastewater to be discharged to public watersheds at the level of secondary treatment. so it's not relevant.
Primary treatment only	Relevant	244	Lower	Increase/decrease in business activity	1-10	1. A rationale for the level of treatment

						<p>applied to our discharge Since it is a process wastewater related to the production of cables and may contain copper, physical treatment of suspended solids by sedimentation is carried out.</p> <p>2. Whether the company complies with any regulatory or voluntary standards Voluntary standard values are set based on the Water Pollution Control Law and prefectural ordinances . The results of the analysis</p>
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						indicate that the voluntary standard values are not exceeded.
Discharge to the natural environment without treatment	Not relevant					When discharging to public water bodies, we carry out some kind of wastewater treatment. Therefore, it is not relevant.
Discharge to a third party without treatment	Relevant	1,370	About the same	Increase/decrease in business activity	81-90	1. A rationale for the level of treatment applied to our discharge Domestic wastewater from many offices is discharged to third parties as sewage. Many of our office buildings and production sites send their wastewater to public sewage

						<p>treatment plants. Some of our plants have Initial treatment systems. Working closely with public treatment plants, we make sure final discharge water to public water body is clean.</p> <p>2. Whether the company complies with any regulatory or voluntary standards Voluntary standard values are set based on the Water Pollution Control Law and prefectural ordinances . The results of the analysis indicate that the</p>
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						voluntary standard values are not exceeded.
Other	Not relevant					There is no wastewater classified as "Other". Therefore, it is not relevant.

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	Please explain
Row 1	1,043.1	Phosphates	NEC measures the phosphorus concentration once a week. We referred to the wastewater measurement results of the plant described in the "water quality measurement analysis report". Phosphorus emissions to water were calculated by multiplying the average phosphorus concentration by the wastewater discharge. We always confirm that the standard value is not exceeded.

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	3,313,018,000,000	2,067	1,602,814,707.30527	In recent years, NEC has downsized its hardware product business and shifted its main business to software products and services, and its dependence on water is also on

				the decline. Since we do not plan to add more production companies in the future, we estimate that there will be no significant increase or decrease in water intake.
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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	Regarding chemical substances contained in products, NEC thoroughly complies the restrictions specified by the regulatory authorities. Specifically, we thoroughly ensure that prohibited substances are not contained and that designated substances are kept below designated level. Based on this, we believe that there are no products containing hazardous substances that cause water pollution.

W1.5

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

	Engagement
Suppliers	Yes
Other value chain partners (e.g., customers)	Yes

W1.5a

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

Row 1

Assessment of supplier impact

Yes, we assess the impact of our suppliers

Considered in assessment

Basin status (e.g., water stress or access to WASH services)

Supplier dependence on water

Supplier impacts on water availability

Supplier impacts on water quality

Number of suppliers identified as having a substantive impact

16

% of total suppliers identified as having a substantive impact

Less than 1%

Please explain

NEC procures from approximately 10,000 suppliers. From those 10,000, first, with the perspective of relevance to NEC's business, we focused on primary suppliers for NEC. We then prioritized production bases that supply hardware parts to NEC, which are assumed to have a relatively large impact on water security.

As a result we extracted approximately 2000 supplier sites. For each of these 2000 sites, an Aqueduct evaluation has been conducted.

We checked the sites that locate in areas where the result of comprehensive risk assessment of Aqueduct is classified as "Extremely High", to identify the suppliers of potential significant impact on water security.

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	
Row 1	Yes, suppliers have to meet water-related requirements, but they are not included in our supplier contracts

W1.5c

(W1.5c) Provide details of the water-related requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Water-related requirement

Reducing total water withdrawal volumes

% of suppliers with a substantive impact required to comply with this water-related requirement

100%

% of suppliers with a substantive impact in compliance with this water-related requirement

26-50

Mechanisms for monitoring compliance with this water-related requirement

Supplier self-assessment

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

Water-related requirement

Setting and monitoring water pollution-related targets

% of suppliers with a substantive impact required to comply with this water-related requirement

100%

% of suppliers with a substantive impact in compliance with this water-related requirement

76-99

Mechanisms for monitoring compliance with this water-related requirement

Supplier self-assessment

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

Water-related requirement

Setting and monitoring water withdrawal reduction targets

% of suppliers with a substantive impact required to comply with this water-related requirement

100%

% of suppliers with a substantive impact in compliance with this water-related requirement

26-50

Mechanisms for monitoring compliance with this water-related requirement

Supplier self-assessment

Response to supplier non-compliance with this water-related requirement

Retain and engage

Comment

W1.5d

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

Type of engagement

Incentivization

Details of engagement

Water management and stewardship is featured in supplier awards scheme

% of suppliers by number

1-25

% of suppliers with a substantive impact

100%

Rationale for your engagement

Our engagement targets are the key suppliers (1,081 suppliers) that account for approximately 65% of our total procurement expenditure. We are initially focusing on these suppliers as they have a significant impact on our company and are more likely to drive behavioral changes, thereby enabling us to achieve faster CO2 reduction. In addition to approximately 200 strategic suppliers within the NEC Group (suppliers with significant procurement amounts, key suppliers for each product category, and suppliers of rare parts are collectively referred to as strategic suppliers), our key suppliers also include around 800 other suppliers. Based on this, in FY2022, NEC conducted its own sustainability document survey targeting the aforementioned key suppliers. The survey focused on five themes: environment, human rights, occupational health and safety, fair trade, and ethics. Regarding water risk management, we requested reports on actual efforts to reduce water intake and discharge, as well as the mechanisms in place to address water-related issues when they arise.

As an incentive for suppliers, we rank the survey results on a five-point scale and provide feedback to the suppliers based on the survey results. In addition to requesting corrective measures from each supplier as necessary, we have established a sustainability award system to incentivize reporting.

Impact of the engagement and measures of success

In November 2022, we revised the Guidelines for Responsible Business Conduct in Supply Chains and made requests to our suppliers to enhance their environmental efforts, including water-related initiatives. On top of this, in the environmental survey conducted in FY2022, we assessed the following seven aspects of water risk, building upon the findings from the previous year.

- (1) Does your company aggregate and track its own water consumption?
- (2) Is there a mechanism in place to handle water-related issues?
- (3) Have there been any complaints related to water usage or sewage in the past three years?
- (4) Are measures being implemented to reduce water intake and discharge?
- (5) Do you know whether your company's sites are located on flood hazard maps published by the local government?
- (6) Is there a risk of flooding?
- (7) Do you have measures in place to ensure the survival of your business in the event of water usage restrictions?

The success of the survey is determined by surpassing the previous year's percentage

of suppliers that have implemented measures to address items 1) and 4), which form the foundation of water-related initiatives. In terms of actual achievements, 50% of respondents implemented measures for 1) and 45% for 4) in the current fiscal year, exceeding the results from the previous year of 43% for 1) and 37% for 4). This indicates we have successfully achieved our targets. To incentivize our suppliers, we awarded one supplier with a Sustainability Award at the NEC Group's Strategic Supply Chain Partners Meeting. This recognition was given to the supplier who demonstrated the most outstanding contributions to NEC's business from an environmental perspective based on the survey results. Screening criteria for selecting the recipient of the award include questions related to water risk management, such as measures taken to reduce water intake and the presence of mechanisms to address water-related issues when they arise.

The responses from the environmental survey are used to rate each supplier individually. Feedback sheets are created and sent to all suppliers who participated in the survey, and corrective measures are requested as necessary. In particular, for suppliers with unfavorable environmental performance results (low ratings), including for water risk, we provide opportunities for individual meetings to enhance engagement and address the issues more effectively.

Comment

W1.5e

(W1.5e) Provide details of any water-related engagement activity with customers or other value chain partners.

Type of stakeholder

Customers

Type of engagement

Innovation & collaboration

Details of engagement

Collaborate with stakeholders on innovations to reduce water impacts in products and services

Rationale for your engagement

The widespread droughts experienced globally in recent years have greatly impacted crop cultivation, making addressing water shortage an urgent priority in achieving sustainable agriculture.

As part of measures to address water shortage, the cultivation technique of low-volume, high-frequency irrigation has been widely recognized for its ability to reduce water usage while maintaining the optimal soil moisture level. However, due to the challenge of determining the optimal amount of water, which can change constantly, its adoption has been limited among farmers who manage vast and multiple fields, as it poses complex management and high workload.

To tackle this issue, NEC has partnered with Kagome and introduced the service of their agricultural ICT platform called CropScope.

Kagome is a company that aims to realize eco-friendly and highly profitable farming in the global cultivation of tomatoes for processing.

NEC has concluded a strategic partnership agreement and collaborated with Kagome because Kagome aims to achieve the same "sustainable agriculture" as NEC.

CropScope offers AI-based farming advice for low-volume, high-frequency irrigation, along with an automated irrigation control system that enables the detection of field anomalies.

By utilizing CropScope, NEC aims to promote environmentally friendly and highly profitable farming for their customers by addressing the problem of water shortage in agricultural practices.

Impact of the engagement and measures of success

In April 2022, NEC and Kagome collaborated to conduct a field trial of CropScope, an AgriTech solution, in farmland situated in Portugal.

To determine the success of this effort, we will compare water usage per harvest before and after using CropScope. As a result, if the amount of water after use is less, then you are successful.

Through simulations using digital twins, we achieved a significant reduction of approximately 15% in irrigation volume while increasing the harvest yield by about 20%. The successful outcome of this endeavor, which led to increased crop yield while minimizing water usage, showcases the valuable contribution made in reducing the water-related impact for customers.

Building upon the results obtained, NEC plans to expand the adoption of the CropScope service—which incorporates AI-based farming advice tailored for low-volume, high-frequency irrigation, and automated irrigation control features that alleviate workload—to the tomato processing markets in Europe, the Americas, and Australia.

NEC anticipates that its system sales will reach 10% of the estimated 100 billion yen in the European precision agriculture market.

European precision agriculture market size: 100 billion yen × Market share of 10% = 10 billion yen.

Furthermore, NEC aims to achieve 5 billion yen in revenue for its AgriTech business by 2025.

NEC will continue to drive efforts towards contributing to sustainable agriculture for customers worldwide through innovation and collaboration.

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>Whether a substance is a potential water pollutant or not is determined by whether it is a substance specified by the national government or the local government in the region where the business site is located. For example, "n-hexane extracts (animal and vegetable oils and fats)", "SS" and "BOD".</p> <p>Regarding standard values, we have established higher standards independently to manage water quality. For example, BOD is voluntarily managed with a standard that is 20% stricter than the standard of local governments.</p> <p>If it exceeds the "voluntary management standard" set by our company, it will be judged as a potential water pollutant that can be harmful to the water ecosystem and human health. Since the standards are based on the standards of the local government where the business site is located, the judgment standards will vary depending on the region.</p> <p>On the other hand, pesticides used on lawns and plants of NEC's business sites are not always subject to this management. Therefore, at business sites where pesticides are used, e.g. the sites that have green spaces, we conduct surveys of the surrounding ecosystems and appoint experts to understand the impact of pesticides. We are checking and considering countermeasures. These pesticides are managed at the stage of their use.</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

Pesticides

Description of water pollutant and potential impacts

Neonicotinoids are a class of synthetic pesticides that are known for their high water solubility and systematic penetration into plant tissues. The insecticides have a prolonged residual activity, which reduces the need for frequent reapplication. These qualities have made them widely used worldwide for pest control.

However, ecological experts pointed out the impact on ecosystems such as insects. Experts have shown that it affects the reproduction of the endangered Copera tokyoensis (scientific name).

The phenomenon risk of rare organisms was pointed out at NEC's business site, which is rich in nature.

Value chain stage

Direct operations

Actions and procedures to minimize adverse impacts

Reduction or phase out of hazardous substances

Please explain

NEC's rugby team, the NEC Green Rockets, utilizes the NEC Abiko Plant in Chiba Prefecture as their home base.

This facility includes a rugby field where weed and pest control activities are conducted using pesticides.

The Abiko Plant, however, is situated in an environmentally diverse area, featuring four ponds surrounded by numerous trees. Notably, this area serves as the habitat for an endangered species of dragonfly called the Omonosashi dragonfly (Copera tokyoensis), which we are actively engaged in conserving.

During the evaluation conducted in FY2021 on the impact of pesticides, it was discovered that the pesticides being used contained neonicotinoid substances that had adverse effects on the dragonfly habitat. Consequently, a decision was made to prohibit the use of pesticides containing neonicotinoid, effective FY2022. As an alternative, we have shifted to other pesticides that have a lower impact on the dragonfly population. NEC's indicator of success is that it has achieved zero contamination of neonicotinoids in pesticides.

We have already confirmed that there will be no contamination of neonicotinoids in pesticides in fiscal 2022 based on the purchase results of pesticides.

W3.3

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

Yes, water-related risks are assessed

W3.3a

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

Value chain stage

Direct operations

Coverage

Full

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
International methodologies and standards
Databases
Other

Tools and methods used

WRI Aqueduct
IPCC Climate Change Projections
Regional government databases
Internal company methods

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Stakeholder conflicts concerning water resources at a basin/catchment level
Impact on human health
Water regulatory frameworks
Status of ecosystems and habitats
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers

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

Comment

There are no particular comments.

Value chain stage

Supply chain

Coverage

Full

Risk assessment procedure

Water risks are assessed in an environmental risk assessment

Frequency of assessment

Annually

How far into the future are risks considered?

More than 6 years

Type of tools and methods used

Tools on the market
International methodologies and standards
Databases

Tools and methods used

WRI Aqueduct
IPCC Climate Change Projections
Regional government databases

Contextual issues considered

Water availability at a basin/catchment level
Water quality at a basin/catchment level
Access to fully-functioning, safely managed WASH services for all employees

Stakeholders considered

Customers
Employees
Investors
Local communities
NGOs

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

Comment

There are no particular comments.

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>NEC evaluates the impact of water pollution, water depletion, and flooding at each of our business sites and the supply chain.</p> <ul style="list-style-type: none"> · Level of coverage: For our direct operations, we conduct evaluations across all of our facilities with prioritization on the production sites that has higher potential impact on water security. For our supply chain, we look through all the suppliers with prioritization on the first-tier suppliers and the providers of the hardware for our evaluation. · Tools and methods used: We utilize Aqueduct published by the 	<p>From the perspective of risks, we have determined that the following factors need to be considered and have included them as evaluation criteria: potential operational disruptions resulting from the continuous or interrupted availability of water; the impact of NEC's water usage on the surrounding area and its influence on other activities; the adverse effects of wastewater quality on the health of residents in the watershed and local ecological systems; the risk of operational shutdown orders due to violations of regional water-related regulations;</p>	<p>We consider and evaluate the following risks posed by stakeholders:</p> <ul style="list-style-type: none"> · Employees: If employees experience health issues, production may halt, and we will be responsible for any resulting damages. · Investors: Any disruptions to NEC Group's business activities could impact investor confidence, leading to a decline in stock prices and financial losses. · Local communities: NEC sites adhere to more rigorous wastewater regulations than those required by the law or local ordinances. However, if poor-quality wastewater that does not meet 	<p>Based on "Aqueduct" and our own water risk management questionnaire, we identify water risks at each production base in Japan and overseas.</p> <p>The primary survey uses "Aqueduct". We understand the situation by dividing it into three categories: physical risks related to water volume, water quality, and wind and flood damage; regulatory risks such as tax reforms and policies related to water; and reputational risks related to corporate ESG behavior.</p> <p>The 2ndary survey, the results of the primary survey are compared with the perceptions of local production site managers. A survey will be conducted on 11 items, including past</p>

<p>World Resources Institute, IPCC Global Climate Projections, and local government databases. In addition, we identify what kind of water risks exist at each production site based on our own proprietary water risk management survey. We first use Aqueduct for a primary survey. It helps us understand the situation by categorizing risks into three areas: water-related physical risks; regulatory risks associated with water-related taxation changes and policies; and reputational risks related to the company's ESG actions. In the secondary survey, we compare the results of the primary survey with the perceptions of local production site personnel. We conduct a detailed investigation on 11 aspects, including experiences facing physical challenges in water usage in the past due to water-related disasters such as floods or droughts, preventive measures against</p>	<p>and the health impacts on employees resulting from inadequate water, sanitation, and hygiene (WASH) services, which may lead to operational disruptions.</p>	<p>legal standards is released from the premises, it could harm the surrounding community.</p> <ul style="list-style-type: none"> · NGOs: Any disruptions to our business activities could hinder our collaborative efforts with NGOs, such as initiatives in protecting rivers and aquatic organisms. · Regulatory Authorities: Failure to comply with regulations may lead to the suspension of production lines or halt factory operations · Supplier: If water scarcity or deterioration of water quality affects the business activities of suppliers, it will also impact the business activities of the NEC Group. · Rural-level water supply: Water restrictions lead to coolant shortages, halting production lines and adversely impacting business operations. · Other water users at the river basin/catchment level: If poor-quality wastewater that does not meet legal standards is released from the premises, it 	<p>experience of difficulties in using water due to floods and droughts, preventive measures against physical risks, and measures to be taken in the event of floods or droughts. After identifying potential water risks through primary and 2ndary survey, we will make a decision to implement further measures. The latest trends obtained from the risk survey cycle, which is repeated every year, are reflected as water security targets in the action plan of the "NEC Eco Action Plan" set by NEC as an environment-related target management tool. In this way, we incorporate responses to water risks into our business activities. When specific water risks such as floods and droughts that may have a significant impact on NEC's business become clear, countermeasures are deliberated and decided at the management meeting, and final decisions are made. is approved by the CEO.</p>
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<p>these physical risks, and strategies implemented during actual flood or drought events.</p>		<p>could harm the health of water users and ecosystems in different areas.</p>	
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W4. Risks and opportunities

W4.1

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

Yes, both in direct operations and the rest of our value chain

W4.1a

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

A definition of 'substantive financial or strategic impact' when identifying or assessing water-related risks:

Financial and strategic impacts are defined as those that affect the profit or loss of the organization. The impacts are those that hinder the achievement of business goals and the acute and chronic events that hinder business continuity. For example, direct operations may affect the continuation of operations of the company's data center, etc. and production in factories, while those in the supply chain may affect the supply of parts required for production.

A description of the quantifiable indicator(s) used to define substantive financial or strategic impact:

We determine that if there is a potential financial impact of One billion yen or more, it will be a significant impact.

Quantitative measures used to identify material changes can be financial, such as sales or operating profit, or strategic, such as deadlines or process delays.

In addition, regarding water management, changes in the water environment using WRI-Aqueduct are also included in the indicators.

If the outcome of each risk item of WRI-Aqueduct is very high risk or high risk, we determine that the facility can cause significant changes. In addition, we will conduct a questionnaire survey of domestic and overseas production bases to understand more detailed risks and countermeasures and confirm the existence of residual risks.

W4.1b

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

	Total number of facilities exposed to water risk	% company-wide facilities this represents	Comment
Row 1	1	1-25	In 2011, the factory in Thailand was severely damaged by the flooding of the nearby Chao Phraya River. The factory is a production base for network products and video equipment products, and if production stops due to flooding, it will affect business.

W4.1c

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

Country/Area & River basin

Thailand
Chao Phraya

Number of facilities exposed to water risk

1

% company-wide facilities this represents

1-25

% company’s total global revenue that could be affected

1-10

Comment

In 2011, the factory in Thailand was severely damaged by the flooding of the nearby Chao Phraya River. The factory is a production base for network products and video equipment products, and if production stops due to flooding, it will affect business.

W4.2

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

Country/Area & River basin

Thailand
Chao Phraya

Type of risk & Primary risk driver

Acute physical
Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

NEC has a production site in Thailand. This factory was damaged by the 2011 floods in Thailand. At that time, we couldn't operate our own factory for about half an year, which reduced our production capacity and had a major impact on sales. Sales at the Thai site remain at less than 1% of NEC's total sales, but it is the factory that produces NEC's hardware products that are essential to NEC's business. By the 2011 floods in Thailand, in fiscal 2011, sales decreased by 20 billion yen and operating income decreased by 8 billion yen.

According to the WRI Aqueduct assessment, the region is still at high risk of flooding, and the impact of climate change is likely to increase meteorological disasters in the future, so it is likely that similar flood will occur in the future. Therefore, we are working together with the government and industrial complex to implement many flood countermeasures (such as installing large-scale water tanks and regularly reviewing BCPs).

Timeframe

4-6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,600,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

(Potential financial impact)
Following the floods in Thailand in 2011, it took about six months to recover and resume operation. As a result, in fiscal 2011 sales decreased by 20 billion yen and operating income decreased by 8 billion yen.
The NEC Thai Factory is operated by NEC's group company (NEC Platforms, Ltd.).

Sales of NEC Platforms in 2022 are 360.1 billion yen. Assuming that NEC's Thailand factory shuts down operations for six months, based on past experience, it is assumed that NEC will lose 2.4% of sales of NEC Platforms, Ltd., and the loss is estimated at 8.6 billion yen.

Primary response to risk

Amend the Business Continuity Plan

Description of response

By using the flood simulation system developed by NEC based on the lessons learned from past floods, it is possible to grasp the risk areas of floods by simulation using past rainfall data, which is effective for creating hazard maps.

In addition, since simulations can be performed every hour for up to 7 days ahead, it is possible to contribute to mitigating damage by issuing warnings to dangerous areas before a flood occurs.

In fact, we conducted a demonstration experiment to predict the inundation area by utilizing the flood simulation system in Uttaradit Province in northern Thailand from 2015 to 2016.

To minimize the impact on our business, we have been continuously improving a business continuity plan (BCP) for large-scale flood disasters at our plant in Thailand. We conduct annual BCP rehearsals every year, including in 2022, to ensure a comprehensive understanding and regular updates. In case of emergencies like water shortage, we can seek support from the municipal government and Navanakorn Industrial Complex. Details of this response are follows:

- Promote employees to understand BCP and update BCP measures every year since 2012 including in 2022
- To prevent flooding, install water stop plates and water stop doors at bases, and stockpile sandbags in 2017
- The power supply equipment is installed at a place 2.5m above the floor in 2017, and an emergency evacuation site for other equipment is secured.
- Installation of water tanks and installation of water reclamation equipment in 2017
- Set the order of priority for water use within the site since 2012
- Wastewater is processed with primary treatment and discharged to the sewage of the industrial complex.
- Conduct water quality tests regularly

In addition, the Thai government has implemented numerous measures to address flooding concerns, such as altering dam management and constructing embankments around the industrial zone.

Cost of response

10,000,000

Explanation of cost of response

It takes into account the personnel expenses related to responding to the water-related risks. We estimated 10 million yen (5 personnel x 2 million yen/person) . It includes man-hours to evaluate water-related risk and to develop and implement relevant measures, such as conducting evaluation of the flood risk using risk assessment tools

such as Aqeduct, conducting interviews with local offices, and discussing on countermeasures. Since physical measures have already been implemented, for example the floors have been raised and the equipment has been moved to the second floor in the past floods, the cost for these physical measures are not included in the cost estimation.

W4.2a

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

Country/Area & River basin

Thailand

Other, please specify

River basins in Thailand

Stage of value chain

Supply chain

Type of risk & Primary risk driver

Acute physical

Flood (coastal, fluvial, pluvial, groundwater)

Primary potential impact

Reduction or disruption in production capacity

Company-specific description

NEC regards the risk of disruption of production functions in the Thai region due to flooding as an important risk.

The floods in Thailand in 2011 damaged the factories of our major suppliers, as did NEC Thai plant. As a result, it became impossible to procure hard disks and other electronic components necessary for manufacturing our products, which affected our production plans. For about half a year, were unable to procure parts from suppliers and we were unable to operate our own factory in the area, which reduced production capacity and had a significant impact on sales. Specifically, it was resulted in a decrease in sales of 20 billion yen and operating income of 8 billion yen in FY 2011.

Sales at the NEC Thai plant remain less than 1% of NEC's total sales, but it is a factory that produces hardware products that are essential to NEC's business. Suppliers located in Thailand supply 70% of the total procurement value of NEC's Thai plant. Each of the suppliers is important and indispensable for NEC, because if any part is missing to be supplied, it could not be replaced with any other parts and therefore the factory would not be able to manufacture the products.

Learning from the 2011 flood damage, NEC Platforms, Ltd. in Thailand, that operates NEC's Thai plant, has formulated a BCP in cooperation with a company that outsources

logistics operations, and is conducting training. Specifically, we monitor information such as dam storage capacity and rainfall forecast provided by Navanakorn Industrial Complex. In addition, we have established a system to collect information from suppliers such as shipping companies, customs, shipping companies, and airlines in preparation for flood damage.

According to WRI Aqueduct's assessment, flood risk is still high in this area, and it is likely that similar floods will occur in the future, as weather disasters are expected to increase in the future due to the effects of climate change. For this reason, we are working together with the government and industrial parks to implement many countermeasures against flooding (installation of large-scale water tanks, regular review of BCP, etc.).

Timeframe

4-6 years

Magnitude of potential impact

Medium

Likelihood

Likely

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

8,600,000,000

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact

It is NEC's Thailand plant that receives supplies from suppliers in the region. We do not anticipate any significant impact on NEC sites in other regions. If it becomes impossible to procure parts used in electronic devices from suppliers in the region, NEC's Thai plant will have to shut down in the meantime. Therefore, the calculation of the impact amount assumes the shutdown of the Thai plant.

For NEC's Thai plant, suppliers in Thailand are important suppliers, accounting for 70% of the plant's total procurement amount. In addition, it is difficult to replace each supply from each supplier, and if the supply from one of the suppliers is interrupted and parts cannot be procured, it will be difficult for the Thai factory to manufacture products. Therefore, it is assumed that production activity at the factory will be suspended, rather than reduced, until supplies from all suppliers are fully restored.

After the floods that occurred in Thailand in 2011, it took about half a year for the

surrounding factory areas to recover and resume operations. Assuming that NEC Platforms' net sales of 360.1 billion yen (fiscal year ending March 31, 2023) will decline by 2.4% based on the impact of that time, it will result in a loss of approximately 8.6 billion yen.

Primary response to risk

Direct operations

Other, please specify

The flood simulation system

Description of response

By using the flood simulation system developed by NEC, it is possible to grasp the flood risk areas by simulation using past rainfall data, which is effective for creating hazard maps. Since simulations can be performed every hour for up to 7 days ahead, it can contribute to mitigating damage by warnings before a flood occurs. We conducted a demonstration experiment to predict the inundation area by utilizing the simulation system in Uttaradit Province in northern Thailand from 2015 to 2016.

The whole area including the location of NEC's Thai plant as well as NEC's suppliers was heavily damaged during the 2011 flood. Because of this, water risk countermeasures are advanced in this area such as reinforcing concrete piles 20 km around the embankment, raising the level by 1.5 m, and increasing the number of pump stations.

NEC participates in the Navanakorn Industrial Complex meeting, which is held at least once every two months. Of the 200 companies in the industrial complex, about 50 Japanese companies including NEC's suppliers, participate in the meeting sharing information on water-related information e.g. the amount of water stored in dams and rainfall forecasts during the rainy season. Responses to the risk, such as making the first floor of the facility a parking lot and cafeteria, is shared and learnt across the companies of the region. Additionally, NEC conducts water security interviews every year including in 2022 with suppliers in high-risk areas. NEC asks suppliers what they do to water security, and evaluates the progress of countermeasures. In this way, NEC is collaborating with multiple local companies, including suppliers, to promote responses to water risks throughout the region.

NEC has conducted a 'milk run' for procurement from approximately 80 suppliers located within a 200km radius of NEC's Thailand plant. In the event of a water risk, we conduct advance deliveries and other measures according to the damage forecasts of suppliers. By installing GPS in logistics vehicles, we can check the delay status in real time and cooperate with suppliers in a timely manner. The 'milk run' had been in place before 2011, and the 2011 floods prompted us to strengthen our partnerships with suppliers and accelerate our efforts to prepare for emergencies.

Since 2011, we strengthened cooperation with suppliers and accelerated our preparations for water risk. NEC contributes to improving the water risk response level of local businesses, including suppliers.

Cost of response

10,000,000

Explanation of cost of response

It is personnel expenses for grasping flood damage risk every year using risk management tools such as Aqeduct. We estimated 10 million yen (5 personnel x 2 million yen/person) .

In addition, since the floors have been raised and the equipment has been moved to the second floor in the past floods, physical measures have already been implemented, so they are not included in this cost.

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

Products and services

Primary water-related opportunity

Increased sales of existing products/services

Company-specific description & strategy to realize opportunity

Reasons why this opportunity is considered strategic:

With climate change, disasters such as floods and landslides will increase. NEC offers disaster prevention solutions mainly in Japan using sensors, AI, and other IT technologies. A growing need for disaster prevention solutions has been observed with the increase in disasters, and it is considered important to strategically expand them overseas by leveraging our competitive advantages based on our track record.

Actions to realize the opportunities:

In Japan, we support disaster prevention measures including flood measures by local governments.

And, In order to create a track record overseas, we are implementing Proof of Concepts in Southeast Asian countries such as the Philippines, Indonesia, and Taiwan, and we are currently working to develop a system to promote know-how and business overseas.

Case study or example of ongoing strategies:

Specifically, since 2017, we have been supporting disaster prevention measures such as flood control in local governments in western Japan. We are conducting research on river water level prediction using AI. Analysis using AI based on meteorological data such as water level data and rainfall will lead to highly accurate river water level prediction. In the future, this is expected to help promote early evacuation of residents before floods occur.

In addition, since 2021, the "IoT Street Light System" has been in operation in Suginami-ku, Tokyo. In places where flood damage has occurred due to heavy rain in

the past, flood sensors are installed on five IoT-enabled street lights to monitor road flooding.

At the World Economic Forum in January 2022, our CEO facilitated a workshop on adaptation to climate change.

Specifically, we appealed to world leaders about the possibilities of ICT on related points including:

- The importance of using ICT to prevent damage from disasters related to water security, such as floods and landslides
- How to promote countermeasures to loss and damage related to climate-related and water-related disasters

We are also continuously discussing these initiatives with the Japanese government.

Estimated timeframe for realization

4 to 6 years

Magnitude of potential financial impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,800,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact

At the NEC Group, the Units for Public Business are engaged in businesses related to climate change. In addition, we believe that the measures undertaken in other countries will open up new business opportunities for the Global Business Unit. The sales of the Units for Public Business and the Global Business Unit amount to approximately 400 billion yen and 480 billion yen, respectively. At present, sales from the businesses mentioned above account for less than 0.1 percent of their overall sales, but we anticipate that heightened market needs in the next 4 to 6 years will be accompanied with an increase in sales. It is estimated the sales will triple in a period of up to 4 to 6 years, as it will require some time to reinforce capacity. The financial effect is expected to be approx 1.8 billion yen, which is double the current sales $((400 \text{ billion} + 480 \text{ billion}) \times 0.1\%) \times 2 = 1.8 \text{ billion yen}$.

W5. Facility-level water accounting

W5.1

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

Facility reference number

Facility 1

Facility name (optional)

Thai Plant

Country/Area & River basin

Thailand
Chao Phraya

Latitude

14.102434

Longitude

100.590175

Located in area with water stress

Yes

Total water withdrawals at this facility (megaliters/year)

46.67

Comparison of total withdrawals with previous reporting year

Higher

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

0

Withdrawals from brackish surface water/seawater

0

Withdrawals from groundwater - renewable

0

Withdrawals from groundwater - non-renewable

0

Withdrawals from produced/entrained water

0

Withdrawals from third party sources

46.67

Total water discharges at this facility (megaliters/year)

46.67

Comparison of total discharges with previous reporting year

Higher

Discharges to fresh surface water

0

Discharges to brackish surface water/seawater

0

Discharges to groundwater

0

Discharges to third party destinations

46.67

Total water consumption at this facility (megaliters/year)

46.67

Comparison of total consumption with previous reporting year

Higher

Please explain

'This facility's water intake is from city water and industrial water. All waste water is discharged into the public sewage system.

W5.1a

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

Water withdrawals – total volumes

% verified

76-100

Verification standard used

We have obtained a validation that is ISAE 3000 compliant.

Water withdrawals – volume by source

% verified

Not verified

Please explain

We have set our own standards for [Water withdrawals – volume by source] and are managing them. Therefore, we do not believe that third-party certification is necessary at this time.

Water withdrawals – quality by standard water quality parameters

% verified

Not verified

Please explain

We have set our own standards for [Water withdrawals – quality] and are managing them. Therefore, we do not believe that third-party certification is necessary at this time.

Water discharges – total volumes

% verified

76-100

Verification standard used

We have obtained a validation that is ISAE 3000 compliant.

Water discharges – volume by destination

% verified

Not verified

Please explain

We have set our own standards for [Water discharges – volume by destination] and are managing them. Therefore, we do not believe that third-party certification is necessary at this time.

Water discharges – volume by final treatment level

% verified

Not verified

Please explain

We have set our own standards for [Water discharges – volume by final treatment level] and are managing them. Therefore, we do not believe that third-party certification is necessary at this time.

Water discharges – quality by standard water quality parameters

% verified

76-100

Verification standard used

We have an independent local laboratory test the concentration and confirm that it meets the standards.

Water consumption – total volume

% verified

Not verified

Please explain

We have set our own standards for Water consumption – total volume] and are managing them. Therefore, we do not believe that third-party certification is necessary at this time.

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 align with international frameworks, standards, and widely-recognized water initiatives Commitment to prevent, minimize, and control pollution Commitment to reduce or phase-out hazardous substances Commitment to reduce water withdrawal and/or consumption volumes in direct operations Commitment to safely managed Water, Sanitation	NEC clearly states in its Environmental Policy its commitment to complying with environmental laws and regulations associated with business activities and preventing environmental pollution throughout the entire supply chain. The Policy also emphasizes the importance of procuring environmentally friendly products that do not contain hazardous chemicals, with the aim of reducing pollution risks. This commitment is applied across the entire NEC Group. Specifically, NEC establishes and implements ongoing and mid-term management targets, such as for reducing water usage, ensuring zero violations of water quality pollution regulations, complying with regulations on chemical substances in products, and conducting assessments and management of chemical substance usage. NEC ensures compliance with these targets across the entire Group. As one of the means to reduce water usage, NEC has introduced internal water pricing and implemented facility investments considering the anticipated

	<p>and Hygiene (WASH) in the workplace</p> <p>Commitment to stakeholder education and capacity building on water security</p> <p>Commitment to water stewardship and/or collective action</p> <p>Commitment to the conservation of freshwater ecosystems</p> <p>Commitments beyond regulatory compliance</p> <p>Reference to company water-related targets</p> <p>Acknowledgement of the human right to water and sanitation</p> <p>Recognition of environmental linkages, for example, due to climate change</p>	<p>increase in future water costs.</p> <p>Additionally, NEC believes that products and services utilizing information and communication technology (ICT) provided by the company can contribute to resolving water-related issues for customers and for society as a whole. NEC aims to provide value through its business activities in support of these objectives.</p>
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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
Chief Executive Officer (CEO)	<p>The President and CEO (Representative Director) of NEC holds direct responsibility for addressing water security and climate change issues. NEC regards the protection of water security and resolution of climate change issues to be of utmost priority. In this regard, the CEO assumes responsibility for the overall outcome of water pollution resulting from inadequate wastewater treatment and management, as well as its impact on the surrounding ecosystem.</p> <p>Moreover, given the significant impact of water resources on our business, we have prioritized the reduction of water usage by including it as a target in our Mid-term Environmental Plan.</p> <p>Measures to address water security and climate change issues are deliberated and</p>

	<p>decided by the Business Strategy Council, which promotes company-wide activities and policies through debate and information sharing by senior management. The final approval for these measures rests with the CEO.</p> <p>In October 2019, our offices in Japan experienced severe flooding due to a massive typhoon, resulting in extensive damage. In response to this incident, the CEO instructed the affected offices to implement a business continuity plan (BCP) against future flooding, effective from 2020. The executives have been diligently executing this directive to mitigate the risks associated with flooding and ensure the continuity of our operations.</p>
Other C-Suite Officer	<p>The Chief Supply Chain Officer (CSCO) is vested with the authority to oversee key areas, including the advancement of water management aligned with mid- to long-term environmental management targets.</p> <p>The CSCO is responsible for providing guidance on suitable wastewater treatment and water usage reduction measures, while also monitoring their progress and ensuring effective implementation.</p> <p>In 2021, upon discovering the harmful effects of pesticides used at the Abiko Plant on rare organisms, a decision was made by the CSCO to shift to alternative pesticides with lower environmental impact.</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	<ul style="list-style-type: none"> Monitoring implementation and performance Monitoring progress towards corporate targets Overseeing major capital expenditures Overseeing the setting of corporate targets Providing employee incentives Reviewing and guiding business plans 	<p>With respect to environmental loads including water usage and the progress of reduction targets, a report is made to the Business Strategy Council etc. and this is made public. As for water, if it is recognized that there is the possibility of a major effect on business, then reports are made to the twice monthly Business Strategy Council and monthly Board of Directors, and the board members oversee the issue.</p> <p>At one lower level, the general manager of the Environmental Management Promotion Department holds the quarterly Environmental Management Promotion Council to consider the environmental load, including water usage, and manage the progress of reduction targets. The results of the meeting are reported to the director in charge of environmental issues. If necessary, the director in charge of environmental issues will report to the Business Strategy Council and the Board of</p>

	Reviewing and guiding corporate responsibility strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Setting performance objectives	Directors. When a situation occurs that could affect business, such as flooding, the Supply Chain Management Division forecasts the impacts and consider measures. These are reported to the Business Strategy Council and the Board of Directors for deliberation and action.
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W6.2d

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

	Board member(s) have competence on water-related issues	Criteria used to assess competence of board member(s) on water-related issues
Row 1	Yes	The President (Representative Director) is responsible for spearheading comprehensive environmental, social, and governance (ESG) initiatives. With an extensive background as a member of the Board of Directors, the president brings over five years of experience in overseeing ESG matters, including environmental issues. As a key figure on the board, the president supervises the mid-term environmental plan, which includes targets related to water resources, and by overseeing the realization and progress of these targets, he demonstrates his ability to effectively manage not only water-related risks, but also business opportunities associated with water-related issues.

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

Assessing future trends in water demand

- Assessing water-related risks and opportunities
- Managing water-related risks and opportunities
- Setting water-related corporate targets
- Monitoring progress against water-related corporate targets
- Integrating water-related issues into business strategy

Frequency of reporting to the board on water-related issues

More frequently than quarterly

Please explain

The CEO serves as the president of NEC and is a member of the Board of Directors. When issues arise, that could significantly impact the NEC Group, the CEO is responsible for establishing a response policy and directing all relevant parties to develop risk and opportunity measures and plans. Additionally, during Business Strategy Council meetings with directors, the CEO receives reports on the company's environmental plan, which includes reduction targets and progress updates on water resources. The CEO oversees the development of specific targets and measures, including investment and cost plans, and also deliberates and provides guidance on new business strategies to address water-related issues. For example, implementation status of climate change and water-related measures, assessment of future trends in water demand, additional costs and investments required, etc. In the past, we reported to the Board of Directors on how to deal with flood damage caused by large typhoons and on instructions.

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	Other C-suite Officer CSCO(Chief Supply Chain Officer)	Reduction of water withdrawals – direct operations Improvements in wastewater	• Details of commitment One of the priority items of the environmental medium-term management plan (NEC Eco Action Plan 2025), which includes water resource-related targets, is	The mid-term environmental plan (NEC Eco Action Plan 2025), which sets annual targets until FY2025, includes annual targets for reducing water usage

		<p>quality – direct operations Reduction of water pollution incidents Reduction or phase-out of hazardous substances</p>	<p>the achievement of a target to reduce water usage by 2% compared to FY2018, which is linked to incentives. Therefore, it can be said that appropriate measures are being formulated to achieve the goals, and that appropriate supervision is being carried out to see if they are being steadily implemented.</p> <ul style="list-style-type: none"> • Target achievement status <p>Due to the impact of corona, water usage was reduced by 25% in FY2022 compared to FY2018. Since the achievement of goals is incorporated as part of the performance evaluation by incentives, it led to the initiative. For example, NEC Platforms' Fukushima office made a planned capital investment to reduce water consumption. Specifically, the introduction of a new module chiller to cool the heat source equipment in the facility has led to a reduction in the amount of cooling water used when other refrigerators are in operation. As a result, we were able to reduce water consumption by 9,334m³ in FY2019. In addition, in response to the significant achievement of the target, the reduction target for FY2023 and beyond has been significantly revised to set more ambitious targets.</p>	<p>and preventing water pollution. For the reduction of water usage, the target is to achieve a 0.5% reduction in water usage globally across the NEC Group each year compared to the previous year. As for preventing water pollution, the goal is to thoroughly comply with wastewater quality regulations to ensure zero regulatory violations. The Chief Supply Chain Officer (CSCO) is responsible for achieving these targets, and the achievement of the targets is linked to the CSCO's performance evaluation (monetary reward). Environmental performance, including water-related initiatives, accounts for 4% of the performance rating.</p>
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Non-monetary reward	No one is entitled to these incentives			With respect to management of water-related issues, the senior management executives have only monetary reward. There is no non-monetary reward.
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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?

Environmental Management Department, which is promoting climate change and water risk measures, is placed as the organization of promoting the environmental consideration in the whole supply chain. The members of the Environmental Management Department are participating in the water quality and soil conservation measure committee operated by Japan Association of Industries and Environment (JAIE). JAIE is a public corporation organized by the membership of top Japan's leading industrial companies facilitating social consensus on harmony between industrial growth and environmental protection through the activities. The committees make comments and proposals from the standpoint of corporations, and make proposals regarding policy propositions regarding global water quality preservation, soil conservation, and other measures that utilize IT, from the standpoint of IT companies with global operations. Therefore, our indirect activities that influence policy are consistent with our water policy.


Our employees participate in the committee and regularly share the content of the discussion internally.

In the unlikely event JAIE measures are found to have more impact on the environment and water risks than our standards, we will strive to be consistent by sharing our experiences and cases and making recommendations. NEC has also set water as an important theme in "NEC 2030VISION", and will continue to make efforts to have a positive impact on public policy in the water security field.

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)

 有価証券報告書 2022 年度.pdf

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	> 30	<p>1. Water issues being considered: In FY2017, NEC has formulated the "Climate Change Policy Guidelines for 2050," under which we aim to provide IT solutions to help customers and society adapt to the impacts of climate change. This includes adaptation to future water-related risks such as business outages due to floods. In addition, "contributions to water security" is one of main themes in "NEC Vision 2030" announced in May 2021.</p> <p>2. Examples of actions actually taken: A policy is set out in the plan highlighting the use of IT solutions to address water-related issues. NEC has various solutions that use AI, IoT and other ICT technologies to support countermeasures for water-related disasters, such as its river flood prediction system, landslide prediction and detection system, and coastal disaster simulation system. For example, we delivered an "IoT street light system" to Sugunami Ward for real-time river monitoring and understanding of road flooding. By utilizing sensor technology, wireless network technology, and cloud-based management systems, we will contribute to ensuring the safety of residents and improving the work efficiency of city staff. Through provision of these solutions, NEC demonstrates its policy to provide the value of safety and security to society which in turn leads to our business growth. This policy is considered when developing the business strategies in each business unit and leads to the creation of new solutions.</p>
Strategy for achieving	Yes, water-related issues are integrated	21-30	<p>1. Water issues being considered: The "Climate Change Countermeasure Guidelines for 2050" formulated by NEC in FY2017 stipulates</p>

<p>long-term objectives</p>			<p>cooperation with suppliers and continuous creation of new solutions in climate change adaptation measures including water countermeasures.</p> <p>Specifically, we assess the impact of climate change risks such as water scarcity and flood risk, including the global supply chain, and work with our suppliers to develop and review BCP measures on a regular basis. In addition, for the stable supply of water, we will actively utilize new innovations from the perspective of preparing for safety and security against the climate change.</p> <p>For more specific plans, we have set "NEC Environmental Target 2030" and "NEC Eco Action Plan 2025".</p> <p>This includes strategies to contribute to climate change action, such as providing IT solutions to combat water shortages and floods.</p> <p>2. Examples of actions actually taken: Specific targets are provided for using IT solutions to safeguard against water-related issues such as water shortages and floods. For example, we aim to widely deploy the flood simulation system tested in Thailand, and other IT solutions for which effectiveness has been verified, mainly in areas susceptible to climate change. In 2021, we launched a dedicated website to introduce customers to environmental solutions, including NEC's water-related solutions. We are promoting business so that we can provide it to more customers.</p>
<p>Financial planning</p>	<p>Yes, water-related issues are integrated</p>	<p>21-30</p>	<p>1. Water issues being considered: Under the 2050 Climate Change Mitigation Guidelines formulated in fiscal 2017, we are implementing countermeasures in cooperation with suppliers regarding water shortages and flood risks. It is stipulated that the know-how of these countermeasures will be used to create new solutions that support the stable supply of water and flood countermeasures.</p> <p>Our own water risk countermeasure plans and sales plans for solutions that support our customers' water risk countermeasures are reflected in our financial plans.</p> <p>2. Examples of actions actually taken: In order to promote our own water risk countermeasures from a financial standpoint, we have set water pricing so that capital investments that affect water use can be proactively switched to those that can further reduce water use. We make investment decisions by evaluating</p>

			<p>the increase in investment due to water risk countermeasures in comparison with future costs. For facilities that affect water usage, we have formulated an investment plan that takes into account renewal plans for aging measures, etc., and this is reflected in the financial plan, including water pricing. We also aim to expand sales by providing customers with our own initiatives as solutions. For example, the solution for wide-area deployment of the flood simulation system, which has been proven in Thailand, is included in the sales plan of the business division that provides it, and is reflected in the financial plan.</p>
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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)

0

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

100

Water-related OPEX (+/- % change)

0

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

0

Please explain

· CAPEX

The necessary capital investment in water treatment facilities has been completed in the past. Since there have been no major equipment changes in recent years, there are no changes compared to the previous year.

In the next reporting year (FY2023), we expect an increase in capital expenditures.

We plan to switch the water source for cooling water, etc. from tap water to well water at two data centers from the perspective of reducing water costs.

In addition, there is a plan to repair the filtration system of the industrial water equipment at the Tamagawa Plant, and we expect to remove it in 2023 and construct the equipment in 2024.

· OPEX

There were no changes in equipment such as water quality testing, well maintenance,

groundwater monitoring, etc., so there were no major changes compared to the previous year.

We do not anticipate any major changes in FY2023 either, as the equipment changes have not yet been completed.

W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	<p>NEC conducts the following three steps in every year, and records and manages the results in aging: a) Investigate the latest domestic and foreign reports on climate change. b) Investigate the trend of carbon tax and climate change related regulations of each country, and revise to the latest information. c) Assess water risks using the latest version of AQUEDUCT, water risk mapping tools provided by World Resources Institute (WRI). Based on the latest domestic and foreign trends, we review risks and opportunities at each site, and reflect them onto business strategy.</p> <p>NEC's climate change scenario analysis used the 2°C and 4°C scenarios. In the 4°C scenario, the impact of natural disasters, including water related disaster, is expected to increase. As our own risk countermeasures, we are promoting stable operation of data centers and enhancement of BCP measures.</p> <p>To expand business opportunities, we are working to enhance disaster prevention solutions such as river water level monitoring.</p>

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	<ul style="list-style-type: none"> Analysis selection: We carried out water-related analyses using a 1.5°C scenario and a 4°C scenario. For the 1.5°C scenario, we referred to IPCC AR6 WG1 SSP1-1.9, IPCC 1.5°C Special Report, IPCC AR5 RCP2.6, and others. For the 4°C scenario, we 	<p>Through collaboration across its business units, NEC assessed the impact of climate change in 2030 using the 1.5°C and 4°C scenarios. Under the 4°C scenario, the risk of water-related disasters like heavy rainfall, floods, and droughts would rise, emphasizing that NEC</p>	<p>In the NEC 2030VISION, we commit to "Living harmoniously with the earth to secure the future" and strive to realize a sustainable global environment. We contribute to a sustainable global environment through business activities that visualize environmental</p>

	<p>referred to IPCC AR6 WG1 SSP1-8.5, IPCC AR5 RCP8.5, and others. Regarding water risks at production sites, after conducting screening using Aqueduct and interviews, we simulated floods based on past precipitation data using Gaia Vision's global river flood model and performed statistical analysis. Due to the fact that the analysis results roughly corresponded with the hazard maps of the Ministry of Land, Infrastructure, Transport and Tourism, and that it is utilized by over 200 research institutions worldwide as a standard technical model, NEC assessed the validity of this analysis method and decided to adopt it. NEC conducted quantitative analysis using this model from two perspectives: assessment of flood risks based on current climate conditions and scenario analysis based on the climate in the future. For the assessment based on current climate conditions, we analyzed the depth of flooding categorized by the probability of occurrence, specifically for events that happen once every 10 years, 100 years, and 1000 years. In the scenario analysis based</p>	<p>has to address contribution to disaster management and water efficiency measures. Even under the 1.5°C scenario, these water-related challenges would escalate by 2030. For business opportunities, from the analysis, NEC has re-recognized that NEC has potential opportunities to make use of its strength of technologies and solutions in disaster and water resource management. For business risks, we utilized Aqueduct to evaluate risks of our production sites and found that the plant in Thailand is located in an area prone to droughts and floods, prompting an investigation into this facility. Sales at the Thai base remain at less than 1% of NEC's total sales, but it is a base that produces hardware products that are essential to NEC's business. We collaborated with Gaia Vision, a startup affiliated with the University of Tokyo, to conduct high-resolution flood simulations for the 1.5°C and 4°C scenarios. The results indicated that the depth of flooding in this area, with a once-in-a-hundred-year probability,</p>	<p>impact and drive behavioral changes.</p> <p>Business Opportunities:</p> <p>(1) Development of disaster prevention solutions We actively develop disaster management solutions to achieve "zero casualties" through early prediction of abnormal weather and prompt evacuation guidance. Our objective is to detect vulnerabilities in national land and enhance disaster prevention measures, enabling the formulation and implementation of optimal construction plans by 2025.</p> <p>(2) Expansion of the AgriTech business through digital twins in agriculture Field trials in Portugal in 2022 resulted in a successful outcome, achieving a 20% increase in processed tomato harvest while reducing water usage by 15%. NEC aims to capture 10% of the estimated 100-billion-yen European precision agriculture market, projecting sales of 10 billion yen.</p> <p>In addition to this, looking ahead to 2025, NEC plans to expand target regions and crops, intensifying efforts to address water shortage challenges in agricultural fields.</p>
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		on the climate in the future, we analyzed scenarios for average temperature increases of +1.5°C and +4°C.	is currently 0.6m, 0.7m under the 1.5°C scenario, and 0.8m under the 4°C scenario.	Business Risks: NEC has already implemented measures to mitigate flood risks at its plant in Thailand, including the relocation of critical equipment to the second floor and the installation of a three-day water storage tank.
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W7.4

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

Row 1

Does your company use an internal price on water?

Yes

Please explain

When making capital investment that has a significant impact on NEC's water usage, the cost impact is calculated using the expected change in water usage and internal water pricing.

W7.5

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

	Products and/or services classified as low water impact	Definition used to classify low water impact	Please explain
Row 1	Yes	The criteria is that customers can optimize the amount of water used by using the products / solutions provided by NEC compared to before use. Specifically, we optimize water usage using the following features: - AI-based farming advice for providing the required	The following are examples of solutions that meet the criteria. < Agricultural ICT platform "CropScope" > Growth simulation is carried out based on meteorological and soil data obtained from various sensors. Predicts the yield and the optimum harvest time, and realizes farming advice according to the land, optimization of the amount of water, fertilizer, and pesticide used, and maximization of the yield. In April 2022, we conducted a field test, implementing AI-based farming advice for water

	<p>water and fertilizer in small portions multiple times in order to maintain the optimum soil moisture content for the crop.</p> <p>- Automatic irrigation control function, which enables integration with irrigation equipment to remotely and automatically control the supply of water and fertilizer.</p>	<p>and fertilizer to test the effectiveness of the method of providing small portions of water and fertilizer multiple times. The tests proved successful in achieving a yield increase of approximately 20% while reducing irrigation by about 15% compared to a field that did not utilize CropScope. This result demonstrates the ability to enhance harvest yields with a reduced water requirement.</p>
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W8. Targets

W8.1

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

Yes

W8.1a

(W8.1a) Indicate whether you have targets relating to water pollution, water withdrawals, WASH, or other water-related categories.

	Target set in this category	Please explain
Water pollution	Yes	
Water withdrawals	Yes	
Water, Sanitation, and Hygiene (WASH) services	No, but we plan to within the next two years	<p>NEC Group business operations are primarily focused in Japan, and we have not expanded our operations in areas where considerations for water and sewage infrastructure and satellite management are lacking. Therefore, specific quantitative targets regarding WASH services have not been set thus far. Instead, our focus has been on reducing water usage and preventing pollution through wastewater management.</p> <p>However, regular water quality surveys are conducted as part of on-site management to ensure the proper provision of WASH services. Based on this situation, we plan to discuss and decide on adding this aspect to the management items of the mid-term environmental plan (NEC Eco Action Plan 2025) within the next two years. This is intended to appropriately disclose and ensure</p>

		stakeholder understanding that WASH services are being provided adequately.
Other		

W8.1b

(W8.1b) Provide details of your water-related targets and the progress made.

Target reference number

Target 1

Category of target

Water withdrawals

Target coverage

Company-wide (direct operations only)

Quantitative metric

Reduction in total water withdrawals

Year target was set

2019

Base year

2018

Base year figure

2,756,000

Target year

2025

Target year figure

2,466,620

Reporting year figure

2,067,000

% of target achieved relative to base year

238.0952380952

Target status in reporting year

Achieved

Please explain

The NEC Group's company-wide goal is to "reduce total water intake by 0.5% or more each year compared to FY2018, and as a result, reduce it by 3.5% (0.5%*7years) or more compared to FY2018 in 2025."

Aiming to achieve this goal, we are conducting activities at each base.

This goal was achieved in FY2021 and new goals are being considered.

Target reference number

Target 2

Category of target

Water pollution

Target coverage

Company-wide (direct operations only)

Quantitative metric

Reduction in concentration of pollutants

Year target was set

2018

Base year

2017

Base year figure

52,955,000

Target year

2025

Target year figure

52,425,450

Reporting year figure

41,899,000

% of target achieved relative to base year

2,087.8104050609

Target status in reporting year

Achieved

Please explain

We set a target to reduce BOD and COD emissions in order to reduce environmental impact to the most minimal level possible.

The company-wide target of the NEC Group is set at "Reducing BOD and COD emissions by 1 percent or more compared with the fiscal 2017 level," and activities are being implemented at each facility.

NEC Group has achieved the target significantly.

W9. Verification

W9.1

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

Yes

W9.1a

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

Disclosure module	Data verified	Verification standard	Please explain
W1 Current state	water consumption	ISAE 3000	The NEC Group water withdrawal and discharge levels are assured every year by an external certification organization.

W10. Plastics

W10.1

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

	Plastics mapping	Please explain
Row 1	Not mapped – but we plan to within the next two years	There is no doubt that plastic is used at each stage of the value chain, but we do not have a quantitative grasp of it.

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 – but we plan to within the next two years	Once the mapping is clarified, we plan to assess the potential impact on the environment and human impacts by referencing the literature.

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
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Row 1	Not assessed – but we plan to within the next two years	We will assess the financial impact after clarifying potential environmental and human impacts.
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W10.4

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

	Targets in place	Target type	Target metric	Please explain
Row 1	Yes	Waste management	Other, please specify Reduction rate of plastic waste emissions	We formulate and promote our own goals and action plans for reducing waste plastic emissions. Employees involved in design and development are conscious of the production and distribution stages and carry out design and development that reduces the use of plastic and the generation of waste plastic. Employees involved in product production and construction work to curb the generation of plastics used and waste plastics generated by improving efficiency and reducing waste in production processes and construction sites.

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)	Yes	Some products use plastic for the housing.
Production / commercialization of plastic packaging	No	
Production of goods packaged in plastics	Yes	IT equipment is shipped in anti-static packaging.
Provision / commercialization of services or goods that use plastic packaging (e.g., retail and food services)	No	

W10.7

(W10.7) Provide the total weight of plastic durable goods/components sold and indicate the raw material content.

Row 1

Total weight of plastic durable goods/components sold during the reporting year (Metric tonnes)

Raw material content percentages available to report

Please explain

W10.8

(W10.8) Provide the total weight of plastic packaging sold and/or used, and indicate the raw material content.

	Total weight of plastic packaging sold / used during the reporting year (Metric tonnes)	Raw material content percentages available to report	Please explain
Plastic packaging used			

W10.8a

(W10.8a) Indicate the circularity potential of the plastic packaging you sold and/or used.

	Percentages available to report for circularity potential	Please explain
Plastic packaging used		

W11. Sign off

W-FI

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

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	President&CEO	Chief Executive Officer (CEO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please indicate your consent for CDP to share contact details with the Pacific Institute to support content for its Water Action Hub website.

Yes, CDP may share our Main User contact details with the Pacific Institute

Please confirm below

I have read and accept the applicable Terms