FirstEnergy Corporation - Water Security 2020

W0. Introduction

W0.1

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

Headquartered in Akron, Ohio, FirstEnergy (NYSE: FE) is a forward-thinking electric utility powered by a diverse team of employees committed to making customers' lives brighter, the environment better and communities stronger. Our subsidiaries are involved in the transmission, distribution, and regulated generation of electricity.

Our workforce of approximately 12,000 employees is dedicated to safety, reliability and operational excellence. Our 10 electric distribution companies form one of the nation's largest investor-owned electric systems, based on serving 6 million customers in Ohio, Pennsylvania, New Jersey, West Virginia, Maryland and New York. The company's transmission subsidiaries operate approximately 25,000 miles of transmission lines connecting the Midwest and Mid-Atlantic regions.

On February 27th, 2020 FirstEnergy Solutions split from FirstEnergy and reformed as a new company named Energy Harbor (EH). Due to this all EH data has been removed and we will no longer be reporting on their data.

For the purposes of this CDP report, all financial and emissions information is based on FirstEnergy's 2019 year-end portfolio.

This report contains forward looking statements based on information available to the company. For more information, including our full forward-looking statement please visit: https://www.firstenergycorp.com/content/fecorp/investor/engagement.html

W-EU0.1a

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

Electricity generation
Transmission
Distribution

W-EU0.1b

(W-EU0.1b) For your electricity generation activities, provide details of your nameplate capacity and the generation for each technology.

	Nameplate capacity (MW)	% of total nameplate capacity	Gross electricity generation (GWh)
Coal – hard	3082	88.01	21126614
Lignite	0	0	0
Oil	0	0	0
Gas	0	0	0
Biomass	0	0	0
Waste (non-biomass)	0	0	0
Nuclear	0	0	0
Fossil-fuel plants fitted with carbon capture and storage	0	0	0
Geothermal	0	0	0
Hydropower	420	11.99	119615
Wind	0	0	0
Solar	0	0	0
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	3502	100	21246229

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	January 1 2019	December 31 2019

W0.3

(W0.3) Select the countries/areas for which you will be supplying data.

United States of America

W0.4

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

USD

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 operational 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
Corporate, energy delivery associated facilities, and FirstEnergy Solutions facilities (which was renamed Energy Harbor in February 2020).	Water is essential to FirstEnergy's ability to generate electricity, therefore only the generation and synchronous condenser fleet is included in this disclosure. Energy Harbor was included in previous CDP disclosures; however, FirstEnergy no longer maintains operational or financial control of those facilities, so they are excluded going forward.

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	Direct water is essential to FirstEnergy's ability to generate electricity. All of our plants use water for steam production, material delivery, and plant cooling purposes. This is evidenced by our total withdrawal averaging almost 105 mega liters of water per day. Indirect: Municipal Water supply is important to support many of our WASH operations for our employees
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Neutral	Of the three generation and synchronous condenser facilities operated by FirstEnergy in 2019, two of them (Harrison Power Station and Fort Martin Power Station,) recycle their non-contact cooling water; however, FirstEnergy facilities are not located in areas that require use of recycled, brackish and/or produced water due to supply constraints

W1.2

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

	% of sites/facilities/operations	Please explain
Water withdrawals – total volumes	100%	Total water withdrawals are measured and/or monitored at all FirstEnergy generation and synchronous condenser facilities, as required by NPDES permit and state water withdrawal permit/license requirements.
Water withdrawals – volumes by source	100%	Water withdrawals by source are measured and/or monitored at all FirstEnergy generation and synchronous condenser facilities.
Entrained water associated with your metals & mining sector activities - total volumes [only metals and mining sector]	<Not Applicable>	<Not Applicable>
Produced water associated with your oil & gas sector activities - total volumes [only oil and gas sector]	<Not Applicable>	<Not Applicable>
Water withdrawals quality	100%	Total water withdrawal quality is measured and/or monitored at all FirstEnergy generation and synchronous condenser facilities, as required by NPDES permit requirements.
Water discharges – total volumes	100%	Total water discharges are measured and monitored at all FirstEnergy generation and synchronous condenser facilities.
Water discharges – volumes by destination	100%	Water discharge volume by destination are measured and monitored at all FirstEnergy generation and synchronous condenser facilities.
Water discharges – volumes by treatment method	100%	Water discharge volumes by treatment method are measured and monitored at all FirstEnergy generation and synchronous condenser facilities.
Water discharge quality – by standard effluent parameters	100%	Water discharge quality data are measured and monitored at all FirstEnergy generation and synchronous condenser facilities.
Water discharge quality – temperature	100%	Water discharge quality data, including temperature, are measured and monitored at all FirstEnergy generation and synchronous condenser facilities.
Water consumption – total volume	100%	Water consumption at all FirstEnergy generation and synchronous condenser facilities is calculated using engineering estimates.
Water recycled/reused	100%	Water recycling for non-contact cooling water is measured/estimated at all FirstEnergy generation and synchronous condenser facilities with recycling capabilities.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Facilities providing fully functioning WASH services for all workers are measured.

W-EU1.2a

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

	% of sites/facilities/operations measured and monitored	Please explain
Fulfilment of downstream environmental flows	100%	Yards Creek Generating Station provides downstream flows of at least 0.875 cubic feet per second to Yards Creek in fulfilment of its FERC permit.
Sediment loading	Not relevant	Yards Creek Generating Station operates in accordance with its FERC permit which does not provide flow for sediment loading.
Other, please specify	Not relevant	Yards Creek Generating Station provides ecosystem services for endangered bats, timber rattlesnakes, various turtles, and Fowler's toads. Yards Creek Generating Station has partnered with Environmental Consultation Services Inc. to ensure that the reptiles and humans are protected from each other.

W1.2b

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

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	68507	Lower	Changes in 2019 vs. 2018 reflect changes in fleet operation, dispatch, and ownership. Total volume was expected to be much lower in 2019 as compared to 2018 due to the separation of data from FE and EH and the complete separation of both companies' data.
Total discharges	47652	Lower	Changes in 2019 vs. 2018 reflect changes in fleet operation, dispatch, and ownership. Total volume was expected to be much lower in 2019 as compared to 2018 due to the separation of data from FE and EH and the complete separation of both companies' data.
Total consumption	20855	Lower	Changes in 2019 vs. 2018 reflect changes in fleet operation, dispatch, and ownership. Total volume was expected to be much lower in 2019 as compared to 2018 due to the separation of data from FE and EH and the complete separation of both companies' data.

W1.2d

(W1.2d) Indicate whether water is withdrawn from areas with water stress and provide the proportion.

	Withdrawals are from areas with water stress	% withdrawn from areas with water stress	Comparison with previous reporting year	Identification tool	Please explain
Row 1	No	<Not Applicable>	<Not Applicable>	Please select	WRI Aqueduct was used on multiple scales. Whether reviewing overall water risk or water stress, none of the areas our generation or synchronous condensers are located in constitute a high risk or above.

W1.2h

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water from wetlands, rivers, and lakes	Relevant	38378	Lower	WRI Aqueduct was used on multiple scales. Whether reviewing overall water risk or water stress, none of the areas our generation or synchronous condensers are located in constitute a high risk or above.
Brackish surface water/Seawater	Not relevant	<Not Applicable>	<Not Applicable>	Brackish surface water/seawater is not withdrawn as part of our operations.
Groundwater – renewable	Not relevant	<Not Applicable>	<Not Applicable>	Groundwater - renewable as a source of withdrawal is not accounted for as part of our operations.
Groundwater – non-renewable	Not relevant	<Not Applicable>	<Not Applicable>	Groundwater - non-renewable as a source of withdrawal is not accounted for as part of our operations.
Produced/Entrained water	Not relevant	<Not Applicable>	<Not Applicable>	Produced water as a source of withdrawal is not accounted for as part of our operations
Third party sources	Not relevant	<Not Applicable>	<Not Applicable>	Third party sources as a source of withdrawals are not a material part of our operations.

W1.2i

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

	Relevance	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Fresh surface water	Relevant	47652	Lower	Changes in 2019 vs. 2018 reflect changes in fleet operation, dispatch, and ownership
Brackish surface water/seawater	Not relevant	<Not Applicable>	<Not Applicable>	Discharge to brackish surface water/seawater is not part of our operations.
Groundwater	Not relevant	<Not Applicable>	<Not Applicable>	Discharge to groundwater is not part of our operations.
Third-party destinations	Not relevant	<Not Applicable>	<Not Applicable>	Discharge to third party destinations is not part of our operations.

W-EU1.3

(W-EU1.3) Do you calculate water intensity for your electricity generation activities?

No, and we have no plans to do so in the next two years

W1.4

(W1.4) Do you engage with your value chain on water-related issues?

Yes, our suppliers

Yes, our customers or other value chain partners

W1.4a

(W1.4a) What proportion of suppliers do you request to report on their water use, risks and/or management information and what proportion of your procurement spend does this represent?

Row 1

% of suppliers by number

76-100

% of total procurement spend

76-100

Rationale for this coverage

FirstEnergy has all suppliers comply with our Supplier Code of Conduct. The Supplier Code of Conduct specifies that suppliers will "safeguard the environment" and "minimize the use of materials of concern". All of which protects one of our most precious resources, water.

Impact of the engagement and measures of success

The impact is that FirstEnergy does not knowingly engage in business relationships with suppliers that cannot adhere to our Code of Conduct. One measure of success is how many (or lack thereof) environmental enforcement actions occur within FirstEnergy.

Comment

W1.4b

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

Type of engagement
Onboarding & compliance

Details of engagement
Inclusion of water stewardship and risk management in supplier selection mechanism
Requirement to adhere to our code of conduct regarding water stewardship and management

% of suppliers by number
76-100

% of total procurement spend
76-100

Rationale for the coverage of your engagement
FirstEnergy has all suppliers comply with our Supplier Code of Conduct. The Supplier Code of Conduct specifies that suppliers will "safeguard the environment" and "minimize the use of materials of concern". All of which protects one of our most precious resources, water.

Impact of the engagement and measures of success
The impact is that FirstEnergy does not knowingly engage in business relationships with suppliers that cannot adhere to our Code of Conduct. One measure of success is how many (or lack thereof) environmental enforcement actions occur within FirstEnergy.

Comment

W1.4c

(W1.4c) What is your organization's rationale and strategy for prioritizing engagements with customers or other partners in its value chain?

FirstEnergy is committed to our customers and our communities. As part of this commitment, FirstEnergy strives to be a responsible member by engaging our value chain in meeting and exceeding environmental laws, where appropriate. Our environmental policy specifies that we use our natural resources wisely, and we expect the same from our suppliers.

W2. Business impacts

W2.1

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

W2.1a

(W2.1a) Describe the water-related detrimental impacts experienced by your organization, your response, and the total financial impact.

Country/Area & River basin

United States of America	Mississippi River

Type of impact driver & Primary impact driver

Regulatory	Regulation of discharge quality/volumes

Primary impact
Impact on company assets

Description of impact
On September 30, 2015, the EPA finalized new, more stringent effluent limits for the Steam Electric Power Generating category (40 CFR Part 423) for arsenic, mercury, selenium and nitrogen for wastewater from wet scrubber systems and zero discharge of pollutants in ash transport water. The treatment obligations phase-in as permits are renewed on a five-year cycle from 2018 to 2023. On April 13, 2017, the EPA granted a Petition for Reconsideration and on September 18, 2017, the EPA postponed certain compliance deadlines for two years. On November 4, 2019, the EPA issued a proposed rule revising the effluent limits for discharges from wet scrubber systems and extending the deadline for compliance to December 31, 2025. The EPA's proposed rule retains the zero-discharge standard and 2023 compliance date for ash transport water, but adds some allowances for discharge under certain circumstances. In addition, the EPA allows for less stringent limits for sub-categories of generating units based on capacity utilization, flow volume from scrubber system, and unit retirement date. Depending on the outcome of appeals and how any final rules are ultimately implemented, the future costs of compliance with these standards may be substantial and changes to FirstEnergy's operations may result.

Primary response
Comply with local regulatory requirements

Total financial impact
0

Description of response
Depending on the outcome of appeals and how any final rules are ultimately implemented, FirstEnergy will comply with the requirements.

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?
Yes, fines, enforcement orders or other penalties but none that are considered as significant

W2.2a

(W2.2a) Provide the total number and financial value of all water-related fines.

Row 1

Total number of fines
2

Total value of fines
21780

% of total facilities/operations associated
0

Number of fines compared to previous reporting year
Higher

Comment
This includes the Rivesville Landfill (retired) waste and NPDES permit consent agreement, and 2019 stipulated penalties for the Springdale Closed Ash Site 2008 consent order and agreement.

W3. Procedures

W-EU3.1

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

FirstEnergy generation facilities are regulated under various federal, state, and local water quality regulations, the majority of which are the result of the Clean Water Act and its amendments.

FirstEnergy monitors, identifies, and classifies potential pollutant by compliance with those water quality regulations.

W-EU3.1a

(W-EU3.1a) Describe how your organization minimizes the adverse impacts of potential water pollutants associated with your activities in the electric utilities sector on water ecosystems or human health.

Potential water pollutant	Description of water pollutant and potential impacts	Management procedures	Please explain
Coal combustion residuals	In April 2015, the EPA finalized regulations for CCRs. The EPA has published with the CCR regulations, potential water pollutant and operational impacts from CCRs.	Compliance with effluent quality standards Community/stakeholder engagement Emergency preparedness	While certain provisions of the April 2015 CCR rule are under reconsideration, FirstEnergy intends to comply with the CCR rule, as appropriate.
Thermal pollution	In 2019, FirstEnergy owned and operated 2 thermal electric power plants (Harrison Power Station and Fort Martin Power Station). Non-contact cooling water is used at these plants and is inherent to the thermal electric production process. As such, all the thermal electric power plants have obtained 316(a) variances for heated effluent discharges.	Compliance with effluent quality standards Community/stakeholder engagement	The potential environmental impacts have been reviewed and studied in the NPDES permit supporting documentation and 316(a) studies. The results of the supporting documentation and studies are permit limits which the facilities comply with.

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.

Direct operations

Coverage

Full

Risk assessment procedure

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

Frequency of assessment

More than once a year

How far into the future are risks considered?

3 to 6 years

Type of tools and methods used

Tools on the market
Enterprise Risk Management
Databases
Other

Tools and methods used

WRI Aqueduct
COSO Enterprise Risk Management Framework
Regional government databases
Internal company methods
External consultants
Other, please specify (PENTOXSD, Cormix, as appropriate)

Comment

FirstEnergy has a formal, comprehensive Enterprise-Wide Risk Management (EWRM) program in place to evaluate water risks on an as needed basis. Plant water quality is frequently assessed under National Pollutant Discharge Elimination System (NPDES) permit conditions and development. FirstEnergy actively analyzes and mitigates risks through stakeholder participation and various tools available and resources available.

Supply chain

Coverage
None

Risk assessment procedure
<Not Applicable>

Frequency of assessment
<Not Applicable>

How far into the future are risks considered?
<Not Applicable>

Type of tools and methods used
<Not Applicable>

Tools and methods used
<Not Applicable>

Comment

Other stages of the value chain

Coverage
Partial

Risk assessment procedure
Water risks are assessed in an environmental risk assessment

Frequency of assessment
Annually

How far into the future are risks considered?
3 to 6 years

Type of tools and methods used
Databases
Other

Tools and methods used
Regional government databases
Internal company methods

Comment
FirstEnergy has developed an extensive internal emergency response organization. As such, an incident command structure is employed and drills are conducted, at least, annually. We participate in working groups, training opportunities, and conferences at all levels of the public and private sectors to ensure readiness, build relationships, and stay abreast of technological advances.

W3.3b

(W3.3b) Which of the following contextual issues are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Water availability at a basin/catchment level	Relevant, sometimes included	FirstEnergy is active in the water basins in which it resides. FirstEnergy manages the Merrill Creek Reservoir which is a critical piece of infrastructure for mitigating droughts in the Delaware River Basin. Also, FirstEnergy steam electric plants utilize closed cycle cooling thereby allowing for sufficient water availability for the basin's other stakeholders. FirstEnergy also participates with EPRI through the Ohio River Basin Ecological Interest Group.
Water quality at a basin/catchment level	Relevant, sometimes included	Ensuring sufficient and satisfactory water is important to our generating plants and our stakeholders. FirstEnergy's NPDES permits ensure that water quality is in accordance with strict regulations.
Stakeholder conflicts concerning water resources at a basin/catchment level	Relevant, sometimes included	FirstEnergy works to minimize the environmental impact of our generating plants and other facilities. Our sustainability efforts reflect our commitment to creating lasting value in the communities where we live and work.
Implications of water on your key commodities/raw materials	Relevant, sometimes included	These issues are relevant and included as situations arise.
Water-related regulatory frameworks	Relevant, always included	The Company works and complies in the framework of the Clean Water Act and actively evaluates the evolving regulatory framework through our various tools and corporation with regulators, industry groups, and other stakeholders.
Status of ecosystems and habitats	Relevant, always included	All relevant water quality standards, Endangered Species Act, and wetland impacts are evaluated as situations arise to minimize ecosystem and habitat issues.
Access to fully-functioning, safely managed WASH services for all employees	Relevant, always included	The Company has WASH services at all facilities where company employees are stationed.
Other contextual issues, please specify	Not relevant, explanation provided	FirstEnergy believes the categories above cover a wide range of water related risk assessments.

W3.3c

(W3.3c) Which of the following stakeholders are considered in your organization's water-related risk assessments?

	Relevance & inclusion	Please explain
Customers	Relevant, sometimes included	These stakeholders are often mentioned in our Corporate Responsibility Report, Strategic Plan, and other documentation.
Employees	Relevant, sometimes included	These stakeholders are often mentioned in our Corporate Responsibility Report, Strategic Plan, and other documentation.
Investors	Relevant, sometimes included	Investors are informed of water issues in the Company's annual report, Corporate Responsibility Report, and other documentation.
Local communities	Relevant, sometimes included	These stakeholders are often mentioned in our Corporate Responsibility Report and other documentation.
NGOs	Relevant, sometimes included	FirstEnergy actively works with NGOs, such as EPRI and EEI, on a variety of water risks.
Other water users at a basin/catchment level	Relevant, sometimes included	These stakeholders are relevant and included as situations arise.
Regulators	Relevant, sometimes included	FirstEnergy works with regulators as situations arise, particularly when water risks intersect with our various permits.
River basin management authorities	Relevant, sometimes included	FirstEnergy is a participant of ORSANCO, Delaware River Basin Commission (DRBC), and EPRI. While EPRI is not a river basin authority, it frequently does research which authorities may use. FirstEnergy manages the Merrill Creek Reservoir, the largest man made lake in New Jersey, under the authority of the DRBC, which helps to maintain adequate water supply in the Delaware River.
Statutory special interest groups at a local level	Relevant, sometimes included	These stakeholders are relevant and included as situations arise.
Suppliers	Relevant, sometimes included	FirstEnergy expects all of our suppliers to abide to the Supplier Code of Conduct. As such, we expect our suppliers to adopt our Environmental Policy and minimize the use of resources. We maintain communication and include our suppliers when relevant.
Water utilities at a local level	Relevant, sometimes included	FirstEnergy regularly purchases water for our WASH services and includes local utilities when situations arise.
Other stakeholder, please specify	Not relevant, explanation provided	FirstEnergy believes the categories above cover a wide range of water related stakeholders.

W3.3d

(W3.3d) 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.

A formal, comprehensive Enterprise-Wide Risk Management (EWRM) program is in place to ensure FirstEnergy thoroughly assesses and addresses risks and opportunities that could impact its electric system, including those posed by changes in the climate. These risks are assessed on short (0-1 year), medium (1-3 years), and long term (3-5 years and beyond) basis, with emphasis on long-term planning for potential climate-related issues. The EWRM's framework identifies individual risks at the enterprise, business unit, or project level groups them into four main categories (strategic, operational, compliance, and financial) all of which have potential ties to climate.

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?

Other than the ever-present potential for regulatory change, or the unlikely disruption of water sources, FirstEnergy has not identified any inherent water-related risks with the potential to have a substantive financial or strategic impact on its business.

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	3	100	FirstEnergy has 2 electric generating facilities and 1 synchronous condenser that represent the entirety of FirstEnergy fossil generating capacity. Harrison Power Station Fort Martin Power Station Eastlake Synchronous Condenser

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

United States of America	Mississippi River

Number of facilities exposed to water risk
2

% company-wide facilities this represents
51-75

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
100%

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
FirstEnergy has 2 electric generating facilities within the Mississippi River Basin, Harrison and Fort Martin. This represents all of FE's fossil generating capacity.

Country/Area & River basin

United States of America	St. Lawrence

Number of facilities exposed to water risk
1

% company-wide facilities this represents
26-50

Production value for the metals & mining activities associated with these facilities
<Not Applicable>

% company's annual electricity generation that could be affected by these facilities
Not applicable

% company's global oil & gas production volume that could be affected by these facilities
<Not Applicable>

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

Comment
FirstEnergy has 1 synchronous condenser facility within the St. Lawrence River basin, Eastlake Synchronous Condenser. Synchronous condensers along with static VAR compensators regulate reactive power to help ensure grid stability but do not generate electricity, this represents none of FE's generating capacity.

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

United States of America	Mississippi River

Type of risk & Primary risk driver

Physical	Flooding

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
While the Mississippi River is selected, FirstEnergy is combining its response for the Mississippi and St. Lawrence River Watersheds. FirstEnergy's power generation and substation facilities are located on rivers that have a possibility of flooding. While safeguards are put in place to limit the possibility of flooding, there is a chance that flooding could impact FirstEnergy's operations and/or cause additional costs to be incurred.

Timeframe
Current up to one year

Magnitude of potential impact
Low

Likelihood
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown, but potentially high (millions of dollars).

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
FirstEnergy has implemented measures to protect our electrical infrastructure from such floods. One such example is the JCP&L Sussex Substation where construction of a four foot high concrete wall was placed using JCP&L Reliability Plus infrastructure improvement plan funds to complete this project. The wall allows for ongoing personnel access and maintenance while protecting again changing water levels.

Cost of response

Explanation of cost of response
Unknown, would vary due to size of response needed.

Country/Area & River basin

United States of America	Mississippi River

Type of risk & Primary risk driver

Physical	Seasonal supply variability/inter annual variability

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
While the Mississippi River is selected, FirstEnergy is combining its response for the Mississippi and St. Lawrence River Watersheds. FirstEnergy's generations system is based off of streams connected to the Mississippi and St. Lawrence River watersheds. If a drought were to occur stream level variability could impact FirstEnergy's operations and /or cause costs to be incurred.

Timeframe
Current up to one year

Magnitude of potential impact
Low

Likelihood
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown, but potentially high (millions of dollars).

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
FirstEnergy's fossil generating facilities are 100 percent closed cycle cooling which reduce water withdrawals by 80 percent to 90 percent. A current pilot project further reduces Harrison's impact by returning leachate back to the plant processes saving approximately 105 million gallons annually.

Cost of response

Explanation of cost of response
Unknown, would vary due to size of response needed

Country/Area & River basin

United States of America	Mississippi River

Type of risk & Primary risk driver

Regulatory	Mandatory water efficiency, conservation, recycling or process standards

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
While the Mississippi River is selected, FirstEnergy is combining its response for the Mississippi and St. Lawrence River Watersheds. Regulatory changes could impact FirstEnergy's operations and/or cause costs to be incurred.

Timeframe
Current up to one year

Magnitude of potential impact
Low

Likelihood
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown, but potentially high (millions of dollars).

Primary response to risk
Adopt water efficiency, water reuse, recycling and conservation practices

Description of response
FirstEnergy's electric generation facilties operate in a 100% regulated environment. If regulators were to make changes to the facility requirements, coal usage, or environmental/water usage additional costs could be incurred.

Cost of response

Explanation of cost of response
Unknown, but would vary based on the potential regulatory changes.

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

United States of America	Mississippi River

Stage of value chain
Use phase

Type of risk & Primary risk driver

Physical	Flooding

Primary potential impact
Disruption to sales due to value chain dissruption

Company-specific description

While the Mississippi River is selected, FirstEnergy is combining its response for the Mississippi, Potomac, and St. Lawrence River Watersheds. The FirstEnergy service territory covers 65,000 square miles and therefore some electrical infrastructure could be subject to periodic flooding and supply disruptions to our value chain.

Timeframe
Current up to one year

Magnitude of potential impact
Unknown

Likelihood
Likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown

Primary response to risk

Downstream	Increase/review infrastructure investment

Description of response
Through the use of various programs such as JCP&L Reliability Plus, FirstEnergy is hardening our systems to better ensure service for our customers. At our Sussex Substation JCP&L has installed flood walls to help ensure our customers have reliable access to electricity. Such programs and investments mitigate the flood risk allowing our infrastructure to reliably provide service to our customers.

Cost of response
9800000000

Explanation of cost of response
FirstEnergy is investing approximately $1.2 billion per year into our distribution systems through 2021 to enhance distribution grid reliability and resiliency.

Country/Area & River basin

United States of America	Mississippi River

Stage of value chain
Use phase

Type of risk & Primary risk driver

Physical	Inadequate infrastructure

Primary potential impact
Disruption to sales due to value chain dissruption

Company-specific description
While the Mississippi River is selected, FirstEnergy is combining its response for the Mississippi, Potomac, and St. Lawrence River Watersheds. FirstEnergy owns one of the largest transmission systems in PJM with approximately 25,000 line miles connecting the Midwest and Mid-Atlantic regions. The transmission system is an essential part of our work to build a reliable, more resilient and lower carbon grid. Through our Energizing the Future (EtF) program, we are upgrading and modernizing our transmission system to ensure customers benefit from a smarter, stronger, and more secure power grid.

Timeframe
Current up to one year

Magnitude of potential impact
Unknown

Likelihood
Very likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown

Primary response to risk

Downstream	Increase/review infrastructure investment

Description of response
Since launching EtF in 2014, FE has completed 600 to 700 transmission projects per year. These projects allow grid operators more operational flexibility that enables them to more swiftly respond to changing grid conditions. These improvements have provided a measurable result for our customers, including a 47 percent reduction in equipment related outages on the transmission system serving The Illuminating Company, Ohio Edison, and Toledo Edison utilities.

Cost of response
9800000000

Explanation of cost of response
Investments from 2014 to 2018 totalled nearly $5.6 billion. We plan to invest from 2019 to 2023 $1.2 billion per year on transmission projects.

Country/Area & River basin

United States of America	Mississippi River

Stage of value chain
Use phase

Type of risk & Primary risk driver

Physical	Flooding

Primary potential impact
Disruption to sales due to value chain dissruption

Company-specific description
While the Mississippi River is selected, FirstEnergy is combining its response for the Mississippi, Potomac, and St. Lawrence River Watersheds. A large component of our enterprise wide risk management (EWRM) addresses severe weather events, threats such as electromagnetic pulses, geomagnetic disturbances, and other significant occurrences in our service territories.

Timeframe
Current up to one year

Magnitude of potential impact
Unknown

Likelihood
Virtually certain

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown

Primary response to risk

Direct operations	Include in Business Continuity Plan

Description of response
FirstEnergy has developed an extensive internal emergency response organization. As such, an incident command structure is employed and drills are conducted, at least, annually. We participate in working groups, training opportunities, and conferences at all levels of the public and private sectors to ensure readiness, build relationships, and stay abreast of technological advances.

Cost of response

Explanation of cost of response
FirstEnergy does not have a centralized system to only account for costs related to planning for extreme weather events.

Country/Area & River basin

United States of America	Other, please specify (All rivers)

Stage of value chain
Supply chain

Type of risk & Primary risk driver

Regulatory	Litigation against supplier

Primary potential impact
Supply chain disruption

Company-specific description
Many of FirstEnergy's suppliers use water in their processes for various functions. The use of water may create a regulatory or stakeholder conflict that the supplier must contend with if it happens.

Timeframe
Current up to one year

Magnitude of potential impact
Unknown

Likelihood
Likely

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure - minimum (currency)
<Not Applicable>

Potential financial impact figure - maximum (currency)
<Not Applicable>

Explanation of financial impact
Unknown

Primary response to risk

Supplier engagement	Other, please specify (Procedure Adherence)

Description of response
FirstEnergy's Supplier Code of Conduct requires that suppliers adhere to FirstEnergy's environmental policy. FirstEnergy requires that resources be minimized which would apply to our suppliers also.

Cost of response

Explanation of cost of response
FirstEnergy does not have a centralized system to only account for costs related to planning for these events.

W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes, we have identified opportunities, and some/all are being realized

W4.3a

(W4.3a) Provide details of opportunities currently being realized that could have a substantive financial or strategic impact on your business.

Type of opportunity
Efficiency

Primary water-related opportunity
Improved water efficiency in operations

Company-specific description & strategy to realize opportunity
Due to improved water efficiency and the use of cooling towers FirstEnergy's generation fleet operates on a closed loop system which recirculates cooling water; and once through cooling systems returns most of the water to the same source.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)

<Not Applicable>

Explanation of financial impact
FirstEnergy does not have a centralized accounting system to account for savings resulted from closed cycle cooling.

Type of opportunity
Resilience

Primary water-related opportunity
Increased resilience to impacts of climate change

Company-specific description & strategy to realize opportunity
Evolving regulatory landscapes can also alter the operations and maintenance of power stations. FirstEnergy actively evaluates those potential risks and means to avoid those risks. One such project is the Harrison Leachate return line. The line will return leachate from the Harrison Landfill back to the scrubber at Harrison Power Station, which is a zero liquid discharge process. Such actions will absolve approximately 105 million gallons per year from future regulatory changes.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact
FirstEnergy does not have a centralized accounting system to account for savings resulted from closed cycle cooling.

Type of opportunity
Efficiency

Primary water-related opportunity
Cost savings

Company-specific description & strategy to realize opportunity
FirstEnergy regularly purchases water for WASH services from our local utility stakeholders. While having a safe, reliable water source for WASH is particularly important, we sometimes use such procured water for process purposes which may or may not have such stringent quality standards. FirstEnergy's Environment Group was presented with the President's Award in 2018 for being able to reduce our consumption of utility drinking water thereby reducing purchased water by about 25 million gallons per year at two of our facilities.

Estimated timeframe for realization
Current - up to 1 year

Magnitude of potential financial impact
Unknown

Are you able to provide a potential financial impact figure?
No, we do not have this figure

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact
FirstEnergy does not have a centralized accounting system to account for savings resulted from closed cycle cooling.

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)
Harrison Power Station

Country/Area & River basin

United States of America	Mississippi River

Latitude
39.230213

Longitude
-80.195185

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Coal - hard

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
17712

Comparison of total withdrawals with previous reporting year
About the same

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
17712

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
11021

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
6691

Comparison of total consumption with previous reporting year
Higher

Please explain
Changes in water withdrawal/discharges/consumption reflect changes in operation of the facility.

Facility reference number
Facility 2

Facility name (optional)
Fort Martin Power Station

Country/Area & River basin

United States of America	Mississippi River

Latitude
39.423859

Longitude
-79.553991

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility

Coal - hard

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
20666

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
20666

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
7408

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
0

Total water consumption at this facility (megaliters/year)
13258

Comparison of total consumption with previous reporting year
Lower

Please explain
Changes in water withdrawal/discharges/consumption reflect changes in operation of the facility.

Facility reference number
Facility 3

Facility name (optional)
Eastlake Synchronous Condenser

Country/Area & River basin

United States of America	St. Lawrence

Latitude
41.671333

Longitude
-81.443333

Located in area with water stress
No

Primary power generation source for your electricity generation at this facility
Not applicable

Oil & gas sector business division
<Not Applicable>

Total water withdrawals at this facility (megaliters/year)
30129

Comparison of total withdrawals with previous reporting year
Lower

Withdrawals from fresh surface water, including rainwater, water from wetlands, rivers and lakes
30129

Withdrawals from brackish surface water/seawater
0

Withdrawals from groundwater - renewable
0

Withdrawals from groundwater - non-renewable
0

Withdrawals from produced/entrained water
0

Withdrawals from third party sources
0

Total water discharges at this facility (megaliters/year)
29224

Comparison of total discharges with previous reporting year
Lower

Discharges to fresh surface water
0

Discharges to brackish surface water/seawater
0

Discharges to groundwater
0

Discharges to third party destinations
0

Total water consumption at this facility (megaliters/year)
905

Comparison of total consumption with previous reporting year
Lower

Please explain
Changes in water withdrawal/discharges/consumption reflect changes in operation of the facility.

W5.1a

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

Water withdrawals – total volumes

% verified
76-100

What standard and methodology was used?
NPDES permitting and State Water Use Reporting

Water withdrawals – volume by source

% verified
76-100

What standard and methodology was used?
NPDES permitting and State Water Use Reporting

Water withdrawals – quality

% verified
76-100

What standard and methodology was used?
NPDES permitting

Water discharges – total volumes

% verified
76-100

What standard and methodology was used?
NPDES permitting and State Water Use Reporting

Water discharges – volume by destination

% verified
76-100

What standard and methodology was used?
NPDES permitting and State Water Use Reporting

Water discharges – volume by treatment method

% verified
76-100

What standard and methodology was used?
NPDES permitting

Water discharge quality – quality by standard effluent parameters

% verified
76-100

What standard and methodology was used?
NPDES permitting

Water discharge quality – temperature

% verified
76-100

What standard and methodology was used?
NPDES permitting

Water consumption – total volume

% verified
76-100

What standard and methodology was used?
NPDES permitting and State Water Use Reporting

Water recycled/reused

% verified
Not verified

What standard and methodology was used?
<Not Applicable>

W6. Governance

W6.1

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

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

W6.1a

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

	Scope	Content	Please explain
Row 1	Company-wide	Description of business dependency on water Description of business impact on water Description of water-related performance standards for direct operations	FirstEnergy has a publicly available environmental policy that states our intent to minimize impacts and use natural resources wisely.

W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?

Yes

W6.2a

(W6.2a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for water-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	FirstEnergy's Chief Executive Officer is responsible for the management of climate-related issues for the company, and our Board of Directors provides oversight. Senior company executives provide regular updates with the Board and relevant Board committees on topics related to climate issues, including business strategy, legislative and regulatory policies and climate initiatives.

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 - all meetings	Overseeing acquisitions and divestiture Providing employee incentives Reviewing and guiding major plans of action Reviewing and guiding risk management policies Reviewing and guiding strategy Reviewing and guiding corporate responsibility strategy Setting performance objectives	FirstEnergy's Board of Directors has a Corporate Governance and Corporate Responsibility Committee that oversees water related issues and meets at least 5 times per year. Company management also updates the committee on timely issues as appropriate.

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)

Responsibility

Managing water-related risks and opportunities

Frequency of reporting to the board on water-related issues

As important matters arise

Please explain

FirstEnergy has a Director of Environment and Director of Strategy, Long Term Planning, and Corporate Responsibility; these roles are responsible to report important climate and water related issues, which will be vetted and the CEO will be updated of important matters.

W6.4

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

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

W6.4a

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

	Role(s) entitled to incentive	Performance indicator	Please explain
Monetary reward	Board chair Board/Executive board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Other C-suite Officer Other, please specify (All employees)	Improvements in waste water quality - direct operations	FirstEnergy has environmental metrics (with associated incentive compensation) for employees, an executive management committee, and a Board of Director's committee.
Non-monetary reward	Board chair Board/Executive board Director on board Corporate executive team Chief Executive Officer (CEO) Chief Financial Officer (CFO) Chief Operating Officer (COO) Chief Purchasing Officer (CPO) Chief Risk Officer (CRO) Chief Sustainability Officer (CSO) Other, please specify (Policy applies to all employees of FirstEnergy.)	Reduction of water withdrawals Reduction in consumption volumes Improvements in efficiency - direct operations Improvements in waste water quality - direct operations Implementation of employee awareness campaign or training program Supply chain engagement Implementation of water-related community project	FirstEnergy regularly celebrates the efforts of employees to produce and deliver electricity in an environmentally sound manner. FirstEnergy has issued several news releases and public communications spotlighting employee efforts to reduce our environmental impact. Also, the Environment Group won a President's Award in 2018 for water reduction efforts.

W6.5

(W6.5) Do you engage in activities that could either directly or indirectly influence public policy on water through any of the following?

Yes, direct engagement with policy makers
Yes, trade associations
Yes, funding research organizations

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?

FirstEnergy has a decision-making and oversight processes in place for political contributions and expenditures to ensure such contributions or expenditures are legally permissible and in the best interests of FirstEnergy and our customers.

W6.6

(W6.6) Did your organization include information about its response to water-related risks in its most recent mainstream financial report?

Yes (you may attach the report - this is optional)

W7. Business strategy

W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	5-10	FirstEnergy's strategic vision is guided by seven core values. Our core values on safety, customers, diversity and inclusion, innovation, performance, social responsibility, and teamwork. While our commitment to social responsibility and performance may guide many water related projects, our commitments to customers and innovation also guide many water related investments. For instance, FirstEnergy has invested $6.8 billion in transmission improvements since 2014 to provide a more resilient and reliable grid to our customers. Such investments include transmission systems that are more dependable in the face of other extreme weather events on the grid.
Strategy for achieving long-term objectives	Yes, water-related issues are integrated	5-10	Our strategy can be found on our website, but it is based upon our seven core values. By making customer centric investment decisions, we're increasing reliability and reducing water risks for years to come. Our vision incorporates data driven decisions. By using data analytics, we can more accurately predict and plan for work on wires, poles, and other equipment.
Financial planning	Yes, water-related issues are integrated	5-10	FirstEnergy has committed to $3 billion per year in distribution and transmission investments on top of our $6.8 billion in capital improvements since 2014. By the end of 2023, we will have invested nearly $20 billion in transmission and distribution improvements which will have made our grid more reliable and resilient to extreme weather events, floods, and other water related issues.

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)

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

Water-related OPEX (+/- % change)

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

Please explain

This information is not calculated by FirstEnergy.

W7.3

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

	Use of climate-related scenario analysis	Comment
Row 1	Yes	FirstEnergy is currently upgrading our electric grid with an investment of nearly $6.8 billion from 2014-2019 and $3 billion per year from 2019-2023 to make our system more robust, secure, and resistant to extreme weather events.

W7.3a

(W7.3a) Has your organization identified any water-related outcomes from your climate-related scenario analysis?

No

W7.4

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

Row 1

Does your company use an internal price on water?

No, and we do not anticipate doing so within the next two years

Please explain

W8. Targets

W8.1

(W8.1) Describe your approach to setting and monitoring water-related targets and/or goals.

	Levels for targets and/or goals	Monitoring at corporate level	Approach to setting and monitoring targets and/or goals
Row 1	Company-wide targets and goals	Targets are monitored at the corporate level	FirstEnergy manages environmental compliance through Board committee oversight and by including environmental excursions and Notice of Violations (NOV) in our Operations KPIs. Our environmental excursions and NOV KPI metric tracks any regulatory reportable air emission, water discharge or other unauthorized release that exceeds applicable environmental limitations, conditions and deadlines set by federal, state or local regulations. Our threshold, target and stretch goals for this metric are based on our previous year's performance, and the stretch goal is designed to encourage significant improvement in our commitment to making the environment better. The inclusion of these environmental metrics in our Operations KPIs enhances employees' awareness and attention to environmental compliance and drives continuous improvement across all areas of our business.

W8.1a

(W8.1a) Provide details of your water targets that are monitored at the corporate level, and the progress made.

Target reference number
Target 1

Category of target
Water pollution reduction

Level
Company-wide

Primary motivation
Reduced environmental impact

Description of target
FirstEnergy manages environmental compliance through Board committee oversight and by including environmental excursions and Notice of Violations (NOV) in our Operations KPIs. Our environmental excursions and NOV KPI metric tracks any regulatory reportable air emission, water discharge or other unauthorized release that exceeds applicable environmental limitations, conditions and deadlines set by federal, state or local regulations. Our threshold, target and stretch goals for this metric are based on our previous year's performance, and the stretch goal is designed to encourage significant improvement in our commitment to making the environment better. The inclusion of these environmental metrics in our Operations KPIs enhances employees' awareness and attention to environmental compliance and drives continuous improvement across all areas of our business.

Quantitative metric
% proportion of wastewater that is safely treated

Baseline year
2015

Start year
2015

Target year
2019

% of target achieved
99.5

Please explain
FirstEnergy facilities have NPDES permits with specific limits. FirstEnergy has a target of zero exceedances of our NPDES permits.

W9. Verification

W9.1

(W9.1) Do you verify any other water information reported in your CDP disclosure (not already covered by W5.1a)?
No, we do not currently verify any other water information reported in our CDP disclosure

W10. Sign off

W-FI

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

W10.1

(W10.1) Provide details for the person that has signed off (approved) your CDP water response.

	Job title	Corresponding job category
Row 1	Senior Vice President and Chief Strategy Officer	Other C-Suite Officer

W10.2

(W10.2) Please indicate whether your organization agrees for CDP to transfer your publicly disclosed data on your impact and risk response strategies to the CEO Water Mandate's Water Action Hub [applies only to W2.1a (response to impacts), W4.2 and W4.2a (response to risks)].

Yes

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission
I am submitting my response	Investors	Public

Please confirm below

I have read and accept the applicable Terms