

Based in Milwaukee, Wisconsin, WEC Energy Group is one of the nation's premier energy holding companies, with subsidiaries serving energy customers in Wisconsin, Illinois, Minnesota and Michigan.

At WEC Energy Group, we embrace our responsibility to provide safe, reliable and affordable energy in an environmentally sustainable manner. We set our strategies and run our operations with an emphasis on continuous improvement and a vision to deliver a cleaner energy future.

As we make progress on our environmental efforts, we provide information to a number of environmental, social and governance organizations and ratings firms to continually enhance transparency and encourage dialogue with stakeholders.

We have disclosed information regarding our operations and climate-related risks and opportunities to CDP for more than a decade.

Our responses in this report contain forward-looking information. For cautionary statements regarding forward-looking information, please go to <a href="http://www.wecenergygroup.com/home/terms.htm">http://www.wecenergygroup.com/home/terms.htm</a>.



# Welcome to your CDP Water Security Questionnaire 2023

## **W0.** Introduction

## **W0.1**

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

We were incorporated in the state of Wisconsin in 1981 and became a diversified holding company in 1986. We maintain our principal executive offices in Milwaukee, Wisconsin. Our wholly owned utility subsidiaries provide regulated natural gas and electricity to customers in Wisconsin, Illinois, Michigan and Minnesota. We also have non-utility energy infrastructure operations that, among other things, hold majority ownership interests in a number of renewable generating facilities. In addition, we own an approximate 60% equity interest in American Transmission Co. (a for-profit transmission-only company operating in Illinois, Michigan, Minnesota and Wisconsin) and an approximate 75% equity interest in ATC Holdco LLC, a separate entity formed to invest in transmission-related projects outside of American Transmission Co.'s traditional footprint.

Wisconsin Electric Power Co. (Wisconsin Electric), which is the largest electric utility in the state of Wisconsin, generates and distributes electric energy to customers located in southeastern Wisconsin (including the metropolitan Milwaukee area), east central Wisconsin, and northern Wisconsin. Wisconsin Public Service Corp. (Wisconsin Public Service) generates and distributes electric energy to customers located in northeastern Wisconsin. Upper Michigan Energy Resources Corp. (UMERC) generates and distributes electric energy to customers located in the Upper Peninsula of Michigan.

We own the largest natural gas distribution utilities in Wisconsin (Wisconsin Public Service; and Wisconsin Gas LLC and Wisconsin Electric, both doing business as We Energies), and we operate throughout the state, including the city of Milwaukee and surrounding areas, northeastern Wisconsin, and large areas of both central and western Wisconsin. In addition, Wisconsin Electric has a steam utility that generates, distributes and sells steam to customers in metropolitan Milwaukee for use in processing, space heating, domestic hot water and humidification. Our Illinois natural gas utilities, The Peoples Gas Light and Coke Co. and North Shore Gas Co., serve customers in Chicago and the northern suburbs of Chicago, respectively. Our other natural gas utilities include Minnesota Energy Resources Corp., serving customers in various cities and communities throughout Minnesota, and Michigan Gas Utilities Corp., serving customers in the southern portion of lower Michigan. UMERC serves natural gas customers in the Upper Peninsula of Michigan. Our non-utility operations include W.E. Power LLC, which designed and built certain electric generating units that it now leases to Wisconsin Electric;



Bluewater Natural Gas Holding LLC, which owns natural gas storage facilities in Michigan that provide approximately one-third of the current storage needs for our Wisconsin natural gas utilities; WEC Infrastructure LLC, which holds majority ownership interests in non-utility wind and solar generating facilities; and Wispark LLC, which develops and invests in real estate.

#### W-EU0.1a

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

Electricity generation
Distribution

## W-EU0.1b

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

	Nameplate capacity (MW)	% of total nameplate capacity	Gross electricity generation (GWh)
Coal – hard	3,543	36.97	13,071
Lignite	0	0	0
Oil	245	2.55	4
Gas	3,712	38.73	14,047
Biomass	58	0.6	200
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	156	1.63	803
Wind	1,658	17.3	5,012
Solar	213	2.22	439
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	9,585	100	33,576

#### **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, 2022	December 31, 2022

#### W<sub>0.3</sub>

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

United States of America

#### W<sub>0.4</sub>

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

USD

## W<sub>0.5</sub>

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

Other, please specify

Equity share of consolidated companies and equity share of non-utility wind facilities.

#### **W0.6**

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

No

#### W<sub>0.7</sub>

(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, a Ticker symbol	WEC

## W1. Current state

#### W1<sub>.</sub>1

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

Direct use	Indirect use	Please explain
importance	importance	
rating	rating	



Sufficient amounts of good quality freshwater available for use	Vital	Important	Our power plant operations use open cycle cooling or wet cooling tower systems that withdraw from intake structures located on nearby freshwater sources. Virtually all water withdrawn is returned to the freshwater source.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Important	Our Fox Energy Center beneficially reuses treated effluent from a municipal facility to supply its process water and cooling water needs. The beneficial reuse of treated effluent results in less freshwater use and a net reduction in the quantity of pollutants that would otherwise be discharged, resulting in a net benefit to the public and the aquatic environment in the Fox River.

# 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%	Other, please specify  Done as required by regulations and/or permits.	Facility water withdrawals are estimated by using either: 1) facility pump curves and pump run time data; or 2) flow meter measurements.	Done as required by regulations and/or permits.
Water withdrawals  – volumes by source	100%	Other, please specify  Done as required by regulations and/or permits.	Facility water withdrawals are estimated by using either: 1) facility pump curves and pump run time data; or 2) flow meter measurements.	Done as required by regulations and/or permits.
Water withdrawals quality	100%	Other, please specify  Done as required by regulations and/or permits.	Either grab or composite samples are collected, as required by regulation and/or permits and analyses are completed in	Done to optimize operations and as required by regulations and/or permits.



			state-approved laboratories.	
Water discharges  – total volumes	100%	Other, please specify  Done as required by regulations and/or permits.	Facility water withdrawals are estimated by using either: 1) facility pump curves and pump run time data; or 2) flow meter measurements.	Done as required by regulations and/or permits.
Water discharges  – volumes by destination	100%	Other, please specify  Done as required by regulations and/or permits.	Facility water withdrawals are estimated by using either: 1) facility pump curves and pump run time data; or 2) flow meter measurements.	Done as required by regulations and/or permits.
Water discharges  – volumes by treatment method	100%	Other, please specify  Done as required by regulations and/or permits.	Facility water withdrawals are estimated by using either: 1) facility pump curves and pump run time data; or 2) flow meter measurements.	Done to optimize operations and as required by regulations and/or permits.
Water discharge quality – by standard effluent parameters	100%	Other, please specify  Done as required by regulations and/or permits.	Either grab or composite samples are collected, as required by regulation and/or permits and analyses are completed in state-approved laboratories.	Done to optimize operations and as required by regulations and/or permits.
Water discharge quality – emissions to water (nitrates, phosphates, pesticides, and/or other priority substances)	100%	Other, please specify  Done as required by regulations and/or permits.	Either grab or composite samples are collected, as required by regulation and/or permits and analyses are completed in state-approved laboratories.	Done as required by regulations and/or permits.



Water discharge quality – temperature	100%	Other, please specify  Done as required by regulations and/or permits.	In-line automated temperature measurements are completed as required by regulations and/or permits.	Done to optimize operations and as required by regulations and/or permits.
Water consumption – total volume	100%	Other, please specify  Done as required by regulations and/or permits.	Facility water consumption rates are estimated by using either: 1) facility pump curves and pump run time data to record intake water flow rates; or 2) flow meter measurements to record intake and/or discharge flow rates.	Done as required by regulations and/or permits.
Water recycled/reused	100%	Other, please specify  Done as required by regulations and/or permits.	Facility water consumption rates are estimated by using either: 1) facility pump curves and pump run time data to record intake water flow rates; or 2) flow meter measurements to record intake and/or discharge flow rates.	Done as required by regulations and/or permits.
The provision of fully-functioning, safely managed WASH services to all workers	100%	Other, please specify  Done as required by regulations and/or permits.	Provided as a requirement of state and local building codes and occupancy requirements.	Provided to all employees at all company facilities.

# 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%	Water flows directed through turbine-generators or over hydroelectric facility spillways are monitored to ensure that minimum downstream environmental flows are fulfilled as required by FERC licenses for each location.
Sediment loading	100%	Accumulated sediment loading is evaluated at frequencies recommended by our engineering consultants, typically every 5-10 years, on the upstream side of all hydropower facilities. This monitoring frequency reflects the relatively low sediment loading experience at our hydroelectric facilities that are along rivers located in areas with heavily forested watersheds that have very low sediment runoff levels.
Other, please specify	1 - 25%	As required by the respective FERC licenses, 10% of our hydroelectric facility sites conduct monitoring for one or more water quality parameters (i.e., dissolved oxygen, temperature or pH) annually during the summer months.  The results of the water quality monitoring conducted either during the FERC relicensing period or within the first few years of the project license term demonstrated that annual monitoring was not warranted at 90% of our hydro facilities.

# 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	3,017,900	About the same	Increase/ decrease in business activity	Much lower	Facility closure	Water withdrawals during 2022 were about the same as the previous



reporting year. The level of water withdrawals stayed within a relatively consistent range during '21-'22 and there were only minor variations (+/ten percent) due to changes in business activity (tied to increases or decreases in power production) from one year to the next.

The five-year forecast for water withdrawals is projected to be much lower because several coal-fueled electric generating units are scheduled to be retired.

For all questions in section W1.2, value comparisons to the previous reporting year are characterized as follows: 1) "about the same" is between - 10% and 10%; 2) "lower" is between -10% to -25%; 3) "higher is between 10% to 25%; and 4) much lower and much higher are +/- 25%. These thresholds also are used for



						the balance of the CDP Water Security survey questions that require a qualitative comparison to the previous reporting year.
Total discharges	3,004,100	About the same	Increase/ decrease in business activity	Much lower	Facility closure	Water discharges during 2022 were about the same as the previous reporting year. The level of water discharges stayed within a relatively consistent range during '21-'22 and there were only minor variations (+/-ten percent) due to changes in business activity (tied to increases or decreases in power production) from one year to the next.  The five-year forecast for water discharges is projected to be much lower because several coal-fueled electric generating units are scheduled to be retired.
Total consumption	13,800	About the same	Increase/ decrease in business activity	About the same	Increase/ decrease in business activity	The level of water consumption stayed within a relatively consistent range during '21-'22 and there were only



			minor variations (+/- ten percent) due to changes in
			business activity
			(tied to increases or
			decreases in power
			production) from
			one year to the
			next.
			For the five-year
			forecast, electrical
			generating facilities
			that rely on cooling
			tower systems (the
			evaporative cooling
			process results in
			consumptive water
			use) are expected
			to run at levels
			consistent with
			current operations.
			Therefore, water
			consumption levels
			are projected to
			remain about the
			same during the
			next five years.

# W1.2d

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

	Withdrawals are from areas with water stress	Identification tool	Please explain
Row 1	No	WRI Aqueduct Other, please specify See explanation about the WRI Aqueduct Water Risk Atlas. Also, based on Wisconsin DNR state codes and guidance, there are no water withdrawals from our	Our company's electrical generating facilities are all located in areas defined as either low or low-medium overall water risk by the Water Resources Institute (WRI) Aqueduct Water Risk Atlas (AWRA). One facility is located in the Wisconsin River watershed, the entirety of



facilities at locations defined by	which is identified by the WRI AWRA as
the Wisconsin DNR as having water stress.	having high water stress. The Wisconsin
water stress.	River watershed covers 19% of the state
	of Wisconsin and the specific location of
	this facility along the Wisconsin River is
	not defined by the Wisconsin DNR as a
	water stressed area and this state
	regulatory agency has not placed any
	constraints on our water use.
	Our base-load electrical generating
	facilities are all located at sites with direct
	access to surface water resources from
	the Great Lakes basin (Lake Michigan) or
	Mississippi River basin (Wisconsin River).
	Lake Michigan is the fifth largest lake in
	the world and the largest located entirely
	within the United States. The Wisconsin
	River is the largest interior river flowing
	through the state of Wisconsin prior to
	connecting with the Mississippi River, the
	largest river in the U.S. Our power plants
	with "open cycle" cooling return over 99%
	of water back to the lake, thereby causing
	no effect on the water level. Also,
	company facilities with cooling towers
	minimize water withdrawals and result in a
	negligible effect on the source water
	bodies. Therefore, our power plants
	operate in locations with no water stress
	and employ technologies that do not

# W1.2h

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

	Relevance	Volume (megaliters/ year)	Comparison with previous reporting year	Primary reason for comparison with previous reporting year	Please explain
Fresh surface water, including rainwater, water	Relevant	3,013,300	About the same	Increase/ decrease in	Our power plant operations rely on open cycle cooling or wet

cause or contribute to water stress.



from wetlands				husiness	cooling tower evetoms
from wetlands, rivers, and lakes				business activity	cooling tower systems that withdraw from intake structures on freshwater sources. These power plant cooling water systems run within a relatively consistent range and only have minor (+/- ten percent) water volume withdrawal variations caused by increases/decreases in business activity (power production) from one year to the next.  Customarily, for plants with open cycle cooling systems, over 99% of water withdrawn for plant operations is returned to the source. (Note: All water used for cooling is returned, and there are evaporative losses of
					systems.) Facilities with cooling towers withdraw 95-99% less surface water for operations than open cycle systems.  About 25% of the water is returned to the source, with the balance of the water loss going to the air during the evaporative cooling process.
Brackish surface water/Seawater	Not relevant				Our company does not use brackish surface water sources or seawater.
Groundwater – renewable	Relevant	900	About the same	Increase/ decrease in	Power plant groundwater withdrawals remain within



				business activity	a relatively consistent range and only have minor (+/- ten percent) water volume variations caused by increases/decreases in business activity (power production) from one year to the next.  Less than 1% of water withdrawal from all company power plant operations is from groundwater sources. For this category of renewable resources, the water withdrawn is from groundwater wells needed for the hydroelectric power facilities.
Groundwater – non-renewable	Not relevant				Our company does not withdraw from non-renewable groundwater sources.
Produced/ Entrained water	Not relevant				Our company does not withdraw from produced or entrained water sources.
Third party sources	Relevant	3,700	About the same	Increase/ decrease in business activity	Fox Energy Center beneficially reuses treated effluent to supply its process water and cooling water needs. The power plant cooling water system at Fox Energy runs within a relatively consistent range and only has minor (+/- ten percent) water volume variations caused by increases/decreases in business activity (power production) from one year to the next.



# 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	3,003,700	About the same	Increase/ decrease in business activity	Most of our power plants operate open cycle cooling systems that withdraw from freshwater sources and return most of the water to the source. These power plant cooling water systems run within a relatively consistent range and only result in minor (+/- ten percent) water discharge volume variations caused by increases/decreases in business activity (power production) from one year to the next.  Customarily, for plants with open cycle cooling systems over 99% of water withdrawn for plant operations is returned to the source. (Note: All water used for cooling is returned, and there are evaporative losses of under 1% due to equipment such as wet flue gas desulfurization systems.)
Brackish surface water/ seawater	Not relevant				Our company does not discharge to brackish surface water/seawater.
Groundwater	Not relevant				Our company does not discharge to groundwater.



Third-party destinations	Relevant	400	About the same	Increase/ decrease in business activity	Some power plants discharge a small percentage of the water withdrawn to a municipal treatment system. These power plant water systems operate within a relatively consistent range and only result in minor (+/- ten percent) water discharge volume variations caused by increases/decreases in business activity (power production) from one year to the next.
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# 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	4,800	About the same	Increase/ decrease in business activity	31-40	Tertiary treatment applies primarily to coal-fueled facility process wastewaters. In addition, the natural gas-fueled Fox Energy Center utilizes tertiary treatment for all of the treated municipal wastewater effluent it uses for its process water and cooling water needs.  Power plant tertiary treatment systems operate within a relatively consistent range. There are



Secondary treatment	Not relevant					minor (+/- ten percent) water discharge volume variations caused by increases/decreases in business activity (power production) from one year to the next.  Secondary biological treatment is not currently required for power plant wastewaters
Primary treatment only	Relevant	500	About the same	Increase/ decrease in business activity	1-10	This 500 MLY primary treatment system discharge volume is expected to be significantly reduced during 2023 following the implementation of a capital project that will reduce wastewater volume generated at the WPS Weston Unit 3 facility.  Power plant primary treatment systems operate within a relatively consistent range. There are minor (+/- ten percent) water discharge volume variations caused by increases/decreases in business activity (power production) from one year to the next.
Discharge to the natural	Relevant	2,998,400	About the same	Increase/ decrease in	81-90	Discharges to the natural environment stay within a relatively



environme				business		consistent range.
nt without				activity		There are minor (+/-
treatment						ten percent) water
						discharge volume
						variations caused by
						increases/decreases
						in business activity
						(power production)
						from one year to the
						next.
						Most of our power plants operate open cycle cooling systems that withdraw from freshwater sources and return over 99% of the water to the source without requiring treatment.  In addition, cooling tower blowdown and other clean plant process water discharges do not require treatment prior to discharge. All other wastewater streams
						receive the level of
						treatment required to
						meet permit limits
						prior to discharge.
Discharge to a third party without treatment	Relevant	400	Higher	Increase/ decrease in business activity	11-20	Discharges to a third party have increased at several gas-fueled facilities. The increased (+10 to +25%) water discharge volumes are due to increases in business activity (power production) from one year to the
						next.



				Some power plants discharge process wastewater to municipal treatment facilities that utilize biological treatment followed by additional filtration or clarification and disinfection.
Other	Not relevant			There are no other treatment levels relevant to our direct operations.

# W1.2k

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

	Emissions to water in the reporting year (metric tonnes)	Category(ies) of substances included	List the specific substances included	Please explain
Row 1	2.14	Phosphates Priority substances listed under the EU Water Framework Directive	mercury	The value of 2.137 metric tons is the annual discharge of phosphorus from all We Energies and WPS power generating facilities that are regularly monitoring this parameter. Some of the phosphorus discharged will be in the form of phosphates, but the actual quantity is not known because that phosphorus compound is not measured in our laboratory testing.  The combined annual discharge of mercury is 0.000028 metric tons (28 grams) from all We Energies and WPS power generating facilities that are regularly monitoring for this parameter.

# 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	9,597,400,000	3,017,900	3,180.1583882832	This value is not expected to vary more than +/- 10% annually over the next several years.

#### W-EU1.3

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

## W-EU1.3a

# (W-EU1.3a) Provide the following intensity information associated with your electricity generation activities.

Water intensity value (m3/denominator)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
0.41	Freshwater consumption	MWh	Lower	The water consumption rate is in cubic meters per MWh of gross electrical generation. This is based upon a total consumption rate of 13,800,000 cubic meters/year of water and a gross electrical generation total of 33,576,000 MWh/year.

#### W<sub>1.4</sub>

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

	Products contain hazardous substances	Comment
Row 1	No	Our utilities provide three products: 1) electricity; 2) steam energy; and 3) natural gas. None of these products are defined as hazardous by a regulatory authority.

# W1.5

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



	Engagement	Primary reason for no engagement	Please explain
Suppliers	Yes		
Other value chain partners (e.g., customers)	No	Important but not an immediate business priority	Our utilities respond to customer requests on a case-specific basis.

#### 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

Supplier impacts on water quality

Number of suppliers identified as having a substantive impact

#### % of total suppliers identified as having a substantive impact

1-25

#### Please explain

The company uses a product by Velocity EHS called MSDS Online. This corporate-wide software prompts an internal review of any new/changed product or chemical additive. The review process is tracked in the software to record the outcome from our internal evaluation of each product. The review is conducted by a team of company experts that evaluates the health & safety protocols needed and the potential environmental effects to assess air quality, water quality and land quality effects and any regulatory requirements.

#### W1.5b

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

		Suppliers have to meet specific water-related requirements	Comment
R	ow	No, and we do not plan to introduce	See response to question W1.5d for details about
1		water-related requirements within the	circumstances that involve water-related
		next two years	requirements for our suppliers.

#### W1.5d

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



#### Type of engagement

Information collection

#### **Details of engagement**

#### % of suppliers by number

1-25

#### % of suppliers with a substantive impact

Less than 1%

#### Rationale for your engagement

The overarching reasons for engagement are to improve our power generation operational efficiency and ensure regulatory compliance.

#### Impact of the engagement and measures of success

The engagement for the Fox Energy Center is related to interacting with the Heart of the Valley municipal staff regarding treated wastewater quality, as this source is used to provide cooling and process water for our plant. The quality of the water delivered to Fox is important to us, as it affects how we operate and it can influence the means to meet environmental permit limits.

We engage with any company shipping products to us over the water. Water levels and time of year affect the efficiency and cost of delivery.

We also have vendors that provide products (e.g. water treatment chemicals at power plants) for improving our boiler water or cooling water chemistry. This engagement is done to optimize operational efficiency at our power plants.

#### Comment

# W2. Business impacts

#### W2.1

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

#### 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	Fines, enforcement orders, and/or other penalties	Comment
Row 1	Yes	Fines Enforcement orders or other penalties	On June 28, 2022 a consent order was entered in Champaign County Circuit Court to resolve a lawsuit the Illinois Attorney General's office filed after natural gas leaked from a Peoples Gas Light and Coke Company (PGL) underground storage facility in 2016. The leak occurred at the Peoples Gas Manlove Field, near the Village of Fisher, IL.  The consent order requires PGL to mitigate the release by implementing a Groundwater Management Zone (GMZ) approved by the Illinois Environmental Protection Agency (IEPA). The order also provides relief for impacted households.  In the consent order PGL agreed to pay a total of \$175,000 in civil penalties to the IEPA (\$150K) and IDPH (\$25K).

# W2.2a

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

#### Row 1

**Total number of fines** 

1

**Total value of fines** 

175,000

% of total facilities/operations associated

0.01

Number of fines compared to previous reporting year

Higher

#### Comment

See comments provided in response to question W2.2.



## W2.2b

(W2.2b) Provide details for all significant fines, enforcement orders and/or other penalties for water-related regulatory violations in the reporting year, and your plans for resolving them.

#### Type of penalty

Fine

#### **Financial impact**

175,000

#### Country/Area & River basin

United States of America Mississippi River

#### Type of incident

Other, please specify
Natural gas (methane) leakage

# Description of penalty, incident, regulatory violation, significance, and resolution

See comments in question W2.2 for more information regarding a consent order that People Gas is implementing to addresses a methane gas leak that occurred at the Manlove Field underground natural gas storage facility in 2016.

# **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	Yes, we identify and	We identify a range of pollutant discharges from our electric generating
1	classify our potential	stations, hydroelectric power plants, and gas storage facilities during
	water pollutants	state permit application or Federal Energy Regulatory Commission
		(FERC) license renewal processes. We follow a classification system
		for potential water pollutants used by the Illinois Environmental
		Protection Agency (IEPA), Michigan Department of Environment,
		Great Lakes, and Energy (EGLE) and Wisconsin Department of
		Natural Resources (DNR) in their water quality standards codes.
		These classifications are established for: 1) protection of fish and
		aquatic life; 2) protection of human health, including carcinogenic
		substances; and 3) protection of wildlife from the effects of
		bioaccumulation in the aquatic environment.

## W3.1a

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

## Water pollutant category

Other, please specify
Thermal pollution

#### Description of water pollutant and potential impacts

Heat addition to the Great Lakes and tributaries

#### Value chain stage

Direct operations

#### Actions and procedures to minimize adverse impacts

Other, please specify

Cooling towers and discharge diffusers. Working with regulatory agency staff and community/stakeholder engagement

#### Please explain

Studies conducted between the mid-1970s through 2020 have been used to demonstrate that existing technologies are protective and to establish operating limits for each facility.

#### Water pollutant category

Other, please specify

Trace metals, total suspended solids and phosphorus

#### Description of water pollutant and potential impacts



Potential for trace metals, total suspended solids and/or phosphorus to exceed water quality standards in the Great Lakes and tributaries.

#### Value chain stage

Direct operations

#### Actions and procedures to minimize adverse impacts

Other, please specify

Compliance with federal technology-based requirements and state water quality based standards by using water treatment equipment reviewed and approved by state & federal regulatory agency staff.

#### Please explain

All discharges at electric generating facilities are monitored for a large range of substances and evaluated to help ensure management procedures are effective.

#### 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

Every three years or more

#### How far into the future are risks considered?

More than 6 years

#### Type of tools and methods used

Other

#### Tools and methods used

#### Contextual issues considered



Water availability at a basin/catchment level

Water quality at a basin/catchment level

Stakeholder conflicts concerning water resources at a basin/catchment level

Implications of water on your key commodities/raw materials

Water regulatory frameworks

Status of ecosystems and habitats

Access to fully-functioning, safely managed WASH services for all employees

#### Stakeholders considered

Customers

**Employees** 

Investors

Local communities

**NGOs** 

Regulators

Suppliers

Water utilities at a local level

#### Comment

Prior to siting or expanding any electrical generating station, hydroelectric power plant or gas storage facility, the company fully evaluates the quantity and quality of groundwater and surface water resources to ensure there will not be detrimental effects on water ecosystems and resources. Water-resource-related risks are also evaluated in advance of the construction of all natural gas and electric distribution infrastructure.

Also, water-related risks are evaluated at all electric generating stations during each five-year water discharge permit renewal process and upon any significant relevant legislative/regulatory change

#### Value chain stage

Supply chain

#### Coverage

Full

#### Risk assessment procedure

Water risks are assessed as a standalone issue

#### Frequency of assessment

Every three years or more

#### How far into the future are risks considered?

More than 6 years

#### Type of tools and methods used

Other



#### Tools and methods used

#### Contextual issues considered

Implications of water on your key commodities/raw materials Water regulatory frameworks

#### Stakeholders considered

Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

#### Comment

All products that require Safety Data Sheets (SDS) are evaluated to ensure that their use will not cause water-related risks to groundwater or surface water resources. A formal, online approval process used within our electric utilities is detailed in a procedure designed to ensure that the use of a new chemical will not adversely affect the environment, and that facilities comply with environmental rules, regulations, and permit requirements.

#### Value chain stage

Other stages of the value chain

#### Coverage

Full

#### Risk assessment procedure

Other, please specify
Legal, regulatory and policy evaluation

#### Frequency of assessment

Every three years or more

#### How far into the future are risks considered?

More than 6 years

#### Type of tools and methods used

Other

#### Tools and methods used

Internal company methods

#### Contextual issues considered

Implications of water on your key commodities/raw materials Water regulatory frameworks

#### Stakeholders considered



Regulators

Suppliers

Water utilities at a local level

Other water users at the basin/catchment level

#### Comment

Corporate Environmental department tracks all relevant new or modified water laws, regulations and policies to ensure the company meets all current requirements and is prepared to meet new ones.

#### 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	Our process is largely designed around the Clean Water Act, Water Resources Development Act and related state laws that govern regulatory programs in the Great Lakes region.	These federal and state programs are designed around risk-based approaches to regulating water quality and quantity. These programs have been identified and assessed by our Environmental department staff.	Case-specific and may involve federal, state and local government officials and local residents.	Our response is to develop internal programs and procedures to manage these water-related risks when siting new facilities and when operating existing facilities.

# W4. Risks and opportunities

#### W4.1

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

No

#### W4.1a

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

Water-related risks are correlated to the geographic locations of our facilities. From a water-related risk perspective, our organization would define this as being a location where minimum water requirements are not sustainable to accommodate the needs of an electrical generating facility for the duration of its anticipated design life. Secondarily our organization considers



flooding (all facilities) and high wave risks (at Great Lakes facilities only) as environmental factors that may cause substantive financial impacts if not properly accounted for when siting and operating facilities located near waterways.

There currently are not constraints on our operations related to water supply or water elevation fluctuations at any of our company facilities that are located in the Great Lakes and Mississippi River basins. Our existing facilities and any new ones are all in locations that account for current and on-going water-related risks. Our company environmental staff evaluates all water-related risks and applies any relevant regulatory water-use metrics, including flood/wave zone evaluations, to define potential substantive impacts to water ecosystems and to quantify any revenues or expenditures that could result in a financial or strategic impact to our customers, businesses and the on-going operation of our facilities.

Last, to address variations in lake and river levels that may cause wave or flooding risks, our organization builds structures above floodplain elevations and maintains shoreline protection (e.g., armor stone structures, steel sheet piling) around our facilities located near waterways.

#### W4.2b

(W4.2b) Why does your organization not consider itself exposed to water risks in its direct operations with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Our electrical generating facilities are all located in the Great Lakes and Mississippi River basins, an area of the U.S. that generally does not have water shortages. Our largest baseload facilities are located on Lake Michigan and the Wisconsin River. There are limited and infrequent risks, such as high (flooding risk) or low water levels (commercial shipping) that can cause a financial impact to our facilities.  Our Great Lakes location is in a region with five large interconnected lakes that collectively contain 20% of the earth's surface fresh water supply and are a source of drinking water to about 40 million persons. Therefore, state and regional authorities work to ensure the sustainable long-term use and protection of this valuable regional resource by closely monitoring and regulating our water use. To minimize water risks, water utilization rates at our facilities are set at levels we demonstrate to our regulatory agencies as being essential for our electrical generating facility operations and have contingency plans for times when water levels may affect operations. We also work with our regulatory agency staff to ensure compliance with all existing and anticipated future water regulations. Finally, the retirements of several coal-fueled generating facilities over the past several years has resulted in less water risk exposure for our direct operations.



#### W4.2c

# (W4.2c) Why does your organization not consider itself exposed to water risks in its value chain (beyond direct operations) with the potential to have a substantive financial or strategic impact?

	Primary reason	Please explain
Row 1	Risks exist, but no substantive impact anticipated	Water risks to our supply chain, or that impact our facilities, are low and infrequent. Specifically high or low water levels impact commercial shipping risks, including rail delivery, which may affect our ability to secure purchases or receive delivery of fuel (e.g., coal) and bulk materials (e.g., limestone). These materials may be shipped via vessels that move through the Great Lakes. Most bulk materials shipped to our facilities arrive via rail or truck delivery, and flooding of major waterways such as the Mississippi
		River can cause bridges or tunnels to become impassable, thereby disrupting the supply chain.

#### W4.3

(W4.3) Have you identified any water-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes, we have identified opportunities, and some/all are being realized

## W4.3a

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

#### Type of opportunity

Efficiency

#### Primary water-related opportunity

Cost savings

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

Due to our Great Lakes basin and Mississippi River basin locations, many of our generating stations utilize open-cycle cooling. All of the water used for open-cycle cooling is returned to the water body. Among options for power plant cooling, our open-cycle systems are the most efficient technology choice. Therefore, this form of cooling maximizes plant efficiency and affords lower carbon emissions per unit of electrical generation compared to any other cooling technology options.

#### Estimated timeframe for realization

Current - up to 1 year

#### Magnitude of potential financial impact



Medium-high

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

Yes, a single figure estimate

#### Potential financial impact figure (currency)

47,100,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

#### **Explanation of financial impact**

The combined value of the increased efficiency and capacity at our generating stations that have open-cycle cooling water systems was about \$47 million during 2022.

The company has invested in advanced cooling water intake structure technologies and has analyzed cooling water thermal discharges. We have received long-term government agency approvals for these systems that will be operable for well beyond six years.

## **W6. Governance**

#### W<sub>6.1</sub>

#### (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	Company-	Commitment to	Our environmental policy reflects our commitment to
1	wide	stakeholder	stewardship by protecting properties entrusted to our
		education and	management, mitigating the environmental impact of our
		capacity building on	operations, and supporting local communities through
		water security	stewardship efforts. We also engage with customers and
		Commitment to water	other stakeholders to keep them informed and encourage
		stewardship and/or	their feedback.
		collective action	



#### W6.2

(W6.2) Is there board level oversight of water-related issues within your organization?  $_{\mbox{\scriptsize Yes}}$ 

# 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
Other, please specify	Briefings occur via quarterly environmental report to Audit and
Board of individuals/subset of board	Oversight Committee of the Board of Directors.

# W6.2b

#### (W6.2b) Provide further details on the board's oversight of water-related issues.

	Frequency that water-related issues are a scheduled agenda item	Governance mechanisms into which water-related issues are integrated	Please explain
Row 1	Scheduled - some meetings	Monitoring implementation and performance Overseeing major capital expenditures Reviewing and guiding risk management policies Reviewing innovation/R&D priorities Setting performance objectives	The board, on its own or through one or more committees, monitors implementation and performance; oversees and approves major capital expenditures; oversees management of risks associated with capital projects; and reviews and guides risk management policies and practices.

## 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	We evaluate this on the same basis as that used to evaluate other director skill competencies. To reach a determination of competence in water-related issues, a director must at a minimum have "intermediate knowledge" of water-related issues, which could be accumulated in a number of ways, including through general managerial/oversight responsibilities or broad exposure as a board or committee member; or "advanced knowledge" of water-related issues, which could be accumulated in a number of ways, including through direct experience and by subject matter expertise.

# 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 water-related risks and opportunities Managing water-related risks and opportunities

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

Quarterly

#### Please explain

Our CEO provides general managerial/oversight of our company's environmental matters, including water-related issues. In addition, our CEO participates in the WEC Board's Audit and Oversight Committee meetings. These meetings involve discussions about the company's legal and regulatory risks and compliance, including water-related environmental matters. The CEO also reviews, as needed, federal, state and local water-related issues that may affect the operations of our facilities and/or be of concern to government agency staff or other stakeholders.

#### 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	No, and we do not plan to introduce	We have not identified a need to introduce a water-
1	them in the next two years	related metric to incentivize our C-suite employees.

#### 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

Yes, other

#### 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?

WEC Energy Group is routinely engaged in water policy review, development and modification with federal and state agencies, such as USEPA, FERC, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, WI Dept of Natural Resources, MI Dept of Natural Resources and MI Dept of Environment, Great Lakes and Energy. The company also is engaged in water policy evaluation, research and funding with trade and other nongovernment organizations such as the Electric Power Research Institute (EPRI), National Hydropower Association, Midwest Hydro Users Group, MI Manufacturers Association, MI Hydro Licensing Coalition, and River Alliance of WI. Company interactions are vetted through environmental, regulatory and operations business support teams. Established processes include procedural-based review and/or comment on policy and regulatory documents, participation at policy-based stakeholder meetings, active committee and board appointments in trade organizations, and attendance at trade and industry research meetings.

#### **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<sub>-</sub>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?	_	Please explain
Long-term business objectives	Yes, water- related issues are integrated	> 30	Water resource considerations are factored into location planning for new operations and site expansions, impacting the types of facilities that can be considered.
Strategy for achieving long-term objectives	Yes, water- related issues are integrated	> 30	Water resource considerations are factored into location planning for new operations and site expansions.
Financial planning	Yes, water- related issues are integrated	> 30	Proximity to water resources expands options available to more cost-effectively construct and operate electrical power generation facilities. Availability of water increases the number of technology choices available for equipment cooling and other systems. Also, waterfront access can facilitate ship and barge delivery of fuel and other bulk materials needed for power plant operations, thereby lowering operating costs.

#### 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)

469

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

-47

Water-related OPEX (+/- % change)

3.7

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

5.3

#### Please explain

Water-related CAPEX is primarily attributable to completed or planned upgrades for wastewater treatment equipment that will improve discharge water quality at coal-fueled electrical generating facilities.



Water-related OPEX is attributable to permit renewals, wetland protection, water quality testing, consulting services, well maintenance, groundwater monitoring, hiring additional specialist employees, and the costs of water supply and wastewater treatment and related solids disposal. OPEX began to increase during 2022 as new wastewater treatment upgrades were being placed into operation. This upward trend in OPEX spending continued into 2023.

#### W7.3

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

	Use of scenario analysis	Comment
Row 1	Yes	Our use of climate-related scenario analysis is summarized below and fully explained in our response to section 3 of the CDP climate change questionnaire.

# 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 Other, please specify Industry- specific research from EPRI on Wisconsin reaching net-zero by 2050	In partnership with the EPRI, WEC Energy Group conducted a risk analysis using the Regional Economy GHG and Energy (REGEN) modeling to best understand potential decarbonization pathways to achieve net zero emissions by 2050. The study consisted of a risk matrix, coined the "Four Corner Scenarios," which defines scenarios in terms of two categories of uncertainty regarding the low- carbon transition — uncertainty regarding policy conditions (scope and options) and non-policy conditions (technology and markets). The Four Corner Scenarios paired broad versus narrow policy conditions with higher versus lower risk decarbonization impact non-policy conditions to outline the four corners of a plausible risk space. More information can be found in our climate report at: https://www.wecenergygroup.com/csr/climate- report2022.pdf	As our generation fleet increases the capacity of renewable energy sources and decreases fossil-fueled energy supply sources, there would be less water withdrawals and consumption.  A portion of our renewable electrical	We do not expect any predicted water-related outcome to materially influence our business strategy. Water-related risks are a relatively low business risk because our electric generating facilities are located in the Great Lakes and



	generation	Mississippi
	comes from	River basins.
	hydroelectric	These two
	facilities. If	basins
	energy policy	contain a
	decisions	large supply
	promote	of high
	increased	quality fresh
	amounts of	water.
	hydroelectric	
	power this may	
	result in an	
	increased	
	utilization of	
	water	
	resources.	

#### 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

Due to the very low business risk from being located in the Great Lakes basin and Mississippi River basin, where there is a large supply of high quality fresh water, we have not identified a need to establish an internal price on water at this time.

#### 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	Primary reason for not classifying any of your current products and/or services as low water impact	Please explain
Row 1	No, and we do not plan to address this within the next two years	Judged to be unimportant, explanation provided	All of our electrical generating facilities, distribution utilities and our customers are located in the Great Lakes and Mississippi River basins where there is a large supply of high quality fresh water resources.



# **W8. Targets**

#### W8.1

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

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

#### W8.1c

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

	Primary reason	Please explain
Row 1	Important but not an immediate business priority	

# **W9. Verification**

#### **W9.1**

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

No, we do not currently verify any other water information reported in our CDP disclosure

# **W10. Plastics**

#### W10.1

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

	Plastics mapping	Please explain
Row 1	Not mapped – and we do not plan to within the next two years	

#### W10.2

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

	Impact assessment	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	



#### W10.3

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

	Risk exposure	Please explain
Row 1	Not assessed – and we do not plan to within the next two years	

## W10.4

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

	Targets in place	Please explain
Row 1	No – and we do not plan to within the next two years	

#### W10.5

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

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

# W11. 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	Vice President- Environmental	Other, please specify
		Vice President- Environmental

# 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	Yes	Public
submission options		

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

#### Please confirm below

I have read and accept the applicable Terms