



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 <http://www.wecenergygroup.com/home/terms.htm>.

# Welcome to your CDP Water Security Questionnaire 2022

## 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 several wind 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 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	3,548	37.6	16,352
Lignite	0	0	0
Oil	245	2.6	13
Gas	3,691	39.2	12,994
Biomass	58	0.6	139
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	154	1.6	745
Wind	1,471	15.6	3,830
Solar	258	2.7	213
Marine	0	0	0
Other renewable	0	0	0
Other non-renewable	0	0	0
Total	9,426	100	34,286

## 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, 2021	December 31, 2021

## W0.3

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

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.**

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

## W0.7

**(W0.7) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?**

Indicate whether you are able to provide a unique identifier for your organization.	Provide your unique identifier
Yes, a Ticker symbol	WEC

## 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	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	Please explain
Water withdrawals – total volumes	100%	Done as required by regulations and/or permits.
Water withdrawals – volumes by source	100%	Done as required by regulations and/or permits.
Water withdrawals quality	100%	Done to optimize operations and as required by regulations and/or permits.
Water discharges – total volumes	100%	Done as required by regulations and/or permits.
Water discharges – volumes by destination	100%	Done as required by regulations and/or permits.
Water discharges – volumes by treatment method	100%	Done to optimize operations and as required by regulations and/or permits.
Water discharge quality – by standard effluent parameters	100%	Done to optimize operations and as required by regulations and/or permits.
Water discharge quality – temperature	100%	Done to optimize operations and as required by regulations and/or permits.
Water consumption – total volume	100%	Done as required by regulations and/or permits.

Water recycled/reused	100%	Done as required by regulations and/or permits.
The provision of fully-functioning, safely managed WASH services to all workers	100%	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, and how do these volumes compare to the previous reporting year?**

	Volume (megaliters/year)	Comparison with previous reporting year	Please explain
Total withdrawals	2,946,100	About the same	<p>Withdrawals are about the same as the previous reporting year.</p> <p>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 are used for the balance of the CDP Water Security survey questions that require a qualitative comparison to the previous reporting year.</p>
Total discharges	2,931,500	About the same	Total discharges are about the same as the previous reporting year.
Total consumption	14,600	Higher	Total consumption is higher than the previous reporting year primarily due to higher utilization of two facilities that operate wet cooling towers.

## 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	Identification tool	Please explain
Row 1	No	<p>Other, please specify</p> <p>Other, please specify: There is not a specific identification tool; however, after reviewing state codes and online guidance, there are no water withdrawals from locations defined by the Wisconsin DNR as having water stress.</p>	There is not a specific identification tool; however, after reviewing state codes and online guidance, there are no water withdrawals from locations defined by the Wisconsin DNR as having water stress.

## 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	2,941,500	About the same	Our power plant operations rely on open cycle cooling or wet cooling tower systems that withdraw from intake structures on freshwater sources. 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.) For facilities with cooling towers, 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	800	Higher	Less than 1% of water withdrawal from plant operations is from groundwater sources.
Groundwater – non-renewable	Not relevant			Our company does not withdraw from non-renewable groundwater sources.



Produced/Entrained water	Relevant but volume unknown			Our company does not withdraw from produced or entrained water sources.
Third party sources	Relevant	3,800	About the same	Fox Energy Center beneficially reuses treated effluent to supply its process water and cooling water needs.

## 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	2,931,100	About the same	Most of our power plants operate open cycle cooling systems that withdraw from freshwater sources and return most of the water to the source. 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	Some power plants discharge a small percentage of the water withdrawn to a municipal treatment system.

## 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	% of your sites/facilities/operations this volume applies to	Please explain
Tertiary treatment	Relevant	5,200	Lower	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.
Secondary treatment	Not relevant				Secondary biological treatment is not currently required for power plant wastewaters.
Primary treatment only	Relevant	500	Lower	1-10	This 500 MLY discharge volume should be significantly reduced following implementation of a capital project scheduled to

					be completed at the WPS Weston Unit 3 facility by December 2023.
Discharge to the natural environment without treatment	Relevant	2,925,400	About the same	81-90	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	300	About the same	11-20	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.

### W1.3

**(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	8,316,000,000	2,946,100	2,822.7147754659	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)	Numerator: water aspect	Denominator	Comparison with previous reporting year	Please explain
0.43	Freshwater consumption	MWh	About the same	The water consumption rate is in cubic meters per MWh of gross electrical generation. This is based upon a total

				consumption rate of 14,600,000 cubic meters/year of water and a gross electrical generation total of 34,286,000 MWh/year.
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## W1.4

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

Yes, our suppliers

## 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

1-25

#### % of total procurement spend

Less than 1%

#### Rationale for this coverage

The overarching reason for engagement is to improve our power generation operational efficiency.

#### 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

## W1.4b

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

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**Type of engagement**

No other supplier engagements

**Details of engagement**

**% of suppliers by number**

**% of total procurement spend**

**Rationale for the coverage of your engagement**

Supplier engagement described in response to W1.4a.

**Impact of the engagement and measures of success**

**Comment**

## W2. Business impacts

### W2.1

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

No

### W2.2

**(W2.2) In the reporting year, was your organization subject to any fines, enforcement orders, and/or other penalties for water-related regulatory violations?**

No

## 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?**

We identify a range of pollutant discharges from our electric generating facilities, including hydropower facilities, during state permit application or Federal Energy Regulatory Commission (FERC) license renewal processes. We follow a classification system for potential water pollutants used by the Wisconsin Department of Natural Resources (DNR) in their water quality

standards codes. The DNR 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.

## 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
Thermal pollution	Heat addition to the Great Lakes and tributaries	Other, please specify Cooling towers and discharge diffusers. Working with regulatory agency staff and community/stakeholder engagement	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.
Other, please specify Trace metals, total suspended solids and phosphorus	Potential for trace metals, total suspended solids and/or phosphorus to exceed water quality standards in the Great Lakes and tributaries.	Compliance with effluent quality standards Measures to prevent spillage, leaching, and leakages Community/stakeholder engagement Emergency preparedness Other, please specify Water treatment equipment	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**

Internal company methods

External consultants

**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

Other water users at the basin/catchment level

**Comment**

Prior to siting or expanding any electrical generating facility, including hydropower facilities, 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.



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**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**

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**

All products that require Safety Data Sheets (SDS) are evaluated to ensure that their use will not cause water-related risks. 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.

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**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**

Water regulatory frameworks

**Stakeholders considered**

Regulators

Suppliers

**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.**

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. 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. Secondly 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., armour 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	<p>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.</p> <p>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 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</p>

		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 three years has resulted in less water risk exposure for our direct operations.
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## 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

Improved water efficiency in operations

#### 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

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

Yes, a single figure estimate

**Potential financial impact figure (currency)**

28,000,000

**Potential financial impact figure – minimum (currency)**

**Potential financial impact figure – maximum (currency)**

**Explanation of financial impact**

The combined value of the increased efficiency at our generating stations that have open-cycle cooling water systems was about \$28 million during 2021. 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

### 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	Commitment to stakeholder awareness and education	Our environmental policy reflects our commitment to stewardship by protecting properties entrusted to our management, mitigating the environmental impact of our operations, and supporting local communities through

	Commitment to water stewardship and/or collective action	stewardship efforts. We also engage with customers and other stakeholders to keep them informed and encourage their feedback.
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## W6.2

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

Yes

### W6.2a

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

Position of individual	Please explain
Other, please specify Board of individuals/sub-set of board	Briefings occur via quarterly environmental report to Audit and 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?**

	<b>Board member(s) have competence on water-related issues</b>	<b>Criteria used to assess competence of board member(s) on water-related issues</b>
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)

**Responsibility**

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?**

	<b>Provide incentives for management of water-related issues</b>	<b>Comment</b>
Row 1	No, and we do not plan to introduce them in the next two years	We have not identified a need to introduce a water-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

### W7.1

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

	Are water-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, water-related issues are integrated	> 30	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 is one of the most important siting criteria used for fossil-fueled power plant location planning for new operations and site expansions. Availability of water affects choices of cooling and other systems and technologies. Also, waterfront access can facilitate ship and barge delivery of fuel and other bulk materials needed for power plant operations, impacting 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)**

184

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

559

**Water-related OPEX (+/- % change)**

0

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

0

**Please explain**

Current and anticipated CAPEX is primarily attributable to planned upgrades for wastewater treatment equipment that will improve discharge water quality at coal-fueled electrical generating facilities.

While there is not a calculated value that identifies OPEX at our utilities attributable to just water-related spending, water-related OPEX remained about the same between 2020 and 2021. The anticipated forward trend in OPEX is expected to remain unchanged in 2022 as additional new wastewater treatment upgrades are added between 2021 and 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	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 generation comes from hydroelectric	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 Mississippi River

		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.	facilities. If energy policy decisions promote increased amounts of hydroelectric power this may result in an increased utilization of water resources.	basins. These two basins contain a large supply of high quality fresh water.
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## W7.4

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

#### Row 1

#### Does your company use an internal price on water?

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. Therefore, because our impact is low, customers are not, in this water plentiful region, thinking about the water impact of our energy delivery products.

## 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	Site/facility specific targets and/or goals	None are monitored at corporate level	We set specific goals at all of our generating facilities related to anticipated regulatory and permit compliance activities, some of which may be associated with water-related compliance requirements.

## 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	President and Chief Executive Officer	Chief Executive Officer (CEO)

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

**Please confirm below**

I have read and accept the applicable Terms