

# CDP

## WEC Energy Group - Climate Change 2018

### C0. Introduction

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#### C0.1

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**(C0.1) Give a general description 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 subsidiaries provide regulated natural gas and electricity, as well as nonregulated renewable energy. In addition, we have an approximate 60% equity interest in American Transmission Company (an electric transmission 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 Company's traditional footprint. On June 29, 2015, Wisconsin Energy Corporation acquired 100% of the outstanding common shares of Integrys Energy Group, Inc. and changed its name to WEC Energy Group, Inc. Wisconsin Electric Power Company, 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, and to an iron ore mine located in Michigan. Wisconsin Public Service Corporation generates and distributes electric energy to customers located in northeastern Wisconsin. Effective January 1, 2017, Wisconsin Electric and Wisconsin Public Service transferred their electric customers (other than the iron ore mine referenced above), electric distribution assets, natural gas customers and natural gas distribution assets located in the Upper Peninsula of Michigan to Upper Michigan Energy Resources Corporation, a new stand-alone utility owned by WEC Energy Group.

We own the largest natural gas distribution utilities in Wisconsin, 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, Wisconsin, for use in processing, space heating, domestic hot water, and humidification. Our Illinois natural gas utilities, The Peoples Gas Light and Coke Company and North Shore Gas Company, serve customers in Chicago and the northern suburbs of Chicago, respectively. Our other natural gas utilities include Minnesota Energy Resources Corporation, serving customers in various cities and communities throughout Minnesota, and Michigan Gas Utilities, serving customers in the southern portion of lower 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; Wispark LLC, which develops and invests in real estate; and WPS Power Development LLC, which owns solar projects.

## C0.2

**(C0.2) State the start and end date of the year for which you are reporting data.**

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	December 31 2017	No	<Field Hidden>

## C0.3

**(C0.3) Select the countries/regions for which you will be supplying data.**

United States of America

## C0.4

**(C0.4) Select the currency used for all financial information disclosed throughout your response.**

USD

## C0.5

**(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your consolidation approach to your Scope 1 and Scope 2 greenhouse gas inventory.**

Other, please specify (Equity share of consolidated companies)

## C-EU0.7

**(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.**

Row 1

**Electric utilities value chain**

Electricity generation

Distribution

## Other divisions

Gas storage, transmission and distribution

## C1. Governance

### C1.1

**(C1.1) Is there board-level oversight of climate-related issues within your organization?**

Yes

#### C1.1a

**(C1.1a) Identify the position(s) of the individual(s) on the board with responsibility for climate-related issues.**

Position of individual(s)	Please explain
Board/Executive board	The Audit and Oversight Committee of the Board of Directors has responsibility for climate-related issues

#### C1.1b

**(C1.1b) Provide further details on the board's oversight of climate-related issues.**

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding risk management policies Reviewing and guiding business plans Setting performance objectives Monitoring implementation and performance of objectives Monitoring and overseeing progress against goals and targets for addressing climate-related issues	Our chief executive officer, in collaboration with our senior executive vice president, has specific responsibility for climate change-related strategies. The vice president – environmental for the utility subsidiaries, in collaboration with our manager of environmental strategy, manages tactical approaches to implement our climate change strategies. We have a formal mechanism to provide regular environmental issue updates, including those related to climate change, to the Audit and Oversight Committee of the board of directors through quarterly reports from the vice president – environmental. The CEO also provides the board with updates on environmental matters, as necessary. The Audit and Oversight Committee assists the board of directors in carrying out the board's responsibility to oversee our strategy and compliance with legal and regulatory requirements. The committee's oversight of environmental matters includes reviewing and providing oversight of environmental compliance matters to ensure appropriate management attention. The committee is responsible for discussing, among other things, our major environmental risk exposures and the steps management takes to monitor and control such exposures.

### C1.2

**(C1.2) Below board-level, provide the highest-level management position(s) or committee(s) with responsibility for climate-related issues.**

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other committee, please specify (Corporate executive team)	Both assessing and managing climate-related risks and opportunities	Half-yearly

**C1.2a**

**(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored.**

The corporate executive team includes senior-level representatives from the following areas:

- Communications and Investor Relations
- Environmental
- External Affairs
- Finance
- Legal Affairs & Governance
- Power Generation
- Wholesale Energy & Fuels

These representatives meet quarterly or more frequently on matters of:

- Sustainability efforts
- Investor engagement
- Transparency
- GHG reduction goal, tracking and implementation
- Climate scenarios and 2 degree analysis
- Research, development and demonstration: efficient electrification, resiliency, electric vehicle adoption
- GHG regulation – replacement developments

## C1.3

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**(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?**

Yes

### C1.3a

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**(C1.3a) Provide further details on the incentives provided for the management of climate-related issues.**

**Who is entitled to benefit from these incentives?**

Management group

**Types of incentives**

Recognition (non-monetary)

**Activity incentivized**

Emissions reduction target

**Comment**

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## C2. Risks and opportunities

### C2.1

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**(C2.1) Describe what your organization considers to be short-, medium- and long-term horizons.**

	From (years)	To (years)	Comment
Short-term	1	3	
Medium-term	3	6	
Long-term	6	30	

### C2.2

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**(C2.2) Select the option that best describes how your organization's processes for identifying, assessing, and managing climate-related issues are integrated into your overall risk management.**

Integrated into multi-disciplinary company-wide risk identification, assessment, and management processes

### C2.2a

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**(C2.2a) Select the options that best describe your organization's frequency and time horizon for identifying and assessing climate-related risks.**

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	

**C2.2b**

**(C2.2b) Provide further details on your organization's process(es) for identifying and assessing climate-related risks.**

Our business strategy has been influenced by climate change in that we continue to strategically reshape our portfolio of electric generation facilities with investments that have improved environmental performance and reduced emissions.

- One example of how our business strategy has been influenced is the change in our generating mix over the past decade to reduce our greenhouse gas emissions, including selling or retiring coal units, repowering facilities with lower-carbon fuels and increasing our investment in renewables, energy efficiency and conservation.
- The aspects of climate change that have influenced our strategy are the imperative to demonstrate our commitment to effective environmental stewardship by reducing GHG emissions while fulfilling an obligation to provide reliable, cost-effective energy to customers.
- Our short-term strategy has been influenced by climate change in that we are working with the Electric Power Research Institute, the American Gas Association and other organizations to assess the potential impacts to our operations, customers and system reliability, using modeling to analyze scenarios for reducing greenhouse gas emissions by various approaches and technologies.
- Our long-term strategy has been influenced by climate change and other considerations, in that we are planning to retire more than 1,800 megawatts (MW) of coal-fueled generation by 2020; planning to add more than 400 MW of natural gas-fueled generation by 2022; and planning to invest in more than 350 MW of zero-carbon generation.
- WEC Energy Group is gaining strategic advantage by enhancing flexibility in fleet deployment decision making.
- Our electricity generation strategy is directly linked to our greenhouse gas emissions reduction target, and we are taking actions that will reduce costs to customers, preserve fuel diversity and reduce carbon emissions.
- One of the most substantial business decisions that may have a significant impact on our ability to achieve our greenhouse gas reduction target identified in section CC3.1 is the planned retirement of more than 1,800 MW of coal-fueled generation by 2020.

## C2.2c

### (C2.2c) Which of the following risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	In 2015, the Environmental Protection Agency (EPA) issued a final rule regulating GHG emissions from existing generating units, referred to as the Clean Power Plan, and final performance standards for modified and reconstructed generating units and new fossil-fueled power plants. In October 2015, following publication of the CPP, numerous states (including Wisconsin and Michigan) and other parties filed lawsuits challenging the final rule, including a request to stay the implementation of the final rule, pending the outcome of these legal challenges. In February 2016, the Supreme Court stayed the effectiveness of the CPP until disposition of the litigation in the D.C. Circuit Court of Appeals and, to the extent that further appellate review is sought, at the Supreme Court. In April 2017, pursuant to motions made by the EPA, the D.C. Circuit Court of Appeals ordered the challenges to the CPP, as well as related performance standards for new, reconstructed, and modified fossil-fueled power plants, to be held in abeyance, which remains the case. In March 2017, President Trump issued an executive order that, among other things, specifically directed the EPA to review the CPP and related GHG regulations for new, reconstructed, or modified fossil-fueled power plants. In October 2017, the EPA issued a proposed rulemaking to repeal the CPP. In December 2017, the EPA issued an advanced notice of proposed rulemaking to solicit input on whether it is appropriate to replace the CPP. The EPA is expected to issue a proposed CPP replacement rule, or decide to rescind the CPP without replacing it, during the third quarter of 2018. A potential replacement of the CPP may impact how we operate our existing fossil-fueled power plants and biomass facility.
Emerging regulation	Relevant, always included	Potential future regulation at either the federal or state level may impact how we operate our existing fossil-fueled power plants and biomass facility. Any future regulations that may be adopted may cause our environmental compliance spending to differ materially from the amounts currently estimated, and there is no guarantee we will be allowed to fully recover costs incurred to comply with future federal regulations or that cost recovery will not be delayed or otherwise conditioned.
Technology	Relevant, always included	Advances in technology could make some of our electric generating units uneconomic to maintain or operate, and could affect unit retirement and replacement decisions.
Legal	Relevant, always included	Legal risk is considered in our organization's climate-related risk assessments and is one of the company's major environmental risk exposures. The company's compliance with legal and regulatory requirements in environmental and other matters requires management's continuous monitoring and control of our assets and related legislative, regulatory and legal developments. Some types of legal matters could potentially affect our ability to operate electric generating units economically.
Market	Relevant, always included	Changes in fuel markets could make some of our electric generating units uneconomic to maintain or operate, and could affect unit retirement and replacement decisions.
Reputation	Relevant, always included	Impairment of the company's reputation could adversely affect the desirability of the company's stock and consequently its price.
Acute physical	Relevant, always included	Our financial performance depends on the successful operation of our electric generation and natural gas and electric distribution facilities. The operation of these facilities involves many risks, including the breakdown or failure of equipment or processes. Potential breakdown or failure may occur due to severe weather; catastrophic events (i.e., fires, earthquakes, explosions, tornadoes, floods, droughts, pandemic health events, etc.); significant changes in water levels in waterways; or operating limitations that may be imposed by environmental or other regulatory requirements. Because our electric generation facilities are interconnected with third-party transmission facilities, the

	Relevance & inclusion	Please explain
		operation of our facilities could also be adversely affected by events impacting their systems. Any of the described events could lead to substantial financial losses. Unplanned outages at our power plants may reduce our revenues or cause us to incur significant costs if we are required to operate our higher cost electric generators or purchase replacement power to satisfy our obligations, and could result in additional maintenance expenses.
Chronic physical	Relevant, always included	Our operations are subject to various conditions that can result in fluctuations in energy sales to customers, including varying weather conditions. Our results of operations and cash flows are affected by the demand for electricity and natural gas, which can vary greatly based upon weather conditions. Our overall results may fluctuate substantially on a seasonal basis. Milder temperatures during the summer cooling season and during the winter heating season may result in lower revenues and net income. Our electric reliability and planning area evaluates potential impacts of risks associated with weather events on system availability and reliability. Their well-established processes are expected to reduce the magnitude of energy generation and delivery risks associated with weather events over the next 1-3 years. We perform economic analyses of weather and energy use to establish historical relationships that are used for generation, financial and strategic planning. These analyses include long- and short-term forecasts of sales revenues and demand. The forecasts are supported by load research which identifies who uses what energy. This analysis drives the cost of service studies used in price setting and market research areas of the company. This planning process is expected to reduce the magnitude of risks associated with changes in customer demand over the next 1-3 years.
Upstream	Relevant, sometimes included	Fossil fuel availability and prices can directly affect our cost to operate. Concerns about climate impacts of suppliers' operations have received increased attention from various stakeholders in recent years.
Downstream	Relevant, always included	Our overall results may fluctuate substantially on a seasonal basis. Milder temperatures during the summer cooling season and during the winter heating season may result in lower demand for natural gas and lower revenues and net income. Our customers' use of natural gas also can be reduced as a result of individual conservation efforts, including the use of more energy efficient technologies. Customers could also voluntarily reduce their consumption of energy in response to decreases in their disposable income and increases in energy prices. Conservation of energy can be influenced by certain federal and state programs that are intended to influence how consumers use energy. In addition, several states, including Wisconsin and Michigan, have adopted energy efficiency targets to reduce energy consumption by certain dates. As part of our planning process, we perform economic analyses of weather and energy use in order to establish historical relationships that are used for generation, financial and strategic planning. These analyses include long- and short-term forecasts of sales revenues and demand. The forecasts are supported by load research, which identifies who uses what energy. This analysis drives the cost of service studies used in price setting and market research areas of the company. This planning process is expected to reduce the magnitude of risks associated with changes in customer demand over the next 1-3 years. We also estimate the impacts of changes in customer growth and customer energy conservation efforts. This planning process is expected to reduce the magnitude of risks associated with changes in customer demand over the next 1-3 years.

## C2.2d

### (C2.2d) Describe your process(es) for managing climate-related risks and opportunities.

Our company has a formal process in place to provide regular updates regarding environmental issues, including climate change, to the Audit and Oversight Committee of the Board via a quarterly report from the Vice President of Environmental,



who also provides an annual presentation to the Committee. The Chief Executive Officer provides the Board with more frequent updates on this matter as necessary. The Audit and Oversight Committee assists the Board of Directors in carrying out its oversight responsibility of the company's compliance with legal and regulatory requirements. The Committee's oversight of environmental matters includes reviewing and providing oversight of environmental compliance matters to ensure that appropriate management attention is being given to such matters. The Committee is responsible for discussing, among other things, the company's major environmental risk exposures and the steps management has taken to monitor and control such exposures. We continuously monitor our assets as well as the legislative, regulatory and legal developments in this area. In addition, we are members of, and actively participate in, several industry organizations (such as the Edison Electric Institute, the American Gas Association, the Utility Air Regulatory Group, the Utility Water Act Group, and the Utility Solid Waste Activities Group) that are very involved in the legislative and regulatory process.

## C2.3

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**(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?**

Yes

### C2.3a

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**(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.**

**Identifier**

Risk 1

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Physical risk

**Primary climate-related risk driver**

Acute: Increased severity of extreme weather events such as cyclones and floods

**Type of financial impact driver**

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

**Company- specific description**

Our financial performance depends on the successful operation of our electric generation and natural gas and electric distribution facilities. The operation of these facilities involves many risks, including the breakdown or failure of equipment or

processes. Potential breakdown or failure may occur due to severe weather; catastrophic events (i.e., fires, earthquakes, explosions, tornadoes, floods, droughts, pandemic health events, etc.); significant changes in water levels in waterways; or operating limitations that may be imposed by environmental or other regulatory requirements. Because our electric generation facilities are interconnected with third-party transmission facilities, the operation of our facilities also could be adversely affected by events impacting their systems.

**Time horizon**

Short-term

**Likelihood**

Unlikely

**Magnitude of impact**

Medium-low

**Potential financial impact**

**Explanation of financial impact**

Any of the described events could lead to substantial financial losses. Unplanned outages at our power plants may reduce our revenues or cause us to incur significant costs if we are required to operate our higher-cost electric generators or purchase replacement power to satisfy our obligations, and could result in additional maintenance expenses. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

**Management method**

Our electric reliability and planning area evaluates potential impacts of risks associated with weather events on system availability and reliability. Their well-established processes are expected to reduce the magnitude of energy generation and delivery risks associated with weather events over the next 1-3 years. We Energies received the 2017 ReliabilityOne National Reliability Award for superior reliability of its electric system; the company was so recognized twice previously. Also in 2017, for the seventh year in a row, We Energies received the ReliabilityOne Award for Outstanding Reliability Performance in the Midwest. The award, based on performance statistics from the prior year, is given annually to utilities that have excelled in delivering dependable electric service to their customers. The company is upgrading its infrastructure and plans to rebuild hundreds of miles of electric distribution lines and replace thousands of poles and transformers. These investments will renew and modernize delivery networks, reduce operating costs and improve energy efficiency, and are expected to strengthen the company's position as a reliable electric service provider. As part of our process for improving equipment reliability, the company uses an equipment reliability index we created based on industry best practices to gauge our equipment reliability program performance, identify opportunities to improve equipment reliability and gain the associated cost and performance benefits.

## Cost of management

0

## Comment

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### Identifier

Risk 2

### Where in the value chain does the risk driver occur?

Direct operations

### Risk type

Physical risk

### Primary climate-related risk driver

Chronic: Changes in precipitation patterns and extreme variability in weather patterns

### Type of financial impact driver

Reduced revenue from decreased production capacity (e.g., transport difficulties, supply chain interruptions)

### Company- specific description

Our operations are subject to various conditions that can result in fluctuations in energy sales to customers, including varying weather conditions. Our results of operations and cash flows are affected by the demand for electricity and natural gas, which can vary greatly based upon weather conditions.

### Time horizon

Short-term

### Likelihood

About as likely as not

### Magnitude of impact

Medium-low

### Potential financial impact

### Explanation of financial impact

Our overall results may fluctuate substantially on a seasonal basis. Milder temperatures during the summer cooling season and during the winter heating season may result in lower revenues and net income. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

### Management method

We perform economic analyses of weather and energy use in order to establish historical relationships which are used for generation, financial and strategic planning. These analyses include long- and short-term forecasts of sales revenues and demand. The forecasts are supported by load research which identifies who uses what energy. This analysis drives the cost of

service studies used in price setting and market research areas of the company. This planning process is expected to reduce the magnitude of risks associated with changes in customer demand over the next 1-3 years.

**Cost of management**

0

**Comment**

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**Identifier**

Risk 3

**Where in the value chain does the risk driver occur?**

Customer

**Risk type**

Transition risk

**Primary climate-related risk driver**

Please select

**Type of financial impact driver**

Please select

**Company- specific description**

Our customers' use of electricity and natural gas has decreased as a result of individual conservation efforts, including the use of more energy efficient technologies. These conservation efforts could continue. Customers could also voluntarily reduce their consumption of energy in response to decreases in their disposable income and increases in energy prices. Conservation of energy can be influenced by certain federal and state programs that are intended to influence how consumers use energy. In addition, several states, including Wisconsin and Michigan, have adopted energy efficiency targets to reduce energy consumption by certain dates.

**Time horizon**

Short-term

**Likelihood**

Likely

**Magnitude of impact**

Medium-low

**Potential financial impact**

**Explanation of financial impact**

Any of the described matters, as well as any regulatory delay in adjusting rates as a result of reduced sales from effective conservation measures or the adoption of new technologies, could adversely impact our results of operations and financial condition. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

**Management method**

As part of our planning process, we estimate the impacts of changes in customer growth and customer energy conservation efforts. This planning process is expected to reduce the magnitude of risks associated with changes in customer demand over the next 1-3 years.

**Cost of management**

0

**Comment**

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**Identifier**

Risk 4

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Please select

**Type of financial impact driver**

Please select

**Company-specific description**

In 2015, the Environmental Protection Agency (EPA) issued a final rule regulating GHG emissions from existing generating units, referred to as the Clean Power Plan (CPP), and final performance standards for modified and reconstructed generating units and new fossil-fueled power plants. In October 2015, following publication of the CPP, numerous states (including Wisconsin and Michigan) and other parties filed lawsuits challenging the final rule, including a request to stay the implementation of the final rule pending the outcome of these legal challenges. In February 2016, the Supreme Court stayed the effectiveness of the CPP until disposition of the litigation in the D.C. Circuit Court of Appeals and, to the extent that further appellate review is sought, at the Supreme Court. In April 2017, pursuant to motions made by the EPA, the D.C. Circuit Court of Appeals ordered the challenges to the CPP, as well as related performance standards for new, reconstructed and modified fossil-fueled power plants, to be held in abeyance, which remains the case. In March 2017, President Trump issued an executive order that, among other things, specifically directed the EPA to review the CPP and related GHG regulations for new, reconstructed, or modified fossil-fueled power plants. In October 2017, the EPA issued a proposed rulemaking to repeal the

CPP. In December 2017, the EPA issued an advanced notice of proposed rulemaking to solicit input on whether it is appropriate to replace the CPP. The EPA is expected to issue a proposed CPP replacement rule, or decide to rescind the CPP without replacing it, during the third quarter of 2018. A potential replacement of the CPP may impact how we operate our existing fossil-fueled power plants and biomass facility.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Potential financial impact**

**Explanation of financial impact**

The Clean Power Plan or its successor is not expected to result in significant additional compliance costs, including capital expenditures, but may impact how we operate our existing fossil-fueled power plants and biomass facility. A quantitative estimate of the inherent impacts of the risk is not currently available.

**Management method**

Notwithstanding the uncertain future of the CPP, and given current fuel and technology markets, we continue to evaluate opportunities and actions that preserve fuel diversity, lower costs for our customers, and contribute toward long-term GHG reductions. Our plan is to work with our industry partners, environmental groups, and the State of Wisconsin, with a goal of reducing CO2 emissions by approximately 40% below 2005 levels by 2030. In addition, our long-term goal is to reduce CO2 emissions by approximately 80% below 2005 levels by 2050. We have implemented and continue to evaluate numerous options to meet our CO2 reduction goals. Options considered include increased use of existing natural gas combined cycle units, co-firing or switching to natural gas in existing coal-fired units, reduced operation or retirement of existing coal-fired units, addition of renewable energy resources (wind, solar), and supply- and demand-side energy efficiency and distributed generation. As a result of our generation reshaping plan, we expect to retire 1,800 megawatts (MW) of coal generation by 2020, including Pleasant Prairie (retired April 2018), Presque Isle and Pulliam Power Plants, and the jointly owned Edgewater Unit 4 generating units. In addition, we are evaluating our goals, and possible subsequent actions, with respect to national and international efforts to reduce future GHG emissions in order to limit future global temperature increases to less than 2 degrees C

**Cost of management**

0

**Comment**

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**Identifier**

Risk 5

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Please select

**Type of financial impact driver**

Please select

**Company- specific description**

There is no guarantee that we will be allowed to fully recover costs incurred to comply with the Clean Power Plan or other federal regulations, or that cost recovery will not be delayed or otherwise conditioned.

**Time horizon**

Medium-term

**Likelihood**

Unknown

**Magnitude of impact**

Medium-high

**Potential financial impact****Explanation of financial impact**

The Clean Power Plan and any other related regulations that may be adopted in the future, at either the federal or state level, may cause our environmental compliance spending to differ materially from the amounts currently estimated. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

**Management method**

Governance and project approval measures are in place to ensure that costs to comply with federal environmental regulations are prudently incurred. These measures are expected to reduce the likelihood and/or magnitude of this cost recovery risk over the next 3-6 years.

**Cost of management**

0

**Comment**

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**Identifier**

Risk 6

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Please select

**Type of financial impact driver**

Please select

**Company- specific description**

In December 2016, Michigan enacted Act 342, which requires additional renewable energy requirements beyond 2015. The new legislation retains the 10% renewable energy portfolio requirement for years 2016 through 2018, increases the requirement to 12.5% for years 2019 through 2020, and increases the requirement to 15% for 2021. These regulations, as well as changes in the fuel markets and advances in technology, could make some of our electric generating units uneconomic to maintain or operate, and could affect unit retirement and replacement decisions.

**Time horizon**

Medium-term

**Likelihood**

Unlikely

**Magnitude of impact**

Low

**Potential financial impact**

**Explanation of financial impact**

These regulations could adversely affect our future results of operations, cash flows and financial condition. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

**Management method**

Our generation planning processes evaluate potential impacts of renewable energy penetration, changes in the fuel markets and advances in technology, in part to support decisions regarding unit retirement and replacement decisions. These processes are expected to reduce the magnitude of unexpected adverse impacts of increased renewable energy penetration risk over the next 3-6 years.

**Cost of management**

0

**Comment**



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**Identifier**

Risk 7

**Where in the value chain does the risk driver occur?**

Direct operations

**Risk type**

Transition risk

**Primary climate-related risk driver**

Please select

**Type of financial impact driver**

Please select

**Company- specific description**

Our natural gas delivery systems and natural gas storage fields may generate fugitive gas as a result of normal operations and as a result of excavation, construction, and repair. Fugitive gas typically vents to the atmosphere and consists primarily of methane. CO2 also is a byproduct of natural gas consumption. Future regulation of GHG emissions could increase the price of natural gas; a significant increase in the price of natural gas may increase rates for our natural gas customers, which could reduce natural gas demand.

**Time horizon**

Medium-term

**Likelihood**

Unlikely

**Magnitude of impact**

Low

**Potential financial impact****Explanation of financial impact**

Future regulation of GHG emissions could increase the price of natural gas, restrict the use of natural gas, and adversely affect our ability to operate our natural gas facilities. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

**Management method**

Our load forecasting and fuel procurement processes evaluate potential impacts of changes in fuel prices on customer demand. These processes are expected to reduce the magnitude of unanticipated natural gas price risk over the next 3-6 years.

**Cost of management**

0

## Comment

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### Identifier

Risk 8

### Where in the value chain does the risk driver occur?

Customer

### Risk type

Transition risk

### Primary climate-related risk driver

Please select

### Type of financial impact driver

Other, please specify (Increased customer net generation)

### Company- specific description

Customer-owned generation installations have increased in recent years, reducing demand for electricity.

### Time horizon

Short-term

### Likelihood

Likely

### Magnitude of impact

Medium-low

### Potential financial impact

### Explanation of financial impact

Customer-owned generation installations could continue to increase, resulting in further erosion of market share. A quantitative estimate of the inherent financial impacts of the risk is not currently available.

### Management method

Our load forecasting processes evaluate potential impacts of changes in customer demand. These processes are expected to reduce the magnitude of unanticipated customer demand risk over the next 3-6 years.

### Cost of management

0

## Comment

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## C2.4

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**(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?**

Yes

## **C2.4a**

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**(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.**

### **Identifier**

Opp1

**Where in the value chain does the opportunity occur?**

Direct operations

### **Opportunity type**

Energy source

### **Primary climate-related opportunity driver**

Use of lower-emission sources of energy

### **Type of financial impact driver**

Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon

### **Company- specific description**

Our companies repowered coal plants to natural gas, added new natural gas combined-cycle units and more efficient coal-fueled units, and retired less efficient coal units. We also increased investment in energy efficiency, conservation and load management programs for our electricity and natural gas customers; created two successful “green pricing” renewable energy programs, Energy for Tomorrow® and NatureWise®; and for nearly two decades, have implemented the award-winning SolarWise for Schools solar installation and education program for local high schools. We have 447 megawatts (MW) of wind generation capacity, a 50-MW biomass cogeneration plant fueled by wood waste and wood shavings, and a long-term power purchase agreement for the energy produced by Point Beach Nuclear Plant. The Peoples Gas System Modernization Program has been underway for several years and involves replacing cast and ductile iron natural gas mains with modern polyethylene pipes on the Peoples Gas natural gas distribution system. Under the EPA’s Methane Challenge, Peoples Gas has committed to replacing iron natural gas mains at an annual rate of at least 2 percent per year, with significant fugitive methane emission reductions expected.

### **Time horizon**

Short-term

### **Likelihood**

Very likely

**Magnitude of impact**

Medium

**Potential financial impact****Explanation of financial impact**

Wisconsin Act 141 established a goal that 10% of all electricity consumed in Wisconsin be generated by renewable resources by Dec. 31, 2015. The program is funded by utilities based on 1.2% of annual operating revenues. Michigan Act 342 requires additional renewable energy requirements beyond 2015. The new legislation retains the 10% renewable energy portfolio requirement for years 2016 through 2018, increases the requirement to 12.5% for years 2019 through 2020, and increases the requirement to 15% for 2021. These regulations, as well as changes in the fuel markets and advances in technology, could make some of our electric generating units uneconomic to maintain or operate, and could affect unit retirement and replacement decisions. Revenue from the electric utilities' renewable energy programs represents approximately 0.1% of total revenues.

**Strategy to realize opportunity**

Generation planning and project approval measures are in place to ensure that potential opportunities for cost-effective renewable and other environmental programs are identified over the next 1-3 years.

**Cost to realize opportunity****Comment**

---

**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Direct operations

**Opportunity type**

Energy source

**Primary climate-related opportunity driver**

Use of lower-emission sources of energy

**Type of financial impact driver**

Reduced exposure to future fossil fuel price increases

**Company- specific description**

Generation planning and project approval measures are in place to ensure that potential opportunities for cost-effective renewable and other environmental programs are identified over the next 1-3 years.

**Time horizon**

Medium-term

**Likelihood**

Likely

**Magnitude of impact**

Medium

**Potential financial impact**

**Explanation of financial impact**

A quantitative estimate of the inherent financial impacts of the opportunity is not currently available.

**Strategy to realize opportunity**

Generation planning and project approval measures are in place to ensure that potential opportunities for cost-effective renewable energy resource projects are identified over the next 3-6 years.

**Cost to realize opportunity**

0

**Comment**

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## C2.5

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**(C2.5) Describe where and how the identified risks and opportunities have impacted your business.**

	Impact	Description
Products and services	Impacted	Our economic analyses of weather and energy use have established historical relationships which are used for generation, financial and strategic planning, price setting and market research. Estimates of the impacts of changes in customer growth and customer energy conservation efforts have helped assess changes in customer demand.
Supply chain and/or value chain	Not evaluated	
Adaptation and mitigation activities	Impacted	Our electric reliability and planning area evaluates potential impacts of weather events on system availability and reliability, and the company's equipment reliability index gauges our equipment reliability program performance, identifying opportunities to improve equipment reliability and gain the associated cost and performance benefits.
Investment in R&D	Not evaluated	
Operations	Impacted	We are upgrading our infrastructure and plans to rebuild hundreds of miles of electric distribution lines and replace thousands of poles and transformers. These investments will renew and modernize delivery networks, reduce operating costs and improve energy efficiency, all of which is expected to strengthen our position as a reliable electric service provider.
Other, please specify	Impacted	Our generation planning processes evaluate potential impacts of renewable energy penetration, changes in the fuel markets and advances in technology to support decisions regarding unit retirement and replacement.

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## C2.6

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**(C2.6) Describe where and how the identified risks and opportunities have factored into your financial planning process.**

	Relevance	Description
Revenues	Impacted	Our economic analyses of weather and energy use have established historical relationships, which are used for generation, financial and strategic planning, price setting and market research. Estimates of the impacts of changes in customer growth and customer energy conservation efforts have helped assess changes in customer demand. Our load forecasting and fuel procurement processes evaluate potential impacts of changes in fuel prices on customer demand to reduce the magnitude of unanticipated natural gas price risk.
Operating costs	Impacted	Our electric reliability and planning area evaluates potential impacts of weather events on system availability and reliability, and the company's equipment reliability index gauges our equipment reliability program performance, identifying opportunities to improve equipment reliability and gain the associated cost and performance benefits.
Capital expenditures / capital allocation	Impacted	Generation planning and project approval measures have identified opportunities for cost-effective renewable and other environmental programs.
Acquisitions and divestments	Not impacted	
Access to capital	Not impacted	
Assets	Not impacted	
Liabilities	Not impacted	
Other	Not impacted	

**C3. Business Strategy**

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**C3.1**

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**(C3.1) Are climate-related issues integrated into your business strategy?**

Yes

**C3.1a**

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**(C3.1a) Does your organization use climate-related scenario analysis to inform your business strategy?**

Yes, qualitative and quantitative

**C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b)**

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**(C-AC3.1b/C-CE3.1b/C-CH3.1b/C-CO3.1b/C-EU3.1b/C-FB3.1b/C-MM3.1b/C-OG3.1b/C-PF3.1b/C-ST3.1b/C-TO3.1b/C-TS3.1b) Indicate whether your organization has developed a low-carbon transition plan to support the long-term business strategy.**

Yes

**C3.1c**

---

**(C3.1c) Explain how climate-related issues are integrated into your business objectives and strategy.**

Our companies have a long-standing commitment to environmental performance. Reducing greenhouse gases (GHG) is an integral component of our strategic planning process, demonstrating effective environmental stewardship while fulfilling an obligation to provide reliable energy to customers. We continue to strategically reshape our portfolio of electric generation facilities with investments that have improved environmental performance and reduced emissions from our operating fleet. As the regulation of GHG emissions takes shape, our plan is to work with our industry partners, environmental groups and the State of Wisconsin with a goal of reducing carbon dioxide (CO<sub>2</sub>) emissions by approximately 40 percent below 2005 levels by 2030. Components of this approach include actions that maintain fuel diversity, reduce customer costs and achieve long-term CO<sub>2</sub> reduction. Our generation reshaping plan is achieving strong results in emission reductions. As we leverage current technology and retire older coal-fueled generation, we anticipate achieving our 40 percent reduction goal well in advance of our 2030 target. In addition, we have set a long-term goal to reduce CO<sub>2</sub> emissions by approximately 80 percent below 2005 levels by 2050. Our plan for achieving this assumes that some fossil-fueled generation will be replaced with carbon-free resources or otherwise reduced or mitigated. Taken as a whole, we expect changes to our generation fleet will reduce costs to customers, preserve fuel diversity and reduce carbon emissions.

Our low-carbon transition plan has directly affected our current strategic business choices. We have repowered approximately 600 megawatts (MW) of coal-fueled generation in Wisconsin to approximately 1,400 MW of natural gas-fueled generation. In addition to the more than 1,000 MW of coal-fueled generation already retired or converted to natural gas-fueled generation, we plan to retire an additional 1,800 MW of coal-fueled generation in Wisconsin within the next two years. We also plan to invest in more than 400 MW of natural gas-fueled generation within the next four years and more than 350 MW of solar energy with an option to add energy storage. Additional zero-carbon generation projects are being actively developed.

Our intermediate and longer-term GHG emission reduction goals align well with national and international U.S. government climate policy commitments to date. Energy efficiency initiatives will continue to be evaluated along with other demand- and

supply-side options in our future GHG emission reduction strategies, in the context of an electric utility industry regulatory structure in transition.

Potential challenges to successful implementation of our transition plan and its implementation targets/pathways include natural gas and other energy prices and technology availability and costs. We are engaging in research on these and other uncertainties from 2020 to 2050 that will help us to develop a vision of how the economy, and our carbon profile, could change under various assumptions. This effort will identify cost-effective and resilient strategies to produce and use clean energy to realize a greater potential for efficient electrification and GHG emission reduction for our electric companies.

### C3.1d

#### (C3.1d) Provide details of your organization’s use of climate-related scenario analysis.

Climate-related scenarios	Details
Other, please specify	<p>We are engaged in research with the Electric Power Research Institute to refine our planning process for achieving our long-term GHG reduction goal. These research projects will help us assess economic and technological trends and conduct scenario analysis for our companies, evaluating potential GHG reduction trajectories in the context of the Paris Agreement’s goal of limiting global temperature rise to 2 degrees Celsius. The 2015 United Nations climate change conference resulted in the Paris Agreement, which aims to keep global average temperature rise this century less than 2 degrees Celsius above pre-industrial levels. The International Energy Association (IEA) performed analyses and modeling that forecast a global pathway to that goal. To assess the period after 2030 and minimize speculation to the extent possible, we are collaborating with EPRI and other industry members on a project that will evaluate potential GHG reduction pathways for our electric companies, taking into account IEA’s 2-degree scenario and other publicly available data. This project will:</p> <ul style="list-style-type: none"> <li>• Help identify risks and opportunities associated with potential impacts of global efforts to manage climate change on company investments and operations.</li> <li>• Develop a technical foundation for informed public dialogue and decisions on climate scenarios and targets to improve understanding of issues and technical needs.</li> <li>• Seek to develop consistent analytical frameworks.</li> <li>• Enable ongoing communication efforts.</li> </ul> <p>The first phase of this two-part project will provide insights and identification of issues related to characterizing scientific understanding and identifying technical issues for decision-making, with initial results expected in 2018. A second EPRI study will focus on Wisconsin from 2020 to 2050, developing a vision of how the economy and our carbon profile could change under various assumptions associated with, for example:</p> <ul style="list-style-type: none"> <li>• GHG reduction targets.</li> <li>• Natural gas and other energy prices.</li> <li>• Technology availability and costs.</li> </ul> <p>This effort will identify cost-effective and resilient strategies to produce and use clean energy to realize a greater potential for efficient electrification and GHG emission reduction for our electric companies. Initial results are expected later in 2018.</p>

#### C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e

#### (C-AC3.1e/C-CE3.1e/C-CH3.1e/C-CO3.1e/C-EU3.1e/C-FB3.1e/C-MM3.1e/C-OG3.1e/C-PF3.1e/C-ST3.1e/C-TO3.1e/C-TS3.1e) Disclose details of your organization’s low-carbon transition plan.

We continue to strategically reshape our portfolio of electric generation facilities with investments that have improved environmental performance and reduced emissions from our operating fleet.



Our interim CO2 emission reduction goal (40 percent below 2005 levels by 2030) and longer-term CO2 emission reduction goal (80 percent below 2005 levels by 2050) will be achieved with actions that maintain fuel diversity and reduce customer costs while achieve long-term CO2 reduction. We have repowered approximately 600 megawatts (MW) of coal-fueled generation in Wisconsin to approximately 1,400 MW of natural gas-fueled generation. In addition to the more than 1,000 MW of coal-fueled generation already retired or converted to natural gas-fueled generation, we plan to retire an additional 1,800 MW of coal-fueled generation in Wisconsin within the next two years. We also plan to invest in more than 400 MW of natural gas-fueled generation within the next four years as well as more than 350 MW of solar energy with an option to add energy storage. Additional zero-carbon generation projects are being actively developed. Energy efficiency initiatives will continue to be evaluated along with other demand- and supply-side options in our future GHG emission reduction strategies, in the context of an electric utility industry regulatory structure in transition.

Our interim and longer-term GHG emission reduction goals align well with national and international U.S. government climate policy -- and with our long-term business strategy in a way that makes economic sense and leverages technology. Taken as a whole, we expect changes to our generation fleet will reduce costs to customers, preserve fuel diversity and reduce carbon emissions.

## **C4. Targets and performance**

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### **C4.1**

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#### **(C4.1) Did you have an emissions target that was active in the reporting year?**

Absolute target

#### **C4.1a**

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#### **(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.**

##### **Target reference number**

Abs 1

##### **Scope**

Scope 1

##### **% emissions in Scope**

100

##### **% reduction from base year**

40

##### **Base year**

2005

**Start year**

2005

**Base year emissions covered by target (metric tons CO2e)**

35700000

**Target year**

2030

**Is this a science-based target?**

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**% achieved (emissions)**

77

**Target status**

Underway

**Please explain**

Our generation reshaping plan is achieving strong results in emission reductions. As we leverage current technology and retire older coal-fueled generation, we anticipate achieving our 40 percent reduction goal well in advance of our 2030 target. By the end of 2017, we reduced our mass emissions by 31% compared to 2005 emissions, which represents approximately 77% of our 2030 target.

---

**Target reference number**

Abs 2

**Scope**

Scope 1

**% emissions in Scope**

100

**% reduction from base year**

80

**Base year**

2005

**Start year**

2005

**Base year emissions covered by target (metric tons CO2e)**

35700000

**Target year**

2050

**Is this a science-based target?**

Yes, we consider this a science-based target, but this target has not been approved as science-based by the Science-Based Targets initiative

**% achieved (emissions)**

39

**Target status**

New

**Please explain**

We have set a long-term goal of being low-carbon by 2050, with CO2 emissions reduced by approximately 80 percent below 2005 levels. By 2017 we reduced our mass emissions by 31% compared to 2005 emissions, which represents approximately 39% of our 2050 target.

---

**C4.2**

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**(C4.2) Provide details of other key climate-related targets not already reported in question C4.1/a/b.****Target**

Please select

**KPI – Metric numerator****KPI – Metric denominator (intensity targets only)****Base year****Start year****Target year****KPI in baseline year****KPI in target year****% achieved in reporting year****Target Status**

Please select

**Please explain****Part of emissions target****Is this target part of an overarching initiative?**

Please select

---

## C4.3

---

**(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.**

Yes

### C4.3a

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**(C4.3a) Identify the total number of projects at each stage of development, and for those in the implementation stages, the estimated CO2e savings.**

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation		
To be implemented*		
Implementation commenced*	1	7600
Implemented*		
Not to be implemented		

### C4.3b

---

**(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.**

**Activity type**

Fugitive emissions reductions

**Description of activity**

Oil/natural gas methane leak capture/prevention

**Estimated annual CO2e savings (metric tonnes CO2e)**

7600

**Scope**

Scope 1

**Voluntary/Mandatory**

Voluntary

**Annual monetary savings (unit currency – as specified in CC0.4)**

**Investment required (unit currency – as specified in CC0.4)**

290000000

**Payback period**

>25 years

**Estimated lifetime of the initiative**

16-20 years

**Comment**

Our natural gas subsidiary, The Peoples Gas Light and Coke Company, is engaged in its System Modernization Program, which involves replacing cast and ductile iron natural gas mains with modern polyethylene pipes on the Peoples Gas natural gas distribution system in Chicago, Illinois. Under the EPA’s Methane Challenge, Peoples Gas has committed to replace its remaining iron natural gas mains at an annual rate of at least 2 percent for the next five years. Fugitive methane emissions are expected to be significantly reduced. "Investment required" amount is the expected average annual investment over the next three years.

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**C4.3c**

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**(C4.3c) What methods do you use to drive investment in emissions reduction activities?**

Method	Comment
Compliance with regulatory requirements/standards	Building on ongoing analyses, we will develop a plan to respond to whatever form the Clean Power Plan or its successor ultimately takes.
Other	We currently are implementing actions (e.g., power plant fuel and operational choices) that preserve fuel diversity, reduce costs to customers, and reduce long-term greenhouse gas emissions, independent of greenhouse gas regulatory requirements/standards.

**C4.5**

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**(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions?**

Yes

**C4.5a**

---

**(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.**

**Level of aggregation**

Group of products

### **Description of product/Group of products**

Energy for Tomorrow®; NatureWise®; SolarWise for Schools

### **Are these low-carbon product(s) or do they enable avoided emissions?**

Low-carbon product and avoided emissions

### **Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions**

Other, please specify (See comment)

*Energy for Tomorrow® is accredited by Center for Resource Solutions and is Green-e Energy certified. Renewable Energy Credits (RECs) from both Energy for Tomorrow® and NatureWise are tracked and retired using the Midwest Renewable Energy Tracking System program.*

### **% revenue from low carbon product(s) in the reporting year**

0.1

### **Comment**

Energy for Tomorrow® is accredited by Center for Resource Solutions and is Green-e Energy certified. Renewable Energy Credits (RECs) from both Energy for Tomorrow® and NatureWise® are tracked and retired using the Midwest Renewable Energy Tracking System program.

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## **C-EU4.6**

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### **(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your electricity generation activities.**

We operate our generating facilities as efficiently as possible to minimize methane resulting from combustion of fossil fuels.

## **C5. Emissions methodology**

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### **C5.1**

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#### **(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).**

##### **Scope 1**

##### **Base year start**

January 1 2005

##### **Base year end**

December 31 2005

##### **Base year emissions (metric tons CO2e)**

35700000

##### **Comment**

Previous base year emissions reflected only emissions from owned generation. For CDP2018, the value represents emissions associated with electricity to meet customer demand. In the base year, power purchases were used to meet demand that exceeded generating capability.

**Scope 2 (location-based)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

WEC Energy Group has no Scope 2 emissions because the company has no "purchased or acquired electricity, steam, heat or cooling consumed by the reporting company." All electricity, steam, heat or cooling consumed by the reporting company is produced by WEC Energy Group, therefore, the emissions are Scope 1 emissions.

**Scope 2 (market-based)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

WEC Energy Group has no Scope 2 emissions because the company has no "purchased or acquired electricity, steam, heat or cooling consumed by the reporting company". All electricity, steam, heat or cooling consumed by the reporting company is produced by WEC Energy Group, therefore, the emissions are Scope 1 emissions.

**C5.2**

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**(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate Scope 1 and Scope 2 emissions.**

US EPA Mandatory Greenhouse Gas Reporting Rule

**C6. Emissions data**

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**C6.1**

---

**(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?**

**Row 1**

**Gross global Scope 1 emissions (metric tons CO2e)**

30206300

**End-year of reporting period**

<Field Hidden>

**Comment**

Includes emissions from electricity generation and natural gas distribution.

**Row 2**

**Gross global Scope 1 emissions (metric tons CO2e)**

<Field Hidden>

**End-year of reporting period**

<Field Hidden>

**Comment**

<Field Hidden>

**Row 3**

**Gross global Scope 1 emissions (metric tons CO2e)**

<Field Hidden>

**End-year of reporting period**

<Field Hidden>

**Comment**

<Field Hidden>

**Row 4**

**Gross global Scope 1 emissions (metric tons CO2e)**

<Field Hidden>

**End-year of reporting period**

<Field Hidden>

**Comment**

<Field Hidden>

**C6.2**

---

**(C6.2) Describe your organization's approach to reporting Scope 2 emissions.**

**Row 1**

**Scope 2, location-based**

We are not reporting a Scope 2, location-based figure

**Scope 2, market-based**

Please select

**Comment**



WEC Energy Group has no Scope 2 emissions because the company has no "purchased or acquired electricity, steam, heat or cooling consumed by the reporting company". All electricity, steam, heat or cooling consumed by the reporting company is produced by WEC Energy Group, therefore, the emissions are Scope 1 emissions.

### **C6.3**

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#### **(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?**

##### **Row 1**

##### **Scope 2, location-based**

<Field Hidden>

##### **Scope 2, market-based (if applicable)**

<Field Hidden>

##### **End-year of reporting period**

<Field Hidden>

##### **Comment**

WEC Energy Group has no Scope 2 emissions because the company has no "purchased or acquired electricity, steam, heat or cooling consumed by the reporting company". All electricity, steam, heat or cooling consumed by the reporting company is produced by WEC Energy Group, therefore, the emissions are Scope 1 emissions.

##### **Row 2**

##### **Scope 2, location-based**

<Field Hidden>

##### **Scope 2, market-based (if applicable)**

<Field Hidden>

##### **End-year of reporting period**

<Field Hidden>

##### **Comment**

<Field Hidden>

##### **Row 3**

##### **Scope 2, location-based**

<Field Hidden>

##### **Scope 2, market-based (if applicable)**

<Field Hidden>

##### **End-year of reporting period**

<Field Hidden>

**Comment**

<Field Hidden>

**Row 4**

**Scope 2, location-based**

<Field Hidden>

**Scope 2, market-based (if applicable)**

<Field Hidden>

**End-year of reporting period**

<Field Hidden>

**Comment**

<Field Hidden>

**C6.4**

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**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

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**(C6.5) Account for your organization's Scope 3 emissions, disclosing and explaining any exclusions.**

**Purchased goods and services**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO<sub>2</sub>e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to purchased goods and services.

**Capital goods**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO<sub>2</sub>e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to capital goods.

**Fuel-and-energy-related activities (not included in Scope 1 or 2)**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO<sub>2</sub>e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to fuel- and energy-related activities not included in Scope 1 or 2.

**Upstream transportation and distribution**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO<sub>2</sub>e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to upstream transportation and distribution.

**Waste generated in operations**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO<sub>2</sub>e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company has not yet developed a methodology to estimate Scope 3 emissions due to waste generated in operations.

**Business travel**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO2e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to business travel.

**Employee commuting**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO2e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to employee commuting.

**Upstream leased assets**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company has no upstream leased assets that produce Scope 3 emissions.

**Downstream transportation and distribution**

**Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO2e**

**Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to downstream transportation and distribution.

**Processing of sold products**

**Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

400000

**Emissions calculation methodology**

According to the American Coal Ash Association: For each ton of fly ash used in place of traditional cement, a reduction of slightly less than one ton of carbon dioxide is achieved.

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

Beneficial use of coal combustion products sold can result in avoidance of carbon dioxide emissions.

**Use of sold products****Evaluation status**

Relevant, calculated

**Metric tonnes CO2e**

26200000

**Emissions calculation methodology**

CFR 40 Part 98, Subpart NN

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

100

**Explanation**

Billing records support the information reported under U.S. EPA's Greenhouse Gas Reporting Program. Natural gas distribution companies must report the carbon dioxide emissions that would result from the complete combustion or oxidation of the annual volumes of natural gas provided to end-users on their distribution systems.

**End of life treatment of sold products****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology****Percentage of emissions calculated using data obtained from suppliers or value chain partners****Explanation**

Electricity and natural gas products do not have a conventional useful life.

**Downstream leased assets**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company has no downstream leased assets.

**Franchises****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company has no franchises that produce Scope 3 emissions.

**Investments****Evaluation status**

Relevant, not yet calculated

**Metric tonnes CO2e****Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company does not yet have a system in place to track the information needed to estimate Scope 3 emissions due to investments.

**Other (upstream)****Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology**

**Percentage of emissions calculated using data obtained from suppliers or value chain partners**

**Explanation**

The company has no other upstream sources of Scope 3 emissions.

**Other (downstream)**

**Evaluation status**

Not relevant, explanation provided

**Metric tonnes CO2e****Emissions calculation methodology**

Percentage of emissions calculated using data obtained from suppliers or value chain partners

**Explanation**

The company has no other downstream sources of Scope 3 emissions.

**C6.7**

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**(C6.7) Are carbon dioxide emissions from biologically sequestered carbon relevant to your organization?**

Yes

**C6.7a**

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**(C6.7a) Provide the emissions from biologically sequestered carbon relevant to your organization in metric tons CO2.**

352000

**C6.10**

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**(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.**

**Intensity figure**

3.9

**Metric numerator (Gross global combined Scope 1 and 2 emissions)**

29795000

**Metric denominator**

unit total revenue

**Metric denominator: Unit total**

7648500

**Scope 2 figure used**

Please select

**% change from previous year**

0

**Direction of change**

No change

**Reason for change**

Denominator was changed to thousand USD compared with prior year's response, because an intensity figure less than 1 was not permitted. The intensity did not change other than for this adjustment. WEC Energy Group has no scope 2 emissions.

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## C7. Emissions breakdowns

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### C7.1

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**(C7.1) Does your organization have greenhouse gas emissions other than carbon dioxide?**

Yes

#### C7.1a

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**(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).**

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	29709775	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	366525	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	130000	IPCC Fourth Assessment Report (AR4 - 100 year)

#### C-EU7.1b

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**(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.**

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	5100	14300		362600	
Combustion (Electric utilities)	29661000	360		29800000	436 metric tons N2O or 130,000 metric tons CO2e from N2O



	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Combustion (Gas utilities)	43675	1		43700	
Combustion (Other)					
Emissions not elsewhere classified					

## C7.2

**(C7.2) Break down your total gross global Scope 1 emissions by country/region.**

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	30206300

## C7.3

**(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.**

By facility

### C7.3b

**(C7.3b) Break down your total gross global Scope 1 emissions by business facility.**

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Concord Generating Station	64000	43.1669	-88.69
Germantown Power Plant	22000	43.1952	-88.1496
Oak Creek Site	11399000	42.8457	-87.8294
Paris Generating Station	83000	42.6658	-88.0131
Pleasant Prairie Power Plant	6081000	42.5381	-87.9033
Port Washington Generating Station	2025000	43.3842	-87.8689
Presque Isle Power Plant	1798000	46.5789	-87.395
Valley Power Plant	419000	43.0303	-87.9233

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Rothschild Biomass Generating Plant	387000	44.8878	-89.62978
Weston Generating Station	2999000	44.867778	-89.658889
J.P. Pulliam Generating Station	609000	44.543889	-88.013889
Columbia Energy Center	2149000	43.488333	-89.422778
Edgewater Generating Station	542000	43.725	-87.715556
Fox Energy Center	1059000	44.322778	-88.214722
De Pere Energy Center	70000	44.459167	-88.0775
West Marinette	89000	45.089167	-87.691389

### C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Electric utility generation activities	29800000	<Field Hidden>	

### C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
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### C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

Please select

## C7.9

**(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?**

Increased

### C7.9a

**(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined) and for each of them specify how your emissions compare to the previous year.**

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Field Hidden>		
Other emissions reduction activities		<Field Hidden>		
Divestment		<Field Hidden>		
Acquisitions		<Field Hidden>		
Mergers		<Field Hidden>		
Change in output	736000	Increased	2.5	The 2.5% increase in CO2e was due to less generation from lower-carbon fuel sources compared with the previous year.
Change in methodology		<Field Hidden>		
Change in boundary		<Field Hidden>		
Change in physical operating conditions		<Field Hidden>		
Unidentified		<Field		

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
		Hidden>		
Other		<Field Hidden>		

### C7.9b

**(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?**

Please select

### C8. Energy

#### C8.1

**(C8.1) What percentage of your total operational spend in the reporting year was on energy?**

More than 20% but less than or equal to 25%

#### C8.2

**(C8.2) Select which energy-related activities your organization has undertaken.**

	Indicate whether your organization undertakes this energy-related activity
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	No
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	No
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

## C8.2a

**(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.**

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	1099642	91660745	92760687
Consumption of purchased or acquired electricity	<Field Hidden>	<Field Hidden>	<Field Hidden>	<Field Hidden>
Consumption of purchased or acquired heat	<Field Hidden>	<Field Hidden>	<Field Hidden>	<Field Hidden>
Consumption of purchased or acquired steam	<Field Hidden>	<Field Hidden>	<Field Hidden>	<Field Hidden>
Consumption of purchased or acquired cooling	<Field Hidden>	<Field Hidden>	<Field Hidden>	<Field Hidden>
Consumption of self-generated non-fuel renewable energy	<Field Hidden>	0	<Field Hidden>	0
Total energy consumption	<Field Hidden>	1099642	91660745	92760687

## C8.2b

**(C8.2b) Select the applications of your organization's consumption of fuel.**

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

## C8.2c

**(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.**

**Fuels (excluding feedstocks)**

Bituminous Coal

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

4543723

**MWh fuel consumed for the self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Field Hidden>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

---

**Fuels (excluding feedstocks)**

Subbituminous Coal

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

72984311

**MWh fuel consumed for the self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Field Hidden>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

---

**Fuels (excluding feedstocks)**

Natural Gas

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

21804279

**MWh fuel consumed for the self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Field Hidden>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

---

**Fuels (excluding feedstocks)**

Fuel Oil Number 2

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

138123

**MWh fuel consumed for the self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Field Hidden>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

---

**Fuels (excluding feedstocks)**

Wood Waste

**Heating value**

HHV (higher heating value)

**Total fuel MWh consumed by the organization**

1099642

**MWh fuel consumed for the self-generation of electricity**

0

**MWh fuel consumed for self-generation of heat**

0

**MWh fuel consumed for self-generation of steam**

0

**MWh fuel consumed for self-generation of cooling**

<Field Hidden>

**MWh fuel consumed for self- cogeneration or self-trigeneration**

0

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**C8.2d**

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**(C8.2d) List the average emission factors of the fuels reported in C8.2c.**

**Bituminous Coal**

**Emission factor**

93.28

**Unit**

kg CO2 per million Btu

**Emission factor source**

40 CFR Part 98 Table C-1

**Comment**

**Fuel Oil Number 2**

**Emission factor**

73.96

**Unit**

kg CO2 per million Btu

**Emission factor source**

40 CFR Part 98 Table C-1

**Comment**



**Natural Gas****Emission factor**

53.06

**Unit**

Please select

**Emission factor source**

40 CFR Part 98 Table C-1

**Comment**

&lt;Field Hidden&gt;

**Subbituminous Coal****Emission factor**

97.17

**Unit**

Please select

**Emission factor source**

40 CFR Part 98 Table C-1

**Comment****Wood Waste****Emission factor**

93.8

**Unit**

kg CO2 per million Btu

**Emission factor source**

40 CFR Part 98 Table C-1

**Comment****C8.2e**

---

**(C8.2e) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.**

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	38996000	1852000	2052000	0
Heat	0	0	0	0
Steam		0	0	0
Cooling	0	0	0	0

## C-EU8.2e

(C-EU8.2e) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

### Coal – hard

Nameplate capacity (MW)

5555

Gross electricity generation (GWh)

24484000

Net electricity generation (GWh)

24484000

Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)

25459000

Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)

1.04

Comment

### Lignite

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

Net electricity generation (GWh)

Absolute scope 1 emissions (metric tons CO<sub>2</sub>e)

Scope 1 emissions intensity (metric tons CO<sub>2</sub>e per GWh)

Comment

### Oil

Nameplate capacity (MW)

0

**Gross electricity generation (GWh)**

**Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Gas**

**Nameplate capacity (MW)**

3846

**Gross electricity generation (GWh)**

9302000

**Net electricity generation (GWh)**

9302000

**Absolute scope 1 emissions (metric tons CO2e)**

3947000

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

0.42

**Comment**

**Biomass**

**Nameplate capacity (MW)**

58

**Gross electricity generation (GWh)**

85000

**Net electricity generation (GWh)**

85000

**Absolute scope 1 emissions (metric tons CO2e)**

387000

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

4.6

**Comment**

**Waste (non-biomass)**

**Nameplate capacity (MW)**

0

**Gross electricity generation (GWh)**  
**Net electricity generation (GWh)**  
**Absolute scope 1 emissions (metric tons CO2e)**  
**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Nuclear**

**Nameplate capacity (MW)**

0

**Gross electricity generation (GWh)**  
**Net electricity generation (GWh)**  
**Absolute scope 1 emissions (metric tons CO2e)**  
**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Geothermal**

**Nameplate capacity (MW)**

0

**Gross electricity generation (GWh)**  
**Net electricity generation (GWh)**  
**Absolute scope 1 emissions (metric tons CO2e)**  
**Scope 1 emissions intensity (metric tons CO2e per GWh)**

**Comment**

**Hydroelectric**

**Nameplate capacity (MW)**

190

**Gross electricity generation (GWh)**  
886000  
**Net electricity generation (GWh)**  
886000  
**Absolute scope 1 emissions (metric tons CO2e)**  
0  
**Scope 1 emissions intensity (metric tons CO2e per GWh)**  
0

**Comment**

**Wind****Nameplate capacity (MW)**

447

**Gross electricity generation (GWh)**

1081000

**Net electricity generation (GWh)**

1081000

**Absolute scope 1 emissions (metric tons CO2e)**

0

**Scope 1 emissions intensity (metric tons CO2e per GWh)**

0

**Comment****Solar****Nameplate capacity (MW)**

0

**Gross electricity generation (GWh)****Net electricity generation (GWh)****Absolute scope 1 emissions (metric tons CO2e)****Scope 1 emissions intensity (metric tons CO2e per GWh)****Comment****Other renewable****Nameplate capacity (MW)**

0

**Gross electricity generation (GWh)****Net electricity generation (GWh)****Absolute scope 1 emissions (metric tons CO2e)****Scope 1 emissions intensity (metric tons CO2e per GWh)****Comment****Other non-renewable****Nameplate capacity (MW)**

0

**Gross electricity generation (GWh)****Net electricity generation (GWh)**

**Absolute scope 1 emissions (metric tons CO2e)**  
**Scope 1 emissions intensity (metric tons CO2e per GWh)**  
**Comment**  
**Total**  
**Nameplate capacity (MW)**  
10096  
**Gross electricity generation (GWh)**  
38996  
**Net electricity generation (GWh)**  
35838  
**Absolute scope 1 emissions (metric tons CO2e)**  
29795  
**Scope 1 emissions intensity (metric tons CO2e per GWh)**  
**Comment**  
**C-EU8.4**

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**(C-EU8.4) Does your electric utility organization have a global transmission and distribution business?**

Yes

**C-EU8.4a**

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**(C-EU8.4a) Disclose the following information about your global transmission and distribution business.**

**Country/Region**

United States of America

**Voltage level**

Distribution (low voltage)

**Annual load (GWh)**

50477

**Scope 2 emissions (basis)**

Please select

**Scope 2 emissions (metric tons CO2e)**

**Annual energy losses (% of annual load)**

2.5

**Length of network (km)**

110372

**Number of connections**

**Area covered (km2)**

56000

**Comment**

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## C9. Additional metrics

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### C9.1

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**(C9.1) Provide any additional climate-related metrics relevant to your business.**

#### C-EU9.5a

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**(C-EU9.5a) Break down, by source, your total planned CAPEX in your current CAPEX plan for power generation.**

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Other renewable	900000000	36	2022	Solar with option to add battery storage

#### C-EU9.5b

---

**(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).**

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Other, please specify	Automated meters	400000000	4	2022

#### C-CO9.6/C-EU9.6/C-OG9.6

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**(C-CO9.6/C-EU9.6/C-OG9.6) Disclose your investments in low-carbon research and development (R&D), equipment, products, and services.**

**Investment start date**

January 1 2018

**Investment end date**

December 31 2022

**Investment area**

Equipment

**Technology area**

Renewable energy

**Investment maturity**

Full/commercial-scale demonstration

**Investment figure**

900000000

**Low-carbon investment percentage**

8

**Please explain**

We are investing in more than 350 MW of zero-carbon generation in Wisconsin, including solar generation with an option to add battery storage.

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**C10. Verification**

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**C10.1**

---

**(C10.1) Indicate the verification/assurance status that applies to your reported emissions.**

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No emissions data provided
Scope 3	No third-party verification or assurance

**C10.2**

---

**(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?**

No, we do not verify any other climate-related information reported in our CDP disclosure

**C11. Carbon pricing**

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## C11.1

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**(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?**

No, and we do not anticipate being regulated in the next three years

## C11.2

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**(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period?**

No

## C11.3

---

**(C11.3) Does your organization use an internal price on carbon?**

Yes

### C11.3a

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**(C11.3a) Provide details of how your organization uses an internal price on carbon.**

**Objective for implementing an internal carbon price**

Other, please specify (sensitivity scenarios)

**GHG Scope**

Scope 1

**Application**

The internal price of carbon has been used in internal analyses of power generation projects in sensitivity scenarios.

**Actual price(s) used (Currency /metric ton)**

**Variance of price(s) used**

**Type of internal carbon price**

Other, please specify

**Impact & implication**

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## C12. Engagement

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### C12.1

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**(C12.1) Do you engage with your value chain on climate-related issues?**

Yes, our customers

**C12.1b**

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**(C12.1b) Give details of your climate-related engagement strategy with your customers.**

**Type of engagement**

Education/information sharing

**Details of engagement**

Share information about your products and relevant certification schemes (i.e. Energy STAR)

**Size of engagement**

28

**% Scope 3 emissions as reported in C6.5**

16

**Please explain the rationale for selecting this group of customers and scope of engagement**

We provide our large customers with estimates of GHG emissions from their use of the natural gas we supply and are required to report to the US EPA under 40 CFR 98.

- Rationale for customer selection: Customers targeted for outreach are those taking delivery of natural gas above a threshold level during the reporting year.
- Scope of engagement: Our key account managers reach out to large customers during the first quarter of the following year to provide information needed to estimate GHG emissions associated with the natural gas delivered to our customers during the reporting year.

**Impact of engagement, including measures of success**

- Measures of success: Our customers are able to successfully and accurately report to the U.S. EPA under 40 CFR 98 without double-counting GHG emissions.
- 

**C12.3**

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**(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?**

Direct engagement with policy makers

Trade associations

Funding research organizations

Other

## C12.3a

**(C12.3a) On what issues have you been engaging directly with policy makers?**

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Mandatory carbon reporting	Support	Participating in regulatory process	Not applicable
Energy efficiency	Support	Participating in regulatory process	Not applicable
Adaptation or resilience	Support	Participating in regulatory process	Not applicable
Clean energy generation	Support	Participating in regulatory process	Not applicable

## C12.3b

**(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?**

Yes

## C12.3c

**(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.**

**Trade association**

Edison Electric Institute

**Is your position on climate change consistent with theirs?**

Consistent

**Please explain the trade association's position**

Global climate change presents one of the biggest energy and environmental policy challenges this country has ever faced. EEI member companies are committed to addressing the challenge of climate change and have undertaken a wide range of initiatives over the last 30 years to reduce, avoid or sequester GHG emissions. Policies to address climate change should seek to minimize impacts on consumers and avoid harm to U.S. industry and the economy. As of the end of 2017, electric power sector CO2 emissions had declined 27 percent from 2005 levels, driven in part by low natural gas prices, increased deployment of renewable generation and customer demands. (From

<http://www.eei.org/issuesandpolicy/environment/climate/Pages/default.aspx>)

**How have you, or are you attempting to, influence the position?**

We attend meetings and discussions of the Edison Electric Institute regarding policy matters, including climate change, and provide input to ensure that the company's perspectives are considered.

### **Trade association**

American Gas Association

#### **Is your position on climate change consistent with theirs?**

Consistent

#### **Please explain the trade association's position**

Natural gas, the cleanest fossil fuel, is a highly efficient form of energy. It is composed chiefly of methane; the simple chemical composition of natural gas is a molecule of one carbon atom and four hydrogen atoms (CH<sub>4</sub>). When methane is burned completely, the principal products of combustion are carbon dioxide and water vapor. Natural gas has fewer impurities, is chemically less complex and its combustion generally results in less pollution than other fuels. In most applications the use of natural gas produces less sulfur dioxide (the primary precursor of acid rain), less nitrogen oxides (the primary precursor of smog) and less particulate matter (which can affect health and visibility) than oil or coal. Technological progress allows cleaner energy production today than in the past for all fuels, although the inherent cleanliness of gas means that environmental controls on gas equipment, if any are required, tend to be far less expensive than controls for other fuels. Using more natural gas to replace dirtier fuels can help address simultaneously a number of environmental concerns, like smog, acid rain and greenhouse gas emissions. Natural gas is highly efficient. About 90 percent of the natural gas produced is delivered to customers as useful energy. In contrast, only about 27 percent of the energy converted to electricity reaches consumers. (From <https://www.aga.org/research/fact-sheets/climate-change-and-environmental-analysis/>)

#### **How have you, or are you attempting to, influence the position?**

We attend meetings and discussions of the American Gas Association regarding policy matters, including climate change, and provide input to ensure that the company's perspectives are considered.

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### **C12.3d**

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#### **(C12.3d) Do you publicly disclose a list of all research organizations that you fund?**

Yes

### **C12.3e**

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#### **(C12.3e) Provide details of the other engagement activities that you undertake.**

We have met with representatives of the U.S. Environmental Protection Agency, Wisconsin Department of Natural Resources, Public Service Commission of Wisconsin, Michigan Department of Environmental Quality, other state regulators, other electric utilities, and various environmental groups to discuss issues related to the development of greenhouse gas new source performance standards for new and existing fossil-fueled power plants.

### **C12.3f**

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**(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?**

We convene regular meetings of climate policy decision makers and staff to ensure that their engagement efforts are coordinated and effectively promoting the company's climate change strategy.

## **C12.4**

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**(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).**

### **Publication**

In mainstream reports

### **Status**

Complete

### **Attach the document**

[wec-corporate-responsibility-report-2017.pdf](#)

### **Content elements**

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Other, please specify (ESG/safety/customer/employee/innovation)

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## **C14. Signoff**

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### **C-FI**

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**(C-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.**

## **C14.1**

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**(C14.1) Provide details for the person that has signed off (approved) your CDP climate change response.**

	Job title	Corresponding job category
Row 1	Senior Executive Vice President	Other, please specify (Senior Executive Vice President)

## SC. Supply chain module

### SC0.0

**(SC0.0) If you would like to do so, please provide a separate introduction to this module.**

WEC Energy Group works with consultants, engineers and other suppliers to develop methods that are adopted to improve the efficiency and heat rates of our generating facilities, thereby lowering our emissions.

We are considering becoming a future participating supplier in CDP's Action Exchange initiative.

### SC0.1

**(SC0.1) What is your company's annual revenue for the stated reporting period?**

	Annual Revenue
Row 1	7595900000

### SC0.2

**(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?**

No

### SC1.1

**(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.**

**Requesting member**

AT&T Inc.

**Scope of emissions**

Scope 1

**Emissions in metric tonnes of CO<sub>2</sub>e**

**Uncertainty (±%)**

**Major sources of emissions**

WEC Energy Group's Scope 1 greenhouse gas emissions that are applicable to this customer are from fossil-fueled electric generating facilities. There are no estimated Scope 2 emissions because WEC Energy Group does not purchase electricity for consumption. Scope 3 emissions associated with customers' purchase and use of natural gas from WEC Energy Group are assumed not to be applicable to this customer.

**Verified**

No

**Allocation method**

Other, please specify (CO2 rate to apply to MWh purchased)

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Most of WEC Energy Group's carbon dioxide emissions are from our fossil-fueled energy generating facilities. These facilities are identified by and reported on under the US EPA Part 98 Mandatory Reporting of Greenhouse Gases rule, and there are no limitations or assumptions associated with the identification of these sources. The allocation method mentions that the emission rates provided reflect regional average fuel mix data from Michigan, Illinois, Indiana, Ohio and Wisconsin as a proxy for the actual fuel mix of certain electricity purchased by our electric utilities because the actual fuel mix characteristics of that purchased electricity could not be discerned.

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**Requesting member**

U.S. General Services Administration (GSA)

**Scope of emissions**

Scope 1

**Emissions in metric tonnes of CO2e**

**Uncertainty (±%)**

**Major sources of emissions**

WEC Energy Group's Scope 1 greenhouse gas emissions that are applicable to this customer are from fossil-fueled electric generating facilities. There are no estimated Scope 2 emissions because WEC Energy Group does not purchase electricity for consumption. Scope 3 emissions associated with customers' purchase and use of natural gas from WEC Energy Group are assumed not to be applicable to this customer.

**Verified**

No

**Allocation method**

Other, please specify (CO2 rate to apply to MWh purchased)

**Please explain how you have identified the GHG source, including major limitations to this process and assumptions made**

Most of WEC Energy Group's CO2 emissions are from our fossil-fueled energy generating facilities. These facilities are identified by and reported on under the U.S. EPA Part 98 Mandatory Reporting of Greenhouse Gases rule, and there are no limitations or assumptions associated with the identification of these sources. The allocation method mentions that the emission rates provided reflect regional average fuel mix data from Michigan, Illinois, Indiana, Ohio and Wisconsin as a proxy for the actual fuel mix of certain electricity purchased by our electric utilities because the actual fuel mix characteristics of that purchased electricity could not be discerned.

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**SC1.2**

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**(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).**

System GHG intensity (metric tons/MWh) is published on page 42 of the WEC Energy Group 2017 Corporate Responsibility Report, found at <http://www.wecenergygroup.com/csr/index.htm>.

**SC1.3**

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**(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?**

Allocation challenges	Please explain what would help you overcome these challenges
Other, please specify (Market power purchase emissions unknown)	WEC Energy Group uses regional average fuel mix data from Michigan, Illinois, Indiana, Ohio and Wisconsin as a proxy for the actual fuel mix of electricity purchased from energy markets by our electric utilities. We plan to use this proxy until a more representative proxy for characteristics of electricity purchased from energy markets is available.
Customer base is too large and diverse to accurately track emissions to the customer level	No method currently exists to identify and aggregate all purchases by these customers' various locations in order to apply an emission rate for calculating the emission values requested in SC1.1.

**SC1.4**

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**(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?**

Yes

**SC1.4a**

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**(SC1.4a) Describe how you plan to develop your capabilities.**



WEC Energy Group will continue to provide emission rates that can be used by our customers to estimate the carbon dioxide emissions associated with their energy purchases from WEC Energy Group. Carbon dioxide emissions from energy purchased by WEC Energy Group from energy markets will continue to be estimated using regional average fuel mix data from Michigan, Illinois, Indiana, Ohio and Wisconsin until a more representative proxy for characteristics of electricity purchased from energy markets is available.

## **SC2.1**

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**(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.**

**Requesting member**

Please select

**Group type of project**

Please select

**Type of project**

Please select

**Emissions targeted**

Please select

**Estimated timeframe for carbon reductions to be realized**

Please select

**Estimated lifetime CO2e savings**

**Estimated payback**

Please select

**Details of proposal**

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## **SC2.2**

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**(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?**

No

## **SC3.1**

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**(SC3.1) Do you want to enroll in the 2018-2019 CDP Action Exchange initiative?**

No

**SC3.2**

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**(SC3.2) Is your company a participating supplier in CDP's 2017-2018 Action Exchange initiative?**

No

**SC4.1**

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**(SC4.1) Are you providing product level data for your organization's goods or services, if so, what functionality will you be using?**

No, I am not providing data

**SC4.2d**

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**(SC4.2d) Have any of the initiatives described in SC4.2c been driven by requesting CDP Supply Chain members?**

No

**Submit your response**

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**In which language are you submitting your response?**

English

**Please confirm how your response should be handled by CDP**

	Public or Non-Public Submission	I am submitting to	Are you ready to submit the additional Supply Chain Questions?
I am submitting my response	Public	Investors Customers	Yes, submit Supply Chain Questions now