

**Module: Introduction****Page: W0. Introduction****W0.1****Introduction**

**Please give a general description and introduction to your organization.**

DTE Energy (NYSE: DTE) is a diversified U.S. energy company with approximately \$12.3 billion in revenues for 2014. Our largest operating subsidiaries are DTE Electric, an electric utility, and DTE Gas, a natural gas utility. DTE Electric is a Michigan corporation organized in 1903 and is a public utility subject to regulation by the Michigan Public Service Commissions (MPSC) and the Federal Energy Regulatory Commission (FERC). DTE Electric is engaged in the generation, purchase, distribution and sale of electricity to approximately 2.1 million customers in southeastern Michigan. DTE Gas is a Michigan corporation organized in 1898 and is a public utility subject to regulation by the MPSC. DTE Gas is engaged in the purchase, storage, transmission, gathering, distribution and sale of natural gas to approximately 1.2 million customers throughout Michigan and the sale of storage and transportation capacity. Our other businesses are involved in 1) natural gas pipelines, gathering and storage; 2) unconventional gas and oil project development and production; 3) power and industrial projects and coal transportation and marketing; and 4) energy marketing and trading operations. More information on DTE Energy, including our Corporate Citizen Report, can be found at: [https://www2.dteenergy.com/wps/portal/dte/aboutus/aboutDteEnergy!/ut/p/b1/04\\_Sj9CPykyssy0xPLMnMz0vMAfGjzOKNLXz8wkd\\_QNDgsJMDDzNnUyD\\_Sx8DSyMziAKIoEKDHAARwNU\\_T6ehqYg\\_QbOXI5mhgYGhID9eBQQsD9cPwqsBI8L\\_Dzyc1P1C3JDIwx0HRUBRWFJPQ!!/dl4/d5/L2dBISvZ0FBIS9nQSEh/](https://www2.dteenergy.com/wps/portal/dte/aboutus/aboutDteEnergy!/ut/p/b1/04_Sj9CPykyssy0xPLMnMz0vMAfGjzOKNLXz8wkd_QNDgsJMDDzNnUyD_Sx8DSyMziAKIoEKDHAARwNU_T6ehqYg_QbOXI5mhgYGhID9eBQQsD9cPwqsBI8L_Dzyc1P1C3JDIwx0HRUBRWFJPQ!!/dl4/d5/L2dBISvZ0FBIS9nQSEh/)

**W0.2****Reporting year**

**Please state the start and end date of the year for which you are reporting data.**

**Period for which data is reported**

Wed 01 Jan 2014 - Wed 31 Dec 2014

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**W0.3****Reporting boundary**

**Please indicate the category that describes the reporting boundary for companies, entities, or groups for which water-related impacts are reported.**

Companies, entities or groups over which financial control is exercised

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**W0.4****Exclusions**

**Are there any geographies, facilities or types of water inputs/outputs within this boundary which are not included in your disclosure?**

Yes

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**W0.4a****Exclusions**

**Please report the exclusions in the following table**

Exclusion	Please explain why you have made the exclusion
Electric Distribution Operations	DTE Energy is focusing on the company's largest sources of water withdrawal and use; namely, our steam electric power generating stations. These generating stations operate under the authority of National Pollutant Discharge Elimination System (NPDES) permits, and local sanitary sewer permits, where applicable to industrial wastewater. The company does not track all types of water inputs and outputs for its electric distribution centers. The water use at these types of facilities is significantly less than that of the steam electric power generating stations.
Gas Distribution,	DTE Energy is focusing on the company's largest sources of water withdrawal and use; namely, our steam electric power generating

Exclusion	Please explain why you have made the exclusion
Transmission and Storage Operations	stations. These generating stations operate under the authority of NPDES permits, and local sanitary sewer permits, where applicable to industrial wastewater. The company does not track all types of water inputs and outputs for its gas distribution, transmission and storage operations. The water use at these types of facilities is significantly less than that of the steam electric power generating stations. The one exception to this exclusion is in regards to our Taggart Compressor Station. This facility holds a NPDES Permit and therefore is included in the disclosure.
Service Centers, Call Centers and Office Buildings	DTE Energy is focusing on the company's largest sources of water withdrawal and use; namely, our steam electric power generating stations. These generating stations operate under the authority of NPDES permits, and local sanitary sewer permits, where applicable to industrial wastewater. The company does not track all types of water inputs and outputs for its service centers, call centers and office buildings. The water use at these types of facilities is significantly less than that of the steam electric power generating stations. In general, the source of water at these facilities is purchased from local municipalities.
Non Utility Operations	DTE Energy is focusing on the company's largest sources of water withdrawal and use; namely, our steam electric power generating stations. These generating stations operate under the authority of NPDES permits, and local sanitary sewer permits, where applicable to industrial wastewater. The company does not track all types of water inputs and outputs for its non utility operations such as power & industrial projects and energy trading services.
Utility Operations	DTE Energy is minority owner of a pumped storage facility in Michigan; this plant generates electricity and is regulated. Operations and water reporting for this facility is performed by the majority owner, therefore it is excluded from this questionnaire.

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**Further Information**

**Module: Current State**

**Page: W1. Context**

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**W1.1**

**Please rate the importance (current and future) of water quality and water quantity to the success of your organization**

Water quality and quantity	Direct use importance rating	Indirect use importance rating	Please explain
Sufficient amounts of good quality freshwater available for use	Vital for operations	Important	Direct: Sufficient amounts of good quality freshwater are absolutely vital for non-contact cooling at our steam electric generating plants. We could not supply electricity, an essential product for customers, without this resource. Indirect: Sufficient amounts of good quality freshwater are required at facilities throughout the DTE Energy organization. Municipal water supply for employee use is necessary to support all of our operations.
Sufficient amounts of recycled, brackish and/or produced water available for use	Vital for operations	Have not evaluated	Direct: Sufficient amounts of recycled water are required for non-contact cooling at two of our steam electric generating plants (Fermi 2 and Greenwood). These two plants represent approximately 18% of DTE Electric's generating capability. Indirect: Although the indirect use of recycled, brackish and/or produced water has not been formally evaluated, it is estimated that this water input is not a significant part of the value chain for DTE.

## W1.2

**For your total operations, please detail which of the following water aspects are regularly measured and monitored and provide an explanation as to why or why not**

Water aspect	% of sites/facilities/operations	Please explain
Water withdrawals- total volumes	76-100	The vast majority of withdrawals are in the form of noncontact cooling water for our electric generating facilities. These fresh water withdrawals are measured and monitored for the purpose of monthly NPDES reporting, as well as annual water use reporting for the state of Michigan. These reports are required by federal and state regulations.
Water withdrawals- volume by sources	76-100	The vast majority of withdrawals are in the form of noncontact cooling water for our electric generating facilities. These fresh water withdrawals are measured and monitored for the purpose of monthly NPDES reporting, as well as annual water use reporting for the state of Michigan. These reports are required by federal and state regulations. Other surface water withdrawals are made for dust control purposes, primarily at electric generation and coal processing facilities. These withdrawals are typically not measured or monitored. Other withdrawals are from ground water, rainwater and municipal water supplies; these withdrawals may not be measured, and account for <1% of the total.

Water aspect	% of sites/facilities/operations	Please explain
Water discharges- total volumes	76-100	The vast majority of discharges are in the form of noncontact cooling water from our electric generating facilities. These discharges are measured and monitored for the purpose of monthly NPDES reporting, as well as annual water use reporting for the state of Michigan. These reports are required by federal and state regulations.
Water discharges- volume by destination	76-100	The vast majority of discharges are in the form of noncontact cooling water from our electric generating facilities to surface waters. These discharges are returned to surface waters, and are measured and monitored for the purpose of monthly NPDES reporting, as well as annual water use reporting for the state of Michigan. These reports are required by federal and state regulations. Other discharges are to ground water and municipal water treatment plants; these discharges may not be measured, and account for <1% of the total.
Water discharges- volume by treatment method	76-100	On Site Treatment: The vast majority of discharges are associated with our electric generating facilities, and are treated on site with various methods (e.g. noncontact cooling water, plain clarification, oil/water separation). These discharges are returned to surface waters, and are measured and monitored for the purpose of monthly NPDES reporting, as well as annual water use reporting for the state of Michigan. These reports are required by federal and state regulations. Off Site Treatment: The remaining discharges are largely associated with the potable water needs of our facilities, and are treated off site via municipal treatment plants or private treatment storage & disposal facilities (TSDF). These discharges are returned to surface waters in most cases, and are measured/monitored by the off site facility.
Water discharge quality data- quality by standard effluent parameters	76-100	On Site Treatment: Water quality standards for the vast majority of discharges are provided in the NPDES permits associated with our electric generating facilities. The NPDES program is administered by the State of Michigan where the majority of discharges take place. Off Site Treatment: Water quality standards for the remaining discharges are governed by the permits associated with the municipal treatment plants or private TSDFs. These facilities have NPDES permits of their own in most cases.
Water consumption- total volume	76-100	The vast majority of consumption is calculated for our electric generating facilities and reported annually to the State of Michigan. The balance of consumption is associated with other operations such as potable water needs, groundwater withdrawal/discharges, and dust control. Consumption for these operations are neither measured nor monitored.
Facilities providing fully-functioning WASH services for all workers		Fully functioning Water Supply, Adequate Sanitation and Hygiene (WASH) is provided for all workers throughout the organization. Our operations are located in well-developed areas with modern facilities where WASH is readily available.

**W1.2a**

**Water withdrawals: for the reporting year, please provide total water withdrawal data by source, across your operations**

Source	Quantity (megaliters/year)	How does total water withdrawals for this source compare to the last reporting year?	Comment
Fresh surface water	4719824	Lower	The amount of withdrawal in 2014 was approximately 5% lower than in 2013. Most of the plants in our electric generation fleet operated for fewer hours in 2014 compared with 2013, which accounts for the lower total withdrawals. The number of operating hours fluctuates from year to year depending on various factors (e.g. demand, plant availability).
Brackish surface water/seawater	0	Not applicable	Brackish surface water/seawater is not withdrawn as part of our operations.
Rainwater	0	Not applicable	Rainwater as a source of withdrawal is not accounted for as part of our operations.
Groundwater - renewable	2038	About the same	One facility (Sibley Quarry) withdraws groundwater that is formally accounted for and reported. Groundwater removed for other purposes (e.g. dewatering for pipeline projects) is typically not measured or reported.
Groundwater - non-renewable	0	Not applicable	Groundwater – non-renewable as a source of withdrawal is not accounted for as part of our operations.
Produced/process water	0	Not applicable	Produced/process as a source of withdrawal is not accounted for as part of our operations.
Municipal supply	2	Much lower	The reported volume pertains to one facility that withdraws municipal supply for cooling water purposes; this source is measured and accounted for. Municipal supply withdrawals at other company facilities are primarily for potable water needs; these sources are typically measured or estimated for billing purposes, but have not been accounted for reporting purposes.
Wastewater from another organization	0	Not applicable	Wastewater from another organization as a source of withdrawal is not accounted for as part of our operations.
Total	4721864		The vast majority of the total withdrawal is fresh surface water. As stated above, the amount of withdrawal in 2014 was approximately 5% lower than in 2013. Most of the plants in our electric generation fleet operated for fewer hours in 2014 compared with 2013, which accounts for the lower total withdrawals. The number of operating hours fluctuates from year to year depending on various factors (e.g. demand, plant availability).

**Water discharges: for the reporting year, please provide total water discharge data by destination, across your operations**

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
Fresh surface water	4647313	Lower	The amount of discharge in 2014 was approximately 5% lower than in 2013. Most of the plants in our electric generation fleet operated for fewer hours in 2014 compared with 2013, which accounts for the lower total discharges. The number of operating hours fluctuates from year to year depending on various factors (e.g. demand, plant availability).
Brackish surface water/seawater	0	Not applicable	Discharge to brackish surface water/seawater is not part of our operations.
Groundwater	0	Not applicable	Discharge to groundwater is not accounted for as part of our operations.
Municipal treatment plant	27	About the same	The reported volume pertains to three facilities that discharge process wastewater to a municipal treatment plant as part of power plant operations; this discharge is measured and accounted for. Discharges to municipal treatment plants at other company facilities are primarily for potable water needs; these sources are typically measured or estimated for billing purposes, but have not been accounted for reporting purposes.
Total	4647340	Lower	The vast majority of the total discharges is to is fresh surface water. As stated above, the amount of discharge in 2014 was approximately 5% lower than in 2013. Most of the plants in our electric generation fleet operated for fewer hours in 2014 compared with 2013, which accounts for the lower total discharges. The number of operating hours fluctuates from year to year depending on various factors (e.g. demand, plant availability).

**W1.2c**

**Water consumption: for the reporting year, please provide total water consumption data, across your operations**

Consumption (megaliters/year)	How does this consumption figure compare to the last reporting year?	Comment
75470	Lower	The amount of consumption in 2014 was approximately 9% lower than in 2013. Most of the plants in our electric generation fleet operated for fewer hours in 2014 compared with 2013, which primarily accounts for lower total consumption. The number of operating hours fluctuates from year to year depending on various factors (e.g. demand, plant availability).

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**W1.3**

**Do you request your suppliers to report on their water use, risks and/or management?**

No

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**W1.3a**

Please provide the proportion of suppliers you request to report on their water use, risks and/or management and the proportion of your procurement spend this represents

Proportion of suppliers %	Total procurement spend %	Rationale for this coverage

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**W1.3b**

Please choose the option that best explains why you do not request your suppliers to report on their water use, risks and/or management



Primary reason	Please explain
Judged to be unimportant	Water use by our suppliers is not considered a key component at this time when evaluating their goods and services. In addition, there has been no instruction from management to consider water use when evaluating suppliers.

**W1.4**

**Has your organization experienced any detrimental impacts related to water in the reporting period?**

Yes

**W1.4a**

**Please describe the detrimental impacts experienced by your organization related to water in the reporting year**

Country	River basin	Impact indicator	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
United States of America	St. Lawrence	Phys-Flooding Phys-Inadequate infrastructure	Employee health and well-being	Heavy rainfall, coupled with inadequate infrastructure, caused damage and operational problems at one of electric generating stations in 2014.	The impact persisted for approximately 2 days.	Unknown	Infrastructure investment	The Company implemented a capital project to improve the infrastructure in a manner to reduce the risk of flooding at one of our electric generating stations during heavy rainfall events.

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W1.4b

Please choose the option below that best explains why you do not know if your organization experienced any detrimental impacts related to water in the reporting year and any plans you have to investigate this in the future

Primary reason	Future plans
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**Further Information**

**Module: Risk Assessment**

**Page: W2. Procedures and Requirements**

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W2.1

**Does your organization undertake a water-related risk assessment?**

Water risks are assessed

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W2.2

**Please select the options that best describe your procedures with regard to assessing water risks**

Risk assessment procedure	Coverage	Scale	Please explain
Water risk assessment undertaken independently of other risk assessments	Direct operations	Some facilities	Water risks are currently evaluated on a case-by-case basis at individual facilities. For example, there is a risk of a reduced supply of non-contact cooling water at one of our electric generating stations due to excessive sedimentation in the intake bay. This type of risk is particular to this plant, and is based on local factors rather than a broad condition of the fresh water supply. Note: This risk at the facility did not materialize during this reporting period.

### W2.3

Please state how frequently you undertake water risk assessments, what geographical scale and how far into the future you consider risks for each assessment

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Sporadically not defined	Facility	1 to 3 years	Water risks are currently evaluated on a case-by-case basis at individual facilities. For example, there is a risk of a reduced supply of non-contact cooling water at one of our electric generating stations due to excessive sedimentation in the intake bay. This type of risk is particular to this plant, and is based on local factors rather than a broad condition of the fresh water supply. Note: This risk at the facility did not materialize during this reporting period.

### W2.4

Have you evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy?

Yes, evaluated over the next 1 year

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**W2.4a**

**Please explain how your organization evaluated the effects of water risks on the success (viability, constraints) of your organization's growth strategy?**

The effects of water risks are evaluated on a case-by-case basis pertaining to our organization's growth strategy. For example, the Company is in the process of modifying the cooling pond for one of our electric generating stations in an effort to balance electrical derates due to insufficient condenser cooling capability. The potential sources of water to fill the modification needed to be evaluated for a variety of risk factors (e.g. cost, availability, reputational impact).

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**W2.4b**

**What is the main reason for not having evaluated how water risks could affect the success (viability, constraints) of your organization's growth strategy, and are there any plans in place to do so in the future?**

Main reason	Current plans	Timeframe until evaluation	Comment

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**W2.5**

**Please state the methods used to assess water risks**

Method	Please explain how these methods are used in your risk assessment
Internal company knowledge Regional government databases	Internal company knowledge is used on a case-by-case basis, and regional government databases are available as needed.

W2.6

Which of the following contextual issues are always factored into your organization's water risk assessments?

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	These issues are relevant and included as situations arise.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Current implications of water on your key commodities/raw materials	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Current status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Current river basin management plans	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Current access to fully-functioning WASH services for all employees	Relevant, included	These issues are relevant and included as situations arise.
Estimates of future changes in water availability at a local level	Relevant, not yet included	These issues have not been evaluated, but it is anticipated that they will be in the future.
Estimates of future potential regulatory changes at a local level	Relevant, included	These issues are relevant and included as situations arise.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	These issues are relevant and included as situations arise.
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	These issues are relevant and included as situations arise.
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	These issues are relevant and included as

Issues	Choose option	Please explain
		situations arise.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, not yet included	These issues have not been evaluated, but it is anticipated that they will be in the future.
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included for some facilities/suppliers	These issues are relevant and included as situations arise.
Other		

## W2.7

Which of the following stakeholders are always factored into your organization's water risk assessments?

Stakeholder	Choose option	Please explain
Customers	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Employees	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Investors	Relevant, included	These stakeholders are relevant and included as situations arise.
Local communities	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
NGOs	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Other water users at a local level	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Regulators	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
River basin management authorities	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as

Stakeholder	Choose option	Please explain
		situations arise.
Statutory special interest groups at a local level	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Suppliers	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Water utilities/suppliers at a local level	Relevant, included for some facilities/suppliers	These stakeholders are relevant and included as situations arise.
Other		

## W2.8

Please choose the option that best explains why your organisation does not undertake a water-related risk assessment

Primary reason	Please explain
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## Further Information

**Module: Implications**

**Page: W3. Water Risks**

## W3.1

**Is your organization exposed to water risks, either current and/or future, that could generate a substantive change in your business, operations, revenue or expenditure?**

Yes, direct operations and supply chain

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**W3.2**

**Please provide details as to how your organization defines substantive change in your business, operations, revenue or expenditure from water risk**

The majority of our operations and supply chain takes place in Michigan, which has an abundant fresh water supply. Although the risks to our company are low at this time, the risks are expected to increase in the future(e.g. as regulations continue to change and challenge our industry ).

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**W3.2a**

**Please provide the number of facilities\* per river basin exposed to water risks that could generate a substantive change in your business, operations, revenue or expenditure and the proportion of total operations this represents**

Country	River basin	Number of facilities	Proportion of total operations exposed to risk within river basin (%)	Comment
United States of America	St. Lawrence	8	91-100	There are eight electric generating stations and one natural gas compressor station that withdraw fresh water from the Michigan Great Lakes, which are located in the St. Lawrence watershed. A significant change in the water level within the watershed could put these facilities at risk of damage or losing production.

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**W3.2b**

**Please provide the proportion of financial value that could be affected at river basin level associated with the facilities listed in W3.2a**



Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected within the river basin	Comment
United States of America	St. Lawrence	% generation capacity	91-100	The amount of generation or production capacity lost by a significant change in the water level within the watershed could range from 0% to 100% depending on the nature of the event or situation. For example, a significant drop in water level could result in the loss of cooling water, and therefore generation or production, at one or more of the facilities.

**W3.2c**

**Please list the inherent water risks that could generate a substantive change in your business, operations, revenue or expenditure, the potential impact to your direct operations and the strategies to mitigate them**

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
United States of America	St. Lawrence	Physical-Climate change Physical-Inadequate infrastructure	Other: Higher operating and capital costs	Changing water levels could require restructuring of cooling water intake structures (CWIS) and plant discharge structures.	>6 years	Unlikely	Unknown	Engagement with public policy makers Increased capital expenditure	Unknown	The company would perform a cost/benefit analysis to provide the information needed to make a decision.
United	St.	Regulatory-	Other:	The revised Clean	1-3 years	Highly	High	Engagement	Unknown	The company

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
States of America	Lawrence	Regulation of discharge quality/volumes leading to higher compliance costs	Higher operating and capital costs	Water Act regulations related to 316(b) for cooling water intake structures, and forthcoming steam electric power plant effluent limitation guidelines (ELG), will require substantive physical and operational changes at our steam electric generating stations. In addition, the recently revised coal combustion residuals (CCR) rule requires extensive changes to wastewater systems at some of our facilities.		probable		with public policy makers Engagement with suppliers Increased capital expenditure Increased investment in new technology Other: Implement regulatory requirements		has evaluated the impact of the CCR rules and is in the process of coming into compliance. Strategies to address the revised 316(b) rules and the forthcoming revised ELGs are underway.
United States of America	St. Lawrence	Regulatory-Mandatory water efficiency, conservation, recycling or process standards	Higher operating costs	The company may have to change its operations (e.g. reduce output) in order to meet mandatory requirements.	Unknown	Unknown	Unknown	Other: Implement regulatory requirements	Unknown	The company would endeavor to negotiate favorable standards, but would ultimately comply with the

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										regulatory requirements.
United States of America	St. Lawrence	Regulatory- Statutory water withdrawal limits/changes to water allocation	Higher operating costs	The company may have to change its operations (e.g. reduce output) in order to meet revised limits to water withdrawal.	Unknown	Unknown	Unknown	Other: Implement regulatory requirements	Unknown	The company would endeavor to negotiate favorable limits, but would ultimately comply with the regulatory requirements

**W3.2d**

**Please list the inherent water risks that could generate a substantive change in your business operations, revenue or expenditure, the potential impact to your supply chain and the strategies to mitigate them**

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
United States of America	St. Lawrence	Regulatory- Regulation of discharge quality/volumes leading to	Supply chain disruption	The number of credible suppliers to address the forthcoming revised ELGs	1-3 years	Probable	Medium-high	Engagement with public policy makers Engagement with suppliers	Unknown	Specific to FGD wastewater treatment: The company is working with

Country	River basin	Risk driver	Potential impact	Description of impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
		higher compliance costs		related to flue gas desulphurization (FGD) wastewater treatment is limited due to the anticipated low discharge criteria that is being proposed by the federal government. This impact may put our company in jeopardy of meeting the revised limits.				Increased capital expenditure Increased investment in new technology Supplier diversification		industry advocacy groups to devise a strategy for meeting the anticipated revised NPDES limits on selenium, arsenic and mercury. At present, the technology being proposed does not appear to meet the anticipated limits. In addition to developing an effective technology with a few select suppliers, the advocacy groups are attempting to engage the regulatory community in setting achievable limits for the aforementioned constituents.

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W3.2e

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your direct operations that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
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W3.2f

Please choose the option that best explains why you do not consider your organization to be exposed to water risks in your supply chain that could generate a substantive change in your business, operations, revenue or expenditure

Primary reason	Please explain
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W3.2g

Please choose the option that best explains why you do not know if your organization is exposed to water risks that could generate a substantive change in your business operations, revenue or expenditure and discuss any future plans you have to assess this

Primary reason	Future plans
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**Further Information**

**Page: W4. Water Opportunities**

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**W4.1**

**Does water present strategic, operational or market opportunities that substantively benefit/have the potential to benefit your organization?**

Yes

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**W4.1a**

**Please describe the opportunities water presents to your organization and your strategies to realize them**

<b>Country or region</b>	<b>Opportunity</b>	<b>Strategy to realize opportunity</b>	<b>Estimated timeframe</b>	<b>Please explain</b>
United States of America	Increased brand value Other: Shipping on the Great Lakes	The company owns and operates a coal management facility located on Lake Superior known as Midwest Energy Resources Company (MERC). MERC is marketed as a resource for the Company and external clients.	Current-up to 1 year	MERC services the Company and other clients with coal supply needs. The Great Lakes provides a means of shipping coal to Company-owned power plants and other clients; this provides both cost savings and sales opportunities.

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**W4.1b**

**Please choose the option that best explains why water does not present your organization with any opportunities that have the potential to provide substantive benefit**

Primary reason	Please explain
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W4.1c

Please choose the option that best explains why you do not know if water presents your organization with any opportunities that have the potential to provide substantive benefit

Primary reason	Please explain
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**Further Information**

**Module: Accounting**

**Page: W5. Facility Level Water Accounting (I)**

W5.1

Water withdrawals: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a

Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain the change if substantive
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Facility reference number	Country	River basin	Facility name	Total water withdrawals (megaliters/year) at this facility	How does the total water withdrawals at this facility compare to the last reporting year?	Please explain the change if substantive
Facility 1	United States of America	St. Lawrence	Belle River Power Plant	583434	Lower	Lower electric generation
Facility 2	United States of America	St. Lawrence	Connors Creek Power Plant	0	About the same	This facility no longer generates electric power
Facility 3	United States of America	St. Lawrence	Fermi 2 Power Plant	64569	About the same	
Facility 4	United States of America	St. Lawrence	Greenwood Energy Center	2	Lower	Reduced need for municipal water input to the cooling system
Facility 5	United States of America	St. Lawrence	Harbor Beach Power Plant	75	Much lower	This facility stopped generating electricity in late 2013.
Facility 6	United States of America	St. Lawrence	Marysville Power Plant	0	About the same	This facility no longer generates electric power and was sold in May 2014
Facility 7	United States of America	St. Lawrence	Monroe Power Plant	2147064	About the same	
Facility 8	United States of America	St. Lawrence	River Rouge Power Plant	401715	About the same	
Facility 9	United States of America	St. Lawrence	St. Clair Power Plant	1131342	Lower	Lower electric generation
Facility 10	United States of America	St. Lawrence	Sibley Quarry	2038	About the same	
Facility 11	United States of America	St. Lawrence	Taggart Compressor Station	18844	Higher	Higher gas production
Facility 12	United States of America	St. Lawrence	Trenton Channel Power Plant	372782	Lower	Lower electric generation

#### Further Information



W5.1a

**Water withdrawals:** for the reporting year, please provide withdrawal data, in megaliters per year, for the water sources used for all facilities reported in W5.1

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 1	583434	0	0	0	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 2	0	0	0	0	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 3	17057	0	0	0	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 4	0	0	0	0	0	0	2	0	
Facility 5	75	0	0	0	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
									has not been reported.
Facility 6	0	0	0	0	0	0	0.00	0	This facility withdrew municipal water primarily for sanitary use, but was sold in May 2014.
Facility 7	2147064	0	0	0	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 8	401715	0	0	0	0	0	0	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 9	1131342	0	0	0	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 10	0	0	0	2038	0	0	0.00	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.

Facility reference number	Fresh surface water	Brackish surface water/seawater	Rainwater	Groundwater (renewable)	Groundwater (non-renewable)	Produced/process water	Municipal water	Wastewater from another organization	Comment
Facility 11	18844	0	0	0	0	0	0.00	0	This facility withdrawals municipal water primarily for sanitary use, but the volume has not been reported.
Facility 12	372782	0	0	0	0	0	0.00	0	This facility withdrawals municipal water primarily for sanitary use, but the volume has not been reported.

**W5.2**

**Water discharge: for the reporting year, please complete the table below with water accounting data for all facilities included in your answer to W3.2a**

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain the change if substantive
Facility 1	152123	Lower	Lower electric generation
Facility 2	4.1	Higher	Processed additional wastewater as part of decommissioning activities
Facility 3	40771	About the same	No change.

Facility reference number	Total water discharged (megaliters/year) at this facility	How does the total water discharged at this facility compare to the last reporting year?	Please explain the change if substantive
Facility 4	389	Lower	Reduced need for discharge
Facility 5	75	Much lower	This facility stopped generating electricity in late 2013
Facility 6	73	Lower	This facility no longer generates electric power and was sold in May 2014
Facility 7	2116334	About the same	No change.
Facility 8	399712	About the same	No change.
Facility 9	1124362	Lower	Lower electric generation
Facility 10	2038	About the same	No change.
Facility 11	18808	Higher	Higher gas production
Facility 12	368969	Lower	Lower electric generation

**W5.2a**

**Water discharge: for the reporting year, please provide water discharge data, in megaliters per year, by destination for all facilities reported in W5.2**

Facility reference number	Fresh surface water	Municipal Treatment Plant	Seawater	Groundwater	Comment
Facility 1	152123	0.00	0	0	This facility discharges water to a Municipal Treatment Plant primarily for sanitary use, but the volume has not been reported.
Facility 2	4.1	2	0	0	
Facility 3	40771	24	0	0	
Facility 4	389	0	0	0	
Facility 5	75	0.00	0	0	This facility withdrawals municipal water primarily for sanitary use, but the volume has not been reported.
Facility 6	73	0.00	0	0	This facility discharged water to a Municipal Treatment Plant

Facility reference number	Fresh surface water	Municipal Treatment Plant	Seawater	Groundwater	Comment
					primarily for sanitary use, but was sold in May 2014.
Facility 7	2116334	0.00	0	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 8	399712	1	0	0	
Facility 9	1124362	0.00	0	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 10	2038	0.00	0	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 11	18808	0.00	0	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.
Facility 12	368969	0.00	0	0	This facility withdraws municipal water primarily for sanitary use, but the volume has not been reported.

### W5.3

**Water consumption: for the reporting year, please provide water consumption data for all facilities reported in W3.2a**

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain the change if substantive
Facility 1	7290	Lower	Lower electric generation
Facility 2	0	About the same	No change.
Facility 3	23798	About the same	No change.
Facility 4	287	Lower	Fewer operating hours
Facility 5	0	Much lower	This facility stopped generating electricity in late 2013.
Facility 6	0		This facility no longer generates electric power and was sold in May 2014.
Facility 7	30986		Additional flue gas desulfurization (FGD) units were brought

Facility reference number	Consumption (megaliters/year)	How does this compare to the last reporting year?	Please explain the change if substantive
			on line in 2014.
Facility 8	1915	About the same	No change.
Facility 9	7166	Lower	Lower electric generation
Facility 10	0	About the same	No change.
Facility 11	38	Higher	Higher gas production
Facility 12	3990	Lower	Lower electric generation

#### W5.4

For all facilities reported in W3.2a what proportion of their water accounting data has been externally verified?

Water aspect	% verification	What standard and methodology was used?
Water withdrawals- total volumes	Not verified	
Water withdrawals- volume by sources	Not verified	
Water discharges- total volumes	Not verified	
Water discharges- volume by destination	Not verified	
Water discharges- volume by treatment method	Not verified	
Water discharge quality data- quality by standard effluent parameters	Not verified	
Water consumption- total volume	Not verified	

#### Further Information

**Module: Response**

**Page: W6. Governance and Strategy**

**W6.1**

**Who has the highest level of direct responsibility for water within your organization and how frequently are they briefed?**

Highest level of direct responsibility for water issues	Frequency of briefings on water issues	Comment
Senior Manager/Officer	Sporadic-as important matters arise	

**W6.2**

**Is water management integrated into your business strategy?**

Yes

**W6.2a**

**Please choose the option(s) below that best explain how water has positively influenced your business strategy**

Influence of water on business strategy	Please explain
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Influence of water on business strategy	Please explain
Tighter operational performance standards	One example is the company's work to comply with the revised 316(b) regulations of the Clean Water Act for cooling water intake structures (CWIS). The substantial effort to comply with the revised regulations has is expected to result in tighter operational performance for CWIS at the applicable facilities.
Other: Increased investment opportunities.	There are increased investment opportunities related to implementing revised environmental regulations such as the 316(b) example provided above.

**W6.2b**

Please choose the option(s) below that best explains how water has negatively influenced your business strategy

Influence of water on business strategy	Please explain
No measurable influence	

**W6.2c**

Please choose the option that best explains why your organization does not integrate water management into its business strategy and discuss any future plans to do so

Primary reason	Please explain

**W6.3**



**Does your organization have a water policy that sets out clear goals and guidelines for action?**

No

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W6.3a

Please select the content that best describes your water policy (tick all that apply)

Content	Please explain why this content is included

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W6.4

**How does your organization's water-related capital expenditure (CAPEX) and operating expenditure (OPEX) during the most recent reporting period compare to the previous reporting period?**

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
		The cells for CAPEX and OPEX are left blank because the company does not calculate these values.

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**Further Information**

**Page: W7. Compliance**

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W7.1

**Was your organization subject to any penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations in the reporting year?**

No

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**W7.1a**

Please describe the penalties, fines and/or enforcement orders for breaches of abstraction licenses, discharge consents or other water and wastewater related regulations and your plans for resolving them

Facility name	Incident	Incident description	Frequency of occurrence in reporting year	Financial impact	Currency	Incident resolution
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**W7.1b**

What proportion of your total facilities/operations are associated with the incidents listed in W7.1a

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**W7.1c**

Please indicate the total financial impacts of all incidents reported in W7.1a as a proportion of total operating expenditure (OPEX) for the reporting year. Please also provide a comparison of this proportion compared to the previous reporting year

Impact as % of OPEX	Comparison to last year
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**Further Information**

**Page: W8. Targets and Initiatives**

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**W8.1**

**Do you have any company wide targets (quantitative) or goals (qualitative) related to water?**

No

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**W8.1a**

Please complete the following table with information on company wide quantitative targets (ongoing or reached completion during the reporting period) and an indication of progress made

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value

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**W8.1b**

Please describe any company wide qualitative goals (ongoing or reached completion during the reporting period) and your progress in achieving these

Goal	Motivation	Description of goal	Progress
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**W8.1c**

**Please explain why you do not have any water-related targets or goals and discuss any plans to develop these in the future**

There are water related targets and goal, but they are business unit specific rather than company wide (e.g. reduce number of NPDES noncompliances). In addition, these targets and goals are for internal use only.

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**Further Information**

**Module: Linkages/Tradeoff**

**Page: W9. Managing trade-offs between water and other environmental issues**

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**W9.1**

**Has your organization identified any linkages or trade-offs between water and other environmental issues in its value chain?**

No

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**W9.1a**

**Please describe the linkages or trade-offs and the related management policy or action**

Environmental issues	Linkage or trade-off	Policy or action
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**Further Information**

**Module: Sign Off**

**Page: Sign Off**

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**W10.1**

Please provide the following information for the person that has signed off (approved) your CDP water response

Name	Job title	Corresponding job category
Nicholas J. Chuey	Senior Environmental Engineer	Other: Individual Contributor

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**W10.2**

Addressing water risks effectively, in many instances, requires collective action. CDP would like to support you in finding potential partners that are also working to tackle water challenges in the river basins you report against. Please select if your organization would like CDP to transfer your publicly disclosed risk and impact drivers and response strategy data from questions W1.4a, W3.2b, W3.2c, W4.1a and W8.1b to the United Nations Global Compact Water Action Hub.

No

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**Further Information**

CDP