

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

---

**W0.1****Introduction****Please give a general description and introduction to your organization**

Ameren Corporation, headquartered in St. Louis, MO, a public utility holding company with annual revenue of more than \$6 billion is the parent company of Ameren Illinois, Ameren Missouri and Ameren Transmission Company (ATXI). Ameren serves approximately 2.4 million electric and more than 900,000 natural gas customers across 64,000 square miles in Illinois and Missouri. Ameren's net generating capacity, owned by Ameren Missouri, is approximately 10,200 MWs. In 2016, Ameren Missouri's energy supply was as follows; 66% from coal, 23% from nuclear, 3% from hydro, 1% from purchased wind, 1% from gas and 6% from purchased power.

Ameren Missouri operates rate-regulated electric generation, transmission and distribution, and natural gas distribution businesses. Ameren Illinois Company operates rate-regulated electric distribution, natural gas distribution and electric transmission businesses. ATXI develops regional electric transmission projects. The Ameren companies share a proven record for reducing emissions from our energy centers, while controlling costs for customers.

Ameren published its most recent annual Corporate Social Responsibility (CSR) report, available at [AmerenCSR.com](http://AmerenCSR.com), on April 27, 2017. It discusses the challenges Ameren faces and actions being taken to achieve balance between the areas of customer and community development, workforce, environment and shareholders. The report details how Ameren Missouri is transitioning to a cleaner and more diverse generation portfolio and how overall emissions have declined over the past 20 years.

**FORWARD-LOOKING STATEMENTS.** Statements in this report not based on historical facts are considered "forward-looking" and, accordingly, involve risks and uncertainties that could cause actual results to differ materially from those discussed. Although such forward-looking statements have been made in good faith and are based on reasonable assumptions, there is no assurance that the expected results will be achieved. These statements include (without limitation) statements as to future expectations, beliefs, plans, strategies, objectives, events, conditions, and financial performance. We are providing this cautionary statement to identify important factors that could cause actual results to differ materially from those anticipated. We refer you to our Annual Report on Form 10-K for the year ended December 31, 2016, and our other reports filed with the SEC, which contain a list of factors and a discussion of risks that could cause actual results to differ materially from management expectations suggested in such forward-looking statements.

---

**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
Fri 01 Jan 2016 - Sat 31 Dec 2016

---

**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**

Other: Ameren Corporation

---

**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

---

**W0.4a**

**Exclusions**

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

Exclusion	Please explain why you have made the exclusion
Ameren is only reporting surface water used at major generating energy centers which are the major source of water usage. Combustion turbines have been excluded due to low water use. Groundwater use is insignificant; however, we reported groundwater usage at our energy center facilities.	Relative water use among facilities and availability of data.

**Further Information**

**Module: Current State**

**Page: W1. Context**

**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	Neutral	Direct Use: Provides required cooling water for power generation. Indirect Use/Value Chain: Powder River Basin (PRB) coal is the primary fuel source for four major energy centers and represents the largest key input within the supply chain.
Sufficient amounts of recycled, brackish and/or produced water available for use	Important	Neutral	Direct Use: Recycled water reduces the amount of water withdrawn and discharged. Indirect Use/Value Chain: Powder River Basin (PRB) coal is the primary fuel source for four major energy centers and represents the largest key input within the supply chain.

**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**

<b>Water aspect</b>	<b>% of sites/facilities/operations</b>	<b>Please explain</b>
Water withdrawals- total volumes	Less than 1%	Primary use is for thermal cooling at energy centers. Use is typically estimated based on design pump flow rate and run times for each energy center. Impractical to attempt to measure volumes and measurements are not needed for plant operations.
Water withdrawals- volume by sources	Less than 1%	Primary use is for thermal cooling at energy centers. Use is typically estimated based on design pump flow rate and run times for each energy center. Impractical to attempt to measure volumes and measurements are not needed for plant operations.
Water discharges- total volumes	1-25	Discharge flow rates are typically estimated.
Water discharges- volume by destination	1-25	Discharge flow rates are typically estimated.
Water discharges- volume by treatment method	1-25	Discharge flow rates are typically estimated.
Water discharge quality data- quality by standard effluent parameters	76-100	Outfalls are monitored for water quality as required by NPDES Permits.
Water consumption- total volume	1-25	Consumption is estimated based on energy center operation.
Facilities providing fully-functioning WASH services for all workers	76-100	Potable water is available at each facility. The water quality is monitored at our facilities that provide potable water.

**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	4125960	About the same	This data is for five coal and nuclear generation facilities. Quantity is dependent on plant generation and weather.
Brackish surface water/seawater	0	Not applicable	Our operations are not located near brackish or seawater sources.
Rainwater	0	Not applicable	No comment
Groundwater - renewable	6320	About the same	This is groundwater at three of five generation facilities that use well water.
Groundwater - non-renewable	0	Not applicable	No comment
Produced/process water	0	Not applicable	No comment
Municipal supply	0	Not applicable	Some facilities use municipal supply for potable water; however, no quantity is available.
Wastewater from another organization	0	Not applicable	No comment
Total	4132280	About the same	2016 total includes groundwater and surface water data. Quantity is dependent on plant generation and weather.

**W1.2b**

**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	4092794	About the same	Represents five coal and nuclear generation facilities. Quantity is

Destination	Quantity (megaliters/year)	How does total water discharged to this destination compare to the last reporting year?	Comment
			dependent on plant generation and weather.
Brackish surface water/seawater	0	Not applicable	Operations are not located near brackish or seawater sources.
Groundwater	6320	About the same	This quantity represents groundwater at three generation facilities.
Municipal/industrial wastewater treatment plant	5	About the same	This data represents the sanitary wastewater discharge to the municipal treatment plant from Meramec Energy Center.
Wastewater for another organization	0	Not applicable	Ameren does not receive wastewater from other organizations.
Total	4099119	About the same	Quantity is dependent on plant generation and weather.

#### 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
33161	About the same	Quantity is dependent on plant generation and weather.

#### W1.3

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

Yes

---

**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
1-25	26-50	Suppliers with Highest Procurement Spend. Ameren engages our suppliers through our involvement with the Electric Utility Sustainability Supply Chain Alliance (Alliance). The Alliance is developing standards to improve the procurement and environmental standards of suppliers to the electric industry via outreach and education. In 2016, the Alliance sent a voluntary survey to 44 suppliers to assess their commitment to sustainability (metrics include: reductions in GHG emissions, waste and water usage). Of the 44 surveys sent, 37 suppliers (84% response rate) responded to the survey. Ameren identifies measures of success of our suppliers if they have a sustainability program, they have taken action to improve metrics, and they have a program in place to track progress. Ameren is working with the Alliance to add sustainability to the supplier relationship management program which is being deployed to top tier suppliers. This information will be used to identify opportunities for suppliers to improve sustainability practices as compared to industry leaders.

---

**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
----------------	----------------

---

**W1.4**

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

No

---

W1.4a

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

Country	River basin	Impact driver	Impact	Description of impact	Length of impact	Overall financial impact	Response strategy	Description of response strategy
---------	-------------	---------------	--------	-----------------------	------------------	--------------------------	-------------------	----------------------------------

---

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
----------------	--------------

---

**Further Information**

**Module: Risk Assessment**

**Page: W2. Procedures and Requirements**

---

**W2.1**

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

Water risks are assessed

---

**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 and supply chain	All facilities and some suppliers	Continually track developments and new environmental rulings, then verify compliance. Perform compliance studies focused on wastewater characterization. Design and deploy treatment systems.

---

**W2.3**

**Please state how frequently you undertake water risk assessments, at 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	Region	>6 years	The Company evaluates water availability risks on an as needed basis. Continually monitor water quality and endangered species issues to mitigate potential short-term (1-2 years) and long-term (6-10 years) risks.

Frequency	Geographic scale	How far into the future are risks considered?	Comment
Six-monthly or more frequently	River basin	>6 years	Ameren actively participates (as one of 29 stakeholders) on the Congressionally mandated Missouri River Recovery Implementation Committee to advise the Army Corps of Engineers on planning for and management of the Missouri River, to recover three federally listed endangered species

---

#### 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 10 years

---

#### 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 Company's Enterprise Risk Management (ERM) Team is responsible for identifying, assessing and monitoring all risks to the achievement of the corporate strategy and objectives. The ERM Team has developed water risks relative to the corporate objectives by partnering with subject matter experts in the Company's Generation and Environmental functions. The risks are captured in the Company Enterprise Risk data base. All enterprise risks, including identified water risks, are evaluated, reviewed and discussed quarterly. Enterprise risks are categorized and presented at varying intervals throughout the calendar year to senior leadership and the Board of Directors. While the water risks are monitored on an enterprise level, individual departments monitor water issues within the Company at a grass roots level and provide appropriate information to senior management. Company representatives also engage various outside entities on water related matters such as state and federal regulatory/resource organizations including the Missouri Department of Natural Resources (MDNR), Missouri Department of Conservation (MDC), US Army Corps of Engineers (USACE), Fish and Wildlife Service (FWS), regional watershed groups (Missouri River), along with local and regional non-governmental organizations (NGOs).

---

#### 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
-------------	---------------	----------------------------	---------

**W2.5**

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

Method	Please explain how these methods are used in your risk assessment
WRI Aqueduct WWF-DEG Water Risk Filter Other: Electric Power Research Institute	These are two tools to evaluate if there are any potential concerns. The tools did not identify any significant water availability or resiliency issues in Ameren's service territory. The tools identified possible risk in Ameren Missouri's primary fuel supply region, i.e. the Powder River Basin. Ameren is participating in an Electric Power Research Institute project entitled "Water Resource Resiliency". The goal of the project is to study the "the capacity to adapt and thrive in the face of water resource disruptions from natural and human causes." The project is expected to address a number of topical areas of interest and the results are expected to provide guidance to Ameren on potential issues of concern and the need for additional analysis by Ameren on water risks.

**W2.6**

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

Issues	Choose option	Please explain
--------	---------------	----------------

Issues	Choose option	Please explain
Current water availability and quality parameters at a local level	Relevant, included	Although our facilities are geographically situated in an area of ample water supply, we strive to minimize the impact of our operations on water quality and use. We monitor water levels in surrounding rivers. This data can alert us to any stressed water level conditions and may affect generation. Historically, water availability within our system has not been a cause for concern.
Current water regulatory frameworks and tariffs at a local level	Relevant, included	The Clean Water Act establishes limitations on discharges from industrial sources such as power plants. The state permitting authority regulates our discharges, through the National Pollutant Discharge Elimination System (NPDES) permit program. Updated Permits for the Callaway and Labadie Energy Centers became effective in 2015 and an updated permit for the Sioux Energy Center was issued in early 2017. We filed timely permit renewal applications for the Rush Island, Sioux and Meramec energy centers.
Current stakeholder conflicts concerning water resources at a local level	Relevant, included	We actively communicate with key stakeholders and participate in stakeholder meetings on water related issues.
Current implications of water on your key commodities/raw materials	Relevant, included	Ameren uses significant quantities of Powder River Basin coal (primary fuel source for four major energy centers).
Current status of ecosystems and habitats at a local level	Relevant, included	Ecosystems and habitats are currently considered at generating facilities when making plant modifications/changes and during regulatory permit actions. In addition land and water habitat are considered when constructing or modifying transmission lines. For example the 2016 Illinois Rivers project included endangered bat and frog species studies and protection actions; and habitat restoration activities included planting of pollinator-friendly vegetation.
Current river basin management plans	Relevant, included	Participate in the Missouri River Recovery Implementation Committee Advisory Group. Membership includes 28 stakeholders: federal agencies, states, tribes, and non-governmental stakeholders. The purpose of the Advisory Group is to study the Missouri River and its tributaries to determine actions required to recover federally listed species under the Endangered Species Act.
Current access to fully-functioning WASH services for all employees	Not relevant, explanation provided	Potable water is available at each facility. The water quality is monitored at our facilities that provide potable water.
Estimates of future changes in water availability at a local level	Relevant, included	Although our facilities are geographically situated in an area of ample water supply, we strive to minimize the impact of our operations on water quality and use. Water availability risks are included in an enterprise risk management system.
Estimates of future potential regulatory changes at a local level	Relevant, included	Ameren developed an action plan in response to new regulations such as EPA's revised effluent limitations guidelines for the steam electric power sector. We evaluate possible future regulatory changes and include them in an enterprise risk management system. We develop plans to ensure the water in our region remains safe and clean.
Estimates of future potential stakeholder conflicts at a local level	Relevant, included	Ameren considers the environmental impacts of our business. We firmly believe having a strong social responsibility framework is critical to our ability to build and maintain trust with stakeholders and we consider stakeholder perspectives in planning for the future.

Issues	Choose option	Please explain
Estimates of future implications of water on your key commodities/raw materials	Relevant, included	Ameren uses significant quantities of Powder River Basin coal (primary fuel source for four major energy centers).
Estimates of future potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Addressed in permit actions and construction activities
Scenario analysis of availability of sufficient quantity and quality of water relevant for your operations at a local level	Relevant, included	Our facilities are geographically situated in an area of ample water supply. Scenario analysis per se has not been necessary in our region and at the same time we monitor water levels at each energy center and surrounding rivers . This data can alert us to any water level conditions that may affect operations.
Scenario analysis of regulatory and/or tariff changes at a local level	Relevant, included	We evaluate possible future regulatory changes and plan for various scenario outcomes. Future regulatory changes are included in an enterprise risk management system.
Scenario analysis of stakeholder conflicts concerning water resources at a local level	Relevant, included	Ameren actively considers the environmental impacts of our business. We firmly believe having a strong social responsibility framework is critical to our ability to build and maintain trust with stakeholders and we consider stakeholder perspectives in planning for the future.
Scenario analysis of implications of water on your key commodities/raw materials	Relevant, included	Ameren uses significant quantities of Powder River Basin coal (primary fuel source for four major energy centers).
Scenario analysis of potential changes in the status of ecosystems and habitats at a local level	Relevant, included	Ecosystems and habitats are currently considered at generating facilities when making plant modifications/changes and during regulatory permit actions. In addition land and water habitat are considered when constructing or modifying transmission lines. For example, the major Illinois Rivers transmission line project included endangered bat and frog species studies and protection actions; and habitat restoration activities included planting of pollinator friendly vegetation.
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	Economic risk is always considered with a goal of providing low cost power to customers.
Employees	Relevant, included	Economic risk is always considered.
Investors	Relevant, included	Economic risk is always considered with a goal of providing the best shareholder performance.
Local communities	Relevant, included	Ameren participates in various groups.
NGOs	Relevant, included	Changing operating environment
Other water users at a local level	Relevant, included	Ameren meets and monitors local water users near major generating facilities.
Regulators	Relevant, included	Ameren meets often with local regulators.
River basin management authorities	Relevant, included	Ameren participates in the Missouri River Recovery Implementation Committee Advisory Group. The purpose of the Advisory Group is to study the Missouri River and its tributaries to determine actions required to recover federally listed species under the Endangered Species Act.
Statutory special interest groups at a local level	Relevant, included	Express the Company's position, dialogue on issues
Suppliers	Not evaluated	
Water utilities at a local level	Relevant, included	As appropriate
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
----------------	----------------

---

**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 only

---

**W3.2**

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

Current risk is related to implementation of water regulations through the National Pollutant Discharge Elimination System (NPDES) permit program for our energy centers, new EPA regulations pertaining to Clean Water Act section 316(b) and Effluent Limitations Guidelines as well as future regulatory actions associated with threatened and endangered species and Clean Water Act section 316(a). If major capital expenditures or increases in operating costs are required at energy centers based on the final rules that would constitute a substantive change.

---

**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 company-wide facilities this represents**

Country	River basin	Number of facilities exposed to water risk	Proportion of company-wide facilities that this represents (%)	Comment
United States of America	Mississippi River	3	31-40	Percentage is based on energy center capacity.
United States of America	Other: Missouri River	2	41-50	Percentage is based on energy center capacity.

### W3.2b

For each river basin mentioned in W3.2a, please provide the proportion of the company's total financial value that could be affected by water risks

Country	River basin	Financial reporting metric	Proportion of chosen metric that could be affected	Comment
United States of America	Other: Missouri River	% global production volume	61-70	Percentage is based on energy center production.
United States of America	Other: Missouri River	% global production capacity	41-50	Percentage is based on energy center capacity.
United States of America	Mississippi River	% global production volume	31-40	Percentage is based on energy center production.
United States of America	Mississippi River	% global production capacity	31-40	Percentage is based on energy center capacity.

### 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 potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
United States of America	Mississippi River	Regulatory-Regulatory uncertainty	Decrease in shareholder value	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes to comply with new requirements. Comply with legal requirements (state and federal). Implement regulatory requirements. There is potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
United States of America	Mississippi River	Regulatory-Regulatory uncertainty	Closure of operations	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes to comply with new requirements. Comply with legal requirements (state and federal). Implement regulatory requirements. There is potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.
United States of America	Mississippi River	Regulatory-Regulatory uncertainty	Higher operating costs	If facilities would need to be closed due to lack of water availability,	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements	Medium-High	Evaluate final rulemaking. Determine actions

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
				stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.				or company own internal standards, whichever is more stringent		necessary to meet requirements. Initiate changes to comply with new requirements. Comply with legal requirements (state and federal). Implement regulatory requirements. There is potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.
United States of America	Mississippi River	Regulatory-Regulatory uncertainty	Other: May require cooling towers which will result in higher capital and	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
			operating costs.	require regulatory approval for continued cost recovery.				more stringent		to comply with new requirements. Comply with legal requirements (state and federal). Implement regulatory requirements. There is potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.
United States of America	Other: Missouri River	Regulatory-Regulatory uncertainty	Decrease in shareholder value	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes to comply with new requirements. Comply with

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										legal requirements (state and federal). Implement regulatory requirements. There is potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.
United States of America	Other: Missouri River	Regulatory-Regulatory uncertainty	Closure of operations	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes to comply with new requirements. Comply with legal requirements (state and federal).

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										Implement regulatory requirements. There is potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.
United States of America	Other: Missouri River	Regulatory-Regulatory uncertainty	Higher operating costs	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes to comply with new requirements. Comply with legal requirements (state and federal). Implement regulatory requirements. There is

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										potential for increased capital expenditure. Evaluate economic viability of continued energy center operation.
United States of America	Other: Missouri River	Regulatory-Regulatory uncertainty	Other: May require cooling towers which will result in higher capital and operating costs.	If facilities would need to be closed due to lack of water availability, stranded cost issues for shareholders would arise and require regulatory approval for continued cost recovery.	>6 years	Unknown	Medium-high	Other: Comply with local legal requirements or company own internal standards, whichever is more stringent	Medium-High	Evaluate final rulemaking. Determine actions necessary to meet requirements. Initiate changes to comply with new requirements. Comply with legal requirements (state and federal). Implement regulatory requirements. There is potential for increased capital expenditure.

Country	River basin	Risk driver	Potential impact	Description of potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs
										Evaluate economic viability of continued energy center operation.

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 potential impact	Timeframe	Likelihood	Magnitude of potential financial impact	Response strategy	Costs of response strategy	Details of strategy and costs

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
----------------	----------------

**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
Other: Adequate supplies exist	Powder River Basin (PRB) coal is the primary fuel source for four of our energy centers and represents the largest key input within the supply chain. We understand that mining operations in the Powder River Basin recycle water and manage its use.

**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
----------------	--------------

**Further Information**

Ameren engages our suppliers through our involvement with the Electric Utility Sustainability Supply Chain Alliance (Alliance). The Alliance is developing standards to improve the procurement and environmental standards of suppliers to the electric industry via outreach and education. In 2016, the Alliance sent a voluntary survey to 44 suppliers to assess their commitment to sustainability (metrics include: reductions in GHG emissions, waste and water usage). Of the 44 surveys sent,

37 suppliers (84% response rate) responded to the survey. Ameren identifies measures of success of our suppliers if they have a sustainability program, they have taken action to improve metrics, and they have a program in place to track progress. Ameren is working with the Alliance to add sustainability questions (e.g., energy usage, water usage, waste generated) to the Request for Proposal Process template for our high volume suppliers (i.e., poles, wires, and transformers). This information will be used to compare potential suppliers (high volume suppliers) and identify opportunities for improving sustainability practices within the industry.

**Page: W4. Water Opportunities**

**W4.1**

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

Yes

**W4.1a**

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

Country or region	Opportunity	Strategy to realize opportunity	Estimated timeframe	Comment
United States of America	Cost savings	Water is used through-out Ameren generating facilities for cooling, generation, makeup, etc. River navigation is utilized for some shipment of large components and equipment. Water is required to operate our generating facilities which produce electricity for our customers to use. Therefore, it is critical to optimize our use of this natural resource.	>6 years	For life of plants
United States of America	Other: Increased operational efficiency	Water is used through-out Ameren generating facilities for cooling, generation, makeup, etc. River navigation is utilized for some shipment of large components and equipment. Water is required to operate our generating facilities which produce electricity for our customers to use. Therefore, it is critical to optimize our use of this natural resource.	>6 years	For life of plants

**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
----------------	----------------

---

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
----------------	----------------

---

**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
Facility 1	United States of America	Other: Missouri River	Labadie	1674503	About the same	Quantity is dependent on plant generation and weather.
Facility 2	United States of America	Mississippi River	Meramec	390801	About the same	Quantity is dependent on plant generation and weather.
Facility 3	United States of America	Mississippi River	Rush Island	1192153	About the same	Quantity is dependent on plant generation and weather.
Facility 4	United States of America	Mississippi River	Sioux	842068	About the same	Quantity is dependent on plant generation and weather.
Facility 5	United States of America	Other: Missouri River	Callaway	32756	About the same	Quantity is dependent on plant generation and weather.

---

#### Further Information

#### Page: W5. Facility Level Water Accounting (II)

#### 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	1668534	0	0	5969	0	0	0	0	Surface water and groundwater data provided
Facility 2	390801	0	0	0	0	0	0	0	Surface water provided
Facility 3	1192127	0	0	26	0	0	0	0	Surface water and groundwater data provided
Facility 4	842068	0	0	0	0	0	0	0	Surface water provided
Facility 5	32430	0	0	326	0	0	0	0	Surface water and groundwater data provided

## 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
Facility 1	1670528	About the same	Quantity is dependent on the generation level.
Facility 2	390360	About the same	Quantity is dependent on the generation level.
Facility 3	1190431	About the same	Quantity is dependent on the generation level.

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
Facility 4	840294	About the same	Quantity is dependent on the generation level.
Facility 5	7506	About the same	Quantity is dependent on the generation level.

#### 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/industrial wastewater treatment plant	Seawater	Groundwater	Wastewater for another organization	Comment
Facility 1	1664559	0	0	5969	0	Surface water and groundwater data is provided.
Facility 2	390355	5	0	0	0	Surface water data is provided.
Facility 3	1190406	0	0	26	0	Surface water and groundwater data is provided.
Facility 4	840294	0	0	0	0	Surface water data is provided.
Facility 5	7180	0	0	326	0	Surface water and groundwater data is provided.

#### 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
Facility 1	3975	About the same	Quantity is dependent on plant generation levels.
Facility 2	442	Lower	Quantity is dependent on plant generation levels.
Facility 3	1722	About the same	Quantity is dependent on plant generation levels.
Facility 4	1774	About the same	Quantity is dependent on plant generation levels.
Facility 5	25250	About the same	Quantity is dependent on plant generation levels.

#### 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	Not verified
Water withdrawals- volume by sources	Not verified	Not verified
Water discharges- total volumes	Not verified	Not verified
Water discharges- volume by destination	Not verified	Not verified
Water discharges- volume by treatment method	Not verified	Not verified
Water discharge quality data- quality by standard effluent parameters	Not verified	Not verified
Water consumption- total volume	Not verified	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?**

<b>Highest level of direct responsibility for water issues</b>	<b>Frequency of briefings on water issues</b>	<b>Comment</b>
Board of individuals/Sub-set of the Board or other committee appointed by the Board	Scheduled- quarterly	Ameren has a corporate process for identifying risks and/or opportunities that result from initiatives to address water; this process allows Ameren's business segments to make prudent decisions, while meeting customers' energy needs in a safe, reliable, efficient and environmentally responsible manner. We assess risks associated with water, including risks related to regulatory changes, changes in customer behavior, reputation, and weather. Ameren has established a Risk Management Steering Committee (RMSC) with responsibility for oversight of enterprise risk management. Ameren's RMSC meets at least every other month. In addition, Ameren management reports regularly on environmental compliance matters to the Nuclear and Operations Committee of Ameren's Board of Directors. The full Board of Directors oversees environmental policy and potential impact of climate-related risks on the company's strategy.

---

**W6.2**

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

Yes

**W6.2a**

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

<b>Influence of water on business strategy</b>	<b>Please explain</b>
Alignment of public policy positions with water stewardship goals	Ameren is committed to water conservation efforts throughout our service territory. In 2016, Ameren continued the implementation of water conservation projects that will save a significant amounts of water annually as a result of investments we continue to make in new equipment and upgrades at facilities in Illinois and Missouri, including our St. Louis headquarters. During 2016 Ameren spent \$109.8 million to develop and implement energy efficiency programs which avoided more than 504,000 MWh of generation and associated water use. Beneficial use of 168,094 tons of fly ash in 2016 resulted in a savings in water used to convey ash to ponds.
Water resource considerations are factored into location planning for new operations	Water resource considerations are factored into all new facility construction. For example Callaway Unit 2 evaluated water use and planned to use alluvial wells and cooling towers for cooling water to minimize effects on the Missouri River including reduced water withdrawal and no entrainment/impingement.
Publicly demonstrated our commitment to water	Ameren's Water Policy - Our company is committed to protecting natural resources, including the preservation of water. Though our facilities are geographically situated in an area of ample water supply, operating divisions within Ameren take into consideration the impact of our operations on both water quality and use. We have made conscious decisions to conserve water in the design and modifications of our facilities, and plan to conserve water further in the future.

**W6.2b**

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

<b>Influence of water on business strategy</b>	<b>Please explain</b>
Increased capital expenditure	Cost expended during 2016 to prepare/plan for new regulations associated with ash handling to eliminate water used for this purpose as well as wastewater treatment

**Influence of water on business strategy****Please explain**

No measurable influence

To date our operations have not been impacted by water negatively.

---

**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?

Yes

---

**W6.3a**

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

**Content****Please explain why this content is included**

Content	Please explain why this content is included
Company-wide	Ameren's Water Policy - Our company is committed to protecting natural resources, including the preservation of water. Though our facilities are geographically situated in an area of ample water supply, operating divisions within Ameren take into consideration the impact of our operations on both water quality and use. We have made conscious decisions to conserve water in the design and modifications of our facilities, and plan to conserve water further in the future.

**W6.4**

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

Water CAPEX (+/- % change)	Water OPEX (+/- % change)	Motivation for these changes
175		Actual spend in 2015 was \$30.2 million. This expenditure is for landfill construction at Ameren Missouri facilities to avoid wet slurry of coal combustion residuals; Clean Water Act Sections 316(a) and 316(b) projects; and wastewater treatment-ELG projects. Actual spend in 2016 was \$52.7 million. This expenditure is for landfill construction at Ameren Missouri facilities to avoid wet slurry of coal combustion residuals; Clean Water Act Sections 316(a) and 316(b) projects; groundwater monitoring; national pollutant discharge elimination system permit process and wastewater treatment-ELG projects---increase due to spend required for planning efforts.

**Further Information**

**Page: W7. Compliance**

**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

---

**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
---------------	----------	----------------------	---	------------------	----------	---------------------

---

**W7.1b**

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

---

**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
---------------------	-------------------------

**Further Information**

**Page: W8. Targets and Initiatives**

**W8.1**

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

Yes, targets and goals

**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
Other: Eliminate the use of water for ash handling at the Labadie Energy Center.	Other: Recommended sector best practice; risk mitigation; water stewardship	Eliminate the use of water for ash handling (by conversion to dry ash management), thereby reducing water use by approximately 4.8 billion gallons a year. This is a multi-year design and construction project.	Other: Percent of project complete	2015	2019	11%
Other: Eliminate the use of water for ash handling at the Rush Island Energy Center.	Other: Recommended sector best practice; risk mitigation; water stewardship	Eliminate the use of water for ash handling (by conversion to dry ash management), thereby reducing water use by approximately 4.8 billion gallons a year.	Other: Percent of project complete	2015	2019	30%
Other: Eliminate the discharge of water for ash handling at the	Other: Recommended sector best practice; risk mitigation; water	Eliminate the discharge of water for ash handling (by conversion to a closed-loop bottom ash and dry fly ash management system) thereby reducing water	Other: Percent of project complete	2015	2021	3%

Category of target	Motivation	Description of target	Quantitative unit of measurement	Base-line year	Target year	Proportion of target achieved, % value
Sioux Energy Center.	stewardship	use by approximately 1.7 billion gallons a year. This is a multi-year design and construction project.				
Other: Design of new wastewater treatment system for Labadie Energy Center.	Other: Recommended sector best practice; risk mitigation; water stewardship	Design of new wastewater treatment systems with potential for recycle use to improve effluent water quality.	Other: Percent of project complete	2014	2019	7%
Other: Design of new wastewater treatment system for Rush Island Energy Center.	Other: Recommended sector best practice; risk mitigation; water stewardship	Design of new wastewater treatment systems with potential for recycle use to improve effluent water quality.	Other: Percent of project complete	2014	2019	7%
Other: Design of new wastewater treatment system for Sioux Energy Center.	Other: Recommended sector best practice; risk mitigation; water stewardship	Design of new wastewater treatment systems with potential for recycle use to improve effluent water quality.	Other: Percent of project complete	2014	2021	4%

#### 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
Strengthen links with local community	Water stewardship	Conserve water as appropriate; consistent with corporate policy	The Ameren Corporate Water Policy and recent changes to environmental regulations enable Ameren to reduce water intensity at its energy centers.

#### 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

**Further Information**

**Module: Linkages/Tradeoff**

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

**W9.1**

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

Yes

**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
Wind and Solar renewable energy generation sources	Linkage	In 2016, Ameren Missouri operated a 5.7 MW (DC) solar park located in O'Fallon, MO, the O'Fallon Renewable Energy Center. Solar energy reduces reliance on water resources compared to coal-fired and/or nuclear generation; however, solar energy is an intermittent resource compared to coal and nuclear generation.

Environmental issues	Linkage or trade-off	Policy or action
Our company is committed to protecting natural resources, including the preservation of water. Capital expenditures are required for our continued efforts in environmental stewardship. Coal Combustion Residuals and Effluent Limitations Guidelines rules will reduce use of water due to the requirements of these rules.	Linkage	These rules/regulations will reduce water consumption. An additional impact will be increased customer rates, creating a burden for our low income customers. As we transition to clean energy in a responsible and affordable manner for our customers, we will reduce water consumption as well.

**Further Information**

**Module: Sign Off**

**Page: Sign Off**

**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
Mark Fronmuller	Ameren Services, Senior Vice President, Innovation and Corporate Strategy	Other: Executive Management Level, Senior Vice President

**W10.2**

Please indicate that your organization agrees for CDP to transfer your publicly disclosed data regarding your response strategies to the CEO Water Mandate Water Action Hub.

**Note: Only your responses to W1.4a (response to impacts) and W3.2c&d (response to risks) will be shared and then reviewed as a potential collective action project for inclusion on the WAH website.**

**By selecting Yes, you agree that CDP may also share the email address of your registered CDP user with the CEO Water Mandate. This will allow the Hub administrator to alert your company if its response data includes a project of potential interest to other parties using water resources in the geographies in which you operate. The Hub will publish the project with the associated contact details. Your company will be provided with a secure log-in allowing it to amend the project profile and contact details.**

No

---

#### **Further Information**

[CDP 2017 Water 2017 Information Request](#)