



DISCLOSURE INSIGHT ACTION

Ameren Corporation - Climate Change 2018

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Ameren Corporation, headquartered in St. Louis, MO, is a public utility holding company with annual revenue of more than \$6 billion and the parent company of Ameren Illinois, Ameren Missouri and Ameren Transmission Company of Illinois (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, all of which, is owned by Ameren Missouri, is approximately 10,300 MWs. In 2017, Ameren Missouri's energy supply was as follows: 71% from coal, 19% from nuclear, 3% from hydro, 1% from purchased wind, 1% from gas and 5% from purchased power.

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

Ameren released its most recent annual Corporate Social Responsibility (CSR) report, available at AmerenCSR.com, on May 3, 2018. 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 since 2005. Ameren is also participating in a voluntary industry initiative, coordinated by the Edison Electric Institute (EEI), to provide electric industry investors with more uniform and consistent environmental, social, governance and sustainability-related (ESG/sustainability) metrics. The result of the initiative, EEI's pilot ESG/sustainability reporting template, is available under the Environmental, Social & Governance section at AmerenInvestors.com.

Ameren's 2017 year end rate base consists of 70% from electric and natural gas distribution investments, 14% coal generation, 13% non-carbon emitting nuclear and renewable generation, and 3% gas generation. These percentages reflect strategic allocation of



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increasing amounts of capital to distribution and transmission businesses and Ameren's view that the energy grid will be increasingly important and valuable to its customers, the communities it serves and its shareholders. This increasing value of the grid is expected to be driven by the need for a smarter, more hardened energy delivery system to incorporate increasingly more distributed and renewable generation sources. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years ahead as it focuses on increased grid and renewable generation investment.

Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 MWs of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. Further, Ameren Missouri has a goal to reduce carbon dioxide (CO₂) emissions 35% by 2030, 50% by 2040 and 80% by 2050, as compared to 2005 levels. More information is available at AmerenMissouri.com/IRP.

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, 2017, and our other reports filed with the Securities and Exchange Commission, 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. Except to the extent required by the federal securities laws, we undertake no obligation to update or revise publicly any forward-looking statements to reflect new information or future events.

C0.2

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



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	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Row 1	January 1 2017	December 31 2017	No	<Not Applicable>
Row 2	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 3	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Row 4	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>

C0.3

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

United States of America

C0.4

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

USD

C0.5

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

Other, please specify (Ameren, an investor owned energy company)

C-EU0.7



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

Row 1

Electric utilities value chain

Electricity generation

Transmission

Distribution

Other divisions

Gas storage, transmission and distribution

Smart grids / demand response

Micro grids

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain

Please select

Other divisions

Please select

C1. Governance

C1.1

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

Yes



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C1.1a

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

Position of individual(s)	Please explain
Board/Executive board	Ameren’s commitment to strong corporate governance includes policies and principles that integrate environmental, social and governance matters into our broader risk management and strategic planning initiatives. The full Board of Directors oversees climate-related and environmental matters as they relate to policy and strategy. The Nuclear and Operations Committee oversees and reviews our operations, including safety, performance, and compliance issues, including environmental and nuclear compliance, and related risk management policies and practices. The Audit and Risk Committee oversees Ameren's risk management, including climate and environmental risks. The Nominating and Corporate Governance Committee oversees governance matters and public affairs considerations with respect to key constituents. The Finance Committee oversees major capital expenditures relating to environmental compliance measures.

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	Reviewing and guiding strategy Reviewing and guiding major plans of action Reviewing and guiding risk management policies	We are committed to operating in a sustainable manner and are doing this by carefully balancing our key responsibilities to our customers and the communities we serve, our co-workers, our shareholders, and the environment. Reflecting this balanced approach to sustainability, Ameren’s commitment to strong corporate governance includes policies and principles that integrate environmental, social and governance matters into our broader risk management and strategic planning initiatives. We are focused on ensuring that our corporate governance and enterprise risk management practices protect and enhance long-term shareholder value and reflect our environmental stewardship. In addition to receiving regular reports from each board committee that oversees the various elements impacted by



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Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
	<p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Monitoring implementation and performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>environmental and climate change matters, the full Board of Directors holds an annual strategy session to consider key risks and opportunities for the company, including those posed by climate change and environmental matters. The Audit and Risk Committee regularly reviews climate and environmental risks and mitigation strategies. The Nuclear and Operations Committee oversees and reviews our operations, including safety, performance, and compliance issues, including environmental and nuclear compliance, and related risk management policies and practices. The Finance Committee maintains oversight of and approves major capital expenditures relating to environmental compliance measures, such as programs to comply with coal combustion residual management plans and the acquisition of renewable generation facilities as outlined in our 2017 Integrated Resource Plan (IRP). An example of how climate-related issues are monitored at Ameren is provided through the development of the 2017 Ameren Missouri IRP. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible fashion. Major components of the plan include: adding at least 700 MW of wind power and 100 MW of solar and retiring over half of Ameren Missouri's coal-fired generating capacity, continuing to offer energy efficiency programs. The IRP included a goal of reducing CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 from 2005 levels. As the plan was under development several meetings were held with the full Board of Directors.</p>

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	More frequently than quarterly



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Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Please select	<Not Applicable>	<Not Applicable>

C1.2a

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

In 2017, the majority of climate-related risks and opportunities were identified by Environmental Services and Generation Resource Planning (ES&GRP) through analysis, research and discussions with business segments. The ES&GRP was part of Ameren Services Innovation & Strategy function. Once a potential risk/opportunity is identified a subject matter expert studies it. That evaluation is robust and includes consideration of regulatory, physical, financial and reputational risk/opportunity factors. This process helps senior management identify risks/opportunities, mitigation strategies and potential financial implications. Recommendations were communicated to the ES&GRP functions, business segments and the Ameren Executive Leadership Team as necessary. Ameren established an Enterprise Risk Management (ERM) program for governance and oversight of enterprise risks and opportunities. Each enterprise risk has an internal owner who is required to periodically review that risk and update it along with the current risk mitigation plan. Risks are evaluated using criteria associated with financial impacts and probability associated with the likelihood of impact. The ERM program is used to ensure corporate objectives are consistent with the overall risk tolerance. It integrates risk assessment into decision making at appropriate levels, while effectively mitigating significant risks. ERM increases accountability for risk identification, assessment and mitigation. 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 the potential impact of climate change on the company’s strategy. Ameren also has an Audit and Risk Committee (ARC) of the Board of Directors for governance and oversight of enterprise risk management. The goals of the ERM program are to enhance the ERM structure, further enable cross segment risk portfolio management, create solid ties to emergent risks, and incorporate detailed analysis for topical areas including environmental and climate-related issues. The Finance Committee of the Board of Directors maintains oversight of and approves major capital expenditures relating to environmental compliance measures, such as programs to comply with coal combustion residual management plans and the acquisition of renewable generation facilities as outlined in our 2017 Integrated Resource Plan (IRP).



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An example of how climate-related issues are monitored at Ameren is the development of the 2017 Ameren Missouri IRP strategy that was led by the ES&GRP. To ensure that we are able to meet customers' long-term energy needs and to address the challenges of our aging fleet of coal-fired generating facilities, Ameren Missouri is implementing a plan designed to satisfy the following objectives: Transition Ameren Missouri's resource mix to a cleaner, more renewable and diverse portfolio in a responsible fashion over the next 20 years; manage the transition of our generation fleet, and plan for eventual closure of aging coal-fired resources at the end of their useful lives, in a way that is beneficial to customers, shareholders, the environment, and our communities; and create and maintain flexibility – financial, economic, technological, regulatory, and environmental – to be able to effectively adapt to changing conditions. Climate change was explicitly considered as a part of that plan development. Major components of the twenty year plan include: significantly expanding renewable generation by adding at least 700 MW of wind power and 100 MW of solar and retiring over half of Ameren Missouri's coal-fired generating capacity, continuing to offer energy efficiency programs to customers and adding demand response programs when they are cost-effective. The IRP included a goal of reducing CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 from 2005 levels. As the plan was under development several meetings were held with the Ameren Executive Leadership Team and the full Board of Directors. Before this plan was filed with the Missouri Public Service Commission in September 2017, the final plan was reported to the Ameren Executive Leadership Team and ultimately was approved by the President of Ameren Missouri, then approved by the Chairman, President and Chief Executive Officer of Ameren Corporation and the full Board of Directors.

C1.3

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

Yes

C1.3a

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

Who is entitled to benefit from these incentives?

Corporate executive team

Types of incentives

Monetary reward



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Activity incentivized

Efficiency target

Comment

Members of the Ameren Leadership Team (ALT) in Customer Operations in Ameren Missouri and members of the Ameren Leadership Team in Ameren Illinois are eligible for annual monetary incentive compensation related to energy-efficiency as follows: Missouri Customer Operations ALT: Achievement of megawatt-hour (mwh) savings associated with energy-efficiency programs. Ameren Illinois ALT: Achievement of mwh savings associated with energy- efficiency programs, low/moderate income energy-efficiency programs and weatherization of single family homes.

Who is entitled to benefit from these incentives?

Management group

Types of incentives

Monetary reward

Activity incentivized

Efficiency target

Comment

Management co-workers in Missouri Customer Operations and management co-workers in Ameren Illinois are eligible for annual monetary incentive compensation related to energy-efficiency as follows: Missouri Customer Operations management: Achievement of megawatt-hour (mwh) savings associated with Energy Efficiency programs. Ameren Illinois management: Achievement of mwh savings associated with energy-efficiency programs, low/moderate income energy-efficiency programs and weatherization of single family homes.

C2. Risks and opportunities

C2.1



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

	From (years)	To (years)	Comment
Short-term	0	5	Short-term: From 0 to 5 years
Medium-term	5	10	Medium-term: From 5 to 10 years
Long-term	10	20	Long-term: From 10 to equal to or greater than 20 years

C2.2

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

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

C2.2a

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

	Frequency of monitoring	How far into the future are risks considered?	Comment
Row 1	Six-monthly or more frequently	>6 years	Ameren has a process for identifying risks and opportunities. This process allows Ameren to make prudent decisions, while integrating ESG matters into the company's broader risk management and strategic planning activities. We assess risks associated with climate, including risks related to regulatory changes, changes in customer behavior, reputation, and weather. The Audit and Risk Committee (ARC) of Ameren's Board of Directors oversees our enterprise risk management framework, which includes strategic and operational risks, as well as the processes, guidelines and policies for identifying, assessing, monitoring and mitigating such risks. Ameren's ARC meets at least five times per year. In addition, Ameren management reports regularly on environmental compliance matters to the



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	Frequency of monitoring	How far into the future are risks considered?	Comment
			Nuclear and Operations Committee of Ameren’s Board of Directors. The full Board of Directors oversees environmental policy and climate-related issues as they relate to policy and strategy.

C2.2b

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

Ameren has a process for identifying risks and opportunities associated with climate-related issues. This process allows Ameren to make prudent decisions, while meeting customers’ energy needs in a safe, reliable, efficient and environmentally responsible manner. We assess climate-related risks, including risks related to regulatory changes, changes in customer behavior, reputation, and weather. Short (from 0 to 5 years), medium (from 5 to 10 years), and long-term (from 10 to 20 years and beyond) risks are part of the identification, assessment, and management processes. The Audit and Risk Committee (ARC) of Ameren's Board of Directors oversees our enterprise risk management (ERM) program. The goals of the ERM program are to enhance the ERM structure, further enable cross segment risk portfolio management, create solid ties to emergent risks, and incorporate detailed analysis of topical areas including environmental. Ameren’s ARC meets at least five times per year.

The majority of the climate-related risks and opportunities are identified by the Environmental Services and Generation Resource Planning (ES&GRP) functions through analysis, research and discussions with business segments. Once a potential risk/opportunity is identified that could impact the company or an asset, a subject matter expert studies it. That evaluation is robust and includes regulatory, physical, financial and reputational risk/opportunity factors. This process helps senior management identify risks/opportunities, mitigation strategies and potential financial implications. Recommendations are communicated to the ES&GRP functions, business segments and the Ameren Executive Leadership Team as necessary. Ameren established an ERM program for governance and oversight of enterprise risks and opportunities. Each enterprise risk has an internal owner who is required to periodically review that risk and update it along with the current risk mitigation plan. The risks are evaluated on criteria associated with financial impacts and the probability associated with the likelihood of the impacts. The ERM process is used to ensure that corporate objectives are consistent with the overall risk tolerance and integrates the risk assessment into decision making at



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appropriate levels, while effectively mitigating significant risks. ERM increases accountability for risk identification, assessment and mitigation. 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 the potential impact of climate change on the company’s strategy. Ameren management reports regularly on environmental compliance matters, including climate-related risks, to the Nuclear and Operations Committee of Ameren’s Board of Directors.

All risks and opportunities are assessed using a consistent risk framework and methodology. Financial impacts can be quantified and related to capital and O&M expenditures. Qualitative impacts are scored using a consistent criteria and can be related to regulatory, safety, and velocity. After the assessment process is complete, the risks and opportunities are reviewed by the risk owner, function/department owner, and ultimately approved by the segment/business line owner. Risks and opportunities are then prioritized by their financial impact to the company or qualitative impact scores. Those with the highest impact are prioritized based on the scoring criteria. The business lines, along with the ARC, perform a review into the top three exposed values in each category/profile type. The review includes a discussion of the risk/opportunity tolerance, residual mitigation plans, and cost to mitigate.

C2.2c

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Ameren has a corporate process for identifying significant risks and opportunities that allow our businesses to make prudent decisions while meeting our customers’ energy needs in a safe, reliable, efficient and environmentally responsible manner, including consideration of climate-related risks. Ameren develops action plans that mitigate risk, manage long-term customer costs and improve shareholder value. As of December 31, 2017, Ameren Missouri's fossil fuel-fired energy centers represented 17% of Ameren's rate base. Our five year plan directs significant investments to transmission and distribution systems and renewable generation. Investments in transmission and distribution allow systems to be more efficient and provide access to renewable resources. The following initiatives are part of our plan: energy efficiency programs; optimize operations at our energy centers; evaluating the potential retirement of existing coal-fired generation and new low/ zero-emitting generation; and acquiring hybrid bucket trucks, natural gas fuel trucks and electric vehicles. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Ameren Illinois increased its investments in energy efficiency in 2017. The law also extend the state’s landmark Illinois Energy Infrastructure Modernization Act which gives Ameren Illinois the ability to continue modernizing its electric distribution system while seeking recovery under a formula ratemaking process.



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	Relevance & inclusion	Please explain
Emerging regulation	Relevant, always included	<p>The uncertainty of emerging regulations, including other environmental and climate-related regulations, makes it difficult to determine how to approach current projects and minimize future costs. Regulations for climate-related issues will drive certain technologies; however, without a clear understanding of the requirements of current and future regulations and laws, investments could occur which may not satisfy requirements established by future laws or regulatory requirements. This may cause the company to make suboptimal investments due to this uncertainty. Ameren uses risk assessment techniques to minimize the likelihood of potential stranded investments due to uncertainty surrounding new investment. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Under the Act, Ameren Illinois has increased its investments in energy efficiency. The Act also includes language to extend the state’s landmark Illinois Energy Infrastructure Modernization Act, passed in 2011, that gives Ameren Illinois the ability to continue investing in modernizing its electric distribution system while seeking recovery under a formula ratemaking process. Ameren Illinois is investigating new technology such as microgrids to better provide stable, long term power to residents and businesses.</p>
Technology	Relevant, always included	<p>The design, implementation, and management of several programs associated with reduction of climate-related risk (e.g., energy efficiency programs, and smart grid programs) create performance and technology risks. The performance risk issues are associated with the potential outcomes and measurable results of programs and the risk that programs do not deliver the expected results, such as sufficient energy savings or improved reliability. The performance of programs may affect Ameren’s ability to recover costs through regulatory proceedings and may also negatively affect customers’ perception of energy efficiency programs. The technology risks are associated with the risk that technologies targeted by a program will not perform as expected and fail to deliver results as expected. For example, a failure of equipment that was installed to reduce carbon emissions would expose Ameren to potential under-recovery of costs and potential penalties. In addition, new technologies that may emerge as a result of increased focus on GHG reduction technologies could change the use of natural gas and electricity. Improvements in technologies, such as plug-in electric vehicles (PEVs) and fuel cells, may increase demand for these products and provide additional stress on Ameren’s delivery system. These demands could require development of additional transmission and distribution systems. These and other technologies could also affect natural gas and electric sales. Ameren addresses these risks by designing programs that contain a mix of initiatives to avoid over-reliance on any one approach, technology or market. This mix includes different services, delivery mechanisms, and incentive types/levels. In 2010, Ameren created the Technology Point of View (POV) Team to address technology expected to have significant future impact on our business. This team offered a framework for evaluating and monitoring potential “game-changing” technologies. In 2015, Ameren’s Innovative Technologies initiative was established to advance innovative technologies and related impacts on customer loyalty, regulatory/policy frameworks, and economic opportunities with a view 15 years into the future. The teams assess various technologies and recommend action plans to create successful change. The Initiative’s efforts complement other related innovation activities occurring across Ameren.</p>



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	Relevance & inclusion	Please explain
Legal	Relevant, sometimes included	EPA has indicated that it intends to regulate carbon emissions from electric generating units and is expected to propose such regulations in August 2018. Based upon various appellate and United States Supreme Court decisions, Ameren believes that climate-related litigation would likely be pre-empted under the Clean Air Act by such EPA regulations. Specifically, the rejection by appellate courts of litigation brought following Hurricane Katrina effectively put to rest the risk of common law claims relating to GHG (i.e., nuisance, reduction in property values) and EPA's decision to regulate power plant CO2 emissions has reduced the likelihood of similar lawsuits. A growing number of courts view such litigation as posing political questions and not proper for judicial review. We expect that such cases will eventually reach the Supreme Court to consider whether courts may properly consider such claims. Ameren will continue to follow this issue and will respond as required. Ameren continually reviews its capital budget to manage its future needs. Consideration is given to potential impacts of climate legislation/regulations as Ameren plans its long term capital needs. Current investment in the grid including smart grid, distribution, and transmission enhances our ability to manage these risks.
Market	Relevant, always included	If market prices do not reflect increased costs associated with needed investments, our Ameren Missouri facilities may sell less energy in the market. However, because Ameren Missouri is a regulated utility it is allowed to request changes in its rate structure as market conditions fluctuate. Other risks to consider include investor uncertainty, which could have financial implications for both the company and for customers. Ameren is committed to its role as a leader in providing a secure energy future for our customers. It is imperative that future business plans continue to be prudent and in the best interest of our customers. There is a risk that customer satisfaction levels will decrease as a result of higher rates due to increased costs associated with actions taken to address climate change. Ameren is taking steps to reduce the risks related to poor recovery mechanisms and customer bad debt expense. Ameren Illinois implemented bad debt riders for both electric and natural gas businesses that guarantee recovery of bad debt expenses and mitigate exposure to consumer bad debt associated with increased costs. Ameren Illinois' rate structure was modified in 2017 pursuant to the Future Energy Jobs Act to mitigate exposure to variations in consumer consumption levels. Ameren's Risk Management Department has in place policies to address fuel price volatility. As the provisions of any final climate legislation/regulation become known, Ameren's risk management group will review those policies to ensure they will be sufficient to address any fuel price volatility that may arise. Robust policies and processes exist to allow Ameren management to review and approve each offset or allowance financial hedge that may be executed. Caps or limits on specific transactions may be implemented to diversify the portfolio of hedges to minimize the negative financial impact associated with any single hedge or offset project.
Reputation	Relevant, always included	Climate-related issues may result in shifts in weather patterns and in storms and precipitation of increased intensity. Changes in the number and frequency of outages as a result of increased weather events could affect Ameren customers' perceptions of our service levels, damaging our reputation. Increased costs as a result of investments to either comply with climate-related issues/regulation or to harden our system may also result in negative customer perceptions because of more frequent and larger rate increases. It is likely that the price of electricity will increase as a result of climate-related regulations. Increased cost could impact customer consumption levels, thereby impacting financial performance. Increased levels of bad debt expense from higher prices may also negatively impact Ameren if the cost recovery through rates



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	Relevance & inclusion	Please explain
		is inadequate. Lower revenues could place limits on the availability of credit which would affect Ameren’s ability to finance activities associated with climate change. Ameren is committed to environmental stewardship. We are advancing our commitment to environmental stewardship through Ameren Missouri's Integrated Resource Plan (IRP) issued in September 2017. The 2017 IRP is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. This plan includes significant increase in our renewable energy portfolio and goals for CO2 emission reductions of 35% by 2030, 50% by 2040, and 80% by 2050.
Acute physical	Relevant, always included	Many physical risks exist and uncertainty is associated around the timing of the physical changes in weather patterns or extreme weather events. In general, most storm events are managed and planned based on available information; however, it is difficult to anticipate the severity of storm events until they occur. Storm events could impact customer reliability and impact ultimate customer sales which also impact cost to the Company. Changes in weather patterns, including those that impact temperatures and precipitation, could significantly affect customer load patterns. These effects may increase or decrease the volume of electric and natural gas sales. In particular, the warming of the climate could increase electricity sales and reduce gas sales for heating load. This could result in increases or decreases in revenues for Ameren, depending on the level of warming. It also could reduce the production from renewable resources. Staying ahead of weather related impacts requires constant monitoring of weather conditions in our territories and requires planning and preparation that is constantly updated and tested. Recovery of weather related expenditures is directly related to preparation, reporting, fulfillment of requirements imposed by regulators. One focus is on vegetation management in conjunction with requirements set forth by our regulators. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Under the Act, Ameren Illinois has increased its investments in energy efficiency. The act also includes language to extend the state’s landmark Illinois Energy Infrastructure Modernization Act, passed in 2011, that gives Ameren Illinois the ability to continue investing in modernizing its electric distribution system while seeking recovery under a formula ratemaking process. Ameren is investing in transmission system improvements to ensure that we will be able to provide reliable, safe service now and in the future. Ameren Missouri initiated the Quantum Weather program to pinpoint severe weather activity on a localized basis. Ameren addressed fuel supply disruption risks via implementation of new fuel inventory policies and the development of alternative delivery options at many of its facilities. Ameren conducted assessments of the potential impact of limited water resources on the operation of our plants along rivers.
Chronic physical	Relevant, always included	Changes in weather patterns, including those that impact temperatures and precipitation, could significantly affect customer load patterns. These effects may increase or decrease the volume of electric and natural gas usage. In particular, the warming of the climate could increase electricity sales and reduce natural gas sales for heating load. This could result in increases or decreases in revenues for Ameren, depending on the level of warming. It also could reduce the production from hydroelectric, wind, and solar renewable resources. It could also impact reliability and increase customer cost. Induced changes in natural resources may include low water levels in rivers; warmer water in rivers due to lower flows and higher ambient temperatures, reduced water quality due to low flows and higher ambient temperatures, increased



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	Relevance & inclusion	Please explain
		flooding events along rivers; and longer growing seasons with increased vegetation. Changes that resulted in flooding could potentially impact transmission systems, distribution systems and substations. This could potentially cause system failure which may result in additional requirements for hardening of the system. Longer growing seasons could result in increased vegetation that could potentially interfere with transmission and distribution lines. Over the next five years (2018-2022) Ameren plans to invest over \$2.6 billion in transmission system improvements to ensure that we will be able to provide reliable, safe service now and in the future. Until the level of temperature change is known it is impossible to estimate the additional cost of repairing equipment which fails due to changing temperatures.
Upstream	Relevant, always included	Ameren’s Market Risk Management Department has in place polices to address fuel price volatility and supply chain risks. As the provisions of any final climate-related legislation/regulation become known, Ameren’s risk management group will review those polices to ensure they will be sufficient to address any fuel price volatility that may arise. Robust policies and processes exist to allow Ameren management to review and approve each offset or allowance financial hedge that may be executed. Caps or limits on specific transactions may be implemented to diversify the portfolio of hedges to minimize the negative financial impact associated with any single hedge investment or offset project.
Downstream	Relevant, always included	Changes in consumer behavior could impact the consumption of electricity and natural gas in our service territory. Consumers could implement life style changes due to climate change as well as in response to higher electricity and natural gas costs. Customers could also install more customer owned renewable generation if policies do not change as quickly as consumers desire them to change. This could result in decreased electric sales. It is likely that the price of electricity will increase as a result of climate-related regulations. Increased cost could impact customer consumption levels thereby impacting financial performance. Natural gas prices may also increase if utilities use that fuel to produce electricity, which could impact customer use of natural gas. In keeping with our commitment to incorporate more renewable energy in our generation portfolio, Ameren Missouri is working to advance community solar and solar partnership pilot projects as wells as a renewable choice program. Under the Community Solar pilot, customers will be able to subscribe for energy from an Ameren Missouri utility scale solar generation project that would be built once customers have subscribed for sufficient capacity. Under the Solar Partnership pilot, Ameren Missouri-owned solar generation projects can be constructed on the sites of business customers. In 2018, Ameren Missouri began offering a new program to increase the use of renewable energy in the state---The Renewable Choice Program is the first in the state designed to help participating customers meet their energy needs from clean, renewable generation. Under the program, customers could subscribe to purchase up to 100% of their average energy usage.

C2.2d

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



DISCLOSURE INSIGHT ACTION

Identifying and assessing risks and opportunities are the first steps towards managing climate-related matters. Ameren's Enterprise Risk Management (ERM) team provides governance and oversight of risks and opportunities. Each enterprise risk has an internal owner who is required to periodically review that risk and update it along with the current risk mitigation plan. Risks are evaluated on criteria associated with financial impacts and probability associated with the likelihood of impact. The ERM program is used to ensure corporate objectives are consistent with the overall risk tolerance and integrates risk assessment into decision making at appropriate levels, while effectively mitigating significant risks. 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 the potential impact of climate-related matters on the company's strategy. Ameren's Audit and Risk Committee (ARC) of the Board of Directors provides governance and oversight of ERM. ARC meets at least five times per year.

An example of how climate-related risks and opportunities are managed at Ameren is demonstrated through the development of the 2017 Ameren Missouri Integrated Resource Plan (IRP). The 2017 IRP is designed to ensure that customers' long-term energy needs are met in a reliable, cost-effective and environmentally responsible manner. Our preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible fashion: significantly expanding renewable generation and retiring over half of our coal-fired generating capacity, and continuing to offer energy efficiency programs to customers and adding demand response programs. The IRP includes a goal of reducing CO2 emissions 35% by 2030, 50% by 2040 and 80% by 2050 compared to 2005 levels.

C2.3

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

Yes

C2.3a

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

Identifier

Risk 1



DISCLOSURE INSIGHT ACTION

Where in the value chain does the risk driver occur?

Direct operations

Risk type

Transition risk

Primary climate-related risk driver

Technology: Costs to transition to lower emissions technology

Type of financial impact driver

Technology: Capital investments in technology development

Company- specific description

The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing an investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Low

Potential financial impact

Explanation of financial impact



DISCLOSURE INSIGHT ACTION

Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. Ameren Missouri is pursuing ownership of at least 700 MWs of wind generation by 2020 (representing an investment of approximately \$1 billion) with multiple wind developers. The capital expenditure plan for power generation is based on the 2017 IRP.

Management method

Ameren has a corporate process for identifying risks and opportunities that allow our businesses to make prudent decisions while meeting our customers' energy needs in a safe, reliable, efficient and environmentally responsible manner. Ameren develops action plans that mitigate risk, manage long-term customer costs and improve shareholder value. As of December 31, 2017, Ameren Missouri fossil fuel-fired energy centers represented, 17% of Ameren's rate base. Our five year plan directs significant investments to transmission and distribution systems and renewable generation. Investments in transmission and distribution allow systems to be more efficient and provide access to renewable resources. The following initiatives are part of our plan: energy efficiency programs; optimize operations at our energy centers; evaluating the potential retirement of existing coal-fired generation and new low/ zero-emitting generation, and acquiring hybrid bucket trucks, natural gas fuel trucks and electric vehicles. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Under the Act, Ameren Illinois has increased its investments in energy efficiency. The law also extend the Illinois Energy Infrastructure and Modernization Act that gives Ameren Illinois the ability to continue modernizing its electric distribution system while seeking recovery under a formula ratemaking process.

Cost of management

1000000000

Comment

Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 megawatts of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. More information is available at AmerenMissouri.com/IRP. Ameren Missouri is pursuing ownership of at least 700 MWs of wind--proposed approximately \$1 billion Ameren Missouri wind generation investments by 2020, with multiple wind developers. The capital expenditure plan for power generation is based on the 2017 IRP.

Identifier

Risk 2

Where in the value chain does the risk driver occur?



DISCLOSURE INSIGHT ACTION

Direct operations

Risk type

Physical risk

Primary climate-related risk driver

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

Type of financial impact driver

Other, please specify (Increased operational cost)

Company- specific description

Changes in the levels of precipitation, including drought, could create potential difficulties with distribution systems from excessive rainfall and flooding to a potential loss of water supply at energy centers due to lower river levels. There is a potential for disruption in fuel supply due to high levels of rainfall and/or flooding. Changes in precipitation could impact the water levels in the Missouri and Mississippi rivers and affect the operation of a number of Ameren Missouri's energy centers. Low water levels in these rivers, due to extreme or prolonged drought, could potentially negatively affect the efficiency of plant operations and a plant's ability to meet thermal discharge effluent regulatory limits that could result in load reductions and/or plant shutdowns. Low water levels could potentially force the installation of cooling towers at the Ameren Missouri energy centers, requiring a large capital investment. Changes in precipitation could cause flooding that would potentially impact transmission and distribution systems. This could potentially cause system failure which may result in additional requirements for hardening of the system.

Time horizon

Unknown

Likelihood

About as likely as not

Magnitude of impact

Low

Potential financial impact

Explanation of financial impact

Changes in weather patterns, impacting temperatures and precipitation, could impact customer load patterns. These effects may increase or decrease the volume of electric sales and natural gas usage. In particular, the warming of the climate could increase electricity sales and reduce gas



DISCLOSURE INSIGHT ACTION

sales for heating load. This could result in increases or decreases to revenues for Ameren, depending on the level of warming. It also could reduce production from hydroelectric, wind, and solar renewable resources.

Management method

Staying ahead of weather-related impacts requires constant monitoring of weather conditions in our territories and requires planning and preparation that is constantly updated and tested. Recovery of weather related expenditures is directly related to preparation, reporting, fulfillment of requirements imposed by regulators. One particular focus is on vegetation management in conjunction with requirements set by our regulators. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Under the Act, Ameren Illinois has increased its investments in energy efficiency. The Act also included language to extend the state's Illinois Energy Infrastructure Modernization Act which gives Ameren Illinois the ability to continue investing in modernizing its electric distribution system while seeking recovery under a formula ratemaking process. Ameren is investing in transmission system improvements to ensure that we will be able to provide reliable, safe service now and in the future. Ameren Missouri initiated the Quantum Weather program to pinpoint severe weather activity on a localized basis. Ameren addressed fuel supply disruption risks via implementation of new fuel inventory policies and the development of alternative delivery options at many of its facilities. Over the next five years (2018-2022) Ameren plans to invest over \$2.6 billion in transmission system improvements to ensure that we will be able to provide reliable and safe service.

Cost of management

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Comment

Service interruptions can occur due to failures of equipment as a result of severe or destructive weather or other causes. The ability of Ameren Missouri and Ameren Illinois to respond promptly to such failures can affect customer satisfaction. If customers, legislators, or regulators have or develop a negative opinion of us and our utility services, this could result in increased costs associated with regulatory oversight and could affect the returns on common equity we are allowed to earn. Additionally, negative opinions about us could make it more difficult for our utilities to achieve favorable legislative or regulatory outcomes. Negative opinions could also result in increased use of distributed generation by our customers. Any of these consequences could adversely affect our results of operations, financial position, and liquidity.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Customer



DISCLOSURE INSIGHT ACTION

Risk type

Transition risk

Primary climate-related risk driver

Reputation: Shifts in consumer preferences

Type of financial impact driver

Reputation: Reduced revenue from decreased demand for goods/services

Company- specific description

Changes in consumer behavior could impact the consumption of electricity and natural gas in our service territory. Consumers could implement life style changes due to climate change as well as a response to higher electricity and natural gas costs. Customers could also install more customer owned renewable generation if policies do not change as quickly as consumers desire them to change. This could result in decreased electric sales. Energy conservation, energy efficiency, distributed generation, energy storage, and other factors that reduce energy demand could adversely affect Ameren’s results of operations, financial position, and liquidity. Without a regulatory mechanism to ensure recovery, declines in energy usage will result in an under-recovery of Ameren Missouri’s revenue requirement.

Time horizon

Medium-term

Likelihood

About as likely as not

Magnitude of impact

Medium

Potential financial impact

Explanation of financial impact

It is likely that the price of electricity would increase as a result of climate-related regulations. Increased cost could impact customer consumption levels thereby impacting financial performance. Increased levels of bad debt expense from higher prices may also negatively impact Ameren if the cost recovery through rates is inadequate. Lower revenues could place limits on the availability of credit which would affect Ameren’s ability to finance activities associated with climate change.

Management method



DISCLOSURE INSIGHT ACTION

Ameren is committed to its role as a leader in providing a secure energy future for our customers. It is imperative that future business plans continue to be prudent and in the best interests of our customers. There is a risk that customer satisfaction levels will decrease as a result of higher rates due to increased costs associated with actions taken to address climate change. Ameren is taking steps to reduce the risks related to poor recovery mechanisms and customer bad debt expense. Ameren Illinois implemented bad debt riders for both electric and natural gas businesses that guarantee recovery of bad debt expenses and mitigate exposure to consumer bad debt associated with increased costs. Ameren Illinois rate structure was modified in 2017 pursuant to the Future Energy Job Act to mitigate exposure to variations in consumer consumption levels. Ameren's Risk Management Department has in place polices to address fuel price volatility. As the provisions of any final climate legislation/regulation become known, Ameren's risk management group will review those polices to ensure they will be sufficient to address any fuel price volatility that may arise. Robust policies and processes exist to allow Ameren management to review and approve each offset or allowance financial hedge that may be executed. Caps or limits on specific transactions may be implemented to diversify the portfolio of hedges to minimize the negative financial impact associated with any single hedge/offsets.

Cost of management

618000000

Comment

In September 2017, the Illinois Commerce Commission approved Ameren Illinois' energy-efficiency savings targets and investments for the 2018 through 2021 period. The plan is designed to save an average of 342 million kilowatthours (kWhs) annually at an average capital cost of \$99 million per year resulting in over 1.36 billion kWhs saved over the four-year period. The plan is designed to save 3.36 million therms of natural gas annually at an average operating cost of \$16 million per year resulting in savings of 13.4 million therms over the four-year period. The plan reaches all customer segments. The Missouri Energy Efficiency Investment Act (MEEIA) established a regulatory framework that, among other things, allows electric utilities to recover costs related to customer energy-efficiency programs. Ameren Missouri's MEEIA 2016 plan was approved with its intended investment of \$158 million and energy savings goal of 570,000 MWhs. This plan runs from Mar. 2016 through Feb. 2019.

C2.4

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

Yes



DISCLOSURE INSIGHT ACTION

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Type of financial impact driver

Returns on investment in low-emission technology

Company- specific description

The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2025; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.

Time horizon

Short-term

Likelihood

About as likely as not



DISCLOSURE INSIGHT ACTION

Magnitude of impact

Medium-low

Potential financial impact

Explanation of financial impact

The financial impact on Ameren of future initiatives related to climate change is unknown. Ameren could generate additional earnings if plant investments are made and these investments receive proper rate treatment. If new regulations cause retirement of less efficient generating plants, Ameren's more efficient generation may benefit from additional sales and increased market prices. In addition, with more renewable resources Ameren can provide additional services and increase revenues. Currently, 17% of our revenues and earnings come from carbon emitting resources. In the future five year planning horizon, significant capital investments will be directed to our transmission and distribution systems and our non-carbon emitting generation resources. The investments in our transmission and distribution systems will allow the systems to be more efficient and provide access to new wind and solar renewable generation resources.

Strategy to realize opportunity

Executing our strategy-Proposed Wind Investment. The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.

Cost to realize opportunity

1000000000

Comment

Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 megawatts of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. More information is available at AmerenMissouri.com/IRP. Ameren Missouri is pursuing ownership of at least 700 MWs of wind---proposed approximately \$1 billion Ameren Missouri wind generation investments by 2020, with multiple wind developers. The CapEx plan for power generation is based on the 2017 IRP.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resilience

Primary climate-related opportunity driver

Other

Type of financial impact driver

Increased market valuation through resilience planning (e.g., infrastructure, land, buildings)

Company- specific description

Investments in transmission and distribution. At year-end 2017, electric and gas transmission and distribution investments comprised 70% of Ameren's regulated infrastructure rate base, a good proxy for Ameren's earnings power, while fossil fuel-fired generation investments comprised only 17% of rate base. These percentages reflect our strategic allocation of increasing amounts of capital to distribution and transmission businesses and our view that the energy grid will be increasingly important and valuable to our customers, the communities we serve and our shareholders. This value is expected to be driven by the need for a smarter, more hardened grid to incorporate increasingly more distributed and renewable generation sources. Further, we expect the percent of rate base represented by fossil fuel-fired generation investments to decline in the years ahead as we focus on transmission and distribution investments and our recently announced preferred plan to increase renewable generation investments.

Time horizon

Current

Likelihood

About as likely as not

Magnitude of impact

Medium-low



DISCLOSURE INSIGHT ACTION

Potential financial impact

Explanation of financial impact

At year-end 2017, electric and gas transmission and distribution investments comprised 70% of Ameren's regulated infrastructure rate base, a good proxy for Ameren's earnings power, while fossil fuel-fired generation investments comprised only 17% of rate base. These percentages reflect our strategic allocation of increasing amounts of capital to distribution and transmission businesses and our view that the energy grid will be increasingly important and valuable to our customers, the communities we serve and our shareholders. This value is expected to be driven by the need for a smarter, more hardened grid to incorporate increasingly more distributed and renewable generation sources. Further, we expect the percent of rate base represented by fossil fuel-fired generation investments to decline in the years ahead as we focus on transmission and distribution investments and our recently announced preferred plan to increase renewable generation investments.

Strategy to realize opportunity

Over the next five years (2018-2022) Ameren plans to invest over \$2.6 billion in transmission system improvements to ensure that we will be able to provide reliable, safe service now and in the future. There is a strong long-term infrastructure investment pipeline beyond 2022.

Cost to realize opportunity

2600000000

Comment

Ameren provides safe, reliable, affordable, and cleaner energy that is foundational to the well-being and security of millions of people as well as the economy of our region and country. Over the next five years (2018-2022) Ameren plans to invest over \$2.6 billion in transmission system improvements to ensure that we will be able to provide reliable, safe service now and in the future. There is a strong long-term infrastructure investment pipeline beyond 2022.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Customer

Opportunity type

Products and services



DISCLOSURE INSIGHT ACTION

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Type of financial impact driver

Better competitive position to reflect shifting consumer preferences, resulting in increased revenues

Company- specific description

To educate and help customers become more efficient users of energy, Ameren Missouri and Ameren Illinois have implemented robust energy-efficiency programs. In Missouri, the Missouri Energy Efficiency Investment Act (MEEIA) established a regulatory framework that, among other things, allows electric utilities to recover costs (both program costs and margin reductions resulting from energy-efficiency programs) related to MoPSC-approved customer energy-efficiency programs. In February 2016, the MoPSC approved Ameren Missouri's MEEIA 2016 plan with its intended investment of \$158 million and energy savings goal of 570,000 MWhs. This plan, which runs from March 2016 through February 2019, includes residential customer energy-efficiency programs ranging from traditional heating and cooling rebates to structured efforts aimed at changing customer energy behaviors. Business customer programs can cover any project that cost-effectively saves energy. State law requires Ameren Illinois to offer customer energy-efficiency programs. In September 2017, the Illinois Commerce Commission approved Ameren Illinois' energy-efficiency savings targets and investments for the 2018 through 2021 period. The Commission-approved plan is designed to save an average of 342 million kilowatthours (kWhs) annually at an average capital cost of \$99 million per year resulting in over 1.36 billion kWhs saved over the four-year period. Additionally, the plan is designed to save 3.36 million therms of natural gas annually at an average operating cost of \$16 million per year resulting in savings of 13.4 million therms over the four-year period. The plan reaches all customer segments with a strong focus on and significant budget allocations for serving low and moderate income residential customers. Programs for residential customers include traditional heating, cooling, lighting and insulation rebates. Business customers may receive incentives for any equipment or improvement that cost-effectively saves energy. The electric energy-efficiency program investments and the return on those investments are collected from customers through a rate rider, as are the operating costs of the natural gas energy-efficiency programs.

Time horizon

Current

Likelihood

About as likely as not

Magnitude of impact

Medium

Potential financial impact



DISCLOSURE INSIGHT ACTION

Explanation of financial impact

Ameren is committed in providing a secure energy future for our customers. It is imperative that future business plan strategies continue to be prudent and in the best interest of our customers.

Strategy to realize opportunity

In Missouri, the Missouri Energy Efficiency Investment Act (MEEIA) established a regulatory framework that, among other things, allows electric utilities to recover costs (both program costs and margin reductions resulting from energy-efficiency programs) related to MoPSC-approved customer energy-efficiency programs. In February 2016, the MoPSC approved Ameren Missouri's MEEIA 2016 plan with its intended investment of \$158 million and energy savings goal of 570,000 MWhs. This plan, which runs from March 2016 through February 2019, includes residential customer energy-efficiency programs ranging from traditional heating and cooling rebates to structured efforts aimed at changing customer energy behaviors. Business customer programs can cover any project that cost-effectively saves energy. State law requires Ameren Illinois to offer customer energy-efficiency programs. In September 2017, the Illinois Commerce Commission approved Ameren Illinois' energy-efficiency savings targets and investments for the 2018 through 2021 period. The Commission-approved plan is designed to save an average of 342 million kilowatthours (kWhs) annually at an average capital cost of \$99 million per year resulting in over 1.36 billion kWhs saved over the four-year period. Additionally, the plan is designed to save 3.36 million therms of natural gas annually at an average operating cost of \$16 million per year resulting in savings of 13.4 million therms.

Cost to realize opportunity

618000000

Comment

In September 2017, the Illinois Commerce Commission approved Ameren Illinois' energy-efficiency savings targets and investments for the 2018 through 2021 period. The plan is designed to save an average of 342 million kilowatthours (kWhs) annually at an average capital cost of \$99 million per year resulting in over 1.36 billion kWhs saved over the four-year period. The plan is designed to save 3.36 million therms of natural gas annually at an average operating cost of \$16 million per year resulting in savings of 13.4 million therms over the four-year period. The plan reaches all customer segments. The Missouri Energy Efficiency Investment Act (MEEIA) established a regulatory framework that, among other things, allows electric utilities to recover costs related to customer energy-efficiency programs. Ameren Missouri's MEEIA 2016 plan was approved with its intended investment of \$158 million and energy savings goal of 570,000 MWhs. This plan runs from Mar. 2016 through Feb. 2019.

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

	Impact	Description
Products and services	Impacted	Ameren has a corporate process for identifying significant risks and opportunities that allow our business to make prudent decisions while meeting our customers' energy needs in a safe, reliable, efficient and environmentally responsible manner, including climate-related risks. Ameren develops action plans that mitigate risk, manage long-term customer costs and improve shareholder value. The five year planning horizon directs significant investments to transmission and distribution systems (\$2.6 billion) and non-carbon emitting generation. Investments in transmission and distribution allow systems to be more efficient and provide access to renewable resources. The following initiatives are part of the solution: energy efficiency programs; optimize operations at our energy centers; planned retirement of existing coal-fired generation and installation of new low/ zero-emitting generation, and acquiring hybrid bucket trucks, natural gas fuel trucks and electric vehicles. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Ameren Illinois increased its investments in energy efficiency in 2017. The law also extend the state's landmark Illinois Energy Infrastructure Modernization Act that gives Ameren Illinois the ability to continue modernizing its electric distribution system while seeking recovery under a formula ratemaking process. The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.
Supply chain and/or value chain	Impacted	Ameren's Market Risk Management Department has in place polices to address fuel price volatility and supply chain risks. As the provisions of any final climate-related legislation/regulation become known, Ameren's risk management group will review those polices to ensure they will be sufficient to address any fuel price volatility that may arise. Robust policies and processes exist to allow Ameren management to review and approve each offset or allowance financial hedge that may be executed. Caps or limits on specific transactions may be implemented to diversify the portfolio of hedges to minimize the negative financial impact associated with any single hedge investment or offset project.
Adaptation and mitigation activities	Impacted	Changes in weather patterns, impacting temperatures and precipitation, could significantly impact customer load patterns. These effects may increase or decrease the volume of electric sales and natural gas usage. In particular, the warming of the climate could increase electricity sales and reduce natural gas sales for heating load. This could result in increases or decreases in revenues for Ameren, depending on the level of warming. It also could reduce energy production from hydroelectric, wind, and solar renewable resources. It could also impact reliability and increase customer cost. Induced changes in natural resources may include low water levels in rivers; warmer water in rivers due to lower flow and higher ambient temperatures, reduced water quality due to low flows and higher ambient temperatures; increased flooding events along



DISCLOSURE INSIGHT ACTION

	Impact	Description
		rivers; and longer growing seasons with increased vegetation. Changes that resulted in flooding could potentially impact transmission systems, distribution systems and substations. This could potentially cause system failure which may result in additional requirements for hardening of the system. Longer growing seasons could result in increased vegetation that could potentially interfere with transmission and distribution lines. Over the next five years (2018-2022) Ameren plans to invest over \$2.6 billion in transmission system improvements to ensure that we will be able to provide reliable, safe service now and in the future. Until the level of temperature change is known it is impossible to estimate the additional cost of repairing equipment which fails from the changing temperatures.
Investment in R&D	Impacted	Ameren invested in research for alternative forms of generation. In 2017, Ameren spent over \$395,000 for CO2 emissions reduction research, including the EPRI Electrification Portfolio Assessment, Social Cost of Carbon Project, Integration of Distributed Energy Program, Energy Sustainability Interest Group, Sustainability Benchmarking Project, Feasibility Study for Microgrids, Energy Storage Program, and Grid Modernization Program. In addition to EPRI activities, Ameren participated in the Missouri S&T Microgrid Consortium, The University of Illinois Distributed Generation Analysis, and the Gas Technology Institute Emerging Technology Program. In 2017, Ameren announced the launch of Ameren Accelerator, an innovative public-private partnership with the University of Missouri System, UMSL Accelerate and Capital Innovators, that will assess, mentor and invest in energy technology startup companies. The unique partnership, one of the first of its kind in the United States, is also the St. Louis region's first to focus on energy technologies. Leveraging the expertise of all of the partners, the goals of this program are to better position Ameren to meet its customers' future energy needs and expectations, create new jobs through these start-up companies and provide university students opportunities to be more engaged in the energy business. Seven companies were selected to participate in the 2017 Ameren Accelerator. Each company received up to \$100,000 in seed funding in addition to intensive mentoring, technical assistance, and facilities and networking connections from the Ameren Accelerator partners during the 12-week program. Selected companies include /blossom, Hyperion Sensors, Omega Grid, Rebate Bus, SensrTrx, Switched Source and WIFIPUG.
Operations	Impacted	Ameren has a corporate process for identifying significant risks and opportunities that allow our business to make prudent decisions while meeting our customers' energy needs in a safe, reliable, efficient and environmentally responsible manner, including climate-relates risks. Ameren develops action plans that mitigate risk, manage long-term customer costs and improve shareholder value. As of December 31, 2017, Ameren Missouri's fossil fuel-fired energy centers represented 17% of Ameren's rate base. The five year planning horizon directs significant investments to transmission and distribution systems and non-carbon emitting generation. Investments in transmission and distribution allow systems to be more efficient and provide access to renewable resources. The following initiatives are part of the solution: energy efficiency programs; optimize operations at our energy centers; evaluating the potential retirement of existing coal-fired generation and new renewable generation, and acquiring hybrid bucket trucks, natural gas fuel trucks and electric vehicles. Ameren Illinois joined with energy stakeholders in supporting the Future Energy Jobs Act. Ameren Illinois increased its investments in energy efficiency in 2017. The law also extend the state's landmark Illinois Energy Infrastructure Modernization Act that gives Ameren Illinois the ability to continue modernizing its electric distribution system while seeking recovery under a formula ratemaking process. The 2017 Integrated Resource Plan is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred



DISCLOSURE INSIGHT ACTION

	Impact	Description
		plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.
Other, please specify	Please select	

C2.6

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

	Relevance	Description
Revenues	Impacted	Revenues are factored into Ameren's financial planning and risk management processes and are regularly considered. For example, Ameren and Ameren Illinois may not be able to execute their electric transmission investment plans or to realize the expected return on those investments. Ameren, through ATXI and Ameren Illinois, is investing significant capital resources in electric transmission. These investments are based on the Federal Energy Regulatory Commission's (FERC's) regulatory framework and a rate of return on common equity that is currently higher than that allowed by our state commissions. However, the FERC regulatory framework and rate of return are subject to changes, including changes as a result of third-party complaints and challenges at the FERC. The regulatory framework may be less favorable or the rate of return may be lower in the future. A pending complaint case filed with the FERC in February 2015 could reduce the allowed return on common equity and could require customer refunds. A 50 basis point reduction in the FERC allowed return on common equity would reduce Ameren's and Ameren Illinois' earnings by an estimated \$8 million and \$4 million, respectively, based on each company's 2018 projected rate base. A significant portion of Ameren's electric transmission investments consists of three separate ATXI projects, which have been approved by Midcontinent Independent System Operator, Inc. (MISO, a regional transmission organization) as multi-value projects. As of December 31, 2017, ATXI's expected remaining investment in all three projects was approximately \$300 million, with the total investment expected to be more than \$1.6 billion. The last of these projects is expected to be completed in 2019. The inability of ATXI to complete these three projects on time and within projected cost estimates could adversely affect Ameren's results of operations, financial position, and liquidity. For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.



DISCLOSURE INSIGHT ACTION

	Relevance	Description
Operating costs	Impacted	Operating costs are factored into Ameren's financial planning and risk management processes and are regularly considered. For example, the construction of, and capital improvements to, our electric and natural gas utility infrastructure involve substantial risks. These risks include escalating costs, unsatisfactory performance by the projects when completed, the inability to complete projects as scheduled, cost disallowances by regulators, and the inability to earn an adequate return on invested capital, any of which could result in higher costs and facility closures. We expect to incur significant capital expenditures to improve our electric and natural gas utility infrastructure with a major portion direct to our transmission and distribution businesses. We estimate that we will invest up to \$11.4 billion (Ameren Missouri – up to \$4.5 billion; Ameren Illinois – up to \$6.6 billion; ATXI – up to \$0.3 billion) of capital expenditures from 2018 through 2022. These estimates do not reflect the potential additional investments identified in Ameren Missouri's Integrated Resource Plan, which could represent incremental investments of approximately \$1 billion through 2020 and are subject to regulatory approval. They also do not reflect potential incremental capital investments supported by newly enacted Missouri legislation of approximately \$1 billion over the 2019 to 2023 period, nor do they reflect potential investments in new renewable sources of generation under Ameren Missouri's Renewable Choice Program. For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.
Capital expenditures / capital allocation	Impacted	Capital expenditures/capital allocation are factored into Ameren's financial planning and risk management processes and are regularly considered. For example, the construction of, and capital and capital improvements to, our electric and natural gas utility infrastructure involve substantial risks. These risks include escalating costs, unsatisfactory performance by the projects when completed, the inability to complete projects as scheduled, cost disallowances by regulators, and the inability to earn an adequate return on invested capital, any of which could result in higher costs and facility closures. We expect to incur significant capital expenditures to improve our electric and natural gas utility infrastructure with a major portion directed to our transmission and distribution businesses.. We estimate that we will invest up to \$11.4 billion (Ameren Missouri – up to \$4.5 billion; Ameren Illinois - up to \$6.6 billion; ATXI – up to \$0.3 billion) of capital expenditures from 2018 through 2022. These estimates do not reflect the potential additional investments identified in Ameren Missouri's Integrated Resource Plan (IRP), which could represent incremental investments of approximately \$1 billion through 2020 and are subject to regulatory approval. They also do not reflect potential incremental capital investments supported by newly enacted Missouri legislation of approximately \$1 billion over the 2019 to 2023 period, nor do they reflect potential investments in new renewable sources of generation under Ameren Missouri's Renewable Choice Program. The 2017 IRP is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan includes: the addition of at least 700 MW of wind generation by 2020; the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels. For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.



DISCLOSURE INSIGHT ACTION

	Relevance	Description
Acquisitions and divestments	Not yet impacted	In 2017, Ameren did not have any acquisitions or divestments. The strategic planning activities in this area are highly confidential.
Access to capital	Impacted	Access to capital is factored into Ameren's financial planning and risk management processes and is regularly considered. Our businesses are dependent on our ability to access the capital markets successfully. We might not have access to sufficient capital in the amounts and at the times needed. We rely on short-term and long-term debt as significant sources of liquidity and funding for capital requirements not satisfied by our operating cash flow, as well as to refinance long-term debt. By the end of 2019, \$772 million and \$312 million of senior secured notes are scheduled to mature at Ameren Missouri and Ameren Illinois, respectively. Ameren Missouri and Ameren Illinois expect to refinance these senior secured notes. In addition, the Ameren Companies may refinance a portion of their short-term debt with long-term debt in 2018 and 2019. The inability to raise debt or equity capital at reasonable terms, or at all, could negatively affect our ability to maintain and to expand our businesses. Events beyond our control, such as a recession or extreme volatility in the debt, equity, or credit markets, might create uncertainty that could increase our cost of capital or impair or eliminate our ability to access the debt, equity, or credit markets, including our ability to draw on bank credit facilities. Any adverse change in our credit ratings could reduce access to capital and trigger collateral postings and prepayments. Such changes could also increase the cost of borrowing and the costs of fuel, power, and natural gas supply, among other things, which could adversely affect our results of operations, financial position, and liquidity. For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.
Assets	Impacted	Existing assets are factored into Ameren's financial planning and risk management processes and are regularly considered. For example, significant portions of our electric generation, transmission, and distribution facilities and natural gas transmission and distribution facilities are aging. This aging infrastructure may require significant additional maintenance or replacement that could adversely affect our results of operations, financial position, and liquidity. Our aging infrastructure may pose risks to system reliability and expose us to expedited or unplanned significant capital expenditures and operating costs. All of Ameren Missouri's coal-fired energy centers were constructed prior to 1978, and the Callaway energy center began operating in 1984. The age of these energy centers increases the risks of unplanned outages, reduced generation output, and higher maintenance expense. If, at the end of its life, an energy center's cost has not been fully recovered, Ameren Missouri may be adversely affected if the Missouri Public Service Commission (MoPSC) does not allow such cost to be recovered in rates. Ameren Missouri may also be adversely affected if the MoPSC does not allow full or timely recovery of decommissioning costs associated with the retirement of an energy center. Aging transmission and distribution facilities are more prone to failure than new facilities, which results in higher maintenance expense and the need to replace these facilities with new infrastructure. Even if the system is properly maintained, its reliability may ultimately deteriorate and negatively affect our ability to serve our customers, which could result in increased costs associated with regulatory oversight. The frequency and duration of customer outages are among the Illinois Energy Infrastructure Modernization Act performance standards. Any failure to achieve these standards will result in a reduction in Ameren Illinois' allowed return on equity on electric distribution assets. It is difficult to quantify the potential impact to our assets. For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.



DISCLOSURE INSIGHT ACTION

	Relevance	Description
Liabilities	Impacted	Liabilities are factored into Ameren's financial planning and risk management processes and are regularly considered. For example, we are subject to various environmental laws and regulations. Significant capital expenditures are required to achieve and to maintain compliance with these laws and regulations. Failure to comply with these laws and regulations could result in the closing of facilities, alterations to the manner in which these facilities operate, increased operating costs, or exposure to fines and liabilities, all of which could adversely affect our results of operations, financial position, and liquidity. We are subject to various environmental laws and regulations enforced by federal, state, and local authorities. The development and operation of electric generation, transmission, and distribution facilities and natural gas storage, transmission, and distribution facilities can trigger compliance obligations with respect to environmental laws and regulations. These laws and regulations address emissions, discharges to water, water usage, impacts to air, land, and water, and chemical and waste handling. Complex and lengthy processes are required to obtain and renew approvals, permits, and licenses for new, existing or modified facilities. It is difficult to quantify the potential liabilities. The 2017 Ameren Missouri Integrated Resource Plan identified a cost projection of approximately \$0.7 billion to comply with current environmental regulations. For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.
Other	Please select	

C3. Business Strategy

C3.1

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

Yes

C3.1a

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

Yes, qualitative and quantitative

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



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

Yes

C3.1c

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

Ameren's strategy is to invest in regulated energy infrastructure, continuously improve performance and advocate for responsible energy policies to deliver superior customer and shareholder value. As a part of that effort, Ameren continues to develop initiatives to address climate-related issues, while managing long-term customer costs. At Ameren, we are committed to operating in a sustainable manner and we are doing this by carefully balancing our key responsibilities to: our customers and the communities; our co-workers; our shareholders; and the environment. Ameren is focused on ensuring that its corporate governance practices protect and enhance long-term shareholder value. Reflecting its balanced approach to sustainability, Ameren's commitment to strong corporate governance includes policies and principles that integrate environmental, social and governance matters into the Company's broader risk management and strategic planning initiatives. By year end of 2022, we estimate our rate base will include 75% from electric and natural gas distribution with coal generation declining to 12%.

The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; a 160% increase in renewable generation capability over current levels; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years ahead as it focuses on increased grid and renewable generation investment. In addition, Ameren Missouri has a goal to reduce CO₂ emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.



DISCLOSURE INSIGHT ACTION

State law requires Ameren Illinois to offer customer energy-efficiency programs. In September 2017, the Illinois Commerce Commission approved Ameren Illinois' energy-efficiency savings targets and investments for the 2018 through 2021 period. The plan is designed to save an average of 342 million kilowatthours (kWhs) annually at an average capital cost of \$99 million per year resulting in over 1.36 billion kWhs saved over the four-year period. Additionally, the plan is designed to save 3.36 million therms of natural gas annually at an average operating cost of \$16 million per year resulting in savings of 13.4 million therms over the four-year period. The plan reaches all customer segments with a strong focus on and significant budget allocations for serving low and moderate income residential customers. Programs for residential customers include traditional heating, cooling, lighting and insulation rebates. Business customers may receive incentives for any equipment or improvement that cost-effectively saves energy. The electric energy-efficiency program investments and the return on those investments are collected from customers through a rate rider, as are the operating costs of the natural gas energy-efficiency programs.

The Missouri Energy Efficiency Investment Act (MEEIA) established a regulatory framework that, among other things, allows electric utilities to recover costs (both program costs and margin reductions resulting from energy-efficiency programs) related to customer energy-efficiency programs. In February 2016, Ameren Missouri's MEEIA 2016 plan was approved with its intended investment of \$158 million and energy savings goal of 570,000 MWhs. This plan, which runs from March 2016 through February 2019, includes customer energy-efficiency programs ranging from traditional heating and cooling rebates to structured efforts aimed at changing customer energy behaviors.

At year-end 2017, electric and gas transmission and distribution investments comprised 70% of Ameren's regulated infrastructure rate base, a good proxy for Ameren's earnings power, while fossil fuel-fired generation investments comprised only 17% of rate base. These percentages reflect our strategic allocation of increasing amounts of capital to distribution and transmission businesses and our view that the energy grid will be increasingly important and valuable to our customers, the communities we serve and our shareholders. This value is expected to be driven by the need for a smarter, more hardened grid to incorporate increasingly more distributed and renewable generation sources. Further, we expect the percent of rate base represented by fossil fuel-fired generation investments to decline in the years ahead as we focus on transmission and distribution investments and our recently announced preferred plan to increase renewable generation investments.

Ameren's Efficient Electrification initiative is focused on helping our customers use electricity in ways that provide a broad range of benefits including reduced greenhouse gas emissions, lower overall energy costs, improved productivity and maximizing the utilization of existing electric infrastructure. Initial programs are focused on facilitating the adoption of electric on-road and off-road vehicles and machinery. The on-road program provides support for installation of charging stations, as well as incentives to increase



DISCLOSURE INSIGHT ACTION

the market penetration of electric vehicles. The off-road program focuses on customers with significant material handling functions or stationary energy consumption. Future programs are expected to focus on efficient electrification of industrial processes such as heating, drying and curing of materials and food production and processing. Further, Ameren is committed to bringing the benefits of efficient electrification to our employees. We have installed over 80 vehicle charging stations at our campus locations and 75 employees have used rebates to purchase plug-in electric vehicles. We are also replacing a portion of our campus security fleet with plug-in electric vehicles.

C3.1d

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

Climate-related scenarios	Details
Other, please specify (Internally developed)	<p>Ameren includes a carbon price in its evaluation of long-term resource planning for its Missouri regulated business through its Integrated Resource Plan (IRP) process (i.e., Scope 1 emissions from generation). The price is included to represent the expectation for either regulation of carbon dioxide emissions through a mechanism that establishes an explicit price for carbon dioxide emissions, such as a carbon tax or cap-and-trade program, or through voluntary emission credit trading markets established by RTOs or state or regional alliances. For its 2017 IRP, Ameren Missouri used a base and high scenario price of \$3.71 per short ton (\$3.37 per metric ton) starting in 2025 and escalating at approximately 12% per year through the end of the study period, 2037. The prices used in the IRP process are established based on discussions with Company executives involved in environmental, regulatory and legislative activities. Establishment of the carbon price assumptions includes a review of price assumptions used or produced by other utilities, policy analysts, and government agencies, including the Social Cost of Carbon estimates used by the federal government. Ameren Missouri’s 2017 IRP describes in detail the process used to establish carbon price assumptions for its evaluations at that time. The same general process continues to be used. Inclusion of a carbon price affects Ameren Missouri’s evaluation of both new and existing generation resources, including potential retirement of fossil generation, and also increases the cost effectiveness of energy efficiency measures. The 2017 IRP is designed to ensure that customers’ long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren’s preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing an investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri’s coal-fired generation capacity over the next twenty years; continuation of cost-effective customer energy-efficiency programs [our current Missouri three-year energy-efficiency plan has an energy savings goal of 570,000 megawatt hours); and continued development of smart grid, communications and other advanced technologies. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years ahead as it focuses on increased grid and renewable generation investment. In addition, Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels. During the first quarter of 2019, Ameren will issue a climate risk report that includes analysis of the impact of technological and policy changes that are</p>



DISCLOSURE INSIGHT ACTION

Climate-related scenarios	Details
	consistent with limiting global warming. Among other things, this report will leverage the results of our participation in the Electric Power Research Institute’s study regarding utility industry scenario analyses with respect to climate change, which is expected to be complete in late 2018.

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

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

At Ameren, we are committed to operating in a sustainable manner and we are doing this by carefully balancing our key responsibilities to: our customers and the communities; our co-workers; our shareholders; and the environment. Ameren is focused on ensuring that its corporate governance practices protect and enhance long-term shareholder value. Reflecting its balanced approach to sustainability, Ameren's commitment to strong corporate governance includes policies and principles that integrate environmental, social and governance matters into the Company's broader risk management and strategic planning initiatives. Highlights from our low-carbon transition plan include transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible fashion; energy-efficiency programs; and electric and gas transmission and distribution investments.

The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers’ long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years ahead as it focuses on increased grid and renewable generation investment. In addition, Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels.



DISCLOSURE INSIGHT ACTION

State law requires Ameren Illinois to offer customer energy-efficiency programs. In September 2017, the Illinois Commerce Commission approved Ameren Illinois' energy-efficiency savings targets and investments for the 2018 through 2021 period. The plan is designed to save an average of 342 million kilowatthours (kWhs) annually at an average capital cost of \$99 million per year resulting in over 1.36 billion kWhs saved over the four-year period. Additionally, the plan is designed to save 3.36 million therms of natural gas annually at an average operating cost of \$16 million per year resulting in savings of 13.4 million therms over the four-year period. The plan reaches all customer segments with a strong focus on and significant budget allocations for serving low and moderate income residential customers. Programs for residential customers include traditional heating, cooling, lighting and insulation rebates. Business customers may receive incentives for any equipment or improvement that cost-effectively saves energy. The electric energy-efficiency program investments and the return on those investments are collected from customers through a rate rider, as are the operating costs of the natural gas energy-efficiency programs.

The Missouri Energy Efficiency Investment Act (MEEIA) established a regulatory framework that, among other things, allows electric utilities to recover costs (both program costs and margin reductions resulting from energy-efficiency programs) related to customer energy-efficiency programs. In February 2016, Ameren Missouri's MEEIA 2016 plan was approved with its intended investment of \$158 million and energy savings goal of 570,000 MWhs. This plan, which runs from March 2016 through February 2019, includes customer energy-efficiency programs ranging from traditional heating and cooling rebates to structured efforts aimed at changing customer energy behaviors.

At year-end 2017, electric and gas transmission and distribution investments comprised 70% of Ameren's regulated infrastructure rate base, a good proxy for Ameren's earnings power, while fossil fuel-fired generation investments comprised only 17% of rate base. These percentages reflect our strategic allocation of increasing amounts of capital to distribution and transmission businesses and our view that the energy grid will be increasingly important and valuable to our customers, the communities we serve and our shareholders. This value is expected to be driven by the need for a smarter, more hardened grid to incorporate increasingly more distributed and renewable generation sources. Further, we expect the percent of rate base represented by fossil fuel-fired generation investments to decline in the years ahead as we focus on transmission and distribution investments and our recently announced preferred plan to increase renewable generation investments.

C4. Targets and performance

C4.1



DISCLOSURE INSIGHT ACTION

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

Absolute target

C4.1a

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

Target reference number

Abs 1

Scope

Scope 1

% emissions in Scope

1

% reduction from base year

1

Base year

2016

Start year

2017

Base year emissions covered by target (metric tons CO₂e)

26795627

Target year

2017

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)



DISCLOSURE INSIGHT ACTION

63

Target status

Underway

Please explain

Ameren Missouri Energy Efficiency Electric Programs 02/01/2016-02/28/2019. The program is underway. 2017 Savings Target: 197 GWh (approximately 155,000 metric tons of CO₂, assuming CO₂ emission factor of 0.73 metric ton/MWh and adjusting for line losses) 2017 Savings Actual: 321 GWh (approximately 253,900 metric tons of CO₂, assuming CO₂ emission factor of 0.73 metric ton/MWh and adjusting for line losses)

Target reference number

Abs 2

Scope

Scope 1

% emissions in Scope

1

% reduction from base year

1

Base year

2016

Start year

2017

Base year emissions covered by target (metric tons CO₂e)

26795627

Target year

2017



DISCLOSURE INSIGHT ACTION

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)

9

Target status

Underway

Please explain

Ameren Illinois Energy Efficiency Electric Programs (Planning Year 9: 06/01/2016-05/31/2017) Savings Target: 385,964 MWh (approximately 304,000 metric tons of CO₂, assuming CO₂ emission factor of 0.73 metric ton/MWh and adjusting for line losses). 2017 Savings Actual: 353 GWh (approximately 278,900 metric tons of CO₂, assuming CO₂ emission factor of 0.73 metric ton/MWh and adjusting for line losses) The actual savings was below the target by approximately 9%. The program is underway.

Target reference number

Abs 3

Scope

Scope 1

% emissions in Scope

1

% reduction from base year

1

Base year

2016

Start year

2017

Base year emissions covered by target (metric tons CO₂e)



DISCLOSURE INSIGHT ACTION
26795627

Target year
2017

Is this a science-based target?
No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)
63

Target status
Underway

Please explain
Ameren Illinois Energy Efficiency Natural Gas Programs (Planning Year 9: 06/01/2016-05/31/2017) Savings Target: 4,948,235 therms (approximately 26,200 metric tons of CO₂) 2017 Savings Actual: 5,868,915 therms (approximately 31,100 metric tons of CO₂) The program is underway.

Target reference number
Abs 4

Scope
Scope 1

% emissions in Scope
35

% reduction from base year
35

Base year
2005



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Start year

2018

Base year emissions covered by target (metric tons CO₂e)

35754207

Target year

2030

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)

Target status

Underway

Please explain

Ameren Missouri 2017 Integrated Resource Plan (IRP). The 2017 IRP is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; a 160% increase in renewable generation capability over current levels; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years ahead as it focuses on increased grid and renewable generation investment. In addition, Ameren Missouri has a goal to reduce CO₂ emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels. The 2005 base year reported is CO₂ not CO₂e.

Target reference number

Abs 5

Scope

Scope 1



DISCLOSURE INSIGHT ACTION

% emissions in Scope

50

% reduction from base year

50

Base year

2005

Start year

2018

Base year emissions covered by target (metric tons CO₂e)

35754207

Target year

2040

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)

Target status

Underway

Please explain

Ameren Missouri 2017 Integrated Resource Plan (IRP). The 2017 IRP is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; a 160% increase in renewable generation capability over current levels; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years



DISCLOSURE INSIGHT ACTION

ahead as it focuses on increased grid and renewable generation investment. In addition, Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels. The 2005 base year reported is CO2 not CO2e.

Target reference number

Abs 6

Scope

Scope 1

% emissions in Scope

80

% reduction from base year

80

Base year

2005

Start year

2018

Base year emissions covered by target (metric tons CO2e)

35754207

Target year

2050

Is this a science-based target?

No, and we do not anticipate setting one in the next 2 years

% achieved (emissions)

Target status

Underway



DISCLOSURE INSIGHT ACTION

Please explain

Ameren Missouri 2017 Integrated Resource Plan (IRP). The 2017 IRP is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner and includes: the addition of at least 700 MW of wind generation by 2020 (representing and investment of approximately \$1 billion); the addition of 100 MW of solar generation by 2027; a 160% increase in renewable generation capability over current levels; the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity; continuation of cost-effective customer energy-efficiency programs; and continued development of smart grid, communications and other advanced technologies. Ameren expects the percent of its rate base represented by fossil fuel-fired generation investments to decline in the years ahead as it focuses on increased grid and renewable generation investment. In addition, Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to 2005 levels. The 2005 base year reported is CO2 not CO2e.

C4.2

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

Target

Other, please specify (Renewable Energy Credits-Missouri)

KPI – Metric numerator

Megawatt hours

KPI – Metric denominator (intensity targets only)

Not Applicable

Base year

2017

Start year

2017

Target year

2017



DISCLOSURE INSIGHT ACTION

KPI in baseline year

1579862

KPI in target year

1579862

% achieved in reporting year

100

Target Status

Underway

Please explain

The 2017 Missouri Renewable Energy Standard requirement was 1,579,862 REC's or 5% of the total retail electric sales of 31,597,238 MWh for 2017. REC's generated in previous years, through the banking provision in the law, from solar, wind, landfill gas, and hydroelectric (Keokuk Energy Center) were used to meet compliance.

Part of emissions target

Is this target part of an overarching initiative?

Other, please specify (Renewable Energy Standard - Missouri)

Target

Other, please specify (Renewable Energy Credits - Illinois)

KPI – Metric numerator

Megawatt hours

KPI – Metric denominator (intensity targets only)

Not Applicable

Base year

2016

Start year



DISCLOSURE INSIGHT ACTION

2017

Target year

2017

KPI in baseline year

977815

KPI in target year

977815

% achieved in reporting year

100

Target Status

Underway

Please explain

2017 Ameren Illinois Renewable Energy Credits (RECs): 977,815 MWhs. The Ameren Illinois customers on the Fixed Price BGS tariff were supplied a total of 6,811,617 MWh for calendar year 2016.

Part of emissions target

Is this target part of an overarching initiative?

Other, please specify (Illinois Renewable Portfolio Standard)

C-OG4.2a

(C-OG4.2a) Explain, for your oil and gas production activities, why you do not have a methane-specific emissions reduction target or do not incorporate methane into your targets reported in C4.2; and forecast how your methane emissions will change over the next five years.

Not applicable. Ameren is not in the oil & gas sector.

C4.3



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

Yes

C4.3a

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

	Number of projects	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	5	595981
Not to be implemented	0	0

C4.3b

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

Activity type

Energy efficiency: Processes

Description of activity

Other, please specify (Ameren Energy Efficiency Programs)



DISCLOSURE INSIGHT ACTION

Estimated annual CO₂e savings (metric tonnes CO₂e)

563900

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

168622000

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

133200000

Payback period

4 - 10 years

Estimated lifetime of the initiative

3-5 years

Comment

Energy efficiency programs are offered to our electric customers in both Missouri and Illinois. These help Ameren reduce exposure related to GHG's while improving our relationship with our customers. These energy efficiency programs include education programs, installation of efficient heating and air conditioning systems, home energy audits, low-income weatherization, programmable thermostat programs, and other residential and business programs. Ameren Missouri has an energy efficiency program that saved approximately 321,400 MWh (Jan. 2017-Dec. 2017) and avoided approx. 253,900 metric tons, assuming 0.73 metric tons of CO₂ per 1 MWh and adjusting for line losses. In 2017 Ameren Illinois saved 353,000 MWh and avoided approximately 278,900 metric tons, assuming 0.73 metric tons of CO₂ per 1 MWh and adjusting for line losses. Energy efficiency programs are offered to our natural gas customers in Illinois and Missouri. Ameren Illinois' program saved approx. 5.8 million therms in 2017 and avoided approximately 31,000 metric tons of customer CO₂, assuming 11.7 pounds of CO₂ per 1 therm. Ameren Missouri is actively engaged in implementing gas energy efficiency measures although there are no currently defined savings targets. Ameren Missouri saved approx. 18,900 therms in 2017 and avoided approx. 100 metric tons of customer CO₂, assuming 11.7 pounds of CO₂ per 1 therm. While these programs are voluntary there are earnings opportunities for implementing.



Activity type

Energy efficiency: Building services

Description of activity

Other, please specify (Lighting, heat pump, and HVAC upgrades)

Estimated annual CO₂e savings (metric tonnes CO₂e)

381

Scope

Scope 2 (location-based)

Voluntary/Mandatory

Voluntary

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

9500

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

441000

Payback period

>25 years

Estimated lifetime of the initiative

Ongoing

Comment

Ameren has implemented various voluntary initiatives to improve efficiency and reduce GHG emissions at facilities dedicated to housing its personnel and operating equipment. These initiatives include replacing roofing systems, replacing fluorescent fixtures with energy efficient LED fixtures. Adjusting lighting levels to meet current standards, in facilities where applicable. In 2017, Ameren completed several energy efficiency projects that will reduce energy consumption by approximately 427,990 kWh annually and reduce our CO₂ emissions by 381 metric tons annually (assuming 0.73 metric tons of CO₂ per 1 MWh and adjusting for line losses). Ameren continues to promote and operate a single stream recycling



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program at operating centers and office buildings that will divert office waste from landfills. Ameren restored a building on campus that is now LEED certified (Leadership in Energy & Environmental Design) standards.

Activity type

Process emissions reductions

Description of activity

Other, please specify (Optimize operations at energy centers)

Estimated annual CO₂e savings (metric tonnes CO₂e)

31700

Scope

Scope 1

Voluntary/Mandatory

Voluntary

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

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

Payback period

Please select

Estimated lifetime of the initiative

16-20 years

Comment

Ameren Missouri implemented projects to optimize operations at our energy centers in 2017.

C4.3c



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

Method	Comment
Compliance with regulatory requirements/standards	<p>The Missouri Renewable Energy Standard (MoRES) took effect in 2011. In 2017, Ameren purchased RECs and operated renewable facilities to comply with this standard. This included a 15-year wind power purchase agreement for 102 MWs of wind energy from Iowa; 15 MW (gross) of landfill gas generation which went operational in June 2012; operation of 5.7 MW (DC gross) of solar generation at the O’Fallon Renewable Energy Center; operation of 90 kW of solar generation at Ameren’s headquarters; and an upgrade of existing hydroelectric facilities. In 2017, Ameren Missouri’s non-solar generation requirement was 1,532,295 MWhs and was met by retiring RECs associated with generation from the Ameren Missouri Keokuk Energy Center, Maryland Heights Renewable Energy Center, and Pioneer Prairie wind farm. In 2017, the solar requirement was 25,278 MWhs and was met with S-RECs generated from Ameren Missouri customer installed solar and the O’Fallon Renewable Energy Center. In Illinois, Ameren Illinois continued to comply with the Illinois Renewable Portfolio Standard. Ameren Illinois purchased RECs to comply with its requirements as it has no renewable generation. Ameren Missouri 2017 Integrated Resource Plan (IRP). The 2017 IRP is designed to ensure that customers’ long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren’s preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner. That portfolio includes the addition of more renewable generation, expansion of its energy efficiency programs, planned retirement of more than half of its coal fleet and implementation of advanced technologies. All of these investments and activities will achieve a reduction in CO2 emissions.</p>
Dedicated budget for energy efficiency	<p>Much of the technical and policy discussion related to climate change and a sustainable energy future focuses on energy efficiency. Ameren energy efficiency programs help reduce GHG emissions, lower the cost impact on the consumer, and improve our relationship with our customers. Ameren Illinois and Ameren Missouri programs spent \$133.2 million on a number of energy efficiency programs in 2017 (electric and natural gas programs). Through these energy efficiency initiatives, Ameren estimates it avoided approximately 564,000 tons of CO2 in 2017. Through Ameren’s automated meter reading capabilities in Missouri and Illinois, Ameren is able to provide customer information through the Manage My Energy analysis tools to allow customers to more completely understand and better manage their energy consumption. In December 2014, Ameren Missouri filed another three-year energy efficiency plan (2016-2018). Ameren Missouri, after extensive negotiation discussions with the Staff, Missouri Office of public Counsel and other regulatory stakeholders, filed a new stipulation and agreement and received Commission approval for new programs which began in March 2016. The new plan features a budget of \$158 million, expanded programs, energy savings of 571 GWh and 167 MW of demand savings. Total benefits of the portfolio are targeted to be over \$425 million (NPV) over 20 years. In 2017, Ameren Illinois spent an additional \$83 million on energy efficiency programs. Through these energy efficiency initiatives, Ameren Illinois estimates it avoided 310,000 metric tons of CO2. Ameren Illinois plans to spend an additional \$114 million in residential and business energy efficiency programs in 2018. Ameren Missouri spent approximately \$50.2 million on energy efficiency programs in 2017 and estimates it avoided 254,000 metric tons of CO2. Ameren Missouri plans to spend more than \$68 million in 2018. All of these programs will reduce customer energy consumption and will result in reduced CO2 emissions.</p>



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Method	Comment
Dedicated budget for low-carbon product R&D	<p>Ameren invested in research for alternative forms of generation. In 2017, Ameren spent over \$395,000 for CO2 emissions reduction and alternative energy generation R&D programs. In 2017, Ameren announced the launch of Ameren Accelerator, an innovative public-private partnership with the University of Missouri System, UMSL Accelerate and Capital Innovators, that will assess, mentor and invest in energy technology startup companies. The unique partnership, one of the first of its kind in the United States, is also the St. Louis region’s first to focus on energy technologies. Leveraging the expertise of all of the partners, the goals of this program are to better position Ameren to meet its customers’ future energy needs and expectations, create new jobs through these start-up companies and provide university students opportunities to be more engaged in the energy business. Seven companies were selected to participate in the 2017 Ameren Accelerator. Each company received up to \$100,000 in seed funding in addition to intensive mentoring, technical assistance, and facilities and networking connections from the Ameren Accelerator partners during the 12-week program. Selected companies include /blossom, Hyperion Sensors, Omega Grid, Rebate Bus, SensrTrx, Switched Source and WIFIPLUG. It is difficult to assess the investment figure associated with the program. The goal of this research is the development of new technologies which could potentially reduce CO2 emissions.</p>
Employee engagement	<p>In 2010, Ameren created a Corporate Sustainability Council to research and recommend policies and improvement objectives, track our sustainable practices, develop ways to engage employees and stakeholders on the issues, and help guide Ameren to be more sustainable in the future. Ameren continues to promote and operate a single stream recycling program at operating centers and office buildings that will divert office waste from landfills. It is estimated to be a net neutral cost to the company. Ameren released its 2017 Corporate Social Responsibility (CSR) Report in May 2018. This CSR report describes a variety of activities Ameren is doing to engage employees in achieving emission reduction activities at work, home and in the community. Ameren offered plug-in electric vehicle (EV) incentives to co-workers in 2017. Available incentives included \$2,500 for new EV purchases and \$1,500 for leased or used EV purchased. The goal is to inform employees to better manage their energy consumption.</p>
Internal price on carbon	<p>Ameren includes a carbon price in its evaluation of long-term resource planning for its Missouri regulated business through its Integrated Resource Plan (IRP) process (i.e., Scope 1 emissions from generation). The price is included to represent the expectation for either regulation of carbon dioxide emissions through a mechanism that establishes an explicit price for carbon dioxide emissions, such as a carbon tax or cap-and-trade program, or through voluntary emission credit trading markets established by RTO’s or state or regional alliances. For its 2017 IRP, Ameren Missouri used a base and high scenario price of \$3.71 per short ton (\$3.37 per metric ton) starting in 2025 and escalating at approximately 12% per year. The prices used in the IRP process are established based on discussions with Company executives involved in environmental, regulatory and legislative activities. Establishment of the carbon price assumptions includes a review of price assumptions used or produced by other utilities, policy analysts, and government agencies, including the Social Cost of Carbon estimates used by the federal government. Ameren Missouri’s 2017 IRP describes in detail the process used to establish carbon price assumptions for its evaluations at that time. The same general process continues to be used. Inclusion of a carbon price affects Ameren Missouri’s evaluation of both new and existing generation resources, including potential retirement of fossil generation, and also increases the cost effectiveness of energy efficiency measures.</p>



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C4.5

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

Yes

C4.5a

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

Level of aggregation

Product

Description of product/Group of products

Pure Power voluntary renewable energy credit (REC) program for customers

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

Avoided emissions

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

Other, please specify (based on emission factors from eGRID)

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

Comment

Ameren Missouri's voluntary green program called Pure Power sold 54,165 RECs to customers in 2017. Since the start of the program in 2007, the RECs were retired on behalf of these customers with a potential reduction in over 653,000 metric tons of Scope 1 CO₂ assuming 0.73 metric tons of CO₂ per 1 MWh and adjusting for line losses.

Level of aggregation

Product



DISCLOSURE INSIGHT ACTION

Description of product/Group of products

Ameren Missouri Solar Rebates

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

Avoided emissions

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

Other, please specify (based on emission factors from eGRID)

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

Comment

In 2010, Ameren Missouri began to issue solar rebates to customers who install solar electric generating systems on their homes and businesses. By the end of 2017, Ameren Missouri had approximately 56 MWs of customer-installed private solar generation in its service territory. By generating emissions-free renewable energy at their homes and businesses, customers reduce the amount of energy they purchase from the utility. This has the potential to produce in excess of 77,000 MWh per year, avoiding over 56,000 metric tons of Scope 1 CO₂, assuming 0.73 metric tons of CO₂ per 1 MWh. The utility generates less energy and therefore lowers its GHG emissions, as a result of these systems.

Level of aggregation

Product

Description of product/Group of products

Ameren Missouri Energy Efficiency Program

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

Avoided emissions

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

Other, please specify (based on emission factors for eGRID)

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

Comment

Changes in how our customers use electricity can reduce emissions through implementation of more efficient technologies or operations. Demand Side Management-Electricity Energy Efficiency programs are offered to our electricity customers in both Missouri and Illinois. This provides



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opportunities for Ameren to implement energy efficiency programs that enable the achievement of climate goals and lower the impacts of climate costs to the consumer, improving our relationship with our customers. The energy efficiency programs include education programs, installation of energy efficient heating and air conditioning systems, home energy audits, low-income weatherization, programmable thermostat programs, and other residential and business programs. Ameren Missouri has an energy efficiency program approved through 2018 that saved approximately 321,400 and avoided approximately 253,900 metric tons of Scope 1 CO₂, assuming 0.73 metric tons of CO₂ per 1 MWh and adjusting for line losses in 2017.

Level of aggregation

Product

Description of product/Group of products

Ameren Illinois Energy Efficiency Program

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

Avoided emissions

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

Other, please specify (based on emission factors for eGRID)

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

Comment

Ameren Illinois has an energy efficiency program approved through 2021 that in 2017 saved approximately 353,089 MWh and avoided approximately 278,900 metric tons of Scope 1 CO₂, assuming 0.73 metric tons of CO₂ per 1 MWh and adjusting for line losses in 2017.

Level of aggregation

Product

Description of product/Group of products

Ameren Natural Gas Energy Efficiency Program

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



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Avoided emissions

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

Other, please specify (based on emission factors for eGRID)

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

Comment

Demand Side Management-Natural Gas. Energy efficiency programs are offered to our natural gas customers in Illinois and Missouri. The natural gas energy efficiency programs provide incentives to customers when they purchase specific energy efficiency gas equipment, such as furnaces, boilers or manufacturing equipment. Ameren Illinois has a program approved through 2021. In 2017, it saved approximately 5,868,915 therms and avoided approximately 31,155 metric tons of Scope 1 CO₂, assuming 11.7 pounds of CO₂ per 1 therm. Ameren Missouri is engaged in implementing gas energy efficiency measures although there are no currently defined savings targets; however, in 2017 it saved about 158,900 therms and avoided approximately 100 metric tons of Scope 1 CO₂.

C-EU4.6

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

Ameren Missouri assets employ leak detection sensors throughout the generating units that operate using natural gas: Meramec Energy Center (Units 1&2) and Ameren Missouri Combustion Turbine Fleet. The leak detection sensors are utilized to monitor, alarm operators, and in some cases isolate methane leaks if/when they exist. Primarily these devices are utilized within turbine enclosure packages as well as specific applications where detection is employed in other areas such as our natural gas compression and cleaning systems in operation at the Maryland Height Renewable Energy Center (landfill gas to energy facility).

The 2017 Integrated Resource Plan (IRP) is designed to ensure that customers' long-term electric energy needs are met in a reliable, cost-effective and environmentally responsible manner. Ameren's preferred plan focuses on transitioning the generation fleet to a cleaner and more fuel diverse energy portfolio in a responsible manner. This transition will result in increased amounts of renewable generation and reduced amounts of fossil generation, which includes natural gas fuelled units. This should reduce methane emissions from our electric generation activities. One example is the retirement of the Meramec Energy Center which currently uses natural gas for Units 1&2. In addition, Ameren Missouri has a goal to reduce CO₂ emissions 35% by 2030, 50% by 2040, and 80% by 2050 from 2005 levels---including methane emission reductions.



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C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from oil and gas production activities.

Not applicable. Ameren is not in the oil & gas sector.

COG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

No, this is not relevant to our operations

C-OG4.7b

(C-OG4.7b) Explain why you do not conduct LDAR or use other methods to find and fix fugitive methane emissions, and whether you have a plan to do so from your oil and gas production activities.

Not applicable. Ameren is not in the oil & gas sector.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

Not applicable. Ameren is not in the oil & gas sector.

C5. Emissions methodology

C5.1

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

Scope 1



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Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO₂e)

26795627

Comment

Scope 1 emissions include: Ameren Missouri Generation, Ameren Missouri & Ameren Illinois Vehicle Fleet; Ameren Missouri equipment oil; propane usage, Ameren Illinois Natural Gas consumption for buildings; Ameren Illinois and Ameren Missouri electric distribution; and Ameren Illinois and Ameren Missouri natural gas supply.

Scope 2 (location-based)

Base year start

January 1 2016

Base year end

December 31 2016

Base year emissions (metric tons CO₂e)

66397

Comment

Our Scope 2 emissions are the same for location-based and market-based. Scope 2 includes electricity usage at Ameren Illinois Buildings and our headquarters.

Scope 2 (market-based)

Base year start

January 1 2016

Base year end

Base year emissions (metric tons CO₂e)

66397



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Comment

Our Scope 2 emissions are the same for location-based and market-based. Scope 2 includes electricity usage at Ameren Illinois Buildings and our headquarters.

C5.2

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

US EPA Mandatory Greenhouse Gas Reporting Rule

Other, please specify (USEPA Clean Air Act Acid Rain Program)

C5.2a

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

USEPA Clean Air Act Acid Rain Program.

Ameren measures Scope 1 CO₂ emissions from its electric generation facilities by using continuous emission monitoring systems mandated by the USEPA under Title IV of the Clean Air Act. These monitors (using calibrated comparison gases) operate throughout the day, every day of the year, and are annually checked for accuracy. The CO₂ emissions from our electric generation facilities are estimated to account for more than 99% of the GHG emissions from our generation operations and more than 95% of the CO₂ emissions for the entire corporation.

Some of our generating units (predominantly oil-fired units) are considered by USEPA to be governed under Part 75 of the Clean Air Act as Low Mass Emitters, so their CO₂ emissions are conservatively determined using emission factors.

Emissions from our electric and natural gas distribution systems were determined using methods and values described in 40 CFR Part 98.

Emission factors for Greenhouse Gas Inventories from USEPA eGRID2016, February 2018 for SRMW (SERC Midwest) were used as needed.



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C6. Emissions data

C6.1

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

Row 1

Gross global Scope 1 emissions (metric tons CO₂e)

30200376

End-year of reporting period

<Not Applicable>

Comment

Scope 1 emissions include: Ameren Missouri Generation, Ameren Missouri & Ameren Illinois Vehicle Fleet; Ameren Missouri equipment oil; propane usage, Ameren Illinois Natural Gas consumption for buildings; Ameren Illinois and Ameren Missouri electric distribution; and Ameren Illinois and Ameren Missouri natural gas supply.

Row 2

Gross global Scope 1 emissions (metric tons CO₂e)

<Not Applicable>

End-year of reporting period

<Not Applicable>

Comment

<Not Applicable>

Row 3

Gross global Scope 1 emissions (metric tons CO₂e)

<Not Applicable>

End-year of reporting period



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<Not Applicable>

Comment

<Not Applicable>

Row 4

Gross global Scope 1 emissions (metric tons CO₂e)

<Not Applicable>

End-year of reporting period

<Not Applicable>

Comment

<Not Applicable>

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

Our Scope 2 emissions are the same for location-based and market-based.

C6.3

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

Row 1

Scope 2, location-based



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68388

Scope 2, market-based (if applicable)

68388

End-year of reporting period

<Not Applicable>

Comment

Our Scope 2 emissions are the same for location-based and market-based. Scope 2 includes electricity usage at Ameren Illinois Buildings and our headquarters.

Row 2

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

<Not Applicable>

End-year of reporting period

<Not Applicable>

Comment

<Not Applicable>

Row 3

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

<Not Applicable>

End-year of reporting period

<Not Applicable>

Comment



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<Not Applicable>

Row 4

Scope 2, location-based

<Not Applicable>

Scope 2, market-based (if applicable)

<Not Applicable>

End-year of reporting period

<Not Applicable>

Comment

<Not Applicable>

C6.4

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

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source

All consumption at Ameren Missouri owned buildings with the exception of the General Office Building

Relevance of Scope 1 emissions from this source

Emissions are not evaluated

Relevance of location-based Scope 2 emissions from this source

Emissions are not evaluated



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Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not evaluated

Explain why the source is excluded

There is no metering equipment installed at these facilities to estimate their electric and natural gas consumption to include in the Scope 1 and 2 emissions summary.

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

80706

Emissions calculation methodology

Emission Intensity Factor used from 2015 Corporate and Social Responsibility Report from Peabody Energy - primary fuel supplier.

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

0

Explanation

Method is using information from the primary source; however the Company derived the emission number based on the amount of coal purchased for our facilities and an estimate of the emission intensity factor using Peabody Energy data from 2015 Corporate and Social Responsibility Report (page 44).

Capital goods

Evaluation status

Relevant, not yet calculated



DISCLOSURE INSIGHT ACTION

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Scope 3 emissions for capital goods is likely relevant. In 2017, Ameren did not calculate Scope 3 emissions for capital goods.

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

Evaluation status

Relevant, not yet calculated

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Scope 3 emissions for fuel-and energy-related activities are likely relevant. In 2017, Ameren did not calculate Scope 3 emissions for fuel-and energy-related activities.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

918525

Emissions calculation methodology

Union Pacific Website - UP Carbon Emission estimator from rail delivery of coal

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

0

Explanation

Method is from the primary source - Union Pacific; however the Company derived the emission number based on the number of train deliveries and estimated distance traveled for 2017.



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Waste generated in operations

Evaluation status

Relevant, not yet calculated

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Scope 3 emissions for waste generated in operations are likely relevant. In 2017, Ameren did not calculate Scope 3 emissions for waste generated in operations.

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

7273.9

Emissions calculation methodology

Data provided by Enterprise Holdings for vehicle rentals made by Ameren. Personal vehicle emissions for company business calculated using emission factor from USEPA Emission Factors Nov. 2015, Table 9, Passenger Car.

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

19

Explanation

Enterprise Holdings rental cars are a small portion (<20%) of total miles driven for company business. USEPA Table 9 is more representative of the types of personal vehicles used for company business.

Employee commuting

Evaluation status

Relevant, not yet calculated

Metric tonnes CO₂e



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Emissions calculation methodology

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

Explanation

Scope 3 emissions for employee commuting are likely relevant. In 2017, Ameren did not calculate Scope 3 emissions for employee commuting.

Upstream leased assets

Evaluation status

Not evaluated

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Scope 3 emissions for upstream leased assets are not evaluated.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Our product is delivered by wire or pipeline. Thus, there is no downstream issue. Actual emissions from these methods are captured in our Scope 1 emissions.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

Emissions calculation methodology

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



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Explanation

Ameren makes and delivers electricity and delivers natural gas to the ultimate consumers of these products. Thus, our products are not processed, they are simply consumed.

Use of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Scope 3 emissions for use of sold products are likely relevant. In 2017, Ameren did not calculate Scope 3 emissions for use of sold products.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Our products, electricity and natural gas, are consumed and have no end of life issues.

Downstream leased assets

Evaluation status

Not evaluated

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Scope 3 emissions for downstream leased assets are not evaluated.



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Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

We are required to deliver energy in our franchised service territory. Thus, it is a duplication of other items as we only delivery natural gas and electricity to ultimate customers in these franchised service territories.

Investments

Evaluation status

Not relevant, explanation provided

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Ameren makes investments in assets it will own. Thus, emissions will be captured in Scope 1 or Scope 2 after they enter service.

Other (upstream)

Evaluation status

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation

Other (downstream)

Evaluation status

Metric tonnes CO₂e

Emissions calculation methodology

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

Explanation



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C6.7

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

No

C6.10

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

Intensity figure

0.0049

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

30268764

Metric denominator

unit total revenue

Metric denominator: Unit total

6177000000

Scope 2 figure used

Location-based

% change from previous year

10.8

Direction of change

Increased

Reason for change

Electricity production was higher in 2017 compared to 2016, revenues were also higher due to recovery of infrastructure investments made along with higher operating costs. Since electricity production increased more than revenues, the result was an increase in the intensity for 2017.

Intensity figure

0.68

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

30268764

Metric denominator

megawatt hour generated (MWh)

gross generation (MWh)

Metric denominator: Unit total

44070932

Scope 2 figure used

Location-based

% change from previous year

5.86

Direction of change

Increased

Reason for change

Electricity production from fossil resources was higher in 2017 compared to 2016, generation (MWhs) was higher. This resulted in an increase in the intensity for 2017.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO₂e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)



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Please select

Not applicable. Ameren is not in the oil & gas sector.

Metric tons CO₂e from hydrocarbon category per unit specified

% change from previous year

Direction of change

<Not Applicable>

Reason for change

Comment

Not applicable. Ameren is not in the oil & gas sector.

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division

Please select

Not applicable. Ameren is not in the oil & gas sector.

Estimated total methane emitted expressed as % of natural gas production or throughput at given division

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

Comment

Not applicable. Ameren is not in the oil & gas sector.

C7. Emissions breakdowns

C7.1



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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	29848448	Other, please specify (Table A-1 in 40 CFR Part 98, Subpart A)
CH4	173201	Other, please specify (Table A-1 in 40 CFR Part 98, Subpart A)
N2O	148538	Other, please specify (Table A-1 in 40 CFR Part 98, Subpart A)
SF6	30189	Other, please specify (Table A-1 in 40 CFR Part 98, Subpart A)

C-EU7.1b

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

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0	0	1.32	30190	



DISCLOSURE INSIGHT ACTION

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Combustion (Electric utilities)	29792291	3424	0	30026279	
Combustion (Gas utilities)	1084	3502	0	88630	
Combustion (Other)	55073	2	0	55278	
Emissions not elsewhere classified					

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives (Oil:Total)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Oil: Venting)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Oil: Flaring)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Oil: E&P, excluding venting and flaring)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Oil: All Other)				Not applicable. Ameren is not in the oil & gas sector.



DISCLOSURE INSIGHT ACTION

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives (Gas: Total)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Gas: Venting)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Gas: Flaring)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Gas: E&P, excluding venting and flaring)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Gas: Midstream)				Not applicable. Ameren is not in the oil & gas sector.
Fugitives (Gas: All other)				Not applicable. Ameren is not in the oil & gas sector.
Combustion (Oil: Upstream, excluding flaring)				Not applicable. Ameren is not in the oil & gas sector.
Combustion (Gas: Upstream, excluding flaring)				Not applicable. Ameren is not in the oil & gas sector.
Combustion (Refining)				Not applicable. Ameren is not in the oil & gas sector.
Combustion (Chemicals production)				Not applicable. Ameren is not in the oil & gas sector.
Combustion (Electricity generation)				Not applicable. Ameren is not in the oil & gas sector.
Combustion (Other)				Not applicable. Ameren is not in the oil & gas sector.
Process emissions				Not applicable. Ameren is not in the oil & gas sector.



DISCLOSURE INSIGHT ACTION

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 emissions (metric tons CO2e)	Comment
Emission not elsewhere classified				Not applicable. Ameren is not in the oil & gas sector.

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
United States of America	30200376

C7.3

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

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Generation	30029237
Distribution	171139



DISCLOSURE INSIGHT ACTION

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

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

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions, metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Electric utility generation activities	30026279	<Not Applicable>	2017 Ameren Missouri Owned-Generation
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)		<Not Applicable>	
Oil and gas production activities (downstream)		<Not Applicable>	
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.5

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



DISCLOSURE INSIGHT ACTION

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted in market-based approach (MWh)
United States of America	68388	63388	0	0

C7.6

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

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based emissions (metric tons CO2e)	Scope 2, market-based emissions (metric tons CO2e)
Ameren Illinois Company	48673	48673
Ameren Missouri Company	19715	19715

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization’s total gross global Scope 2 emissions by sector production activity in metric tons CO2e.



DISCLOSURE INSIGHT ACTION

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Chemicals production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Coal production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Metals and mining production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Oil and gas production activities (upstream)			Not applicable. Ameren is not in the oil & gas sector.
Oil and gas production activities (downstream)			Not applicable. Ameren is not in the oil & gas sector.
Steel production activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport OEM activities	<Not Applicable>	<Not Applicable>	<Not Applicable>
Transport services activities	<Not Applicable>	<Not Applicable>	<Not Applicable>

C7.9

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

Increased

C7.9a

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



DISCLOSURE INSIGHT ACTION

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption		<Not Applicable>		
Other emissions reduction activities		<Not Applicable>		
Divestment		<Not Applicable>		
Acquisitions		<Not Applicable>		
Mergers		<Not Applicable>		
Change in output	3406740	Increased	12.7	Electricity production in 2017 was higher than 2016. A total increase of 3,406,740 tons CO2e compared to 2016; therefore, we arrived at a increase of 12.7% through $(3,406,740/28,632,158)*100 = 12.7\%$.
Change in methodology		<Not Applicable>		
Change in boundary		<Not Applicable>		
Change in physical operating conditions		<Not Applicable>		



DISCLOSURE INSIGHT ACTION

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Unidentified		<Not Applicable>		
Other		<Not Applicable>		

C7.9b

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

Location-based

C8. Energy

C8.1

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

More than 5% but less than or equal to 10%

C8.2

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



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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	1709970	42360639	44070932
Consumption of purchased or acquired electricity	<Not Applicable>	322000	0	322000
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>



DISCLOSURE INSIGHT ACTION

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total MWh
Consumption of self-generated non-fuel renewable energy	<Not Applicable>		<Not Applicable>	
Total energy consumption	<Not Applicable>	2032905	42360639	44393544

C8.2b

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

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

C8.2c

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

Fuels (excluding feedstocks)

Subbituminous Coal

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization



DISCLOSURE INSIGHT ACTION

1927185

MWh fuel consumed for the self-generation of electricity

32953297

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Fuel Oil Number 2

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

1758

MWh fuel consumed for the self-generation of electricity

2535

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>



DISCLOSURE INSIGHT ACTION

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

28278

MWh fuel consumed for the self-generation of electricity

311601

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

Fuels (excluding feedstocks)

Other, please specify (Propane)

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization



DISCLOSURE INSIGHT ACTION

1

MWh fuel consumed for the self-generation of electricity

1

MWh fuel consumed for self-generation of heat

MWh fuel consumed for self-generation of steam

<Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self- cogeneration or self-trigeneration

<Not Applicable>

C8.2d

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

Acetylene

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Agricultural Waste



DISCLOSURE INSIGHT ACTION

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Alternative Kiln Fuel (Wastes)

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Animal Fat

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Animal/Bone Meal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Anthracite Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Asphalt

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Comment

<Not Applicable>

Aviation Gasoline

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Bagasse

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Bamboo

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Basic Oxygen Furnace Gas (LD Gas)

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Biodiesel

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Biodiesel Tallow

Emission factor



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Biodiesel Waste Cooking Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Bioethanol

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Biogas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Biogasoline

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Biomass Municipal Waste

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Comment

<Not Applicable>

Biomethane

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Bitumen

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Bituminous Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Black Liquor

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Blast Furnace Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Brown Coal Briquettes (BKB)

Emission factor

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Burning Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Butane

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Butylene



DISCLOSURE INSIGHT ACTION

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Charcoal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Coal Tar

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Coke

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Coke Oven Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Comment

<Not Applicable>

Coking Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Compressed Natural Gas (CNG)

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Condensate

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Crude Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Crude Oil Extra Heavy

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Crude Oil Heavy

Emission factor



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Crude Oil Light

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Diesel

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Distillate Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Dried Sewage Sludge

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Ethane

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Comment

<Not Applicable>

Ethylene

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Fuel Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Fuel Oil Number 1

Emission factor

<Not Applicable>

Unit

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Fuel Oil Number 2

Emission factor

73.96

Unit

kg CO2 per million Btu

Emission factor source

Table C-1 to Subpart C of 40 CFR Part 98

Comment

Fuel Oil Number 4

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Fuel Oil Number 5

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Fuel Oil Number 6

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Gas Coke

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Gas Oil

Emission factor



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Gas Works Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

GCI Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>



DISCLOSURE INSIGHT ACTION

General Municipal Waste

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Grass

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Hardwood

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Comment

<Not Applicable>

Heavy Gas Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Hydrogen

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Industrial Wastes

Emission factor

<Not Applicable>

Unit

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Isobutane

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Isobutylene

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Jet Gasoline

Emission factor

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Jet Kerosene

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Kerosene

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Landfill Gas



DISCLOSURE INSIGHT ACTION

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Light Distillate

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Lignite Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Liquefied Natural Gas (LNG)

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Liquefied Petroleum Gas (LPG)

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Liquid Biofuel

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Comment

<Not Applicable>

Lubricants

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Marine Fuel Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Marine Gas Oil

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Metallurgical Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Methane

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Motor Gasoline

Emission factor



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Naphtha

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Natural Gas

Emission factor

53.02

Unit

kg CO2 per million Btu

Emission factor source

Table C-1 to Subpart C of 40 CFR Part 98

Comment

Natural Gas Liquids (NGL)



DISCLOSURE INSIGHT ACTION

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Natural Gasoline

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Non-Biomass Municipal Waste

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Non-Biomass Waste

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Oil Sands

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Oil Shale

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Comment

<Not Applicable>

Orimulsion

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Other Petroleum Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Paraffin Waxes

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Patent Fuel

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

PCI Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Peat

Emission factor



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Pentanes Plus

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Petrochemical Feedstocks

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Petrol

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Petroleum Coke

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Petroleum Products

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Comment

<Not Applicable>

Pitch

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Plastics

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Primary Solid Biomass

Emission factor

<Not Applicable>

Unit

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Propane Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Propane Liquid

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Propylene

Emission factor

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Refinery Feedstocks

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Refinery Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Refinery Oil



DISCLOSURE INSIGHT ACTION

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Residual Fuel Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Road Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment



DISCLOSURE INSIGHT ACTION

<Not Applicable>

SBP

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Shale Oil

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Sludge Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Comment

<Not Applicable>

Softwood

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Solid Biomass Waste

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Special Naphtha

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Still Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Straw

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Subbituminous Coal

Emission factor



DISCLOSURE INSIGHT ACTION

97.02

Unit

kg CO2 per million Btu

Emission factor source

Table C-1 to Subpart C of 40 CFR Part 98

Comment

Sulphite Lyes

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Tar

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Tar Sands



DISCLOSURE INSIGHT ACTION

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Thermal Coal

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Thermal Coal Commercial

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment



DISCLOSURE INSIGHT ACTION

<Not Applicable>

**Thermal Coal Domestic
Emission factor**

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

**Thermal Coal Industrial
Emission factor**

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Tires

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Comment

<Not Applicable>

Town Gas

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Unfinished Oils

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Vegetable Oil

Emission factor

<Not Applicable>

Unit



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Waste Oils

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Waste Paper and Card

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Waste Plastics

Emission factor



DISCLOSURE INSIGHT ACTION

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Waste Tires

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

White Spirit

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Wood

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Wood Chips

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Wood Logs

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>



DISCLOSURE INSIGHT ACTION

Comment

<Not Applicable>

Wood Pellets

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Wood Waste

Emission factor

<Not Applicable>

Unit

<Not Applicable>

Emission factor source

<Not Applicable>

Comment

<Not Applicable>

Other

Emission factor

62.87

Unit

kg CO2 per million Btu



DISCLOSURE INSIGHT ACTION

Emission factor source

Table C-1 to Subpart C of 40 CFR Part 98

Comment

Other: Propane.

C8.2e

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

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	44393544	2916458	2032905	22552
Heat				
Steam				
Cooling				

C-EU8.2e

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

Coal – hard

Nameplate capacity (MW)

5379

Gross electricity generation (GWh)

32953.3



DISCLOSURE INSIGHT ACTION

Net electricity generation (GWh)

31026.11

Absolute scope 1 emissions (metric tons CO2e)

29804712

Scope 1 emissions intensity (metric tons CO2e per GWh)

904.45

Comment

The 2017 reported values are based on units operating on coal at Labadie Energy Center; Meramec Energy Center (Units 3 and 4); Rush Island Energy Center; and Sioux Energy Center. Emissions intensity based on gross generation. Ameren does not have generating units that utilize lignite.

Lignite

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Ameren does not have generating units that utilize lignite.

Oil

Nameplate capacity (MW)



DISCLOSURE INSIGHT ACTION

312

Gross electricity generation (GWh)

2.54

Net electricity generation (GWh)

0.77

Absolute scope 1 emissions (metric tons CO₂e)

1576

Scope 1 emissions intensity (metric tons CO₂e per GWh)

621.74

Comment

The 2017 reported values are based on units operating on oil at our energy centers. Five units operate on oil. Emissions intensity based on gross generation.

Gas

Nameplate capacity (MW)

3776

Gross electricity generation (GWh)

311.6

Net electricity generation (GWh)

283.32

Absolute scope 1 emissions (metric tons CO₂e)

190774

Scope 1 emissions intensity (metric tons CO₂e per GWh)

612.24

Comment



DISCLOSURE INSIGHT ACTION

The 2017 reported values are based on units operating on natural gas at our energy centers. Ameren Missouri operates a fleet of nine natural gas-fired energy centers in Missouri and Illinois, including Meramec Energy Center (Units 1&2). Emissions intensity based on gross generation.

Biomass

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Ameren does not have generating units that utilize biomass. Maryland Heights Renewable Energy Center is reported as Waste (non-biomass).

Waste (non-biomass)

Nameplate capacity (MW)

15

Gross electricity generation (GWh)

47.57

Net electricity generation (GWh)

39.31

Absolute scope 1 emissions (metric tons CO₂e)

29218

Scope 1 emissions intensity (metric tons CO₂e per GWh)



DISCLOSURE INSIGHT ACTION

614.24

Comment

Maryland Heights Renewable Energy Center. Added to Ameren Missouri's fleet in 2012, this renewable energy center captures an otherwise untapped resource—methane gas from a landfill—and uses it to create clean, reliable electricity. This facility removes the siloxane, hydrogen sulfides and other non-hydrocarbons prior to combustion. Additionally, energy center equipment compresses and removes moisture from the previously wasted methane from decomposing trash at the adjacent Maryland Heights landfill. Emissions intensity based on gross generation.

Nuclear

Nameplate capacity (MW)

1236

Gross electricity generation (GWh)

8715.27

Net electricity generation (GWh)

8304.13

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

2017 data based on our Callaway Energy Center. Nuclear is a non-carbon emitting energy resource.

Geothermal

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)



DISCLOSURE INSIGHT ACTION

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Ameren does not have geothermal generating units.

Hydroelectric

Nameplate capacity (MW)

333

Gross electricity generation (GWh)

1656.41

Net electricity generation (GWh)

1642.12

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

The 2017 reported values are based on our hydroelectric generation resources: Keokuk Energy Center & Osage Energy Center. Hydroelectric power is a non-carbon emitting energy resource.

Wind

Nameplate capacity (MW)

0

Gross electricity generation (GWh)



DISCLOSURE INSIGHT ACTION

323

Net electricity generation (GWh)

323

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

The 2017 reported values are based on Ameren Missouri's wind power purchase agreement. Wind is a non-carbon emitting energy resource.

Solar

Nameplate capacity (MW)

6

Gross electricity generation (GWh)

5.99

Net electricity generation (GWh)

5.99

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

The 2017 reported values are based on Ameren Missouri's O'Fallon Renewable Energy Center. This facility is one of Ameren Missouri's investments on behalf of customers for cleaner air and renewable energy. Solar is a non-carbon emitting energy resource.

Other renewable

Nameplate capacity (MW)



DISCLOSURE INSIGHT ACTION

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment

Ameren does not have other renewable generating units.

Other non-renewable

Nameplate capacity (MW)

408

Gross electricity generation (GWh)

377.93

Net electricity generation (GWh)

147.61

Absolute scope 1 emissions (metric tons CO₂e)

0

Scope 1 emissions intensity (metric tons CO₂e per GWh)

0

Comment



DISCLOSURE INSIGHT ACTION

The 2017 reported values are based on Ameren Missouri's Taum Sauk Energy Center—a pumped hydroelectric energy center. The net generation includes energy input for pumping. The generation less pumping energy is the reported net generation value. The reported net generation value is a NEGATIVE value.

Total

Nameplate capacity (MW)

11465

Gross electricity generation (GWh)

44393.54

Net electricity generation (GWh)

41477.09

Absolute scope 1 emissions (metric tons CO₂e)

30026279

Scope 1 emissions intensity (metric tons CO₂e per GWh)

676.37

Comment

The 2017 reported values are based on Ameren's generation. Emissions intensity based on gross generation. Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 megawatts of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. Further, Ameren Missouri has a goal to reduce carbon dioxide (CO₂) emissions 35% by 2030, 50% by 2040 and 80% by 2050, as compared to the 2005 levels. More information is available at AmerenMissouri.com/IRP.

C8.2f

(C8.2f) Provide details on the electricity, heat, steam and/or cooling amounts that were accounted for at a low-carbon emission factor in the market-based Scope 2 figure reported in C6.3.



DISCLOSURE INSIGHT ACTION

Basis for applying a low-carbon emission factor

No purchases or generation of low-carbon electricity, heat, steam or cooling accounted with a low-carbon emission factor

Low-carbon technology type

<Not Applicable>

MWh consumed associated with low-carbon electricity, heat, steam or cooling

<Not Applicable>

Emission factor (in units of metric tons CO₂e per MWh)

<Not Applicable>

Comment

C-EU8.4

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

No

C9. Additional metrics

C9.1

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

C-EU9.5a

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



DISCLOSURE INSIGHT ACTION

Primary power generation source	CAPEX planned for power generation from this source	Percentage of total CAPEX planned for power generation	End year of CAPEX plan	Comment
Wind	1000000000	23	2027	Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 megawatts of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. Further, Ameren Missouri has a goal to reduce carbon dioxide (CO2) emissions 35% by 2030, 50% by 2040 and 80% by 2050, as compared to 2005 levels. More information is available at AmerenMissouri.com/IRP. Ameren Missouri is pursuing ownership of at least 700 MWs of wind---proposed approximately \$1 billion Ameren Missouri wind generation investments by 2020, with multiple wind developers. The capital expenditures plan for power generation is based on the 2017 IRP.

C-EU9.5b

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

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
-----------------------	--------------------------------	-----------------------------------	---	------------------------

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

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

Investment start date

January 1 2017



DISCLOSURE INSIGHT ACTION

Investment end date

December 31 2017

Investment area

R&D

Technology area

Other, please specify (energy storage and other programs)

Investment maturity

Applied research and development

Investment figure

395900

Low-carbon investment percentage

0

Please explain

Ameren invested in research for alternative forms of generation. In 2017, Ameren spent over \$395,000 for CO2 emissions reduction research, including the EPRI Electrification Portfolio Assessment, Social Cost of Carbon Project, Integration of Distributed Energy Program, Energy Sustainability Interest Group, Sustainability Benchmarking Project, Feasibility Study for Microgrids, Energy Storage Program, and Grid Modernization Program. In addition to EPRI activities, Ameren participated in the Missouri S&T Microgrid Consortium, The University of Illinois Distributed Generation Analysis, and the Gas Technology Institute Emerging Technology Program. The low-carbon investment is in the 0 to 20% range. In 2017, Ameren announced the launch of Ameren Accelerator, an innovative public-private partnership with the University of Missouri System, UMSL Accelerate and Capital Innovators, that will assess, mentor and invest in energy technology startup companies. The unique partnership, one of the first of its kind in the United States, is also the St. Louis region's first to focus on energy technologies. Leveraging the expertise of all of the partners, the goals of this program are to better position Ameren to meet its customers' future energy needs and expectations, create new jobs through these start-up companies and provide university students opportunities to be more engaged in the energy business. Seven companies that have been selected to participated in the 2017 Ameren Accelerator. Each company received up to \$100,000 in seed funding in addition to intensive mentoring, technical assistance, and facilities and networking connections from the Ameren Accelerator partners during the 12-week program. Selected companies include /blossom, Hyperion Sensors, Omega Grid, Rebate Bus, SensrTrx, Switched Source and WIFIPUG. It is difficult to assess the investment figure associated with the program.

C-OG9.7

(C-OG9.7) Disclose the breakeven price (US\$/BOE) required for cash neutrality during the reporting year, i.e. where cash flow from operations covers CAPEX and dividends paid/ share buybacks.

Not applicable. Ameren is not in the oil & gas sector.

C10. Verification

C10.1

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

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

C10.2

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

No, but we are actively considering verifying within the next two years

C11. Carbon pricing



DISCLOSURE INSIGHT ACTION

C11.1

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

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

C11.2

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

No

C11.3

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

Yes

C11.3a

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

Objective for implementing an internal carbon price

Navigate GHG regulations

Stakeholder expectations

Other, please specify (Ameren Missouri Integrated Resource Plan)

GHG Scope

Scope 1

Application

The use of a CO₂ prices is applied to the ongoing costs for the Ameren Missouri. Specifically those generation facilities that burn coal and natural gas.



DISCLOSURE INSIGHT ACTION

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

3.37

Variance of price(s) used

Ameren includes a carbon price in its evaluation of long-term resource planning for its Missouri regulated business through its Integrated Resource Plan (IRP) process (i.e., Scope 1 emissions from generation). The price is included to represent the expectation for either regulation of carbon dioxide emissions through a mechanism that establishes an explicit price for carbon dioxide emissions, such as a carbon tax or cap-and-trade program, or through voluntary emission credit trading markets established by RTOs or state or regional alliances. For its 2017 IRP, Ameren Missouri used a base and high scenario price of \$3.71 per short ton (\$3.37 per metric ton) starting in 2025 and escalating at approximately 12% per year. The prices used in the IRP process are established based on discussions with Company executives involved in environmental, regulatory and legislative activities. Establishment of the carbon price assumptions includes a review of price assumptions used or produced by other utilities, policy analysts, and government agencies, including the Social Cost of Carbon estimates used by the federal government. Ameren Missouri's 2017 IRP describes in detail the process used to establish carbon price assumptions for its evaluations at that time. The same general process continues to be used. Inclusion of a carbon price affects Ameren Missouri's evaluation of both new and existing generation resources, including potential retirement of fossil generation, and also increases the cost effectiveness of energy efficiency measures.

Type of internal carbon price

Other, please specify (Explicit Price)

Impact & implication

The addition of an explicit price on CO₂ raises the cost of generation on carbon emitting generation sources and by implication the market value of wholesale electricity. This assumption provides a cost advantage for any resource that does not emit CO₂ to meet the utilities obligations to serve its customers. Ameren includes a carbon price in its evaluation of long-term resource planning for its Missouri regulated business through its Integrated Resource Plan (IRP) process (i.e., Scope 1 emissions from generation). The price is included to represent the expectation for either regulation of carbon dioxide emissions through a mechanism that establishes an explicit price for carbon dioxide emissions, such as a carbon tax or cap-and-trade program, or through voluntary emission credit trading markets established by RTOs or state or regional alliances. For its 2017 IRP, Ameren Missouri used a base and high scenario price of \$3.71 per short ton (\$3.37 per metric ton) starting in 2025 and escalating at approximately 12% per year. The prices used in the IRP process are established based on discussions with Company executives involved in environmental, regulatory and legislative activities. Establishment of the carbon price assumptions includes a review of price assumptions used or produced by other utilities, policy analysts, and government agencies, including the Social Cost of Carbon estimates used by the federal government. Ameren Missouri's 2017 IRP describes in detail the process used to establish carbon price assumptions for its evaluations at that time. The same general



DISCLOSURE INSIGHT ACTION

process continues to be used. Inclusion of a carbon price affects Ameren Missouri's evaluation of both new and existing generation resources, including potential retirement of fossil generation, and also increases the cost effectiveness of energy efficiency measures.

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

46

% total procurement spend (direct and indirect)

75

% Scope 3 emissions as reported in C6.5

0



DISCLOSURE INSIGHT ACTION

Rationale for the coverage of your engagement

Ameren is measuring and tracking information from our top 100 suppliers year over year in order to establish a baseline for sustainability targets among our supply base.

Impact of engagement, including measures of success

The survey provides an indication to our supply base that sustainability is an initiative that Ameren cares about. We will informally recognize our top supplier(s) from the 2018 survey results.

Comment

Ameren engages our suppliers through our involvement with the Electric Utility Sustainable Supply Chain Alliance (Alliance). In 2017, the Alliance sent a voluntary survey to its members top 100 suppliers to assess their commitment to sustainability (metrics include: reductions in GHG emissions, waste and water usage). This represents approximately 75% of Ameren’s total 2017 supplier spend. Additional activities in 2017 included Ameren’s participation in the development of “Commodity Documents” that provide sustainability guidance to suppliers on specific products (wood poles, transformers, wire, Investment Recovery, etc.). In 2017/2018, Ameren will improve its maturity level in multiple attributes of the Alliance’s sustainability model. The attributes are primarily in the area of incorporating sustainability in the supplier relationship management program for top tier suppliers.

C12.1b

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

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to education customers about your climate change performance and strategy

Size of engagement

50

% Scope 3 emissions as reported in C6.5

0



DISCLOSURE INSIGHT ACTION

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

Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 megawatts of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. Further, Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040 and 80% by 2050, as compared to the 2005 level. More information is available at AmerenMissouri.com/IRP. Ameren utilized both owned communications channels and the media to announce a goal of reducing carbon emissions 80% by 2050. The goal was to reach all 1.2 million Ameren Missouri customers along with other stakeholders including regulators, shareholders and employees. We recognize that our customers may belong to numerous stakeholder groups. Engaging the media was the most efficient way to amplify our message and as a result it was able to reach far beyond what we would have been able to accomplish on our own. The engagement included numerous media interviews with local and nationally-based news organizations, a nationally-distributed press release and a revised website.

Impact of engagement, including measures of success

For Ameren-owned channels, including website and social media, we achieved more than 76,000 impressions with a potential reach of nearly 3,000,000. A majority of our social media engagement is with customers who live in the St. Louis metro area in Missouri and Illinois. The impressions through media channels were likely much higher as stories highlighting the carbon reduction goal appeared in print, online and were broadcast on television and radio across the state of Missouri. The combined television market audience is more than 1.8 million households. Newspaper subscriptions in those areas surpass 100,000 homes and the media outlet's combined Facebook followers are well beyond 2 million individuals. The story went beyond local outlets in the Ameren service territory. National media outlets reported on the goals as well. These numbers are approximate as media do not share specific data on their audiences.

C12.3

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

Direct engagement with policy makers

Trade associations



DISCLOSURE INSIGHT ACTION
Funding research organizations

C12.3a

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

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Adaptation or resilience	Support	Ameren Missouri supported the "21st Century Grid Modernization and Security Act" legislation to modernize the regulatory process for electrical corporations and customers they serve by: allowing for the imposition of earnings caps, rate caps, performance standards and other customer protections; providing a meaningful opportunity for electrical corporations to recover on a timely basis the actual, prudently incurred costs of providing reliable electric service; establishing policies that encourage investment in Missouri electrical infrastructure; and providing globally competitive electric power rates for energy intensive customers.	The 21st century grid modernization and security act creates a performance-based regulatory construct for electrical corporations that provides greater certainty to both customers and electrical corporations, and fosters the provision of reliable and affordable electric services for the benefit of customers. In addition, this will improve reliability and accelerate more efficient energy delivery systems and create opportunities for lower energy consumptions by customers and reduced line losses. In 2018, this bill was approved.

C12.3b

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

No

C12.3d

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

Yes

C12.3f



DISCLOSURE INSIGHT ACTION

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

Ameren Services Company's Senior Vice President, Innovation and Corporate Strategy is the lead Ameren executive charged with addressing environmental stewardship and climate-related matters. The Ameren Services Senior Vice President reports to the Executive Vice President & Chief Financial Officer who reports directly to Ameren's Chairman, President and Chief Executive Officer. Ameren has a Audit and Risk Committee (ARC) which is responsible for oversight of enterprise risk management and meets at least every other month. Where appropriate, business segment senior leaders report on environmental risks and opportunities to the Nuclear and Operations Committee of the Board of Directors. The full Board of Directors oversees environmental policy and potential impact of climate-related risks on the company's strategy. The 2017 Ameren Missouri's Integrated Resource Plan described Ameren's overall climate change strategy. It identified plans to significantly increase its renewable portfolio, planned retirements of more than half of Ameren Missouri's coal-fired generation over the next twenty years, and expanded energy efficiency programs. In addition, Ameren Missouri has a goal to reduce CO2 emissions 35% by 2030, 50% by 2040, and 80% by 2050 compared to the 2005 levels. Ameren has communicated this strategy with external parties. Typically, our corporate communications group provides talking points to aid in discussions with various parties, including regulatory agencies, legislators, and various other groups. In this way, Ameren's climate change strategy is shared in a consistent fashion.

C12.4

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

Publication

In mainstream reports

Status

Complete

Attach the document

[2017-Ameren-Corp.-Annual-Report-\(Final\).pdf](#)

Content elements

Governance

Strategy



DISCLOSURE INSIGHT ACTION
Risks & opportunities

Emission targets

Publication

In other regulatory filings

Status

Complete

Attach the document

[Ameren Missouri 2017 Integrated Resource Plan - Executive Summary.pdf](#)

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Publication

In voluntary sustainability report

Status

Complete

Attach the document

[2018 Ameren Coporate Social Responsibility Report \(Home Page\).pdf](#)



DISCLOSURE INSIGHT ACTION

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Publication

In voluntary communications

Status

Complete

Attach the document

[EEI-ESG-Sustainability-Pilot-Template-FINAL.pdf](#)

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Publication

In voluntary communications



DISCLOSURE INSIGHT ACTION

Status

Complete

Attach the document

[2017 Ameren CDP Climate Change Response.pdf](#)

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

C14. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

For more information see Ameren's 2017 Annual Report on Form 10-K for the year ended December 31, 2017.

Ameren released its most recent annual Corporate Social Responsibility (CSR) report, available at AmerenCSR.com, on May 3, 2018. 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 since 2005.



DISCLOSURE INSIGHT ACTION

Ameren is also participating in a voluntary industry initiative, coordinated by the Edison Electric Institute (EEI), to provide electric industry investors with more uniform and consistent environmental, social, governance and sustainability-related (ESG/sustainability) metrics. The result of the initiative, EEI's pilot ESG/sustainability reporting template, is available under the Environmental, Social & Governance section at AmerenInvestors.com.

Ameren is advancing its commitment to environmental stewardship through Ameren Missouri's 20-year Integrated Resource Plan (IRP), issued in September 2017. The IRP outlines plans to significantly increase our renewable energy portfolio, including the addition of at least 700 MWs of wind generation by 2020. It also includes the planned retirement of more than half of Ameren Missouri's coal-fired generation capacity over the next 20 years, with the retirement of the Meramec Energy Center by the end of 2022 and others between 2033 and 2036. Further, Ameren Missouri has a goal to reduce carbon dioxide (CO2) emissions 35% by 2030, 50% by 2040 and 80% by 2050, as compared to 2005 levels. More information is available at AmerenMissouri.com/IRP.

[Ameren Missouri 2017 Integrated Resource Plan - Executive Summary.pdf](#)

[2018 Ameren Coporate Social Responsibility Report \(Home Page\).pdf](#)

[EEI-ESG-Sustainability-Pilot-Template-FINAL.pdf](#)

[2017 Ameren CDP Climate Change Response.pdf](#)

[2017-Ameren-Corp.-Annual-Report-\(Final\).pdf](#)

C14.1

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

	Job title	Corresponding job category
Row 1	Senior Vice President, Innovation and Corporate Strategy	Other, please specify (SVP, Innovation and Corporate Strategy)