



REPORT ON

# Our Responsible Management of Coal Combustion Residuals

This ash basin at  
the Meramec Energy  
Center closed in the  
spring of 2018.

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# INTRODUCTION

Ameren Corporation and its subsidiaries (collectively, “Ameren,” the “Company” or “we”) have a strong, demonstrated commitment to environmental safety and stewardship. Ameren’s co-workers care deeply about protecting our shared environment. It is consistent with our mission – To Power the Quality of Life – for the over 6 million people and hundreds of communities we serve in Missouri and Illinois. In addition, Ameren’s co-workers live, work, raise their families and volunteer in the communities we serve. That’s why we work to reduce emissions and waste, preserve natural resources, increase the use of renewable and other forms of cleaner energy and create energy efficiency programs.

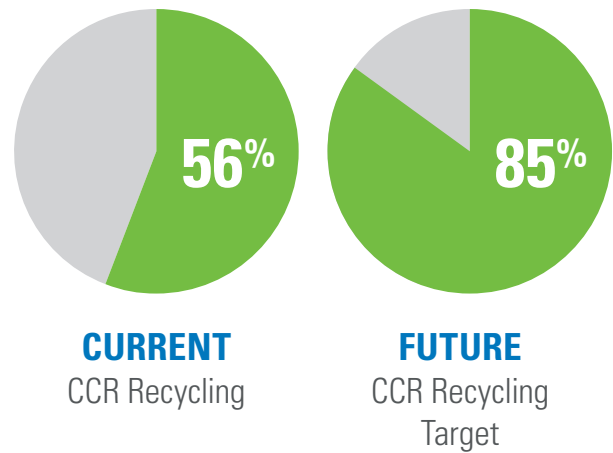
Ameren companies are implementing a portfolio of programs and projects to increase energy efficiency and meet a significant portion of our customers’ needs through cleaner generation. This includes the planned addition of at least 700 megawatts (MW) of wind generation by 2020, as well as 100 MW of solar generation by 2027. As we transition our generation fleet to a cleaner and more diverse energy portfolio in a responsible manner, we are targeting reductions of carbon emissions of 35 percent by 2030, 50 percent by 2040 and 80 percent by 2050, as compared to 2005 levels.

Currently, coal is the primary fuel source at four of our energy centers: Labadie, Meramec, Rush Island and Sioux. These energy centers, which are all located in Missouri, generate enough energy to power approximately 70 percent of our customers’ energy needs at costs that are well below the Midwest and national averages. Burning coal produces steam that drives electric generators and creates byproducts known as coal combustion residuals, or CCRs. CCRs include fly ash (fine particles) and bottom ash (coarse particles) that are either beneficially used in manufacturing cement, concrete or other building products or stored onsite in basins or landfills (CCR units).

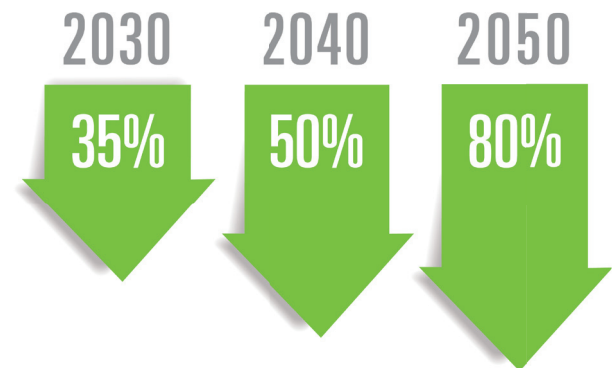
At our 2018 annual shareholder meeting, our shareholders expressed support for additional reporting on the steps we are taking above and beyond current compliance to identify and reduce potential environmental and health hazards associated with our management of CCRs and how these steps will mitigate legal, financial and reputational risks. **In response, this Report details the risk-management strategies we have incorporated and will continue to employ to handle CCRs safely and responsibly, the comprehensive steps we have taken to manage CCRs and our plans to comply with the evolving regulatory framework. This Report supplements and should be read together with the various reports, assessments, plans, documents and information on our CCR-handling efforts available on our website dedicated to CCR matters [Ameren.com/Environment/managing-ccrs](http://Ameren.com/Environment/managing-ccrs).**

We are confident that our CCR plans and strategies are responsibly protective of human health and the environment and effectively mitigate legal, financial and reputational risks associated with CCR management. Further, our plans and strategies reflect our environmental stewardship values to our customers and the local communities where we work and live and are prudent investments for our customers and shareholders.

## INCREASING CCR RECYCLING EFFORTS



## CARBON REDUCTION TARGETS\*



\*As compared to 2005 levels

# EXECUTIVE SUMMARY



Ameren has been safely operating CCR storage facilities for decades. In response to incidents at storage basins operated by other companies and changes in regulations, **Ameren expanded an already comprehensive plan to assess and address all risks associated with CCR facilities, including legal, financial and reputational risks. This plan includes:**

1. **Multiple analyses, investigations and risk assessments** conducted by independent third-party experts, which go beyond the regulatory requirements, confirming that there is no significant adverse impact on human health or the environment from our CCR management practices at our energy centers.
2. **Ongoing monitoring of water resources** near each of our facilities to define the scope of groundwater impacts, which confirm that public and private water supplies have not been adversely impacted by our operations.
3. A roadmap for **safely closing all CCR basins between 2020 and 2023**, several years ahead of United States Environmental Protection Agency (EPA) requirements, in a manner that is protective of human health and the environment and fully complies with existing regulatory requirements.
4. **Physical inspection of each CCR unit 53 times a year** (weekly and annually) by a specialized group of engineers in our Dam Safety Program to support ongoing, safe operations to protect the environment.

5. **Oversight of the CCR strategy by the full Board of Directors**, as well as committees of the Board of Directors responsible for overseeing the execution of this plan.
6. **Extensive communications** that provide timely and comprehensive information on our CCR management plan and practices to key stakeholders.
7. **Extensive regulatory oversight, including approval by the Missouri Department of Natural Resources (MDNR)**, of our closure activities to ensure the environment and the public are appropriately protected. Our CCR facilities are subject to inspections by a variety of agencies, including the Illinois Department of Natural Resources and MDNR.
8. **Oversight by Ameren's internal audit department**, including periodic reviews of the company's Dam Safety Program. The focus and frequency of internal audit oversight activities is risk-based, and the most recent Dam Safety Program review performed in 2017 affirmed the design and operating effectiveness of the program.

## Structural Stability Measures

In 2008 and 2014, structural failures of surface impoundments at two energy centers in the southeastern United States that are not associated with Ameren resulted in the release of large quantities of coal ash slurry into adjacent rivers. In one of those instances, the failure was largely the result of stacking coal ash well above the top of the basin embankment, while the other was the result of a collapsed drainage pipe located beneath the basin.

Following both incidents, Ameren voluntarily took steps beyond those required under applicable regulations and:

1. Conducted a thorough safety assessment of our CCR disposal facilities to confirm they were not at risk of failure.
2. Retained third-party engineering firms that regularly perform specialized assessments at each of our energy centers and, based on those assessments, certified that the basins are classified as having a low-hazard potential, are structurally stable, and adhere to all safety factor determinations.
3. Engaged an independent engineering firm and implemented recommendations regarding additional protective measures to maintain stable, environmentally-safe sites.

### Water Protection Measures

In addition to working to ensure the structural stability of our CCR facilities, we have also taken significant steps to ensure that our facilities do not pose risks to nearby water supplies. These include the following voluntary measures that are beyond those required under applicable regulations:

1. Conducted an extensive investigation to identify all residential wells and public water supply sources and the proximity of those intake points to the CCR units at each energy center.
2. Installed two offsite well networks to measure both the direction of groundwater flow and the water quality of residential wells located near our Labadie and Rush Island energy centers.

3. Engaged independent consultants to sample the water quality of streams, rivers, and adjacent backwaters located near our energy centers.
4. Retained an independent toxicologist to perform risk-assessments for each energy center. Haley & Aldrich's risk-assessment reports are available on our website [Ameren.com/Environment/managing-ccrs](http://Ameren.com/Environment/managing-ccrs) and confirm that our facilities are not significantly impacting human health or the environment. The risk-assessments used EPA-established protocols and evaluated approximately 15,000 data samples collected from the groundwater and surface water adjacent to our CCR units.

As discussed later in this Report, there is no pathway for groundwater to transport CCR from the ash basins to harm humans. Moreover, the data confirms that Ameren's ash basins have not adversely impacted the water quality or ecology of adjacent rivers.

### Safe Closure by 2023 and Ongoing Monitoring

As shown in Table 1, we are moving ahead with our long-standing plans to close all of our remaining basins between 2020 and 2023, several years ahead of the timeline required by the EPA. Notably, we plan to close all basins from our three largest energy centers, which produce approximately 92 percent of the annual CCR volume, by 2021. Under the CCR Rule, closure of an ash basin can occur in one of two ways: (i) leaving the CCR materials in-place and installing a final cover system, known as closure-in-place, or (ii) removing the CCR to another permitted storage facility. We have selected



# *We are moving ahead with our long-standing plans to close all of our remaining basins between 2020 and 2023, several years ahead of the timeline afforded by the EPA.*

closure-in-place as the prudent closure method. The closure of these basins includes the removal of surface waters and the compaction of CCR, which will mitigate the risk of any potential structural failure. To implement these closures, we are converting the Labadie, Rush Island and Sioux energy centers to use “dry” ash handling equipment and installing wastewater treatment facilities. These efforts will enable us to terminate water flow to the basins and **decrease our water usage by approximately 11 billion gallons per year**. The removal of this source of water from the ash basins and the installation of cover systems are expected to reduce drastically or eliminate the transport of ash constituents into groundwater.

We have successfully closed ash basins in Illinois with the approval and oversight of the Illinois Environmental Protection Agency, and we are confident future closures

## **Risk-Management and Governance**

We believe that prudent compliance measures, undertaken in accordance with applicable regulatory frameworks, effectively mitigate the legal, reputational and financial risks associated with CCR management. We have established robust risk-management and governance systems to identify, evaluate and manage these risks. Reflecting our balanced approach to sustainability, we integrate environmental protection considerations, including CCR management, into our broader enterprise risk-management (ERM) and strategic-planning initiatives.

Our ERM program, which is a comprehensive, consistently applied management framework, captures all CCR-related environmental, legal, financial and reputational risks. Ameren embeds risk-management into its business processes and key decision-making at all levels of the Company. Risk owners

**TABLE 1**

<b>ASH BASIN CLOSURES IN MISSOURI</b>					
<b>Energy Center</b>	<b>Wastewater Input to Basins Ends</b>	<b>CCR Input to Basins Ends</b>	<b>Last Ash Basin Closes</b>	<b>Number of Basins to Close</b>	<b>Approximate CCR Volume<sup>§</sup></b>
Labadie	2018	Sept. 2019	2020	2	15
Rush Island	2018	Apr. 2018	2020	1	13
Sioux	2020	Dec. 2020	2021 <sup>+</sup>	3	8
Meramec*	2020	Dec. 2022	2023	9 <sup>‡</sup>	3

<sup>§</sup> Million cubic yards + Gypsum basin closed in 2022. \* Meramec Energy Center scheduled to close at the end of 2022. ‡ Two basins closed in spring 2018.

at our Missouri energy centers will be similarly approved by MDNR. Closure plans consist of a range of activities including stabilization and cover system requirements, storm water management, inspection and maintenance requirements, groundwater-impact evaluations, and the implementation of applicable corrective measures. MDNR will oversee the implementation of all future basin closure activities to ensure environmental protection goals are met, and we will submit our plans for closure and corrective measures for its approval. Ameren will continue to analyze and disclose groundwater data collected at and around the ash basins for approximately the next 30 years.

within the Company are accountable for the quantification and mitigation of individual risks. With respect to CCR management, a cross-functional team of environmental, engineering and legal specialists is responsible for developing compliance plans that address regulatory requirements and support safe operations that are protective of the environment. Our CCR compliance team meets at least monthly to develop and monitor compliance schedules, review and approve work plans, monitor progress, evaluate data and finalize compliance reports. Supported by a team of outside experts, the CCR compliance team works with Ameren engineering groups to ensure that all energy center construction projects are carefully

coordinated and implemented. Environmental specialists monitor state and federal regulatory developments and participate with industry groups on CCR-related issues.

In addition to the CCR compliance team, Ameren's Dam Safety Program team brings expertise and specialized focus to all of our containment facilities, including ash basins. Together with energy center employees, engineers from the Dam Safety Program team inspect the ash basins 53 times a year (weekly and annually) and regularly perform vegetation control and erosion-protection measures. Further, third-party engineering firms perform periodic specialized assessments at each of the energy centers, including hazard potential classification, structural stability, hydrologic and hydraulic capacity and safety factor determinations. These assessments help ensure the safe, ongoing operation of the ash basins. Through our Dam Safety Program team, Ameren has implemented a variety of environmental safety projects at the basins, including embankment stabilization, erosion and seepage control and the installation of an emergency spillway at three of our energy centers. With input from the cross-functional CCR compliance team, the Dam Safety Program team develops the capital budget for CCR projects at the energy centers.

Ameren's Board of Directors is comprised of 12 independent board members and Ameren's CEO as chairman who oversee environmental policy matters and strategies, including those related to CCR. In addition to this oversight, committees of the Board of Directors have the following responsibilities:

- 1. The Audit and Risk Committee oversees Ameren's ERM program,** which includes strategic and operational risks, as well as the processes, guidelines and policies for identifying, assessing, monitoring and mitigating such risks, which, as noted above, include CCR-related risks.
- 2. The Nuclear and Operations Committee oversees and reviews the Company's operations, including safety, performance and compliance issues.** This includes CCR-related compliance matters and related risk-management policies and practices. The chief engineer for the Dam Safety Program makes an annual presentation to the Nuclear and Operations Committee regarding facility conditions, safety and regulatory measures, and relevant capital projects. In addition, senior management updates the Nuclear and Operations Committee on CCR implementation plans throughout the year.
- 3. The Nominating and Corporate Governance Committee oversees Ameren's corporate governance.** This oversight includes review of Ameren's

proxy statements, shareholder proposals, the Company's responses to shareholder proposals and reports that the Company issues in response to shareholder proposals.

## Mitigation of Legal Risks

Ameren is highly regulated at both the state and federal levels. We must comply with the closure requirements of the CCR Rule that will be implemented under a state program (once it is approved by the EPA) and obtain water permits from MDNR. Compliance with existing rules and regulations is critical to mitigation of legal risks associated with our CCR activities. Our CCR plan complies with all regulatory requirements and goes beyond compliance where prudent to do so.

*Based on our experts' scientific studies, we strongly believe there is no present or future significant adverse impact to human health or the environment from our ash basins.*

The EPA's regulation of CCR has resulted in litigation. In August 2018, an appellate court deemed certain aspects of the CCR Rule to be unlawful and remanded specific provisions to the EPA for further rule-making. We are monitoring developments from this court decision but do not expect it to impact significantly our present plans or strategies. Environmental groups have also attempted to use the Clean Water Act (CWA) to compel certain utilities to remove CCR from their ash basins. However, appellate courts in three recent decisions have rejected those efforts. The courts have concluded that such claims should be based on the Resource Conservation and Recovery Act (RCRA) and the CCR Rule, not the CWA. Under RCRA, a litigant must establish the existence of an "imminent and substantial endangerment." These decisions provide further support for Ameren's decision to close our ash basins in-place.

We expect further legal challenges to the regulatory framework as the EPA finalizes its revisions to the CCR Rule and its approval of individual state programs, including any program

adopted by Missouri. However, we are confident, based on the results of our environmental investigations and prior regulatory approval of in-place closures in Illinois, that implementation of our strategy will comply with CCR requirements. Based on our expert scientific studies, we strongly believe there is no present or future significant adverse impact to human health or the environment from our ash basins, as supported by our various technical assessments discussed later in this Report. Ameren Missouri has not been subject to lawsuits with respect to CCR management, and we maintain appropriate insurance coverage to mitigate such risk. **As a result, we strongly believe we are effectively mitigating legal risks associated with CCR activities.**

### Mitigation of Financial Risks

The electric rates that Ameren Missouri charges its customers are determined by the Missouri Public Service Commission (MPSC) and reflect the prudently incurred costs of the energy centers, including those related to compliance with environmental laws and regulations. Full and timely recovery of our investments, the related returns on our investments and the operating costs associated with CCR activities are critical to our shareholders. A key aspect of recovering all of our capital and operating costs for environmental matters through electric rates approved by the MPSC is compliance with existing laws and regulations in a prudent fashion. Another key consideration is ensuring that our compliance plans effectively take into consideration least-cost options to keep our customers' rates affordable. As noted under Mitigation of Legal Risks above, we intend to comply fully and prudently with all CCR laws and regulations. And as described later in this Report, while we continue to evaluate alternatives, we believe that our current closure-in-place plan is both technically feasible and significantly less-costly to our customers than one that would remove and transport all CCR materials to another permitted storage facility. As a result, we believe these closure and conversion plans represent a safe, prudent and economically justifiable CCR mitigation plan, and, assuming we effectively manage the implementation of our CCR plan, we expect that all costs associated with this plan will be recoverable in customer rates, subject to final approval by the MPSC. **Accordingly, we strongly believe we are effectively mitigating the financial risks associated with CCR activities through the execution of our CCR plan.** Further, based on current environmental and site conditions and regulatory requirements, we believe that a CCR plan that includes removing and

transporting all CCR materials to another permitted storage facility could create significant risks that the related costs would not be fully recoverable in rates and result in significant shareholder losses.

Over an eight-year period beginning in 2016, we estimate total capital expenditures of approximately \$585 million to complete the construction of wastewater treatment systems, conversions to dry ash handling, and ash basin closures.

### Mitigation of Reputational Risks

Collectively, our CCR risk-mitigation efforts also protect Ameren's reputation among its various stakeholders. We fully comply with existing rules and regulations to protect our environment and the communities we serve. We manage our business with a commitment to sustainability, exercising disciplined cost management to meet our customers' expectations for affordability and reliability. We proactively communicate with all of our stakeholders on our compliance strategies through robust disclosure, shareholder engagement and regulatory filings. And our strong governance framework demonstrates our commitment to oversight and accountability. **As a result, we strongly believe that we are effectively mitigating reputational risks associated with the execution of the CCR plan.**

### Conclusion

**We are committed to being good stewards of the environment and making sure that there is no significant adverse impact to the public or the environment from our CCR management operations. We are confident that our compliance strategies and closure plans are not only protective of human health and the environment but will also effectively address legal, financial and reputational risks associated with CCR management.** And as discussed further in this Report, our risk-management measures go beyond compliance requirements: our closure plans and wastewater treatment facility conversions will occur well in advance of the timeline afforded by the EPA; the engineering design of our Labadie and Sioux landfills exceed regulatory requirements, and we have voluntarily performed comprehensive water-quality sampling of surface waters to alleviate concerns that the ash basins pose a risk to the public. Our CCR compliance plans are supported by our robust corporate governance and enterprise risk-management practices that will continue to protect and enhance long-term shareholder value.



# AMEREN'S CCR COMPLIANCE STRATEGY:

## Protective of Human Health and the Environment



In the following sections of this Report, we provide additional detail regarding the regulatory, operational and compliance considerations underlying our CCR risk-management practices.

### **1. Our Compliance and Risk Strategies are Informed by the State and Federal Regulatory Framework**

#### **Regulatory Framework**

Structural failures at two energy centers in the Southeast prompted the EPA to begin a nationwide examination of coal ash storage practices and to propose, in 2010, its first-ever approach to CCR regulation. Following extensive public comment, in 2015, the EPA issued its final CCR Rule. Through this rule, the EPA regulates CCR as solid waste under the RCRA, which requires CCR facilities to operate in a manner that presents “no reasonable probability of adverse effect on health or the environment.”

EPA’s 2010 proposal allowed for the use of risk-based processes in defining appropriate remedy and corrective-action measures, but the EPA removed those processes from the final rule, stating that they lacked regulatory oversight. In 2016, those concerns were alleviated by federal legislation that allowed states to create, enforce and oversee CCR programs. Importantly, state programs must be approved by the EPA and be as protective as the federal rule. However, the state CCR programs can contain

*The creation of state CCR programs gives regulators direct oversight and enforcement abilities.*

technical standards based on site-specific criteria. In addition, in March 2018, the EPA proposed a series of revisions to the CCR Rule that, among other things, include incorporation of risk-based processes with respect to remedy and corrective action measures. The state of Missouri supports the EPA’s proposed changes and, as authorized by state legislation, intends to use risk-based approaches for basin closures. The EPA finalized the first phase of these CCR-related changes in July 2018, and the final phases are expected by summer 2019.

Regulation at the state level does not compromise environmental protection or change RCRA’s statutory standard. The creation of state CCR programs gives regulators direct oversight and enforcement abilities. Specifically, MDNR will review and approve Ameren’s groundwater monitoring, as well as closure and corrective

action plans to ensure that the public and environment are protected. Missouri has a robust risk-based corrective action program, with more than 30 years of experience.

Under existing state law, and under the EPA’s proposed regulations, state regulators may base remedy decisions on a variety of factors, including whether groundwater is used as a drinking water source. As detailed later in this Report, **outside experts have concluded that groundwater impacted by CCR at the ash basins is not used for drinking water and will not impact residential drinking water wells.**

Developments at the federal and state level will continue to inform our CCR compliance strategy. We believe that by following the closure and corrective measure requirements established by federal and state regulators, we will effectively mitigate known and unknown CCR environmental risks.

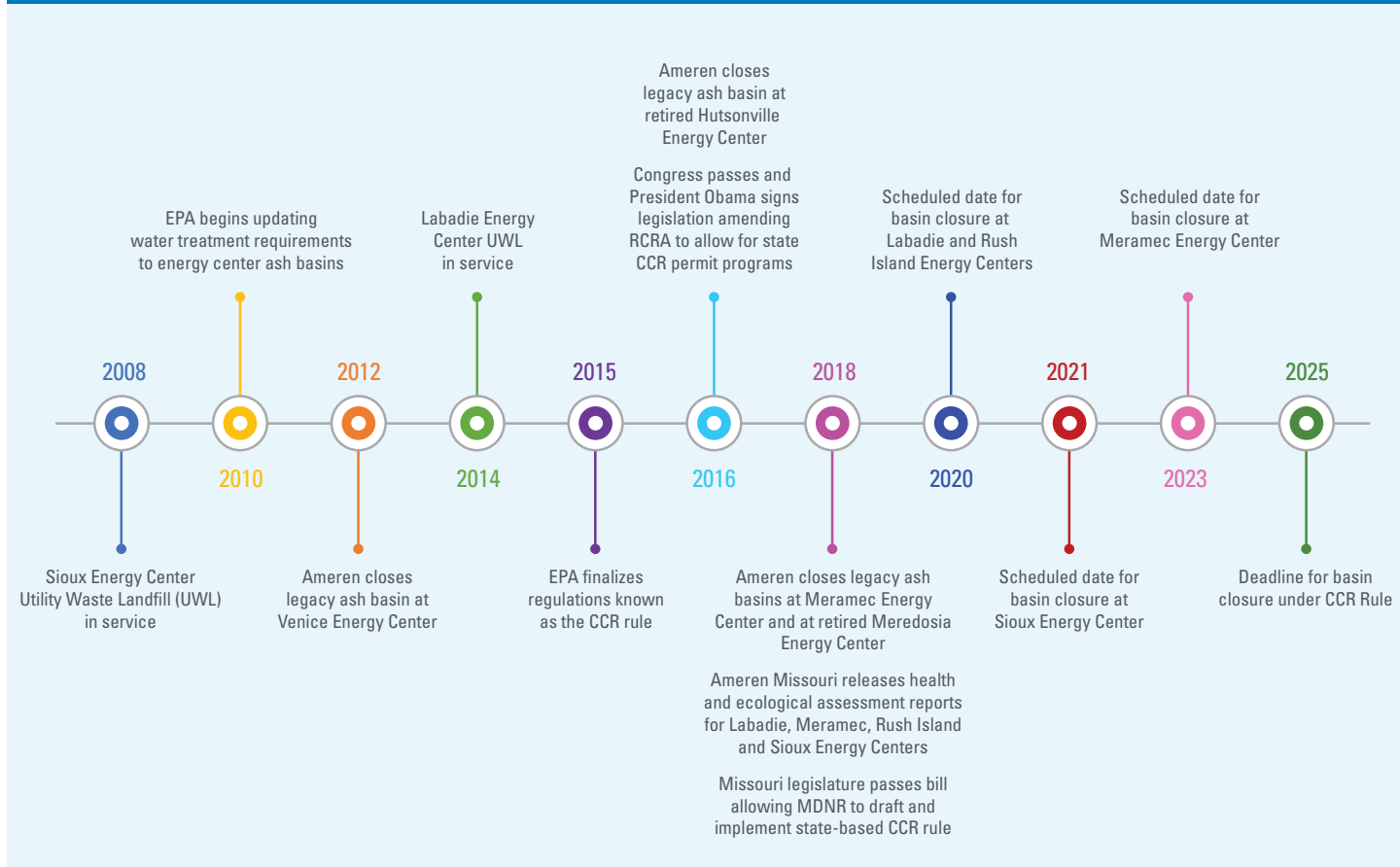
## Closure Plans

We began planning for the closure of our Missouri ash basins more than a decade ago. In 2010, the EPA initiated an update to CWA treatment requirements for power plant wastewater discharges. Two main factors informed our plans. First, ash basins, which are and have been regulated as wastewater treatment facilities, would not comply with the EPA’s then-contemplated effluent requirements. Second, many of the ash basins were nearing capacity. In recognizing our alternative capacity needs, Ameren constructed state-of-the-art utility waste landfills at its Labadie and Sioux energy centers under solid waste permits issued by MDNR in 2008 and 2014.

As required by the CCR Rule, in October 2016, we prepared preliminary closure and post-closure plans for all of our CCR

TABLE 2

**THE TIMELINE BELOW** describes some of the key milestones in our CCR management plans. Importantly, by the time the EPA began regulating the management and disposal of CCR in 2015, we had already made substantial progress on our transition plan.



units. Under the EPA’s rules, closure of storage facilities can occur in one of two ways: (i) leaving the CCR materials in-place and installing a final cover system, known as closure-in-place, or (ii) removal of the CCR. We have selected closure-in-place as appropriate and prudent for our facilities and will install a cap and cover system, similar to that shown in Figure 1, that will achieve the CCR Rule’s performance objectives, including minimizing or eliminating infiltration, enhancing stability and minimizing maintenance. **Our decision regarding closure is supported by the results of our extensive groundwater and surface water sampling, the site-specific risk assessment work performed by a third-party toxicologist and the regulatory framework set forth in the EPA’s proposed rules and Missouri state CCR legislation.**

Ameren continues to take necessary, ongoing steps to close our ash basins. Traditionally, large volumes of water were necessary to collect and transport ash from the steam generators to basins for long-term storage. More than a

decade ago, Ameren began engineering studies to eliminate and replace this use of water with dry-handling technologies and the storage of CCR in dry, state-of-the-art landfills. Before our active ash basins can be closed, however, we must complete the construction of alternative wastewater treatment facilities to manage low-volume wastewater streams from the energy centers. This multi-step process includes removal of surface water from the basins, stabilization of the CCRs, grading and contouring to promote drainage, and the installation of top liner systems to prevent water from infiltrating ash within the basin. Once dry-ash-handling and replacement wastewater treatment projects are in place, Ameren can physically isolate and remove the ash basins from service. Post-closure inspections and necessary maintenance of the cover system will occur on a routine basis to prevent erosion.

Figures 2 and 3 are photos of closed ash basins at two of our energy centers.

## COVER SYSTEM EXAMPLE

FIGURE 1

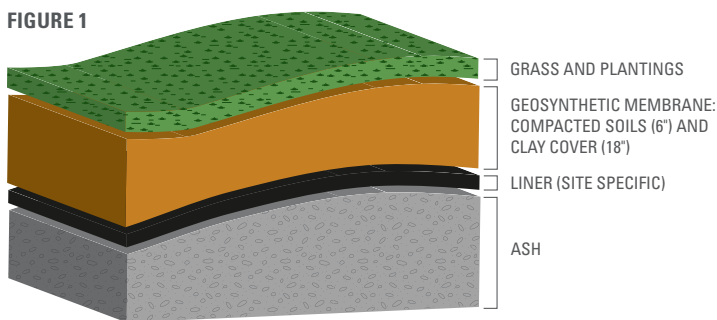


FIGURE 2



VENICE (IL) CLOSED IN 2012

FIGURE 3



MERAMEC (MO) CLOSED IN 2018

*Our risk-assessments are above and beyond the regulatory requirements of the CCR Rule and confirm that the ash basins at Ameren's energy centers do not pose a significant adverse impact to human health or the environment.*

## **MONITORING FOR WATER QUALITY**

### **State Permits**

In Missouri, the quality of surface water and groundwater is protected through standards developed by state regulators. With respect to surface water, numerical limitations for certain constituents are placed in discharge permits as required by federal law. Effluent discharges into surface waters from Ameren's ash basins are all subject to numerical limits. Groundwater is also subject to state protection standards for specific constituents and uses. MDNR assigns "designated uses" to state water bodies, such as drinking water supply, irrigation, livestock and wildlife protection, and recreation. MDNR then designates water quality criteria to protect such uses. Ameren monitors water quality at its energy centers by sampling groundwater through a system of onsite wells and surface water discharges from ash basins. Ameren reports sampling data directly to MDNR as required by its permit. In issuing permits, MDNR provides detailed descriptions and analysis of water quality requirements and facility operations. Permits for all of our energy centers are posted on MDNR's website.

### **CCR Rule**

Separate from state water permit obligations, we collect groundwater data as required under the federal CCR Rule, which imposes detailed requirements on owners and operators of CCR units, including specific public-reporting obligations. Consistent with those requirements, we have installed monitoring wells up- and downgradient of CCR basins, that provide regular sampling for the presence of specific coal ash constituents. Groundwater data is used to establish protection standards through a statistical analysis protocol. Due in part to background levels and site geochemistry, these protection standards can differ among energy centers and are established after collecting data over several years to account for seasonal variation in groundwater. The collection process culminates in

an evaluation and comparison of the data to the derived protective standard or to federal drinking water standards, whichever is based on the higher value. The calculation of a derived standard is important because, at our sites, background or naturally occurring levels for specific constituents may exceed drinking water standards.

Results differ among the energy centers and the various CCR units, and we continue to collect and evaluate data to calculate the applicable protection standards required by the CCR Rule. Monitoring data collected in 2017 and the statistical analysis methodology used by Ameren are available on Ameren's CCR website [Ameren.com/Environment/managing-ccrs](http://Ameren.com/Environment/managing-ccrs). Analysis of the gathered data is ongoing and not yet complete. While our preliminary findings indicate that selected constituents exceed background levels, those levels do not mean that the ash basins pose an actual risk or threat to public health or the environment. To determine whether such a risk or threat exists, we retained independent environmental firm Haley & Aldrich to prepare risk-assessment reports for each of our four coal-fired energy centers based on all available groundwater and surface water quality data. As detailed later in this Report, these risk-assessments, which are above and beyond the regulatory requirements of the CCR Rule, confirmed that the ash basins at Ameren's energy centers do not pose a significant adverse impact to human health or the environment.

Ameren continues to collect data, including sampling, to determine the nature and extent of any groundwater impacts. Once those efforts are complete, Ameren will prepare comprehensive reports that analyze the data and outline the extent of any observed impacts and appropriate corrective measures. Under the timelines afforded by the CCR Rule, we anticipate completing those reports during the second quarter of 2019, after which we will host meetings to take public comments from interested stakeholders. The CCR Rule's corrective action and remedy provisions require Ameren to select a remedy that is protective of human health and the environment. Potential remedies are evaluated based on a



variety of factors, including the amount by which they reduce risk, technical feasibility, short-term risks to the community during implementation, long-term reliability of engineering or institutional controls, resource value of the aquifer, and probability of achieving an applicable groundwater protection standard. We are also monitoring the EPA's March 2018 proposed revisions to the CCR Rule to assess how they might affect the remedies we ultimately implement, should remedies be required.

Our analysis of the above factors is ongoing. Based upon the lack of adverse impact to human health and the environment as demonstrated in the Haley & Aldrich reports, **closure-by-removal is not necessary to attain RCRA's statutory standard that CCR units present "no reasonable probability of adverse effect on health or the environment."** While we intend to address the merits of a "closure by removal" remedy in our 2019 corrective measures report under the CCR Rule, we believe this remedy would create other environmental risks and that costs associated with such an approach would be exorbitant and unnecessary, given site conditions and other potential measures under evaluation.

Groundwater monitoring at all the Missouri energy centers is expected to continue for decades and cannot terminate without MDNR approval. We expect that the closure of the CCR basins will result in a decline of groundwater impacts over time, as geochemistry within the groundwater returns to a steady state.

## 2. Studies Confirm No Significant Adverse Impacts from Ameren's CCR Basins

### CCRs in Context

CCRs are similar in composition to the soils, rocks and clays we encounter every day; all of the constituents in CCRs, including trace amounts of metals, are naturally occurring in the environment. For example, arsenic is present naturally in soils, groundwater and the foods we eat. The EPA has formally determined, based on an extensive risk-assessment and statutorily mandated study criteria, that CCRs are not a hazardous waste. In fact, as with other solid waste, such as miscellaneous household waste, CCRs can be sent to municipal landfills. To determine whether any particular substance is "toxic," one must consider both "dose" (i.e., concentration level) and exposure. CCRs contain trace levels of metals, and as our studies confirm, there is no exposure to the ash basins or impacted groundwater.

### Structural Stability

Following the earlier-referenced 2008 incident in the Southeast, we engaged independent engineering firms (Reitz & Jens; Geotechnology) to perform a structural analysis of all of Ameren's ash basins to confirm the safety of such systems.

**That assessment reflects that the various practices that contributed to the 2008 failure, including inappropriate storage and stacking of CCRs and inadequate foundations, were not and are not present at Ameren's facilities.**

Ameren’s Dam Safety Program team is specifically tasked with the safe design, operation and regular inspection of CCR units. The Dam Safety Program team regularly performs vegetation control, routine maintenance and erosion-protection measures. Ameren’s basins and landfills are all protected by berms designed and maintained to withstand extreme weather events and have never experienced a structural failure or subsidence. As part of Ameren’s CCR Rule compliance and to guard against the risk of structural failures, third-party engineering firms also perform specialized assessments at each of the energy centers, including hazard potential classification, structural stability, hydrologic and hydraulic capacity, and safety factor determinations. As part of those assessments, modeling is performed to verify that the basins can hold a 100-year, 24-hour rainfall event. In addition, surface water volumes can be reduced as necessary to ensure adequate retention capacity. We also added video cameras to our inspection protocols to observe subsurface features such as piping and outlets. These measures will collectively ensure the safe operation of the ash basins until their closure over the next four years and the ongoing operation of our landfills.

Missouri’s regulations impose stringent design criteria and construction requirements that specifically contemplate the potential for seismic and flood events – the natural disasters that can occur in our region of the Midwest. The stringent permitting process takes years to complete and requires both preliminary and detailed site investigations to screen out geologically unsuitable sites. Disaster risks and mitigation measures are specifically incorporated into the engineering design of the landfill. The review and approval process includes geotechnical investigations, seismic evaluations, river and groundwater elevation assessments and flood plain analysis. Ameren conducted specific geotechnical analyses to ensure that the landfill and surrounding ground surface would withstand a magnitude 7.5 seismic event and not destabilize. MDNR requires stringent quality control methods, including

both laboratory and field testing to confirm the strength and durability of the clay materials used in construction. Ameren’s landfills contain redundant liner systems with clay and high density polyethylene liners that form an impenetrable barrier between the CCR fill and the groundwater. A leachate drainage system automatically pumps liquids out of the landfill and limits the amount of precipitation that can gather on the composite liner. CCR placed within the landfills comes from Powder River Basin (PRB) coal that, unlike coal from other mining regions, hardens into a dense, concrete-like material. Due to the physical properties of PRB coal, should a natural disaster occur in eastern Missouri, CCR in our landfills would not experience “washout” like those seen in recent events elsewhere in the country.

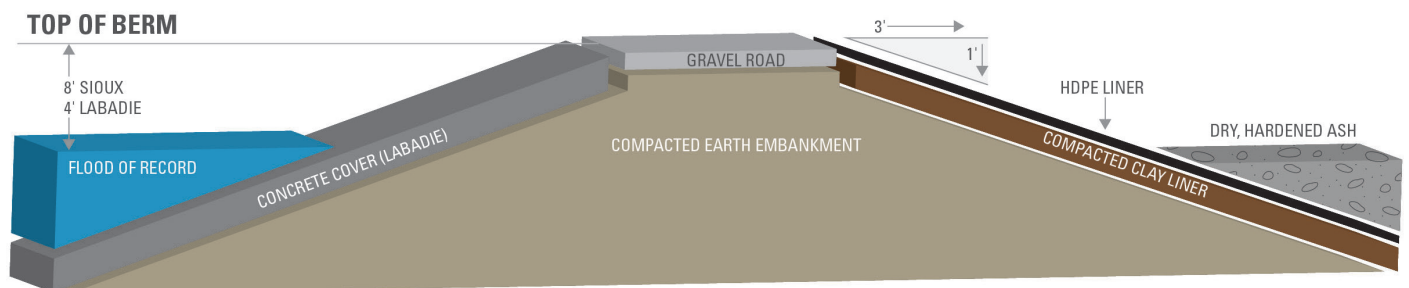
With respect to flood events, Ameren’s landfills are designed to withstand the largest flood recorded in this region. Exterior berms that encircle the Labadie and Sioux landfills have been built to exceed the 1993 flood of record by approximately four and eight feet, respectively, as shown in Figure 4. At Labadie, the exterior berms are clad with a fabric-formed concrete. Should flood water reach designated levels, emergency operating plans are triggered. Both facilities are equipped with backup generators and pumps, and above-ground tanks can be deployed if needed to provide additional storage capacity. Precipitation from storms is collected and moved away from the landfills through a series of systems, including interior moats, oversized external retention basins, and interconnected pumps and piping.

### Water Quality

We have engaged multiple independent experts in recent years who have developed and reviewed a comprehensive set of site-specific information related to groundwater and surface water quality at our energy centers. This information, which is publicly available on our website, includes but is not limited to the following:

## LANDFILL FLOOD PROTECTION

FIGURE 4



1. **Groundwater Flow** – Determined and plotted direction, flow rate and water level readings for all energy center sites on surface contour maps, as illustrated in Figure 5.
2. **Public Water Supplies** – Identified the nearest location of public water supply intakes on the Missouri, Mississippi and Meramec Rivers. All such intakes are located several miles from our facilities, as shown in Figure 6.
3. **Residential Wells** – Identified private and community drinking water wells located within a one-mile radius of the energy centers. In addition, Ameren installed offsite well networks at the Labadie and Rush Island Energy Centers to confirm that groundwater used by residential wells fully complies with drinking water standards.
4. **Surface Water** – Sampled the Missouri, Meramec and Mississippi Rivers and adjoining creeks and backchannels to determine water quality and whether the ash basins impact those surface water bodies.
5. **Risk-Based Analysis** – *What Level Would Be a Risk?* Using flow rates for groundwater and surface water, calculated the concentration levels that would need to

exist onsite before there could be a significant adverse impact to surface water. As detailed in Haley & Aldrich’s reports, for such an adverse impact to exist, onsite groundwater concentrations at each of the energy centers would need to be multiples higher than current conditions.

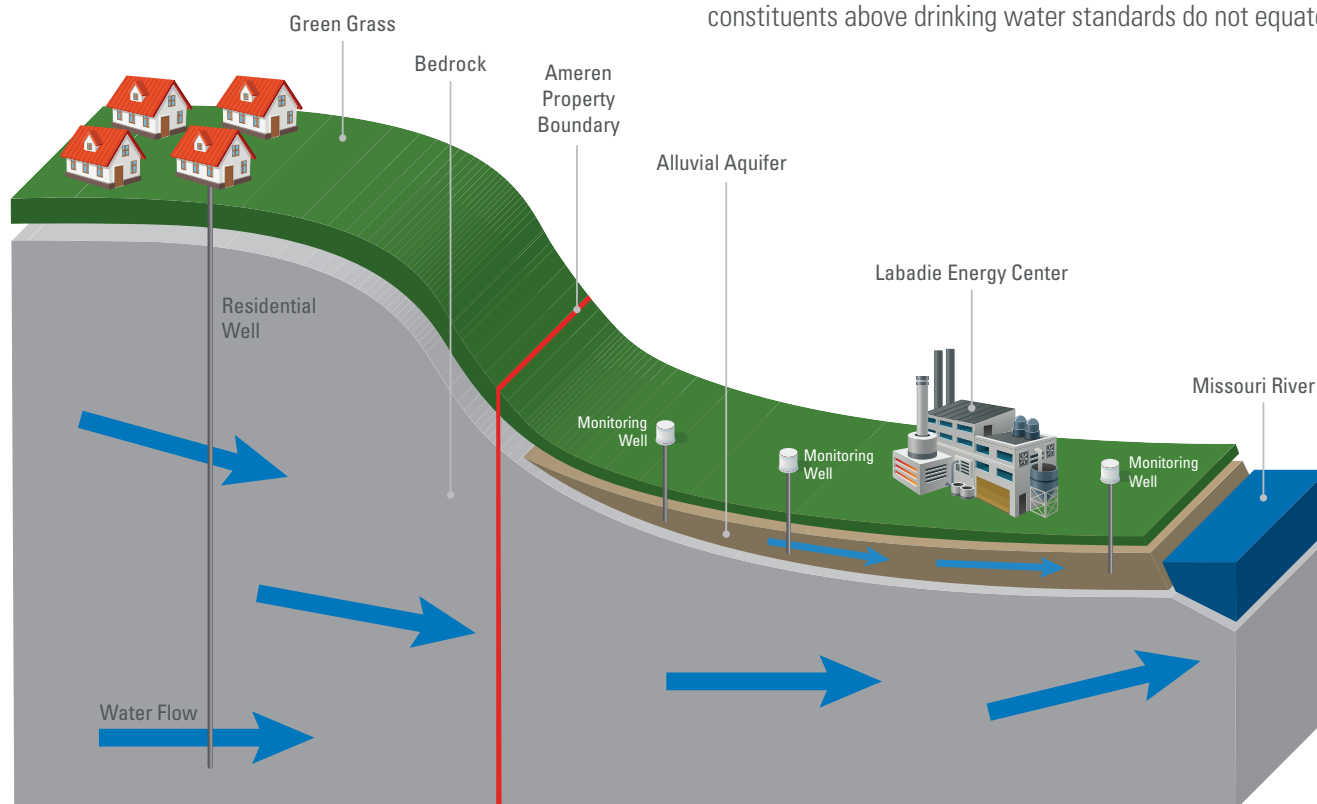
Haley & Aldrich also compiled a comprehensive set of EPA- and MDNR-published criteria and evaluated the groundwater and surface water data sets for the following potential exposures: drinking water consumption, recreational use, and fish consumption. The data sets included more than 15,000 data points. **Certified toxicologists using published EPA methodology concluded that the basins do not present either an ecological or human-health risk.**

### No Groundwater Exposure Pathway

As detailed in the Haley & Aldrich reports and under a risk-based analysis used by environmental regulators, for there to be a risk from a chemical constituent, there must first be a mechanism or physical pathway for exposure to occur. With respect to the basins, such a pathway does not exist; thus, there is no human exposure to groundwater impacted by coal ash constituents. The CCR monitoring wells are located at the very edge of the CCR units, and sampling data represents water quality of groundwater underneath the basins, not the aquifer in general. This data is not representative of water quality of resources actually used by the public. Concentration levels of certain constituents above drinking water standards do not equate to a

## LABADIE ENERGY CENTER

FIGURE 5



*As summarized in the Haley & Aldrich risk-assessment reports, water quality is the same upstream of, adjacent to and downstream from each energy center.*

health risk because a pathway of exposure is absent. No one is drinking the water from or underneath an ash basin.

These analyses have also confirmed that all residential wells are located upgradient (uphill) from the ash basins and draw water from deep within the bedrock, not the portion of the aquifer where the CCR units are located. Even in extreme conditions, such as a flood where gradient reversal could occur, flow-modeling confirms that residential wells would not be impacted.

FIGURE 6



Missouri American Water and the City of Saint Louis Water Division provide drinking water to the majority of residents located within the metropolitan area. Intake locations include the Mississippi River (Alton, Illinois and Chain of Rocks – 4.5 and 15 miles respectively downstream from Sioux); the Missouri River (Howard Bend – 19 miles downstream from Labadie); and the Meramec River 5 miles upstream of Meramec. The nearest public water intake to Rush Island is located 30 miles downstream in Chester, Illinois.

Ameren will continue to monitor groundwater concentrations at its facilities as required by state and federal CCR regulations. Closure of the basins will reduce by greater than 90 percent the amount of water that filters through the CCR and into the groundwater. Over time, concentration levels in groundwater are expected to decrease. And as the property owner of all of its CCR facilities, Ameren will control future uses of groundwater on the properties.

To help understand the assessments performed at all of the energy centers, Figure 5 is an illustration of the Labadie Energy Center depicting the location of the energy center and the topography of the surrounding area. The energy centers are all located on large river systems with groundwater typically flowing downgradient towards those rivers. Residential drinking water wells are located upgradient of the energy centers and draw groundwater from deep within the bedrock aquifer. **There are no residential homes or residential supply wells downgradient from the energy centers.** This is an important factor in determining whether an exposure pathway exists.

### No Public Drinking Water Supply Impact

To confirm that ash basins do not adversely impact nearby water bodies, including the Meramec, Mississippi and Missouri rivers, Ameren retained independent experts to sample surface waters immediately upstream of, adjacent to and downstream from the energy centers, including creeks that abut Ameren's property boundaries. At each location, samples were drawn at three points between the bank and midpoint of the river and at two depths (shallow and deep) within the water column. As summarized in the Haley & Aldrich risk-assessment reports, water quality is the same upstream of, adjacent to and downstream from each energy center. Further, where an exposure pathway theoretically could exist (e.g., drinking water supplies from rivers, swimming or fishing in streams), the data confirms that such waters fully comply with drinking standards or are consistent with background and are below ecological risk levels.





### 3. Ameren's Actions Go Beyond CCR Requirements

In response to public concerns regarding CCR, and despite an evolving regulatory framework, **Ameren has not delayed transitioning away from ash basins and closing those facilities.** While the phrase "above and beyond current compliance" used in the shareholder proposal is vague and not a recognized legal standard under any state or federal law, we have nevertheless attempted to respond to the 2018 shareholder proposal to identify those measures that go beyond applicable regulatory requirements, which are noted in this Report.

- 1. Closure Schedule** – Ameren has committed to closing ash basins at our Missouri energy centers and will do so well ahead of the requirements of the CCR Rule.
- 2. Dam Safety Review** – Following the December 2008 ash basin incident in Tennessee, Ameren expanded the role of the Dam Safety Program to include ash basins and engaged structural engineering firms to inspect basins in Illinois and Missouri to make sure a similar event could not happen at Ameren's energy centers.
- 3. Closure of Ash Basins at Former Generating Sites** – In its original 2015 rule-making, the EPA excluded former ash basins located at inactive generating facilities from regulation. Such an exemption was ruled improper in an August 2018 ruling by the U.S. Court of Appeals for the D.C. Circuit. As part of our overall CCR strategy, Ameren has not distinguished between active and inactive sites, and we have a long history of closing ash basins at our former energy centers. Those Illinois sites include Hutsonville, Venice and Meredosia. CCR basins at all of those sites were closed-in-place and with oversight and approval by

state environmental regulators. In fact, the Hutsonville and Venice closures provided the framework upon which Illinois ultimately based its proposed CCR rule-making, currently pending before the Illinois Pollution Control Board. Ameren's efforts in Illinois at inactive generating sites were initiated well before the federal court decision and go beyond existing regulatory requirements.

- 4. Wastewater Treatment** – The closure of ash basins requires a re-engineering of plant systems to manage both coal ash and water. Ameren commenced design and construction of wastewater treatment systems at our facilities, even though the EPA has deferred timing requirements. Ameren's execution of our effluent treatment strategy, a necessary step prior to closure, goes beyond current regulatory requirements.
- 5. Landfills** – The EPA's draft CCR regulations were not finalized until 2015. Nevertheless, Ameren designed the Sioux and Labadie landfills with those proposed requirements in mind. Specifically, the liner design (i.e., thickness) used in the 2010 construction of the Sioux UWL exceeds the performance criteria in both Missouri's solid waste and federal CCR regulations. In addition, despite an exemption contained in the rule, the base of the Labadie landfill was built five feet above the ground surface. Such design and construction go beyond regulatory requirements.
- 6. Environmental Investigations** – While not mandated by either the CCR Rule or its operating permits, Ameren conducted comprehensive water quality sampling of the following surface water bodies adjacent to our properties: the Meramec, Missouri and Mississippi Rivers, the Isle

Du Bois Creek, Labadie Creek and unnamed backwaters. **That surface water sampling initiative goes beyond existing requirements and was specifically performed to alleviate potential concerns that the ash basins pose a risk to the public.** Ameren has been transparent with the results of those investigations, which confirmed that our facilities are not adversely impacting human health or the environment. Those results were published in risk-assessment reports prepared by a board-certified toxicologist and made available to the EPA, MDNR and the news media.

#### 4. Ameren's CDP Water Security Questionnaire Response

CDP, an international non-profit, conducts voluntary annual surveys in order to encourage disclosure of potential risks relating to water resources. Ameren has participated in this voluntary effort and provides information on a variety of topics, including water use, risk evaluations and corporate board oversight. In addition, Ameren obtained third-party verification of its data related to water withdrawal and use in its 2018 CDP responses. Ameren's responses to the 2018 Water Security Questionnaire are available on our website [Ameren.com/sustainability](http://Ameren.com/sustainability).

Although the CDP questionnaire provides a common framework to collect information relating to specific, discrete issues, such as water resource availability, it is not the appropriate mechanism to analyze and report analytical water quality data collected under complicated regulatory regimes, such as the CCR Rule or the Clean Water Act. Sampling data and other technical information should be presented in context to be properly understood, and the CDP's questionnaire format does not allow for that necessary context.

As noted above, as required under the CCR Rule, Ameren will publish information and host a public meeting in 2019 to discuss our groundwater quality evaluation and any corrective measures.

In response to the 2018 CDP Water Security Questionnaire, we also noted that we engaged an independent engineering firm to produce a Water Resiliency Report to assess current and future availability of water resources in Ameren's region and also in the Powder River Basin, a key portion of our supply chain. The report summarizes water resource availability trends under various climate change scenarios. The report projects that for the time period around 2030, water resources are likely to be near normal in most of Ameren's regions but could become increasingly stressed in the Powder River Basin. Based on the report findings, **we do not expect material impacts on our operations through 2030 due to water resource availability.** The full report is available on our website [Ameren.com/sustainability](http://Ameren.com/sustainability).

#### 5. Ameren's Commitment to Transparency and Information Sharing

As discussed above, Ameren has robust disclosures regarding CCR compliance costs, regulatory status, site-specific conditions, and lack of environmental impact. Ameren's CCR website [Ameren.com/Environment/managing-ccrs](http://Ameren.com/Environment/managing-ccrs) contains inspection reports, structural stability assessments, groundwater monitoring plans, initial closure plans and required notifications. In **Attachments A and B** to this Report, we list all of our published and expected reports on our management of CCRs.

#### Conclusion

Ameren is committed to the responsible handling of CCRs. We have taken comprehensive steps to mitigate the legal, reputational and financial risks to the Company. Those efforts include multiple analyses by independent third-party experts, ongoing monitoring at all of our energy centers, rigorous inspection requirements and oversight by our Board of Directors. As a result of this extensive work and future efforts, we believe our compliance strategies are protective of human health and the environment, as well as all of our stakeholders, including our customers, the communities we serve and our shareholders.



# 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. In connection with the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995, we are providing this cautionary statement to identify important factors that could cause actual results to differ materially from those anticipated. The following factors, in addition to those discussed under Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2017, and elsewhere in this report and in our other filings with the Securities and Exchange Commission, could cause actual results to differ materially from management expectations suggested in such forward-looking statements:

- regulatory, judicial, or legislative actions that change regulatory recovery mechanisms;
- the effect on Ameren Missouri of the implementation of Missouri Senate Bill 564, including Ameren Missouri’s election to use plant-in-service accounting and the resulting customer rates caps;
- the effects of changes in federal, state, or local laws and other governmental actions, including monetary, fiscal, and energy policies;
- the effects of changes in federal, state, or local tax laws, regulations, interpretations, or rates;
- our ability to align overall spending, both operating and capital, with frameworks established by our regulators and to recover these costs in a timely manner in our attempt to earn our allowed returns on equity;
- the effectiveness of our risk-management strategies and our use of financial and derivative instruments;
- the ability to obtain sufficient insurance, or, in the absence of insurance, the ability to recover uninsured losses from our customers;
- business and economic conditions, including their impact on interest rates, collection of our receivable balances, and demand for our products;
- disruptions of the capital markets, deterioration in our credit metrics, or other events that may have an adverse effect on the cost or availability of capital, including short-term credit and liquidity;
- the inability of our counterparties to meet their obligations with respect to contracts, credit agreements, and financial instruments;
- the impact of weather conditions and other natural phenomena on us and our customers, including the impact of system outages;
- the construction, installation, performance, and cost recovery of generation assets;
- the impact of current environmental regulations and new, more stringent, or changing requirements, including those related to carbon dioxide and the related proposed repeal and replacement of the Clean Power Plan and potential adoption of the Affordable Clean Energy Rule, other emissions and discharges, cooling water intake structures, coal combustion residuals, and energy efficiency, that are enacted over time and that could limit or terminate the operation of certain of Ameren Missouri’s energy centers, increase our costs or investment requirements, result in an impairment of our assets, cause us to sell our assets, reduce our customers’ demand for electricity or natural gas, or otherwise have a negative financial effect;
- labor disputes, work force reductions, future wage and employee benefits costs, including changes in discount rates, mortality tables, returns on benefit plan assets, and other assumptions;
- the impact of negative opinions of us or our utility services that our customers, legislators, or regulators may have or develop, which could result from a variety of factors, including failures in system reliability, failure to implement our investment plans or to protect sensitive customer information, increases in rates, or negative media coverage;
- the effects of strategic initiatives, including mergers, acquisitions, and divestitures;

- legal and administrative proceedings;
- the impact of cyberattacks, which could, among other things, result in the loss of operational control of energy centers and electric and natural gas transmission and distribution systems and/or the loss of data, such as customer, employee, financial, and operating system information; and
- acts of sabotage, war, terrorism, or other intentionally disruptive acts.

New factors emerge from time to time, and it is not possible for management to predict all of such factors, nor can it assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained or implied in any forward-looking statement. Given these uncertainties, undue reliance should not be placed on these 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.

# GLOSSARY OF SELECT TERMS

**Alluvial aquifer** – A geologic formation transmitting water found in river channels or floodplains and composed of gravel, sand, silt and clay.

**Ash basin** – A natural topographic depression, man-made excavation or diked area to manage coal combustion residuals and wastewater streams from energy centers. Ash basins are categorized as water treatment facilities and are subject to Clean Water Act requirements and state-administered permitting programs.

**Coal Combustion Residual (CCR)** – Fly ash, bottom ash boiler slag and flue gas desulfurization materials generated from burning coal to make electricity. CCRs are non-hazardous and are regulated as solid waste under the Resource Conservation and Recovery Act.

**CCR Rule** – EPA rule-making finalized in 2015 that governs the management of CCRs, design standards for new CCR units, and closure requirements for nonconforming CCR units.

**CCR unit** – Refers to both ash basins and utility waste landfills.

**Dam Safety Program** – A specialized group at Ameren working under a chief dam safety engineer, tasked with supporting ongoing, safe operations of FERC-licensed dam facilities, non-FERC dam facilities, levees and ash basins.

**Downgradient** – A lower elevation of surface water or groundwater. A similar concept to downstream.

**Enterprise Risk-Management (ERM)** – A formalized process for businesses to evaluate risks and opportunities.

**Missouri Department of Natural Resources (MDNR)** – State agency protecting Missouri’s air, land and water resources.

**Missouri Public Service Commission (MPSC)** – State agency regulating Ameren’s electric and natural gas utility businesses in Missouri.

**Resource Conservation and Recovery Act (RCRA)** – Federal law governing management of hazardous and non-hazardous solid waste and disposal units.

**Surface water** – Natural waterways, such as rivers and streams, that have not gone underground.

**Upgradient** – A higher elevation of surface water or groundwater. A similar concept to upstream.

**Utility waste landfill** – A solid waste disposal unit built pursuant to Missouri Utility Waste Landfill regulations and permitting requirements.

# ATTACHMENT A

CCR RULE COMPLIANCE DATA	
<b>LABADIE REPORTS</b>	
<b>OPERATING PLANS</b>	<b>DATE</b>
Labadie Fugitive Dust Control Plan	10/2015
2016 Annual CCR Fugitive Dust Control Report	12/2016
2017 Annual CCR Fugitive Dust Control Report	12/2017
<b>GROUNDWATER MONITORING PLANS</b>	
LCPA Groundwater Monitoring System Certification	10/2017
LCPA Groundwater Statistical Method Certification	10/2017
LCPA 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
LCPB Groundwater Monitoring System Certification	10/2017
LCPB Groundwater Statistical Method Certification	10/2017
LCPB 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
LCL1 Run-on Run-off Control System Plan	10/2016
LCL1 Groundwater Monitoring System Certification	10/2017
LCL1 Groundwater Statistical Method Certification	10/2017
LCL1 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2017
<b>SAFETY AND STABILITY PLANS</b>	
LCPA 2015 CCR Annual Inspection	01/2016
LCPA 2016 CCR Annual Inspection	11/2016
LCPA 2017 CCR Annual Inspection	12/2017
LCPA Structural Integrity Assessment	10/2016
LCPB 2015 CCR Annual Inspection	01/2016
LCPB 2016 CCR Annual Inspection	11/2016
LCPB 2017 CCR Annual Inspection	12/2017
LCPB Structural Integrity Assessment	10/2016
LCL1 2016 CCR Annual Inspection	12/2016
LCL1 2017 CCR Annual Inspection	10/2017
<b>CLOSURE PLANS</b>	
LCPA Closure Plan	10/2016
LCPA Post-Closure Plan	10/2016
LCPB Closure Plan	10/2016
LCPB Post-Closure Plan	10/2016
LCL1 Closure/Post-Closure Plans	10/2016

# ATTACHMENT A (CONT.)

<b>MERAMEC REPORTS</b>	
<b>OPERATING PLANS</b>	<b>DATE</b>
Meramec Fugitive Dust Control Plan	10/2015
2016 Annual CCR Fugitive Dust Control Report	12/2016
2017 Annual CCR Fugitive Dust Control Report	12/2017
<b>GROUNDWATER MONITORING PLANS</b>	
Meramec Groundwater Monitoring System Certification	10/2017
Meramec Groundwater Statistical Method Certification	10/2017
MCP 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2017
<b>SAFETY AND STABILITY PLANS</b>	
MCPE 2017 Annual Inspection	07/2017
MCPA, MCPB and MCPC 2015 CCR Annual Inspection	01/2016
MCPA, MCPB and MCPC 2016 CCR Annual Inspection	11/2016
MCPA, MCPB and MCPC 2017 CCR Annual Inspection	12/2017
MCPA Structural Integrity Assessment	10/2016
MCPB Structural Integrity Assessment	10/2016
MCPC Structural Integrity Assessment	10/2016
MCPD 2015 CCR Annual Inspection	01/2016
MCPD 2016 CCR Annual Inspection	11/2016
MCPD 2017 CCR Annual Inspection	12/2017
MCPD Structural Integrity Assessment	10/2016
<b>CLOSURE PLANS</b>	
MCPE Closure Certification	04/2018
MCPE Closure Plan	04/2018
MCPE Post-Closure Plan	04/2017
Notice of Intent to Initiate Closure of the Inactive Surface Impoundment MCPE	12/2015
MCPA Closure Plan	11/2016
MCPA Post-Closure Plan	10/2016
MCPB Closure Plan	11/2016
MCPB Post-Closure Plan	10/2016
MCPC Closure Plan	11/2016
MCPC Post-Closure Plan	10/2016
MCPD Closure Plan	11/2016
MCPD Post-Closure Plan	10/2016

# ATTACHMENT A (CONT.)

<b>RUSH ISLAND REPORTS</b>	
<b>OPERATING PLANS</b>	<b>DATE</b>
Rush Island Fugitive Dust Control Plan	10/2015
Rush Island 2016 Annual CCR Fugitive Dust Control Report	12/2016
Rush Island 2017 Annual CCR Fugitive Dust Control Report	12/2017
<b>GROUNDWATER MONITORING PLANS</b>	
RCPA Groundwater Monitoring System Certification	10/2017
RCPA Groundwater Statistical Method Certification	10/2017
RCPA 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
<b>SAFETY AND STABILITY PLANS</b>	
RCPA 2015 CCR Annual Inspection	01/2016
RCPA 2016 CCR Annual Inspection	10/2016
RCPA 2017 CCR Annual Inspection	12/2017
RCPA Structural Integrity Assessment	10/2016
<b>CLOSURE PLANS</b>	
RCPA Closure/Post-Closure Plans	10/2016

<b>SIoux REPORTS</b>	
<b>OPERATING PLANS</b>	<b>DATE</b>
Sioux Fugitive Dust Control Plan	10/2015
Sioux 2016 Annual CCR Fugitive Dust Control Report	12/2016
Sioux 2017 Annual CCR Fugitive Dust Control Report	12/2017
<b>GROUNDWATER MONITORING PLANS</b>	
SCPA Groundwater Monitoring System Certification	10/2017
SCPA Groundwater Statistical Method Certification	10/2017
SCPA 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
SCPB Groundwater Monitoring System Certification	10/2017
SCPB Groundwater Statistical Method Certification	10/2017
SCPB 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
SCPC Groundwater Monitoring System Certification	10/2017
SCPC Groundwater Statistical Method Certification	10/2017
SCPC 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
SCL4A Run-on Run-off Control System Plan	10/2016



# ATTACHMENT A (CONT.)

SCL4A Groundwater Monitoring System Certification	10/2017
SCL4A Groundwater Statistical Method Certification	10/2017
SCPC 2017 CCR Annual Groundwater Monitoring and Corrective Action Report	01/2018
<b>SAFETY AND STABILITY PLANS</b>	
SCPA 2015 CCR Annual Inspection	01/2016
SCPA 2016 CCR Annual Inspection	10/2016
SCPA 2017 CCR Annual Inspection	12/2017
SCPA Structural Integrity Assessment	10/2016
SCPB 2015 CCR Annual Inspection	01/2016
SCPB 2016 CCR Annual Inspection	10/2016
SCPB 2017 CCR Annual Inspection	12/2017
SCPB Structural Integrity Assessment	10/2016
SCPC 2015 CCR Annual Inspection	01/2016
SCPC 2016 CCR Annual Inspection	10/2016
SCPC 2017 CCR Annual Inspection	10/2017
SCPC Structural Integrity Assessment	10/2016
SCL4A 2015 CCR Annual Inspection	01/2016
SCL4A 2016 CCR Annual Inspection	11/2016
SCL4A 2017 CCR Annual Inspection	10/2017
<b>CLOSURE PLANS</b>	
SCPA Closure/Post-Closure Plans	10/2016
SCPB Closure/Post-Closure Plans	10/2016
SCPC Closure/Post-Closure Plans	10/2016
SCL4A Closure/Post-Closure Plans	10/2016

# ATTACHMENT B

## UPCOMING 2019 CCR RULE COMPLIANCE REPORTS

Annual Fugitive Dust Control Reports

Annual Surface Impoundment Inspections

Annual UWL Inspection Reports (Labadie and Sioux Energy Centers)

Annual Groundwater Monitoring and Corrective Action Reports

Notifications Related to Exceedance of Groundwater Protection Standard

Corrective Measures Assessment Reports (with and without Alternate Source Demonstrations) and related notifications