

2016 Special Contemporary Issues Ameren Missouri Comments

Introduction and Summary

The Missouri Public Service Commission's (Commission) Chapter 22 rules governing electric utility resource planning include consideration of special contemporary issues {4 CSR 240-22.080(4)} as ordered by the Commission. 4 CSR 240-22.080(4) characterizes special contemporary issues generally as, "evolving regulatory, economic, financial, environmental, energy, technical, or customer issues," that utilities must adequately address in their resource planning. The Commission has provided additional guidance on the assessment of proposed special contemporary issues in its order in File No. EO-2012-0039. The Commission Staff (Staff) and other parties have filed proposed special contemporary issues pursuant to 22.080(4)(A). Ameren Missouri provides these comments pursuant to 22.080(4)(B), which allows the subject utility and other parties to file comments on the proposals of Staff and the other parties no later than October 1, 2016.

In making its decision about what specific issues utilities must address, the Commission must consider the significance and urgency of issues and the time available in which to address them, both individually and in total. As a basic test, such issues must be "special," they must be "contemporary," and they must, in fact, be "issues." This means that the issues must not only meet a threshold of significance in terms of their potential effect on resource decisions, but that the potential effect must also be imminent. The Commission should carefully consider whether inclusion of certain special contemporary issues provides added value or distracts from the analysis of such important emerging issues.

The Company's review of the suggested special contemporary issues proposed by the parties indicates that some of the issues proposed by the parties merit treatment as special contemporary issues by the Commission. For those issues that are determined by the Commission to be special contemporary issues, it is important to define how the Company will address them. Following is a list of the issues suggested by Staff, the Missouri Department of Economic Development-Division of Energy (DE) and the Natural Resources Defense Council (NRDC) jointly with Brightergy, and the Company's recommendation for the Commission's determination as to whether each issue should be treated as a special contemporary issue and how the Company would plan to address those issues determined to be special contemporary issues. Ameren Missouri looks forward to the Commission's decision on this matter.

Issues Proposed by the Parties and the Company's Assessment

- **Staff Issue A:** Include the following as uncertain factors that may be critical to the performance of alternative resource plans in accordance with 4 CSR 240-22.060(5)(M):
 - 1) Foreseeable emerging energy efficiency technologies;
 - 2) Foreseeable energy storage technologies;
 - 3) Foreseeable distributed generation, including but not limited to, distributed solar generation, combined heat and power (CHP), and microgrid formation

Ameren Missouri's Assessment and Recommendation: The IRP rules require consideration of the effects of improved technologies over the planning horizon – 4 CSR 240-22.050(1)(E). As part of its past Demand-Side Management (DSM) potential studies and as part of its current DSM potential study in progress, Ameren Missouri considers emerging energy efficiency technologies. The Company included such an analysis to inform the potential for energy efficiency savings in its 2014 IRP filing. We have in past IRP filings included, and certainly plan to include in the 2017 IRP filing, assessments of energy storage technologies and distributed generation technologies, and are examining the potential for electric thermal storage for demand response and distributed generation technologies as part of our current DSM potential study. We have included consideration of uncertainty in our evaluation of these technologies to the extent such uncertainty is determined through analysis to be critical to the performance of alternative plans in accordance with the existing IRP rules. Staff has provided no evidence or explanation as to a need to go beyond what is currently analyzed and included in the Company's IRP filings. Therefore, this should not be considered a special contemporary issue. If the Commission determines that consideration of emerging technologies should be a special contemporary issue, it should not be pre-determined that such considerations necessarily warrant treatment as uncertain factors, because that determination can and should be made based on the specific assessment of the technologies being considered.

- **Staff Issue B:** Document Ameren Missouri's most recent economic analysis for its system-wide implementation of AMI meters. Provide projected implementation dates and annual budget for AMI implementation and include the capital and operating cost impacts in the integrated resource analysis.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri has included discussion of its plans for Advanced Metering Infrastructure (AMI) in its past IRP filings and is analyzing AMI deployment as part of its DSM Potential Study. While Ameren Missouri has not made a decision regarding its AMI metering plans, Ameren Missouri agrees that this could be considered a special contemporary issue based on the scope described by Staff.

- **Staff Issue C:** Analyze and document the future capital and operating costs faced by each Ameren Missouri coal-fired generating unit in order to comply with the following environmental standards:
 - (1) Clean Air Act New Source Review provisions;
 - (2) 1-hour Sulfur Dioxide National Ambient Air Quality Standard;
 - (3) National Ambient Air Quality Standards for ozone and fine particulate matter;
 - (4) Cross-State Air Pollution Rule, in the event that the rule is reinstated;
 - (5) Mercury and Air Toxics Standards;
 - (6) Clean Water Act Section 316(b) Cooling Water Intake Standards;
 - (7) Clean Water Act Steam Electric Effluent Limitation Guidelines;
 - (8) Coal Combustion Waste rules;
 - (9) Clean Air Act Section 111(d) Greenhouse Gas standards for existing sources;
 - (11) Clean Air Act Regional Haze requirements; and
 - (12) Clean Power Plan.

Ameren Missouri's Assessment and Recommendation: The IRP rules require each utility to determine probable environmental costs associated with compliance with current and expected future environmental regulations – 4 CSR 22.040(2)(B). As part of its on-going resource planning process, Ameren Missouri assesses the need for mitigation for environmental regulation compliance and updates costs of mitigation as necessary. Ameren Missouri will include analysis of compliance with the Clean Power Plan. Because analysis of environmental regulations, mitigation and costs are integral to the IRP analysis as prescribed by the Commission's rules, there is no need to separately require such analysis. Therefore, this should not be considered a special contemporary issue.

- **Staff Issue D:** Analyze and document the cost of any transmission grid upgrades or additions needed to address transmission grid reliability, stability, or voltage support impacts that could result from the retirement of any existing Ameren Missouri coal-fired generating unit in the time period established in the IRP process.

Ameren Missouri's Assessment and Recommendation: Utilities are required to analyze the cost and timing of transmission upgrades to maintain a viable transmission system by 4 CSR 240-22.045(3)(A)1. The Company has analyzed and included costs of transmission grid upgrades or additions needed to address transmission grid reliability, stability, or voltage support impacts that could result from retirement of its existing coal plants as part of its analysis for its 2014 IRP and will do the same for its 2017 IRP filing. The Staff has provided no evidence or explanation as to a need to go beyond what is currently required or analyzed in this regard. Therefore, this should not be considered a special contemporary issue.

- **Staff Issue E:** In the event Noranda's expected annual coincident peak demand is less than 100 MW prior to the planned retirement of the Meramec generating plant, develop and analyze at least one alternative resource plan which accelerates the retirement of Meramec generating plant and, if necessary, additional older generating units such that Ameren Missouri's capacity position after meeting all MISO reserve requirements is less than 10% in each year of the 20-year planning horizon.

Ameren Missouri's Assessment and Recommendation: The Company contacted Staff to get clarification of this proposed issue. After discussion, the Staff agreed that it was focused on potential early retirement of Meramec in the event Noranda's long-term load is significantly reduced from its historical usage. The Company pointed out that it had evaluated early retirement as part of its 2014 IRP and that this analysis demonstrated that earlier retirement would be more costly (2014 Ameren Missouri IRP Chapter 9, pages 10-11). By the time the Company files its 2017 IRP, an earlier retirement of Meramec may be precluded by the need for transmission system upgrades, for which construction is expected to take four years. This does not in itself preclude an analysis of earlier retirement, but does severely limit or preclude any practical application of it. Therefore, Ameren Missouri does not believe it would be productive to include this as a special contemporary issue.

- **Staff Issue F:** Analyze and document the impact of electric vehicle usage for the 20-year planning period upon the high-case load forecasts when complying with 4 CSR 240-22.060(5)(A).

Ameren Missouri's Assessment and Recommendation: Ameren Missouri understands the interest in the potential demand implications for electric vehicles, particularly in light of its recently announced electric vehicle charging station pilot. Ameren Missouri agrees to consider this as a special contemporary issue and will include an assessment of electric vehicle usage in its consideration of the high-case load forecast pursuant to 4 CSR 240-22.060(5)(A).

- **Staff Issue G:** Review the options available to Ameren Missouri for providing customer financing for energy efficiency measures. Discuss Ameren Missouri's current, near term (next three years) and long-term activities and plans for providing customer financing for energy efficiency measures.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri included a discussion of customer financing options for energy efficiency measures in its 2016 IRP Annual Update, and plans to discuss financing options as well as other candidates at a future DSM stakeholder meeting to determine the final list of sensitivity options for energy efficiency potential. Ameren Missouri would be amenable to including a discussion of possibilities in this area in its 2017 IRP.

- **DE Issue 1:** Describe and document how the preferred plan of the Company's Integrated Resource Plans ("IRP") positions the utility for full or partial compliance with the U.S. Environmental Protection Agency's ("EPA") Clean Power Plan ("CPP") under Section 111(d) of the Clean Air Act, as released in final form on August 3, 2015, assuming the compliance scenarios described herein and that the rule is upheld by the courts in its current form. Please include in this regard:
 - a. Qualitative and quantitative evaluations of how renewable energy, energy efficiency and other demand-side resources (including combined heat and power) deployed by the Company after January 1, 2013 could contribute to compliance;
 - b. Qualitative and quantitative evaluations of how renewable energy, and energy efficiency and other demand-side resources (including combined heat and power) deployed by the Company after the submission of a final State Implementation Plan could qualify under EPA's proposed Clean Energy Investment Program ("CEIP");
 - c. A description and quantification of additional investments (in fiscal, capacity, and energy terms by year) which will be required by the Company to meet the targets in the CPP under scenarios including: a statewide rate-based or mass-based emissions goal; a "trading-ready" approach; and participation in the CEIP;
 - d. Quantitative and qualitative descriptions of the barriers to achieving these additional investments;
 - e. The price of carbon used by the Company in the analyses above and a justification for this price;
 - f. A description and explanation of the Company's preferences regarding various compliance options under a state implementation plan; and,
 - g. A description of all meetings, analyses, or other efforts made towards preparation for compliance with the CPP (and CEIP, as applicable).

To the extent that any uncertainty is involved in determining compliance pathways under the CPP (and CEIP, as applicable) based on the scenarios provided above, please describe and document the Company's choices under the most probable compliance scenarios, with an explanation of why the Company believes these scenarios are the most probable.

Ameren Missouri's Assessment and Recommendation: DE included a similar request in its suggested special contemporary issues for Ameren Missouri's 2016 IRP annual update. The Commission approved DE's suggestion, and Ameren Missouri included its assessment of these issues in its 2016 IRP Annual Update Report (File No. EO-2016-0273). DE appears to seek to expand the scope of its request by adding a wide range of quantitative analysis requirements. Ameren Missouri fully intends to include analysis of the CPP as a major part of its core analysis in its 2017 IRP (the rule was released in draft form only months prior to the filing of the Company's 2014 IRP). Prescribing in detail how specific provisions of, and options for compliance with, the CPP are to be performed is likely to frustrate a more focused evaluation of the potential planning and cost implications posed by compliance with the CPP. As stated previously, Ameren Missouri is required to consider the probable cost of compliance with current and expected future environmental regulations pursuant to 4 CSR 22.040(2)(B). This includes the CPP. Ameren Missouri is also required by the IRP rules to present to stakeholders its planned approach for analysis pursuant to 4 CSR 240-22.060 and 22.070 prior to commencing such analysis. DE and all other stakeholders will have an opportunity to comment on the Company's analysis plans at that time. For the foregoing reasons, this should not be considered a special contemporary issue.

- **DE Issue 2:** Identify and evaluate the quantifiable non-energy benefits ("NEBs") which could be included in the Company's demand-side management portfolio planning process for the purposes of IRP planning. Such NEBs may include, but are not limited to, those considered during working docket EW-2015-0105 (*In the Matter of a Working Docket to Review the Commission's Missouri Energy Efficiency Investment Act (MEEIA) Rules 4 CSR 240-3.163, 4 CSR 240-3.164, 4 CSR 240-20.093 and 4 CSR 240-20.094*) and as approved by the Commission for submission to the Secretary of State under EX-2016-0034 (*In the Matter of a Proposed Amendment, Rescission, and Consolidation of Commission Rules Relating to Demand-Side Programs*). Additionally, evaluate the impact of an NEB percentage "adder" as considered during working docket EW-2015-0105 on the Company's demand-side management portfolio planning process for the purposes of IRP planning. Discuss the Company's preference for either a study to determine NEBs or the use of a NEBs percentage adder.

Ameren Missouri's Assessment and Recommendation: Inclusion of NEBs in DSM planning is not a new concept; it has been discussed in the MEEIA rule revision process and is included in the current proposed draft revisions to the MEEIA rules. Ameren Missouri filed testimony in its most recent case seeking approval for MEEIA programs (File No. EO-2015-0055). Because this issue is and has been addressed extensively in other forums, this should not be considered a special contemporary issue.

- **DE Issue 3:** Describe and document the feasibility, cost-reduction potential, and potential benefits of joint DSM programs, marketing and outreach with water utilities.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri is already working on developing a partnership with Missouri American Water around the Company's existing School Kits program. The kits include high efficiency shower heads, faucet aerators, shower timers and piping insulation. While Ameren Missouri does not believe this should be considered a special contemporary issue, the Company is willing to document the status of this effort in the 2017 IRP.

- **DE Issue 4:** Describe and document the benefits and detriments for integrated resource planning to requiring achievement of targets under the Missouri Energy Efficiency Investment Act ("MEEIA").

Ameren Missouri's Assessment and Recommendation: Ameren Missouri evaluated annual load reductions of 1% and 2% per year from demand side programs as part of its 2011 IRP and pursuant to a stipulation and agreement in File No. ER-2010-0036. The targets included in the Commission's MEEIA rules reflect achievement of 1.9% annual load reductions starting in 2020 and continuing thereafter. This is within the range evaluated previously. Further, the Company's DSM potential study will establish a range of potential by producing portfolios that represent Realistic Achievable Potential (RAP) and Maximum Achievable Potential (MAP). Because these portfolios are based on rigorous analysis and developed with the participation of stakeholders, and because such exercises have been undertaken previously, Ameren Missouri does not believe this should be considered a special contemporary issue.

- **DE Issue 5:** Describe, document, and evaluate potential DSM programs which could address the needs of customers that might otherwise "opt out" of participation in the MEEIA. In this evaluation, describe and document potential participation and savings (both energy and demand), as well as program costs and cost-effectiveness. Additionally, please describe and document the impacts of additional customer "opt-outs" on the MEEIA charges to customer classes and the ability to achieve estimated savings targets.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri's DSM potential study will include an assessment of potential ways to reach "opt out" customers. Specific prospective analysis of the effectiveness of such actions is highly uncertain at best. Therefore, this should not be considered a special contemporary issue. If the Commission determines that this should be included as a special contemporary issue, it should be limited to identifying potential ways to better reach customers who would otherwise opt out.

- **DE Issue 6:** Evaluate the potential demand and energy load associated with electric vehicles within the Company's Missouri service territory, discuss how the preferred plan addresses the additional demand and energy load requirements, and evaluate potential means for shifting additional demand and energy load to off-peak periods. Describe all current and planned electric vehicle initiatives undertaken by the Company.

Ameren Missouri's Assessment and Recommendation: While Staff suggested consideration of electric vehicle impacts on demand, this request from DE goes further. Because electric vehicle penetration is still relatively low, a specific study of ways to alter electric vehicle load patterns is unlikely to produce useful results. While the Company does not believe this should be considered a special contemporary issues, Ameren Missouri is amenable to documenting its current and planned electric vehicle initiatives as DE requests.

- **DE Issue 7:** Describe and document the roles which energy storage and conservation voltage reduction could play in the company's system planning, particularly with regards to DSM and distributed energy resources.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri will already include consideration of storage technologies as part of its supply-side analysis. Additionally, in its DSM Potential Study, Ameren Missouri is analyzing electric thermal storage as part of the demand response analysis for direct load control options. Furthermore, the Company is also planning to include conservation voltage reduction as part of its DSM analysis. While the Company is going to document these analyses in its IRP filing, Ameren Missouri does not believe this should be considered a special contemporary issue.

- **DE Issue 8:** Evaluate the need to upgrade and enhance the utility's delivery infrastructure in order to ensure and advance system resiliency, reliability and sustainability. In this evaluation, describe and document the potential job growth which utility investments in delivery infrastructure could create.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri recently filed a \$1 billion infrastructure plan with the Missouri Public Service Commission. This plan addresses the kind of information requested by DE. As a result, the Company does not believe this should be considered a special contemporary issue as part of its 2017 IRP.

- **DE Issue 9:** Separately describe and document how the utility's investments in grid modernization, DSM (as evaluated in the current or most recent IRP) and renewable energy will ensure that the public interest is adequately served and that other policy objectives of the state are met (see 4 CSR 240-22.010). For example, please describe and document the potential for job creation and economic development.

Ameren Missouri's Assessment and Recommendation: As evidenced by DE's citation of the IRP rules, utilities are already required as a basic element of IRP analysis to conduct resource planning that ensures the public interest is met, including the consideration of state policy objectives. As mentioned previously, the Company has filed its infrastructure plan with the Commission, which includes the kind of information DE seeks. Also, the Company has routinely included economic development considerations and job creation estimates in as part of its preferred plan evaluation and selection process. As a result, the Company does not believe this should be considered a special contemporary issue as part of its 2017 IRP.

- **DE Issue 10:** Describe and document the Company's efforts to address the corporate social responsibility and/or renewable energy purchasing goals of commercial, industrial, institutional, and public-sector customers for increased access to renewable energy and distributed energy resources.

Ameren Missouri's Assessment and Recommendation: While Ameren Missouri is cognizant of and sensitive to such customer goals, a comprehensive study of such goals and means for satisfying them is unnecessarily broad and burdensome. To the extent the Company considers or has considered such goals as part of its IRP process, documenting such considerations as part of the IRP is feasible. That said, the Company does not believe this should be considered a special contemporary issue as part of its 2017 IRP, and if it is considered a special contemporary issue should be limited to such considerations as are made by the Company in conjunction with resource planning.

- **DE Issue 11:** Describe and document how the utility's standby rates, cogeneration tariffs, and interconnection standards facilitate the development of customer-owned distributed generation resources and microgrids.

Ameren Missouri's Assessment and Recommendation: As was evidenced by the surge in solar rebates in 2012 and 2013 and the subsequent fall-off in net metering applications when rebates were no longer available, the primary constraint on the development of customer-owned distributed generation resources is economics. The Company's stand-by rates were also addressed in Ameren Missouri's last electric rate case. Finally, the potential for combined heat and power (CHP) is being considered as part of the Company's DSM potential study. Unless there is another specific identified constraint to such development, the Company does not believe this rises to the level of a special contemporary issue to be addressed in the context of an IRP.

- **DE Issue 12:** Describe and document the extent to which federal investment, production, and other tax credits reduce the costs for utility plant.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri routinely includes consideration of various tax and other incentives associated with resource options. These include investment tax credits, production tax credits, and availability of loan guarantees or other special financing. Therefore, this should not be considered a special contemporary issue.

- **NRDC/Brightergy Issue a:** Review the effectiveness of Ameren's MEEIA program thus far.

Ameren Missouri's Assessment and Recommendation: Ameren Missouri is required to evaluate the effectiveness of its MEEIA programs annually. As a result, it appears there would be no additional assessment or analysis that could be considered a special contemporary issue.

- **NRDC/Brightergy Issue b:** Analyze Ameren's ability to achieve energy efficiency savings of at least 1.5% annually.

Ameren Missouri's Assessment and Recommendation: As described in response to DE Issue 4, the Company has previously analyzed the potential to achieve 1% and 2% annual reductions and is in the process of conducting its detailed DSM potential study. Therefore, this should not be considered a special contemporary issue.

- **NRDC/Brightergy Issue c:** Study feasibility of providing all customers with interval meter data. Review the options available to provide customers with real-time, building level data, sub-meter, line and device level data.

Ameren Missouri's Assessment and Recommendation: To the extent such options are considered, they can be addressed as part of Staff proposed issue B. As a result, this should not be considered a separate special contemporary issue.

- **NRDC/Brightergy Issue d:** Review plans to make Time of Use rates available to all customers.

Ameren Missouri's Assessment and Recommendation: All Ameren Missouri customers -except for street lighting class- currently have access to time of use rates. For the residential class, even though there is a limit of 5,000 customers, there are only 38 residential customers currently participating in the TOU rates. Therefore, this should not be considered a special contemporary issue.

- **NRDC/Brightergy Issue e:** Analyze Ameren's plans to reduce reliance on coal as a fuel source.

Ameren Missouri's Assessment and Recommendation: The IRP necessarily includes an assessment of the Company's long-term energy mix. It is included in the results of the IRP analysis and preferred plan selection. Therefore, this should not be considered a special contemporary issue.

- **NRDC/Brightergy Issue f:** Discuss plans to increase deployment of distributed generation resources, including, but not limited to, net metering limitations, interconnection procedures, and billing practices for solar customers.

Ameren Missouri's Assessment and Recommendation: Deployment of distributed generation resources will be considered both as part of the development of the Company's long-term load forecasts as well as in the current DSM potential study. Therefore, this should not be considered a special contemporary issue.

- **NRDC/Brightergy Issue g:** Describe any studies or other investigations of the value of solar used by Ameren.

Ameren Missouri's Assessment and Recommendation: This issue was included in the list of special contemporary issues addressed by the Company in its 2016 IRP Annual Update Report. Therefore, this should not be considered a special contemporary issue.