

**STATE OF MISSOURI  
PUBLIC SERVICE COMMISSION**

At a session of the Public Service Commission held at its office in Jefferson City on the 30<sup>th</sup> day of July, 2014.

In the Matter of an Investigation of the Cost to )  
Missouri's Electric Utilities Resulting from ) **File No. EW-2012-0065**  
Compliance with Federal Environmental Regulations )

## ORDER DIRECTING RESPONSE TO CERTAIN QUESTIONS

Issue Date: July 30, 2014

Effective Date: July 30, 2014

The Commission has established this working case to consider the potential impacts of current and future Environmental Protection Agency (EPA) rules on the reliability and cost of the electric generation plant operated by Missouri's electric utilities. In preparation for the workshop meeting scheduled for August 18, 2014, the Commission has compiled the following list of questions it would like stakeholders to address:

## STAKEHOLDER QUESTIONS

**I. Building Block 1 – Reduce CO<sub>2</sub> emissions by 6% due to heat rate improvements**

- a. The EPA has estimated that a 6% reduction in the CO<sub>2</sub> emission rate of the coal-fired EGUs in a state, on average, is a reasonable estimate of the amount of heat rate improvement that can be implemented at a reasonable cost through a combination of best practices and equipment upgrades. By plant, list (and describe) the heat rate improvements necessary to achieve a 6% improvement from most cost-effective to least cost-effective. Include the cost (both O&M and capital) for each improvement and the expected heat rate increase.

## **II. Building Block 2 – Re-dispatch generation from coal to existing natural gas combined cycle (NGCC)**

- a. Is the EPA's assumption of 4.8 million MWhs for NGCC dispatch in 2012 accurate?

- b. Are there transmission constraints (either gas in or electricity out) or operational or market constraints that make the EPA's target of 12.78 Million MWhs for NGCC problematic? Explain. If there are any constraints, what steps would be necessary to relieve them? What are the costs of those steps?

### **III. Building Block 3 – Increase generation from zero- and low-emitting sources**

- a. Is the EPA's assumption of 1.3 million MWh of renewable generation in 2012 correct?
- b. How could Missouri grow renewable generation from 1.3 million MWh to 2.8 million MWh? What would be the difference in cost of taking this path versus the business-as-usual path? What would be the difference in rate impact versus the business-as-usual path?
- c. EPA's proposed rule solicits comment on an alternative method of calculating the renewable energy target under building block 3 based on economic and technical potential of renewable energy generation in each state. Under this alternative method in the proposed rule, Missouri's RE target under building block 3 would be 12.8 TW-h of renewable energy beginning in 2020 (0.5 TW-h of Utility scale solar, 4.9 TW-h of wind generation, 0.2 TW-h of biomass, and 7.2 TW-h of hydropower) (vs. 2.7 TW-h of renewable energy generation by 2030 in the proposed method). Could Missouri achieve this alternative RE target. If so, at what cost?

### **IV. Building Block 4 – Increase cumulative benefits of energy efficiency programs**

- a. What will it take for Missouri to achieve the demand-side EE targets in the proposed rule: Starting in 2017 ramp up incremental demand-side EE by 0.2% per year until it reaches 1.5% per year, and then continue achieving 1.5% incremental EE growth each year thereafter with cumulative demand-side EE savings of 9.92% of electricity sales in 2030? Please include in your response an analysis of the EPA's findings on energy efficiency potential in comparison to the utility's findings from its most recent potential study, and from actual results from MEEIA programs, if applicable.
- b. How could Missouri achieve the 8.7 million MWh of avoided generation attributable to energy efficiency used in EPA's calculation? What would be the difference in cost of taking this path versus the business-as-usual path? What would be the difference in rate impact versus the business-as-usual path?

### **V. General Questions**

- a. Do you agree with the methodology EPA used to come up with Missouri's proposed emissions reduction goal? If no, what about the proposed methodology do you disagree with?
- b. Is the statewide goal established by EPA for Missouri achievable?
- c. Should Missouri convert to a mass-based standard? Please explain.
- d. Is there an advantage of implementing a rate-based standard or a mass-based standard? Please explain. Each utility should answer these questions from both a utility-specific perspective and from a statewide perspective. EPA staff indicated that EPA may be open to allowing a state to split geographically, with one part doing mass-based and one part doing rate-based, so long as the split was along an RTO seam. Are there advantages to this approach for Missouri? What would the most advantageous split be?
- e. Can a state compliance plan be written in such a way that actions taken to comply with the Missouri Energy Efficiency and Investment Act and/or the Renewable Energy Standard become a part of the compliance plan, without explicitly citing or referencing state statutory requirements? Please explain.
- f. Please identify projects that you have already implemented or started that should be considered toward satisfying the various EPA building blocks. Please include any calculation for determining credit toward compliance for each project identified.
- g. Please identify any best practices that you have already implemented to comply with other environmental regulations, and indicate if those best practices can be considered toward satisfying the various EPA building blocks. Please include any quantification or calculation for determining credit toward compliance.
- h. Please explain whether an Independent Operator's control over the dispatch of the generation will affect the utility's ability to control emissions and comply with EPA's proposed 111(d) requirements.
- i. Does EPA's proposal give rise to any concerns about reliability? If so, what are those concerns?
- j. Please explain your perspective on the effect, if any, of HB 1631 on the utility's compliance strategy with the proposed 111(d) requirements.

- k. For utilities: Describe in detail the most cost-effective way for each utility to meet the 21% reduction on its own. What would that path cost compared to a business-as-usual path?
- l. Describe in as much detail as possible the comments you intend to submit to EPA. If you have already submitted comments, please provide them.
- m. Under a rate-based approach, how can Missouri get credit for energy efficiency improvements made by industrial customers of IOUs that have opted out of MEEIA? If regulatory or statutory changes are necessary to get credit, what are those changes?
- n. Under a rate-based approach, how can Missouri get credit for energy efficiency improvements made by customers of non-IOUs under programs that are not subject to rigorous evaluation, measurement and verification? If regulatory or statutory changes are necessary to get credit, what are those changes?
- o. Do any of the utilities favor the idea of Missouri partnering with another state(s) on a multi-state plan. If so, which state(s) should Missouri consider partnering with? Please explain.
- p. EPA's proposed rule established the state goals by crediting renewable energy generation in the state where it is generated. EPA is soliciting comment on how credit for renewable energy generation under 111(d) could be traded across state lines (similar to RECs) without double counting the RE credit. Do utilities have any thoughts about the appropriate method of crediting renewable energy generation and whether the credit could be traded across state lines without double counting?
- q. EPA's proposed rule established the state goals by crediting RE and demand-side EE targets under building blocks 3 and 4 by adding RE generation and avoided generation from demand-side EE to the denominator. If the state elects to go with a rate-based approach, EPA is soliciting comment on the appropriate method of crediting EE/RE programs under state plans (i.e. add RE generation and avoided generation from EE to denominator, or determine emissions avoided and subtract the avoided emissions from the numerator). Do utilities have a preference on the appropriate method of crediting EE/RE programs under a rate-based approach. If so, why is one method preferred over another?
- r. EPA's proposed rule solicits comment about whether the final rule should establish presumptive mass-based goals for each state or if states should be able to develop the mass-based goals using their own assumptions and methodologies. Do you have a preference?

- s. EPA's proposed rule solicits comment about establishing consistent national guidelines for performing EM&V in order to credit EE/RE under the rule if a state uses a rate-based approach. Do you think EPA should establish such guidelines?

**THE COMMISSION ORDERS THAT:**

1. Union Electric Company, d/b/a Ameren Missouri, The Empire District Electric Company, Kansas City Power & Light Company, and KCP&L Greater Missouri Operations Company - the investor-owned electric utilities subject to the Commission's jurisdiction – shall be prepared to discuss, or present on these questions at the August 18, 2014 workshop. In addition, they shall file written responses to these question no later than August 25, 2014.

2. Municipal electric utilities, electric cooperatives, and other interested stakeholders are invited to discuss or present on these questions at the August 18, 2014 workshop. They are also invited to file written responses to these questions no later than August 25, 2014.

3. The Commission's data center shall provide a copy of this order to those persons to whom notice of the scheduling of the workshop meeting was given.

4. This order shall become effective upon issuance.

**BY THE COMMISSION**



A handwritten signature in cursive script that reads "Morris L. Woodruff".

Morris L. Woodruff  
Secretary

R. Kenney, Chm., Stoll, W. Kenney,  
Hall, and Rupp, CC., concur.

Woodruff, Chief Regulatory Law Judge