

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)

COMES NOW Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company (“Company”) and hereby submits written responses to the January 4, 2016 Missouri Public Service Commission Staff (“Staff”) Workshop Questions and Scenarios.

/s/ Roger W. Steiner

**Attorneys for Kansas City Power & Light
Company and KCP&L Greater Missouri
Operations Company**

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Utility name:

Kansas City Power & Light Company and KCP&L Greater Missouri Operations
Company

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1. Please identify planned unit retirements
 - a. Unit, capacity, date of planned retirement
 - b. Plan for load replacement and rationale/estimated cost associated with that plan
 - c. Are these planned retirements a result of the Clean Power Plan?
 - d. Has your utility modified its retirement plans based on the final Section 111(d) rule?
 - e. Is there a possibility that these plans will change based on the state compliance plan?
 - f. Is there a possibility that these plans will change based on the state compliance plan?

Response:

1.
 - a. On January 20, 2015, the Company issued a news release of the following:

Generating Unit:	Capacity:	Cease Coal Burning By:
Lake Road 6	96 MW	December 31, 2016
Montrose 1	170 MW	December 31, 2016

Sibley 1	48 MW	December 31, 2019
Sibley 2	51 MW	December 31, 2019
Montrose 2	164 MW	December 31, 2021
Montrose 3	176 MW	December 31, 2021

- b. No load replacement is currently anticipated with this announcement.
 - c. The decision to cease coal burning at these units comes in part as a result from recent Environmental Protection Agency (EPA) regulations, which would require the Company to make significant environmental upgrades in the coming years in order to continue burning coal at these power plants. While retrofitting our largest, newer coal-fired power plants was the most cost-effective way to comply with environmental regulations, the same cannot be said for the older, smaller units at Montrose, Lake Road and Sibley. Retiring or converting the units at Montrose, Lake Road and Sibley will be a more cost-effective way to meet environmental regulations.
 - d. No, but the Company is preparing an annual update of the Integrate Resource Plan which will be filed in March 2016 and contain its planned generation portfolio.
 - e. Yes, the Clean Power Plan only provides guidance to the Missouri Department of Natural Resources (MDNR) on how to prepare a state plan. Until MDNR finalizes its state plan there is a possibility that the Company's plans may change.
 - f. Because the plan to cease burning coal at these units is expected to be implemented prior to the first compliance date of the Clean Power Plan, there currently is no anticipation that retirement date would move forward due to the Clean Power Plan.
2. Please provide the estimated cost of compliance with the final Section 111(d) rule based on each of the following scenarios or assumptions:
- a. Missouri uses a mass-based approach and allocates allowances pro-rata based on an historical baseline (sometimes referred to as grandfathering) using one of the following parameters:
 - i. CO₂ emissions
 - ii. Heat input
 - iii. Net Generation
 - b. Missouri uses a mass-based approach as described in scenario "a" and allowances are either:
 - i. Irrevocable even if a unit retires or
 - ii. Redistributed to existing affected units if a unit retires No evaluation has been initiated to date that assumes allowances are irrevocable even if a unit retires or redistributed due to a unit retirement
 - c. Missouri uses a mass-based approach and allocates allowances as described in Scenario "a" and includes set-asides for one or more of the following:
 - i. Renewable energy projects
 - ii. Energy efficiency projects
 - iii. Existing NGCC output-based
 - d. Missouri uses a mass-based approach and allocates allowances based on updating output-based allocations where affected sources and potentially one or more of

the following are eligible to receive allocations based on their pro-rata share of updated generation levels each compliance period:

- i. Renewable generating resources that began operation post 2012
- ii. New/uprated nuclear
- iii. Energy from qualified biomass
- iv. Energy savings from post 2012 demand-side energy efficiency measures
- e. Missouri uses a mass-based approach and, similar to the RGGI regional auction model, auctions allowances with proceeds deposited into an energy efficiency investment fund. Assume a market clearing price per allowance of:
 - i. \$5.50;
 - ii. \$7.50.
- f. Missouri uses a mass-based approach and allocates allowances as described in Scenarios “a” or “d” and includes a new source complement.
- g. Missouri uses a mass-based approach and allocates allowances as described in Scenarios “a” and “d” and sets aside five percent (5%) of allowances for renewable energy or energy efficiency.
- h. Missouri takes advantage of the Clean Energy Incentive Program.

Response:

The Company is preparing an annual update of the Integrate Resource Plan that will include the Clean Power Plan which will be filed in March 2016.

- 3. Please describe any anticipated reliability issues or capacity constraints if Missouri implements a compliance plan that includes the following scenarios or assumptions:
 - a. Missouri uses a mass-based approach and allocates allowances pro-rata based on an historical baseline using one of the following parameters:
 - i. CO₂ emissions
 - ii. Heat input
 - iii. Net Generation
 - b. Missouri uses a mass-based approach as described in scenario “a” and allowances are either:
 - i. Irrevocable even if a unit retires or
 - ii. Redistributed to existing affected units if a unit retires
 - c. Missouri uses a mass-based approach and allocates allowances as described in Scenario “a” and includes a set-aside for one or more of the following:
 - i. Renewable energy projects
 - ii. Energy efficiency projects
 - iii. Existing NGCC output-based
 - d. Missouri uses a mass-based approach and allocates allowances based on updating output-based allocations where affected sources and potentially one or more of the following are eligible to receive allocations based on their pro-rata share of updated generation levels each compliance period:
 - i. Renewable generating resources that began operation post 2012
 - ii. New/uprated nuclear
 - iii. Energy from qualified biomass

- iv. Energy savings from post 2012 demand-side energy efficiency measures
- e. Missouri uses a mass-based approach and, similar to the RGGI regional auction model, auctions allowances with proceeds deposited into an energy efficiency investment fund. Assume a market clearing price per allowance of:
 - i. \$5.50;
 - ii. \$7.50.
- f. Missouri uses a mass-based approach and allocates allowances as described in Scenarios “a” or “d” and includes a new source complement.
- g. Missouri uses a mass-based approach and allocates allowances as described in Scenarios “a” and “d” and sets aside five percent (5%) of allowances for renewable energy or energy efficiency.
- h. Missouri takes advantage of the Clean Energy Incentive Program.

Response:

The Southwest Power Pool (SPP) is the reliability coordinator for the Company’s service territory. The SPP is in the best position to respond to describe any anticipated reliability issues or capacity constraints.

- 4. If Missouri uses a mass-based approach without a new source complement and allocates fixed irrevocable allowances pro-rata based on an historical baseline without any set-asides, to what extent would your company’s compliance approach likely rely upon purchasing allowances from the market and/or building new natural gas combined cycle capacity? Explain if and how this would change if the new source complement and/or an alternative allowance allocation process were used?

Response:

While the Company does not know the requirements of the yet to be finalized state plan, we believe we can comply without immediately needing to build new natural gas combined cycle capacity and the additional assumptions stated in this question maximizes the compliance flexibility for the Company while minimizing customer impacts.

Compliance with a new source complement, assuming new affected generating units are constructed in the state could increase the stringency of compliance for the Company. Similarly, alternative allowance allocations that reduce the allocation to the Company will increase the stringency of compliance for the Company.

- 5. Are you aware of an approach that Missouri may be able use in its plan to address emissions leakage to new units while minimizing cost and reliability impacts? If so, explain the approach. If not, which approaches to address emissions leakage in the state plan would be most likely to increase cost or cause reliability concerns?

Response:

Yes, one approach allows the state the option to meet its obligation to mitigate new unit leakage by including a demonstration that new unit leakage is unlikely to occur under its state plan. This demonstration must be supported by analysis and can be based either on the unique factual circumstances of the state or on implementation of state policies that will mitigate incentives to shift generation from existing to new units.

Another approach is to address leakage in a mass-based state plan for existing units, including targeted allocation of emission allowances in such a way as to limit the economic incentive to shift generation from existing affected units to new unaffected units.

6. If Missouri takes advantage of the Clean Energy Incentive Program, will your utility's current plans for plant investment be modified? If yes, please explain.

Response:

No evaluation has been initiated to date that assumes Company takes advantage of the Clean Energy Incentive Program therefore it is uncertain whether or not either the Company would alter current resource plans.

7. Are there drawbacks to Missouri taking advantage of the Clean Energy Incentive Program? If yes, please explain.

Response:

Yes, as proposed, the Clean Energy Incentive Program is not a true incentive program because it reduces flexibility rather than increases it by removing allowances from the state budgets which increase the cost of compliance for affected units.

8. Are there drawbacks to setting aside allowances for renewable energy or energy efficiency projects other than the Clean Energy Incentive Program? If yes, please explain.

Response:

Yes, allocating allowances to renewable energy or energy efficiency set-asides may decrease the cost of renewable generation or energy efficiency projects, but it will increase the cost of compliance for affected units. Allowances allocated to the renewable energy or energy efficiency set-asides will have to be acquired by affected units, at a cost, in order to be used for compliance. Moreover, renewable energy or energy efficiency projects that receive these allowances do not need them for compliance, as they are not affected units, and could withhold them from the market, functionally increasing the stringency of EPA's best system of emission reductions and the resulting state goals.

Even if renewable energy or energy efficiency projects do not withhold allowances from the market, these projects that hold allowances are not limited in their ability to trade, which means that allowances initially allocated to affected units in Missouri may be sold out of state. While this may decrease compliance costs for affected units in other states, it could increase costs in Missouri where the affected unit is located.

9. Are there drawbacks to auctioning allowances? If yes, please explain.

Response:

Yes, while an auction theoretically can be a relatively effective and efficient way to allocate allowances to those with the greatest cost of compliance, thereby minimizing the overall economic burden associated with reducing CO₂ emissions, the details of the auction set-up are critical for a trading system that is fair and least cost to customers.

Auctions can generate significant government revenue with the revenues from those auctions used for a number of purposes. A key issue regarding the auctioning of allowances is what is the objective of the auction. The answer to this question will impact the efficiency and cost-effectiveness and therefore the cost to customers.

An auction process would also add additional uncertainty and complexity in an already changing electricity market.

10. Is there a trading approach that will mitigate any anticipated reliability concerns or capacity constraints (i.e., is there a specific combination of states, RTOs, trading ready etc.)?

Response:

The SPP is the reliability coordinator for the Company's service territory. The SPP is in the best position to respond to describe any anticipated reliability issues or capacity constraints.

11. Is there a trading approach that will minimize the estimated cost of compliance?

Response:

In general, trading has the potential to increase compliance flexibility for the Company and minimize compliance costs and costs to customers. Unconstrained trading between all states, including a mechanism allowing trading between rate and mass-based states would maximize flexibility and minimize compliance costs. There would need to be sufficient market monitoring and oversight of the trading systems.

12. Could another state's approach to CPP compliance (rate vs. mass, allocation approaches, trading approaches, new source complement, etc.) affect your utility's compliance with the CPP in Missouri? If yes, please explain.

Response:

Yes, the Company operates in both Kansas and Missouri and could be impacted by either state taking a Clean Power Plan compliance approach different from the other. For example, there is currently no proposed trading mechanism between a rate and mass-based program. If the two states selected different approaches, the inability to trade between the two states would decrease the compliance flexibility and increase compliance costs and costs to customers.

13. Could another state's approach to CPP compliance affect your utility's compliance with the Renewable Energy Standard in Missouri? (For example choosing to bundle Emission Rate Credits with Renewable Energy Credits.) If yes, please explain.

Response:

Potentially, the details of such a scenario would depend on the final state plans developed by the states of concern.

14. To what extent will your utility's existing renewable resources or RECs and existing energy efficiency programs contribute to compliance with the CPP in Missouri? In other states? Please explain.

Response:

The Company believes our integrated resource planning process has placed us in position to comply with the rule in both states, especially considering our renewable and energy efficiency efforts, assuming a reasonable state plan is developed in each state.

15. Will statutory or regulatory changes be needed to facilitate Missouri's compliance with the CPP? Please explain.

Response:

Potentially, the details of any statutory or regulatory would depend on the final state plans.

16. Does your utility anticipate any changes or impacts to its long-term planning or IRP related to the submission of transmission plans or reliability checks, and specifically as those changes relate to work with the RTOs or AECI?

Response:

No evaluation has been initiated to date related to the submission of transmission plans or reliability checks.

17. Does MISO have any Attachment Y concerns that could cause a delay in implementing a state CPP compliance plan?

Response:

MISO to respond.

18. Does SPP envision a situation where there could be potential reliability conflicts between the CPP and North American Electric Reliability Corporation standards which will compel delays in scheduled generator retirements?

Response:

SPP to respond.

19. Does AECI envision a situation where there could be potential reliability conflicts between the CPP and North American Electric Reliability Corporation standards which will compel delays in scheduled generator retirements?

Response:

AECI to respond.

20. Does your utility expect adequate coordination between MISO, SPP, and AECI in order to facilitate CPP compliance? What is your utility doing to communicate with these entities regarding CPP compliance? Please explain.

Response:

Yes, the SPP is the reliability coordinator for the Company's service territory. The SPP is in the best position to coordinate with MISO and AECI regarding reliability issues associated with Clean Power Plan compliance.

21. What steps are MISO, SPP, and/or AECI taking to ensure adequate coordination with each other and their members regarding CPP compliance? Please explain.

Response:

MISO, SPP, and/or AECI to respond.

22. What transmission and/or distribution upgrade or building needs does your utility anticipate as a result of the CPP (e.g., new lines, upgrades to transformers or substations, AMI)?

Response:

Potentially, the details of such upgrades would depend on the details of the final state plans developed by the states in which the Company operates.

23. MISO and Platts recently estimated (<http://www.platts.com/latest-news/electric-power/houston/misos-expected-cost-to-comply-with-us-cpp-varies-21631026>) that changes in several factors, including the price of natural gas (between \$2.30 to 6.30/MMBtu), could lead to large ranges in the potential cost of compliance with the CPP. How does your utility plan to mitigate the risk of compliance cost overruns due to natural gas market uncertainties?

Response:

The Company has not yet developed plans to mitigate the risk of natural gas driven increased compliance costs.