

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of a Determination of Special)
Contemporary Resource Planning Issues to be)
Addressed by KCP&L Greater Missouri)
Operations Company in its Next Triennial)
Compliance Filing or Next Annual Update)
Report.)

File No. EO-2015-0041

**RESPONSE OF
KCP&L GREATER MISSOURI OPERATIONS COMPANY**

Pursuant to Missouri Public Service Commission (“Commission”) Rule 4 CSR 240-22.080(4)(B), KCP&L Greater Missouri Operations Company (“GMO” or “Company”) hereby respectfully submits its Response to the lists of special contemporary issues suggested by Missouri Public Service Commission Staff (“Staff”), Missouri Department of Economic Development - Division of Energy (“Division of Energy”), Sierra Club, and the Office of Public Counsel (“OPC”).

I. Introduction

In Rule 4 CSR 240-22.080(4)(A) parties to the Integrated Resource Plan (“IRP”) process may file a list of suggested Special Contemporary Issues. The Company has an opportunity to respond to the lists provided in (A) by October 1, according to Rule 4 CSR 240-22.080(4)(B).

The definition of “Special Contemporary Issue” is found at 4 CSR 240-22.020(55):

(55) Special contemporary issues means a written list of issues contained in a commission order with input from staff, public counsel, and intervenors that are evolving new issues, which may not otherwise have been addressed by the utility or are continuations of unresolved issues from the preceding triennial compliance filing or annual update filing. Each utility shall evaluate and incorporate special contemporary issues in its next triennial compliance filing or annual update filing.

II. Staff List of Special Contemporary Issues

On September 15, Staff filed six suggestions for special contemporary issues.

a. *In a report, the North America Electric Reliability Corporation (“NERC”) documented the findings of a Grid Security Exercise (Grid Ex II) conducted in November 2013 to demonstrate the cyber and physical vulnerabilities of the electrical grid. On March 26, 2014, HR 4298, the Grid Reliability and Infrastructure Defense Act, was introduced in the U.S. House to amend the Federal Power Act (“FPA”) in order to protect the bulk power system against physical cyber, electromagnetic pulse (“EMP”) and other threats and vulnerabilities. HR 2417, the Secure High-Voltage Infrastructure for Electricity from Lethal Damage Act, was previously introduced to protect the bulk power system and electric infrastructure against natural and man-made EMP threats.*

Please summarize the current, near term (next three years) and long term future activities and costs that GMO is pursuing and/or contemplating to protect the electrical system infrastructure of the Company from cyber, physical and EMP threats and indicate any potential impact to the Company’s preferred resource plan.

GMO Response:

Jurisdictional electric utilities are required to submit IRPs. IRPs describe how the utility plans to deliver safe, reliable, and efficient electricity. Further, these plans must be in the public interest and consistent with state energy and environmental policies as well as compliance obligations.

Each utility’s IRP explains how it will use existing and future resources to meet customer demand. When selecting these resources, the utility must consider a broad range of potential future conditions and variables and select a combination that would result in the lowest overall long-term cost for its customers.

Potential emerging threats to those assets, such as EMP, cyber and physical security, are actively monitored and managed by the company. Protection of those assets and resources the company

will use to meet customer demand is a sensitive topic that is highly confidential to ensure protection of said assets. The Commission recognized the sensitivity of this information in File No. EW-2013-0011 *In the Matter of a Working Docket to Address Effective Cybersecurity Practices for Protecting Essential Electric Utility Infrastructure*. In that proceeding, the Commission's ORDER REGARDING STAFF RECOMMENDATION AND MOTION FOR A WAIVER OR VARIANCE, dated March 13, 2013 stated, "...the stakeholders shall conduct further discussions and formulate an informal reporting schedule, wherein the electric utilities shall provide information to designated members of the Commission's Staff at timely intervals no less than annually. No notifications or reports concerning the matters outlined in Staff's recommendation shall be made in documentary form, i.e. no physical, digital or electronic reports shall be produced or filed in any docket, workshop, investigation or case, either noncontested or contested; nor shall the information provided to Staff be transmitted electronically to Staff or shared with any other entity. The information shall only be reported orally to designated Staff members, unless the Commission directs otherwise." The Company is a party to this proceeding and actively participates. This is the appropriate venue to convey cyber security and CIPS related information. Therefore, GMO does not believe that this issue should be a discrete component of the 2015 IRP filing and recommends that the Commission should exclude the proposed issue from the final list of Contemporary Issues.

b. Analyze the impact of foreseeable emerging energy efficiency technologies throughout the 20-year planning period.

GMO Response:

This suggestion does not meet the definition of "special contemporary issue". It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.050

Demand-Side Resource Analysis, includes instructions for the consideration of demand-side resources to be considered for purposes of integrated resource planning. 4 CSR 240-22.050(1)(E) instructs the utility “To include the effects of improved technologies expected over the planning horizon to--1. Reduce or manage energy use; or 2. Improve the delivery of demand-side programs or demand-side rates.” The Chapter 22 rules already provide direction for analyzing demand-side resources including “improved technologies expected over the planning horizon”. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

c. Analyze the impact of foreseeable emerging energy storage technologies throughout the 20-year planning period.

GMO Response:

GMO believes the Commission should exclude this proposed issue from the final list of suggested issues, as it is impossible to analyze the impact of a technology that is in a developmental stage at best. However, GMO will include a review of emerging energy storage technologies in the filing.

d. Analyze and document the future capital and operating costs faced by each GMO coal-fired generating unit in order to comply with the following environmental standards:

- a) Clean Air Act New Source Review provisions;*
- b) 1-hour Sulfur Dioxide National Ambient Air Quality Standard;*
- c) National Ambient Air Quality Standards for ozone and fine particulate matter;*
- d) Cross-State Air Pollution Rule, in the event the rule is reinstated;*
- e) Clean Air Interstate Rule;*
- f) Mercury and Air Toxics Standards;*
- g) Clean Water Act 316(b) Cooling Water Intake Standards;*
- h) Clean Water Act Steam Electric Effluent Limitation Guidelines;*
- i) Coal Combustion Waste rules;*
- j) Clean Air Act Section 111(d) Greenhouse Gas standards for existing sources; and*
- k) Clean Air Act Regional Haze requirements.*

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.040 Supply-Side Resource Analysis (2)(B) includes instructions that cause probable environmental costs to be considered for purposes of integrated resource planning. The Company has conducted its integrated resource planning in accordance with the rule, and will provide capital and incremental operating costs for retrofit equipment that is potentially required to meet existing and future potential environmental regulations that would affect coal-fired units in the 2015 Triennial Filing. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

e. 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 GMO coal-fired generating unit in the time period established in the IRP process, to the extent not already included in the 2015 IRP filing.

GMO Response:

GMO believes the Commission should exclude this proposed issue from the final list of suggested issues, as it is impossible to develop a reasonable estimate of the cost of transmission upgrades or additions needed to address transmission grid reliability impacts without identifying which generating unit(s) is retired and determining where the replacement generation will be located. If the replacement generation resource is located at the same site as the retired generation, so that the existing transmission infrastructure can be utilized, there will be minimal cost incurred in transmission upgrades to maintain reliable service. Alternatively, if the replacement generation is remote from the GMO load area, there would be significant transmission cost associated with delivery of that generation to load. If significant generation is

retired, it would also be necessary to provide local dynamic var resources to maintain adequate voltage levels.

f. Analyze and document the range of potential levels of distributed generation in the Company's service territory for the 20-year planning horizon and the potential impacts of each identified level of distributed generation, and in particular distributed solar generation, on the Company's preferred resource plan. The potential impacts should quantify both the amount of electrical energy the distributed generation is expected to provide to the grid and the amount of electrical energy that the distributed generation customers are expected to consume on site that will offset the amount that the Company would normally provide those customers.

GMO Response:

This suggestion does not meet the definition of "special contemporary issue". It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.040 Supply-Side Resource Analysis includes instructions that cause renewable resources to be considered for purposes of integrated resource planning. The Chapter 22 rules already provide direction for analyzing supply-side resources including "impacts of each identified level of distributed generation, and in particular distributed solar generation, on the Company's preferred resource plan". It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

III. Missouri Department of Economic Development-Division of Energy

List of Contemporary Issues

On September 15, Division of Energy filed four suggestions for special contemporary issues.

Issue 1: Investigate and analyze opportunities to encourage the uptake of combined heat and power (CHP) projects in GMO’s service territory. Specifically describe any barriers to the diffusion of CHP over which GMO has control and could remove, as well as the implications this removal would likely have on GMO’s load.

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.050 Demand-Side Resource Analysis includes instructions for the consideration of demand-side resources to be considered for purposes of integrated resource planning. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

The Company will, however, incorporate the findings of the Demand-Side Management (“DSM”) Potential study in the 2015 Triennial Filing. The potential for combined heat and power (“CHP”) is described in section 4 of Navigant’s KCPL Demand Side Resource Potential Study Report.

Issue 2: Consider and document what role CHP could play in complying with the EPA’s proposed regulations pertaining to carbon emission reductions from existing power plants (“Section 111(d)”).

GMO Response:

GMO will address this issue in its 2015 triennial compliance filing.

Issue 3: Describe and evaluate the various technologies and strategies (e.g., energy efficiency, renewables, CHP) by which GMO foresees complying with Section 111(d). Highlight their projected importance in achieving this compliance.

GMO Response:

GMO will address this issue in its 2105 triennial compliance filing.

Issue 4: Investigate and analyze the change in load that GMO anticipates will be effected by increased electric vehicle use. Please consider any applicable federal or state incentives (e.g., the recent passage of MO SB 729) in this context.

GMO Response:

GMO incorporates the U.S. Energy Information Administration (EIA) West North Central vehicle sales by technology for the reference case in our forecasting process. It is used to calculate a Unit Energy Consumption and intensity level which is utilized in the IRP forecast. This information will be the basis for what's included in the 2015 Triennial Filing.

IV. Sierra Club List of Contemporary Issues

On September 15, Sierra Club filed thirteen suggestions for special contemporary issues.

1. Developing and documenting for use in all economic modeling and resource planning low, base, and high projections for natural gas prices, CO2 prices, and coal prices;

GMO Response:

This suggestion does not meet the definition of "special contemporary issue". It is not an evolving new issue, which may not otherwise have been addressed by GMO. GMO has developed low, base, and high forecasts for natural gas, CO₂, and coal for all previous IRP filings and intends to continue developing these forecasts for future IRP filings. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

2. The prospects for the future price of electricity in the wholesale market, and the impact of any changes in wholesale market prices on KCP&L's ability to generate revenue through off-system sales;

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. GMO continually develops several wholesale energy market price curves and incorporates these price curves into the integrated analysis process of the triennial IRP and annual updates.

3. *Analyzing and documenting low, base, and high scenarios of projected off-system sales revenues under a range of assumed natural gas prices, CO₂ prices, and coal prices;*

GMO Response:

The Company disagrees with this issue and the Commission should exclude this proposed issue from the final list of suggested issues. Off-system sales will be reported as a additional performance measure as described in Rule 22.060(2)A7.

Off-system sales cannot be analyzed as a scenario because it is an output of the integrated analysis. However, off-system sales will rise or fall depending on the impact of scenario drivers such as natural gas prices, CO₂ prices, etc.

4. *Analyzing and documenting the future capital and operating costs faced by each KCP&L coal-fired generating unit in order to comply with all existing, pending, or potential environmental standards, including:*

- a) *Clean Air Act New Source Review provisions;***
- b) *1-hour Sulfur Dioxide National Ambient Air Quality Standard;***
- c) *National Ambient Air Quality Standards for ozone and fine particulate matter;***
- d) *Cross-State Air Pollution Rule, in the event the rule is reinstated;***
- e) *Clean Air Interstate Rule;***
- f) *Mercury and Air Toxics Standards;***
- g) *Clean Water Act 316(b) Cooling Water Intake Standards;***
- h) *Clean Water Act Steam Electric Effluent Limitation Guidelines;***
- i) *Coal Combustion Waste rules;***
- j) *Clean Air Act Section 111(d) Greenhouse Gas standards for existing sources;***
- k) *Clean Air Act Regional Haze requirements.***

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.040 Supply-Side Resource Analysis (2)(B) includes instructions that cause probable environmental costs to be considered for purposes of integrated resource planning. The Company has conducted its integrated resource planning in accordance with the rule, and will provide capital and incremental operating costs for retrofit equipment that is potentially required to meet existing and future potential environmental regulations that would affect coal-fired units in the 2015 Triennial Filing. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

5. Analyzing and documenting 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 KCP&L coal-fired generating unit;

GMO Response

GMO believes the Commission should exclude this proposed issue from the final list of suggested issues, as it is impossible to develop a reasonable estimate of the cost of transmission upgrades or additions needed to address transmission grid reliability impacts without identifying which generating unit(s) is retired and determining where the replacement generation will be located. If the replacement generation resource is located at the same site as the retired generation, so that the existing transmission infrastructure can be utilized, there will be minimal cost incurred in transmission upgrades to maintain reliable service. Alternatively, if the replacement generation is remote from the GMO load area, there would be significant transmission cost associated with

delivery of that generation to load. If significant generation is retired, it would also be necessary to provide local dynamic var resources to maintain adequate voltage levels.

6. *Analyzing and documenting on a unit-by-unit basis the net present value revenue requirement of the relative economics of continuing to operate each KCP&L coal-fired generating unit versus retiring and replacing each such unit in light of all of the environmental, capital, fuel, and O&M expenses needed to keep each such unit operating and compared to the cost of other demand side and supply side resources;*

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. It is essentially Integrated Resource Planning at the unit level, which is neither appropriate nor contemplated in the current Chapter 22 Rules. The Company disagrees with this issue and the Commission should exclude this proposed issue from the final list of suggested Special Contemporary Issues. The IRP is not a process by which individual assets are analyzed. The Company shall test for the benefit of coal unit retirements in an integrated manner as specified by Chapter 22 rules. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

7. *Analyzing and documenting how participation in Southwest Power Pool markets has affected GMO’s revenue requirements;*

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. The impact of GMO’s participation in the Southwest Power Pool markets on GMO’s revenue requirements will be

addressed as part of the approval process for GMO's continued participation in SPP. This study will be conducted per the Stipulation and Agreement in Case No. EO-2012-0136. As such, it is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

8. *Analyzing and documenting the technical, maximum achievable, and realistic achievable energy and demand savings from demand side management, and incorporating each level of savings into KCP&L resource planning process;*

GMO Response:

GMO will incorporate the findings of the DSM Potential study in the 2015 Triennial Filing.

9. *Analyzing and documenting the levels of achievable combined heat and power and incorporating such achievable CHP into KCP&L's evaluation of demand side management;*

GMO Response:

GMO will incorporate the findings of the DSM Potential study in the 2015 Triennial Filing. The potential for CHP is described in section 4 of Navigant's KCPL Demand Side Resource Potential Study Report.

10. *Analyzing and documenting cost and performance information sufficient to fairly analyze and compare utility-scale wind and solar resources to other supply-side alternatives;*

GMO Response:

This suggestion does not meet the definition of "special contemporary issue". It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.040 Supply-Side Resource Analysis (2)(A) includes instructions for providing capital cost, O&M,

and probable environmental costs to be considered for purposes of integrated resource planning. The Company has conducted its integrated resource planning in accordance with the rule, and will provide capital and incremental operating costs for supply-side technologies including utility-scale wind and solar resources in the 2015 Triennial Filing. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

11. Analyzing the impact of emerging energy efficiency technologies throughout the planning period;

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. 4 CSR 240-22.050 Demand-Side Resource Analysis includes instructions for the consideration of demand-side resources to be considered for purposes of integrated resource planning. 4 CSR 240-22.050(1)(E) instructs the utility “To include the effects of improved technologies expected over the planning horizon to-- 1. Reduce or manage energy use; or 2. Improve the delivery of demand-side programs or demand-side rates.” The Chapter 22 rules already provide direction for analyzing demand-side resources including “improved technologies expected over the planning horizon”. It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

12. Analyzing and documenting the long-term rate and bill impacts of any alternative demand-side management plan evaluated by the company; and

GMO Response:

This suggestion does not meet the definition of “special contemporary issue”. It is not an evolving new issue, which may not otherwise have been addressed by GMO. The current rules require GMO to evaluate the impact of alternative resource plans, which include various levels of DSM program impacts, on average rates and GMO will do so. However, GMO will also evaluate the impact on average bills as part of its 2015 triennial compliance filing.

13. Explaining whether and to what extent KCP&L and GMO operate as a single entity for resource planning and operational purposes.

GMO Response:

GMO will address this issue as part its 2015 triennial compliance filing.

V. OPC List of Contemporary Issues

On September 15, OPC filed three suggestions for special contemporary issues.

1. Public Counsel’s primary suggestion is that the Company analyze and respond to the viability and relevance of including scenario-based planning (or Utility Scenario Planning) as either a subsection of future Integrated Resource Plans (IRPs) or as a complementary stand-alone piece to be submitted in conjunction with the IRP. This would include modeling the development, analysis and application of low-probability but high-consequence events to a utility’s preferred and alternative resource plans.

“Scenario planning does not attempt to identify the most likely future. Its purpose instead is (a) to acknowledge that uncertainties can drive the future onto very different paths, and (b) to examine how particular solutions address or fail to address those different futures.” Scenario-based planning has been a common practice in other industries and its benefits would appear to be particularly appropriate for resource planning purposes in light of the EPA’s proposed Clean Power Plan.

GMO Response:

GMO will evaluate the impact of EPA's Clean Power Plan as part of its 2015 triennial compliance filing.

2. *An example of scenario-based planning that Public Counsel suggests is that the Company analyze and quantify the costs and associated risks with the addition of natural gas (under preferred and alternative plans) where fugitive methane emissions (as estimated from life cycle assessments) are assumed under a low, medium and high probability scenario. Methane (CH₄) is released throughout the lifecycle of natural gas. This can occur at the point of extraction to its final consumption. Methane is also widely considered a far more potent greenhouse gas than carbon dioxide (CO₂). At a large enough scale, methane emissions could result in producing a net loss in climate gains from the adoption of natural gas over coal. Future resource planning needs should account for a scenario where environmental risks associated with natural gas are greater than currently assumed.*

GMO Response:

This suggestion does not meet the definition of "special contemporary issue". It is not an evolving new issue, which may not otherwise have been addressed by GMO. GMO will evaluate the impact of a wide range of natural gas prices on alternative resource plans.

There are many factors that may impact long-term gas prices, including environmental risks. Attempting to isolate the change in gas prices to one particular uncertainty and then subsequently evaluate the impact on alternative resource plans would take a significant effort and provide little or no additional value considering that GMO will thoroughly evaluate the impact of a range of gas prices on alternative resource plans.

It is not appropriate to include this suggestion as a special contemporary issue and the Commission should exclude this proposed issue from the final list of such issues.

3. *Another example of scenario-based planning that Public Counsel suggests is that the Company analyze and quantify potential costs in the form of increased rates and bills for non-participants in a low, medium (company's RAP), and high case (expected 111(D) target) scenarios with increased expenditures for energy efficiency. Concerns about rate impacts are a large barrier to expanding energy efficiency activities. The standard response to rate impact concerns suggest that rates go up, but average bills go down and that on average, customers are better off. This response is not sufficient as only program participants will see lower bills in the near and mid-term. Non-participants will see higher rates and higher bills. As a matter of social equity, a greater emphasis needs to be placed on properly accounting for participation rates (i.e., renters, homeowners...) to prevent only a small minority of customers from benefitting in energy efficiency efforts.*

GMO Response:

This suggestion does not meet the definition of "special contemporary issue". It is not an evolving new issue, which may not otherwise have been addressed by GMO. The current rules require GMO to evaluate the impact of alternative resource plans, which include various levels of DSM program impacts, on average rates and GMO will do so. However, GMO will also evaluate the impact on average bills as part of its 2015 triennial compliance filing.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 1st day of October, 2013.

/s/ Roger W. Steiner

Roger W. Steiner