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 Kansas City Power & Light Company in its Next Triennial Compliance Filing or Next Annual Update Report	)))))	File No. EO-2020-0046
In The Matter of a Determination of Special Contemporary Resource Planning Issues to be Addressed by Kansas City Power & Light Company in Its Next Triennial Compliance Filing or Next Annual Update Report	)))))	File No. EO-2020-0045

KANSAS CITY POWER & LIGHT COMPANY'S
AND KCP&L GREATER MISSOURI OPERATIONS COMPANY'S
RESPONSE TO SUGGESTED SPECIAL CONTEMPORARY ISSUES

Pursuant to Missouri Public Service Commission ("Commission") Rule 20 CSR 4240-22.080(4)(B), Kansas City Power & Light Company ("KCP&L" or "Company") and 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"), Office of Public Counsel ("OPC"), Natural Resources Defense Council ("NRDC"), and the Sierra Club. The suggestions by the parties for special contemporary issues are identical for both KCP&L and GMO; therefore, the Company hereby submits one response for both special contemporary issue dockets.

I. Introduction

In Rule 20 CSR 4240-22.080(4)(A) parties to the Integrated Resource Plan ("IRP") process may file a list of suggested Special Contemporary Issues.

The definition of "Special Contemporary Issue" is found at 20 CSR 4240-22.020(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.

20 CSR 4240-22.080(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 Company has an opportunity to respond to the lists provided in accordance with Rule 20 CSR 4240-22.080(4)(A) by October 1, according to Rule 20 CSR 4240-22.080(4)(B).

II. Staff List of Contemporary Issues

On September 16, 2019, Staff filed three suggestions for special contemporary issues.

A. When complying with 4 CSR 240-22.060(5)(M), include the following as uncertain factors that may be critical to the performance of alternative resource plans:

(i) Foreseeable demand response technologies, including, but not limited to, integrated energy management control systems, linking smart thermostats, lighting controls, and other load-control technologies with smart end-use devices;

(ii) Foreseeable energy storage technologies; and

(iii) Foreseeable distributed energy resources, including, but not limited to distributed solar generation, distributed wind generation, combined heat and power (CHP), and microgrid formation. Develop and provide a database of information on distributed

generation (both utility owned and customer owned) and distributed energy storage (both utility owned and customer owned) for purposes of evaluating current penetration and planning for future increases in the levels of distributed generation and energy storage.

RESPONSE: The Company will comply with Items (i) and (ii). With respect to item (iii), the Company already has a database on known distributed energy resources (DER). However, it would be a large undertaking to incorporate this high-level database into a database that could be utilized for planning purposes. Additionally, penetration is only known to a degree as the Company cannot account for systems that it isn't aware of. The Company would be unable to complete this in a few months. Additionally, Staff proposed resource planning rules for DER in File No. EW-2017-0245 and it is premature to include such an analysis in an IRP annual update. 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.

B. When complying with 4 CSR 240-22.060(5)(A), analyze and document the impact of electric vehicle usage for the 20-year planning period upon the low-case, base-case and high-case load forecasts.

RESPONSE: The Company can comply with this suggestion.

C. 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 coal-fired generating unit in the time period established in the IRP process.

RESPONSE: The Company can comply with this suggestion.

III. OPC List of Contemporary Issues

On September 16, 2019, OPC filed five suggestions for special contemporary issues. OPC requests the Company address the following topics: (1) Stacking Concrete Blocks w/ Cranes; (2) Additive Manufacturing ("AM" or "3D Printing"); (3) Virtual Power Plant; (4) Aggressive Customer-Side Renewable Scenarios, and (5) Historical review of energy forecasts.

Topic 1: Stacking Concrete Blocks w/ Cranes

1.) Include concrete block storage as a supply-side resource candidate in resource planning and modeling scenarios.

RESPONSE: The Company does not believe at this point that stacking concrete blocks with cranes as a battery storage option would have a significant impact on resource planning in the near future; however, if the Commission thinks this should be considered a special contemporary issue, the Company can comply with this suggestion.

Topic 2: Additive Manufacturing ("AM" or "3D Printing")

1.) Analyze and document the feasibility and cost saving implications (if any) in adopting AM technology to maintain present-day and future supply-side investments.

2.) Analyze and document the feasibility and cost saving implications (if any) in adopting AM technology to maintain present-day and future transmission system investments.

3.) Analyze and document the feasibility and cost saving implications (if any) in adopting AM technology to maintain present-day and future distribution system investments.

OPC does not presently recommend modeling a high-AM adoption scenario in the IOU's load forecasts but would not be opposed to such modeling considerations either.

RESPONSE: The Company does not believe at this point that 3D printing would have a significant impact on resource planning in the near future; however, if the Commission thinks this should be considered a special contemporary issue, the Company can comply with this suggestion.

Topic 3: Virtual Power Plant

1.) Include a virtual power plant option as a supply-side resource candidate in resource planning and modeling scenarios.

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 the Company. A virtual power plant (VPP) is a control system used to dispatch dispatchable distributed energy resources such as distributed generation, battery electric storage, electric vehicles (EV), and other demand response technologies. The Company's 2018 triannual IRP evaluated several forms of distributed generation and storage technologies as candidate supply side resources and EVs and other demand response technologies were evaluated as candidate demand side management (DSM) programs in the most recent potential study. 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.

Topic 4: Aggressive Customer-Side Renewable Scenarios

1.) Model a low (e.g., 3%), medium (e.g., 6%) and high (e.g., 12%) customer-side renewable adoption scenario in the Company's load forecast;

2.) Describe and document future resource acquisition strategy selection in light of a low, medium and high customer-side renewable adoption load forecast scenario;

3.) Describe and document annual average rates under a low, medium and high customer-side renewable adoption load forecast scenario for non-renewable customers.

RESPONSE: The Company proposes to address this issue in the 2021 Triennial IRP filing, which will allow for time to evaluate growth/adoption rates it believes are attainable, the potential impacts of import tariffs on solar panels and other factors to future costs of customer-side renewables.

Topic 5: Historical review of energy forecast

1.) KCPL should include a review and a narrative explanation of their findings in regards to the accuracy of their market price forecasts in their collective IRP filings to date.

RESPONSE: Market price forecasts are an integral part of the IRP process and rules. Given the continual uncertainty with such long-term forecasts, a range of forecasts are developed for each triennial and annual IRP update. Thus, market price forecasts are not an evolving new issue not otherwise addressed by the utility nor have issues with the forecasts or process been raised in the prior triennial or annual IRP updates. Given these facts, this is not a Special Contemporary Issue.

IV. NRDC List of Contemporary Issues

On September 13, 2019 NRDC filed five suggestions for special contemporary issues.

1. In addition to the exercise prescribed in 4 CSR 240-22.045, KCP&L should analyze

integrated distribution planning as a way to manage the distribution grid in a manner that reduces peaks and fills valleys in load profiles and lowers overall system costs with a combination of energy efficiency, demand response, electric vehicles, distributed generation, storage, advanced metering, and pricing strategies such as time-of-use rates (TOU) and inclining block rates (IBR).

RESPONSE: A comprehensive integrated distribution planning as described is not feasible for the next annual update. There is a current workshop docket (File No. EW-2017-0245), which proposes rules that would move utilities in this direction and help look for opportunities to address distribution system needs in non-traditional ways. This is a developing area and it is premature and unreasonable to expect meaningful results in such a short time from an attempted analysis; therefore, this should not be considered a special contemporary issue.

2. Analyze and assess the use of mechanisms such as green tariffs and community solar to increase the availability of distributed generation for large and small customers.

RESPONSE: The Company can comply with this suggestion.

3. Analyze and document the prospects for using securitization to advance the retirement of coal generation assets and channel the savings into more economical investments such as demand-side management, building wind and solar generation, and satisfying corporate renewable energy goals to attract new business to the service territory. Securitization is essentially a lower cost, long-term loan that ratepayers take out and pledge to repay using a portion of their future electricity bills using a long-term, lower-cost bond that will save customers money, some of which can be used as new capital.

RESPONSE: The Company can comply with this suggestion.

4. Analyze and assess the benefits of supporting the development and funding of a High Performance Building Hub to address information and financing (including bridge financing for project development) for building owners – especially affordable housing. Look at Building Energy Exchange (an informational resource for the building industry in New York) and NYC Energy Efficiency Corporation (a specialty financing corporation) as possible models.

RESPONSE: The Company can comply with this suggestion.

5. The Commission's investigation of utility self-scheduling practices in the RTO markets is relevant to the primary goal of minimizing long-run utility costs and tradeoffs with that goal, 20 CSR 4240-22.010(2)(B & C); to supply side retirements, 22.060(3)(C)1; to capacity and energy supplied to the grid 22.060(4)(B)3 & 6; to "Purchased power availability, terms, costs, optionality and other benefits," 22.060(5)(G) and fixed O&M costs, 22.060(5)(I); as well as the T&D analysis in 20 CSR 4240-22.045. Staff's report in the investigatory docket, EW-2019-0370, concluded that ratepayers were not being "actively harmed" by the practice of self-scheduling, but admitted that Staff lacked the data and resources to answer the fundamental questions of whether Missouri utilities are bidding into the markets at below production costs or otherwise harming ratepayers through "increased outage rates, decreased off-system sales revenue, increased operations and maintenance costs, shortened life of assets, increased outage frequency, decreased reliability, increased LMPs at the load node, and/or generally increased energy prices across the RTO's footprint" (Staff Report at 13). GMO should address these issues in its annual update since only it possesses the necessary bid formulation and production cost data.

RESPONSE: Self-committing resources in the SPP market is a daily operational issue and is most appropriately addressed as part of Fuel Adjustment Clause (FAC) prudency reviews

and rate cases. Given there are more appropriate venues to address this issue, it should not be addressed as part of the IRP.

VI. Sierra Club List of Contemporary Issues

On September 13, 2019, Sierra Club filed eleven suggestions for special contemporary issues.

1. Analyze and screen electric vehicle charging infrastructure as a candidate resource option.

RESPONSE: The Company can comply with this suggestion.

2. Analyze, document and screen renewable energy + battery storage as an alternative to existing coal-fired generation.

RESPONSE: The Company can comply with this suggestion.

3. Analyze and develop as candidate resource options the satisfaction of municipal and corporate renewable energy goals, particularly the plan of Kansas City which, when enacted into law by ordinance may become a legal mandate within the meaning of 20 CSR 4240-22.060(3)(A).

RESPONSE: This item applies to KCP&L only. KCP&L can comply with this suggestion. However, it should be noted that this is a Resolution, rather than a mandate or law, which states that the City will look to evaluate the potential to become 100% renewable.

4. Analyze and document the prospects for using securitization to advance the retirement of coal generation assets and channel the savings into more economical investments such as demand-side management, building wind and solar generation, and storage. Securitization is essentially lower cost, long-term bond financing that ratepayers take out and pledge to repay

using a portion of their future electricity bills, that will save customers money, some of which can be used as new capital.

RESPONSE: The company can comply with this suggestion.

5. Analyzing and documenting the future capital and operating costs faced by each [KP&L/ GMO] 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, including the anticipated 2016 update to the rule to incorporate interstate transport requirements for the 2008 ozone National Ambient Air Quality Standard;

e. Mercury and Air Toxics Standards;

f. Clean Water Act Section 316(b) Cooling Water Intake Standards;

g. Clean Water Act Steam Electric Effluent Limitation Guidelines;

h. Coal Combustion Waste rules including removal as well as cap-and-cover;

i. Clean Air Act Regional Haze requirements.

RESPONSE: The Company can comply with this suggestion.

6. 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 coal-fired generating unit;

RESPONSE: The Company can provide analysis and documentation regarding the cost of any transmission grid upgrades or additions needed to address transmission grid reliability, stability, or voltage support impacts that could result from coal-fired generating unit retirements identified in the time period established in the IRP process.

7. 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 and GMO] 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 as compared to the cost of other demand-side and supply side resources;

RESPONSE: The Company disagrees with this issue and the Commission should exclude this proposed issue from the final list of suggested 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. This same request by Sierra Club was rejected by the Commission for inclusion in the 2016 IRP Annual update.

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 GMO's resource planning process;

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 the Company.

Except for the inclusion of the Technical Potential in the "resource planning process", everything suggested in this Special Contemporary Issue is already required under 4CSR 240-22.050. Inclusion of the Technical Potential in the "resource planning process" is non-sensical because it is a purely theoretical construct that includes the entire universe of measures "disregarding all non-engineering constraints such as cost-effectiveness and the willingness of end-users to adopt the efficiency measures"[1]. It does not reflect a level of savings that could ever be achieved.

The request first asks that three levels of DSM be analyzed and documented. These levels are the 1) Technical Potential, 2) Maximum Achievable Potential (MAP), and 3) Realistic Achievable Potential (RAP). These levels of DSM are already documented in the Company's most recent DSM potential study as required by 20 CSR 4240-22.050(2) and provided in the 2017 annual IRP update. As required by 20 CSR 4240.20(3)(A)2., the Company performs a DSM potential study at least every three years. No further documentation is needed.

Second, the request asks that these three levels be incorporated into the resource planning process, presumably referring to the integrated analysis under 20 CSR 4240.22.060. As required by 20 CSR 4240.22.050 and 4240-22.060 the Company already includes the MAP and RAP levels of DSM in the integrated analysis. As defined in 20 CSR 4240-22.010(59) the Technical Potential is "…a theoretical construct that assumes all feasible measures are adopted by customers of the utility regardless of cost or customer preference." The Technical Potential step in a DSM potential study is used for establishing the list of all possible end-use measures prior to screening for cost effectiveness. Inclusion of the Technical Potential, however, would produce a meaningless result. It has no value for incorporation in the integrated analysis. Furthermore, the Company does not

[1] National Action Plan for Energy Efficiency, Guide for Conducting Energy Efficiency Potential Studies, pg. 2-4

have all of the data that would be necessary for incorporation of the Technical Potential into the integrated analysis for the current market potential study. To produce this data would require that the Company to reengage the consultant who conducted the potential study, Applied Energy Group for an additional cost.

Sierra Club has provided no evidence or explanation as to a need to go beyond what is currently required or analyzed. Therefore, 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.

9. Analyzing and documenting cost and performance information sufficient to fairly analyze and compare utility scale wind and solar resources, including distributed generation, to other supply side alternatives; and

RESPONSE: The Company can comply with this suggestion.

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

RESPONSE: The Company can comply with this suggestion.

11. The Commission's investigation of utility self-scheduling practices in the RTO markets is relevant to the primary goal of minimizing long-run utility costs and tradeoffs with that goal, 20 CSR 4240-22.010(2)(B & C); to supply side retirements, 22.060(3)(C)1; to capacity and energy supplied to the grid 22.060(4)(B)3 & 6; to "Purchased power availability, terms, costs, optionality and other benefits," 22.060(5)(G) and fixed O&M costs, 22.060(5)(I); as well as the T&D analysis in 20 CSR 4240-22.045. Staff's report in the investigatory docket, EW-2019-0370, concluded that ratepayers were not being "actively harmed" by the practice of self-scheduling, but admitted that Staff lacked the data and resources to answer the fundamental

questions of whether Missouri utilities are bidding into the markets at below production costs or otherwise harming ratepayers through "increased outage rates, decreased off-system sales revenue, increased operations and maintenance costs, shortened life of assets, increased outage frequency, decreased reliability, increased LMPs at the load node, and/or generally increased energy prices across the RTO's footprint" (Staff Report at 13). Empire should address these issues in its annual update since only it possesses the necessary bid formulation and production cost data.

RESPONSE: Self-committing resources in the SPP market is a daily operational issue and is most appropriately addressed as part of Fuel Adjustment Clause (FAC) prudency reviews and rate cases. Given there are more appropriate venues to address this issue, it should not be addressed as part of the IRP.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed or hand delivered, transmitted by facsimile or by electronic mail to all counsel of record on this 1st day of October 2019.

/s/ Roger W. Steiner