BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of an Investigation of Missouri) Jurisdictional Generator Self-Commitments into) SPP and MISO Day-Ahead Energy Markets)

File No. EW-2019-0370

KANSAS CITY POWER & LIGHT COMPANY AND KCP&L GREATER MISSOURI OPERATIONS COMPANY <u>RESPONSE TO COMMISSION QUESTIONS</u>

COME NOW Kansas City Power & Light Company ("KCP&L") and KCP&L Greater Missouri Operations Company ("GMO") (collectively, the "Company"), and for their *Response* to Commission Questions ("Response") to the Missouri Public Service Commission ("Commission"), state as follows:

The Company's response to questions contained in the Order Accepting Staff's Report Regarding its Investigation of Missouri Jurisdictional Generator Self-Commitments and Self-Scheduling, and Seeking Additional Information issued September 18, 2019, is as follows:

(a) What is their definition of "economic minimum" or "unit minimum"?

<u>Response</u>: A MW level at or above a Resource's Minimum Normal Capacity Operating Limit used for energy dispatch at a minimum level during normal operating conditions. Minimum normal capacity operating limit is the minimum megawatt level at which a resource may operate continuously.

b) How do they establish an "economic minimum" or "unit minimum"?

<u>Response</u>: Typically, established by each plant, the minimum MW level at which the resource may operate continuously is considered the economic minimum and is subsequently given to the SPP market as a minimum parameter. A resource's minimum could change occasionally to facilitate operational or environmental issues (e.g. environmental testing). Changing the configuration/operations of auxiliary equipment at the facility can impact the unit minimums. In

addition, each unit reviews operating practice in relationship to design characteristics of the plant to determine its minimum economic capacity operating limit.

c) What are the pros and cons of allowing self-committing up to that amount?

<u>Response</u>: As the Company stated in its July 8, 2019 filing, there are several reasons why a plant may self-commit a unit. Ensuring a plant is reliable and available to serve customers is one key factor. For example, cold weather can cause reliability issues in a steam-fired power plant due to water lines freezing, oil systems becoming too cold and even coal freezing. When facing environmental issues such as these, the Company may choose to self-commit a resource to protect that resource's equipment and thus ensuring its reliability.

The Company may choose to self-commit a resource to prevent a thermal cycle or protect equipment that may pose a risk to the reliability of the resource as well. SPP's market model isn't always able to consider risks to Company customer's reliable power supply. If there are concerns about the effects of a thermal cycle on a resource or on a piece of equipment at that resource, the Company may choose to self-commit that resource. Managing the number of thermal cycles judicially will protect equipment thus reducing forced outages and unreliable starts due to the complexity of these large stations, all of which is a benefit to the retail customer.

The Company may also choose to self-commit a resource for market economic reasons. Those decisions are made looking at wind and load forecasts to see if we can expect the resource to be economical 'x' days into the future. The SPP Market model does not currently do a good job committing large, baseload units with long lead times, large startup costs and long minimum run times. For example, SPP's Day-Ahead Market will not commit a unit with a startup time greater than 24 hours. Because of these restrictions, the Company has historically seen a high percentage of self-commitments at its baseload resources. Also, since SPP's tool only looks at the next day, there are times we might self-commit a unit that is already online knowing that over the next five total days

we would be economic even though operations for the initial two days are at a financial loss; this results in lower overall costs to serve retail customers.

Another key factor related to the self-commitment of resources is compliance testing. The Company is required by various governing bodies to regularly test resources for reasons such as emissions performance. The Company may have no choice but to self-commit a resource during these testing periods to ensure the resource is online and available to satisfy testing requirements.

Lastly, the Company may sometimes self-commit a unit to vet repairs following an outage. If a resource performed a turbine overhaul they may want to check turbine vibration at both running speed and with load on the turbine. Many times, a contractor and specialty vibration equipment are on site so vetting that as soon as possible is ideal, rather than waiting for a potential market start and risk losing both the contractor and equipment to another job. Furthermore, this testing reduces the risk of being unreliable when needed for a market-commitment following a turbine overhaul because further tuning is needed the next time the unit start.

With regards to the question asking the cons of allowing self-committing up to that amount, uneconomic production of energy is the main concern typically cited related to self-committing a unit, which Staff addressed in their August 23, 2019 MPSC Staff Report. The Company does not self-commit a unit at a specific level; it simply tells the market that the unit is a price taker by submitting the unit in self-commit status (unless there is testing that requires generation levels at a specific amount). The minimum amount of MW the unit can continuously generate is represented by its Economic Minimum. Any MW cleared in the Day Ahead Market or generated in the Real Time Market above the unit's Economic Minimum represent generation that was economic in the SPP Market.

d) Why does the "economic minimum" or "unit minimum" vary?

<u>Response</u>: A resource's minimum could change occasionally to facilitate operational or environmental issues (e.g. environmental testing). Changing the configuration/operations of auxiliary equipment at the facility can impact the unit minimums. As facilities test, unit minimums may potentially lower as operational or equipment improvements are made to allow lower sustainable load.

Our continued efforts around optimizing unit flexibility in the SPP market include options for lowering economic minimums through project upgrades. As those changes are made the economic minimums could be lowered.

WHEREFORE, KCP&L and GMO request that the Commission take notice of their compliance with the condition cited above.

Respectfully submitted,

s Roger W. Steiner

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CERTIFICATE OF SERVICE

I do hereby certify that a true and correct copy of the foregoing document has been emailed or mailed, postage prepaid, this 2nd day of October 2019, to all counsel of record.

<u>|s| Roger W. Steiner</u>

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