

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

In the Matter of KCP&L Greater Missouri       )  
Operations Company's 2018 Triennial Filing       )  
Pursuant to 4 CSR 240-22.080(3)                        )

**File No. EO-2018-0269**

**MISSOURI DIVISION OF ENERGY'S COMMENTS IN RESPONSE TO  
THE KCP&L GREATER MISSOURI OPERATIONS COMPANY'S 2018  
INTEGRATED RESOURCE PLAN TRIENNIAL COMPLIANCE FILING**

COMES NOW the Missouri Department of Economic Development – Division of Energy (“DE”) before the Missouri Public Service Commission (“Commission”), and for its comments in the above-captioned matter states as follows:

1. On April 2, 2018, KCP&L Greater Missouri Operations (“GMO” or “Company”) submitted its *2018 Integrated Resource Plan* (“IRP”), as required by the Commission’s Electric Utility Resource Planning rules at 4 CSR 240-22.080. Commission rule 4 CSR 240-22.080(8) grants interveners an opportunity to file comments in response to an IRP, and DE provides the following comments on several topics addressed in GMO’s IRP.

2. **Concern:** In its IRP, the Company evaluates fourteen different Alternative Resource Plans (“ARPs”) before selecting a preferred plan and a contingency plan. While DE appreciates GMO’s analysis and the complexity of forecasting numerous resource plans, DE believes that the values of the variables in the analyses performed were not differentiated enough to demonstrate the variety of the ARPs available. For example, analysis of additional wind investment was only considered under one ARP, GAABW, with one demand-side

management (“DSM”) scenario. In this ARP, no additional generating plants of any source were retired, and a 614 MW combustion turbine (“CT”) was also added, resulting in an additional wind resource being added to the Company’s portfolio without a capacity or energy need. This does not represent an objective analysis of the cost impact of additional wind investment. Therefore, the Company should perform additional analyses of ARPs that have greater variability across supply-side resources.

3. **Concern:** There also appears to be a heavy reliance on CTs and power purchase agreements (“PPAs”) should additional capacity be needed in most of the ARPs. In place of these CTs and PPAs, the Company should evaluate the economic impacts of additional DSM savings (as discussed further below) and in-state renewable generation. For example, as part of the preferred plan, GAAGC, the Company enters into a large PPA (~350 MW); before entering into this, the Company should consider whether additional investment in Missouri’s renewable resources could be beneficial as renewable resource costs decline. The Company should also evaluate the economics of new supply-side resources with the understanding that they may become more cost-effective than older fossil fuel-fired generation resources as technology progresses.

4. **Concern:** In addition to greater variability in supply-side resources throughout ARP analysis, DE encourages the analysis of greater variability in demand-side program levels and types when paired with varying levels and types of supply-side resources. Most of the ARPs hold all else constant while varying demand-side options against one supply-side scenario. DE recommends evaluating different DSM options against a number of different supply-side scenarios for the same reasons stated above with regards to the overall variety of

ARPs analyzed. This would allow for a more complete picture of the IRP options available to the Company.

5. **Concern:** The Company cited increased payout of DSM incentives as a significant economic impact of the various ARPs. While varying DSM programs does change the amount paid, DE notes that this analysis is incomplete without a full evaluation of DSM in the context of how such payouts correlate to helping customers use energy more efficiently under the Missouri Energy Efficiency Investment Act (“MEEIA”). Therefore, the Company should conduct a complete analysis of the impacts of DSM on its customers’ ability to save energy, including varying levels of participation rates and total savings to participants.

6. **Deficiency:** As stated above, the Company has evaluated a number of different demand-side plans throughout its ARPs. DE recognizes the Company considered different demand-side options, including a Maximum Achievable Potential (“MAP”) and a Realistic Achievable Potential (“RAP”) level of program savings. However, the IRP indicates that the preferred plan includes less-than-RAP-level DSM programs, along with demand-side rates (“DSR”). RAP-level programs are designed to be both realistic and achievable, as stated in their name. Section 393.1075.3, RSMo. of the MEEIA statute states, “It shall be the policy of the state to value demand-side investments equal to traditional investments in supply and delivery infrastructure ...” GMO’s failure to include, and fully vet, true RAP-level DSM programs in multiple ARPs does not result in the equivalent valuation of demand-side and supply-side resources since GMO cannot present a comparative analysis to justify a reduced level of DSM programs as an alternative to at least RAP-level DSM investments. Moreover, since economic potential is defined as, “... energy savings and demand savings relative to

a utility's baseline energy forecast and baseline demand forecast, respectively, resulting from customer adoption of all cost-effective measures, regardless of customer preferences ...” (4 CSR 240-20.092(1)(T)), both MAP and RAP-level programs are a subset of what is economically achievable. Therefore, this falls short of the MEEIA statute's policy, "... goal of achieving **all** cost-effective demand-side savings” (Section 393.1075.4, RSMo.; emphasis added). Therefore, DE concludes there is inadequate support for the Company's plan to implement anything less than RAP-level for its DSM programs and DE requests that the Commission order the Company to review multiple ARPs with at least RAP-level DSM programs, including variation in equivalent supply-side resources.

7. **Concern:** Additionally, DE does not support including DSR in the Company's DSM plan. Advanced metering infrastructure (“AMI”) and a new customer information system (“CIS”) are being deployed by the Company. The new customer information system, One CIS, is a key driver of GMO's rate case, Case No. ER-2018-0146. Customers will be paying for these technologies through their rates, so they should be able to utilize the full extent of these technologies and their capabilities and reap the benefits without paying duplicative costs covered under MEEIA. Furthermore, while AMI may lead to additional efficiency programs that qualify for MEEIA, DSR should not be dependent on MEEIA, as MEEIA is a voluntary program. Therefore, DE requests that the Commission disallow DSR from being included in the Company's DSM program.

8. **Concern:** DE recognizes that GMO has plans to perform significant work to implement AMI and has already implemented a new CIS. So, as stated above, customers should be able to utilize the full extent of these technologies and reap their benefits.

Therefore, DE encourages the Company to strive for full utilization of AMI and CIS capabilities for DSM programs.

9. **Deficiency:** DE appreciates GMO's efforts to increase the number of DSM programs offered on an income-eligible basis. This will help low-income families experience the benefits of DSM programs, allowing them to reduce their energy burdens and have greater energy security. However, DE is concerned about how the Company's treatment of these issues within the context of the IRP effectively cost-tests these income eligible programs – which is not required by statute. DE recommends that the Commission order the Company to provide more information on how it performed this analysis and to modify its DSM portfolio appropriately.

10. **Concern:** During the evaluation, measurement, and verification ("EM&V") process, DE recommends that the Company consider three points that are currently not listed in its procedure. First, DE notes that certain DSM programs may require more than a three-year lifespan to reach their full benefits; consequently, these programs should be allowed to develop without premature termination due to initial EM&V results. Secondly, DE notes that the statewide Technical Resource Manual ("TRM") is available to aid in the EM&V process.

11. **Concern:** Thirdly, while conducting this EM&V process, DE advises the Company to incorporate Non-Energy Benefits ("NEBs"). DE encourages the Company to seek ways to study the NEBs listed in the definition found in MEEIA rule 4 CSR 240-20.092(1)(II) and identify additional NEBs, both for purposes of program planning and evaluation. DE notes that, although the Commission's rules state that NEBs may only be

considered in the Total Resource Cost (“TRC”) test if they are related to avoided utility costs, the National Standard Practice Manual indicates that participant NEBs should be included as well.<sup>1,2</sup> Doing so is consistent with including participant costs in the TRC test. Without the inclusion of all of participants’ avoided costs, the test results are inaccurate.

12. **Deficiency:** As part of its IRP, the Company was ordered by the Commission to, “describe and document the benefits and detriments for integrated resource planning to require achievement of targets under MEEIA.” In its IRP, the Company responded by stating that the targets were “unachievable and unrealistic.” The order from the Commission did not specify which targets the Company was meant to evaluate. Therefore, DE recommends that an evaluation be performed by GMO with the goal of determining targets that **are** both achievable and realistic. The Company should perform this analysis as part of the current IRP.

13. **Deficiency:** Under 4 CSR 240-22.060(5)(M), the Company must include demand-response technologies, storage technologies, and distributed energy resources (“DERs”) as uncertain factors in its ARPs. According to the Company, these technologies are, “not to the point where they would have a material impact on the selection of a preferred plan.” Demand-response technologies, storage technologies, and DERS are all at the level of commercialization where they are being implemented in the state of Missouri and across the country. For example, City Utilities of Springfield partnered with NorthStar

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<sup>1</sup> Woolf, Tim, Neme, Chris, Kushler, Marty, Schiller, Steven R., Eckman, Tom, and Michals, Julie. 2017. *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources*. 1<sup>st</sup> ed. National Efficiency Screening Project. [https://nationalefficiencyscreening.org/wp-content/uploads/2017/05/NSPM\\_May-2017\\_final.pdf](https://nationalefficiencyscreening.org/wp-content/uploads/2017/05/NSPM_May-2017_final.pdf). Pages 111 and 113.

<sup>2</sup> This manual was drafted by nationally recognized experts on energy efficiency and has been cited by stakeholders around the country; see National Efficiency Screening Project, 2018, “NSPM References,” <https://nationalefficiencyscreening.org/state-references/>.

Battery in early 2017 to implement a 1 MW advanced lead-acid battery energy storage system to supplement their municipal grid during peak demand.<sup>3</sup> Given these and other developments since affiliate Kansas City Power & Light Company's years-old smart grid pilot project, asserting that these technologies are not to a point where they could have a material impact on the selection of ARPs is not supported. Considering the recent decline in storage costs, the potential for implementing demand response as a part of MEEIA, and the increasing public interest in DERs, DE's position is that these items were not examined as an important part of the IRP analysis and were not given adequate consideration. Therefore, DE requests that the Commission order the Company to evaluate these technologies in greater detail and provide sufficient analysis as to their impacts on ARPs.

14. **Concern:** When ordered to analyze integrated distribution planning within the context of grid modernization, the Company provided very little detail. When asked to include DSM, energy efficiency, DERS, AMI, DSR, electric vehicles ("EVs"), and energy storage in the analysis, the Company included a statement saying that it could not perform such analyses and that instead, it would need to invest in its GIS system in order to do so. Many DSM programs and EV charging ports are already deployed and operational. Therefore, the Company should presently have sufficient means to analyze such technologies in real time. However, if this is not the case, DE recommends that the Company provide the Commission and other interested parties with information on the GIS upgrade process, including possible new software, vendor selection, cost estimates,

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<sup>3</sup> City Utilities of Springfield. 2017. *Our Priority: 2017 Annual Report*. <https://www.cityutilities.net/wp-content/uploads/cu-annualreport.pdf>.

and a timeline for further investment in its GIS system.

15. **Concern:** As part of its efforts in grid modernization and beneficial electrification, the Company has installed a Clean Charge Network (“CCN”) throughout its service area for EVs. In its IRP, the Company states that this CCN will be implemented as part of a demand-response program with late-night, off-peak charging. However, the Company has not explained how it plans to do this or given an outline for the program. The Company should be ordered to provide both an outline of the proposed program and a thorough analysis of how it plans on implementing this program.

16. **Concern:** The Company also mentions that when complying with 4 CSR 240-22.060(5)(A), it modeled additional load due to EVs as an increase to off-peak load to assess the impact it would have on high-load forecasts. However, EVs are most commonly charged at customer homes after standard work hours (i.e., potentially during peak times). Additionally, other types of charging may coincide with system peaks as well<sup>4</sup>. Since the Company did not provide a detailed explanation of how it plans to encourage off-peak charging, as stated above, it should model some EV charging during system peak. Therefore, the Company should also be ordered to provide a thorough analysis of the incidence of EV charging during both peak and off-peak times.

17. **Concern:** As part of the IRP’s Executive Summary, the Company lists a number of studies that it is working on. Many of these are of interest to DE and address topic areas where more information is needed. DE is particularly interested in the results of the AMI

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<sup>4</sup> Missouri Public Service Commission Case No. ER-2018-0145, In the Matter of Kansas City Power & Light Company’s Request for Authority to Implement a General Rate Increase for Electric Service, Direct Testimony of Charles A. Caisley on Kansas City Power & Light Company, January 30, 2018, page 14, lines 3-4.



studies (8.3.3-4), EV study (8.3.1), and DSM/DER studies (8.3.2, 8.3.5, and 8.4). DE requests that copies be made available to DE when finished. The Company should also provide an update on its progress, along with a timeline for completion of the studies, in its next IRP annual update.

18. **Concern:** There are a number of recent policy developments that are likely to affect GMO's IRP. The first of these is the recent ruling by the Missouri Court of Appeals for the Western District on EV charging, which held that the Commission can regulate EV charging stations. DE understands that this ruling is too recent to have been included in the Company's IRP filing. However, DE requests that the Company review and update its analysis of EVs taking the ruling into account and provide this information in its next IRP annual update.

19. **Concern:** The Company should also include information on how the newly passed S.B. 564 affects its preferred plan as a part of its next IRP annual update. For example, the Company should state how Section 393.1665, RSMo. (Utility-Owned Solar Facilities) will impact the forecasted solar investments in 2028 and whether they are included in the requirements under this section. Additionally, Sections 393.1610 (Investments in Small Scale and Pilot Projects), 393.1400 (Capital Investment Plan), and 393.1670 (Customer Solar Rebates), RSMo. should be addressed within this analysis.

20. **Concern:** Lastly, the Company should be ordered to evaluate the implications of its recent merger with Westar on GMO systems and include these results in its next IRP annual update.

21. In response to special contemporary issues that the Company was ordered to

address in its IRP filing, the Company deferred to its current rate case, ER-2018-0146, on the issues of corporate responsibility renewable options and standby service rates (“SSRs”). DE has expressed interest in these issues and has recently filed testimony in the above rate case on the need for future SSRs to be cost-based, as well as providing support for the Company’s renewable energy initiatives. DE appreciates the Company’s response and will follow-up in the rate case on these issues.

WHEREFORE, DE submits these comments for consideration by the Commission.

Respectfully submitted,

*/s/ Marc Poston*

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Marc Poston, MBN #45722

Senior Counsel

Department of Economic Development

P.O. Box 1157

Jefferson City, MO 65102

(573) 751-5558

[marc.poston@ded.mo.gov](mailto:marc.poston@ded.mo.gov)

**Attorney for Missouri Department of  
Economic Development – Division of Energy**

### **CERTIFICATE OF SERVICE**

I hereby certify that copies of the foregoing have been served electronically on all counsel of record this 30th day of August, 2018.

*/s/ Marc Poston*

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Marc Poston