

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of a Working Case to Explore)
Emerging Issues in Utility Regulation) **File No. EW-2017-0245**

Advanced Energy Management Alliance Recommendations on Distributed Energy Resources in Missouri

I. Background

Advanced Energy Management Alliance (“AEMA”)¹ is a trade association under Section 501(c)(6) of the Federal tax code whose members include national distributed energy resource (“DER”), demand response (“DR”), and advanced energy management service and technology providers, as well as some of the nation’s largest consumer resources, who support advanced energy management solutions due to the electricity cost savings those solutions provide to their businesses. This filing represents the opinions of AEMA as an organization rather than those of any individual association members.

II. Introduction

AEMA thanks the Missouri Public Service Commission (“Commission”), including Commissioners and Staff, for their leadership in exploring Distributed Energy Resources and Demand Response in Missouri. AEMA has actively participated in this proceeding, including

¹ Reference AEMA website for additional information: <http://aem-alliance.org>

filing comments² on October 20, 2017, in response to a series of questions from the Commission, and having membership participation at the November 20, 2017, and January 9, 2018 workshops. AEMA found these workshops to be highly productive and a useful exchange of information between a diverse set of stakeholders. We were pleased to hear widespread support for DR in Missouri at these workshops.

Taking into account the workshops that occurred since our November filing, these comments provide recommendations to the Commission for consideration in the final Staff report. We will not repeat our comments from November that we filed, although they are still relevant. We appreciate the Commission's consideration of AEMA's November comments, our presentations at the two workshops, and these comments in their deliberations.

III. Recommendations

As a next step, the Commission should direct utilities to significantly increase or maximize the amount of cost-effective DR in their overall resource portfolios. The Missouri Energy Efficiency Investment Act ("MEEIA") provides the Commission with the authority to "adopt rules and procedures... to ensure that electric corporations can achieve the goals of [the MEEIA]," which includes "achieving all cost-effective demand-side savings."³ As was highlighted during the workshops, Missouri lags far behind neighboring states in terms of DR penetration. Recent studies from neighboring MISO states highlight that increasing DR could deliver hundreds of millions of dollars in net benefits to consumers, and similar potential exists in Missouri. For instance, a recent study completed by Demand Side Analytics for the Advanced

² Comments can be downloaded here: http://aem-alliance.org/wp-content/uploads/dlm_uploads/MO-DER-AEMA-2.pdf

³ Mo. Stat. § 393.1075.

Energy Economy in Indiana found that demand response from commercial & industrial customers alone could drive up to \$485M in net benefits under medium avoided cost estimates over 10 years.⁴

As AEMA has previously stated and published in a white paper,⁵ bilateral contracts or a tariff similar to the Indiana & Michigan Power model⁶ are both proven options for achieving success and will foster collaboration between utilities and DR providers. This collaboration will mutually benefit all stakeholders by leveraging the capabilities of DR providers while enabling utilities to have full visibility and control into DR resources. The Commission should provide utilities with flexibility in choosing which option is most sensible for their territory, but also provide appropriate oversight to ensure that they are realizing DR potential in their territories.

AEMA was pleased to hear at the January 9 workshop that Ameren is already taking meaningful steps to increase DR in its territory. We look forward to learning more in the months ahead. However, it is unclear what meaningful steps KCP&L and Empire are taking to increase DR in their territory. In SPP, DR can deliver value to utilities by reducing their peak demand. Each MW of DR reduces the need to buy 1.12 MW of generation, since the DR also avoids the need to purchase reserves. KCP&L noted that they have an existing commercial & industrial DR program aimed at this purpose, but it appears they will only have 15 MW of total participation in 2018.⁷ C&I DR potential is typically 5%-10% of peak demand, so with KCP&L's peak load of

⁴ Potential for Peak Demand Reduction in Indiana, prepared for Advanced Energy Economy Indiana by Demand Side Analytics, LLC (February 2018), <https://info.aee.net/hubfs/IN%20DR%20Study%20Final.Feb.7.2018.pdf>.

⁵ See AEMA White Paper on DR in Midwest: <http://aem-alliance.org/advanced-energy-management-alliance-releases-options-develop-untapped-resource-engage-consumers/>

⁶ Rider D.R.S.1 (Demand Response Service – Emergency), https://www.indianamichiganpower.com/global/utilities/lib/docs/ratesandtariffs/Indiana/IM_IN_TB_16_01-30-2018.pdf.

⁷ KCP&L MEEIA Cycle 2 2016-2018 Filing. August 28, 2015. <https://www.efis.psc.mo.gov/mpsc/commoncomponents/viewdocument.asp?DocId=935953627>, page 122.

5,428 MW,⁸ about 270 MW to 540 MW of DR should be available in their territory. Without question, DR is cost-effective in KCP&L's territory. Based on KCP&L's MEEIA Cycle 2 filings, their existing Demand Response Incentive program is highly cost-effective with a TRC of 13.60 and a PCT of 60.00. This indicates that attracting more DR will deliver more net benefits to all KCP&L customers.

Given this information, and that the current terms of KCP&L's existing program will expire on 12/31/2018 and that Empire does not have an existing C&I program, the Commission should direct KCP&L and Empire to do the following in order to increase the amount of cost-effective DR in their territory:

- Implement a new bilateral or Indiana-style tariff program effective Summer 2019, that fosters collaboration with DR Providers. KCP&L's existing program discourages DR Providers by subjecting customers who work with them to potentially longer event seasons, more curtailments, and longer events, the terms of which must be negotiated between all three parties. As AEMA has previously demonstrated, DR Providers can strengthen existing programs and increase participation by providing specialized technology, maximizing customer capabilities and reliability in aggregated portfolios, and shielding customers from risks and penalties to make participation for customers more attractive. Any new program should encourage DR Provider participation, and not create barriers.
- Set compensation at a price that will attract robust customer participation while delivering net benefits considering all avoided costs, including the true cost of generation, reserves, and transmission & distribution infrastructure. The compensation for the current KCP&L program is \$32,500/MW-yr. Given its high

⁸ Based on EIA-861 2016 filings. Includes the GMO service area.

cost-effectiveness and low customer participation, setting compensation levels higher will attract more customers and produce more net benefits to customers.

- Implement clearly defined event triggers that achieve reductions in peak demand. Other successful peak-shaving programs dispatch customers when load forecasts reach a certain percentage (e.g., 96%) of the utility's peak load, and also allow for dispatches to address local system emergencies. This helps limit the risk to customers that they will face costly, and unnecessary, dispatches.

Additionally, the Commission should ensure that utilities are regularly comparing DR to generation on an apples-to-apples basis in their planning processes, while also factoring in other benefits from DR such as avoided transmission and distribution costs. If utilities have significant excess capacity, then utilities could compare DR against existing generation. **This will ensure the selection and development of a least-cost resource mix.** In many cases, developing a new DR resource can be cheaper than continuing to operate and maintain older, existing generation. In wholesale markets where DR and existing generation compete head to head, DR has cleared below existing generation, delivering savings to all consumers even when there have been excess reserve margins. Not only is DR economically competitive against existing generation, but DR resources can also be used to defer or avoid expensive new peaking resources. IRP modeling should do holistic resource comparisons to ensure that existing generation does not squeeze out the development of more cost-effective DR. The Commission could encourage this through the special contemporary issues process that allows staff, public counsel, and other interested parties to file suggested issues for consideration in utilities' triennial compliance filings or in their annual IRP update reports.

IV. Conclusion

As detailed in our previous comments, harnessing DR resources will reduce energy bills for all Missouri customers, strengthen reliability and resiliency, and stimulate economic development through DR payments to participating customers. As such, we respectfully request the Commission to direct utilities to significantly increase or maximize the amount of cost-effective DR in their overall resource portfolios. AEMA looks forward to collaborating with the Commission and utilities to create cost-effective, reliable programs in the near-term. Once again, we greatly appreciate the Commission's consideration of these comments, and welcome the opportunity to act as a resource moving forward.

Respectfully Submitted,



Katherine Hamilton

Executive Director, Advanced Energy Management Alliance

202-524-8832, Katherine@aem-alliance.org

1200 18th Street, NW, Suite 700

Washington, DC 20036

March 9, 2018