BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric Company's 2016 Triennial Compliance Filing Pursuant to 4 CSR 240-22	)))	**Case No. EO-2016-0223**

MISSOURI DIVISION OF ENERGY'S COMMENTS ON THE EMPIRE DISTRICT ELECTRIC COMPANY'S 2016 TRIENNIAL INTEGRATED RESOURCE PLAN

COMES NOW the Missouri Division of Energy ("DE"), by and through the undersigned counsel, and for its comments on the 2016 Triennial Integrated Resource Plan filing ("IRP") of The Empire District Electric Company ("Empire" or "Company"), states:

1. On April 1, 2016, Empire filed its triennial IRP with the Public Service Commission ("Commission"), consisting of seven volumes. Under 4 CSR 240-22.080(8), intervenors may file comments on this IRP up to 150 days after its submission. This filing constitutes the initial comments of DE on the Company's 2016 IRP.

2. **Deficiency 1: selection of the preferred resource plan.** Empire's preferred resource plan (Plan 5) was based on that plan's low cost compared to the alternatives.[1] The Commission's rule at 4 CSR 240-22.010(2)(B) requires that Empire, "Use minimization of the present worth of long-run utility costs as the primary selection criterion in choosing the preferred resource plan, **subject to the constraints** in subsection (2)(C)" (emphasis added). Under 4 CSR 240-22.010(2)(C), these "constraints" are to be analyzed as follows:

> Explicitly identify and, where possible, quantitatively analyze **any other considerations** which are critical to meeting the fundamental objective of the resource planning process, but **which may constrain or limit the minimization of the present worth of expected utility costs**. The utility shall describe and

[1] Missouri Public Service Commission Case No. EO-2016-0223, *In the Matter of The Empire District Electric Company's 2016 Triennial Compliance Filing Pursuant to 4 CSR 240-22*, Volume 7 – Resource Acquisition Strategy Selection, April 1, 2016, page 7.

> document the process and rationale used by decision-makers to assess the tradeoffs and determine **the appropriate balance between minimization of expected utility costs and these other considerations** in selecting the preferred resource plan and developing the resource acquisition strategy. These considerations shall include, but are **not necessarily limited to**, mitigation of:
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> 1. Risks associated with critical uncertain factors that will affect the actual costs associated with alternative resource plans;
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> **2. Risks associated with new or more stringent legal mandates that may be imposed at some point within the planning horizon**; and
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> 3. Rate increases associated with alternative resource plans. (Emphases added.)

From these requirements, it is clear that, while the primary criterion for evaluating alternative resource plans is cost, it is not the only criterion. Indeed, a broad set of relevant criteria should be considered, including regulations. However, Empire considered only the criterion of cost in its preferred plan selection. Had the Company considered additional criteria – such as the policy objectives of the state regarding demand-side resources ("DSM") (see Deficiency 2 below) – a different plan may have been preferred. To remedy this deficiency, DE recommends that Empire re-examine its plans in its 2017 Annual IRP Update in the context of a broader set of selection criteria.

3. **Deficiency 2: Lack of DSM in the preferred plan.** Empire's preferred plan lacks a DSM portfolio.[2] Though Empire indicates that this portfolio is the least-cost option, Empire's IRP may lack sufficient levels of DSM savings to properly assert that a "no DSM" option is the least costly to ratepayers (see Concern 2). Additionally, the use of "least-cost" as the primary selection criterion does not comport with the IRP rule requirement to consider

[2] *Ibid*.

additional factors (see Deficiency 1 above) – in this case, the value placed on DSM by the state. The IRP rules themselves state at 4 CSR 240-22.010(2)(A) that the Company must, "Consider and analyze demand-side resources, renewable energy, and supply-side resources on an equivalent basis, subject to compliance with all legal mandates that may affect the selection of utility electric energy resources, in the resource planning process …." Such a requirement mimics the goal stated in the Missouri Energy Efficiency Investment Act ("MEEIA") at §393.1075.3, RSMo.: "It shall be the policy of the state to value demand-side investments equal to traditional investments in supply and delivery infrastructure and allow recovery of all reasonable and prudent costs of delivering cost-effective demand-side programs." Even earlier than the MEEIA statute, the state placed value on DSM, as evidenced at §393.1040, RSMo.: "In addition to the renewable energy objectives set forth in sections 393.1025, 393.1030, and 393.1035, it is also the policy of this state to encourage electrical corporations to develop and administer energy efficiency initiatives that reduce the annual growth in energy consumption and the need to build additional electric generation capacity." Thus, Empire's preferred plan selection is deficient in its failure to meet the state's policy goals with respect to DSM; DE requests that Empire remedy this deficiency in its 2017 Annual IRP Update by analyzing and selecting an alternative resource plan which meets state policy goals.

4. **Deficiency 3: Clean Power Plan analysis.** In its determination of Special Contemporary Issues in EO-2016-0040, the Commission ordered Empire to address Clean Power Plan ("CPP") compliance in its 2016 IRP.[3] However, while the Company references its subjective analyses of carbon emissions prices, its base case scenario, and various retirements,

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[3] Missouri Public Service Commission Case No. EO-2016-0040, *In The Matter of a Determination of Special Contemporary Resource Planning Issues to be Addressed by The Empire District Electric Company in its Next Triennial Compliance Filing or Next Annual Update Report*, Order Establishing Special Contemporary Resource Planning Issues, October 28, 2015, pages 4-5.

Empire mostly defers on discussing CPP compliance, stating that too much uncertainty remains surrounding factors such as state implementation plans.[4] This "punting" approach avoids fulfilling the Commission's request to address very specific aspects of CPP compliance, such as investments which would be required by the Company under various compliance scenarios. Though DE recognizes the uncertainties surrounding the nature and timing of CPP implementation, such uncertainties do not preclude Empire from addressing the Commission's request using assumptions about various compliance scenarios. In fact, part of the Commission's order requested the Company to state its preferences regarding compliance options.[5] In view of the Company's incomplete response to the Commission's order, DE requests that the Company fully answer the questions posed regarding CPP compliance in its 2017 Annual IRP Update.

5. **Concern 1: Similarity of the alternative resource plans.** Despite the scenarios posed by Empire in its construction of alternative resource plans, the plans have fairly similar supply-side additions. Generally, these additions involve the addition of two increments of wind capacity and two more additions of natural gas capacity (typically combined cycle units); this lack of variation comes despite the relatively low cost of wind resources. Additionally, there is insufficient variation in the DSM portfolios across plans; in fact, the DSM portfolios in 10 of the 19 plans are identical.[6] To remedy this concern, DE recommends that Empire add additional alternative resource plans in its 2017 Annual IRP Update; these alternative resource plans should include larger proportions of wind and other renewable energy resources, as well as larger proportions of DSM savings.

6. **Concern 2: Sufficiency of the DSM analysis.** Empire analyzed a range of potential DSM measures in deriving its DSM portfolio. However, the DSM portfolio presented

[4] EO-2016-0223, Volume 6 – Integrated Resource Plan and Risk Analysis, April 1, 2016, pages 181-184.
[5] EO-2016-0040, Order Establishing Special Contemporary Resource Planning Issues, page 5
[6] EO-2016-0223, Volume 7 – Resource Acquisition Strategy Selection, page 30.

by Empire results in very small cumulative net demand reductions between 2017 and 2018, never exceeding one MW.[7] It is possible that these minimal reductions contribute to the Company's determination that Plan 5 – which includes no DSM – is the least-cost option, since a lack of demand reduction would contribute to a lack of avoided costs. However, the Company may not have reached the limit of the demand reductions which its programs could achieve. In numerous instances, the DSM programs evaluated by Empire had total resource cost test ("TRC") ratios far exceeding 1.00;[8] in 2017 alone, the TRC ratio calculated for an Empire commercial and industrial custom rebate program[9] exceeded the three-year or total cycle TRC ratios for similar programs approved by the Commission in the second MEEIA cycles of Union Electric Company d/b/a Ameren Missouri,[10] Kansas City Power & Light Company, and KCP&L Greater Missouri Operations Company.[11] Such exemplary scores in Empire's analysis suggest the ability to scale these programs up to achieve higher avoided costs without falling below a TRC ratio of 1.00. To remedy these concerns, DE recommends that Empire expand its DSM portfolio evaluation to include additional savings, including demand savings, in its 2017 Annual IRP Update.

7. **Concern 3: Analysis of combined heat and power; treatment of distributed generation.** Empire analyzed combined heat and power ("CHP") as a supply-side resource (under its "distributed generation" resource option).[12] Though CHP is a distributed resource when implemented by customers, Empire's approach has two drawbacks. First, there are other

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[7] EO-2016-2016-0223, Empire 2016 Triennial IRP, Vol. 5 – Demand-Side Resource Analysis, April 1, 2016, page 93.
[8] EO-2016-2016-0223, Empire 2016 Triennial IRP, Vol. 5 – Demand-Side Resource Analysis, page 119.
[9] *Ibid*.
[10] EO-2015-0055, Non-Unanimous Stipulation and Agreement, Appendix B.
[11] EO-2015-0240 and EO-2015-0241, Non-Unanimous Stipulation and Agreement Resolving MEEIA Filings, Appendix E.
[12] EO-2016-2016-0223, Empire 2016 Triennial IRP, Vol. 4 – Supply-Side Resource Analysis, April 1, 2016, pages 54-55.

sources of distributed generation, such as roof-mounted solar photovoltaic panels. These types of resources should be considered alongside CHP, particularly given the recent requirement that Empire must offer solar rebates. Second, Empire does not consider CHP in its DSM analyses; this is despite recent agreements including CHP as an eligible DSM measure under MEEIA.[13] To remedy this concern, DE requests that Empire 1) include additional distributed resources in its 2017 Annual IRP Update supply-side analysis, and 2) evaluate CHP as a potential DSM measure in its 2017 Annual IRP Update.

WHEREFORE, DE respectfully files these comments on Empire's 2016 triennial IRP.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that true and correct copies of the foregoing have been emailed to the certified service list this 31st day of August, 2016.

/s/ Alexander Antal

[13] Missouri Public Service Commission Case No. EO-2015-0055, *In the Matter of Union Electric Company d/b/a Ameren Missouri's 1nd Filing to Implement Regulatory Changes in Furtherance of Energy Efficiency as Allowed by MEEIA*, Non-Unanimous Stipulation and Agreement, February 5, 2016, page 3.
Missouri Public Service Commission Case Nos. EO-2015-0240 and EO-2015-0241, *In the Matter of Kansas City Power & Light Company's Notice of Intent to File an Application for Authority to Establish a Demand-Side Programs Investment Mech anism* and *In the Matter of KCP&L Greater Missouri Operations Company's Notice of Intent to File and Application for Authority to Establish a Demand-Side Programs Investment Mechanism*, Non-Unanimous Stipulation and Agreement Resolving MEEIA Filings, November 23, 2015, page 4.