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SURREBUTTAL TESTIMONY

OF

MATT MICHELS

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a Ameren Missouri**

**St. Louis, Missouri
February, 2020**

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1 **II. CLARIFICATION OF CAPACITY CONSIDERATIONS**

2 **Q. What does Dr. Marke assert regarding consideration of Ameren**
3 **Missouri's need for capacity?**

4 A. Dr. Marke notes that Ameren Missouri currently has capacity length. That
5 is, the total capacity of the Company's resources is greater than its total peak demand plus
6 required reserve margin. He asserts that this diminishes the need to consider grid
7 modernization investments to support the deployment of solar generation.

8 **Q. Do you agree with Dr. Marke on this point?**

9 A. No. Dr. Marke specifically notes that the Company's consideration of grid
10 modernization investments related to deployment of solar resources reflects consideration
11 of several different forms of solar resource deployment – community solar, distributed
12 solar, and non-wires alternatives (for ensuring distribution system reliability). Such
13 applications of solar resources do not necessarily, or even frequently, rely on a system-
14 wide need for capacity. Community solar programs are often targeted to those customers
15 who seek to satisfy a specific objective with respect to reliance on renewable energy.
16 Distributed solar may be customer-owned and thus driven by a given customer's or
17 multiple customers' own objectives and choices. Solar resources deployed as non-wires
18 alternatives are geared toward improvements in distribution system reliability, such as the
19 projects proposed by the Company in File No. EA-2019-0371. None of these forms of
20 solar resource deployment is driven by a system-wide resource capacity need.

1 Consequently, system-wide capacity length does not diminish the need to consider
2 modernizing the grid.

3 **Q. Dr. Marke notes that the Company expects to add at least 700**
4 **megawatts ("MW") of wind in the near future and that such additions will add to**
5 **the Company's capacity length. Would such wind additions result in an additional**
6 **700 MW of capacity length, all other things being equal?**

7 A. No. For resource adequacy purposes, the Mid-continent Independent
8 System Operator, Inc. ("MISO") limits the amount of capacity credited to wind resources
9 to only a fraction of the maximum rated output of the generators, typically around 15%.
10 This means that wind generation with a maximum output of 700 MW would yield on the
11 order of 100 MW of capacity for resource adequacy purposes, which is a relatively minor
12 increase in the Company's total system capacity since it is less than the 300 MW
13 threshold we use for adding supply side resources when performing resource planning
14 analyses.

15 **Q. Dr. Marke also refers to the potential for new generating capacity to**
16 **serve customers under the Company's Renewable Choice Program that could**
17 **further increase the Company's capacity length. Is it appropriate to consider such**
18 **potential capacity as part of the Company's capacity position for resource adequacy**
19 **purposes?**

20 A. No. Any resources acquired to support customer subscriptions under the
21 Company's Renewable Choice Program are to be explicitly excluded from the Company's
22 resource planning capacity position according to the terms of a stipulation and agreement
23 approved by the Commission in File No. ET-2018-0063.

1 **Q. Would you expect similar treatment for other resources acquired to**
2 **support customer renewable subscription programs?**

3 A. I have no reason to believe that the treatment would be different than that
4 agreed to for the Renewable Choice Program. This treatment is emblematic of why
5 discussions of system capacity needs are often irrelevant to consideration of resources
6 used to serve customers under voluntary renewable energy resource program offerings.

7 **III. COAL ENERGY CENTER ECONOMICS**

8 **Q. Ms. Mantle discusses the coal energy center cash flow analysis**
9 **presented by Mr. Allison in his direct testimony. Please summarize her key points**
10 **with respect to Mr. Allison's analysis.**

11 A. Ms. Mantle notes that Mr. Allison has included capital costs in his three-
12 year economic analysis of the Labadie, Rush Island and Sioux Energy Centers, and
13 cautions the Commission about reliance on the analysis and the consideration of
14 unrecovered plant investment.

15 **Q. Do you agree with Ms. Mantle's assessment of Mr. Allison's analysis?**

16 A. Only in part. Ms. Mantle correctly highlights the inclusion of capital
17 costs in Mr. Allison's analysis as an issue. As I noted in my rebuttal testimony, the
18 inclusion of capital costs in a three-year backward-looking analysis as Mr. Allison has
19 presented, essentially makes it a short-term cash flow analysis rather than an appropriate
20 analysis of the future economics of these plants. As I also noted in my rebuttal testimony,
21 Mr. Allison recognizes the need for a long-term forward-looking analysis by calling for
22 the Commission to order the Company to perform just such an analysis.

1 **Q. Do you agree with Ms. Mantle's assertion that Mr. Allison's analysis**
2 **may fairly represent the relevant economics of a decision to retire coal-fired**
3 **generators sooner than currently planned, so long as appropriate consideration is**
4 **given to the treatment of remaining unrecovered plant balances?**

5 A. No. Reiterating a key point from my rebuttal testimony, a short-term
6 backward-looking analysis is entirely insufficient for evaluating early retirement
7 decisions. No approach to considering the recovery of remaining plant balances can make
8 the kind of economic analysis Mr. Allison has presented useful in making such decisions.

9 **Q. Has Ms. Mantle performed an economic analysis of her own?**

10 A. No. She states as much in her rebuttal testimony.

11 **Q. Dr. Marke notes that the description of the analysis recommended by**
12 **Mr. Allison resembles that of an Integrated Resource Plan ("IRP") analysis. Do you**
13 **agree?**

14 A. Absolutely. That is why I specifically noted in my rebuttal testimony that
15 Ameren Missouri is currently in the process of developing its 2020 IRP, to be filed by
16 October 1st of this year, and that it is required to include analysis of exactly the kind
17 recommended by Mr. Allison.

18 **Q. Dr. Marke expresses concern with the prospect of relying on the IRP**
19 **process to ensure that the analysis recommended by Mr. Allison is conducted. Do**
20 **you believe such concern is warranted?**

21 A. No. Dr. Marke notes two concerns. First, he notes his perception that
22 utility IRP filings have been routinely delayed. While this may generally be the case,
23 Ameren Missouri has filed its last two IRPs (in 2014 and 2017) exactly three years apart;

1 i.e., on time.¹ Second, he expresses his concern that IRP filings have been lacking in their
2 analysis of certain factors that he believes should have been included. As I noted in my
3 rebuttal testimony, the Commission found that the Company's 2017 IRP and associated
4 resource acquisition strategy met the requirements of the Commission's IRP rules. This
5 was also the case for the Company's 2014 IRP. Put another way, while others (be it OPC
6 or Sierra Club) alleged deficiencies, the Commission did not agree with them. Dr.
7 Marke's second concern is therefore simply an attempt to re-litigate a resource plan
8 already found to be in compliance with the IRP rules. If Dr. Marke is referring to
9 analyses for the 2020 IRP, as I noted the kind of analysis recommended by Mr. Allison
10 has been explicitly required of the Company in the Commission's order on special
11 contemporary issues, and will be included in the Company's 2020 IRP.

12 IV. CONCLUSION

13 **Q. Please summarize your key points.**

14 A. Dr. Marke's concerns about capacity length as it relates to the customer
15 benefits of various forms of solar resource deployment are unfounded because the
16 applications and objectives for deployment of solar resources in the near term are not
17 based on a system-wide need for capacity. Ms. Mantle's observation about Mr. Allison's
18 inclusion of capital costs in his cash flow analysis is correct, but her characterization of
19 its relevance to evaluating the economics of early retirement of coal generators is not,
20 regardless of how unrecovered plant balances are assumed to be treated. Finally, Dr.
21 Marke's concerns about the IRP as the appropriate forum for performing the kind of

¹ The filing dates for the Company's 2014 and 2017 IRPs were set to October 1st of each respective filing year to align the schedule of each IRP with the schedule for the Company's associated demand-side management potential study.

1 analysis recommended by Mr. Allison are unfounded because the Company has
2 submitted its triennial IRP filings on time, those filings have been found compliant with
3 the Commission's rules, and the Commission has required the kind of analysis
4 recommended by Mr. Allison be included in the Company's 2020 IRP.

5 **Q. Does this conclude your surrebuttal testimony?**

6 **A. Yes, it does.**

