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MISSOURI PUBLIC SERVICE COMMISSION

Case No. ET-2014-0059

SURREBUTTAL TESTIMONY

OF

MATT MICHELS

ON

BEHALF OF

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

**St. Louis, Missouri
September 24, 2013**

1 **SURREBUTTAL TESTIMONY**

2 **OF**

3 **MATT MICHELS**

4 **CASE NO. ET-2014-0059**

5 **Q. Please state your name and business address.**

6 A. Matt Michels, One Ameren Plaza, 1901 Chouteau Avenue, St. Louis,
7 Missouri 63103.

8 **Q. By whom and in what capacity are you employed?**

9 A. I am employed by Ameren Services Company (“Ameren Services”) as a
10 Corporate Analysis Manager in the Commercial Transactions Department. Ameren Services
11 provides various corporate support services for Union Electric Company d/b/a Ameren
12 Missouri ("Ameren Missouri" or "Company"), including legal, accounting, financial, and
13 analytical support.

14 **Q. What is the purpose of your surrebuttal testimony in this proceeding?**

15 A. The purpose of my surrebuttal testimony is to support the model approach
16 used by KCP&L Greater Missouri Operations Company (GMO) for determining the Retail
17 Rate Impact (RRI) of its Renewable Energy Standard (RES) compliance plan, and therefore
18 used as the basis for determining that it should suspend payment of rebates under its solar
19 rebate tariff. I will also respond to the testimonies of Brightergy witness Adam Blake and
20 MOSEIA witness Dr. Ezra Hausman, including their proposals to amortize solar rebate
21 expenses. Finally, I will respond to points raised by Renew Missouri witness Patrick J.
22 Wilson.

1 **Q. Are you familiar with the model used by GMO to calculate the RRI?**

2 A. Yes. The model used by GMO is based on a model developed by Ameren
3 Missouri for use in its Renewable Energy Standand (RES) planning and Integrated Resource
4 Planning (IRP) analysis. While GMO has inserted its own assumptions and has made some
5 minor modifications to the model, my understanding is that the model functions to a large
6 degree in the same manner as that of the model developed and currently in use by Ameren
7 Missouri.

8 **Q. Please describe the general approach used by the model to calculate the**
9 **RRI.**

10 A. The model starts with an annual stream of future revenue requirements for a
11 non-renewable portfolio, that is, a portfolio in which no new renewable resources directly
12 attributable to compliance with the RES are included. The model calculates for each year the
13 10-year forward-looking average revenue requirement for the non-renewable portfolio. The
14 resultant value for each year is multiplied by 1%, and this value is determined to be the limit
15 for revenue requirements attributable to RES compliance costs.

16 **Q. Staff witnesses Claire Eubanks and Mark Oligschlaeger testify that this**
17 **approach does not comply with the RRI calculation prescribed in 4 CSR 240-20.100(5).**
18 **Do you agree?**

19 A. No. Ms. Eubanks and Mr. Oligschlaeger cite the specific language in the rule
20 and presume that there is only one way in which it can be calculated. Simply put, the
21 calculation preferred by Staff involves first comparing a RES-compliant portfolio that is
22 unconstrained by the RRI limitation to the non-renewable portfolio, then checking to see if
23 the RES-compliant portfolio is more than 1% greater than the non-renewable portfolio, then

1 if it is more than 1% greater, reducing the additions of renewable resources in the RES-
2 compliant portfolio such that it is only 1% more than the non-renewable portfolio. What
3 GMO has done is start with the knowledge that the total RES compliance cost under the RRI
4 limitation can be calculated without any knowledge of the nature of the RES-compliant
5 portfolio by simply taking the revenue requirement of the non-renewable portfolio and
6 multiplying it by 1%.

7 **Q. How do you know that computing the RRI limitation in that manner will**
8 **result in the same value that would be calculated under Staff's approach?**

9 A. We know this by simple mathematics. As an example, assume that the
10 revenue requirement for a non-renewable portfolio over ten years is \$100. Then assume that
11 the revenue requirement for a RES-compliant portfolio is \$105 over the same ten years. The
12 cost of the RES-compliant portfolio is 5% greater than that of the non-renewable portfolio
13 and clearly more than 1% greater than the non-renewable portfolio. The costs of the RES-
14 compliant portfolio must be reduced by \$4 to ensure that the cost of that portfolio is no more
15 than (in fact, exactly equal to) 1% more than the non-renewable portfolio, in this case \$1
16 more. By starting with the cost of the non-renewable portfolio, we can simply calculate the
17 RRI cost limitation by taking the revenue requirement of the non-renewable portfolio (\$100)
18 and multiplying by 1%, yielding the same RES cost limitation of \$1.

19 **Q. Does GMO's model show the calculation of the revenue requirement for a**
20 **RES-compliant portfolio unconstrained by the RRI limitation?**

21 A. Yes. The result of the calculation is included in a summary table in the
22 model.

1 **Q. Why can't this result be used to initiate the RRI calculation as Staff**
2 **suggests?**

3 A. The problem lies in the fact that the model is solving for portfolios that span
4 multiple overlapping periods. The first period includes the years 2013-2022, the second
5 period includes the years 2014-2023, and so on until the tenth period, 2022-2031. As a
6 result, the model results for the years 2013-2022 reflect the results for portfolios spanning ten
7 different ten-year periods. Because the RRI limitation for each ten-year period is a function
8 of the revenue requirement for that ten-year period, and because the revenue requirement for
9 each ten-year period is different (most likely increasing over time), the RRI limitation for
10 2013-2022 must consider the revenue requirements for the years 2013-2031.

11 **Q. Couldn't you ignore the revenue requirement for the years beyond 2022**
12 **and simply calculate the RRI limitation using only the revenue requirements for 2013-**
13 **2022?**

14 A. Not if year-to-year consistency in computing the expected costs of the RES is
15 important. By ignoring the future costs that will result from continually looking one year
16 further into the future to determine the RRI limitation in subsequent years, an unrealistic
17 expectation could be established that the impact in any ten-year period would never be more
18 than 1% when in fact the impact is very likely to be more than 1%. In reality, the only way
19 to ensure that the RRI is no more than 1% on average in any ten-year period is to ensure that
20 it is no more than 1% in any individual year.

21 **Q. Mr. Oligschlaeger contends that by calculating a specific limit for a given**
22 **year, GMO is utilizing what he refers to as an "annual cumulative" approach to the**

1 **RRI as opposed to the “average cumulative” approach that the Commission adopted in**
2 **its order of rulemaking concerning the RES. Is this accurate?**

3 A. No. What GMO is doing is applying the “average cumulative” approach that
4 the Commission adopted and implementing it through specific annual limitations. GMO is
5 accounting for the “average” element of the Commission’s prescribed calculation by
6 specifically reflecting the ten-year average revenue requirement of the non-renewable
7 portfolio in determining the limitation in any given year.

8 **Q. Mr. Oligschlaeger contends that by using these specific annual limitations**
9 **to the RRI, a utility is unnecessarily constrained in its ability to manage its compliance**
10 **with the RES and that utilities need the flexibility of ten-year averaging without an**
11 **annual constraint in order to manage the transition to increased portfolio requirements**
12 **in 2014, 2018 and 2021. How do you respond?**

13 A. While I appreciate Mr. Oligschlaeger’s concern for the ability of utilities to
14 plan their compliance, this concern is overstated in the long-term and is misplaced in the
15 current context. GMO is concerned with its ability to limit the costs of RES compliance at
16 this time due almost entirely to costs that are not in its direct control – solar rebates.
17 Allowing such costs to continue to rise and depending on the ability to average those costs
18 over ten years is an understandably uncomfortable position for a utility. This is especially
19 true because of the potential issue identified by GMO witness Burton Crawford. Mr.
20 Crawford points out that by relying on ten-year averaging to alleviate higher costs in the
21 current year, and then ignoring those higher costs when calculating the RRI limitation in
22 subsequent years, there is a high potential for incurring costs that continue to exceed 1% of a
23 non-renewable portfolio for a number of years. In the long-term, utilities have a number of

1 options to manage the transition to higher portfolio requirements. Renewable projects can be
2 scaled to match desired cost characteristics, and the standards can be met through a
3 combination of utility-built assets, assets under contract through a PPA, and purchases of
4 Renewable Energy Credits (RECs). The banking provision in the RES also provides for a
5 measure of flexibility to manage portfolio transitions and fluctuations in performance and
6 timing of renewable resources. By demanding that the RRI calculation be performed in a
7 way that permits the kinds of problems that GMO is trying to avoid, Mr. Oligschlaeger is
8 trying to solve a potential future problem, one that may be solved or mitigated through other
9 means, while ignoring an actual problem that GMO is faced with today.

10 **Q. Mr. Oligschlaeger argues that the problematic hypothetical scenarios put**
11 **forth by Mr. Crawford are unrealistic. Is that so?**

12 A. No. If that were true, then GMO would not be faced with the potential for just
13 such a scenario. Without any way to account for the past costs of RES compliance, each new
14 year creates a “clean slate” and the potential for costs in that year that are much greater than
15 1% of the non-renewable portfolio. What GMO has done is to apply a methodology that
16 comports with the requirement to calculate the RRI based on a ten-year average and does it in
17 a way that avoids the real problems that Mr. Oligschlaeger simply dismisses.

18 **Q. Is there anything else in Mr. Oligschlaeger’s testimony that you would**
19 **like to address?**

20 A. Yes. On page 11 of his testimony, Mr. Oligschlaeger addresses the treatment
21 of existing renewable energy resources for purposes of calculating the RRI. In doing so, he
22 states that, “Proposition C states that this component of the RRI calculation should consist of
23 ‘entirely nonrenewable’ generation resources. The plain meaning of those words is that all of

1 a utility's renewable resources, whether they were added to GMO's system as a result of
2 Proposition C or not, should be excluded from the nonrenewable component of the RRI
3 calculation."

4 Mr. Oligschlaeger is commenting on the addition of new renewable resources
5 acquired after the implementation of the RES rules and whether they should be included or
6 excluded from the non-renewable portfolio used in the calculation of the RRI. However, his
7 statement seems to imply that all renewable generation, regardless of when it was acquired,
8 should be excluded from the non-renewable portfolio. In fact, the rules simply require that
9 the RRI calculation exclude resources owned or under contract prior to the effective date of
10 the rule (4 CSR 240-20.100(5)(A)).

11 **Q. Brightergy witness Adam Blake and MOSEIA witness Ezra Hausman**
12 **both recommend multi-year amortization of solar rebate expenses. How do you**
13 **respond?**

14 A. Calls to amortize expenses are not a matter for this proceeding. While such
15 treatment may very well be implemented in a rate case, cost recovery issues should not be
16 decided at this time. Because issues regarding alternative recovery methods must be
17 implemented in a rate case, such treatment cannot be relied upon prospectively for
18 determination of the RRI limitation for RES compliance costs. While Mr. Blake and Dr.
19 Hausman attempt to make a case for treating rebates as capital investments of a utility, they
20 simply are not. The investments in connection with the solar rebates at issue in this case are
21 investments made by customers over which utilities have no control and no ongoing
22 obligations for operation, maintenance or repairs or any other responsibilities associated with
23 the ownership of the solar systems installed. As they are not assets of the utility, there is no

1 basis for treating them as such. The Commission has already ruled on this very issue in a
2 prior Ameren Missouri case. In that rate case, an argument had been advanced that the cost
3 of solar rebates should be amortized over ten years to reflect the minimum expected life of
4 the installed solar equipment. The Commission found, "Ameren Missouri does not own or
5 operate the solar equipment for which it is required to pay a rebate. That equipment is the
6 property of the customer who has sole control and responsibility for them and will primarily
7 benefit from the use of the equipment. Thus, to Ameren Missouri, payment of the solar
8 rebate is simply an expense¹ imposed upon it by the statute."²

9 **Q. In supporting calls to amortize solar rebate costs, both Mr. Blake and Dr.**
10 **Hausman argue that the rebates paid by utilities should be viewed as a cost of acquiring**
11 **solar energy to comply with the standard. Do you agree?**

12 A. Not entirely and not in any way that would help to support their calls to
13 amortize any significant portion of the cost of the rebates. The solar rebates are subsidies
14 paid by the utility, as required by Missouri law, to customers who install solar energy
15 systems. HB-142, passed and signed by Governor Nixon this year, does entitle utilities to the
16 RECs expected to be produced by customer systems subsidized by utility rebates. However,
17 if the entire cost of the rebates were to be treated as a cost of acquiring the associated solar
18 energy or S-RECs, one could argue that there are much more cost-effective ways to acquire
19 such energy or S-RECs. S-RECs have recently been available for less than \$5 each. In
20 contrast, if the entire amount of the rebate were presumed to be the cost of acquiring 10 years
21 of S-RECs from the customer system, the cost could be well over \$100 each. For example, if
22 a customer installs a 5 kW system and solar rebates are \$2/watt, a customer would receive a

¹ Ameren Missouri recognizes that the recent statutory change will change this fact slightly, as is discussed later in my testimony. That does not, however, negate the point of the Commission's finding in the cited case.

² File No. ER-2011-0028, Report and Order, issued July 13, 2011, p. 98.

1 rebate of \$10,000. The utility, in turn, would be entitled to the S-RECs expected to be
2 produced by the customer's system over its first ten years of operation. Assuming a capacity
3 factor of 15%, the 5 kW system would produce approximately 7 MWh per year, or about 70
4 MWh over ten years, which is equal to the number of S-RECs produced. Dividing \$10,000
5 by 70 yields approximately \$143 per S-REC.

6 Mr. Blake argues on page 8 of his rebuttal testimony that purchasing RECs would be
7 more cost effective than construction of a utility-owned wind farm, even though he provides
8 no evidence to suggest that RECs would even be available that far into the future, let alone at
9 a cost-effective price. Even so, his argument suggests that the utility should purchase RECs
10 (or S-RECs) if they are the cheapest means of acquiring renewable energy to meet the RES
11 portfolio standard. Therefore, I don't believe either Mr. Blake or Dr. Hausman intends for
12 the cost of rebates to be viewed entirely as the cost of acquiring the S-RECs associated with
13 the solar energy systems installed by customers.

14 **Q. Do you have any expectations about how the cost of solar rebates would**
15 **be accounted for by utilities?**

16 A. While I am not an accountant, I expect that the cost of rebates would be split
17 to reflect the value of associated S-RECs, which should be consistent with the market value
18 of S-RECs currently available at the time a rebate is paid, and the remaining amount treated
19 as the expense of paying a solar rebate subsidy to the customers installing and investing in
20 the systems. At this time, I would expect the portion of the cost of the rebate associated with
21 the acquired S-RECs to be quite small.

22 **Q. Mr. Blake and Dr. Hausman call for "front-loading" of solar rebate costs,**
23 **which may or may not be associated with proposals for amortization. Will such an**

1 **approach work within the intent of the RES statute and Commission rules to limit the**
2 **cost impact to customers using the RRI calculation?**

3 A. It would likely require some modification of the Commission's regulations.
4 Unfortunately, without some provision to carry over any costs in excess of 1% of a non-
5 renewable portfolio from prior years to be included in the forward-looking RRI calculation,
6 there is no opportunity to ensure that costs over a ten-year period could be limited. This is
7 exactly the kind of unintended scenario that Mr. Crawford describes in his direct testimony in
8 which costs incurred in one year, regardless of how much or how little, are ignored for
9 purposes of calculating the RRI in subsequent years, thus having the potential consequence
10 of resultant RES compliance costs that far exceed the 1% limitation or fall far short.

11 **Q. Renew Missouri witness Patrick J. Wilson voices his support for the**
12 **front-loading and amortization approach recommended by Dr. Hausman. Does Mr.**
13 **Wilson provide any additional evidence to support this approach as a workable solution**
14 **to address the 1% RRI limitation?**

15 A. No.

16 **Q. On pages 7-8 of his rebuttal testimony, Mr. Wilson takes issue with the**
17 **explanation provided by GMO witness Burton Crawford regarding the need to keep**
18 **annual RES compliance costs closely aligned with the 1% cap. Please summarize Mr.**
19 **Wilson's argument on this point.**

20 A. Mr. Wilson first asserts that a purely forward-looking calculation is not
21 required by the Commission's rules and that it is only meaningful for planning purposes. He
22 then asserts that, "... the measurement of the 'average retail rate increase' is something that
23 can only be determined by looking backward in time." Finally, he concludes that a utility

1 should have no problem dealing with “lumpy” expenditures because it can rely on a
2 backward-looking calculation to ensure that the average rate impact does not exceed 1% over
3 a given ten-year period.

4 **Q. Does Mr. Wilson’s description of the RRI calculation agree with that**
5 **described by the Commission’s rules?**

6 A. Mr. Wilson’s description of the RRI calculation bears no resemblance to that
7 described in the Commission’s rules at all. In fact, he describes a method of calculating the
8 RRI that is in complete opposition to that in the rules. The Commission’s rules require a
9 calculation that looks only forward, never backward. The Commission’s rules do not allow a
10 utility to account for prior costs. As a result, the utility’s only option for ensuring that costs
11 do not exceed the 1% limitation is to limit the cost impact in each year as GMO has done.

12 **Q. What do you recommend the Commission do in this case?**

13 A. I recommend that the Commission rely on the RRI calculation as submitted by
14 GMO to make its determination regarding the suspension of solar rebate payments by GMO.
15 I also recommend that the Commission not adopt any alternative cost recovery treatment for
16 solar rebates, such as amortization treatment, in this or any other such case outside of a rate-
17 setting proceeding.

18 Finally I recommend that if the Commission prefers an RRI methodology like the one
19 Staff is advancing then the Commission should adopt a new provision implementing a carry-
20 over from prior periods be included in the forward-looking RRI calculations.

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

22 A. Yes, it does.

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

In the Matter of KCP&L Greater Missouri Operations)
Company's Application for Authorization to Suspend) File No. ET-2014-0059
Payment of Certain Solar Rebates) Tariff No. JE-2014-0112

AFFIDAVIT OF MATT MICHELS

STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

Matt Michels, being first duly sworn on his oath, states:

1. My name is Matt Michels. I am employed by Ameren Services Company ("Ameren Services") as a Corporate Analysis Manager in the Commercial Transactions Department.


2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Union Electric Company, d/b/a Ameren Missouri, consisting of 11 pages (and Schedules N/A through N/A if any), all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.



Matt Michels

Subscribed and sworn to before me this 24th day of September, 2013.



Notary Public

My commission expires: 1/15/2017

