

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

In the Matter of Union Electric Company's)	
2011 Utility Resource Filing Pursuant to)	<u>Case No. EO-2011-0271</u>
4 CSR 240 – Chapter 22)	

**PUBLIC COUNSEL'S RESPONSE TO AMEREN MISSOURI'S
APPLICATION FOR REHEARING**

COMES NOW the Office of the Public Counsel and for its Response to Ameren Missouri's Application for Rehearing states as follows:

1. On March 28, 2012, the Commission issued its Report and Order with an effective date of April 27. On April 25, Union Electric Company d/b/a Ameren Missouri filed an application for rehearing of that Report and Order. All of the points raised in Ameren Missouri's application for rehearing are without merit, but this response will focus on Ameren Missouri's arguments about wind resources.

2. Ameren Missouri takes issue with the Commission's finding on page 22 of its Report and Order that "Ameren Missouri's modeling of wind resources is deficient." Ameren Missouri asserts that "this finding is in error, as the Company did in fact evaluate wind resources as an energy resource as part of its evaluation for compliance with the Missouri Renewable Energy Standard on page 39 of the IRP filing." Beginning at page 21, the Commission explains one of the bases for this finding:

Ameren Missouri explains that it made its assumptions about wind energy because MISO currently credits wind generation at only 8 percent of its nameplate rating for capacity purposes. Ameren Missouri chose to model 800 MW of wind power, but that would only give it credit for 64 MW of capacity. For that reason, it also modeled an additional 346 MW of CT capacity to provide 400 MW of capacity for planning purposes.

The Commission finds that the problem with Ameren Missouri's assumptions are that, as the Commission has previously found in this order, the need for additional capacity should not be the only basis for modeling additional wind power, other renewable energy resources, or energy efficiency measures. Wind resources may significantly reduce energy costs and thus may be able to reduce PVRP even when additional capacity is not needed for reliability purposes.

The **models** may not indicate the advisability of adding wind generation capacity, and Ameren Missouri may still choose not to add wind resources for other reasons, but it is important that wind resources be appropriately **modeled** so that Ameren Missouri has access to all relevant facts when it makes its decisions. Ameren Missouri's modeling of wind resources is deficient. [Emphasis added; footnotes omitted.]

3. In paragraph 8 of its Application for Rehearing, Ameren Missouri paraphrases the Commission's finding as: "the Commission concludes that...the evaluation of wind as an energy resource to reduce costs should also be conducted but was not done by the Company." Ameren Missouri continues in paragraph 9 of its Application for Rehearing where it states:

9. Similar to the deficiency discussed above, this finding is in error, as the Company did in fact **evaluate** wind resources as an energy resource as part of its **evaluation** for compliance with the Missouri Renewable Energy Standard on page 39 of the IRP filing. This analysis clearly showed that the addition of wind resources resulted in an increase in costs. As a result, additional analysis of wind resources for energy to reduce costs would be redundant and unnecessary. [Emphasis added; footnotes omitted.]

4. Ameren Missouri has very carefully chosen the words it uses in its attempt to rebut the Commission's finding that Ameren Missouri's **modeling** of wind resources is deficient. The Commission found the Company's "modeling" in this area to be deficient, but Ameren Missouri carefully avoids using the word "modeling" in its reply. Ameren Missouri begins its attempt to rebut that finding by inaccurately paraphrasing the Commission's deficiency finding regarding inadequate **modeling** by stating "The Commission concludes that...the **evaluation** of wind as an energy resource to reduce costs should also be conducted but was not done by the Company." [Emphasis added] The distinction between the word "modeling" used by the

Commission and “evaluation” used by Ameren Missouri are very significant in the context of resource planning and the requirements of the Commission’s IRP rules.

5. In its Application for Rehearing, Ameren Missouri never asserts that it has properly **modeled** wind resources to assess whether they “may significantly reduce energy costs and thus may be able to reduce PVRR even when additional capacity is not needed for reliability purposes.” Instead, the company tries to defend its failure to adequately model the value of wind as an energy resource by referring to its wind “evaluation for compliance with the Missouri Renewable Energy Standard on page 39 of the IRP filing.” The **evaluation** that UE refers to did not involve modeling wind resources in compliance with the modeling requirements of the IRP rules in 4 CSR 240-22.060(4), 4 CSR 240-22.060(4)(A)-(D) and 4 CSR 240-22.070(4)(B)(1). On page 37 of its IRP filing, Ameren Missouri admits that the wind analysis that it performed for “**evaluation** for compliance with the Missouri Renewable Energy Standard” of the IRP filing relied solely on “spreadsheet” analysis.

6. Electric utilities generally use an IRP analytical software tool like MIDAS, rather than spreadsheet analysis, to comply with the minimum requirements for IRP modeling that are set forth in the IRP rules applicable to the company’s filing. For example, 4 CSR 240-22.060(4) requires that:

“The analysis shall cover a planning horizon of at least twenty (20) years and shall be carried out with **computer models that are capable of simulating the total operation of the system on a year-by-year basis** in order to assess the cumulative impacts of alternative resource plans. These models shall be sufficiently detailed to accomplish the following tasks and objectives....”
[Emphasis added]

7. As another example, 4 CSR 240-22.070(4)(B) requires that:

The supply-system simulation software used to calculate expected unserved hours shall be capable of accurately representing at least the following aspects of system

operations: 1. Chronological dispatch, including unit commitment decisions that are consistent with the operational characteristics and constraints of all system resources....

This requirement would be extremely difficult and burdensome – if not impossible – to achieve with a computer spreadsheet application.

8. The Missouri Renewable Energy Standard (RES) spreadsheet evaluation of wind performed by Ameren Missouri did not meet the above cited modeling requirements in the rule nor was it consistent with IRP best practices for using sophisticated resource planning tools like the MIDAS model to find optimal combinations of supply and demand-side resources for serving customers over the planning horizon.

9. In addition to the noncompliant and inappropriate use of spreadsheet analysis for modeling wind as an energy resource, the usefulness of the company's spreadsheet evaluation was further diminished by the way in which the Ameren Missouri performed its spreadsheet analysis. There are at least two significant problems with the company's spreadsheet analysis. First, the company simplified its spreadsheet analysis by skipping risk analysis and just analyzing wind under one scenario instead of looking at the value of wind under the same ten scenarios that were used in MIDAS modeling. The one scenario that Ameren Missouri used was a blend of the other ten scenarios that were utilized in its MIDAS modeling to evaluate both the expected value and the risk of the other supply and demand-side resources. Second, Ameren Missouri made an inappropriate choice when it selected the alternative resource plan that would be used as a reference point for quantifying changes in PVRR resulting from additional wind resources, because that plan did not even remotely resemble the preferred resource plan that Ameren Missouri ultimately selected. As the company notes on page 37 of its IRP filing, the reference plan that was used for determining whether additional wind would decrease PVRR was

“the resource plan that included Realistic Achievable Potential (RAP), Meramec retired in 2022, and Noranda continuing to represent a reasonable least-cost benchmark with no additional renewables.” However, because the preferred resource plan that the company ultimately chose did not include either DSM at the RAP level or the retirement of Meramec, it was completely different from the reference plan used in the RES spreadsheet analysis. Using a plan that is so different from its preferred plan as the basis for comparison in the spreadsheet analysis renders that analysis meaningless.

WHEREFORE Public Counsel respectfully requests that the Commission deny Ameren Missouri’s Application for Rehearing of the Commission’s Report and Order issued March 28, 2012.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been emailed to all parties this 4th day of May 2012.

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