BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In re: Union Electric Company's 2014 Utility Resource Filing Pursuant to 4 CSR 240 – Chapter 22	)))	Case No. EO-2015-0084

SIERRA CLUB INITIAL BRIEF

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I. Introduction

Pursuant to the Commission's *Order Directing Filing* issued on August 12, 2015, Sierra Club, by and through counsel, hereby submits its brief supporting its position that Ameren Missouri's ("Ameren" or the "Company") 2014 Integrated Resource Plan ("IRP") is deficient under 4 CSR 240-22.040. Sierra Club respectfully requests that the Commission order the Company to prepare a revised triennial IRP filing that corrects the deficiencies summarized below and described in detail in Sierra Club's initial and supplemental comments, filed on March 2, June 12, and July 1, 2015.[1]

[1] Dkt. Nos. 45, 58, and 62.

II. Procedural History

Ameren filed its 2014 IRP on October 1, 2014,[2] and Sierra Club filed initial comments on March 2, 2015.[3] On May 1, 2015, Ameren filed its response to stakeholders' alleged deficiencies and concerns regarding the Company's IRP,[4] as well as a Joint Agreement where the Company agreed to prepare a supplemental filing to discuss its consideration of the need for specific environmental controls at its existing coal-fired generating units.[5] On May 5, 2015, the Commission issued an *Order Directing Filing* of any comments related to various parties' May 1, 2015 pleadings by July 1, 2015.[6] On May 29, 2015, Ameren submitted its Supplemental Filing,[7] to which Sierra Club responded on June 12, 2015.[8] On June 22, Ameren filed a response to Sierra Club's June 12 filing.[9] On July 1, 2015, Sierra Club submitted a response to Ameren's comments,[10] to which Ameren responded on July 10, 2015.[11]

III. Argument

A. Even After Supplementing Its IRP Filing, Ameren Has Failed to Adequately Describe and Document Forthcoming Environmental Compliance Costs.

1. Legal Standard.

IRP rules direct Ameren to "collect generic cost and performance information sufficient to fairly analyze and compare each … potential supply-side resource option[], including …

[2] Dkt. No. 1.

[3] Dkt. No. 45.

[4] Dkt. No. 53.

[5] Dkt. No. 52.

[6] Dkt. No. 54.

[7] Dkt. No. 57.

[8] Dkt. No. 58.

[9] Dkt. No. 59.

[10] Dkt. No. 62.

[11] Dkt. No. 65.

probable environmental costs …."[12] Ameren's charge is to "describe and document" its analysis of each supply-side resource option,[13] where "describe" means that the Company's explanation "shall be written in a manner that would allow a stakeholder to thoroughly assess the utility's resource acquisition strategy and each of its components."[14] Further, Ameren's supply-side analysis

> shall identify a list of environmental pollutants for which, in the judgment of the utility decision-makers, legal mandates may be imposed during the planning horizon which would result in compliance costs that could significantly impact utility rates. The utility shall specify a subjective probability that represents utility decision-maker's judgment of the likelihood that legal mandates requiring additional levels of mitigation will be imposed at some point within the planning horizon. The utility, based on these probabilities, shall calculate an expected mitigation cost for each identified pollutant.[15]

Two instances in particular highlight Ameren's failure to address this straightforward IRP mandate. First, the Company's treatment of future carbon regulations is deficient because it is both internally inconsistent and effectively assumes an 85% probability that its coal-fired generating units will face $0 in compliance costs. Second, the Company's coal plant retrofit and retirement analysis is deficient because it inadequately describes and documents the probability of increasingly stringent environmental regulations directly affecting Ameren's coal fleet, including the probability of additional control requirements at Ameren plants to account for their contributing to nonattainment of Clean Air Act National Ambient Air Quality Standards ("NAAQS").

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[12] 4 CSR 240-22.040(1). "Probable environmental cost" is defined as the "expected cost to the utility of complying with new or additional environmental legal mandates, taxes, or other requirements that, in the judgment of the utility decision-makers, may be imposed at some point within the planning horizon which would result in compliance costs that could have a significant impact on utility rates." 4 CSR 240-22.020(47).

[13] 4 CSR 240-22.040(2).

[14] 4 CSR 240-22.020(14).

[15] 4 CSR 240-22.040(2)(B).

2. Ameren's Greenhouse Gas Analysis is Internally Inconsistent and Unreasonable.

At the outset, Ameren acknowledges that its Preferred Plan is not compliant with the Clean Power Plan as proposed (and now finalized).[16] Ameren's IRP states, accurately, that the now-final Clean Power Plan will "increase the relative cost of existing fossil fuel-fired resources (and coal-fired resources in particular)."[17] Unfortunately, Ameren did not attempt to specifically model Clean Power Plan compliance in this IRP, and the modeling of carbon scenarios that it did do directly contradicts the Company's own assessment of the Clean Power Plan by assigning a mere fifteen percent probability that increased cost from the regulation would affect its coal-fired boilers (not including the Meramec Station, which Ameren plans to retire).[18] In other words, Ameren assumes that, under the Clean Power Plan or any other future carbon regulation, there is an 85% chance of $0 in compliance costs for its coal-fired generating units.[19] Although 4 CSR 240-22.040(2)(B) directs Ameren to "specify a subjective probability," the Company's analysis must still be reasonable, and the Company's modeling assumptions with respect to greenhouse gas regulation are far from reasonable.[20] In fact, Sierra Club's expert, Dr. Ezra Hausman, submitted an analysis to this docket showing that if Ameren had actually modeled its stated assumptions about the Clean Power Plan for its IRP filing, it would have found that retiring the Labadie plant would be a lower-cost option on a PVRR basis than any of the options that the

[16] *See* Dkt. No. 1, Ameren 2014 IRP, Chapter 10, p.18 (explaining Figure 10.4 by stating that "Ameren is advocating for changes to the EPA's proposed rules that will allow Ameren ... to execute its Preferred Resource Plan ... over a slightly longer period of time.").

[17] Dkt. No. 1, Chapter 5, p. 9.

[18] *See* Dkt. No. 45, Comments on Ameren Missouri's 2014 Integrated Resource Plan (IRP) by Ezra D. Hausman, p. 5; *see also* Dkt. No. 62, p. 3.

[19] *Id.*

[20] *See* Dkt. No. 62 at 4-5 (explaining further that while Ameren assumes Clean Power Plan compliance costs will be *higher* than $53/ton, the Company simultaneously fails to model any price higher than $53/ton, and only assigns a 3% probability of a $53/ton cost).

Company modeled for its IRP.[21] Ameren's failure to "describe and document" the probability of costs facing its coal-fired generating units from the Clean Power Plan or another future greenhouse gas regulation using a reasonable range of assumptions is a clear violation of 4 CSR 240-22.040.

3. Ameren's Cursory Assessment of National Ambient Air Quality Standards Violates IRP Rules.

As Sierra Club has explained in its initial and supplemental comments, Ameren failed to describe and document why it assumes that Flue Gas Desulfurization ("FGD" or "scrubber") technology will not be required at two of the four units at its Labadie plant and both units at its Rush Island plant, as well as why the Company's thinking has changed since its 2011 IRP when FGD technology was assumed to be required at all of those units under both "moderate" and "aggressive" environmental scenarios.[22] Moreover, Ameren also failed to describe and document why it assumes that Selective Catalytic Reduction ("SCR") technology will not be required at any of the units at its Labadie and Rush Island plants, even as the Company assumes that its Sioux plant will need a SCR in 2020. Ameren's failure to "describe and document" any analysis of this issue in its initial filing, as well as the Company's failure to correct this deficiency in its Supplemental Filing, renders its IRP analysis deficient under 4 CSR 240-22.040(2)(B).

Ameren claims that Sierra Club's insistence that the Company fully describe and document its assumptions about future environmental regulations in order to resolve its deficiencies is "moving the goalposts,"[23] ostensibly because Sierra Club continues to point out obvious flaws in the Company's analysis or lack thereof. Ameren would have the Commission

[21] *See* Dkt. No. 45, Comments on Ameren Missouri's 2014 Integrated Resource Plan (IRP) by Ezra D. Hausman, p. 8; *see also* Dkt. No. 62, p. 5.

[22] *See* Dkt. No. 45, Comments on Ameren Missouri's 2014 Integrated Resource Plan (IRP) by Ezra D. Hausman , pp. 8-11. *See also* Dkt. No. 58, Dkt. No. 62, pp. 5-8.

[23] Dkt. No. 65, p. 2, ¶¶ 4-5.

and stakeholders simply ignore the fact that its Rush Island plant resides in Jefferson County, which is one of only twenty nine counties in the United States that is designated as nonattainment for the 2010 SO_2 NAAQS.[24] Rush Island is the largest SO_2 source in Jefferson County.[25] Bringing Jefferson County into attainment could require either the retirement of one or more units at Rush Island or the expenditure of hundreds of millions of dollars on a scrubber to control Rush Island's SO_2 pollution.[26] These are not farfetched scenarios—Rush Island resides in a SO_2 nonattainment area *now*, the U.S. Environmental Protection Agency ("EPA") has not yet approved a plan to bring it into attainment, and Ameren has been on notice of this since 2011.[27] It is entirely foreseeable that EPA will require a plan for bringing Jefferson County back into attainment that requires significant reductions in SO_2 from Rush Island, and Ameren's refusal to consider any probability of this in its IRP is objectively unreasonable and in violation of 4 CSR 240-22.040.

Similarly, Sierra Club identified as a deficiency Ameren's failure to describe and document why it assumes that its Sioux plant will require an SCR in 2020, but neither Labadie nor Rush Island would require the same controls.[28] Ameren responded that "[t]his is a very complicated and time-consuming process and the regulatory landscape continues to change and evolve over time," and promised to conduct more analysis in the future.[29] Ameren's response completely dodges the issue without providing any information that describes and documents the

[24] *See* Environmental Protection Agency, Sulfur Dioxide (2010) Nonattainment Areas, *available at* http://www.epa.gov/airquality/greenbook/tnc.html.

[25] *See* Dkt. No. 58, p. 3.

[26] *Id.*

[27] *Id.*, p. 2.

[28] *See* Dkt. No. 45, Comments on Ameren Missouri's 2014 Integrated Resource Plan (IRP) by Ezra D. Hausman , p. 10; s*ee also* Dkt. No. 58, pp. 3-4.

[29] *See* Dkt. No. 59, pp. 4-5 at ¶ 11.

Company's IRP assumptions. As Sierra Club pointed out in its June 12 supplemental comments, however, ambient ozone levels in Jefferson County (where Rush Island resides) barely meet the existing ozone NAAQS of 75 ppb for the 2012-14 period.[30] With EPA required by court order to finalize a new, more stringent ozone NAAQS by October 1, 2015, there is a substantial probability that Jefferson County will be found to be in nonattainment for that standard.[31] In addition, while there is currently no ozone monitor in Franklin County (where the Labadie plant resides), the Missouri Department of Natural Resources has previously recommended that Franklin County be designated as nonattainment based on its contributions to nearby, violating ozone monitors.[32] Ameren has apparently done nothing in this IRP to account for the probability of either of these counties being designated nonattainment through an appropriate sensitivity analysis to determine compliance costs for a range of environmental scenarios. The Company must do so to resolve this deficiency in its analysis.

IV. Conclusion

Ameren plans to install hundreds of millions of dollars in pollution controls over the IRP period—not including future costs that Ameren did not include in its IRP modeling, such as Clean Power Plan compliance or SO_2 controls at Rush Island—which makes Ameren's assessment of "probable environmental costs" an increasingly important component of the IRP process. Each of Ameren's assumptions about the probability of future environmental costs is embedded in a model that is impossible for the Commission and stakeholders to understand and evaluate without an adequate explanation from the Company that describes and documents each assumption. Accordingly, it is critically important for Ameren to fully describe and document its

[30] Dkt. No. 58, pp. 3-4.

[31] *Id.*

[32] *Id.* at 4.

assumptions, as required by the IRP rules, so that all stakeholders have sufficient information to evaluate not only the costs to Ameren under its view of the future, but also the real risk that a different future will transpire with different costs. Sierra Club respectfully requests that the Commission order the Company to prepare a revised triennial IRP filing that corrects the deficiencies identified above and described in further detail in Sierra Club's comments filed on March 2, June 12, and July 1, 2015.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct PDF version of the foregoing was filed on EFIS and electronically mailed to all counsel of record on this 26th day of August, 2015.

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