

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In Re: Union Electric Company's 2005)	
Utility Resource Filing Pursuant to)	Case No. EO-2007-0409
4 CSR 240—Chapter 22)	

**REPLY OF INTERVENORS SIERRA CLUB et al. TO “AMERENUE’S RESPONSE
TO REPORTS”**

Come now Sierra Club, Missouri Coalition for the Environment, Mid-Missouri Peaceworks and ACORN (the Association of Community Organizations for Reform Now)(collectively “Sierra Club”), and submit their filing in response to the Commission’s Order of September19 on the need for an evidentiary hearing..

Sierra Club et al. thank the Commission for this opportunity to make this reply outside the requirements of 4 CSR 240, Chapter 22. The partial stipulation of the parties leaves five deficiencies raised by the Sierra Club unresolved.

To frame the big picture: there are interrelations among these deficiencies. AmerenUE has overstated load growth, understated DSM potential, and understated the capital costs of a new nuclear unit. Despite its denials that any decision has been made to add base load, it is not too much of a stretch to say that this IRP is an attempt to justify the need for and feasibility of Callaway 2.

Load Analysis

4 CSR 22.030(7) The IRP, “Load Analysis and Forecasting,” vol. 1, p. 275, says that “in developing the scenario tree, AmerenUE cultivated a world view with demand growing at rates slower than BAU forecasts over the IRP modeling horizon.” Nevertheless, the IRP goes on to say, “the principal objective that still drives the creation of build plans is how to best assure adequate reliability. In turn, the risk-averse stance would be to determine...the scenario that

features the *highest* load growth in AmerenUE's service territory." (Id., emphasis added.)

AmerenUE thus contradicts its assumption of low load growth, and does indeed justify a "build" plan, in a manner not warranted by the rule. This inflates the base (BAU) case: "It is around this highest-demand scenario that AmerenUE should develop candidate resource plans, and, in this context, this happens to be the BAU case." (Id.)

At a meeting to discuss deficiencies, UE representatives told counsel for the Sierra Club that this passage in the IRP was the work of consultant Cambridge Research Associates, and that UE would seek an explanation from CRA. None has been forthcoming.

Supply Side Resource Analysis

22.040(1)(K)3, Environmental impacts. Sierra Club commented that emissions of tritium (radioactive hydrogen) and noble gases (krypton and xenon) from nuclear plants are presently uncontrolled. UE makes three responses: (1) these pollutants are not listed in the rule; (2) emissions from Callaway 1 are within federal guidelines; and (3) there is no "credible proposal to change the federal guidelines in the foreseeable future" (Response to Reports, pp. 21–2). In response Sierra Club states:

(1) The lists of air and water pollutants in 22.040(1)(K)1 and 3 are not exhaustive (both say "including at least") and will obviously vary for different generating technologies. Where a nuclear plant is concerned the rule contemplates, at least implicitly, that radioactive releases will be considered.

(2) UE does not claim that emissions will still be within guidelines if a second, larger reactor is added at Callaway.

(3) This section of the rule concerns environmental impacts. The financial cost of compliance with new regulations is covered in 22.040(2)(B). In that section of the IRP, UE does

not say one way or the other whether it considers new regulations of radioactive discharges a risk (Supply Side Analysis, vol. I, pp.111–12). Nevertheless, we find this on the Nuclear Regulatory Commission’s web site: “The NRC recently identified several instances of unintended tritium releases, and all available information shows no threat to the public. Nonetheless, the NRC is reviewing these incidents to ensure nuclear plant operators have taken appropriate action and to determine what, if any, changes are needed to the agency's rules and regulations.”

<http://www.nrc.gov/reactors/operating/ops-experience/grndwtr-contam-tritium.html>

22.040(8)(B) and (C), capital costs of nuclear. Sierra Club commented: “The overnight costs of US-EPR given at Table 67, p. 246, are unrealistic. Overnight cost, not including interest and financing costs or the likelihood of cost overruns, is not an appropriate measure of capital cost. While some of the risks are mentioned at pp. 246–7, we do not see where in the IRP these costs are quantified or their probability properly assessed. Costs of materials, labor and project management are rising sharply due to world demand for nuclear and non-nuclear power plants. A June 2, 2008 report by Moody’s Investors Service says nuclear costs could reach \$7,000 per installed kW.”

In an October 10, 2007 report, “New Nuclear Generation in the U.S.,” Moody’s noted the lack of a basis for an overnight cost estimate and said, “Moody’s cannot confirm...definitive estimates for new nuclear costs at this time.” An all-in cost estimate of \$5,000-\$6,000/kWe was little better than a guess but “it is a more conservative estimate than current market estimates.” <http://www.neimagazine.com/story.asp?storyCode=2047917> “From a credit perspective, Moody’s is indifferent to what the ‘overnight’ cost of the actual nuclear generating plant might be — as overnight costs exclude owner’s costs and price escalation.”

The history of nuclear cost overruns is documented by DNR’s consultant Synapse in

Exhibit 1 to their report. That trend shows no sign of reversing for the new generation of reactors. By one account, nuclear power plant construction costs increased 185% between 2000 and 2007, http://www.salon.com/news/feature/2008/06/02/nuclear_power_price/, and the price tag for the first EPR reactor in Finland is approaching €4 billion.

Sierra Club is aware that the subject is inherently uncertain and that UE has made capital costs a critical uncertain factor. Nevertheless, we cannot consent to deferring the issue to the next IRP filing considering the momentum behind Callaway 2. UE filed an 8,000-page COLA with the NRC on July 28 and is already attempting to recover in rates the costs associated with that filing.

Demand Side Resource Analysis

22.050(4), “Aggressive” DSM and achievable potential. The waiver request requires at least one portfolio that “represents a very aggressive approach to encouraging program participation.” AmerenUE agreed in the Joint Stipulation and Agreement on the 2005 IRP to model moderate and aggressive portfolios. AmerenUE’s goal of a 25% reduction in energy and demand growth by 2016 doesn’t qualify as either very aggressive or aggressive (Risk Analysis and Strategy Selection, pp. 82–3).

Differences between states are inescapable, but that doesn’t make it irrelevant to consider that other states are demanding, and in some cases already achieving, significantly more aggressive goals. Illinois Public Act 095-0481 (20007) requires utilities to achieve a reduction of 2% in delivered energy in 2015. Ohio followed suit in SB 221 (2008). Minnesota set a goal of 1.5% reduction in gross annual retail sales. Minn. Stats. § 216B.241.1c. To add to these, Michigan just passed a bill requiring a 1% annual reduction in total sales due to energy savings by 2012.

Using a different metric, UE says it will be spending 1.9% of revenues by the third year of its plan and that this would rank it among the top states — based on 2004 spending — as ranked by ACEEE in its “State Energy Efficiency Scorecard for 2007” (Response to Reports, p. 19). We note, however, that the same organization released another report in 2006, “Energy Efficiency Resource Standards: Experience and Recommendations,” saying (p. iii):

“We recommend that EERS targets start at *modest* levels (e.g., 0.25% of sales annually) and ramp-up over several years to savings levels currently achieved by the most successful states (e.g., 0.75% to 1.25% of sales annually.” (Emphasis added.)

Sierra Club recognizes that Missouri’s historically low rates narrow the field of cost-effective EE measures. However, those rates are likely to rise if UE builds Callaway 2 and as the prices of coal, natural gas and power plants continue to increase. What seems “aggressive” now may soon only be prudent.

Risk Analysis and Strategy Selection

22.070(5), Cumulative probability distributions of performance measures. Sierra Club noted the failure of the IRP, as modified by waiver, to calculate cumulative probability distributions for 4 of the 5 performance measures listed in 22.060(2) as required by the rule: probable environmental costs (except as this includes CO₂), present worth of out-of-pocket costs to DSM participants, levelized annual average rates and maximum single-year increase in annual average rates.

UE admits that it did not comply but explains that it was unnecessary to do so (Response to Reports pp. 23–5). It is for the Commission to decide whether the requirements of the rule should be retrospectively waived.

WHEREFORE, Intervenor respectfully request the Public Service Commission to find that unresolved issues exist that merit an evidentiary hearing under 4 CSR 240-22.080(9).

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct PDF version of the foregoing was sent by email on this 26th day of September, 2008, to the parties on the EFIS service list.

/s/Henry B. Robertson
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