

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

In The Matter of a Determination of)
Special Contemporary Resource Planning)
Issues to be Addressed by Ameren)
Missouri in its Next Triennial Compliance)
Filing or Next Annual Update Report)

Case No. EO-2021-0069

**THE OFFICE OF THE PUBLIC COUNSEL’S RESPONSES TO
THE SIERRA CLUB’S AND NRDC’S SUGGESTED SPECIAL CONTEMPORARY ISSUES**

COMES NOW the Office of the Public Counsel and, by the October 15, 2020 filing date the Commission ordered on September 15, 2020, responds to certain of the Sierra Club’s and NRDC’s suggested special contemporary issues for Union Electric Company d/b/a Ameren Missouri as set out in the attached verified memorandum.

Respectfully,

/s/ Nathan Williams

Nathan Williams
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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 15th day of October 2020.

/s/ Nathan Williams

**BEFORE THE PUBLIC SERVICE COMMISSION
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In the Matter of a Determination of Special
Contemporary Resource Planning Issues to
be Addressed by Ameren Missouri In its
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VERIFICATION OF GEOFF MARKE

Geoff Marke, under penalty of perjury, states:

1. Attached hereto and made a part hereof for all purposes is my memorandum in the above-captioned case.
2. The information in the attached memorandum is true and correct to the best of my knowledge, information, and belief.



Geoff Marke
Chief Economist

MEMORANDUM

To: Missouri Public Service Commission Official Case
File, Case No. EO-2021-0069

From: Geoff Marke, Chief Economist
Missouri Office of the Public Counsel

Subject: Response to Sierra Club and National Resource Defense Counsel's ("NRDC")
Recommended Special Contemporary Issues for Ameren Missouri

Date: October 15, 2020

After more thought, I suggest the following sentence: My silence regarding any Sierra Club or NRDC recommended issue should not be construed as an endorsement of, agreement with, or consent to that recommended issue.

Sierra Club Recommended Issue 1:

Analyze and document on a unit-by-unit basis the net present value revenue requirement of the relative economics of continuing to operate each Ameren coal-fired generating unit versus retiring and replacing each such unit in light of the total costs (fuel, capital, and non-fuel O&M costs) needed to keep each unit operating as compared to the cost of other supply-side and demand-side resources.

Response

I believe the Company already models the possibility of early retirements of its baseload generation if it falls within the planning period; however, if the Commission elects to support this specific recommendation, I recommend that the analysis needs to capture all potential costs as well. Specifically, it needs to capture stranded costs associated with said units—return on and of the remaining life and undepreciated balance of the capital investments accurately in its analysis.

Furthermore, any economic analysis of prematurely retiring a coal-firing generating unit needs to consider the dynamic generation make-up within Midcontinent Independent System Operator Integrated Market. That is, the economics of running a coal plant is, in part, dependent on other coal plants (or similar base load units) continuing or retiring in the market. If merchant generators retire because they are no longer economically competitive that does not necessarily mean the existing vertically integrated utility's units are not competitive. In fact, it could mean the opposite.

The analysis would also need to maintain reliable service for customers and consider any devaluation of intermittent resources as a result of market rule changes as renewable penetration increases and diminishing returns in valuation set in (i.e., only so much wind is needed at 3:00 AM).

Sierra Club Recommended Issue 2:

Analyze the comparative public health impacts of each of the alternative resource plans considered by the Company. At a minimum, Ameren should quantify the public health cost that various air pollutants have on public health, including, but not limited to, sulfur dioxide (SO₂), nitrogen oxides (NO_x), particulate matter (PM), and mercury.

Response

If the Commission elects to support this recommendation, I recommend requiring the Company to utilize existing publicly available third party sources (e.g., American Lung Association¹, Missouri Department of Natural Resources Air Quality reports, etc...) for “public health costs” related to maintaining fossil fuel units on line. Such an approach would provide a reasonable (in terms of Ameren Missouri costs and time) proxy for consideration.

I do not recommend that ratepayers fund duplicative studies to determine any purported valuations. Alternatively, I suggest that such an analysis is already captured, in part, through model carbon pricing projections and expected EPA costs. Further modeling above and beyond that which attempts to capture for further externalities will be subject to considerable confounding variables and debate.

Sierra Club Recommended Issue 3:

Analyze and develop as candidate resource options the satisfaction of municipal and corporate renewable energy goals. The St. Louis Board of Aldermen has formulated a plan to have the City’s electricity sector be met entirely by efficiency and renewable resources by 2035. As elements of that plan are enacted by ordinance, such elements will be a legal mandate subject to the planning requirements of 20 CSR 4240-22.060(3)(A). Other cities within Ameren’s service territory have pledged to meet similar goals. Regardless of whether such goals amount to a legal mandate, they present alternatives that should be modeled.

Response

If the Commission elects to support this recommendation I recommend expanding the scope of the modeling to include a range of potential outcomes (low, medium, high) of customers (municipal and commercial/industrial) that would participate in approved Green Tariff programs and adhere to cost causation principles (i.e., those customers pay for the costs they incur and hold other customers harmless). At a large enough participation level it could have an impact on load forecasting and existing supply-side make-up. Of course, renewable energy goals would need to be defined. As there is a considerable difference between entering into a Green Tariff (i.e., the building of new renewables) compared to claiming unretired renewable energy credits (RECs) made by the Company as the basis for meeting said goals (i.e., renewables that already exist or produced energy in another state).

¹ American Lung Association (2020) State of the Air. <https://www.stateoftheair.org/assets/SOTA-2020.pdf>

Sierra Club Recommended Issue 5:

Analyze and document the prospects for using securitization to support cost-effective accelerated retirement of coal generation assets and to channel the savings into cost effective investments such as demand-side management, wind and solar generation, and storage.

Response

What are the terms of the securitization? What are the costs? Securitization for all coal units immediately? Specific units at different times? Something else? Will investment be returned over the remaining life from the last depreciation study or some other period for repayment? Would the utility receive return of stranded asset value or would a return on be provided as well? It is difficult to respond to this recommendation without any details. My concern is the negative impact on captive customers relative to the gain for shareholders who have already been well compensated for the risks inherent in investing in a fossil-fuel intensive utility. If the Commission elects to pursue this recommendation it should define the parameters in as much detail as possible to avoid wasting time and resources. Presently, this blanket recommendation does not define those parameters.

Sierra Club Recommended Issue 12:

Analyze and screen electric vehicle charging infrastructure as a candidate resource option.

Response

This likely will become a contemporary issue at some point, but it is not yet one, and such an analysis is complicated. Charging stations by themselves are not a candidate resource option but require the joint effort of privately owned EVs. Theoretically, car batteries at a coordinated scale could hypothetically work as a candidate option similar to rooftop solar virtual power plants (a recommendation in OPC's issues), but the implementation of such effort would be complicated. Keep in mind, this recommendation is made to a Company that has not utilized its tens of thousands of smart thermostats that it has given away for free to customers to call demand events in any meaningful manner to date. The greater St. Louis metro area has nowhere near the same amount of EV cars as it does smart thermostats.

To date, I am not aware of any example where this option has been exercised at scale as a resource candidate. In fact, EV entrepreneur and advocate Elon Musk has downplayed such a model in the future just three weeks ago at Tesla's "Battery Day":

"Vehicle-to-grid sounds good but I think actually has a much lower utility than people think," Musk said. "Very few people would actually use vehicle-to-grid" capabilities, he said, in part because cars are not plugged in constantly.²

² Walton, R. (2020) Tesla unveils new EV battery design, but Musk downplays vehicle-to-grid application. *UtilityDive* <https://www.utilitydive.com/news/tesla-unveils-new-ev-battery-design-but-musk-downplays-vehicle-to-grid-app/585723/>

NRDC's Recommended Issue 1:

Analyze the benefits of integrated distribution planning as a way to manage distribution grid investments in a manner that reduces peaks and fills valleys in load profiles and lowers overall system costs with a combination of energy efficiency, demand response, electric vehicles, distributed generation, storage, advanced metering, and pricing strategies such as time-of-use rates (TOU) for electric vehicles and inclining block rates (IBR).

Response

This is a blanket recommendation that I believe is largely already being done by Ameren Missouri today. It also does not fit within the parameters of a special contemporary topic as it is a catch-all request for multiple interrelated topics without any direction.

NRDC's Recommended Issue 2:

Analyze and assess agriculture-based sequestration opportunities in Ameren's service territory to provide low-cost solutions to achieve Company's overall carbon goals. Farmers can transfer carbon from the air to the soil by such methods as planting cover crops and practicing no-till agriculture. Paying them incentives to do so would advance Ameren's carbon reduction goals and benefit its customers.

Response

Paying farmers to farm in a certain way is beyond the scope of the IRP and economic regulation of public utilities. Ratepayers should not be financially burdened by this inappropriate modeling request.

NRDC's Recommended Issue 3:

Analyze and document the prospects for using securitization to advance the retirement of coal generation assets and channel the savings into more economical investments such as demand-side management, building wind and solar generation, and satisfying corporate renewable energy goals to attract new business to the service territory.

Response

My response here is the same as I gave for the Sierra Club's recommended issue 5 above:

What are the terms of the securitization? What are the costs? Securitization for all coal units immediately? Specific units at different times? Something else? Will investment be returned over the remaining life from the last depreciation study or some other period for repayment? Would the utility receive return of stranded asset value or would a return on be provided as well? It is difficult to respond to this recommendation without any details. My concern is the negative impact on captive customers relative to the gain for shareholders who have already been well compensated for the risks inherent in investing in a fossil-fuel intensive utility. If the Commission elects to pursue this recommendation it should define the parameters in as much detail as possible to avoid wasting time and resources. Presently, this blanket recommendation does not define those parameters.

NRDC's Recommended Issue 4:

Assess the value of a solar tariff that encourages distributed solar installers to optimize the direction that solar panels face to provide more kWh during the utility's peak and provide maximum benefits for all utility customers.

Response

This is (at least) a rate design issue and it is not appropriate to make a vague specialized tariff request as the basis for a special contemporary topic. Ratepayers should not be financially burdened by this inappropriate and unclear modeling request. If the Commission elects to move forward with this request, much more additional information on appropriate modeling parameters, assumptions, and, ideally, desired end goals. The "value of solar" will vary considerably across stakeholders and will almost assuredly be a contentious issue that will distract stakeholders from more pressing issues.

NRDC's Recommended Issue 5:

Assess the benefits of providing a utility return on power purchase agreements as an alternative to utility ownership to create a win-win for consumers and the utility.

Response

Why not request Ameren to model what it would like if they were deregulated? At least under that scenario, consumers would not be paying the middleman under NRDC's modeling request.

I struggle to see how this results in a win for consumers. Utilities can, and do, enter into power purchase agreements for generation today. In fact, Missouri ratepayers experience with PPA's has been "disconcerting" at best. As outlined in Case Nos: EO-2020-0262 and EO-2020-0263 Evergy Metro and Evergy West ratepayers have paid over a quarter of a billion dollars (\$277 million) more in FAC charges for "economic" PPAs to date (with some contracts longer than eight years now). Further, Evergy Metro and Evergy West entered into PPAs for renewables for 1,549 MW and 783 MW respectively without the return on them NRDC recommends be modeled.³

To be clear, NRDC's Special Contemporary Topic is proposing to reward the utility with a return on a contract, not a capital investment. That is, additional earnings with literally no risk. Putting aside the objections to this idea for a moment, the request is not appropriate for a Special Contemporary Topic or for an IRP modeling exercise.

³ OPC estimates that no more than 31% of these PPAs were entered into for RES compliance.

NRDC's Recommended Issue 6:

Explore what would be the right metrics for moving to performance-based regulation rather than cost of service regulation for generation assets, such as incentivizing energy and capacity procurement through contracts rather than capital investment.

Response

I am unaware of any utility or commission anywhere that has interpreted “performance base rates” as “let ratepayers assume all risk and provide a further financial reward to the utility with return on a PPA contract.” As this was the only example NRDC provided, I am not at liberty to guess what the “*right metrics*” would be “*for moving to performance-based regulation rather than cost of service regulation*” or if there were other activities NRDC wanted to reward the utility with.

Putting aside the objections to this idea for a moment, merely saying “figure out metrics for performance base regulation” is not appropriate for a Special Contemporary Topic or for an IRP modeling exercise.