

UNITED STATES OF AMERICA  
FEDERAL ENERGY REGULATORY COMMISSION

Technical Conference on Environmental Regulations  
and Electric Reliability, Wholesale Electricity Markets,  
and Energy Infrastructure

Docket No. AD15-4-000

**Pre-filed Statement of Warner Baxter,  
Chairman, President and CEO of Ameren Corporation**

**Introduction**

Thank you for the opportunity to participate in this technical conference. My name is Warner Baxter. I am Chairman, President and CEO of Ameren Corporation, and I am here today representing my company. The Clean Power Plan (CPP) is the most transformative environmental regulation ever proposed, and it will have significant and difficult to predict implications for our nation, especially as it relates to the reliability of our electric grid. That is why we appreciate the Commission holding these technical conferences so that a record may be developed for the EPA to better understand the complexities of the electric grid and the significant implications that the proposed rule will have on reliability of the interconnected power system. Reliability of electric service is a bedrock of our nation's economic prosperity and widely admired standard of living. Thus, the Commission is properly concerned, and its decision to hold these technical conferences is a strong first step toward ensuring the continued reliability of electric service that Americans expect and enjoy even as our industry transitions to a cleaner, more diverse generation fleet in a responsible fashion.

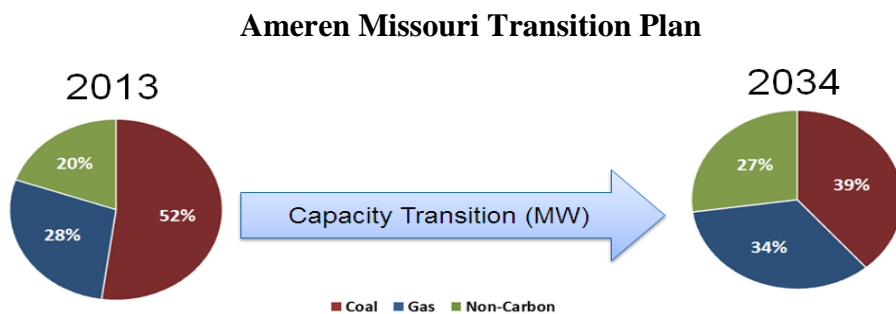
Ameren Corporation, headquartered in St. Louis, Missouri, is the parent company of three rate-regulated utilities -- Ameren Missouri, Ameren Illinois and Ameren Transmission Company of Illinois (referred to collectively as "Ameren" throughout this document). The Ameren companies employ more than 8,500 co-workers, who serve approximately 2.4 million electric customers and 900,000 natural gas customers across 64,000 square miles in Missouri and Illinois.

Ameren Missouri is a vertically integrated utility with approximately 10,200 MW of generating capacity. Its base load generation capacity is dominated by low-sulfur coal burning plants, but Ameren Missouri's generation mix also includes nuclear, simple cycle natural gas turbines, hydroelectric power and renewable energy power sources. Ameren Illinois is a large

transmission and distribution electric utility in central and southern Illinois, serving approximately two-thirds of the state. Illinois is a retail choice state. While Ameren Illinois owns no generation, it is keenly interested in the implications of the CPP on its customers as it relates to electric service reliability and rates. Ameren Transmission Company operates and invests in local and regional transmission projects. Each of the Ameren companies is a member of the Midcontinent Independent System Operator (MISO).

Due to the fact that Ameren Missouri owns and operates a generating fleet, most of my comments will relate to the impact of the CPP on its operations. For years, Ameren Missouri has been executing on a 20-year plan to transition its generating fleet to a cleaner, more diverse generation portfolio in a responsible fashion. This has been in recognition of the fact that our coal-fired energy centers are aging and will ultimately need to be retired, and that growing environmental regulations are making the operation of these plants more challenging and costly. The execution of our plan has not been done in a vacuum. Instead, it has been implemented as part of the Missouri Public Service Commission’s (MPSC) regular, extensive and transparent Integrated Resource Planning (IRP) process, which includes the participation of many stakeholders.

Specifically, in its latest IRP filing with the MPSC, over the next 20 years Ameren Missouri plans to significantly transition its fleet by retiring roughly one-third of its coal-based capacity at the end of the useful life of the affected units. Ameren Missouri also plans to increase its commitment to power generated from low- or non-emitting sources by adding approximately 500 MW of wind, solar, or hydro, by extending the life of our Callaway nuclear energy center by 20 years, by maintaining an option for additional nuclear power, and by replacing a coal plant in 2034 with a new natural gas combined cycle plant. Importantly, the projected in-service dates of the new resources presented in the IRP align with our customers’ energy needs; that is, expected load and capacity reserve requirements. Ameren Missouri’s plan is based on a gradual, calibrated adoption of a diverse mix of energy resources. Moreover, Ameren Missouri’s transition plan achieves the EPA’s final targets proposed in the CPP (in 2034 vs. 2030), and it will ensure that we will be able to deliver power in a safe, reliable and environmentally responsible manner at a reasonable cost to our customers.



## Objective of Comments

In the comments below I will discuss Ameren's concerns with the proposed rule and, if left unchanged, its implications for our customers and nation. I will also provide recommendations that we believe will significantly mitigate the reliability risks associated with the proposed CPP, and I will recommend specific actions that the Commission should take, including recommending that a Reliability Assurance Mechanism (RAM) and Reliability Safety Valve (RSV) be embedded in the CPP.

## Key Concerns with the CPP

Ameren filed extensive comments with the EPA in December 2014. I will not go into great detail in my comments here, but I will summarize key concerns, especially as they relate to the CPP's impact on reliability.

- **Legality.** We have significant concerns whether the EPA has the legal authority to implement the proposed rule. The legal challenges that this rule has, and will face, will inevitably delay the actions to build infrastructure needed to support compliance with the proposed CPP targets (especially those beginning in 2020) as well as to address reliability issues.
- **Building Blocks.** The emission targets at the heart of the CPP are based on a series of "Building Blocks" meant to provide a roadmap for states to comply with the rule. Unfortunately, many of the assumptions used in the "Building Blocks" are inappropriate and do not fully consider the complex interrelationship between these assumptions and how the grid actually operates.
- **Interim Targets.** While the CPP final target is to reduce our country's greenhouse gas emissions 30% below 2005 levels by 2030, what is most troubling about the proposed rules is the fact that they include aggressive interim targets starting as early as 2020 that will have significant implications on reliability and costs to consumers. Unlike the Ameren Missouri plan described above, the CPP is not based on a gradual, calibrated transition of the nation's generation fleet. Rather, the interim targets create a regulatory cliff beginning in 2020 whereby eleven states must achieve over 75 percent of their 2030 goal by 2020, and thirty-nine states must achieve over 50 percent of their 2030 goal by 2020. Missouri and Illinois must meet 62 percent and 66 percent of their 2030 goal by 2020, respectively.

- **Reliability.** Simply put, the EPA’s proposed interim targets, particularly the 2020 interim compliance goals, are unrealistic and will significantly impact the reliability of the grid. The reasons for this assertion include the following:
  - As with Ameren Missouri, in many cases, complying with the 2020 interim targets will require the accelerated closure of coal-fired energy centers and planning, siting, permitting and constructing new natural gas-fired energy centers. To achieve the 2020 deadline, all permitting and development activity will need to be completed by 2017. However, substantive actions to build a new energy center will not begin until there is certainty over a company’s proposed compliance plan. Given that CPP compliance plans may not be submitted for approval until 2017 or 2018, and EPA may take up to a year to approve these plans, achieving the 2020 interim targets is not feasible.
  - New natural gas plants will require that critical pipeline infrastructure be built to ensure reliability. Building natural gas pipelines often requires five years or longer to complete. Of course, attempts to expand pipeline capacity often experience extensive siting challenges, which can further delay those projects. These needed pipeline expansions are unlikely to be completed by 2020, and perhaps for several years thereafter.
  - It is also likely that significant transmission investments will be needed to interconnect the new natural gas or renewable capacity and energy that will be required for compliance with the CPP. Transmission planning, siting, permitting and construction can take 5-15 years, as pointed out by NERC and others.<sup>1</sup>

As a result of these and other issues, NERC and grid operators from all over the country are raising significant concerns about the impact of the CPP (most notably the interim targets) on our nation’s electric grid.

Recognizing the threat to reliability posed by the proposed interim goals, NERC states:

The EPA and policy makers should recognize the complexity of the reliability challenges posed by the rule and ensure the rule provides sufficient time for the industry to take the steps needed to

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<sup>1</sup> NERC Report entitled "Potential Reliability Impacts of EPA’s Proposed Clean Power Plan," Page 20.

significantly change the country's resource mix and operations without negatively affecting BPS [Bulk Power System] reliability.<sup>2</sup>

NERC also identifies issues associated with the CPP's reliance on natural gas for electric power generation. NERC expresses concern that an accelerated shift in the power generation mix from coal to natural gas for both baseload and on-peak capacity could exacerbate system reliability concerns in regions facing constrained natural gas transportation capacity.<sup>3</sup> NERC explains that such a shift will make the power industry vulnerable to natural gas supply and transportation risks, and overdependence on a single type of fuel poses serious reliability risks during extreme weather conditions.<sup>4</sup>

The MISO, Southwest Power Pool ("SPP") and the Electric Reliability Council of Texas ("ERCOT") echo these concerns. MISO's comments filed with the EPA are particularly noteworthy. MISO states:

[A]pplication of the 2020-2029 interim emissions performance period and the associated interim emissions performance levels established in the proposed rule (the "interim performance requirements") **will** negatively impact reliability and resource adequacy in the MISO region starting in 2020. **The interim performance requirements create an untenable and infeasible timeline for reliable compliance**, and would cause states and MISO member companies to make decisions on a severely truncated timeline. **MISO proposes that EPA eliminate the interim performance requirements when the final rule is issued.** Instead, EPA should allow states to submit plans for EPA's approval that specify interim compliance objectives to best fit their circumstances. [emphasis added]

In addition, at the September 18, 2014 Commission meeting, MISO showed that its reserve margin will dip below the required reserve level by 2.3% in 2016. Importantly, this prediction is based on MATS retirements and does not incorporate retirements caused by the CPP, which MISO estimates could be an additional 12 - 14 GW, of which 11 GW are in the 2020 timeframe.

SPP is also extremely concerned about the impact of the CPP on reliability in its region, noting in its comments to EPA that under one of the scenarios it modeled:

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<sup>2</sup> *Id.* at 3.

<sup>3</sup> *Id.* at p. 24.

<sup>4</sup> *Id.*

[U]nless the proposed CPP is modified significantly, SPP's transmission system impact evaluation indicates serious, detrimental impacts on the reliable operation of the bulk electric system in the SPP region, introducing the very real possibility of rolling blackouts or cascading outages that will have significant impacts on human health, public safety and economic activity within the region.

Finally, it is important to note that PJM, an 185,000 MW system, had reserve levels drop to 700 MW during the polar vortex in January of 2014. PJM expects total retirements by June of 2015 of approximately 10,000 MW (again, as a result of MATS, not the CPP), so if such an event were to repeat itself after these retirements the results could be catastrophic.<sup>5</sup> With this context, it is clear that the bulk power system is already stressed in certain key areas. As I will discuss later, we believe the Commission should heed the warnings from NERC and the RTOs and should make policy recommendations to EPA that reflect the changes to the rule that are necessary to preserve the reliability of our nation's electricity supply.

## **Cost**

Of course, complying with the CPP, especially with the proposed interim targets, will significantly increase customer rates. Implementing the proposed CPP will result in an incremental \$4 billion in costs for our Ameren Missouri customers for this regulation alone as compared to the transition plan I described earlier. Unnecessary rate increases begin in 2020 and would be driven by significantly accelerating the construction and size of a new natural gas combined cycle plant and the accelerated retirement of coal plants. These increases will have a particularly significant impact on our low- and fixed-income customers, as well as on businesses and the economy of Missouri.

## **Ameren's Recommendations**

As noted, Ameren has significant problems with the proposed CPP. However, we are not just saying "no." Instead, we have offered several constructive, common-sense solutions that we believe will greatly enhance the current CPP and significantly mitigate the reliability risks and costs to customers that I described above.

Our key recommendations have included the following:

- Remove the interim targets and allow the states to determine their appropriate glide path to meet the EPA's final target.

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<sup>5</sup> <http://www.pjm.com/planning/resource-adequacy-planning/resource-reports-info.aspx>

- Enhance the reporting by the states during the interim period to assure that appropriate progress is being made to achieve the final target.
- Revise the rate-based compliance formula to provide proper credit for retiring and not replacing existing coal-fired power plants with fossil generation; in other words, giving full credit where credit is due.
- Offer states the flexibility to extend the 2030 deadline if a clear path to meaningful reductions is evident in a reasonable time frame.

A number of good ideas have also been proffered at the Commission's technical conferences over the last six weeks, and we believe it is important that they be incorporated into the EPA's final rule in order to protect the reliability of the bulk power system.

Specifically, EPA should:

- Incorporate a "Reliability Assurance Mechanism" (RAM) in the CPP to ensure the development of reliable state compliance plans.<sup>6</sup> Without going into great detail, the RAM would rely on an initial reliability assessment conducted by FERC or its designee (e.g., NERC, RTOs and/or planning authorities in non-market regions) of all compliance plans submitted to EPA by the states and regions. FERC would submit a report of the Study's findings to the EPA within an appropriate time period. Prior to the EPA approving any CPP compliance plan, EPA would need to take into consideration the reliability implications of the proposed plans cited in FERC's report before approving any implementation plan. Put simply, the EPA could only approve plans that do not harm reliability. If the study finds no harm to reliability, states' plans can be approved. If reliability issues are identified in a particular state, the state would be allowed to submit a revised plan reflecting the lost emission reductions associated with the reliability barrier that precludes full plan implementation. If necessary, EPA would approve plans with revised interim targets required to maintain reliability.
- Incorporate a "Reliability Safety Valve" (RSV) into the CPP.<sup>7</sup> The RSV is needed to address any number of unexpected events taking place during the compliance period. Those examples could include when a nuclear plant goes off line unexpectedly,

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<sup>6</sup> For purposes of this discussion a RAM refers to language codified in the final rule that protects states, and by extension affected entities, from enforcement action associated with the inability of a state to fully implement its compliance plan and achieve its target emission level due to the need to maintain reliability as predicted by an initial reliability assessment of state plans conducted prior to the beginning of the compliance period.

<sup>7</sup> A RSV refers to language codified in the final rule that protects states, and by extension affected entities, from enforcement action associated with unforeseen reliability related events that occur during the compliance period (after state plan approval by EPA) that prevent a state from achieving its target emission level.

needed transmission or natural gas pipeline infrastructure is delayed, tornados destroy a wind farm, or extreme cold weather requires fossil fuel-fired generation to operate at higher levels than contemplated under the implementation plan. Evidence that such reliability related events caused the state to fail to achieve its target emission rate could be proffered in the annual reports required by the rule, or via revised state plans. Examples of acceptable evidence would include dispatch instructions from the RTO to operate a fossil plant to maintain reliability in the short run or RTO studies showing a unit that was to be retired was needed for an extended period to ensure reliability (in MISO this would be a System Support Resource designation). In these situations, states or generators should not be penalized if actions taken are necessary to maintain the reliability of the grid. We note there has been discussion regarding using the "MATS approach" as a model to be followed for the CPP. We believe that the "MATS approach" can serve as a useful guide for developing a RSV for the CCP. However, we recommend a few enhancements to that approach for the CPP, including that it be embedded in the rule and must provide enforcement discretion for periods in excess of one year.

While we strongly believe that the CPP should incorporate a RAM as well as a RSV, we want to be clear that these mechanisms are not a substitute for first addressing the most significant reliability problem with the CPP – the interim targets. Addressing this issue in a manner consistent with our recommendation noted above should be the first order of business. The RAM and RSV should be “second and third lines of defense” for reliability in the CPP. It is also important to note that our discussion of a RAM and RSV is only a framework. Implementation of these provisions is very important and will require additional stakeholder input, as well as FERC working closely with the EPA for these provisions to function effectively. Ameren stands ready to participate in this dialogue promptly. It is also our understanding that the Edison Electric Institute will file more comprehensive comments on these matters in the near future.

Ameren is concerned that some may believe the interim targets can be left as proposed and the RAM and RSV will provide generators and the grid with the protection both need. We strongly disagree. Retirements due to MATS alone will have a dramatic impact on reserve margins. This will only be exacerbated by additional retirements driven by the CPP. With a product as essential as electricity, the first order of business is to design a transition methodology that is first and foremost feasible from a timing requirement and does no harm to the reliability of the electric system; one where, ideally, a RAM will identify minimal expected reliability issues and a RSV is needed very rarely. That is best accomplished by an approach that gives interim target setting authority to the states, and incorporates a RAM at the front end of the process and RSV during the implementation phase of compliance.

However, to be clear, while we believe our recommended approach to replace the interim targets with state defined glide paths will significantly reduce reliability problems and should be adopted, RAM and RSV mechanisms are still necessary. There are likely to be many more instances similar to what Mirant faced in 2001 and 2005; i.e., the unenviable choice of



complying with an environmental rule by not running a plant – potentially causing a blackout, or running the plant and facing the prospect of fines and civil suits for violating environmental rules. Importantly, Mirant faced this situation when the environmental rules were not nearly as stringent as they are now, and which will become even more so if the CPP rules are implemented. Therefore, a RAM and RSV are needed to mitigate the possibility of the Mirant situation occurring in the future.

As another example, Ameren was unable to retire a small 107 MW coal unit in Illinois due to the need for it to remain in operation to maintain grid reliability. Ameren had requested a retirement date from MISO of December 31, 2012 but was told the unit would need to remain on line until June of 2016 while transmission upgrades were built to resolve the reliability problem caused by the retirement. While continued operation of this unit did not place Ameren in the same legal posture as Mirant, the situation highlights the fact that even small unit retirements can create reliability problems. Given the EPA's own estimates of plant closures associated with the CPP, this scenario will occur much more frequently in the future as the owners of coal-fired generation seek to reduce emissions through reduced output and/or plant retirements. As a result, even if the EPA adopts our recommendation to allow states to establish the interim target glide path, Ameren believes that a RAM and RSV are needed to treat generators equitably and protect reliability.

### **Recommended FERC Actions**

As noted above, the Technical Conferences conducted by the Commission over the last six weeks have provided valuable insight and perspectives that the EPA should incorporate into its development of the final CPP rules. It is clear from the record that the proposed CPP will result in significant reliability issues. As a result, we believe it is extremely important that the Commission take clear and immediate actions that address the reliability implications of the CPP.

To begin, we echo the comments made by Gerald Anderson representing the Edison Electric Institute in his pre-filed statement for the February 19, 2015 technical conference with respect to short-term and long-term actions FERC should take to ensure reliability. Further, Ameren believes that FERC should, consistent with its Congressional mandate to oversee the reliability of the bulk power system, promptly issue an order and/or policy statement that summarizes the record developed at the technical conferences and offers recommendations to EPA designed to mitigate the identified reliability concerns raised by the CPP.

Specifically, FERC should:

1. Recommend that EPA replace the interim targets with a process that allows states to determine the appropriate glide path to the 2030 goal.
2. Recommend that EPA adopt a RAM and RSV as described above and codify them in the final rule.
3. Commit to conduct (or have its designee conduct) an initial reliability assessment of all state plans in order to identify reliability barriers to full plan implementation.

4. Recommend that EPA rely on FERC's (or its designees') reliability findings as they relate to the bulk power system and, if necessary, approve plans with revised interim targets required to maintain reliability.

## **Conclusion**

In closing, it is clear that the CPP will have profound implications on our nation's generation fleet, our electric grid and our customers. Our industry is already in the process of transitioning the generation fleet to a cleaner, more diverse portfolio, but it must be done in a responsible fashion. I strongly believe that the straightforward recommendations that I have outlined in this document will go a long way to ensure that the significant risks to grid reliability and costs to consumers are mitigated, while still enabling significant progress in reducing greenhouse gases across our nation. We must get this right because our nation's economy and our citizens' way of life depend on the reliability of our grid.

Again, I appreciate the opportunity to participate in this conference, and I look forward to our discussion.