Ameren’s Alternative to the EPA’s Proposed Greenhouse Gas Rules

Feb. 11, 2015
Ameren’s Generation Strategy vs. the EPA’s Clean Power Plan:  
A Case Study in the Benefits of Midwestern Pragmatism

Overview

In June 2014, the EPA announced its proposed Clean Power Plan (CPP) for existing coal-fired power plants. The plan marks an effort by the agency to achieve ambitious, nationwide reductions in Greenhouse Gas (GHG) emissions via regulatory levers allegedly available under current law. The EPA’s proposed rule requires states to curb electricity sector-related carbon dioxide (CO₂) emissions from 2005 levels by 30 percent by 2030. The plan also includes aggressive interim targets to be implemented beginning in 2020, straining the capacity of states and the electric system to efficiently and reliably implement the rule.

On a parallel track, Ameren has spent years developing its own strategy to accomplish substantial GHG reductions without needlessly jeopardizing the supply of electricity that our customers use to light their homes, power their computers and run their businesses. Ameren’s approach rests on gradual, calibrated adoption of a diverse mix of coal, nuclear, natural gas and renewable energy resources, as well as the continuation of robust energy efficiency programs. Our strategy would achieve the same final CO₂ emission reduction goals as EPA’s plan over a timeframe of just five more years, and at an aggregate cost of $4 billion less than the proposed federal mandate.

As a utility company that millions of Missourians turn to for reliable and reasonably priced electricity, we have little choice but to approach carbon reductions from a more practical point of view. In October 2014, Ameren filed a 20-year Integrated Resource Plan with the Missouri Public Service Commission. A key objective of our plan is to transition our generation portfolio to a cleaner, more diverse portfolio in a responsible fashion. Under Ameren’s Generation Strategy, by 2035, we will retire more than 1,800 MW (about one-third) of our coal-fired fleet, add approximately 500 MW of renewable generation, extend the license of our 1,200 MW Callaway Nuclear Energy Center, add a 600 MW natural gas combined-cycle unit and continue to offer extensive energy efficiency programs to our customers.

Developed in cooperation with key stakeholders through an intensive planning process, Ameren’s Generation Strategy fits the reliability needs of Missouri customers. Consistent with the letter and cooperative spirit of the Clean Air Act, it accounts for the remaining useful lives of the assets at issue that are needed for reliability, and avoids building generating units that are simply not needed to meet ongoing customer demand. In short, our strategy reflects a common-sense approach grounded in real-world economics that prioritizes Missouri’s continued economic competitiveness. Our customers—accustomed to Midwestern discipline and pragmatism—expect nothing less from us.

In contrast, the EPA’s highly aggressive GHG proposal appears to be less concerned with the economic or reliability implications in the states it affects. The CPP designates arbitrary benchmarks based on flawed assumptions, all while raising serious questions about the agency’s legal authority. Perhaps most notably, however, the EPA’s plan reflects scant interest—if any—in the actual ability of utilities to achieve the EPA’s aims without sparking severe repercussions to American homes and businesses in the form of higher costs and reliability risks.
Ameren’s Generation Strategy meets EPA’s CO₂ goals by 2035. But the EPA Clean Power Plan, if finalized as currently proposed, would require costly modifications to our strategy without consequent advantages to justify the difference. Rather than allow a hastily sketched out federal mandate to derail a lengthy deliberative process, while significantly increasing compliance costs to consumers and raising reliability risks for Missourians, Ameren proposes a solution to serve the twin goals of accomplishing substantial GHG reductions while addressing the needs of electricity consumers across the United States.

Recognizing that the CPP will be subject to legal challenges, Ameren believes that the EPA could greatly enhance the adaptability and effectiveness of its CPP proposal with a few common-sense modifications:

- **2020 Targets:** Replace its interim target goals beginning in 2020 with a more flexible approach that provides states greater leeway in determining the proper glide path to achieve EPA’s final goals.

- **Interim reporting:** The EPA should establish enhanced interim reporting requirements by the states to facilitate monitoring and to ensure progress is being made to achieve the final 2030 targets.

- **Performance Metrics:** Revise its compliance formula to provide proper credit under EPA’s rate-based method for retiring and not replacing existing coal-fired power plants with fossil generation; in other words, giving full credit where credit is due.

- **Graduation Dates:** Offer states the flexibility to extend the 2030 deadline if a clear path to meaningful reductions is evident in a reasonable time frame.

In short, Ameren has developed a clear plan to significantly cut GHG emissions without inflicting needless economic pain upon its customer base. We believe that our proposed modifications to the CPP, which reflect Midwestern values of prudence and practicality, create a workable alternative to EPA’s proposed rule that would save customers across the nation billions of dollars, while preserving the reliable service Americans have enjoyed for all these decades.

Our nation’s reliable service sets us apart from the rest of the world. EPA should take heed of sound alternative plans that align with its end goal of reducing emissions and modify its proposed rule to allow Ameren and utilities like it the flexibility to execute thoughtful, customized plans that align with actual operating conditions in their individual states.

**Examining EPA’s Proposed Rule**

EPA’s Clean Power Plan establishes CO₂ emissions performance standards for existing power plants under Clean Air Act section 111(d). The agency expects to finalize the rule by late summer 2015 and states must develop implementation plans by mid-2016 or, if they choose to participate in a multi-state plan, by mid-2017. The possibility of a one-year extension exists under either option.

The basic CPP formula for setting CO₂ emissions reduction requirements is “CO₂ emissions from fossil fuel-fired power plants [in pounds] divided by electricity generation from fossil-fuel fired power plants and certain low- or zero-emitting power sources in megawatt hours (MWh).” According to the EPA, this approach “factors in MWh
from fossil fuel power plants and other types of power generation, such as renewables, new nuclear and natural gas combined cycle, as well as MWh savings from energy efficiency in the state.”

Accordingly, a key aspect of this rule is that, unlike past requirements that directly impact the source of targeted emissions, it goes beyond the source itself (i.e., coal-fired power plants) to encompass the entire electric grid, as well as its users, including homeowners, businesses, manufacturing facilities and farms. As such, the majority of reduction methods that the proposal uses to set CO₂ emission limits are not located at the power plant. Instead, emission limits are derived from the use of a mix of four groups of methods that the EPA calls “building blocks” (see discussion below). The EPA used estimates of the potential impact for implementing these building blocks to establish state-by-state targets for reductions in the CO₂ emission rate (“CO₂ intensity”).

A careful review of the various elements of the CPP reveals a number of central flaws that will ultimately compromise its effectiveness:

- **Flawed Assumptions.** The emission targets at the heart of the EPA plan are based on a series of “Building Blocks” meant to provide a roadmap for states to comply with the rule. Unfortunately, EPA’s Building Blocks are riddled with flawed assumptions about the U.S. electricity sector, creating a highly problematic situation for those striving to comply with the plan.

- **Effect on Reliability & Costs.** Because EPA’s emission targets are based on unrealistic assumptions regarding power plants and the broader electricity sector, implementation of the proposed rule will inevitably result in significant cost increases and strain on the reliability of the electrical grid as utilities scramble to put it in place. The net effect of this mandated transition also would include job losses and damage to the economic competitiveness of Missouri.

- **Dubious Legality.** The EPA simply does not possess the legal authority to implement the proposed rule. The Clean Air Act (CAA) is quite clear in that it only authorizes EPA to regulate emissions from electric generating units. Yet the proposed rule encompasses a range of measures that fall well “outside the fence” of existing power plants. As such, the rule represents a tremendous expansion of the agency’s regulatory authority in the absence of clear congressional authorization to do so.

Individually, each of these flaws would likely prove fatal to the CPP’s ultimate execution. Taken as a whole, it is clear that considerable reflection on the part of the agency is merited prior to the proposal going into effect as outlined.

We provide a closer examination of each of the three fundamentally problematic areas below.

*Cracked “Building Blocks”*

In its proposed rule, the EPA sets each state’s emission target by aggregating the effects of four Building Blocks that, it believes, together represent the best system for reducing CO₂ emissions from the electricity sector:

1) Improvements in power plant efficiency
2) Increased dispatch of existing natural gas-fired plants and reduced dispatch of existing coal plants
3) Installation of new renewable resources and retention of existing nuclear power plants
4) Increased energy efficiency programs
Yet a close look at EPA’s Building Blocks raises a host of questions about the assumptions underlying each one, which in the aggregate create significant challenges for compliance with the CPP. The following chart highlights the primary flaws associated with the Building Blocks as presented in the proposed rule:

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<thead>
<tr>
<th>Building Block</th>
<th>Key EPA Assumptions</th>
<th>Ameren’s Assessment</th>
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<tbody>
<tr>
<td>1. Power Plant Efficiency</td>
<td>Power plant CO₂ emissions can be reduced by six percent by improving each coal plant’s efficiency.</td>
<td>Many Ameren Missouri facilities have already implemented projects to improve efficiency and therefore cannot economically make additional improvements amounting to even a two percent improvement. It is ironic that Ameren is being penalized for past efforts to maximize the efficiency of its generation facilities. This will force the company to rely on the other building blocks to meet EPA’s targets.</td>
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<td>2. Environmental Dispatch</td>
<td>Generation is shifted away from coal power plants so that at least 70 percent of a State’s natural gas combined cycle power plant capacity is utilized.</td>
<td>Ameren does not currently own any natural-gas combined cycle units. Compliance with the rule would require Ameren to build new natural gas generation capacity that is neither immediately available nor needed to satisfy customer demand. In addition, the current gas pipeline infrastructure in the United States may not be adequate to supply additional natural gas generation. Beyond that, power plant dispatch decisions are made by regional transmission organizations (“RTOs”) based on market economics. Neither Ameren nor individual states can control how an RTO dispatches units.</td>
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<td>3. Renewable and Nuclear Power</td>
<td>Renewable power to experience rapid, across-the-board growth.</td>
<td>The proposed rule assumes that the existing Missouri renewable requirement is statewide. In fact, the requirement applies only to investor-owned utilities in Missouri, not all utilities, and is legislatively limited by a one percent rate cap.</td>
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<td>4. Demand-Side Efficiency</td>
<td>Each state would implement efficiency programs resulting in an annual incremental reduction of electricity consumption of 1.5 percent.</td>
<td>Missouri utility estimates of realistically achievable energy savings from efficiency programs are significantly lower than EPA’s estimates, which assume that all 50 states can achieve uniform incremental savings. This masks important differences in how states determine cost-effectiveness, as well as in how states measure and verify energy savings. Ultimately, neither the EPA, the state nor Ameren can ensure that customers employ targeted efficiency measures, however desirable their adoption may be to policymakers.</td>
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As evident from this assessment of the Building Blocks, the EPA has created a proposed rule that rests on flawed baseline assumptions that significantly overestimate achievable emission reductions. While some claim that there is flexibility in the rule, it is clear that EPA expects compliance to proceed through the four Building Blocks, all of which have flawed assumptions. As a result, implementation of the rule as proposed unnecessarily becomes a costly and impractical undertaking. As a result, the EPA has thus far failed to adequately evaluate or present a plan for mitigating these risks.

**Jeopardizing Reliability**

There is simply no substitute for a reliable supply of electricity, and (as discussed below) the proposed rule entails significant risks to reliability. Yet EPA has thus far failed to adequately evaluate or present a plan for mitigating these risks.

Quite simply, coal-fired power plants will need to close to comply with the interim benchmarks that EPA has laid out in its rules, which are set to take effect in 2020. For example, under the CPP’s interim requirements, the State of Missouri would be required to meet more than 62 percent of the final 2030 targets by 2020—essentially making the CPP a 2020 compliance rule. More broadly, experts estimate that in just five years, the U.S. could lose more than one-third of its coal-fired generating fleet. Those power plants generate enough energy to power nearly 50 million residential homes in the United States.

Closing this many plants in the next five years will dramatically increase electric reliability risks, which could result in brownouts, load curtailments and other power shortages in regions impacted by coal retirements, including Missouri and Illinois. As an example of a recent reliability issue, during last winter’s “polar vortex,” the grid operator in the Mid-Atlantic region, PJM, had its reserve generating capacity drop to only 700 MW, a dangerously thin margin that is equal to just one average-sized power plant.

Independent experts from across the country agree that the risk to grid reliability is grave. The Midwest Independent System Operator (“MISO”) has raised resource adequacy as well as reliability concerns that may be expected as a result of the stringent interim targets in the proposed rule, stating that the EPA’s plan will likely result in “significant reliability violations.” A report from the Southwest Power Pool (“SPP”) argued that
compliance with the CPP will jeopardize the reliability of the bulk electric system. PJM’s own chief economist has stated that the sheer breadth of the CPP's mandate “makes it impossible for us to understand what we could be facing.” The Electric Reliability Council of Texas (“ERCOT”) has said that the CPP “is likely to lead to reduced grid reliability.” The non-partisan North American Electric Reliability Corporation (“NERC”) has concluded that Missouri and Illinois could fall below reserve margin standards deemed necessary to ensure reliability.

How much does reliability really matter? According to The Institute of Electrical and Electronics Engineers of the U.S. (IEE-USA), catastrophic “cascading” blackouts can follow from even minor disruptions in the electric power grid. Moreover, the loss of a single generator might spur an imbalance between load and generation, potentially leading to significant economic damage.

Electrical outages can also jeopardize public health. A group of healthcare professionals who also serve as members of Congress recently wrote a letter to EPA Administrator Gina McCarthy pointing out that "the public health consequences associated with stable electricity cannot be overstated." The group cited reliability in the electricity supply as an important factor in helping to moderate the impacts of disease, unemployment, extreme weather and food safety, among other items.

ISO New England perhaps most accurately summed up the imperative of reliability as follows:

A reliable supply of electricity is a foundation of our prosperity and quality of life. Without it, our world literally grinds to a halt – businesses cannot plan and operate productively, hospitals and schools cannot provide their essential services, and residents cannot depend on the electricity they need simply to live their daily lives. Without reliable electricity, the financial and societal costs would be enormous.

Not one of these groups is beholden to any political interest; rather, they are charged with maintaining the reliability of the grid. Their messages should be taken very seriously.

While perhaps not surprising given the flawed assumptions on which the rule is based, EPA’s targets simply do not accord with reality. Given that electric generation is planned decades in advance to ensure reliability, it is unreasonable to expect states to comply with such stringent targets on such short notice. This fundamental flaw with EPA’s approach is particularly salient given that the interim goals proposed by the agency are not necessary to achieve the EPA’s desired longer-term 30 percent reduction in CO₂ emissions.

**Questionable Legality**

Large components of EPA’s proposed rule fall outside the scope of the Agency’s authority, as outlined in the Clean Air Act. Section 111 of the CAA says that if EPA is to issue a “standard of performance” for a source of an air pollutant, the Agency’s standard must reflect “the degree of emission limitation achievable through the application of the best system of emission reduction...”

A key question underlying the proposed rule’s legality is: to what do we apply the mandate to achieve “the best system of emissions reduction?” For forty years, EPA has interpreted the answer to be the source of the pollutant, which in the case of the proposed rule means existing coal-fired power plants. Now, however, EPA is
interpreting this provision to apply to the entire U.S. electricity sector as a whole. EPA has taken it upon itself to devise a “best system of emission reduction” for all CO₂ emitted across the entire power sector.

This expansive interpretation has dramatic implications for the scope of the Agency’s authority. In its current form, the proposed rule mandates new renewable energy resources, redistributes the way electricity is distributed throughout the grid, and calls for an across-the-board reduction in electricity use by U.S. consumers. The notion that Congress intended the regulation of power plants to extend to the type of light bulbs people use in their homes seems inherently absurd, yet that is precisely the interpretation that EPA has adopted to justify the contents of the proposed rule.

We believe the EPA’s interpretation of its authority brings about a transformative expansion in its regulatory authority without clear congressional authorization. The EPA has no legal authority to regulate or enforce programs outside of power generating units, such as energy dispatch, energy conservation or the amount of renewable energy utilized, all of which are part of its proposal. Furthermore, by setting an emission standard based on re-dispatch of natural gas combined cycle units by RTOs, the EPA is imposing an impossible requirement on states and utilities given that the Federal Energy Regulatory Commission regulates those markets, not states.

EPA should limit the proposed rule to what is achievable at existing power plants. States should then be given the flexibility to develop any programs that achieve an equivalent emission reduction. This straightforward and pragmatic approach would have the added benefit of making the rule more consistent with the provisions of the existing CAA. If finalized in its current form, the proposed rule contains elements that we believe to be unlawful, and it is a virtual certainty that the rule will undergo significant legal challenges.

Ameren’s Generation Strategy

Ameren has developed a generation strategy that addresses both near-term and long-term needs and risk, and which transitions its generation portfolio on a capacity basis to roughly one-third each coal, natural gas and non-carbon resources by 2035. This Generation Strategy, based on the 2014 Ameren Missouri Integrated Resource Plan (IRP), is designed to minimize the impacts on customer rates while providing safe, reliable and environmentally responsible electricity to Ameren’s customers.

Ameren’s Generation Strategy recognizes that our coal-fired power plants are aging and that we need to take steps to thoughtfully retire them as they come to the end of their useful lives. Our strategy will transition our fleet to a cleaner, more diverse portfolio in a responsible way that is beneficial to our customers, our communities and our environment.

The IRP is based on the gradual, calibrated adoption of a diverse mix of energy resources. Under this plan, by 2035 Ameren will retire more than 1,800 MW (about one-third) of its coal-fired fleet, add approximately 500 MW of renewable generation, extend the license of its 1,200 MW Callaway Nuclear Energy Center, add a 600 MW natural gas combined-cycle unit and continue to offer extensive energy efficiency programs to our customers. Consistent with the letter of the Clean Air Act, this approach considers the remaining useful lives of the assets at issue while minimizing cost and ensuring reliability. It avoids building generating units that are not
needed to meet ongoing customer demand, and also avoids the real likelihood of running such units uneconomically and avoids retiring coal plants needed for reliability.

Ameren’s strategy systematically incorporates generation resources with lower levels of carbon and other environmental emissions. It also provides needed flexibility in establishing benchmarks, including those associated with greenhouse gases, while mitigating the potential for lost investment recovery. Because our approach is based on gradual, incremental capital investment, it allows us to effectively manage the still-uncertain risks associated with the development and adoption of distributed generation.

The effect of our approach on the generation portfolio is illustrated below in Figure 1, which shows the transition of the portfolio from both a capacity and energy perspective.

As illustrated in Figure 2 (above), Ameren’s strategy also allows the company to maintain a modest level of additional capacity reserves beyond those needed for reliability, with no new baseload capacity needed until 2034, including maintaining an option for additional nuclear generation.

In sharp contrast, strict compliance with the proposed EPA rate-based rule would lead to far higher capacity reserves by advancing and adding (and uneconomically dispatching) resources that would not otherwise be needed to meet customer demand as early as 2020. In fact, implementation of the EPA’s proposed GHG rule would require the following impractical developments to take place:

- Premature retirement of our coal-fired Meramec Energy Center, which would be accelerated to 2019.
- Acceleration of a new gas-fired, combined-cycle generation facility from 2034 to 2020, as well as an increase from 600 MW to 1,200 MW—twice what is needed and 14 years earlier than necessary.
The Solution: Upgrading EPA’s Clean Power Plan

Ameren believes the EPA can greatly enhance its CPP proposal with some constructive and common-sense modifications. Specifically, EPA should replace its interim target goals beginning in 2020 with a more flexible approach that provides states greater leeway in determining the proper glide path to achieve EPA’s final goals in 2030; offer states the flexibility to extend the 2030 deadline if a clear path to meaningful reductions is evident in a reasonable time frame; and revise its compliance formula to provide proper credit under EPA’s rate-based method for retiring and not replacing existing coal-fired power plants with fossil generation.

2020: Too Much Too Soon

The first and most important modification involves replacing EPA’s interim targets. Under the interim requirements, the State of Missouri would be required to meet more than 62 percent of the final 2030 target by 2020—essentially making this a 2020 compliance rule.

The interim targets impede the flexibility of states to carry out EPA’s objectives in a cost-effective manner while jeopardizing the reliability of the electricity supply and risking economic disruption. Put simply, the requirement to meet 62 percent of Missouri’s 2030 target by 2020 would cause a “regulatory cliff,” threatening grid operators’ ability to ensure reliable service to customers.

Rather than create an unsustainable situation, EPA can ensure that similar reductions occur in the 2020-2029 timeframe by eliminating the rigid interim targets and allowing states to develop individually tailored glide paths to the 2030 targets. Progress toward the 2030 targets can be ensured by requiring state plans to include enhanced reporting requirements demonstrating adherence to the state plan, as well as corrective action contingency plans designed to remedy deviations should they occur. EPA’s desired outcome should be to achieve significant reductions in CO₂ emissions, at the lowest possible cost while maintaining reliable system operations, and states are best positioned to deliver this outcome.

This recommendation has garnered wide-spread support with stakeholders in our communities and across the country because eliminating these interim targets achieves several key objectives:

- Significantly reduces compliance costs and reliability risks.
• Provides state regulators and energy providers with much-needed flexibility to adapt to changing conditions and employ new technologies as they become available.
• Continues to achieve meaningful carbon emission reductions during the interim period (Ameren’s plan is a case in point).

Simply put, this approach is a win-win for all stakeholders.

**Target-date Flexibility**

Electric generation is planned decades in advance to ensure reliability; regulators, utilities and a host of other stakeholders work diligently to make plans and long-term investment decisions to provide cost-effective generation and meet projected customer demand. The EPA’s plan effectively short-circuits that process.

Thus, a second adjustment EPA should make to the rule is to allow states to extend the compliance deadline beyond 2030 upon determining that a plan, like the Ameren Generation Strategy, will cost-effectively achieve the same reductions within a reasonable timeframe. By providing states with flexibility to extend the compliance date, EPA would be acting consistent with the underlying statute that requires EPA to consider the remaining useful life of utility assets when establishing environmental regulations. EPA would, in effect, acknowledge the far-reaching planning process undertaken in states across the country. A target date of 2030, however useful as a regulatory stick, simply does not allow for the orderly retirement of coal plants to coincide with the planned construction of lower-emitting sources and renewables.

**Methodology Adjustment: Giving Credit Where Credit is Due**

A third adjustment that EPA should make to significantly improve its Clean Power Plan centers on the formula it uses to gauge progress as utilities undertake the transition to renewable generation sources. EPA should reevaluate its rate-based methodology in order to give proper credit for coal plant retirements when a retired plant is not replaced with fossil generation. Under the EPA’s proposed rate-based rule, coal plant retirements in coal-heavy states get very little credit for the emission reductions achieved when they are retired. The shortfall in recognition relates directly to the workings of EPA’s underlying formula, which rests on a lbs./MWh ratio. When a plant is retired, the lbs. of CO\textsubscript{2} with which it was associated are removed from the numerator of the formula, as are the MWh from the denominator. However, the improved emissions dynamic that follows when a coal plant is retired without replacement by other fossil generation does not emerge when the MWh in the denominator are eliminated from the revised ratio, thus eluding well-deserved regulatory consideration.

Properly recognizing this credit, utilities would be incentivized to retire coal-fired generation not required for reliability purposes and avoid installing unneeded new generation to comply with the EPA’s emission reduction formula. The result would be more stable electricity prices, a reduction in CO\textsubscript{2} emissions, reduced risk of reliability problems and proper credit for significantly lower CO\textsubscript{2} emissions. It would also provide states additional needed flexibility in achieving their final CO\textsubscript{2} target rate.

The formula should be designed so that generation owners are indifferent to the use of a mass-based or rate-based compliance approach with respect to coal plant retirements. To fix the gap in regulatory fairness that follows from a rate-based approach, Ameren suggests that the MWh associated with a fossil-based plant that is
retired and not replaced with fossil generation should remain in the denominator following its retirement, in
similar fashion to the treatment of zero-emitting resources, thus properly reflecting the benefits of its
retirement.

Conclusion

Constructive and common-sense alterations to the Environmental Protection Agency’s Clean Power Plan are needed
to avoid imposing staggering costs on utility customers and significant risks to electric grid reliability.

Ameren’s GHG strategy proposes pragmatic changes to the EPA plan that include removing the plan’s interim
targets that begin in 2020; enhancing interim reporting requirements by the states to ensure that progress is being
made to achieve the 2030 target; allowing full credit for the retirement of coal-fired power plants; and allowing for a
reasonable extension of the 2030 deadline if utilities are making substantive progress toward achieving the EPA’s
final greenhouse gas (GHG) goals.

Ameren Missouri’s Generation Strategy provides for a responsible transition to a cleaner, more diverse
generation portfolio that will in the long run achieve the same GHG emission reductions as EPA’s proposed rule
at a significantly lower cost to our customers, businesses and the local economy. Strict compliance with the EPA
plan under its proposed timeline would alter our strategy in such a way as to lead to unnecessarily high capacity
reserves by advancing, adding and uneconomically dispatching resources not otherwise necessary to meet
customer demand.

EPA should take heed of sound alternative plans such as Ameren’s that align with its end goal of reducing
emissions. While there is agreement that steps should be taken to address global greenhouse gas emissions,
there is certainly no consensus that doing so requires widespread economic disruption and reliability risks—
particularly when far-reaching, highly effective and common-sense alternatives are available to reach much the
same end.

Ameren’s Generation Strategy helps to address unreasonable assumptions built in the CPP’s building blocks and
is better for the regional economy, protects Missouri jobs and limits unnecessary energy price increases. A
workable alternative to the EPA’s proposed rule that reflects Midwestern values of prudence and practicality,
the Ameren plan would save our customers billions of dollars while helping avoid substantial economic costs
and consequences related to the potential degradation of electric reliability, long a bedrock component of
America’s economic prosperity and widely admired standard of living.

Ameren believes all parties involved benefit if states are given the flexibility to determine the optimal timeframe
leading to 2030 according to criteria that reflect each state’s unique situation, and we believe our approach
demonstrates how state-mandated interim targets can effectively work. In short, Ameren’s Generation Strategy
is the responsible way to reduce price impacts to our customers while still achieving EPA’s overall goals. We
should be allowed to carry it forward, and it should provide a template for controlling emissions elsewhere in
the United States.