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Hubbel Relat
Vice President of State Policy/General Counsel
American Energy Alliance

Chairman and members of the Committee, I am Hubbel Relat, Vice President of State Policy and General Counsel of the American Energy Alliance, a free-market advocacy organization. I appreciate the opportunity to offer testimony on this important subject, the U.S. Environmental Protection Agency's (EPA) so-called "Clean Power Plan" (Carbon Rule).

My remarks will cover a few topics. First, I'll highlight crucial changes EPA made to the final Carbon Rule. Second, I'll discuss how States should respond, including what States need to do to secure an extension request should they pursue one. Finally, I'll offer recommendations for how Kansas can best protect its citizens.

I. Final Rule Requirements and Projections

First, EPA made several crucial changes to the final Carbon Rule. The final rule was announced last August and published last October in the Federal Register. Under the proposed rule, States had until September 2016 to submit final State Plans. A State Plan is a technical term found in the Clean Air Act (CAA). State Plans are a high bar to meet: they require States to make legally binding commitments to implement the rule and to detail exactly how they intend to comply, monitor, and enforce the rule.

While the proposed rule required final State Plans to be submitted in 2016, the final Carbon Rule does not. Instead, EPA changed the final rule to allow States to submit a two-year extension request. This is a crucial change. It means States do not have to make any binding commitments to implement the rule until 2018.

As a brief aside, you might be wondering: *why would EPA gives States an extra two years*? We believe EPA made this change to weaken the States' case for a legal stay. To get a stay, petitioners must demonstrate immediate and irreparable harm. While we strongly believe the Carbon Rule exceeds this threshold, the courts disagreed, likely because EPA added the extension request option to the final rule. The court said nothing on the merits of the litigation, and I believe our side will ultimately prevail.

Make no mistake: EPA's Carbon Rule will impose severe and immediate burdens on Kansas families. The rule is projected to raise electricity rates by 25%, according to a report by Energy Ventures Analysis,[1] and it will be most harmful for those who can

least afford it—the poor and middle class. Because the rule artificially increases the cost of generating electricity from affordable energy sources, economical power plants will be prematurely retired and replaced with new, more expensive sources. Last year, an Institute for Energy Research study found that existing power plants, especially those run on coal or nuclear power, generate electricity more affordably than new sources, particularly new renewable energy sources.[2] In fact, existing coal plants are half as expensive as new natural gas plants while new wind plants are three times more expensive than existing coal power plants.

Higher prices will also hamper Kansas' economic competitiveness by making it more costly for businesses to operate and expand. Energy is often a fixed cost that affects the price of everything from raw materials, transportation, and overhead to simply "keeping the lights on." In short, increased energy costs increase the cost of doing business and lead to higher costs for customers and additional strain on middle-class families. Energy is so important because it is the foundation of modern life. Artificially inflating energy costs by government mandate creates a vicious cycle of rising costs and slowing growth.

Another key change to the final Carbon Rule concerns EPA's assumptions for renewable energy growth. Specifically, EPA is projecting huge increases in wind and solar production using cherry-picked data that repudiates both history and science.

Consider the following chart from a technical support document for the Carbon Rule.[3] Here, EPA shows its work, and it isn't pretty. To figure out how much wind and solar would be added to the grid between now and 2030 (the end of the compliance timeframe for the Carbon Rule), EPA took a snapshot of annual capacity additions. In other words, how much wind and solar capacity was added to the electric grid each year between 2010 and 2014?

Table 4-1: Annual Capacity Change by RE Technology (MW)

RE Technology	2010	2011	2012	2013	2014	Average	Maximum
Solar PV[4]	267	784	1,803	2,847	3,934	1,927	3,934
CSP	78	0	0	410	767	251	767
Onshore Wind	5,112	6,816	13,131	1,087	4,854	6,200	13,131
Geothermal	15	138	147	407	4	142	407
Hydropower	294	-10	47	216	158	141	294

Note: All values are rounded to the nearest MW.

Initially, EPA takes the average annual capacity additions from 2010 to 2014 and assumes that is how much wind and solar will grow for years 2022 and 2023. Here, EPA is operating under the assumption that past is prelude, which is not unreasonable.

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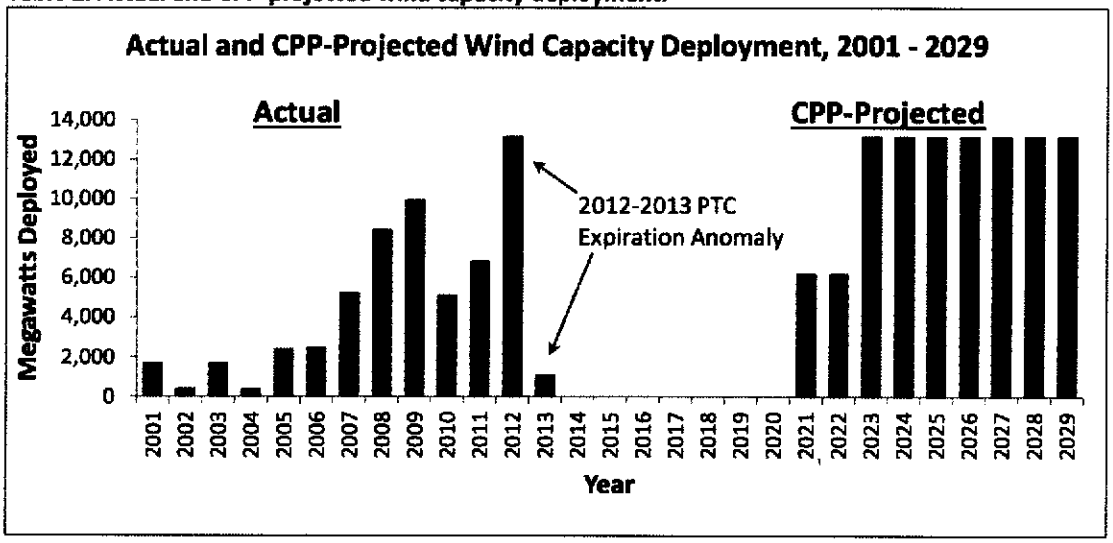
But then EPA abandons all common sense. For years 2024–2030, EPA takes the *highest annual capacity addition* and projects wind and solar will grow by that much every single year for six years. Why doesn't this make sense? For wind, the largest amount of capacity additions came in 2012, which was a boom-and-bust year for the wind industry. Wind developers were rushing to build new turbines to qualify for the federal wind Production Tax Credit (PTC), which expired at the end of 2012. Evidence of the bust comes directly from the following chart, which shows how wind capacity additions plummeted by 90 percent the year after the PTC expired.[4]

Table 2. Actual and CPP-projected wind capacity deployment.



Thus, EPA's assumptions rely on producing record amounts of wind for six years, when history shows us that record production was driven by a rush to exploit government subsidies. When the subsidies dried up, wind collapsed. Worse yet, only the threat of losing subsidies incentivized rapid wind growth. Now that the PTC has been extended for five years, wind developers have less incentive to rush production online. While this portends steadier growth for the wind industry, it likely means slower growth—certainly slower than EPA's projection. It also means EPA's projection of renewable energy growth increased by an astounding 132 percent between the proposed and final rules, as the following chart from the U.S. Chamber of Commerce shows.[5]

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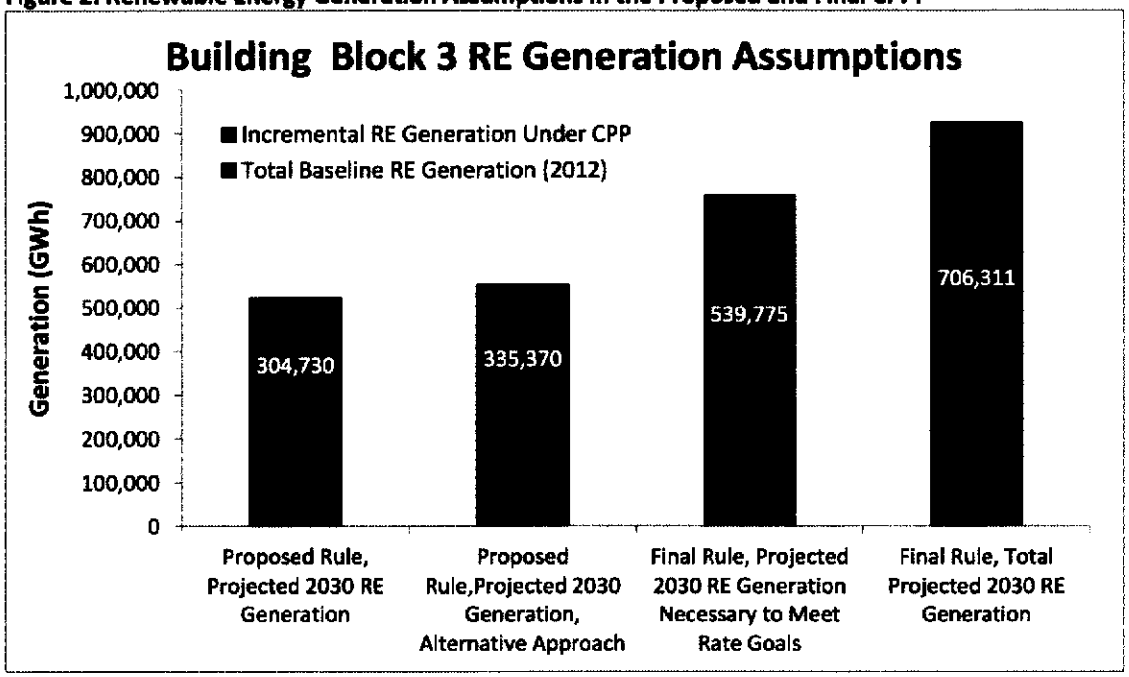
Figure 2. Renewable Energy Generation Assumptions in the Proposed and Final CPP.[5]



EPA's projection also belies science. Buried in pages of technical support documents is an assumption that wind energy will produce electricity at a *capacity factor* of 42 percent.[6] Capacity factor is the rate at which an energy source operates at 100 percent of its capacity. Wind has always struggled in comparison to traditional sources like coal, natural gas, and nuclear simply due to basic science. Wind only produces electricity when the wind is blowing strongly enough, while coal can produce electricity on demand and precisely when needed.

Consider the following chart that uses data from the U.S. Energy Information Administration (EIA), the statistical arm of the Department of Energy. In 2014, wind energy had an average capacity factor of 34 percent, a far cry from the 42 percent projection.[7] In fact, EIA expects new wind facilities installed in 2020 to have an average capacity factor of 36 percent, just two points higher than in 2014.[8] If that trend of two points every six years continues, wind won't achieve EPA's projected capacity factor until 2038—eight years too late for the Carbon Rule. Yet, states will be saddled with implementing this rule despite EPA's unrealistic assumptions.

Table 3. Renewable resource capacity factors for existing capacity and projected new capacity under the CPP.[14]

Resource Type	2014 Average EIA Capacity Factor (percent)	CPP-projected capacity factor (percent)
Onshore Wind	33.9	41.8
Geothermal	68.8	85.0
Hydropower	37.5	63.8

There are other faulty assumptions that I won't address here. According to a new report from the U.S. Chamber of Commerce, the many flaws in EPA's assumptions add $3.5 billion in total compliance costs.[9] These costs will be borne by States like Kansas and fall primarily on families and businesses. The rule's renewable assumptions also have dramatic implications for potential policy changes—such as returning the State's renewable energy goal to a mandate—that may need to be made in order to submit a compliant State Plan.

II. State Strategy for the Carbon Rule: Avoid Binding Commitments and Premature Implementation

States are faced with a September 2016 deadline to either submit a final State Plan or submit a two-year extension request. States that "do nothing" risk imposition of a Federal Plan. However, there is no reason for States to submit a final State Plan in September, which would require legally binding commitments to the federal government.

Instead, States should craft an extension request with the following goals:

1) Meet EPA's requirements for an extension request,
2) Avoid binding commitments before full legal resolution, and
3) Stop premature implementation until legal resolution and the position of the next presidential administration is known.

Next, I will lay out the steps States need to take to submit an extension request that satisfies EPA's requirements, avoids binding commitments, and stops premature implementation. In its attempt to weaken the legal case for a stay, EPA set a low threshold for obtaining an extension. There are just three requirements, which the agency has reiterated in numerous public statements:

1) Identify any compliance approaches under consideration (rate- vs. mass-based), including progress made toward determining which approach the state will likely choose,
2) Explain why the State needs more time to develop a state plan, and
3) Demonstrate how the State plans to engage the public, including vulnerable communities that EPA admits will suffer the most.

Note what is not required. States do not need to commit to a compliance approach; they merely need to show they are *considering* approaches. The evidence for why States need more time is found simply in EPA's requirement to consider various approaches and engage in a public input process. To obtain an extension, States can submit a document that says the following: 1) They need more time, because 2) they are considering all compliance options, and 3) they are engaging with the public, especially the poor and middle class who are most affected by the Carbon Rule. Such a request contains no binding commitments to implement the regulation.

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It is crucial for State extension requests to not contain binding commitments. Binding commitments send a signal to utilities to begin implementing the rule prematurely by shuttering power plants before the courts have determined the rule's legality. Once a power plant is shut down, it is not coming back. Electric rates will necessarily rise to compensate for the lost generation and cost of building new generation.

EPA's mercury rule is a prime example of the dangers of premature implementation. Even though the rule was in legal limbo and the Supreme Court ultimately ruled against EPA, utilities began implementation before legal resolution and retired 40 gigawatts of coal-fired capacity (enough to power 32 million homes).[10] Those facilities are not coming back and ratepayers will suffer as a result.[11]

EPA hopes to repeat history with the Carbon Rule. Since final legal resolution won't occur for several years, States that make binding commitments and utilities that prematurely implement those commitments risk locking in changes to the electricity system that cannot be undone if the courts subsequently strike down the rule.

III. Recommendations for Kansas

Given the severe burdens facing Kansas families, we believe Kansas should avoid making binding commitments before legal resolution. This can be accomplished with an extension request that satisfies EPA's minimum requirements and does not commit Kansas to premature implementation. We call this the "do no harm" approach.

While the Governor formally submits the extension request, the Legislature plays a crucial role in shaping the nature of the request and ensuring transparency and accountability. Last year, the House took a positive first step toward these goals by passing HB 2233. This bill requires legislative review and input on any State Plan. However, given the changes EPA made to the final rule, more is needed to protect Kansas families.

We recommend the Legislature build on the success of HB 2233 by making key revisions to the bill. The revised bill should capitalize on the new options available under the final rule. It should call on the Governor to submit an extension request shortly before the September 2016 deadline with no binding commitments to implement the rule. The bill should also require the Legislature to approve any State Plan before it is submitted to EPA.

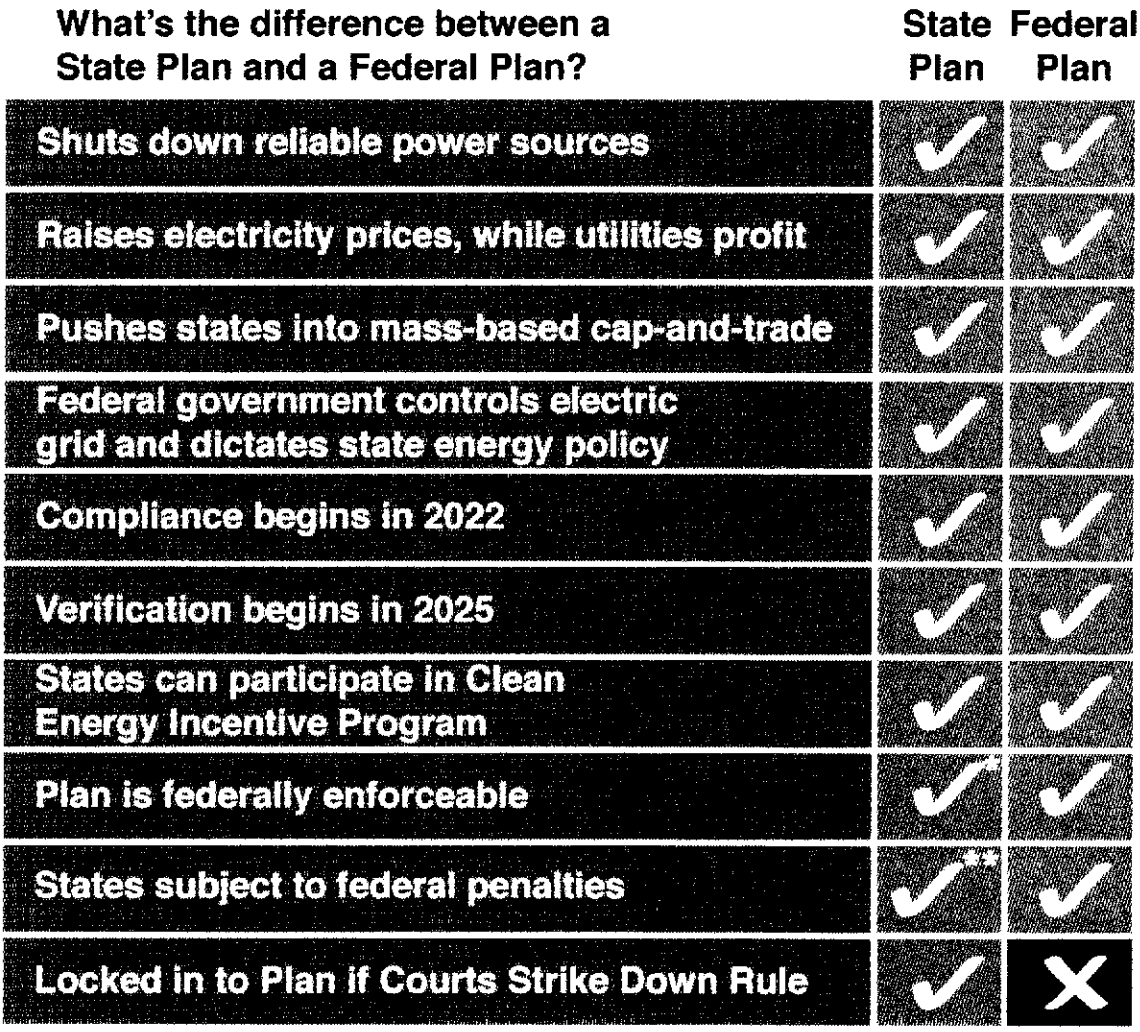
For a regulation with such a severe impact on Kansas families, it is crucial that Kansas' elected representatives have a say over the State's response. These revisions to HB 2233 would ensure a transparent process that is decided out in the open, not behind the closed doors of State regulatory agencies.

It is important to have an open process because developing a compliant State Plan would almost certainly require significant changes to State law. In the final Carbon Rule, EPA outlines one path to compliance called the State Measures approach. According to EPA, this approach "gives states the flexibility to choose a mixture of energy efficiency policies and programs run by a variety of provider types that are enforceable by State laws but are not subject to federal enforcement if a State fails to meet its Clean Power Plan goal."[12]

While this seems like an attractive compliance option, it would require Kansas to pass laws that State residents may otherwise not want. For example, last year Kansas changed its *mandatory* Renewable Portfolio Standard (RPS) into a *voluntary* goal—a positive step toward reining in energy costs for families. For the RPS to qualify under the State Measures approach, Kansas would have to switch back from a goal to a mandate. Kansas' elected representatives were right to eliminate the energy mandate last year, and they should not let the federal government bully them into reversing course now.

Moreover, EPA, environmental lobbyists, and some utilities have tried to scare States into submitting a State Plan by alleging a Federal Plan will be more painful. However, a closer examination of the evidence reveals that these claims are hollow. EPA designed both plans so that no matter which path States choose, they will end up with mass-based, regional cap-and-trade. Consider the following chart developed by our policy and legal experts.[13] I'm happy to answer any questions about its specific points.

EPA's Carbon Rule: A Comparison



*Plans using a "state measures" approach must be codified in state law and EPA claims they will not be federally enforceable. It is arguable whether special interest citizen suits could still be brought to enforce these measures. Regardless, these state plans must also include a federally enforceable "backstop" in the event the state measures fail to achieve EPA's emission reductions. This backstop will likely be a mass-based cap and trade system nearly identical to the model federal plan.

**It is debatable whether a State Plan relying on state measures would be subject to Clean Air Act penalties for noncompliance. In any event, compliance with the federally enforceable "backstop" would be subject to such penalties if the State Plan failed to achieve the plan's emission target.

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While there are many similarities between a State Plan and a Federal Plan, there is at least one crucial difference. Any laws enacted under a State Plan will remain in place even if the courts invalidate the rule later. By contrast, if the rule is struck down, a Federal Plan would go away. In essence, States that do not make premature commitments and find themselves with a Federal Plan imposed will not be stuck

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with new State laws that hike electricity prices and shut down reliable power sources.

Conclusion

All States, including Kansas, are facing a crucial decision over the coming months. The federal government has saddled States with an expensive, illegal, and convoluted regulation that will have far-reaching implications for future generations. Essentially, the Obama administration wants Kansas to figure out how to uproot its entire electric grid in six years. And if Kansas refuses, EPA is threatening to do it anyway.

When deciding how to respond, Kansas should place the interests of its families and businesses first. The most prudent approach is one that does not make binding commitments to implement the Carbon Rule before full legal resolution. The best way to adhere to these principles is to submit an extension request by September 2016 that satisfies EPA's requirements and does not commit Kansas to submitting a State Plan. The Legislature should pass a revised version of HB 2233 that contains these principles and requires legislative approval before any State Plan can be submitted to EPA.

Thank you for the opportunity to testify. I look forward to your questions.

Endnotes

[1] Energy Ventures Analysis, *EPA's Clean Power Plan: An Economic Analysis*, November 2015, http://nma.org/attachments/article/2368/11.13.15%20NMA_EPAs%20Clean%20Power%20Plan%20%20An%20Economic%20Impact%20Analysis.pdf.

[2] Tom Stacy and George Taylor, *What is the True Cost of Electricity?*, Institute for Energy Research, June 30, 2015, http://instituteforenergyresearch.org/analysis/what-is-the-true-cost-of-electricity/.

[3] U.S. Environmental Protection Agency, *Greenhouse Gas Mitigation Measures*, Technical Support Document, August 3, 2015, p. 4-2, http://www.epa.gov/sites/production/files/2015-11/documents/tsd-cpp-ghg-mitigation-measures.pdf.

[4] Institute for 21st Century Energy, *What's in a Target?: How the Final Clean Power Plan Uses Unreasonable Renewable Energy Assumptions to Increase the Stringency of State Emissions Requirements*, U.S. Chamber of Commerce, January 2016, p. 15, http://www.energyxxi.org/sites/default/files/What%27s%20In%20a%20Target%20FINAL.pdf.

[5] Institute for 21st Century Energy, *What's in a Target*, p. 10.

[6] EPA, *Greenhouse Gas Mitigation Measures*, p. 4-3.

[7] Institute for 21st Century Energy, *What's in a Target*, p. 18.

[8] U.S. Energy Information Administration, "Levelized Cost and Levelized Avoided Cost of New Generation Resources in the Annual Energy Outlook 2015," *Annual Energy Outlook 2015*, April 14, 2015, https://www.eia.gov/forecasts/aeo/electricity_generation.cfm.

[9] Institute for 21st Century Energy, *What's in a Target?*, p. 21.

[10] EPA's Mercury and Air Toxic Standards is included in EIA's reference case and is a major reason for 40 GW of coal-fired power plants retiring between 2014–2040 in that forecast. *See*, EIA, *Analysis of the Impacts of the Clean Power Plan*, May 22, 2015, pp. 16– 17, http://www.eia.gov/analysis/requests/powerplants/cleanplan/. *See also*, EIA, *Scheduled 2015 capacity additions mostly wind and natural gas; retirements mostly coal*, March 10, 2015, http://www.eia.gov/ todayinenergy/detail.cfm?id=20292; and, Institute for Energy Research, *How to Kill the Coal Industry: Implement EPA's "Clean Power Plan"*, May 26, 2015, http://instituteforenergyresearch.org/analysis/how- to-kill-the-coal-industry-implement-epas-clean-power-plan/. Finally, our calculations are based on 40 GW divided by average power use per resident (1.248 kW) yielding 32,051,282 (i.e., 32 million homes). Source for average residential power use data: http://www.eia.gov/tools/faqs/faq.cfm?id=97&t=3.

[11] In the context of EPA's Mercury and Air Toxics Standards, utilities made irreversible decisions to retire coal-fired power plants before the Supreme Court's decision. *See* Mark Drajem, *Obama May Win by Losing in Quirk of Supreme Court EPA Review*, Bloomberg Business, June 24, 2015, http://www.bloomberg.com/ news/articles/2015-06-24/obama-may-win-by-losing-in-quirk-of-supreme-court-epa-review; and, Institute for Energy Research, *SCOTUS Mercury Ruling is a Wake Up Call for EPA*, July 2, 2015, http:// instituteforenergyresearch.org/analysis/supreme-court-rules-against-epa-in-mercury-rule/.

[12] EPA, *FACT SHEET: Energy Efficiency in the Clean Power Plan*, August 2015, http://www.epa.gov/cleanpowerplan/fact-sheet-energy-efficiency-clean-power-plan.

[13] American Energy Alliance, *State Plan vs. Federal Plan: What Difference Does It Make?*, January 13, 2016, http://americanenergyalliance.org/2016/01/13/state-plan-federal-plan-what-difference-does-it-make/.