

Executive Summary

18 state legislatures passed either legislation or resolutions that EPA has rejected in its CO₂ Emission Guidelines. The states demanded that the EPA respect state primacy in setting performance standards under Section 111(d) and/or allow the state maximum flexibility to implement carbon standards, including allowing a more lenient standard and schedule based on the state's unique circumstances or cost or reliability factors.

EPA's CO₂ Emission Guidelines sets firm carbon reduction standards that must be met by each state beginning in 2020 and accelerating through 2030, and excludes "case by case" exceptions based on factors discussed in federal implementing regulations. These factors include: (1) unreasonable costs of control resulting from plant age, location, or basic process design; (2) the physical impossibility of installing necessary control equipment; or (3) other factors that make application of a less stringent standard or final compliance time significantly more reasonable.

The EPA CO₂ Emission Guidelines do not allow states to set their own carbon performance standards. This ignores the fact that states believe they have primacy pursuant to Section 111(d) in determining what standards should apply based on unique state circumstances.

According to EPA Administrator McCarthy, unless a state can show that EPA's data related to its four building block approach is flawed, EPA will not entertain a less stringent carbon reduction target. However, the state-specific data provided in EPA's proposed rule relates to meeting the carbon reduction standard, not cost or reliability. This does not afford states the opportunity to request EPA consideration of a less stringent standard based on cost or reliability factors.

The majority of states enacting resolutions or legislation regarding Section 111(d) would limit the carbon reduction standard to what is reasonably achievable inside the fence, i.e., at the EGU source. However, three of EPA's four building blocks reside outside the fence, and EPA's CO₂ Emission Guidelines do not allow for a state to deviate from its carbon reduction mandate by analyzing what is achievable at the source.

States have directed their environmental agencies to consider less stringent carbon reduction standards and compliance schedules based on cost; effect on electric rates, jobs, low-income populations, and the economy; effect on reliability of the system; engineering considerations; and other factors unique to the state. Based on language in the CO₂ Emission Guidelines, it does not appear that EPA will entertain variance requests that are based on any of these factors.

States that passed resolutions or legislation inconsistent with the EPA's CO₂ Emission Guidelines will not be able to comply with both legislatively-expressed declarations and EPA's mandate. EPA will either choose to revise its proposed rule to respect the rights asserted by the states, or reject these state assertions and invite litigation. States are then left in the impossible dilemma of ignoring state law to follow EPA's prescribed mandate, which would, by definition, be an illegal act by a state agency.

I. Introduction

In our earlier White Paper, "State Implementation of CO₂ Rules," we discussed the significant institutional hurdles faced by states in implementing EPA's proposed rule to regulate carbon dioxide emissions (CO₂ Emission Guidelines) from electric generating units (EGUs). Briefly, we concluded:

- States will need to pass legislation to make it possible for state air regulators and utility regulators to implement the rule;
- Traditional non-state jurisdictional utilities will need to be made part of a unified "Carbon Integrated Resource Planning" (IRP) process;
- States pursuing a multi-state solution will need to enter into an Interstate Compact to make the rule enforceable, which will likely require congressional approval.

That White Paper of necessity elided some of the more nuanced state institutional questions embedded in the rule. Here, then, we embark on a follow-on series to explore some of those specific state issues.

The Opening Question for this Paper is:

How can states that have passed legislation or resolutions detailing how they will approach rule implementation "inside the fence" – and according to individual state policies, energy needs, resource mixes, and economic priorities – deal with EPA's proposed rule?

II. State Versus EPA-Defined "Flexibility"

On June 2, 2014, EPA issued its CO₂ Emission Guidelines under 42 U.S.C. § 7411(d) of the Clean Air Act (CAA) (Section 111(d)). Before that date, 18 state legislatures passed either legislation or resolutions¹ addressing the anticipated CO₂ Emission Guidelines. In virtually every case the legislatures requested or insisted that EPA respect state primacy in setting performance standards under Section 111(d), or allow

¹ As set forth below, five state legislatures passed bills that were signed by the governor, and thirteen state legislatures passed resolutions. Eight of these resolutions were passed by both the house and senate chambers, and five were passed by one of the two chambers.

the state maximum flexibility to implement carbon standards, including allowing a more lenient standard and schedule based on the state's unique circumstances, cost or reliability factors.

EPA effectively rejected these state requests and the notion of state primacy in its proposed CO₂ Emission Guidelines. The Guidelines set firm carbon reduction standards that must be met by each state beginning in 2020 and accelerating through 2030. The Guidelines also obviate the states' ability, promulgated in the Section 111(d) implementing regulations, to seek "case-by-case" exceptions (also called "variances") based on factors such as: (1) unreasonable costs of control resulting from plant age, location, or basic process design; (2) the physical impossibility of installing necessary control equipment; or (3) other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time significantly more reasonable. Finally, EPA's proposed rule rejects the possibility of a less stringent standard or final compliance time.² Instead, the proposed rule requires that state Section 111(d) plans show "achievement of emission performance equivalent to the goals established by the EPA, on a timeline equivalent to that in the emission guidelines."

It is unclear whether EPA will revise its final rule to allow for these exceptions, or more lenient carbon reduction standards or compliance time. Initial signals from the agency are not promising. Robert Kenney, Chair of the Missouri Public Service Commission, asked the following question of EPA Administrator Gina McCarthy at the National Association of Regulatory Utility Commissioners (NARUC) Conference in Dallas on July 14, 2014: "If a state does its own modeling and determines that it can't reach the target at a reasonable cost, will the EPA entertain a less stringent target that is proposed by a state?" Administrator McCarthy's response in full is as follows (emphasis supplied):

Well I think that what we did was, we tried to identify what we thought was reasonable and appropriate and get it one way, but allow the states every flexibility to get it in more creative ways. And by doing that we think we met the underlying requirements in the statute *so there wouldn't be a*

² See EPA's CO₂ Emission Guidelines, at 520.

second opportunity to look at costs unless you think we blew the first analysis. Okay, so it's really important, and I don't want to say this casually, it's really important to take a look at the underlying analysis for the states, take a look at it. Did we miss it, were the numbers not right? We've teed up a couple of alternatives which we're open to, because there's a lot here, and so take a look at it. There is two things to consider. One is, did we get this framing correct? But very importantly out of the gate is the data question. And so that's what led us to believe that we could do this in a way that was reliable and affordable, and the reliability and affordability of the electricity sector is not something that we're going to compromise. And so *we don't think it's required, we think there's ways in which we can move forward and we've shown that.* But if you see any problems with that data we really would like to see it soon and see if there's other things that we can consider.³

Administrator McCarthy's response strongly suggests that EPA will not entertain a less stringent target unless a state can show that EPA's data is flawed. Notably, the data provided by EPA in its proposed rule relates to the EPA's four "building blocks"⁴ as one approach to meet the carbon reduction standard. However, EPA did not attempt to estimate the cost impact to any individual state in its CO₂ Emission Guidelines. Accordingly, there can be no "second opportunity" for a state to request EPA review of costs because EPA has not analyzed state-by-state costs as part of its "first analysis." Thus, a state showing that electric rates will substantially increase as a result of complying with EPA's carbon reduction mandate cannot be a basis for a less stringent standard or compliance schedule under the proposed rule.

³ Remarks of EPA Administrator Gina McCarthy at NARUC Summer Conference in Dallas Texas, July 14, 2014. We believe our contemporaneous notes faithfully represent these remarks and Chairman Kenney's question of Administrator McCarthy.

⁴ EPA calculated the CO₂ performance goal using four "building blocks": (1) assuming a six percent heat-rate efficiency improvement to each existing coal-fired EGU; (2) assuming a 70 percent capacity utilization rate for combined-cycle gas-fired EGUs; (3) calculating a renewable portfolio standard (RPS) based on the average RPS of states in the same region of the country, and assuming usage of nuclear power plants based on existing and expected nuclear units; and (4) assuming a one and one-half percent per year reduction in electric usage through demand-side management (DSM) measures.

If a state's only basis to challenge the CO₂ Emission Guidelines is the EPA's data on the four building blocks approach to emission reduction, then factors other than cost likewise cannot provide a basis for a variance. Factors such as system reliability, physical possibility of installing necessary control equipment, or other factors specific to the facility (or class of facilities) that make application of a less stringent standard or final compliance time more reasonable are excluded by EPA. Because EPA did not undertake unit-specific or state-specific analyses to determine whether meeting the carbon reduction standard will result in reliability or other problems, there is no data on these issues that a state can contest. The only issue for which the EPA provided state-specific data is whether a state can achieve the carbon reductions mandated in the proposed rule.

Even if a state can show flaws in the four building blocks data as applied to the state, it is not clear this would be sufficient to obtain a variance. Beyond EPA's denial of "case-by-case" exceptions, Administrator McCarthy stressed at the NARUC conference that the EPA's four building blocks approach is just "one way" to meet the standards. It is unknown whether a state would need to show that other possible "ways" of meeting the standard also are unworkable to obtain a variance. For example, if a state shows that the 70 percent gas combined cycle dispatch assumption (in Building Block 2) is not achievable because of, say, gas pipeline infrastructure, electric transmission constraints, or need for the gas capacity to load-follow intermittent resources, a state may still be able to achieve the carbon reduction mandate by shuttering a number of coal generation plants. It may be that states will have to prove impossibility of meeting the performance targets from any of the four pathways outlined in EPA's proposed rule⁵ before EPA would consider flexibility.

We conclude that, while EPA's CO₂ Emission Guidelines may provide "flexibility" on the issue of how a state goes about meeting its carbon reduction mandate, the Guidelines do not allow for a less

⁵ In its State Plan Considerations Technical Support Document, EPA proposes four "state plan pathways": (1) rate-based CO₂ emission limits; (2) mass-based CO₂ emission limits; (3) a state-driven portfolio approach; and (4) a utility-driven portfolio approach. The EPA's four building blocks suggestion is one portfolio approach, which includes "emission limits for affected EGUs along with other enforceable end-use energy efficiency and renewable energy measures that avoid EGU CO₂ emissions."

stringent carbon reduction standard or compliance schedule based on a state showing of expected increase in electric rates, system reliability issues, physical impossibility of installing controls, or other factors based on a state's unique circumstances.

The state institutional dilemma arises because EPA's proposed rule contravenes the legislatively expressed expectations of 18 states for state primacy and EPA flexibility, as well as the Section 111(d) implementing regulations.

Accordingly, states with resolutions or legislation inconsistent with the EPA mandates will be placed in a very difficult position. State environmental agencies must follow state statute, and arguably should follow the language of legislatively-passed resolutions. To the extent they do so and their actions are inconsistent with the CO₂ Emission Guidelines, EPA will either choose to revise its proposed rule to respect the rights asserted by the states, or reject these state assertions. If EPA takes the latter course, then it may be impossible for states to comply with both the EPA CO₂ Emission Guidelines and the directives of their legislatures.

III. Legislation and Resolutions of 18 States

The following state legislatures passed either legislation or a resolution consistent with their reasonable expectation that the EPA CO₂ Emission Guidelines will preserve state rights and flexibility under Section 111(d) of the CAA:

Legislation

1. Kansas – House Bill 2636
2. Kentucky – House Bill 388
3. Louisiana – Act 726
4. Missouri – House Bill 1631
5. West Virginia – House Bill 6346⁶

⁶ Notably, the Ohio State House unanimously passed House Bill 506, although it was not passed by the Ohio State Senate. Ohio State House Bill 506 is similar to the legislation passed in Kansas, Kentucky, and West Virginia.

Resolutions⁷

6. Alabama – Joint Resolution 57
7. Arkansas - Senate Resolution 2*
8. Arizona – Concurrent Resolution 1022
9. Florida – SM 1174
10. Georgia – House Resolution 1158
11. Illinois - House Resolution 0782*
12. Indiana - House Resolution 11*
13. Nebraska - Legislative Resolution 482
14. Oklahoma - Concurrent Resolution 39
15. Pennsylvania - House Resolution 815*
16. South Dakota - Concurrent Resolution 1022
17. Tennessee - House Joint Resolution 663*
18. Wyoming – Senate Joint Resolution 1

* Not Concurrent with other chamber

Consistent themes emerge from these legislative pronouncements. The overwhelming majority of these 18 states demand that the EPA respect state primacy in setting CO₂ performance standards, look at the individual circumstances of each state, and allow more lenient carbon reduction performance based on cost and other considerations. Many states also limit the carbon reduction goal to measures achievable “inside the fence” (*i.e.*, at the EGU source), disallow fuel switching at the EGU to meet the goal, require that any assumed technology to meet the goal be commercially demonstrated, and apply separate standards for coal and gas generation units. As explained below, it appears that virtually all of these expectations have been rejected in EPA's proposed CO₂ Emission Guidelines.

A. State Primacy

The states that passed resolutions and legislation concerning Section 111(d) assert primacy in

⁷ To be sure, a Resolution is hortatory, not mandatory, like a law. Nevertheless, a state agency has some obligation to follow the policy direction set by the legislature.

determining what legally-enforceable carbon performance standards apply in each respective state. This is consistent with the plain language of the federal Section 111(d) implementing regulations. For example, Alabama Joint Resolution 57 states that the EPA “must maintain Alabama’s and other states’ authority as provided by the Clean Air Act, to rely on state regulators to develop performance standards for carbon dioxide emissions that take into account the unique policies, energy needs, resource mix, and economic priorities of Alabama and other states.” Florida also urged EPA to “respect the primacy of Florida and rely on state regulators to develop performance standards for carbon dioxide emissions” that take into account Florida’s unique policies, needs and priorities. Resolutions passed in Illinois, Indiana, Nebraska, Oklahoma, Pennsylvania, South Dakota, Tennessee, West Virginia, and Wyoming contain nearly identical language.

Similarly, Georgia and Kentucky found that “Congress charges the states, not EPA, with establishing standards of performance under [Section 111(d)] of the federal Clean Air Act.” The State of Arkansas “urges EPA to withdraw the proposed guidelines for reducing carbon dioxide emissions from fossil fuel-fired power plants under [Section] 111(d) of the Clean Air Act and propose new guidelines that respect the primacy of the State of Arkansas to determine the emission reduction requirements that are in the best interest of its citizens.” The remainder of the 18 states either explicitly or implicitly presume that their state agencies, not the EPA, will set the applicable carbon reduction standard.

As described above, EPA’s CO₂ Emission Guidelines reject the notion that states have any authority in setting the carbon emission standard. Instead, EPA has set the numeric carbon emission pounds per Megawatt hour limit for each state from 2020 through 2030. EPA’s proposed rule further provides that the agency will evaluate and approve state plans based on four general criteria: 1) enforceable measures that reduce EGU CO₂ emissions; 2) projected achievement of emission performance equivalent to the goals established by the EPA, on a timeline equivalent to that in the emission guidelines; 3) quantifiable and verifiable emission reductions; and 4) a process for biennial reporting on plan implementation, progress toward achieving CO₂ goals, and implementation of corrective actions, if necessary.⁸

No latitude is provided for states to either set their own carbon reduction standard or deviate from the goals established by EPA.

B. Inside the Fence

The majority of states that passed a resolution or legislation regarding Section 111(d) would limit the carbon reduction standard to what is reasonably achievable inside the fence, *i.e.*, at the EGU source. For example, Alabama, Florida, Illinois, Indiana, Nebraska, Oklahoma, Pennsylvania, South Dakota, Tennessee, West Virginia, and Wyoming passed resolutions that convey that EPA should “approve state-established performance standards that are based on reductions of carbon dioxide emissions determined to be achievable by measures undertaken *at fossil-fueled electric generating units*,” or language to the same effect.

Similarly, Louisiana and Missouri passed legislation directing their state environmental agencies to set the standard of performance based on reductions in emissions of carbon dioxide that can reasonably be achieved through measures undertaken *at each fossil fuel-fired electric generating unit*, including efficiency improvements. In each case the legislation allows utilities and EGUs to *implement* the standard through outside the fence measures, but the *setting* of the standard may only consider what is achievable inside the fence.

Three of EPA’s four building blocks reside outside the fence. Perhaps recognizing that inside the fence measures are insufficient to meet EPA’s 30 percent carbon reduction goal by 2030, only one building block assumption -- average heat rate improvement of six percent for coal-fired EGUs -- is source-focused. Building blocks 2, 3 and 4 of the CO₂ Emission Guidelines assume that utilities can meet certain outside the fence metrics. Although the proposed rule does not require states and utilities to actually implement these metrics, they are the root of each state’s CO₂ performance goal.

The EPA’s CO₂ Emission Guidelines do not allow for a state to deviate from its carbon reduction mandate by analyzing what is achievable at the source. EPA has assumed that greater carbon reductions may be achieved by looking outside the fence, so states must presumably employ these tools.

⁸ CO₂ Emission Guidelines at 46 (emphasis supplied).

EPA has effectively rejected state resolutions and legislation that would afford the states flexibility to focus their carbon reduction efforts on what is reasonably achievable at the source. Whether EPA may lawfully force states to look at outside the fence measures or essentially require the closure or fuel switching of EGUs is in serious question given the focus on source-based emissions and state primacy in Section 111(d) of the CAA.

C. Variance Flexibility

Every state that passed resolutions or legislation requested that EPA grant "maximum flexibility" for states to set carbon reductions standards, implement the standards, or both.

The substantial majority of states passing legislation or resolutions express the right to an emissions reduction variance based on factors of cost, physical possibility, effect on local economy, and other factors unique to the state. These factors are based on the federal implementing guidelines, 40 C.F.R. § 60.24(f), which provides that states may make a case-by-case determination that a specific facility or class of facilities are subject to a less-stringent standard or longer compliance schedule due to: (1) cost of control; (2) a physical limitation of installing necessary control equipment; and (3) other factors making the less-stringent standard more reasonable.

However, EPA has rejected the possibility of granting a variance based on any of these factors. The CO₂ Emission Guidelines state at page 520 as follows:

The EPA therefore proposes that the remaining useful life of affected EGUs, and the other facility-specific factors identified in the existing implementing regulations, should not be considered as a basis for adjusting a state emission performance goal or for relieving a state of its obligation to develop and submit an approvable plan that achieves that goal on time.

Whether EPA may lawfully dismiss this implementing regulation is beyond the scope of this paper.

The state-passed resolutions and legislation assert a right to a variance. For example, the resolutions passed by Florida, Illinois, Indiana, Nebraska, Pennsylvania, South Dakota, Tennessee, and Wyoming would allow the state "to set less stringent performance standards or longer compliance schedules for fossil-fueled electric

generating units," or language to the same effect.

Kansas, Louisiana, and West Virginia passed statutes directing their state environmental departments to consider whether to adopt less stringent performance standards or longer compliance schedules for EGUs based on the following factors:

- (1) Consumer impacts including any disproportionate energy price increases on lower income populations;
- (2) Unreasonable costs of reducing emissions of carbon dioxide resulting from the age, location, or basic process design of the electric generating unit;
- (3) Physical difficulties with or the impossibility of implementing emission reduction measures for carbon dioxide;
- (4) The absolute cost of applying the performance standard to the electric generating unit;
- (5) The expected remaining useful life of the electric generating unit;
- (6) The economic impacts of closing the electric generating unit, including expected job losses, if the unit is unable to comply with the performance standard; and
- (7) Any other factors specific to the electric generating unit that make application of a less stringent performance standard or longer compliance schedule more reasonable.⁹

Apart from granting variances, several states list cost and reliability as factors that should be considered in the initial setting of the carbon emissions reduction standard. These states include the ones listed above, as well as Georgia, Kansas, and Kentucky.

⁹ West Virginia's statute adds the additional factors of: (1) Non-air quality health and environmental impacts; (2) Projected energy requirements; (3) Market-based considerations in achieving performance standards; and (4) Impacts on the reliability of the system. Missouri's statutory factors include the ones listed in the federal implementing guidelines, as well as (1) the absolute cost of applying the emission standard and compliance schedule to the existing affected source; (2) the outstanding debt associated with the existing affected source; (3) the economic impacts of closing the existing affected source, including expected job losses if the existing affected source is unable to comply with the performance standard; and (4) the customer impacts of applying the emission standard and compliance schedule to the existing affected source, including any disproportionate electric rate impacts on low income populations.

State laws direct their environmental agencies to consider less-stringent carbon reduction standards and compliance schedules based on such factors as cost; effect on electric rates, jobs, low-income populations, and the economy; effect on reliability of the system; engineering considerations; and other factors unique to the state. The EPA appears to have foreclosed the possibility of considering these factors in its proposed rule.

D. Other Factors

States have asserted several other rights associated with Section 111(d) of the CAA, including disallowing fuel switching (*e.g.*, from coal to gas), co-firing with other fuels, or decreased unit utilization as bases to meet carbon reduction standards (Kansas, Kentucky, Louisiana, West Virginia); precluding the assumption of technology that is not adequately demonstrated as a basis for carbon reduction (Georgia, Kansas, Kentucky, Louisiana, West Virginia); and the right to set carbon reduction standards separately for coal and gas-fired EGUs (Kansas, Kentucky, West Virginia).

In sum, the states' views and the EPA's proposed rule essentially talk past one another. The states assert rights and direct their agencies how to approach analysis under 111(d), and the EPA proposal expects a State Implementation Plan (SIP) that goes beyond those boundaries expressed in state law.

This gives rise to the question of what rights a state has if the four building block assumptions prove to be inaccurate or impractical for the state. If a state cannot reasonably achieve the mandated carbon reduction through increased renewable energy, demand side load reduction, increased utilization of gas-fired combined cycle units, and heat rate improvements to coal EGUs, it may need to look at the very measures precluded by legislation, such as fuel switching, decreased utilization of certain EGUs, and attempting to use technology that has not been adequately demonstrated. EPA's rejection of legislatively-passed declarations and statutes places states agencies tasked with implementing the rules in a very difficult position.

IV. **State Agencies Bound to Follow State Law**

Given the state resolutions and legislation discussed above, state agencies may find themselves in the unenviable position of not being able to follow both the EPA mandate and state legislative pronouncements. In such a case, state agencies are bound to follow

applicable state legislation.¹⁰

Put another way, a state agency cannot conduct a preemption analysis and declare that a state law directing how the agency should perform its Section 111(d) determination must give way to a rule promulgated by EPA. State environmental agencies may not, for example, ignore statutory commands to set carbon reduction standards based on what is reasonably achievable in light of cost, reliability, and engineering considerations.

The state statutes that have been rejected by EPA control the state agencies that will conduct Section 111(d) proceedings. The eight resolutions passed by state legislatures (and five by one chamber of state legislatures) indicate that many states may pass new legislation in 2015 or 2016 that likewise collide with EPA's proposed rule. Two conclusions follow: (1) courts will likely decide which regulations are more consistent with the CAA, the state statute or EPA's proposed rule; and (2) EPA will either back down and respect state pronouncements, or subject these states to a federal implementation plan, or FIP. The latter choice also calls for court resolution.

V. **Initial Conclusions and Takeaways**

We offer these tentative conclusions and takeaways based upon the above analysis and discussion:

- 18 state legislatures passed either legislation or resolutions that EPA has rejected in its CO₂ Emission Guidelines.
- EPA's CO₂ Emission Guidelines sets firm carbon reduction standards that must be met by each state beginning in 2020 and accelerating through 2030, and denies "case by case" exceptions based on factors discussed in federal implementing regulations.

¹⁰ Some may argue that the state statutes discussed in this Paper create an impermissible obstacle that frustrates the federal purpose of the CAA and EPA's CO₂ Emission Guidelines. We see no such conflict. The state laws direct the appropriate state regulator to conduct specific analyses in formulating legally enforceable emission standards – a right explicitly reserved to the states under Section 111(d) and its federal implementing regulations. These state laws do not attempt to frustrate the federal purpose of the proposed CO₂ Emission Guidelines or put in place an impermissible obstacle to its implementation. Rather, they exert state primacy and the rights left to the states under Section 111(d).

- The EPA CO₂ Emission Guidelines do not allow states to set their own carbon performance standards, notwithstanding the fact that states believe they have primacy pursuant to Section 111(d) in determining what standards should apply based on unique state circumstances.
- According to EPA Administrator McCarthy, unless a state can show that EPA's data related to its four building block approach is flawed, EPA will not entertain a less stringent carbon reduction target. However, the state-specific data provided in EPA's proposed rule relates to meeting the carbon reduction standard, not cost or reliability. This does not afford states the opportunity to request EPA consideration of a less stringent standard based on cost or reliability factors.
- The majority of states enacting resolutions or legislation regarding Section 111(d) would limit the carbon reduction standard to what is reasonably achievable inside the fence, *i.e.*, at the EGU source. However, EPA's CO₂ Emission Guidelines do not allow for a state to

deviate from its carbon reduction mandate by analyzing what is achievable at the source.

- States have directed their environmental agencies to consider less stringent carbon reduction standards and compliance schedules based on cost; effect on electric rates, jobs, low-income populations, and the economy; effect on reliability of the system; engineering considerations; and other factors unique to the state. It does not appear that EPA will entertain variance requests that are based on any of these factors.
- States with resolutions/legislation inconsistent with the CO₂ Emission Guidelines will not be able to comply with both legislatively-expressed declarations and EPA's mandate. EPA will either choose to revise its proposed rule to respect the rights asserted by the states, or reject these state assertions and invite litigation. States are then left in the impossible dilemma of ignoring state law to follow EPA's prescribed mandate, which would, by definition, be an illegal act by a state agency.

Wilkinson Barker Knauer, LLP

rgifford@wbklaw.com

gsopkin@wbklaw.com

mlarson@wbklaw.com

1755 Blake Street

Suite 470

Denver, CO 80202

Phone 303.626.2350

Fax 303.626.2351

EPA's Climate Rules:

Central Planning for a More Expensive and Less Secure Future

BACKGROUND: EPA's climate rules require states to reduce carbon dioxide emissions from the electricity sector by an average of 30 percent nationally. Each state is prescribed an "electricity budget" based upon a complex web of assumptions that include future electricity demand, dramatic shifts in electricity supply sources, adding intermittent sources and reducing energy use.

1) EPA's plan is another step in the administration's policies designed to eliminate low cost and reliable electricity and replace it with more expensive and less reliable sources

- Reducing the diversity and reliability of nation's electricity supply will make our nation's energy supply more expensive by forcing out low cost coal electricity that supplies 40 percent of the nation's electricity and replacing it with higher cost and less reliable sources.
 - This will hurt U.S. economic recovery by making manufacturers less competitive.
 - Manufacturing will be hit with the one-two punch of higher electricity and natural gas costs.
 - Job losses will be significant as manufacturing moves overseas.
 - Families will be saddled with higher utility bills (electricity and natural gas) leaving them with less disposable income.
- States with the highest concentration of manufacturing are states that rely predominantly on low cost coal electricity.
 - Low cost coal electricity is the principal source in 30 states.
 - In the 17 states that receive more than half of their electricity from coal generation, electricity rates are on average 30 percent lower.
 - Low cost electricity keeps manufacturers globally competitive and generates high-wage jobs that pay well-above the national average.
- Middle income and lower income families and retirees will be hit hardest by substantially higher electricity and natural gas bills.
 - U.S. government data show that families with the average or lower than median income (approximately one-half of all households) spend 20 percent of their disposable income on energy—two to three times more than those families above the national median income.
- Electricity and natural gas prices will increase substantially across the nation and some regions will be at risk of brown outs. A recent study found that regulations EPA issued two years ago will have the following effects even before EPA's climate rules take hold:
 - Wholesale power prices will increase between 27-55 percent across the nation with the additional closure of power plants over the next two years. Higher natural gas prices could cost businesses and households another \$35 billion above the high costs experienced this past winter.
 - The combination of another cold winter and an unusually warm summer would cost consumers \$100 billion in higher electricity and natural gas prices.
- Preliminary studies of EPA's carbon reduction targets — using realistic estimates of efficiency improvements and renewable energy growth — conclude costs will be in the \$50 billion a year range (U.S. Chamber study). Annual job losses could total 225,000 from the implementation date to 2030.

2) The Costs are real, the benefits are not

- EPA does not claim—because it cannot—that the rule will make any material difference in global temperatures. Theoretically, the rule might at best result in a reduction in global concentrations of carbon dioxide of less than

one percent and theoretically reduce global temperatures by less than a hundredth of a degree.

- In the absence of any “climate benefits” EPA resorts to claiming indirect health benefits by engaging in a text book example of double counting benefits that are the product of other rules EPA has already issued.
 - The health benefits EPA claims are from the reduction of other emissions already regulated under the Clean Air Act.
 - These regulations set specific limits at a level to protect public health with an adequate margin of safety.
- EPA also pads its benefits calculation by counting theoretical benefits from a controversial formula called the “social cost of carbon”—and, a recent Brookings study found most of those speculative benefits occur in foreign countries, not the United States.
- There will be health effects from these rules—poorer health from lost jobs and lower standards of living caused by rising energy costs.
 - Studies find that a one percent hike in unemployment correlates with a two percent increase in premature deaths.
 - Policies that make energy more expensive and less accessible are not healthy.

3) EPA is attempting to completely overhaul and control States' electricity systems

- EPA says it doesn't tell states how to do it - but it tells them *what* to do: re-engineer their entire electricity systems based upon EPA-picked electricity sources that fit EPA's energy budget for each state.
 - EPA's state energy budgets are based upon complex and unproven assumptions about the future energy needs of each state; switching electricity generation to more expensive and less reliable sources; and, forced electricity rationing for businesses and households.
 - EPA's plan will result in increased electricity and natural gas prices as both the agency and the President now admit.
 - EPA lacks the competence—and legal authority—to regulate states' power supplies. But if a state is unable to meet EPA's budget and electricity formula, EPA can impose a federal plan that will control the state's electricity system.
- The same agency that grossly underestimated the severity of power plant closures from its 2012 rules now tells states not to worry about the impact of its far more vast carbon dioxide rule. EPA said its MATS rule would remove 5,000 megawatts of low cost coal electricity; in fact, the Department of Energy says it will be 12 times more: 60,000 megawatts—enough low cost power for 35 million homes.
- EPA is backing states into a cap-and-trade and carbon tax programs—two approaches EPA says are acceptable, but ones Congress has rejected. Other nations and some states are moving away from these schemes because they are creating energy poverty and destroying their domestic industries.
 - In California and New England, where cap and trade schemes are used, citizens and businesses have the highest electricity costs in the country.
 - In Europe, the combination of taxes, carbon trading and renewable mandates with subsidies have destroyed the competitiveness of major industries and pushed a larger portion of the population into fuel poverty.

4) Pushing the nation's electric grid over the edge

- EPA promises states “flexibility” but actually deprives them of the most meaningful flexibility by reducing their use of the lowest cost and most reliable sources of electricity generation and forcing reliance on more expensive, volatile and intermittent sources.

- Grid operators, utilities and state regulators are worried about the economic and financial ramifications of an electricity system becoming increasingly dependent on more volatile and less reliable sources of electricity supply.
 - *"The experience of this winter strongly suggests that our nation's bulk power system is at its limits"*—Phillip D. Moeller, commissioner, Federal Energy Regulatory Commission, April 10, 2014
 - *"Because less expensive coal generation is being replaced by high energy cost resources, excess generation will narrow and energy prices could become more volatile due to increasing reliance on natural gas for electricity generation"*—Michael Kormos, PJM Interconnection, April 1, 2014
 - *"EPA rules will lead to higher prices and less reliable service over time"*—Anthony Alexander, CEO, First Energy, April 8, 2014
 - *"The unreliability of gas, wind and solar provided the lesson that fuel diversity is needed for reliability as well as for other policy reasons"*—John Sturm, Alliance for Cooperative Energy Services, April 1, 2014
 - *"It became clear that we are having to make a choice in the winter between committing natural gas resources to generating electricity or to heating homes"—we face a very real possibility that we will have to make that choice more often in the future*—Nick Akins, CEO, American Electric Power, April 10, 2014
 - *"The flexibility of having a diverse source of electricity generation with coal fueled plants saved Southern Company customers more than \$100 million in the first three months of 2014 alone"*—Tom Fanning, CEO, Southern Company, April 30, 2014

5) Emissions can be reduced without damaging the economy or the electric grid

- A more balanced approach would continue the trend of emissions reduction and preserve electricity supply diversity with policies that allow the use of advanced coal technologies.
 - New higher efficiency coal plants will reduce emissions up to 30 percent as compared with the older plants they will replace.
 - This approach would be entirely consistent with EPA's emphasis on increasing the efficiency of power generation—but is precluded by EPA's earlier proposal that bans new coal power plants unless they use unproven technology.
- Greenhouse gas emissions from power plants have already been reduced below levels from a decade ago. Committing the U.S. to unilateral reductions would be a symbolic, but expensive, gesture.

Pushing the Electric Grid Over the Edge

Power companies, electric grid operators and the federal body charged with ensuring the reliability of the nation's electricity grid have all warned that this past winter provided the latest signal that the reliability and affordability of our nation's electricity is at grave risk. The Federal Energy Regulatory Commission's (FERC) chairman observed that the electric grid came "very close to the edge" of breaking. Another FERC commissioner concluded that the power grid is already "at the limit." The reason: Environmental Protection Agency (EPA) regulations are forcing the closure of coal-based electricity plants that supply the most and the lowest cost electricity for the country.

This winter wasn't even the coldest in recent memory. Nevertheless, power supplies were curtailed and electricity and natural gas prices spiked in many regions. The power system would have gone over the edge were it not for coal generated electricity that filled 92 percent of the additional demand. One of the nation's largest power providers reported that having the flexibility and reliability of coal electricity saved its customers more than \$100 million this winter. But much of this power and related savings came from power plants that will be forced to close over the next two years thanks in large part to EPA regulations issued two years ago.

At congressional hearings the common refrain was what would happen if we experience a similarly cold winter two years from now when these coal power plants are no longer available to generate electricity. A recent [study](#) answers that question and the outlook is very grim.

- Wholesale power prices would increase by an additional 24-55 percent across the [country](#).
- Natural gas demand would increase to record levels and consumers and businesses would pay an additional \$35 billion over and above the higher prices they paid this winter.
- If another cold winter is followed by a warmer than forecasted summer, consumers would pay \$100 billion more for both electricity and natural gas.
- In New England, power reserve margins would have been negative, requiring forced curtailments for 16 hours. In a 13-state region spanning the Mid-Atlantic and Midwest, power supplies would have been dangerously close to forcing power curtailments for 34 hours in January.

Despite rules already on the books that have brought the power grid close to the edge, EPA is now proposing additional regulations that will surely push the grid over the edge. EPA's newest rules on carbon dioxide emissions place each state on a strict energy budget and dictate the sources of electricity generation and the targets for reducing electricity use needed to keep the economy growing. Many of the EPA-chosen sources of electricity were the very ones that couldn't deliver power this winter. EPA's policies are designed to make our electricity supply less diverse, less reliable and more expensive—a result that forces Americans to live more dangerously.

Electricity Grid Reliability: Close to the Edge

Harsh Winter Exposes Threats from EPA Policies

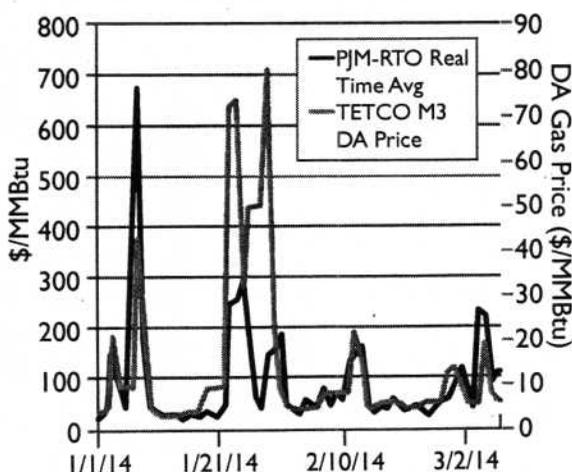
As U.S. Environmental Protection Agency (EPA) regulations force more coal based power plants to close, Americans will pay more for their power and heat according to utility executives. Recent harsh weather exposed the threat from EPA's rules—a less diverse, less reliable and more expensive electricity supply.

Winter 2013-14: A Warning Signal

Electricity consumers in nearly every region of the United States this winter experienced calls from electric utilities to turn down their thermostats and turn off their lights because the power supply system was being stretched to its limits. Despite their efforts, customers will be receiving higher electric and heating bills in the future.

According to Federal Energy Regulatory Commission acting Chairman Cheryl LaFleur the electricity grid was "close to the edge" of breaking. Her colleague, Commissioner Phillip Moeller, has said that "the power grid is now already at the limit" with so many retirements of coal base load power plants as a result of EPA rules. Power company executives warn that future EPA rules for greenhouse gases will make matters even more precarious and expensive.

Natural Gas Prices Soar



SOURCE: U.S. Federal Energy Regulatory Commission analysis of ICE data.

The Cost of EPA Bringing the Grid to the Edge

The Department of Energy estimates that EPA rules that take effect next year will force several hundred coal-based electricity plants to close—plants that have the capacity to power and heat 32 million homes. Pending EPA rules for greenhouse gases could close another 100 power plants. This past winter provided a preview of the future if EPA continues with extreme regulations:

- With fewer coal electricity plants available due to retirements, demand for natural gas reached record levels to heat homes and generate electricity. Natural gas prices spiked to as much as \$123 per million Btu (compared to \$3 to \$5 per million Btu on a normal day).
- Electricity prices reached record levels soaring as high as \$2,000/MWh in some regions. The prime factor leading to high electric prices in the East and Midwest was historically high natural gas prices.
- Coal base load electricity availability and reliability exceeded natural gas, wind and solar generation. Many coal plants that are being forced to close next year due to EPA regulations were running at 90 percent of their capacity.
- Future EPA regulations could force additional coal plant closures that will lead to both greater electric reliability deficiencies and higher costs for consumers.
- The closure of additional coal base load power plant will force more frequent choices between committing natural gas to generating electricity or heating homes.

What Experts Are Saying About Electricity Reliability and Affordability

"EPA rules . . . will lead to higher prices and less reliable service over time. As a result of the US EPA's mercury and air toxic standards, an estimated 376 coal-based units will close in 38 states over the next three to five years—nearly 17 percent of our nation's coal fleet's capacity. And, there are additional EPA rules being considered that could have similar impacts on the fleet."

— Anthony Alexander, CEO, First Energy,
April 8, 2014

"Our latest winter exposed an increasingly fragile balance of supply and demand in many areas. Prices at times were extraordinarily high [and] consumers are now beginning to receive utility bills that in some cases are reportedly several times what they paid during similar periods in previous years. The experience of this winter strongly suggests that parts of the nation's bulk power system are in a more precarious situation than I had feared in years past."

— Philip D. Moeller, commissioner, Federal Energy
Regulatory Commission, April 10, 2014

"Coal and nuclear plant availability far exceeded gas-fired plant, wind, and solar availability and provided much needed system stability and reliability during emergency conditions. The unreliability of gas, wind, and solar provided the lesson that fuel diversity is needed for reliability as well as for other policy reasons."

— John Sturm, Alliance for Cooperative Energy
Services, April 1, 2014

"Because less expensive coal generation is retiring and in part is being replaced by demand response or other potential high energy cost recourses, excess generation will narrow and energy prices could become more volatile due to the increasing reliance on natural gas for electricity generation."

— Michael Kormos, PJM Interconnection,
April 1, 2014

"It became clear that we are having to make a choice in the winter between committing natural gas resources to generating electricity or to heating homes. Right now, we cannot do both. Given the number of additional base load generating units that will be retired in the next 14 months, we face a very real possibility that we will have to make that choice more often in the future."

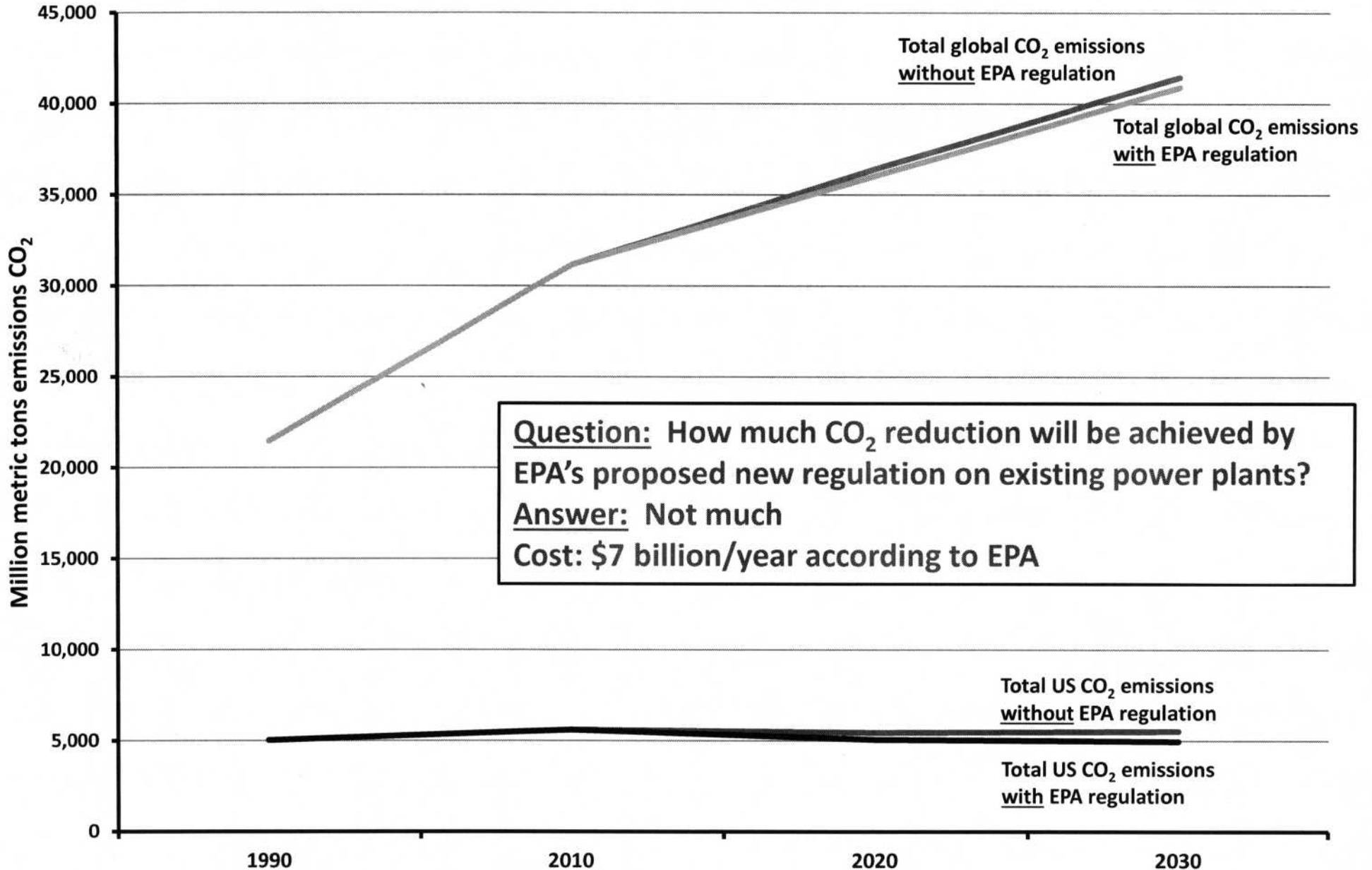
— Nick Akins, CEO, American Electric Power,
April 10, 2014

A common sense approach to grid reliability supports a balanced energy portfolio with coal, which generates more than 40 percent of our electricity—more than any other source in the U.S. today.

“Push back on misinformation. Speak up for the facts.”

What's Happening

August 29, 2014



Source: EPA Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units; Proposed Rule <http://www.regulations.gov/#!docketDetail;D=EPA-HQ-OAR-2013-0602>
US Energy Information Administration International Energy Outlook 2013. Table 21. World carbon dioxide emissions by region and country in Reference Case, 1990-2040
<http://www.eia.gov/forecasts/ieo/table21.cfm>