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STATE LEGISLATURES



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POWER SHIFT

**SENTENCING
REFORM**

**CAMPAIGN
FINANCE**

**PRESCRIPTION
DRUGS**

ETIC/EQC 111(d) SUBCOMMITTEE
ON FEDERAL CLEAN POWER PLAN
2015-2016

January 14, 2016

Exhibit 3

POWER SHIFT

States will have to work together to reach the new lower CO₂ emission standards for power plants in EPA's Clean Power Plan.

BY GLEN ANDERSEN

Glen Andersen directs NCSL's energy program.

Today's electric grid is undergoing a major transformation, driven by the availability of new technologies, low-priced natural gas and government regulations. A landmark EPA rule known as the Clean Power Plan is likely to accelerate these changes and could have the greatest impact on the electricity sector of any government regulation to date. Meeting the rule's requirements, if it survives legal challenges, is not going to be easy for many states.

The Clean Power Plan is part of President Obama's attempt to put the United States in a leading role in the global effort to address climate change. Its release in August 2015 preceded the U.N. Climate Change Conference in Paris, which resulted in the first global agreement signed by 196 countries to work to reduce greenhouse gas emissions.

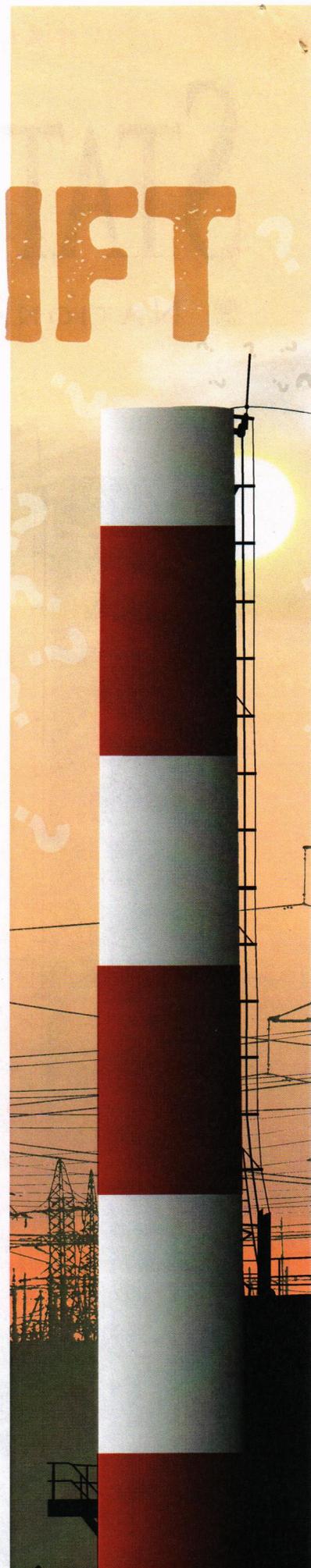
The Clean Power Plan's goal is to reduce U.S. carbon dioxide emissions from power plants by 32 percent by 2030. Every state has its own reduction target, and most will have to take legislative action to meet their goal while maintaining an affordable, reliable and resilient power supply.

Discord and Debate

Since the rule was proposed in June 2014, state lawmakers have debated how, and sometimes if, their states will comply with it. Critics argue that in order to meet the new requirements, utilities will be forced to retire coal plants for low-priced and lower-emitting natural gas and alternative energy sources. And that threatens jobs, electric rates, energy reliability and U.S. competitiveness in global marketplaces. They fear the new rule has the potential to devastate communities that rely on severance tax revenue from energy companies extracting, or "severing," coal from the ground.

Opponents also claim the administration has sidestepped the legislative process by imposing these reductions. States are able to harness new technologies to clean up America's energy better "than any federal regulation ever will," Minnesota Representative Pat Garofalo (R) stated after the rule was announced.

EPA officials respond that previous court actions require them





Representative
Pat Garofalo
Minnesota

to act on greenhouse gas emissions as part of its duties under the Clean Air Act. They acknowledge that the Clean Power Plan may have a negligible effect on global temperatures if other countries do nothing. But another aim of the rule, they say, is to show that the U.S. is committed to doing its part and to serve as a model to other nations. Indeed, the Clean Power Plan served as evidence of the U.S. commitment during the international climate negotiations last December.

The EPA's cost-benefit analysis found the rule would cause a 4 percent increase in electricity costs, a far smaller amount than the health benefits that accrue from the plan, which will reduce particulates, mercury and smog-forming pollutants along with CO₂.

Warm and Warmer

With 2015 ranking as the warmest year on record and with the level of heat-trapping atmospheric CO₂ reaching 43 percent higher than pre-industrial levels, the administration asserts it is essential to act now to avoid potentially catastrophic warming.

The reduction plan also has the support of scientists—such as those at the National Academy of Sciences, the National Air and Space Administration and the National Oceanic and Atmospheric Administration.

The EPA tried to address the concerns of industry and the states—expressed in the record 4.3 million public comments it received—by incorporating a raft of changes into the final version of the rule. Many states remain unconvinced, however.

Twenty-seven states and many trade associations, utilities, coal companies and mining interests have filed lawsuits against the agency. The D.C. Circuit Court of Appeals, which had rejected earlier attempts to prevent the EPA from finalizing the rule, has combined the lawsuits into one and is expected to decide soon whether to grant the plaintiffs a stay while the case is litigated.

Cold Day for Coal

Coal-fired power plants are the larg-

est source of greenhouse gas emissions in the electric sector, emitting nearly twice as much CO₂ as natural gas plants of the same size. The rule, especially when added to other EPA regulations and low natural gas prices, makes coal a far less attractive energy source.

The rule sets targets for each state based on the energy mix in the state and the region. Some states are already on target to meet the standards, while others will need to change course dramatically. As one might expect, states that rely heavily on coal will need to make the largest reductions. Reduction targets vary widely—from 7 percent in Connecticut to 47 percent in Montana.



Representative
Don Parsons
Georgia

“Georgia faces one of the toughest compliance targets in the Southeast,” says Representative Don Parsons (R). “I understand that EPA’s own modeling projects the retirement of some 4,000 megawatts of coal generation in Georgia in the near term. If this rule is upheld, it will effectively take one of Georgia’s fuel options off the table.”

What's Ahead?

Some experts feel the Clean Power Plan is likely to “lock in,” rather than drive, industry transformation. “Coal-heavy states are already seeing their energy mix transformed markedly due to market conditions, notably the relative cost of natural gas,” says Ken Colburn, an adviser with the Regulatory Assistance Project. “Coal-heavy states by and large are likely to see relatively little incremental change in their energy mix, beyond what is already happening in the marketplace.”

The EPA predicts coal will produce about 30 percent of the nation’s energy in 2030, 21 percent less than today.

States must submit their reduction plans to the EPA by August 2016, unless they request a two-year extension to develop a multistate plan or simply need more time. Whether a state’s target is low or high, coordinating changes in the interconnected energy market—where actions in one state can affect compliance and reliability in another—will require thoughtful analysis

The Federal Side

The EPA's new carbon dioxide emissions regulations stem from a 2007 U.S. Supreme Court Case, *Massachusetts v. EPA*, in which the court determined that the agency could regulate CO2 emissions if it found that the gas endangered public health or the environment. The EPA issued its "endangerment finding" in 2009, based on Section 111 of the Clean Air Act, which requires the agency to develop regulations for sources—power plants, for example—that cause or significantly contribute to air pollution.

Section 111(d) establishes a process for the EPA and states to regulate emissions from already operating facilities. However, the new rule requires states to develop plans for a pollutant—CO2—for which there is no national ambient air quality standard. It is widely expected that the rule's legality will eventually be decided by the Supreme Court.

In addition, the House and Senate (based on the authority granted to them by the Congressional Review Act) passed resolutions of disapproval at the end of 2015 that would essentially prohibit the rule from going into effect. Such resolutions require a majority vote in each chamber to pass. President Obama, however, has threatened a veto, and overturning that would require the approval of two-thirds of each chamber. That is not expected.

The House and Senate FY 2016 appropriation bills for the EPA and the Department of the Interior contain provisions that would prohibit the EPA from using appropriated funds to finalize, implement or enforce the rule, though the recently unveiled omnibus appropriations bill did not contain any provisions affecting implementation or enforcement.

—Ben Husch and Melanie Condon

and the participation of many stakeholders, including those in neighboring states.

To Trade or Not to Trade?

States also need to choose whether they will join in interstate trading. This requires the creation of a market-based emissions trading system that allows emissions credits to be traded among power generators within the same state or across state lines. For some, the decision seems obvious. "Economists universally concur that larger market areas enable greater market opportunities—in this case greater compliance cost savings," Colburn says.

Using market-based approaches to reduce emissions is not new. One such market, created in the early '90s, let utilities and power generators trade sulfur dioxide emissions credits to comply with EPA rules. Generators with low compliance costs sold credits to those with higher costs, reducing total emissions for much less than it would have cost for each power plant to meet an individual target.

The market approach, which also allows interstate trading, addresses the interconnected, regional nature of the grid. "Interstate trading is going to be very important to coal-heavy states because it will likely reduce their compliance costs," says David

Hoppock, a senior policy associate with Duke University's Nicholas Institute for Environmental Policy Solutions.

The Clean Power Plan includes a trad-

ing-ready option that lets states participate in regional emissions markets. It's up to the state to decide how emissions credits will be distributed to energy producers and whether they are auctioned or given away. Since these decisions can have significant cost and policy implications, it is likely that state lawmakers will want to be involved.

Choices, Choices, Choices

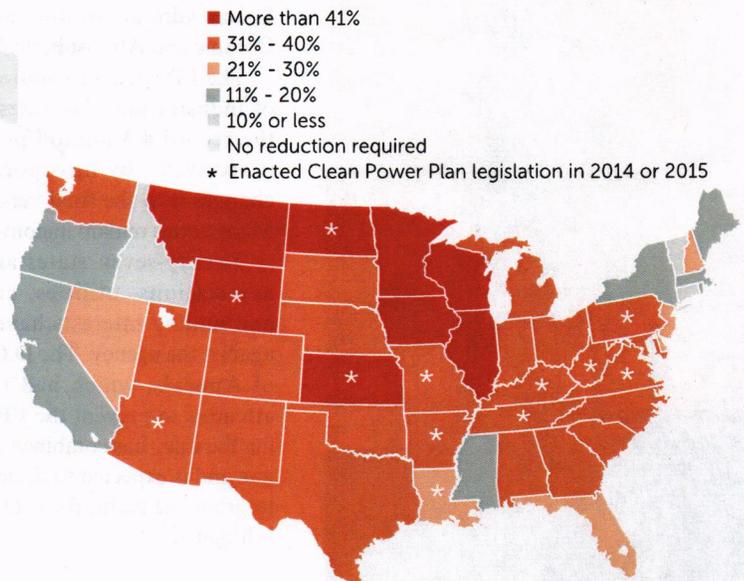
The rule allows states to tailor plans to their unique resources, preferences and energy mix. To track emissions, lawmakers can choose a mass-based or rate-based strategy, or one that uses both.

A mass-based approach sets an emissions compliance target in tons of CO2; a rate-based plan limits tons of CO2 emitted per kilowatt of electricity generated. This decision could have a significant effect on compliance costs, since mass-based states can't trade with rate-based states. The mass approach is easier to track, requires less accounting than a rate approach, and will likely cost less, according to economic modeling.

Ultimately, selecting the best choice

How Much?

The Clean Power Plan requires that by 2030, the states must cut CO2 emissions to 2012 levels. The portion of current emissions each state must cut varies greatly, but for eight states it's more than 41 percent. States that have passed legislation related to the federal rule are indicated with stripes.



Note: Between 2014 and 2015, another 22 states considered, but have not yet passed, legislation on the Clean Power Plan.

may depend on a state's resource mix and its goals. Since trading with other states may be essential to lowering costs, it will be important to coordinate the decision with potential partners.

In most states, governors have designated the department of environment to lead in developing plans and overseeing compliance with the Clean Air Act. Planning likely will involve utility commissions, energy offices, utilities, state legislators and other energy stakeholders.

"There is not one entity in Georgia with the unified authority to set state energy policy, direct utilities on fuel type decisions or to specify renewable or energy-efficiency programs," says Representative Parsons. "Mustering the political will for consolidation of this regulatory authority may be the heaviest lift Georgia faces in light of the significant consumer impacts that will result."

In Kansas, legislators enacted a bill authorizing the Department of Health and Environment—along with the Kansas Corporation Commission, electricity generating utilities and other stakeholders—to develop the state's compliance plan. "The authorization legislation also created a bipartisan, bichamber committee to monitor development of the state plan," says Kansas Representative Tom Sloan (R).

The committee's goals include informing the Legislature of the plan's details and ensuring it doesn't undermine the state's lawsuit against the EPA.

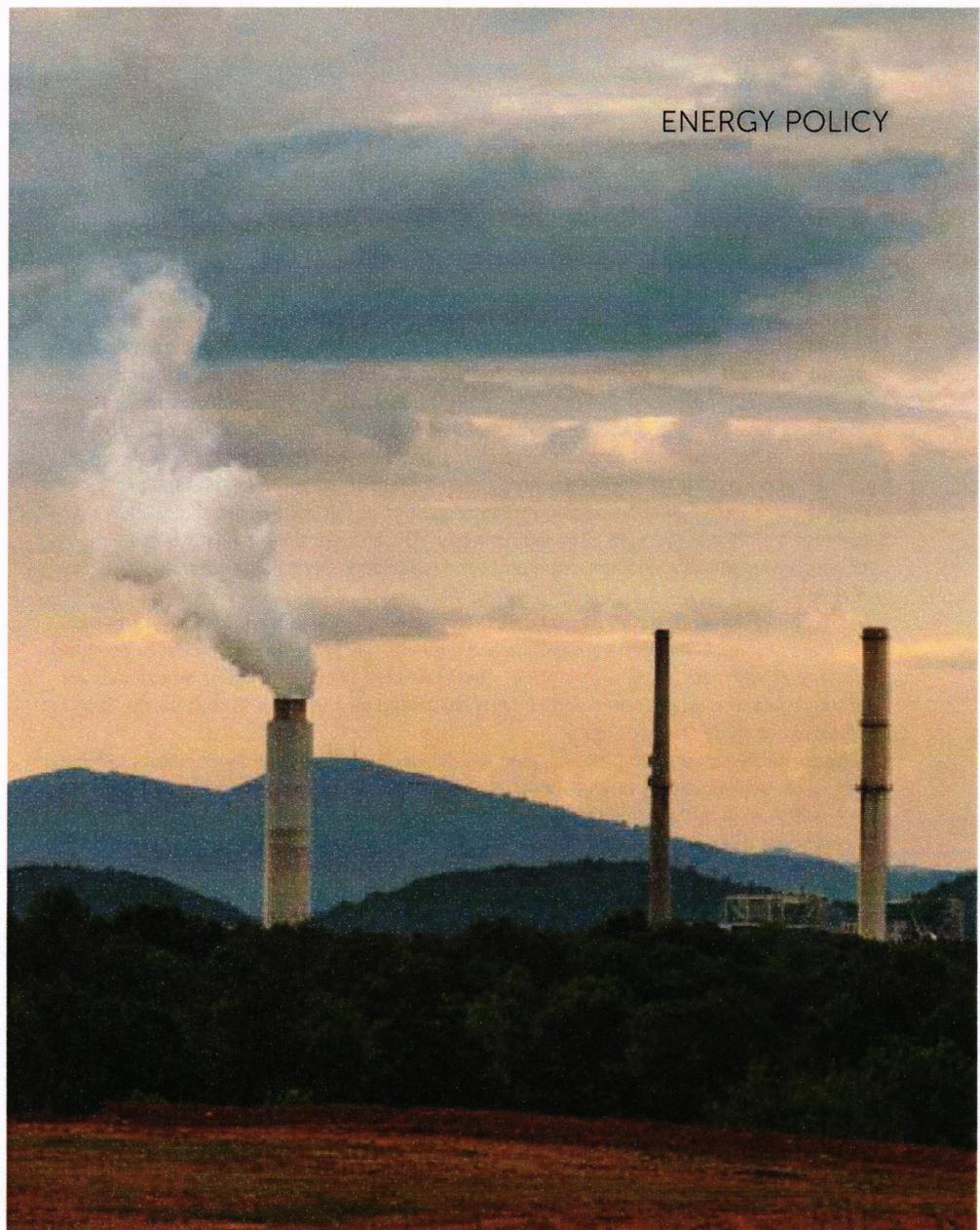


Representative
Tom Sloan
Kansas

Many States on Track

According to research by the Union of Concerned Scientists, 16 states already have policies in place that will help them exceed their 2030 goals, and four other states are set to be 75 percent of the way there. Nine of these states are in the Northeast and are members of the Regional Greenhouse Gas Initiative, which created an emissions trading market that helps fund investments in efficiency and renewable energy as well as assistance for low-income rate payers.

Many states are also helped by their efficiency and renewable energy standards. The completion of new nuclear units and



planned coal plant retirements are also playing a big role in some states.

"The Pacific Coast states and provinces have almost been in a nuclear-arms-like race against each other on climate change," says Washington Representative Jeff Morris (D), referring to California, Oregon, Washington and British Columbia. Washington is on track to meet Clean Power Plan goals without major change to existing policies because it has invested in improving efficiency and lowering carbon emissions for years. In 2007, the state created greenhouse gas reduction requirements and performance standards for utilities.



Representative
Jeff Morris
Washington

All states, including those on track to meet their reduction targets, will need to invest in new grid technology and transmission lines to accommodate a changing energy mix and ensure reliable delivery of electricity. For states that will need to significantly alter their energy mix to comply, it will be important to design a plan that doesn't result in stranded costs with the discovery of new resources or technologies. For most states, this means maximizing energy efficiency, which is the most inexpensive way to reduce emissions.

How Much Will it Cost?

Costs will vary according to each state's compliance approach, reduction requirement, energy mix, energy resources and approach to distributing emissions credits.

Snapshots of State Action

Although the new regulations compel state governments to submit an emissions reduction plan or risk the federal government implementing one for them, only certain proposed options provide a definitive role for state legislatures. Laws in some states require legislative review of state Clean Air Act implementation plans for some air pollutants, but they do not apply to the new CO₂ emissions regulations. Consequently, legislatures in many states are working out their responses to the Clean Power Plan. Options include enacting legislation to encourage energy efficiency or use of renewable energy, commissioning reports to understand the regulations' impacts or requiring that the legislature review a final state plan.

Last year, legislatures in 32 states considered more than 90 bills related to the proposed Clean Power Plan regulations; eight were enacted and, as this issue of State Legislatures went to press, a ninth was close. In 2014, legislatures in 23 states considered nearly 50 bills, many of which were introduced prior to the proposed regulations' June release. Ten were enacted that year.

Kentucky, which enacted legislation in 2014, requires the development of rate-based standards for individual generating units and prevents fuel switching from coal or co-firing other fuels with coal. Virginia law requires the state energy plan to include an examination of the regulations' impact on electricity producers and customers, and calls for the Division of Energy to study policy options.

Arizona lawmakers established a joint legislative committee to review any proposed state plan, seek public input and, ultimately, determine whether submitting a plan for EPA review is "in the public interest." Arkansas law calls for several reports from the state Department of Environmental Quality, requires legislative and gubernatorial approval of a state plan and establishes a reliability safety value.

Other states are considering legislation this year in response to the new regulations
—Jocelyn Durkay

States can select from a large menu of options to reach their target:

- Switch from coal to natural gas.
- Improve the efficiency of coal plants.
- Boost consumer energy efficiency.
- Buy emissions credits.
- Switch from coal to zero-emitting

resources, such as renewable or nuclear energy.

Energy efficiency has many benefits: It lowers customer bills; delays or eliminates the need to build new electricity generation plants and transmission lines; lowers emissions of other EPA-regulated pollutants,

including mercury and nitrogen oxides; and can increase the reliability of the grid.

Most states already have an energy efficiency target, and nearly one-third require utilities to meet 1 percent of their annual energy demand through efficiency. Energy efficiency also lowers costs for business and industry, making them more competitive nationally and globally.

Minnesota's efficiency programs have helped the state's largest utility, Xcel Energy, avoid adding 2,500 MW in new power plants since 1992. In the process, it averted the emission of more than 11,000 tons of nitrogen oxide and an economic burden of nearly \$2 billion, according to the National Research Council.

Looking Ahead

The new EPA rules, while flexible, still require state legislatures to reduce energy use through enforceable policies—trading credits, efficiency requirements, renewable standards—that fit their state's needs. Lawmakers must ensure that the right people are at the table and that solutions are adaptable, dynamic and reliable, all while weighing the impact decisions will have on the workforce and economy.

For some, the rule "creates uncertainty regarding future power supplies and overall reliability of our energy grid" and will result in "thousands of lost jobs and higher electric bills for families," according to Minnesota's Garofalo.

For others, it presents "long-term economic development opportunities," says Morris of Washington. He advises fellow lawmakers to consider ways of "maximizing job-creation opportunities instead of focusing solely on minimizing job losses."

Although the future is unclear, there is a global trend toward more efficient energy use and lower carbon emitting energy sources. The U.S. is in the vanguard of this trend, maintaining healthy GDP growth while industries and businesses operate more efficiently.

Is the Clean Power Plan a threat to economic growth and reliable electricity or an opportunity to harness new technologies and create new jobs?

One's perspective often depends on where one stands.

States Respond

When it comes to the Clean Power Plan, 27 states have sued EPA over it while 18 have filed in support of it.

