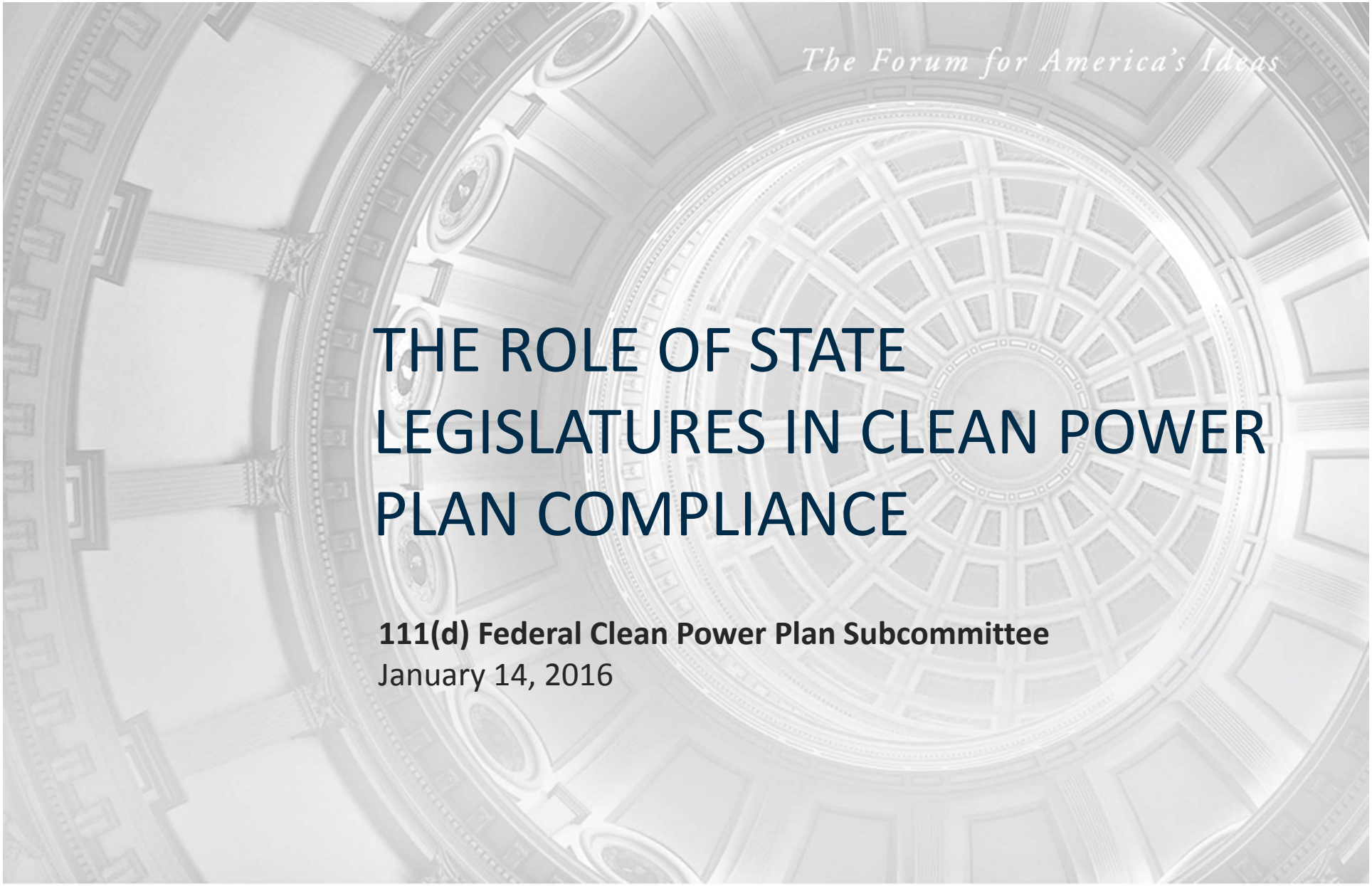


THE ROLE OF STATE LEGISLATURES IN CLEAN POWER PLAN COMPLIANCE

111(d) Federal Clean Power Plan Subcommittee
January 14, 2016

Overview

- The State Legislative Role
- Legislative Responses
- NCSL Resources

The State Legislative Role

State legislative involvement may be desired or required to:

- Ensure the planning process includes all stakeholders and that they work together to protect the interests of ratepayers.
- Pass policies that may be integral to executing a least cost compliance plan, such as energy efficiency requirements, streamlined transmission planning, and distributed generation policy.
- Craft plan components that create enforceable policies that cover IOUs as well as municipally and cooperatively owned utilities.
- Allow multi-state collaboration and trading as well as participation in emissions credits auctions.
- These decisions effect reliability, cost and economic development

More information at http://www.ncsl.org/default.aspx?tabid=28051

Timeline


Clean Power Plan Timeline
Summer 2015
• August 3, 2015 - Final Clean Power Plan
1 Year
• September 6, 2016 – States make initial submittal with extension request or submit Final Plan
3 Years
• September 6, 2018 - States with extensions submit Final Plan
7 Years
• January 1, 2022 - Compliance period begins
15 Years
• January 1, 2030 - CO_2 Emission Goals met

Critical Decisions for State Policymakers and Regulators

Multi-State Emissions Credit Trading A market mechanism that allows flexibility in both *where* and *when* CO_2 reductions occur and allows utilities/generators to develop system-wide compliance strategies rather than meeting limits at every facility.

- Multistate Market Participation or "Go it Alone?"
  - Analysis has shown that costs are far higher and that reliability may be a larger issue if states go it alone
  - Utilizing larger multi-state markets will likely reduce the burden on states with high reduction targets, lowering pressures for coal retirement in those states
  - Low cost states also "win" by selling emissions credits
  - State specific approaches may lead to more dramatic shifts in the local energy mix, requiring more infrastructure and reliability upgrades
  - The grid is regional and actions in one state can effect reliability and compliance options in another
  - Wider market will lower total cost since it allows more buyers and sellers, more resource diversity

Critical Decisions for State Policymakers and Regulators

Mass or Rate Based Compliance?

- Critical for unlocking the savings of multi-state collaboration
- Likely to effect the cost of administration and compliance.
- Rate-based tracking and trading is far more complex

Critical Decisions for State Policymakers and Regulators

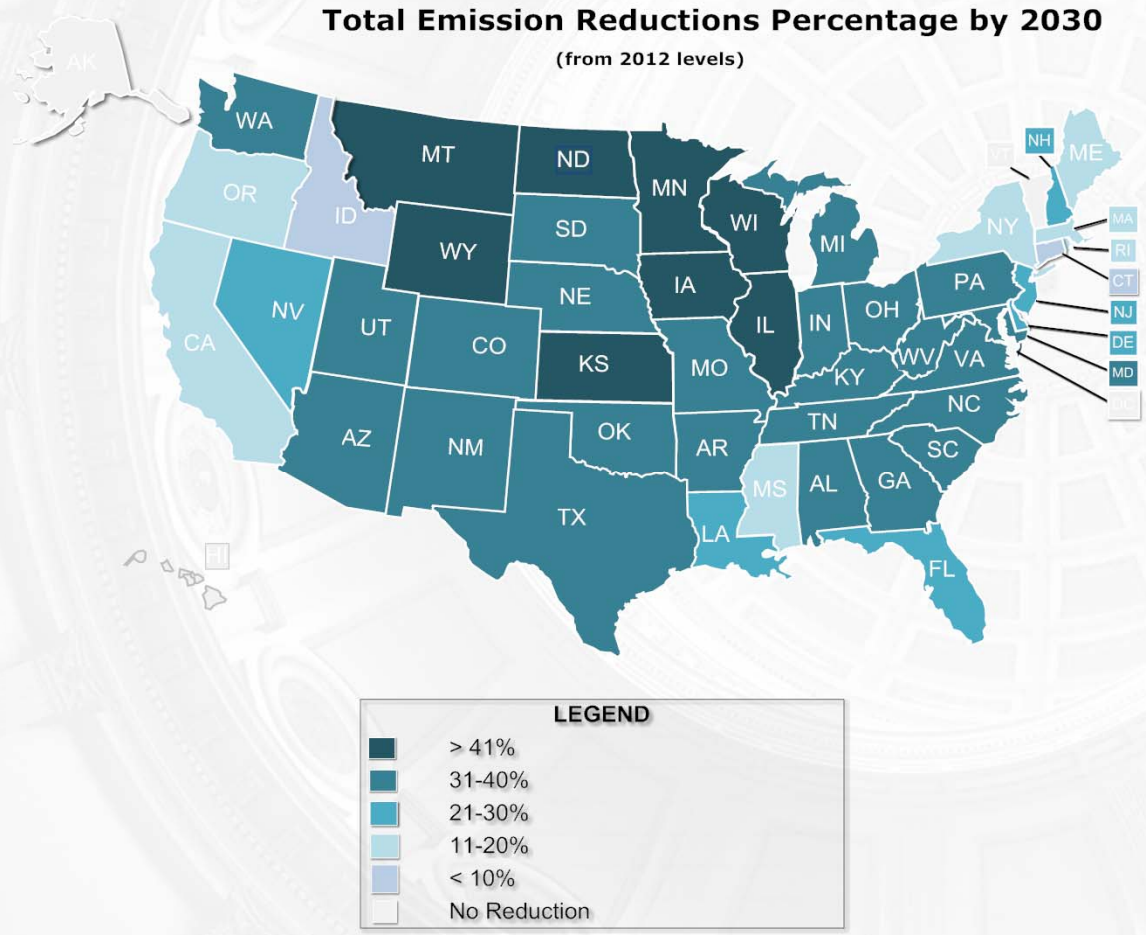
- Which combination of solutions and policies are best?
  - Efficiency, renewables, nuclear energy, fuel shifting, buying credits
- Who will be involved in crafting the plan?
  - Plans to cost-effectively reduce carbon emissions will require measures outside traditional pollution control approaches
  - A plan that minimizes cost to the rate payers and maintains reliability of the grid will require close coordination with many stakeholders: utility commissions, energy offices, utilities, state legislators, ISO/RTOs, Industry

Allowance Distribution

The method of allowance distribution is an important decision that will influence compliance costs, ratepayers and generators.

- Allocation
  - What entities should receive allowances -- many stakeholders will be lobby for approaches that benefit them
  - Can create windfall profit which raises cost of compliance
- Auction
  - Generates revenue that can be used to compensate ratepayers and/or fund efforts that will cost effectively reduce CO2, such as energy efficiency
  - Utilizes free market principles to determine prices and allocate resources, which may reduce compliance costs

State Reduction Targets



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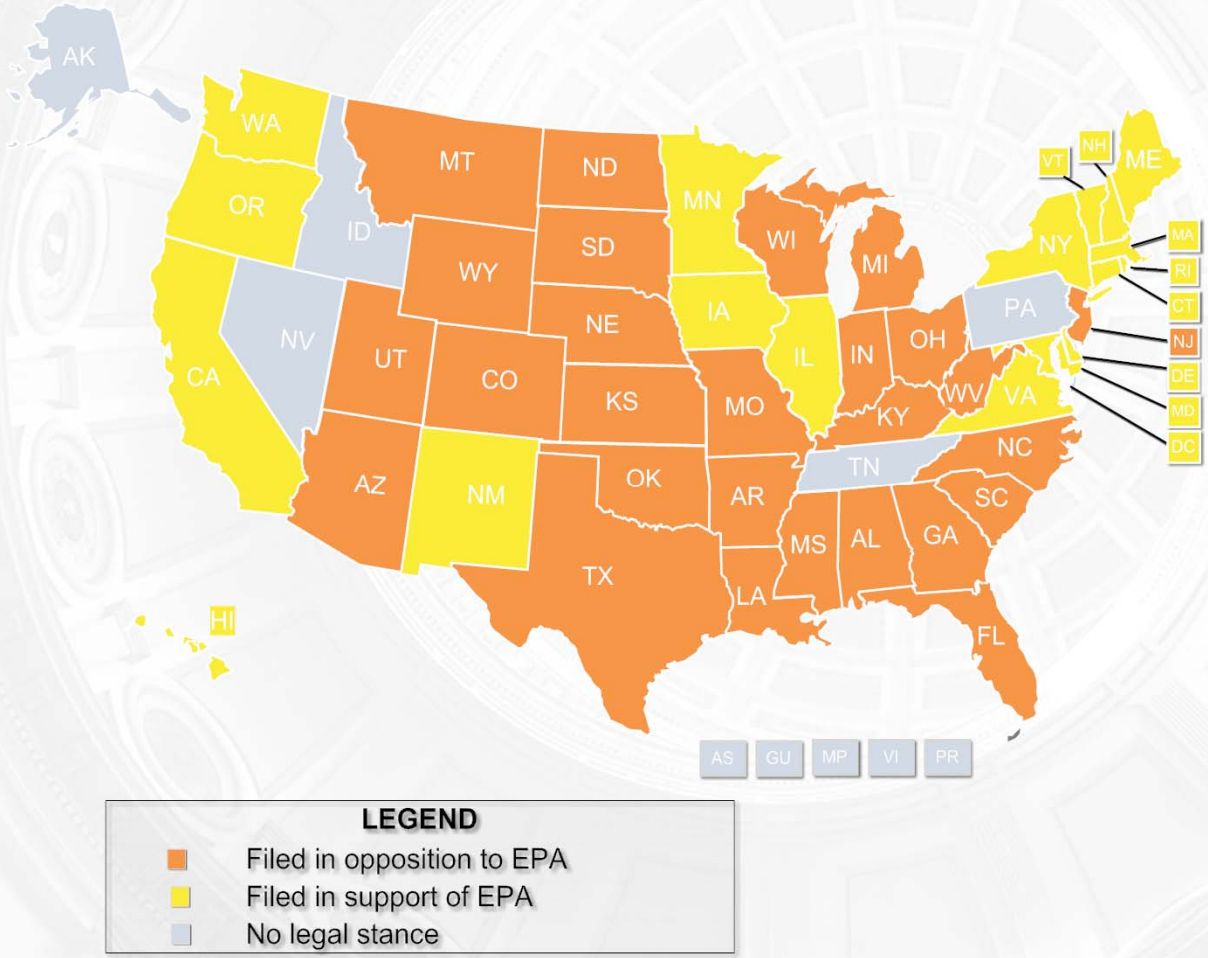
Support and Opposition



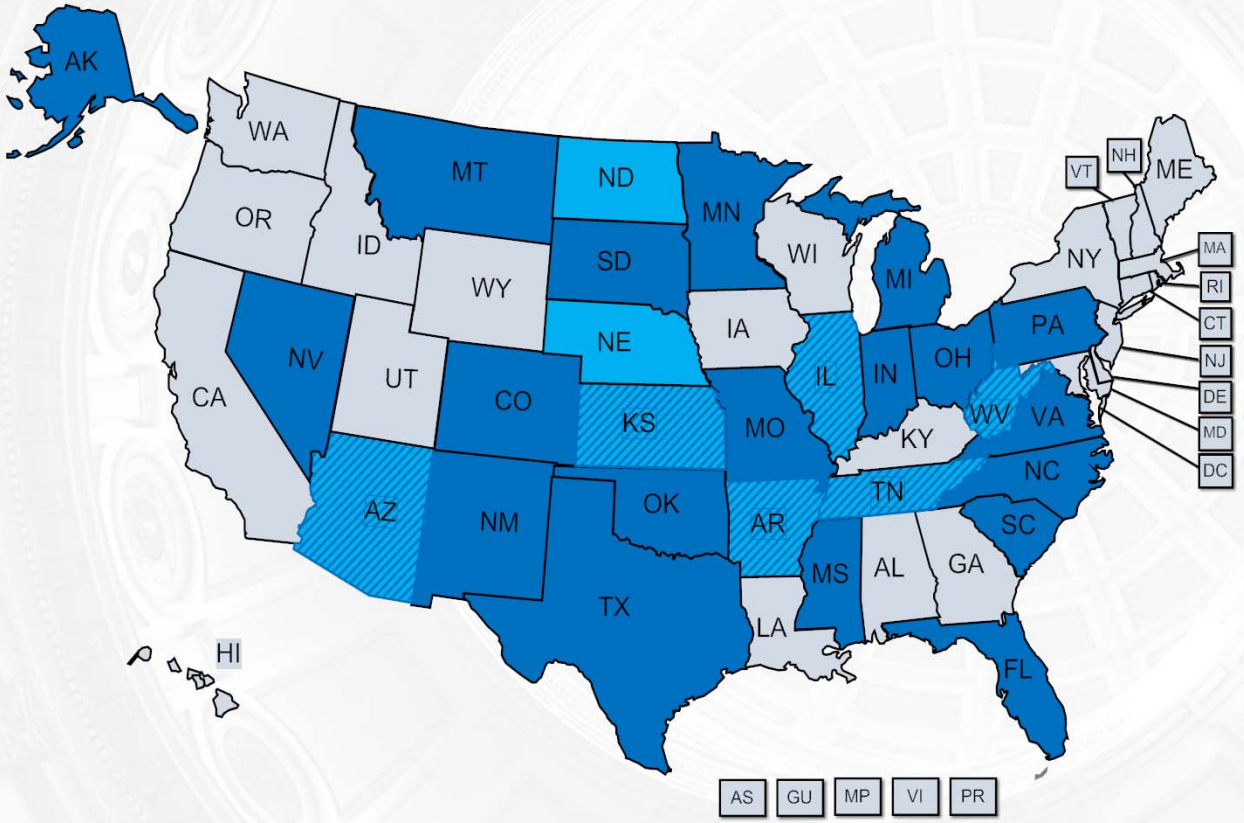
More information at http://www.ncsl.org/default.aspx?tabid=28051

Legislative Activity

- In 2014, at least 23 states introduced 53 bills and resolutions.
  - At least 10 bills and 20 resolutions were passed.
- In 2015, at least 32 states introduced 94 bills.
  - At least 9 bills and 12 resolutions were passed.

More information at http://www.ncsl.org/default.aspx?tabid=28051

2015 Bills



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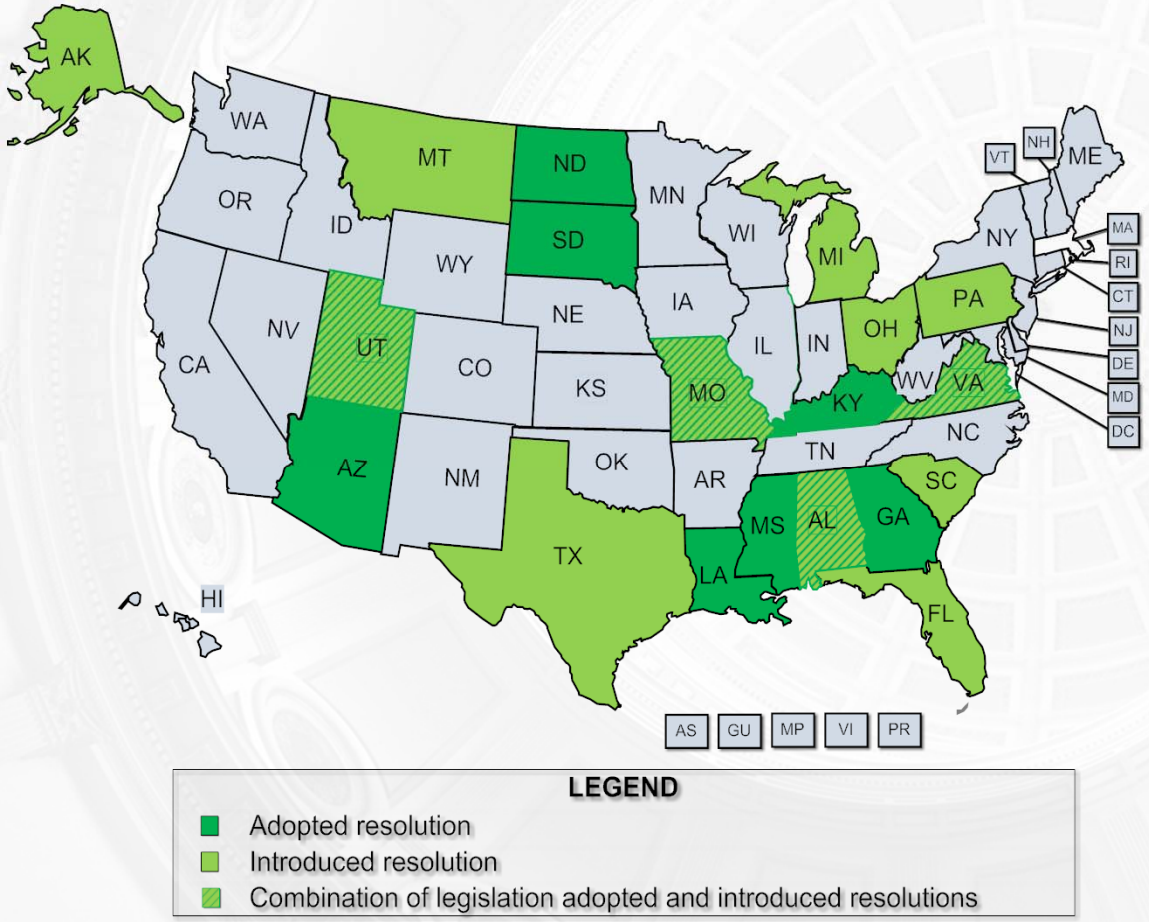
2015 Resolutions



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Legislative Activity: Themes

- State authority and flexibility
- Legislative approval or review of state plans
  - Introduced in 25 states; enacted in 9 states
- "Impact" reports
  - Introduced in 18 states; enacted in 6 states
- Prohibiting state plan development until legal resolution
  - Introduced in 5 states; enacted in 0 states.

More information at http://www.ncsl.org/default.aspx?tabid=28051

State Examples: Arkansas (2015)

- States submitting a state plan is the preferred method of compliance.
- Requires the Arkansas Department of Environmental Quality to develop reports.
  - A report with the Public Service Commission on the regulation's impacts to affordability, financial impacts, reliability and other factors.
  - A report with the Economic Development Commission on consumer impacts.
- Requires approval by the legislative council or the governor of a state plan.
- Establishes a rate and reliability safety valve by prohibiting "significant" rate increase or "unreasonable" reliability risks.
- Establishes an annual evaluation on the impact to energy-intensive-trade-exposed industries and leakage that allows for revision of a state plan (triggering the approval process again).

More information at http://www.ncsl.org/default.aspx?tabid=28051

State Examples: North Dakota (2015)

- Requires legislative management to conduct a study during the 2015-2016 interim on the impacts and costs of the CPP.
  - Establishes required components in the study, including reliability, ratepayer impact, feasibility and other factors.
- Results from the study will be presented when the legislature convenes in 2017.

More information at http://www.ncsl.org/default.aspx?tabid=28051

State Examples: Pennsylvania (2014)

- Requires the Department of Environmental Protection to receive approval from the General Assembly for a state plan.
  - The state plan will be proposed as a resolution in each chamber. If either chamber disapproves of the resolution, DEP must revise the plan and resubmit it to the General Assembly.
  - Allows for default approval if no action is taken in a specific timeframe.
- Determines actions the DEP must take for developing a plan including public hearings, considerations to include, least-cost approaches

More information at http://www.ncsl.org/default.aspx?tabid=28051

NCSL Resources

- NCSL Energy Homepage
  - Climate and Energy Homepage: free publications, webinars and presentations on the CPP
  - States' Reactions to EPA Greenhouse Gas Emissions Standards: legislative tracking and overview document
- NCSL's Environment and Energy Legislative Tracking Database
- Plugged In: NCSL's Energy Newsletter

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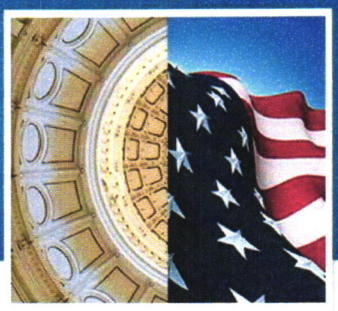
Many Infrastructure and reliability issues may not be caused by the CPP

- A fundamental transformation of the U.S. electricity industry is underway
  - Cheap natural gas
  - Cost declines of renewable energy sources
  - Many more opportunities for distributed supply and demand solutions
- This drives infrastructure needs
  - Transmission to access renewables
  - Changes to accommodate distributed resources
  - Coal (and nuclear) retirements due to low gas prices
- The CPP will probably accelerate some aspects of this transformation, but it is likely not the primary cause of the transformation

NCSL

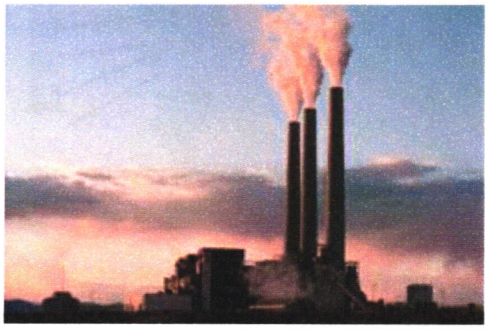
State Reactions to Proposed EPA Greenhouse Gas Emissions Standards



By Melanie Condon & Jocelyn Durkay

This document is available online at http://www.ncsl.org/default.aspx?tabid=28051.
Updated December 17, 2015

Final Rule for Future and Existing Power Plants



On Aug. 3, 2015, President Obama unveiled the final version of the Clean Power Plan, which aims to regulate the amount of carbon dioxide emissions from both future and existing power plants. The proposed rule was originally introduced in June 2014.

Under the final rule, the U.S. Environmental Protection Agency (EPA) assigned each state a unique emission reduction target that it must meet based on a specific formula, resulting in an overall goal of reducing carbon emissions by 32 percent nationwide by 2030. There is also a set of interim goals assigned to each state to allow for a gradual reduction in carbon dioxide emissions from 2022-30. A state can choose to reduce its emissions however it sees fit, and has the option to comply individually or as part of a multi-state plan.

To determine a state's goal, EPA divided the country into three regions, based on interconnected regional electricity grids. The agency then looked at three "building blocks" of reducing carbon emissions to determine the ranges of reductions that were feasible for each region.

The building blocks consist of:

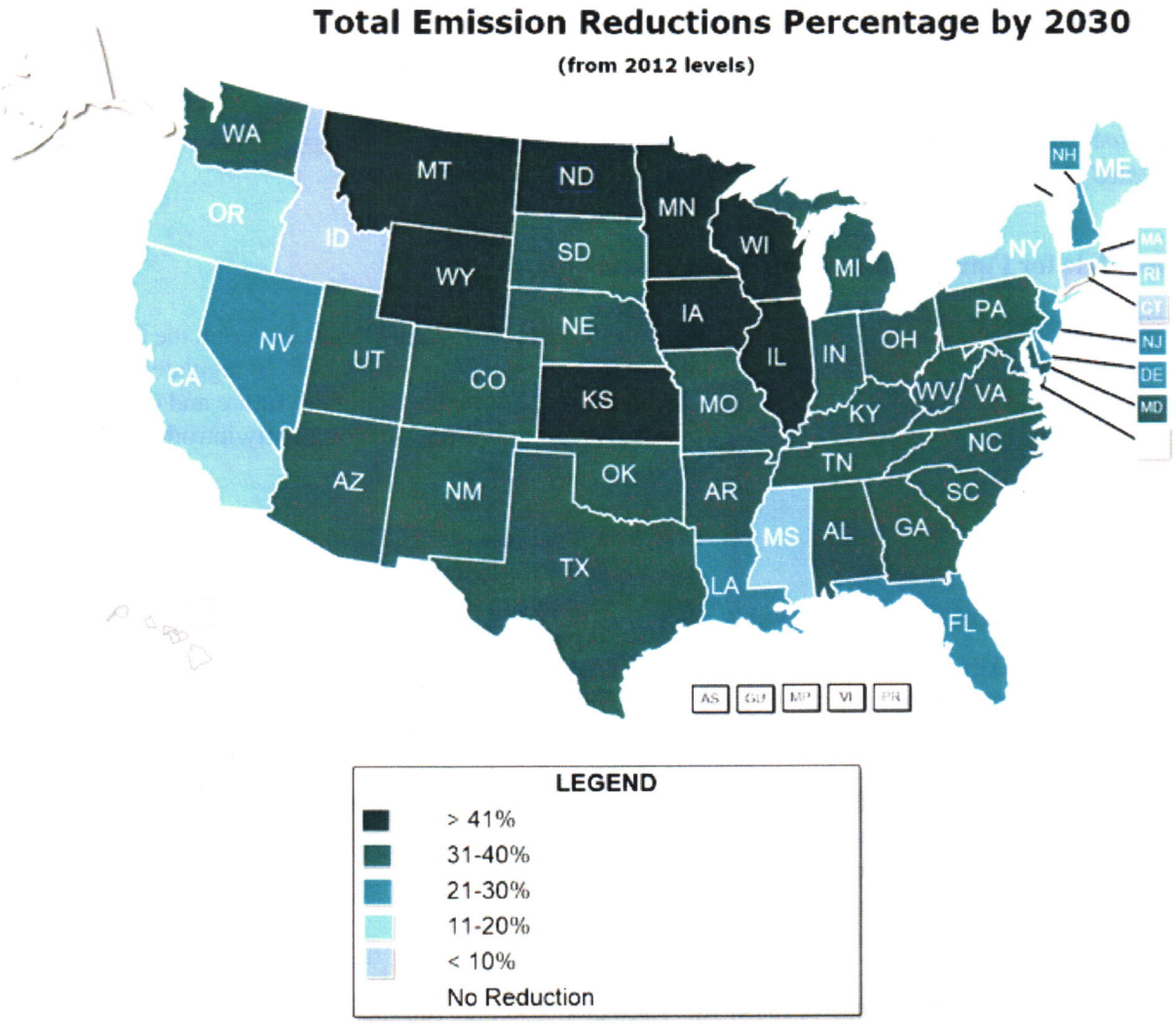
- Improving the heat-rate of fossil-fuel fired plants so they run more efficiently.
- Switching to natural-gas powered plants from coal-powered plants.
- Increasing renewable power.

EPA applied each of these building blocks to all of the coal and natural gas power plants in each region to produce regional emission performance rates. EPA then applied equitable carbon dioxide emission performance rates to all affected electricity generating sources in each state to produce individual state goals. See EPA's Technical Support Document for more information on setting the state goals.

State goals vary and are all unique, but by 2030, all state targets fall in a range of 771 lbs./MWh (pounds of carbon dioxide per megawatt-hour of electricity generated) to 1,305 lbs./MWh. See state-specific goals.

Vermont and Washington, D.C., will not be subject to the rules, as they do not have any large fossil-fuel powered plants. Also, according to EPA, more information is needed on the best system of emission reductions for Alaska and Hawaii because of their unique grid situations, so as of yet those two states are

not subject to the Clean Power Plan requirements. We can expect specific goals for Alaska and Hawaii in the near future.



State Compliance Plans

To demonstrate how a state plans to comply with its goal, all states, except as noted above, are expected to submit a final compliance plan, or an initial plan with a two-year extension request, by **Sept. 6, 2016.**

On Oct. 23, 2015, EPA released a memo to regional air directors providing assistance and information to states interested in seeking an extension. The memo details all the requirements needed to be granted an extension. To be granted an extension, a state must provide: a final plan approach or approaches under consideration, including a description of progress; an explanation for why the state needs more time; and a demonstration of how the state will be engaging with the public and vulnerable communities during the additional time.

A state's plan must demonstrate how it will advance toward interim emission reduction goals and accomplish final goals by 2030. For the period of 2022 to 2030, EPA separated interim emission goals into two-year "step" periods (2022-24, 2025-27 and 2028-29) in which the state must meet specific goals for that period. States may set their own step goals if they provide an explanation on how they will meet each goal, although such steps must align with an EPA-set average interim emissions rate.

Additionally, a state's plan can express its goal as a rate-based standard (pounds of carbon dioxide per megawatt-hour of electricity generated) or convert the goal to a mass-based standard (tons of carbon dioxide emission per year), which would enable a trading program or carbon tax mechanism.

Federal Implementation Plan

If a state fails to submit a plan or if EPA determines the state plan is insufficient, the state will be subject to a Federal Implementation Plan (FIP) imposed by the EPA within two years of noncompliance. Though a final FIP has not been issued, EPA proposed two different plans on Aug. 3. One would assign a cap on emissions and allow for the trading of emission credits and the other would require a state to meet an average emissions rate across its power generation units. Within each proposed plan a state could approach it through rate-based measures or mass-based measures. EPA plans to hold a period of public comments and public outreach meetings and then determine which option is best by the summer of 2016.

Clean Energy Incentive Program

As part of the final rule, EPA introduced the Clean Energy Incentive Program (CEIP), a voluntary program that will provide participating states with emission rate credits (up to the equivalent of 300 million short tons of carbon dioxide emissions) for reductions made in 2020-21 due to investments in renewable energy or energy efficiency measures. These credits can be used to offset targets during the 2022-30 steps. Specifically, wind or solar projects will receive 1 credit for 1 megawatt hour (MWh) of generation whereas energy efficiency projects implemented in low-income communities will receive 2 credits for 1 MWh.

U.S. Congressional Action

Efforts are currently underway in both the U.S. House and U.S. Senate to either delay implementation of EPA's final rule or allow states to forgo submitting an implementation plan without negative consequence, such as a forced federal plan. The U.S. House of Representatives, passed the Ratepayer Protection Act of 2015 (H.R. 2042), sponsored by Representative Ed Whitfield (R-Ky.), which would delay implementation of the rule until all legal challenges against the rule have been decided. The bill would also exempt states that demonstrate how the rule would threaten electricity reliability in the state or negatively affect ratepayers. In the Senate, the Environment and Public Works Committee passed a similar bill, the Affordable Reliable Electricity Now Act of 2015 (S. 1324), introduced by Senator Shelly Moore Capito (R-W.V.). Based on the president's support of the Clean Power Plan, it is likely that either bill would have to overcome a presidential veto.

Additionally, both the House and Senate EPA-Interior Appropriations bills for FY 2016 contain provisions that would prohibit EPA from using any appropriated funds to finalize, implement or enforce any rules or regulations related to Sections 111(b) or 111(d) of the Clean Air Act (the sections that apply to new and existing sources of carbon emissions). While the House bill was approved in early July, the Senate has yet to follow suit.

Regulatory Authority

According to the rule, the EPA is authorized to regulate greenhouse gas emissions under Section 111 of the Clean Air Act. This section requires EPA to develop regulations for categories of sources that cause or significantly contribute to air pollution that may endanger public health or welfare. EPA has regulated more than 70 stationary source categories and subcategories under Section 111.

The proposed rules for new power plants are being issued pursuant to Section 111(b) of the Clean Air Act, which directs EPA to establish emission standards for new and modified sources of air pollution. Under Section 111(b) EPA has promulgated standards for nitrogen oxides, sulfur dioxide and particulate matter emissions for new and modified electric generating units. These new actions represent the first time that EPA has attempted to regulate carbon dioxide emissions under Section 111(b).

The limits being developed for existing power plants are under authority of Section 111(d) of the Clean Air Act, which establishes a process for EPA and states to regulate emissions from already operating facilities. Under this section, whenever EPA promulgates a standard for a new source, states are required to develop plans for existing sources of pollutants for which there is no national ambient air quality standard.

While there are currently emission limits on power plants for mercury and arsenic, there are no limits on carbon dioxide. In a 2007 U.S. Supreme Court Case, *Massachusetts v. EPA*, the court determined that the agency could regulate carbon dioxide emissions if it was able to conclude that the gas endangered public health or the environment. In 2009 EPA issued this "endangerment finding" for carbon dioxide.

The State Legislative Role

When EPA released proposed regulations for carbon dioxide emissions from existing power plants in June 2014—under section 111(d) of the Clean Air Act—a majority of state legislatures already had adjourned. Although several states produced legislative reactions following this release, a number of legislatures already had responded in expectation of the proposed rules earlier in their legislative sessions (see 2014 State Action).

All 50 state legislatures convened in 2015, and many weighed possible responses. For example, several states enacted legislation requiring legislative review of state plans, as agencies in other states may not involve legislative involvement in plan submission. Furthermore, state agencies and legislatures may be in disagreement regarding compliance approaches and states may be simultaneously pursuing legal action and exploring compliance plans.

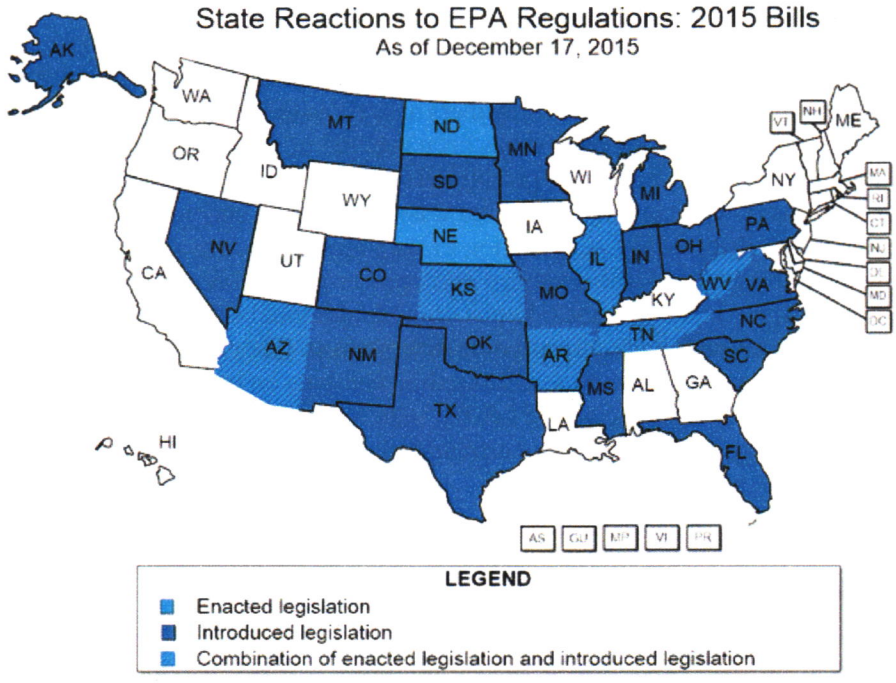
In 2015, numerous legislatures worked to determine their role and many more will continue to do so during the 2016 legislative session. Those options include approving a final state plan, barring state implementation until legal challenges are resolved, or enacting legislation to address compliance. In addition, many state legislatures and agencies' are still determining the impacts of the final rule and what specific impacts the regulations will have on reliability, state economies and consumers.

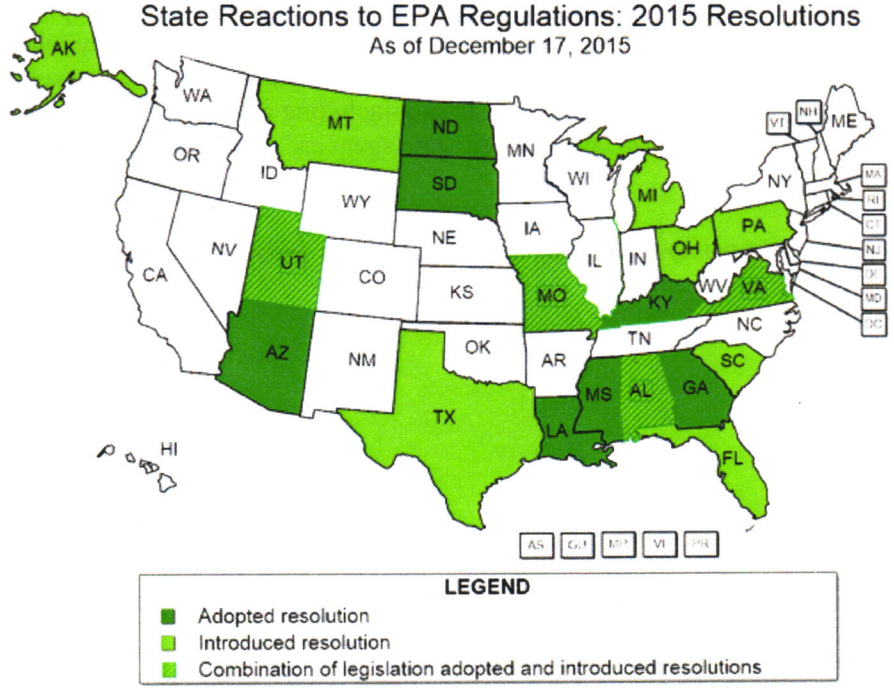
2015 State Action

In the 2015 session, legislatures in 32 states introduced 94 bills or resolutions related to the Clean Power Plan and power plants carbon dioxide emissions regulations. Specifically, 27 states introduced 64 bills

and seven states enacted legislation (see chart below). An additional 19 states introduced 30 nonbinding resolutions and 11 of these states adopted resolutions (see chart below).

In regards to executive action, Oklahoma Governor Mary Fallin issued Executive Order 2015-22 in April 2015 barring the state from submitting a 111(d) state plan. Several governors, including Indiana Governor Mike Pence, have sent comments to EPA or letters to President Obama stating their state would not comply with EPA's regulations as they stand.





Legislation

This session, a number of state legislatures looked to establish their role before the release of final regulations. Legislation introduced in more than a dozen states, for example, required the legislature's approval of a state plan prior to its submission to EPA; legislation was enacted in several states (see Table 1). Of this legislation, a portion completely restricted a state agency's authority to submit a plan without legislative approval while other states required a state plan to be submitted to the legislature, but not require legislative approval.

Another area being addressed in legislation this session would require an entity such as an environmental regulator, legislature, committee or task force to develop an impact report or to study the regulations impact on affordable power, reliability, and consumers as well as the feasibility of compliance. Of the states considering this requirement, legislation has been enacted in at least five states. Introduced, but not enacted, legislation in five states would have prohibited state plan development until legal challenges to the regulations are resolved, while legislation in one state would have encouraged a legislative committee to employ legal counsel to litigate EPA. Legislation in six states, including a bill enacted in Arkansas, proposed creating a reliability safety valve against early power plant retirements. Proposed legislation in four states would have capped rate increases. Legislation in additional states would have required state public utility commission and FERC certification of state plans to ensure reliability. Legislation introduced in several states would have established public hearings on proposed state plans and a bill introduced, but not enacted, in one state would bar the state from complying with implementation. Introduced legislation in two states would have established market-based compliance options, including cap-and-invest and carbon credit systems.

Table 1 below displays summaries of enacted legislation. Table 2 displays summaries of introduced but not enacted resolutions.

Resolutions

Resolutions in 10 states encouraged a dismissal of the final regulations or a full exemption from regulations while resolutions in four states requested the EPA significantly modify regulations. Four states' resolutions requested U.S. congressional intervention and one state resolution would have refused to implement any regulations. Resolutions in five states—including adopted resolutions in Alabama, Georgia, Mississippi and Missouri—supported their state agencies' comments submitted to EPA on the rules.

Table 3 below displays summaries of adopted resolutions. Table 4 displays summaries of introduced resolutions.

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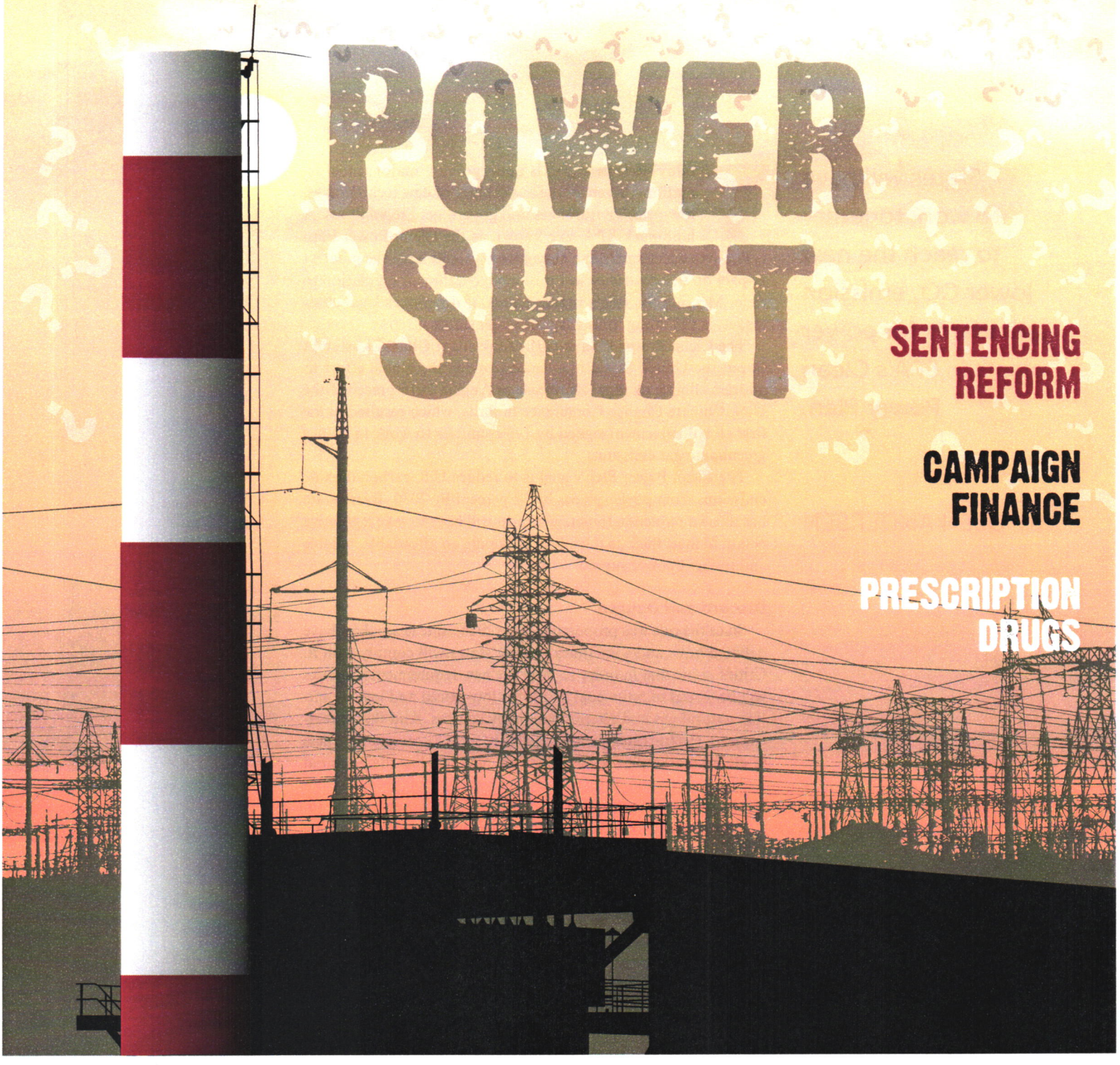
February 2016

STATE LEGISLATURES

NATIONAL CONFERENCE of STATE LEGISLATURES



POWER SHIFT

SENTENCING REFORM

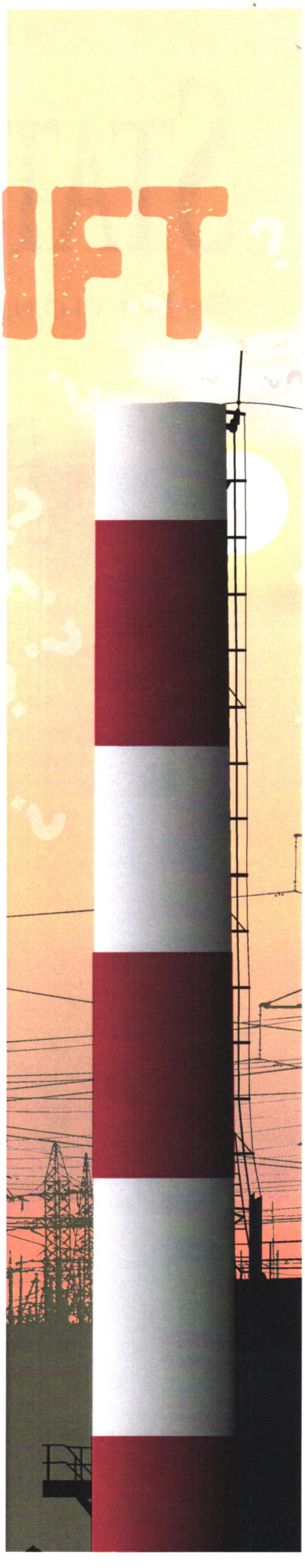
CAMPAIGN FINANCE

PRESCRIPTION DRUGS

POWER SHIFT

States will have to work together to reach the new lower CO_2 emission standards for power plants in EPA's Clean Power Plan.

BY GLEN ANDERSEN



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.

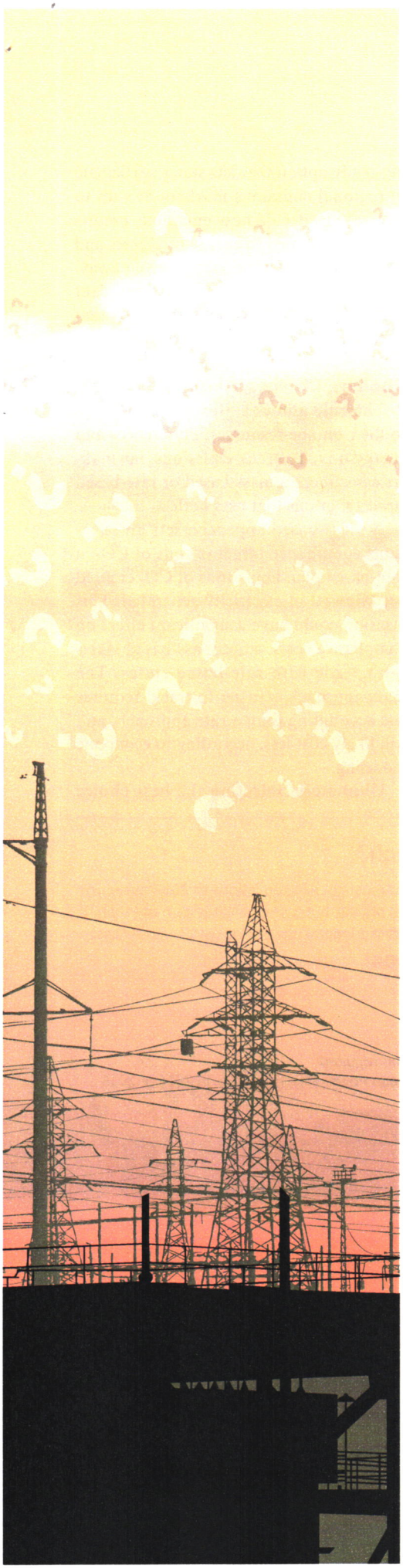
Discord and Debate

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

Glen Andersen directs NCSL's energy program.



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 CO_2.

Warm and Warmer

With 2015 ranking as the warmest year on record and with the level of heat-trapping atmospheric CO_2 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 largest source of greenhouse gas emissions in the electric sector, emitting nearly twice as much CO_2 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 trading-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

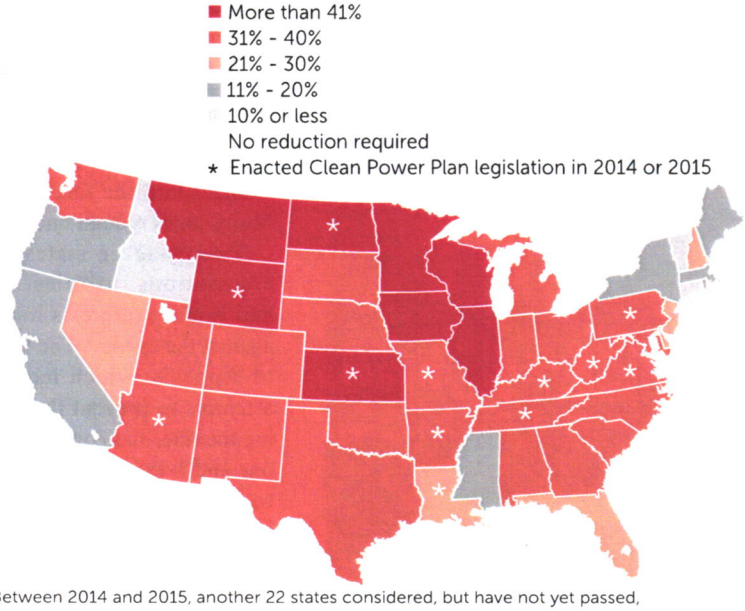
The rule allows states to tailor plans to their unique resources, preferences and energy mix. To track emissions, lawmakers can choose a mass-based or rate-based strategy, or one that uses both.

A mass-based approach sets an emissions compliance target in tons of CO_2; a rate-based plan limits tons of CO_2 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.

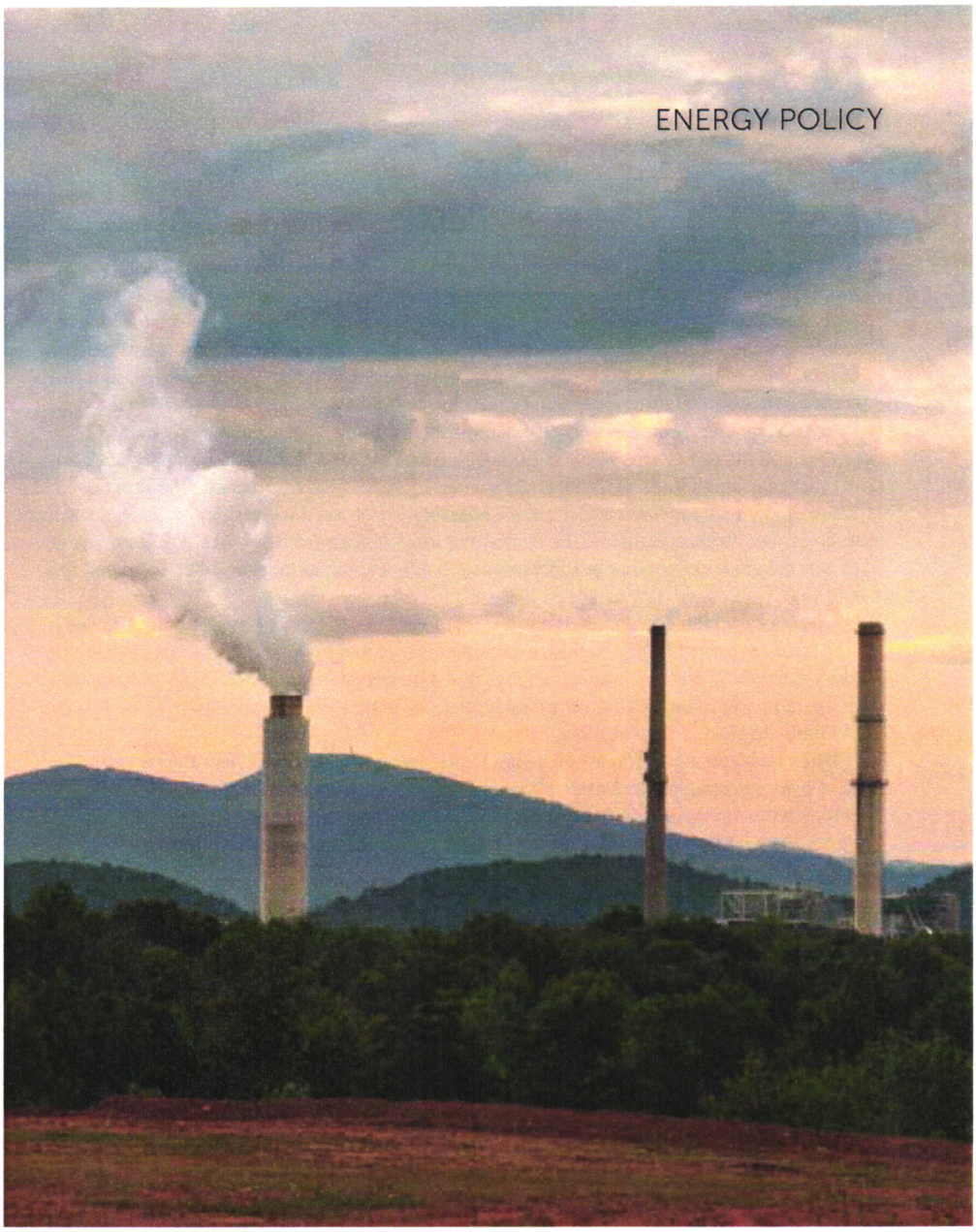
Ultimately, selecting the best choice

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).

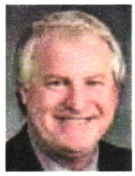
Representative Tom Sloan Kansas

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.

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.



Representative Jeff Morris Washington

"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.

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.