

Environmental Policy, Federalism, and the Obama Presidency

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Environmental policy is a central piece of President Obama's domestic policy agenda. Congressional gridlock, however, has frequently compelled the Obama Administration to turn to the tools of the administrative presidency to achieve its goals. While executive authority has enabled the President to pursue a relatively ambitious environmental agenda, it has often engendered conflict with Congress, industry, and some states. High levels of intergovernmental conflict have plagued the Obama Administration in several areas of environmental policy, including investment in renewable energy, Environmental Protection Agency regulations on air pollution, and executive actions to manage public lands. And, for their part, states have continued to pursue their own policy goals in the absence of federal policy, with episodes of both policy innovation and retrenchment. Although President Obama's approach continues a trend of presidents primarily using the tools of the administrative presidency, the President's signature climate change policy, the Clean Power Plan, may signal an evolving intergovernmental partnership in environmental policy.

More than a year before winning the 2008 election, then candidate Barack Obama gave a speech on energy and climate change that outlined his agenda should he become President. Speaking at a library in Portsmouth, New Hampshire, Obama proposed that the United States reduce carbon dioxide emissions by 80 percent by 2050, invest \$150 billion over a decade in "clean, affordable energy," require that 25 percent of electricity be generated from renewable sources, make the United States 50 percent more energy efficient by 2030, and "rejoin the community of nations" in negotiations toward an international agreement on climate change (Obama 2007). These pledges typify the lofty commitments made by presidential candidates in the midst of campaigns. In making these pledges, however, Obama put energy, the environment, and climate change squarely on to the election's agenda, alongside the war in Iraq and healthcare reform, and later the collapse of the financial system.

Perhaps even more than candidate Obama anticipated, environmental policy has been a front burner issue for much of his presidency. The Obama Administration has pursued a large and diverse set of initiatives, including new investments in energy efficiency and renewable technologies, regulations to mitigate and adapt to climate change, regulations to cut local and interstate air pollution, and expanded protections for public land.

Much of the attention to President Obama's environmental agenda has focused on the political conflict it has generated with Republicans in Congress and many in industry. However, some of the policy initiatives have also created conflict with state and at times local governments; in some cases because new initiatives were perceived as going too far, and in other cases because federal action was viewed as too timid. There have also been times of tension with the environmental advocacy community on issues such as the proposed Keystone XL pipeline, gas and oil exploration in the Arctic Ocean, and a controversial (yet, in retrospect, temporary) decision to not strengthen the national air quality standard for ozone.

In this article, we evaluate environmental policy and federalism during the Obama Presidency from several perspectives. It is of course impossible to analyze the full gamut of environmental issues that President Obama and his administration addressed during this presidency; our modest goal here is to highlight several high profile issues, and to discuss them thematically as they relate to important and enduring questions raised in the U.S. federalist system. We first examine how states have used the discretion they have within American federalism to pursue their own policy goals, focusing on several areas of policy innovation and retrenchment, particularly in the areas of renewable energy and climate change. We next discuss sources of intergovernmental conflict and cooperation with state and local governments resulting from implementation of the environmental provisions of the American Recovery and Reinvestment Act, Environmental Protection Agency (EPA) regulations to address climate change and air pollution, and executive actions to manage public lands. We then turn to efforts taken by the Obama Administration to address interjurisdictional pollution spillovers, a longstanding problem plaguing environmental protection because of state governments' disincentives to deal with these externalities.

Our assessment of environmental policy during the Obama Presidency reveals a continuation of a theme emphasized by Barry Rabe (2007) in his evaluation of environmental policy during the George W. Bush Administration. President Obama, like his predecessor, turned to the tools of the administrative presidency to achieve his goals, in most cases using authority previously granted to him by Congress. In fact, the reliance on the administrative presidency to achieve environmental policy goals has become a regular course of action for Democratic and Republican presidents alike (Klyza and Sousa 2007). Legislative gridlock in Congress has for more than two decades prevented major changes to federal

environmental policy, leaving presidents little choice but to pursue an administrative strategy. Dissimilar to George W. Bush, however, President Obama's actions, on balance, have sought to strengthen environmental protections, and, along with healthcare reform, these actions are likely to be viewed as among his most important domestic accomplishments. As we discuss in the conclusion, however, this purely administrative approach carries some significant downside, since regulations and other administrative actions can be weakened (if not undone) by future presidents with different policy references and priorities.

State Policy Innovation and Retrenchment

A recurrent theme in contemporary studies of American environmental policy is the important role of states. The cooperative federalism model that much of the U.S. environmental protection architecture enables states to pursue policy when they perceive federal policy to be insufficient. Broadly speaking, under most major federal statutes, the EPA is empowered to set national standards, which are then implemented by state governments. States do have the authority to set their own standards if they exceed federal standards, but they are not permitted to set laxer ones. Historically, many states have pursued additional environmental protections when the costs of such protections are directly offset by the benefits (Lowry 1992; Ringquist 1993). The state of California, for example, has repeatedly ratcheted up restrictions on pollution from motor vehicle emissions as part of a strategy to address its persistently poor air quality. And, frequently, these standards have become the basis for future federal standards, in a process that David Vogel has described as the "California effect" (Vogel 1998).

In recent years, a new pattern has emerged in which many U.S. states (as well as subnational governments in other federations) have adopted actions to address climate change, a problem that has costs and benefits that obviously extend beyond state borders. Scholars have argued that the reasons for state policy action include strong citizen demand and the pursuit of economic development opportunities (Matisoff 2008; Rabe 2004). In fact, the extent of state activity on climate change, coupled with federal inactivity, has led some scholars to characterize climate policy during the decade that preceded the Obama Presidency as a period of state domination (Rabe 2011; Thomson and Arroyo 2011). This period came to an end with the U.S. Supreme Court's decision in *Massachusetts v. EPA*, 549 U.S. 497 (2007), which held that the EPA could designate carbon dioxide and other greenhouse gases as pollutants under the CAA if the EPA determined that they threatened human health and welfare, a determination that the EPA made during the first year of the Obama Presidency (the so-called "endangerment finding").

As discussed below, President Obama has made climate change an important policy priority throughout his presidency. However, the federal government's

long-delayed engagement did not preclude state action. Barry Rabe refers to climate policy during the initial few years of the Obama Presidency as one of “contested federalism,” reflecting the simultaneous engagement of federal and state (as well as local) governments on climate change mitigation and adaptation (Rabe 2011). It is important to emphasize, however, that policy action at the state level during the Obama Administration has not been unidirectional. While some states have taken measures to address climate change, others have taken no meaningful action, and, in some cases, states have retreated from previous commitments. What has emerged, therefore, is considerable subnational variance in state policy, something not at all uncommon to U.S. environmental policy (Konisky and Woods 2012a). We believe this pattern of state policy divergence has become prevalent in many areas of environmental policy during the Obama Presidency (although its origin certainly predates it), which we illustrate with the cases of state renewable energy and climate policy.

Renewable Portfolio Standards

One of the most common policy measures states have adopted to address climate change is a renewable portfolio standard (RPS) (Carley 2011; Lyon and Yin 2010; Rabe 2004). A RPS is a mandate that a prescribed amount of electricity generation by a regulated energy provider come from renewable sources. Twenty-nine states plus the District of Columbia currently have a binding RPS, and an additional eight states have a voluntary standard. Nearly all of the states with mandatory RPSs put them in place through legislation (or, in handful of instances, citizen initiative) in the years prior to the Obama Presidency. As Carley and Miller (2012) have shown, the stringency of RPSs varies considerably across the country, and analyses have found that state political ideology (Carley and Miller 2012; Chandler 2009; Lyon and Yin 2010; Yi and Feiock 2012) and wealth (Chandler 2009; Huang et al. 2007; Weiner and Koontz 2010) are important determinants of RPS adoption. Recent analysis suggests that policymakers’ beliefs about whether the policy can be implemented successfully have also influenced RPS adoption (Nicholson-Crotty and Carley 2015).

In the continued absence of a national, uniform standard,¹ states have continued to tinker with state-level clean energy mandates. During the years of the Obama Presidency, some states have moved to put in place more stringent requirements, while others have retrenched. Perhaps not surprisingly given its general tendency to lead on environmental policy, California has upped its standard to be among the most ambitious in the country—50 percent by 2030. A couple of other states also increased the stringency of their RPSs, including Hawaii which has set a target of 100 percent renewables by 2045, and Vermont which set a goal of 75 percent by 2032. In several other states, however, policy moved in the opposite direction.

In Ohio, Republican Governor John Kasich signed legislation in June 2014 that placed a two-year freeze on the state's RPS, which had been enacted three years earlier. In February 2015, West Virginia became the first state to repeal an RPS altogether, and similar efforts have been initiated in several other states including Colorado, Michigan, New Hampshire, North Carolina, Oklahoma, and Texas, often with the support of the American Legislative Exchange Council (Mufson and Hamburger 2014). Kansas changed its RPS from a mandatory to a voluntary target (although their 20 percent target has already been surpassed). This retrenchment on renewable energy in some, mostly Republican-controlled, states has extended beyond RPS to other policies such as net-metering and programs for rooftop solar.

Regional Cap-and-Trade Programs

Another related policy domain in which this bifurcated pattern of state policy behavior appears is state participation in regional greenhouse gas cap and trade programs. During the George W. Bush Administration, these regional initiatives, some of which included Canadian provinces, emerged largely in response to the policy vacuum left by the lack of federal policy. During the first term of the Obama Administration, this vacuum basically remained with the failure of Congress to pass cap-and-trade legislation. As a consequence, state governments remained active in this area (Raymond 2010; Rabe 2015; Selin and VanDeveer 2011).

Ten northeastern states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont) moved forward with the Regional Greenhouse Gas Initiative (RGGI), a cap and trade system covering carbon dioxide emissions from large power plants. RGGI sets a cap on carbon dioxide emissions at 2009 levels through 2014, and is designed to decline by 2.5 percent annually through 2019. The first auction of carbon allowances occurred in September 2008, and the substantial revenue generated from auctions has been used by states to fund energy efficiency and other programs to further reduce greenhouse gas emissions (Buntin 2010).

Several western states (Arizona, California, Montana, New Mexico, Oregon, Utah, and Washington) also moved forward with a regional cap and trade program known as the Western Climate Initiative (WCI). The WCI is broader in scope than RGGI, covering economy-wide emissions, and with a more ambitious cap of 15 percent below 2005 levels by the year 2020. Emissions trading for the first phase of WCI, covering electricity generators and large industrial sources, started in January 2012, and the second phase covering transportation and other sources was scheduled to begin in 2015.

Even more dramatically than the case of state RPSs, there have been distinct efforts by several states to retreat from prior commitments to regional climate change initiatives. Not surprisingly, many (though certainly not all) of these states

have also opposed the Obama Administration's policies to address climate change, and particularly, the EPA's regulatory policies to cut greenhouse gas emissions from coal-fired power plants. California is the only state in the WCI currently participating in the cap-and-trade program. Republican Governors in Arizona and New Mexico, Janice Brewer and Susana Martinez, respectively, pulled their states out of the program. Democratic state legislatures in Oregon and Washington also failed to enact legislation to create a carbon market, and since have pulled out of the WCI. In the case of RGGI, Republican Governor Chris Christie withdrew New Jersey from RGGI in May 2011, and the New Hampshire and Maine legislatures have considered bills that would do the same. And, last, a third regional cap-and-trade program has failed to launch completely. The Midwest Greenhouse Gas Reduction Accord agreed to in 2007 by the governors of Illinois, Iowa, Kansas, Michigan, Minnesota, and Wisconsin (all Democrats with the exception of Minnesota's Tim Pawlenty) has not moved forward at all, due mostly to the ascension of Republican governors skeptical of climate change policy and a reluctance by the states to impose new regulations following the economic downturn that shortly followed the initial agreement (Lehmann 2010). Collectively, these shifts reflect the growing pattern of divergence in the states on renewable energy and climate policy, which more broadly illustrates what often happens in state-dominated policy areas.

Intergovernmental Cooperation and Conflict

A defining feature of the Obama Presidency has been its extensive use of state governments to achieve its environmental policy objectives. In this respect, environmental policy is similar to the Administration's policy initiatives in other areas, such as education (with its Race to the Top program) and healthcare (with its use of state insurance exchanges under the Patient Protection and Affordable Care Act).

Major environmental policy initiatives began early in the Administration. Shortly after attaining office, President Obama persuaded Congress to pass the American Recovery and Reinvestment Act in February 2009. Its overarching goal was to stimulate economic growth by injecting \$840 billion into the U.S. economy to counter one of the worst economic recessions in U.S. history. However, the administration also intended for the expenditures to help achieve a variety of policy goals, one of which was to help launch the U.S. transition to a cleaner energy economy (Grunwald 2012). To that end, the ARRA targeted approximately \$66 billion to energy technology innovation, green jobs, and energy efficiency improvements, representing "the largest federal infusion of fiscal resources into energy-related activities in modern history" (Carley et al. 2015).

Many of the energy-related grants and loans were allocated as “pass-through” funds. Although they were often spent by local governments, nonprofits, and private sector contractors, states exercised considerable discretion in how and when these funds were dispersed. States varied substantially in the speed and extent to which these funds were utilized to achieve the Administration’s goals. One empirical analysis found that the percentage of funds spent was a function of both state capacity and federal technical guidance (Carley et al. 2015). On the whole, the ARRA appears to have been effective in spurring renewable energy generation (Park 2015).

As the Obama Administration pursued its other environmental policy goals, it has frequently relied on expansive use of executive power to circumvent opposition and congressional gridlock, sometimes accompanied by a corresponding reliance on state governments to implement these initiatives. In other cases, state governments have been forced to the sideline by an expansive federal environmental agenda. This pursuit of federal policy goals at the intersection of unilateralism and federalism may be observed in a variety of areas, including climate change and other environmental regulatory arenas, public lands, and interstate pollution spillovers. In each of these policy arenas, relations between the federal government and the states have been marked by cooperation in some cases, and high degrees of conflict in others.

Climate Change

Following the Supreme Court’s decision in *Massachusetts v. EPA* and the EPA’s subsequent endangerment finding, the federal government has moved to join the states in addressing the climate change problem. After a failed attempt at legislation during the first two years of his administration, and facing a Republican-controlled House of Representatives following the 2010 midterm elections, President Obama pledged to go it alone on climate change. In his 2013 State of the Union address, Obama stated that he would “direct [his] cabinet to come up with executive actions we can take, now and in the future, to reduce pollution, prepare our communities for the consequences of climate change, and speed the transition to more sustainable sources of energy” (White House, 2013). This was followed in November 2014 by a historic joint announcement with China, in which the president laid out a target to reduce U.S. greenhouse gas emissions by 26–28 percent below 2005 levels by 2025.

An important component of the administration’s climate change initiative is the EPA’s new emissions standards for existing power plants, which were unveiled in their final form in August 2015.² Dubbed the Clean Power Plan, these regulations are highly consequential, both substantively and in terms of their implications for environmental federalism. Their substantive impact lies in the importance of

electricity generation, especially from coal-fired power plants, for U.S. greenhouse gas emissions. Electricity generation accounts for about 40 percent of U.S. carbon dioxide emissions, the bulk of it coming from aging coal-fired power plants. The Clean Power Plan is designed to cut carbon dioxide emissions from existing power plants by as much as 32 percent by 2030, compared with 2005 levels.³

The Clean Power Plan's importance for environmental federalism comes from two relatively unique features: its state-specific greenhouse gas reduction targets and the flexibility it affords states in choosing how to meet them. Both of these represent a fairly significant departure from cooperative federalism as it has typically been practiced in the environmental arena.

The Clean Power Plan's overall emission reductions target of 32 percent represents a national average; each state faces a different target, which is based in part on its unique electricity generation characteristics.⁴ State targets vary considerably, as indicated in Figure 1. In developing these targets, the EPA considered each state's capacity to achieve reductions using three "building blocks" established by the EPA: (1) efficiency gains at existing coal fired power plants, (2) greater use of low-emitting natural gas combined cycle plants; and (3) greater use of zero and low emitting power sources such as renewables and nuclear. The EPA determined how much carbon dioxide could reasonably be expected to be cut by 2030 using each of these building blocks, and then applied the same formula to each state's specific mix of electricity generating power sources in order to determine that state's target (Plummer 2015). Thus, each state's emission target is a function of the mix of fuels it uses to generate electricity, which is itself in part a reflection of the state's prior energy policies.

Although each state's overall emission reduction target was derived from EPA estimates of the amount of reductions it could expect to achieve through each of these building blocks, the state can meet its target however it sees fit. Thus, states may rely on emission reductions derived from a particular building block to a greater or lesser extent than EPA analysts envisioned in setting the target. Moreover, states may achieve some of their goals through policies that reduce energy demand through more efficient energy usage.⁵ Finally, states may convert their target emissions rate to a mass-based standard (e.g., total tons of carbon emitted) in order to initiate a cap-and-trade program (such as California's) or join together to form a regional target.⁶ State flexibility in meeting these goals is thus a hallmark of the Clean Power Plan.

Unsurprisingly, the Clean Power Plan is controversial. The proposed regulations drew over 4 million comments from state officials, industry, and consumer and environmental organizations, the largest number of comments in the EPA's 45-year history. Throughout its development, the regulation has prompted such heavy lobbying from industry and environmental groups that a representative of one environmental organization called it "the Super Bowl of climate politics"

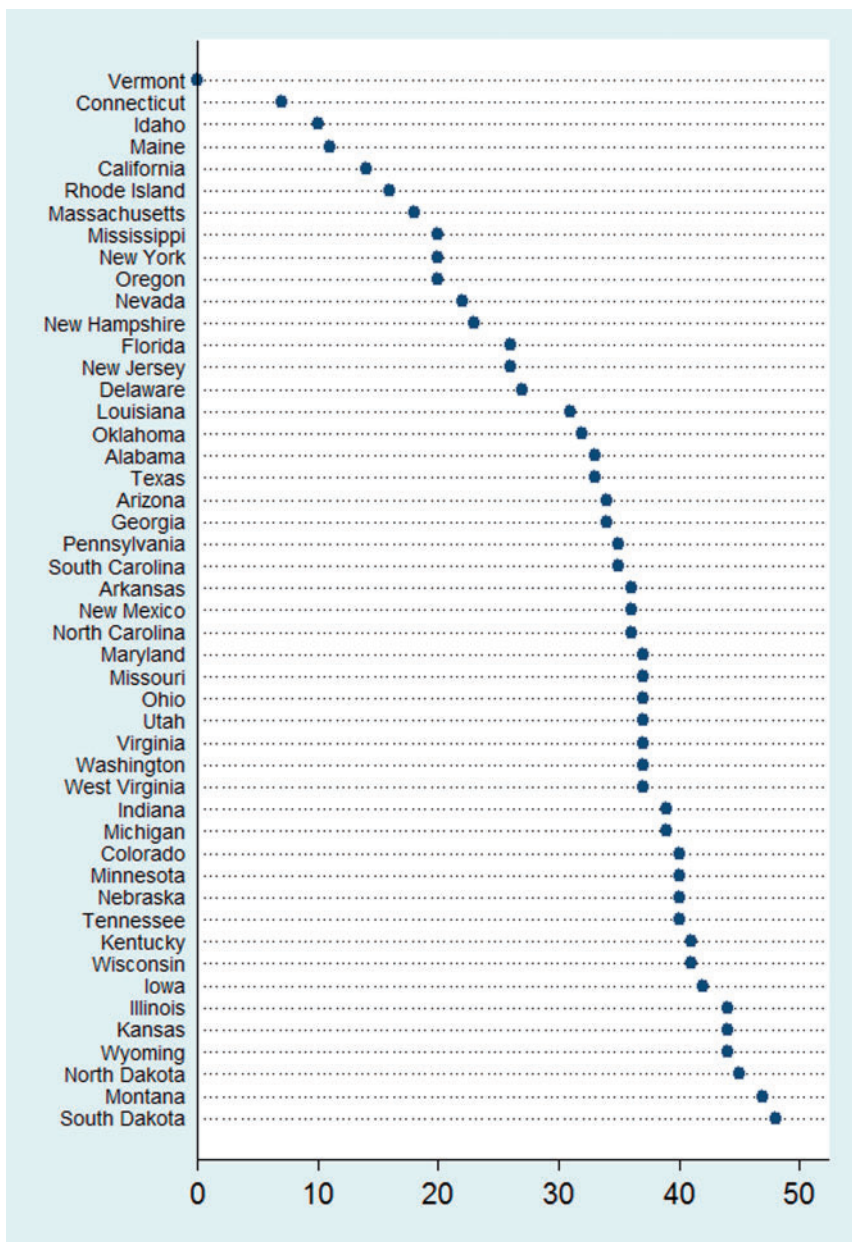


Figure 1 State emission reduction targets under the Clean Power Plan.

Note: Figure represents carbon dioxide emission reduction targets by 2030, expressed as a percentage of 2012 emissions.

Source: Center for Climate and Energy Solutions.

(Eiperin and Mufson 2014). Kentucky Senator Mitch McConnell has called for states to boycott the new regulations, a move that a handful of state governors have also endorsed (Warrick 2015). In 2015, both chambers of Congress also passed a resolution of disapproval under the Congressional Review Act that would have nullified the Clean Power Plan, as well as a separate resolution that would have overturned recent EPA emissions standards on new fossil fuel power plants. President Obama vetoed each measure.

The ultimate fate of the Clean Power Plan will be determined by the federal courts. As of this writing, twenty-seven states (mostly with Republican governors and/or state attorneys general) and numerous industrial groups have sued the EPA to overturn the Clean Power Plan, while eighteen states (mostly with Democratic governors and/or state attorneys general) and many environmental organizations have joined the EPA in defending the rule.⁷ The primary complaint is that the EPA does not have the legal authority to impose these regulations under the Clean Air Act. The EPA's argument that it does have this power requires more expansive reading of the statute than the EPA has previously asserted. Whether this reading will survive legal challenge is unclear, which illustrates one of the hazards of using an administrative presidency approach to achieve environmental policy goals.

Despite the political contention surrounding the Clean Power Plan, however, many state regulators do not anticipate having a problem meeting their targets. A substantial number of coal-burning power plants were already in the process of being phased out in favor of cheaper and lower greenhouse gas emitting natural gas facilities. Many states have also made investments in renewable energy sources. Iowa, for instance, is expecting to meet half of its emissions reduction goals by next year due to wind power facilities that were already on the drawing boards. Nevada is expected to meet its entire goal with several large solar-energy plants it was likewise already planning to build. "We've yet to find a state that is going to have a real technical challenge meeting this," stated an industry association representative (Warrick 2015).

Conflict over Federal and State Roles in Environmental Regulation

The Clean Power Plan allows states three years to come up with an approved state plan to meet its emission reductions goal. If a state does not do so—as several Republican governors have threatened—or if a state fails to meet a set of interim goals in achieving these reductions, the EPA will step in with its own federal plan to regulate those states' emissions. The federal plan includes both a rate-based program and mass-based program, and emissions reduction targets will be achieved through market-based, cap and trade programs.

In this respect, the Clean Power Plan exemplifies one common feature of federal environmental programs, the framework of partial preemption, which allows the

EPA to step in when states fail to achieve federal regulatory goals (Woods 2006). Under the Clean Air Act, for instance, each state must have an EPA-approved State Implementation Plan that governs how it is to attempt to achieve federal regulatory goals. If the EPA finds that some portion of a state's SIP is inadequate, it can impose its own Federal Implementation Plan covering that portion.

One measure of the degree of intergovernmental conflict between the federal government and the states, then, is how often the federal government disapproves portions of a state plan, substituting its own plan. By this measure, the Obama Administration EPA has adopted a fairly conflictual approach to relations with some states. During the first four years of the Obama Administration, for instance, the EPA issued nineteen Federal Implementation Plans, superseding state plans (Senate Committee on Environment and Public Works, Minority Report, 2013). Some observers assert that the number has by now surpassed fifty. In contrast, just one Federal Implementation Plan was implemented during the entire eight years of each of the George W. Bush and Clinton administrations.

As an example of this intergovernmental conflict over SIPs, the EPA issued a rule that requires industrial facilities to adhere to federal air pollution regulations even during periods of startup, shutdown, or malfunction (SSM). The SSM regulation required 36 states to revise their SIPs or potentially face adverse EPA action. Many states and some Republican members of Congress argued that this was an unreasonable usurpation of state authority under the CAA (Senate Committee on Environment and Public Works, Minority Report, 2013).

Another common source of friction between federal and state government is the extent of federal jurisdiction under major environmental statutes. This friction materialized throughout the Obama Administration, but is perhaps best illustrated by the controversy that erupted over the "Waters of the United States" rule (also referred to as WOTUS, or the Clean Water Rule). The EPA and U.S. Army Corps of Engineers jointly issued the WOTUS rule in May 2015, with the aim of clarifying the bodies of water subject to federal Clean Water Act (CWA) protection. The impetus for the rule was uncertainty about the scope of waters protected by the CWA, resulting from U.S. Supreme Court rulings in 2001 and 2006. Critics of the WOTUS rule, including most Republican (and some Democratic) governors, business organizations, and agricultural groups, argue that the rule represents a regulatory overreach, while supporters of the rule maintain that the rule is based on detailed scientific assessment that clarifies that some water resources such as ponds, streams, and wetlands merit CWA protection. As was the case with the Clean Power Plan, a large group of states sued the EPA to block the WOTUS rule, and the Sixth U.S. Circuit Court of Appeals imposed a nationwide stay on the rule in October 2015, until it reaches a decision on the merits.⁸

Although many states have chafed at the federal centralization and regulatory aggressiveness of the Obama EPA, the Administration has at times felt pressure

from other states for not being aggressive enough. For instance, in 2012, eleven states sued the EPA in federal court to force it to issue more protective air quality standards for fine particular matter, or “soot”.⁹ The lawsuit claims that the EPA has failed to meet the CAA requirement that the agency set the standard at a level that is sufficient to protect public health with an adequate margin of safety. This continues a pattern established during the George W. Bush Administration of state attorneys general suing the U.S. EPA to, among other things “take forceful action to protect wetlands, compel coal-fired power plants to reduce emissions, expand regulation of mercury emissions, and forestall relaxation of energy requirements” (Scheberle 2005, 69). Even though the Obama Administration is perceived as being much more environmentally friendly than the George W. Bush Administration was, these state-led lawsuits have not ceased.

Thus, some strains have emerged in the traditional model of cooperative federalism that underlies much of U.S. environmental policy. In this model, the federal government is largely responsible for setting standards, while the states are largely responsible for implementing and enforcing these standards. During the Obama Administration, there have been substantial pressures on both sides of that relationship. On the one hand, there is evidence that the Obama EPA has been far more willing to intrude on state implementation than under prior presidents, which has led to numerous state complaints. On the other side of the equation, some states are suing the EPA for its perceived failure to properly develop regulatory standards. Each of these points to a cooperative federalism relationship that is, at times, relatively uncooperative.

Public Lands

The management of public lands is another area of environmental policy that has generated conflict with some states during the Obama presidency. Presidents enjoy broad authority under existing legislative statutes to manage the vast public lands of the United States, and past studies have clearly demonstrated the ability of presidents to use this authority to pursue their policy goals (Davis 2008; Durant 1992). In recent decades, Congressional gridlock led presidents of both parties to rely more heavily on executive actions to pursue their public lands policy (Klyza and Sousa 2007). President Obama has been no different. Throughout his Administration, Obama has employed administrative tools to manage public lands, often with considerable controversy.

One set of decisions that created significant conflict with some members of Congress, state governments, and industry regarded the setting aside of public land from future development. The Antiquities Act of 1906 empowers presidents to declare tracts of federal land and historical sites as national monuments (the law also empowers Congress to make such designations), and, to date, sixteen

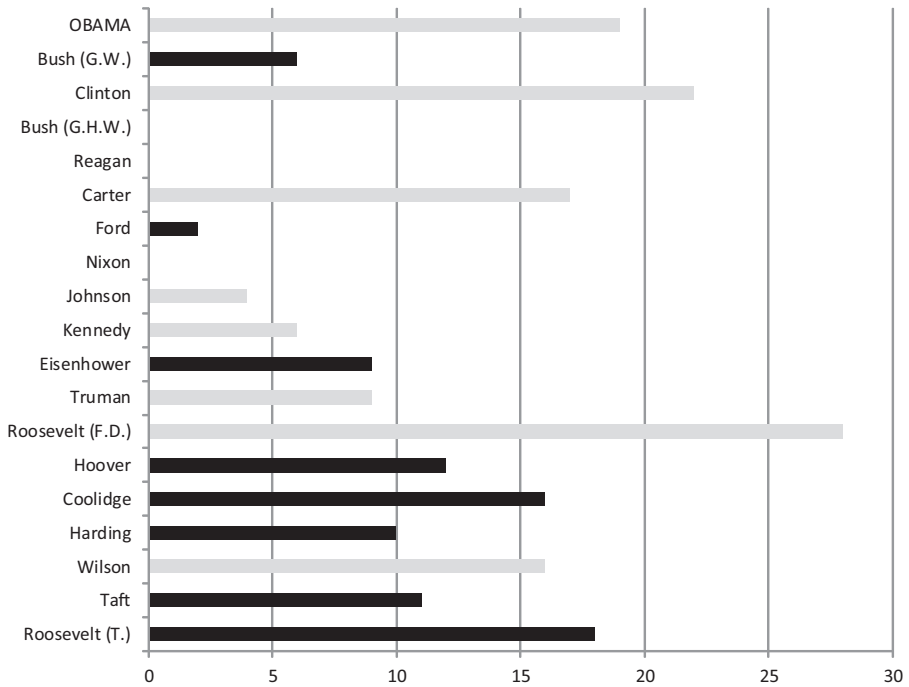


Figure 2 National Monument Declarations under the Antiquities Act, by President.

Note: Gray and black bars represent Democratic and Republican presidents, respectively.

Source: National Parks Conservation Association, Updated through July 17, 2015.

presidents have done so. As shown in Figure 2, both Republican and Democratic presidents used this authority to protect federal land during the first half of the twentieth century. Beginning with the President Nixon, a distinctly partisan pattern has emerged—Republican presidents have declared many fewer national monuments, with Nixon, Reagan, and George H. W. Bush declaring none. In contrast, Presidents Carter, Clinton, and Obama have used the Antiquities Act to designate 17, 22, and 19 (as of July 17, 2015) national monuments, respectively.

President Obama's use of the Antiquities Act to close off federal land from development created outrage among energy companies and many in resource extraction industries, as well as Republican elected officials from western states. For example, in reaction to President Obama's designation of the Rio Grande del Norte national monument, a 24,000 acre area in Taos County, New Mexico, Chairman of the House Natural Resources Committee Doc Hastings (R-WA) argued that such designations should have more scrutiny from Congress and local officials. He commented that: "Several of these designations may merit preservation and be popular with some advocates in the local community, but this outdated law can be

used by a President to unilaterally impose policies unwelcome and strongly opposed by local elected leaders and Governors for the economic harm caused to their small rural communities and states” (quoted in Colman 2013).

Unlike the regulatory battles over use of the Clean Air Act to regulate pollutants, few opponents of these decisions dispute the right of President Obama (or past presidents) to use the Antiquities Act in this way.¹⁰ However, opponents certainly question the wisdom of these decisions, claiming that they harm economic activity. More generally, they often question which level of government should have primary responsibility for managing public land. Even though the lands in question are *federal*, many elected officials representing western states believe that state and local governments should have primary authority to manage these lands.

A second source of considerable controversy during the Obama Presidency has been decisions regarding the use of federal land for oil and gas exploration and development. An important backdrop for much of the debate was the Deepwater Horizon oil spill, which began on April 20, 2010. The explosion that caused the oil spill, the largest in U.S. history, killed eleven oil rig workers and injured seventeen more. The spill itself released millions of barrels of oil into the Gulf of Mexico, causing serious damage to the marine ecosystem, and to the fishing and tourism industries in Louisiana and other Gulf states. There was broad consensus that BP, and to a lesser extent the other companies involved, were at fault. However, many also blamed the Minerals Management Service within the U.S. Department of Interior (DOI) (since renamed the Bureau of Ocean Energy Management, Regulation, and Enforcement), the federal agency with primary responsibility for managing the development of energy and mineral resources on the Outer Continental Shelf. Critics accused the agency of everything from being staffed with too many former oil and gas industry officials to uncritically accepting company drilling and safety plans to outright corruption (Eilperin and Higham, 2010).

For the balance of Obama’s presidency, policy debates about the use of federal land for oil and gas development were colored by the Deepwater Horizon accident, although in reality the basic contours of the debate have not changed much over the last few decades. The central question for federal land managers is how to balance energy development and environmental protection. Industry and its supporters argue that the abundant resources on public land should be developed, and that this can be done with minimal environmental impact. Those in the environmental advocacy community argue that development is irrevocably at odds with protecting these resources. The two sides of this debate are deeply entrenched. To some extent, the President Obama sought to placate both sides, perhaps best exemplified by his frequent support for an “all-of-the-above” energy strategy. In so doing, he alternatively ran into fierce opposition from both the oil and gas industry and the environmental advocacy community.

A couple of important decisions made in the middle of Obama's second term are illustrative. On January 25, 2015, President Obama announced that he would designate an additional 12 million acres of the Alaskan Arctic National Wildlife Refuge (ANWR) as wilderness, thereby shutting off ANWR's Coastal Plain from oil and gas exploration. Environmentalists have long argued that ANWR should be off limits to development because of its unique arctic ecosystem, which provides habitat for diverse wildlife. The oil and gas industry argues that the vast, untapped resources in ANWR can be harnessed without significant environmental impact. For their part, elected officials from Alaska expressed outrage about the decision. Senator Lisa Murkowski (R-AK), Chair of the Senate Energy and Natural Resources Committee, responded to the ANWR decision by saying: "It's clear this administration does not care about us, and sees us as nothing but a territory. The promises made to us at statehood, and since then, mean absolutely nothing to them. . . . I cannot understand why this administration is willing to negotiate with Iran, but not Alaska, but we will not be run over like this. We will fight back with every resource at our disposal" (quoted in Knowles 2015).

A few days later, the DOI released a draft of its proposed five-year oil and gas leasing plan for the Outer Continental Shelf, which called for opening new areas to development, most notably federal waters along the Atlantic seaboard from Virginia to Georgia and some small areas in Alaska's Cook Inlet and Beaufort and Chukchi Seas. The DOI draft plan also proposed closing off from future development other potentially resource-rich areas in the Arctic, namely the area known as the Hanna Shoal, which provides habitat for walruses, seals, and other marine wildlife. The environmental community was generally displeased with the proposed plan, while the oil and gas industry expressed more support. In releasing the DOI proposal, Interior Secretary Sally Jewell tried to articulate the balancing act that the Obama Administration was trying to achieve: "The safe and responsible development of our nation's domestic energy resources is a key part of the President's efforts to support American jobs and reduce our dependence on foreign oil. This is a balanced proposal that would make available nearly 80 percent of the undiscovered technically recoverable resources, while protecting areas that are simply too special to develop" (DOI 2015).

The Obama Administration's attempted balancing act on energy development and environmental protection materialized around other issues as well, particularly hydraulic fracturing or "fracking". The development of oil and natural gas from shale rock through the process of fracking accelerated during the Obama Presidency, due to continued advances in technology and to favorable market conditions.

Controversial from the start because of disputes over environmental impacts, especially potential groundwater contamination, much of the debate about regulating fracking has occurred at the state and local level. Several states haven

banned fracking on either a temporary or permanent basis, including Vermont, Maryland, and New York, while other states such as Pennsylvania, North Dakota, and Texas have readily embraced it. The absence of federal policy (as part of the Energy Policy Act of 2005, Congress exempted fluids used in fracking operations from several federal environmental statutes, including the Safe Drinking Water Act) led states to develop their own approaches to managing fracking, and as might be expected, there is substantial variance in state policies (Davis 2012; Richardson et al. 2013; Spence 2012; Warner and Shapiro 2013). In addition, there have been high profile disputes between local communities and state governments. Several cities, such as Denton, Texas and Longmont, Colorado, have attempted to prohibit or restrict fracking through local zoning ordinances, but these efforts have been met with stiff opposition by state government and the energy industry, in some cases leading to court cases and new laws to prohibit local level restrictions (Healy 2015). These disputes highlight an important tension created by U.S. federalism where there are multiple options for where to assign policy responsibility for an issue, and often wide disagreement among elected officials and the public about which level of government is best-suited to manage a problem (Konisky 2011; Schneider, Jacoby and Lewis 2011).

The “shale gas revolution” presented a challenge for President Obama. The boom in domestic supply generated large economic benefits for both industry and consumers, and contributed to the economic recovery for which President Obama boasted credit. Moreover, the vast new supply also pushed prices of natural gas down, which together with new EPA regulations on conventional and toxic pollution (discussed below), created difficult market conditions for older, dirtier coal-fired power plants (i.e., the same power plants the Administration was targeting for their greenhouse gas emissions). At the same time, many in the environmental advocacy community—a key constituency for President Obama—pushed the Administration to regulate fracking due to concerns about local environmental impacts, as well as the leakage of methane, a potent greenhouse gas.

During his second term, President Obama adopted what might be characterized as a “middle course” solution. In January 2015, the EPA proposed a combination of regulatory and voluntary programs to reduce emissions of methane and volatile organic compounds (a significant cause of smog) from oil and gas operations on federal land. Two months later, the DOI’s Bureau of Land Management (BLM) finalized regulations on fracking on public lands, which required drillers to disclose chemical additives, to adhere to well construction standards, and to safely dispose of wastewater. As was the case for Obama’s other decisions on energy and federal land, the EPA and BLM regulations satisfied neither the oil and gas industry nor the environmental community. Industry regarded the regulations as unnecessary, arguing that existing state efforts were sufficient, while many environmental groups contended that the new programs did not go far enough. As of this writing, the

BLM regulations are currently on hold, following a September 2015 decision by the federal District Court of Wyoming that placed a nationwide stay on the fracking rules, while the court determines if the BLM had sufficient authority to issue them in the first place.¹¹

Interstate Pollution Spillovers

Since the federal policy intervention in the 1970s that led to the enactment of laws such as the Clean Air Act, the Clean Water Act, and the Endangered Species Act, a central issue in environmental politics has been whether the federal government should devolve more authority to state governments. Among the arguments often advanced by proponents of policy devolution are that states have the institutional capacity to manage environmental problems, states can experiment with innovative solutions to problems which if successful can be emulated by others, states can tailor policy to local needs and preferences, and from a normative perspective, states are democratically more legitimate than the federal government since they are “closer to the people” (John 1994; Butler and Macey 1996). Other scholars emphasize the potential pitfalls of devolution, noting that fragmented authority under federalism can also create disincentives for state government to respond to environmental problems, particularly those that transcend borders. This can result in both policy coordination dilemmas, such as in the management of rivers that cross state borders (Lubell et al. 2002; Heikkila and Schlager 2012), as well as create incentives for state governments to export their pollution across their borders to externalize the health and environmental costs to other states (Konisky and Woods 2010, 2012b; Sigman 2002).

The issue of interstate pollution spillovers has been particularly contentious over the past couple of decades, first playing out in the realm of the acid rain debates of the 1980s,¹² and more recently in the context of state efforts to meet national air quality standards. Although concern about interstate pollution spillovers was a central reason that Congress passed the Clean Air Act in 1970 (Revesz 1992; Stewart 1977), the EPA has not historically used its authority under the CAA’s “good neighbor” provision to rein in interstate pollution (McCarthy, Parker, and Meltz 2008). In essence, the provision requires each state to prohibit, as part of its State Implementation Plan, emissions that significantly contribute to poor air quality in downwind states, and specifically if these emissions interfere with the downwind states’ ability to meet National Ambient Air Quality Standards (NAAQS). NAAQS are uniform air quality standards established by the EPA that cover six criteria air pollutants (carbon monoxide, lead, nitrogen oxides, ozone, particulate matter, and sulfur dioxide). Areas that do not meet these standards are required to impose air pollution control restrictions on local emissions sources.

Many downwind states, however, have long complained that they are unable to meet NAAQS because of emissions from pollution sources in upwind states.

A month prior to President Obama taking office in January 2009, the EPA had been instructed by the U.S. Court of Appeals for the D.C. Circuit to replace a regulation known as the Clean Air Interstate Rule (CAIR), a program finalized by George W. Bush's EPA in 2005 to address interstate air pollution. CAIR created a cap-and-trade-program for SO₂ and NO_x emissions from power plants in 27 eastern states plus the District of Columbia, with the goal of reducing pollution sent to downwind states. The regulation was expected to generate health benefits that far exceeded compliance costs. However, in *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008), the D.C. Circuit determined, among other things, that the design of the cap-and-trade program conflicted with the CAA's statutory language. Specifically, the D.C. Circuit held that CAIR's cap and trade program, which allowed unlimited interstate allowance trading, assured only that no *entire region* would "contribute significantly" to downwind state's inability to meet ambient air quality standards, whereas the CAA explicitly required that *each state's* sources not "contribute significantly" (McCarthy, Parker, and Meltz 2008). The D.C. Circuit initially vacated the rule, but then modified its decision in December 2008, allowing CAIR to remain in effect until the EPA finalized a new rule, which was the task confronting the EPA when Obama took office.

The EPA replaced CAIR in July 2011 with the Cross-State Air Pollution Rule (CSAPR), which was designed to build on the early success of CAIR in reducing SO₂ and NO_x emissions. CASPR had ambitious timelines for emissions reductions and included Federal Implementation Plans to put the regulation immediately in place without having to wait for states to submit new State Implementation Plans. Similar to CAIR, CSAPR established a cap-and-trade system for SO₂ and NO_x emissions from fossil-fuel power plants located in twenty-eight states and the District of Columbia. However, the EPA structured the cap and trade program in a manner to address the D.C. Circuit's decision in *North Carolina v. EPA* by limiting the degree of interstate allowance trading (McCarthy 2014). EPA's analysis of the rule concluded that the reduction in emissions would result in tens of thousands fewer deaths, nonfatal heart attacks, hospital and emergency department visits, and cases of acute bronchitis, as well as 400,000 fewer cases of asthma. The total estimated monetary benefits were in the range of \$120–\$280 billion annually, compared to about \$2.5 billion in annual compliance costs (EPA 2015).

As has been the case with virtually all EPA regulations promulgated during the Obama Presidency, CSAPR faced immediate and intense opposition. The Republican-controlled House of Representatives voted on September 23, 2011 (and, again, a year later) to revoke the regulation, while the Senate failed to pass a resolution of disapproval under the Congressional Review Act on November 10, 2011 (McCarthy 2014). Many state governments also objected, with fifteen

Southern and Midwestern states joining a lawsuit with industry that argued that the EPA had exceeded its authority; nine mostly northeastern states and the District of Columbia joined the federal government and others in defending the regulation.¹³ In August 2012, the D.C. Circuit decided in favor of the petitioners, holding that CSAPR exceeded EPA's statutory authority under the CAA because "upwind States may be required to reduce emissions by more than their own significant contributions to a downwind State's nonattainment," while the statute only permitted the EPA to limit a state's "own significant contributions to a downwind State's nonattainment." In this sense, the D.C. Circuit held that the EPA had not satisfactorily addressed the issue that led to the Bush-era CAIR regulation being vacated three years previously. In addition, the D.C. Circuit held that the EPA had not given states sufficient opportunity to develop their own implementation plans.

This decision created regulatory uncertainty, given that CAIR was still in place in the absence of a replacement, even though the D.C. Circuit had also found it to be inconsistent with the CAA. However, in April 2014, the U.S. Supreme Court in a 6-2 decision held in *EPA et al. v. EME Homer City Generation, L. P. et al.*, 572 U.S. 134 (2014), that the EPA had acted appropriately in putting in place Federal Implementation Plans and that the agency's use of cost-effectiveness to allocate emission reductions among the states (i.e., the cap-and-trade program) was reasonable given ambiguity in the CAA (McCarty 2014). After further litigation on the compliance schedule, courts have held (as of this writing) that CSAPR can go in effect, which has been the case since January 1, 2015.

And thus, 45 years after Congress enacted the 1970 CAA, the federal government finally has in place a program that explicitly deals with one of the primary environmental issues that arises from federalism—interstate pollution spillovers. The length of time and litigious history of CAIR and CSAPR, as well as the continuing unhappiness of many upwind states (and their supporters in Congress), is indicative of just how politically difficult this problem has been to address. The conflict over CSAPR was amplified by the intense political opposition from Republicans and coal-state Democrats generated by a suite of EPA regulations that targeted coal-fired power plants. In addition to the Clean Power Plan already discussed, the EPA imposed new, first-time emissions on mercury and tightened the ozone NAAQS. These emission regulations, often regarded by opponents' part of a "War on Coal," engendered deep resentment, and because they emerge from purely administrative policies, they may be subject to revisions by future presidential administrations with different policy goals.

Conclusion

The Obama administration views environmental policy as central to the President's legacy (Davenport and Harris 2015). Of particular importance in this regard is the

president's set of policies intended to combat climate change, including large investments in green energy development and deployment under the ARRA, and an emerging set of greenhouse gas regulations, most notably in the Clean Power Plan.

The Clean Power Plan gives states an important role in determining how U.S. greenhouse gas emissions reductions will be achieved. In some cases, however, state recalcitrance has made the state role less than the Administration intended. Several state governors have stated that they intend to heed Senator McConnell's call not to design a state implementation plan to combat greenhouse gas emissions, as required under the Clean Power Plan, thus forcing the federal government to implement its own plan in those states. In some respects, this echoes what has happened in another politically contentious arena: In implementing the Affordable Care Act, many states have refused to set-up their own healthcare exchanges, thus requiring their citizens to rely on the federal exchange instead.

One obvious difference between healthcare and climate change is that the Affordable Care Act was passed as a piece of legislation, while the Administration's attempt at climate change legislation—the 2010 cap and trade bill—failed. Thus, in this and other environmental arenas congressional gridlock, fueled by political polarization, has forced the president to rely on a continuation of an administratively focused strategy that was employed by President George W. Bush (Rabe 2007).

President Obama has generally employed the tools of the administrative presidency for dramatically different purposes than his predecessor. This fact highlights an important limit to this strategy. Different presidents may use the tools of the administrative state for very different policy purposes; therefore, the ultimate effectiveness of many of the administration's policy initiatives will depend on the next president. Moreover, use of the administrative strategy in the environmental regulatory arena necessitates developing new policies under the auspices of statutes that were not expressly intended for those purposes. This leads to the possibility of judicial reversal, which is certainly a threat faced by the Clean Power Plan. For both these reasons, the administrative presidency approach can be expected to lead to policy that is less stable, durable, and predictable than policy that is initiated by passing legislation.

While administratively oriented policymaking continues to be the norm, state-federal relations in the environmental arena may be evolving in other ways. Although some areas of environmental policy have been marked by a fairly high degree of executive centralization and intergovernmental conflict during the Obama presidency, the recently unveiled Clean Power Plan is tailored to individual state circumstances and is designed for maximal state flexibility. In commenting on an earlier version of the plan, Engel (2015) goes so far as to argue that the EPA's incorporation of states' climate change policies and capacities into the proposed

federal Clean Power Plan may herald a new approach to cooperative federalism by the federal government. Under the traditional approach, the federal government and the states each have unique (though overlapping) spheres of authority. In the arena of environmental federalism, this corresponds to the federal government primarily having the authority to set regulatory standards, while the states primarily have the authority to implement and enforce these standards. In the new model that Engel proposes, these roles are blurred, with state laws providing the content for new federal regulations. This, Engel contends, may indicate an evolving intergovernmental partnership between the federal government and the states in which prior state policies are incorporated into new state-specific federal programs. This new form of intergovernmental partnership, she concludes, may be taking shape across a wide variety of policy areas.

At this point this conclusion seems premature. Since Engel's comments, changes to the Clean Power Plan have already made it less emblematic of the kind of state-specific federalism that she envisions.¹⁴ Moreover, as Engel herself acknowledges, climate change regulation has had a fairly unique history, where prolonged federal inaction led to the emergence of a robust set of state level policies that were in place before the federal government got into the act. Thus, the federalism developments observable in the Clean Power Plan may be limited to climate change regulation. However, future developments in environmental policy bear watching to see if this does herald an evolution in the longstanding cooperative federalism arrangements that have undergirded much of U.S. environmental policy.

Notes

- 1 President Obama pledged during his initial presidential campaign to put in place a federal "clean energy" mandate of 80 percent by 2050 (clean energy included electricity generated from either natural gas or nuclear power, in addition to renewable sources). In addition, the 2009 American Clean Energy and Security Act (better known as the Waxman–Markey bill, for its two leading sponsors) that passed the U.S. House of Representatives in 2009 included a federal electricity standard of 20 percent by 2020.
- 2 The final version was printed in the Federal Register on October 23, 2015, but for the purposes of this article, there were no major differences from the rule released the prior August.
- 3 There is disagreement among policy experts about the significance of the Clean Power Plan in terms of reducing carbon dioxide emissions. Specifically, even without the Clean Power Plan, some experts argue that existing federal and state regulations and market conditions for natural gas and renewable sources would generate a similar emissions decline.
- 4 The Clean Power Plan currently sets emissions goals for 47 states. Vermont is exempt because it does not have any large power plants, so there are essentially no emissions to reduce. At the time of this writing, Alaska and Hawaii are not yet covered under the rule

- because the EPA lacks adequate data to calculate the emissions targets due to their unique power grid situations, although they will be covered eventually.
- 5 Energy efficiency improvements were included as a building block in the EPAs proposed rule issued in 2014, but were removed from the final rule. The final rule differs from the proposed rule in other important respects as well. The proposed rule set emission reductions that varied much more across states than the final rule, ranging from 10.6 percent in North Dakota to 71.6 percent in Washington. In large part, this disparity reflected the amount of existing reliance on coal fired power plants in the state. With the proposed rule, the EPA also used the states' own renewable portfolio standards to aid in establishing each state's renewable energy target, a process that Engel (2015) argued amounts to little more than a federalization of the states' own public policies. This too, was dropped with the final rule. These changes were presumably made in part to help the final rule survive its inevitable court challenges.
 - 6 In fact, some observers have suggested that the Clean Power Plan encourages states to cooperate in forming cap and trade systems (Upton 2015). If successful, this would mean that in some key respects the administration has been able to accomplish administratively what it could not accomplish through cap and trade legislation.
 - 7 Twenty-four states have sued as part of *State of West Virginia et al. v. U.S. Environmental Protection*, and three other states have sued separately. The cases have now been consolidated into a single case before the U.S. Court of Appeals for the District of Columbia Circuit.
 - 8 The case is *State of Ohio et al. v. U.S. Army Corps of Engineers* (6th Cir. 2015). Each chamber of Congress also passed a resolution of disapproval to block the WOTUS rule under the Congressional Review Act, which President Obama vetoed in January 2016 (Cama 2016).
 - 9 The case was *State of New York et al. v. Lisa P. Jackson* (S.D. N.Y. 2012).
 - 10 Though there are now efforts in Congress to limit presidential authority under the Antiquities Act.
 - 11 The case was *State of Wyoming et al. v. Sally Jewell*, Case No. 2:15-CV-041-SWS (D. Wyo. 2015).
 - 12 The problem of acid rain was addressed in the 1990 Clean Air Act Amendments, which created a cap and trade program for sulfur dioxide emissions.
 - 13 More than forty individual petitioners had filed suit against the EPA regarding CSAPR, and these petitions were consolidated into *EME Homer City Generation, L.P. v EPA*, 696 F.3d 7 (D.C. Cir. 2012). States comprising petitioners against the CSAPR rule included: Alabama, Florida, Georgia, Indiana, Kansas, Louisiana, Michigan, Mississippi, Nebraska, Ohio, Oklahoma, South Carolina, Texas, Virginia, and Wisconsin. States among the respondents supporting the rule included: Connecticut, Delaware, Illinois, Maryland, Massachusetts, New York, North Carolina, Rhode Island, Vermont, and the District of Columbia.
 - 14 Some of these changes are discussed in note 5.

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