Subnational Discretion Mediating New Climate Regulatory Challenges

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I. THE SUBNATIONAL TAPESTRY

Subnational units of government are critical actors in the U.S. federalist scheme of regulation. It was the original 13 colonies/states which were the core of the American experiment, and banded together as a nation for common defense and commerce after fighting for independence from the United Kingdom. The Constitution vested in the new federal government the treaty and war powers, as well as powers over interstate commerce.1

In the 21st century, there is a national and international challenge to control global emission of climate warming gases. And the primary source of those gases in both the U.S. and the world is the production of electric power, as displayed in Figure 1.2 Global energy-related emissions are expected to increase fifty-seven percent from 2005 to 2030.3 At current rates of energy development, energy-related CO₂ emissions in 2050 would be 137% of their current levels under business-as-usual.4 It is estimated that this would be unsustainable and that life as we know it would change fundamentally with the warming of the climate.5

However, to regulate the production of those heat-trapping gases from electric power, U.S. policy does not deploy Federal Power Act authority over the electric sector. Instead, the modus operandi to regulate these emissions is environmental law. Subnational units of government exercise a critical

1. U.S. Const. art. II, § 2, cl. 2; U.S. Const. art. I, § 8, cl. 3
role in these efforts to regulate air emissions, with the states in the U.S. taking the lead on climate control. Here, the law leaves critical gaps.

**FIGURE 1**

![Total U.S. Greenhouse Gas Emissions by Economic Sector in 2014](image)

Total Emissions in 2014 = 6,870 Million Metric Tons of CO2 equivalent

* Land Use, Land-Use Change, and Forestry in the United States is a net sink and offsets approximately 11% of these greenhouse gas emissions.

All emission estimates from the Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014

A. Legal “Bright Lines” Versus Subnational “Cooperative Federalism”

The division between state and federal legal jurisdiction over energy is defined by the Supreme Court as a “bright line” not subject to exception, however there is a “cooperative federalism” between state and federal authority under the Clean Air Act in regulating emissions. Because the new federal Clean Power Plan for carbon regulation is implemented through the Clean Air Act, although it affects only energy facilities, these distinctions have carved gaps and crevices in the legal mechanism to move forward.

B. Energy Versus Environment

There can be a conflict between the need to instantaneously generate electric power and the need to reduce environmental emissions resulting therefrom. It is completely unclear which law dominates. While one would think that there would be direction in a statute or a regulation, or at least subsequent determination by a court, there is no legal precedent or guidance whatsoever on this critical question. Commissioners of the Federal Energy Regulatory Commission (“FERC”) warned of an upcoming “train wreck” in the Administration’s new Clean Power Plan to reduce CO₂ from power plants using environmental regulation rather than jurisdiction over electric sector operations.

C. The Clean Power Plan and Subnational Discretion

The Obama administration promulgated in the latter half of 2015 the Clean Power Plan, an extremely ambitious 1550-page regulation to dramatically limit CO₂ emissions from larger power generation facilities. It did so by setting dramatically inconsistent and different “best system” standards for each of the states, and then leaving the complete choice of implementation methods entirely to each state. While this is consistent with the doctrine of “cooperative federalism,” states are not self-contained jurisdictions regarding electric power production. The United States Supreme Court held that:

it is difficult to conceive of a more basic element of interstate commerce than electric energy, a product used in virtually every home and every commercial or manufacturing facility. No State relies solely on its own resources in this respect.6

So, by a federal law prescribing a 2018 deadline, states are left to act alone regarding the commodity most prevalent in interstate commerce in the United States—electricity. Many states are not cooperating:

- The governors of 6 states threatened not to comply with the Clean Power Plan even before its regulations were promulgated in final form.\(^7\)
- Fifteen states sued EPA before the EPA regulations were final to enjoin EPA from moving forward with the Clean Power Plan.\(^8\)
- Litigation continues by more than half of all the states challenging the Clean Power Plan as this article goes to press.

\(\text{D. Independent System Operators and Less Independent Subnational Governance}\)

Thirty-four of the U.S. states are members of three multistate Independent System Operators ("ISOs") which manage all transmission and sale of wholesale power in their often large, multi-state regions, shown in Figure 2. Compliance by these thirty-four states with the Clean Power Plan to limit CO\(_2\) from power generation cannot occur without regard to how power actually is being managed and moving at the speed of light within their multi-state ISOs. The ISO least-cost reliability protocols for the operation of power plants and power transmissions will be at odds with some of the subnational state decisions.

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All of these issues weave together at the subnational level in the still-being-created legal tapestry of carbon control. While each of these issues above merits its own lengthy discussion, this article is the loom on which we examine some key threads in the carbon legal fabric.

Section II examines the legal tension between the requirement to generate sufficient electricity to power the grid, and the need to protect the environment from related deterioration. We examine the conflicts between different federal energy and federal environmental agencies, between state and federal regulators, and between key provisions of the U.S. Constitution and state regulators.

Section III moves to the new front of the legal issue: The Clean Power Plan regulations. We examine how the new federal Plan creates a more disaggregated “mash” of subnational state choices, which will fracture even more objectives for energy reliability. We examine the range of pending and precedent legal challenges by states to this new regulatory order, with particular analysis of the interstate nature of CO₂ and other global warming emissions and state discretion under existing precedent.
II. THE TENSION BETWEEN REGULATION OF ENERGY AND ENVIRONMENT IN THE 21ST CENTURY

“[A] jurisdictional train wreck”

Federal Energy Regulatory Commission
Commissioner Tony Clark, 2014
Congressional testimony on conflict between environmental regulation and power system reliability.

With all of the FERC Commissioners testifying, Commissioner Tony Clark predicted “a jurisdictional train wreck” between the Clean Air Act regulation of carbon emissions and the Federal Power Act requirement for FERC to maintain uninterrupted electric system reliability.10 Electric system reliability in America is not a technical issue of insufficient supply resources, but rather a legal issue of various energy and environmental statutes and orders working at cross-purposes to the other. Reliable electricity supply requires a constant, second-by-second simultaneous balancing of power generation supply to meet demand on the utility grid.11

The United States electric grid would collapse within approximately four seconds if sufficient generation of power was not constantly supplied to meet fluctuating consumer demand.12 Either too much or too little power causes system instability; a loss of power would disrupt communication, transportation, heating, water supplies, hospitals, and hospital emergency

10. Id.
rooms. This poses a legal challenge: According to energy industry leaders and members of the FERC, an irreconcilable conflict lurks between increased federal environmental regulations of power plants and federal rules aimed at maintaining the reliability of the nation’s electricity grid.

No federal law, statute, or regulation in the United States creates any overarching legal hierarchy regarding whether environmental restrictions or commands to maintain the electric grid dominate when the two conflict, as they now increasingly will. FERC Commissioner Philip Moeller testified that the environmental approach for emissions reductions from power plants is “an enforcement regime that would be awkward at best, and potentially very inefficient and expensive.” FERC Commissioners Moeller and Clark characterized the Environmental Protection Agency (“EPA”) carbon regulations in the Clean Power Plan as a fundamental change in energy markets, injecting environmental factors into how power plants are allowed to run.

Where there is statutory conflict, the judicial branch is the source of resolution. However, in 2016, 80 years after enactment of the Federal Power Act, there is no applicable judicial precedent. There is only the somewhat provocative Supreme Court dictum from forty years ago, when the Court stated that it is never impossible for a coal-fired electric power plant to comply with any environmental requirements because it always has the option to cease operation. Should environmental statutes and resultant emission permits, which limit power plant pollution, override energy agency orders and requirements to operate power generation facilities to keep the lights on? Alternatively, should the requirement of twenty-four seven reliable energy supply override environmental laws and limits on operation of power generation facilities? That is the legal question.

15. Garner, supra note 9, at 2. FERC Commissioner Philip Moeller stated that the biggest challenge in implementing the proposed rule is that electricity markets are interstate in nature, while EPA has a state-by-state approach for emissions reductions.
A. Power Shortfalls and Air Emissions

We start in the air: As part of national air regulation, there is a specified division of state and federal authority under the Clean Air Act: States have the “first-implementer role,”18 while EPA “is relegated . . . to a secondary role.”19 The Act’s scheme has been interpreted “as erecting a statutory federalism bar” that “prohibits EPA from using the State Implementation Plan (SIP) process to force [s]tates to adopt specific control measures.”20 If a state’s SIP would result in compliance with federal EPA air standards, EPA may not question the choices of the state as to how it complies with requirements.21 Moreover, EPA cannot condition its approval of state implementation plans on the adoption of specific emission control measures by states.22

However, where states do not adequately implement Clean Air Act requirements, the federal EPA can step forward to do so. The D.C. Circuit upheld EPA’s imposition of federal Clean Air Act implementation plans for states which failed to require Prevention of Significant Deterioration (PSD) permits for stationary sources which emit greenhouse gases.23 Notwithstanding this residual federal back-stop authority, even before the unprecedented carbon reductions required by the Clean Power Plan, the conflict between large power plant operation and environmental air quality goals was in play.

Virginia’s Mirant Potomac River Generating Station in 2005 was shut down on two days’ notice “in response to emissions abatement concerns raised by the Virginia Department of Environmental Quality” (“DEQ”).24

20. EME Homer City Generation, L.P., 696 F.3d at 29.
21. Train, 421 U.S. at 79.
23. Texas v. EPA, 726 F.3d 180, 182 (D.C. Cir. 2013). While the challenge was dismissed on standing, it distinguished the environmental regulation from the higher concern on federal coercion of the states identified in the prior Supreme Court decision on the Affordable Care Act.
Because the plant was deemed as reliability-critical for serving the nation’s capital with electricity, the D.C. Public Service Commission filed emergency petitions with the U.S. Department of Energy and FERC asking the federal agencies to order the Potomac facility to continue operations notwithstanding Clean Air Act environmental permit violations.  

The Virginia DEQ countered to FERC that “Congress has not given the Federal Power Act primacy over the Clean Air Act” and that “[n]owhere in the Federal Power Act—§ 202(c) or elsewhere—is there language providing that [energy] reliability concerns take precedence over federal and state environmental laws.” This lack of any legal guidance between energy and environmental requirements is manifested in all federal energy and environmental laws. Four weeks after the shutdown, before any emergency orders were issued, Potomac voluntarily resumed operations. Only some months later, U.S. DOE issued an order requiring the plant to maintain operations. Subsequently, Virginia DEQ fined Potomac $52,000 for Clean Air Act violations that occurred after it had resumed operations and before the DOE order. This conflict illustrates the proverbial trap between an energy “rock” and an environmental “hard place.” The law had no guidance, let alone a solution.

B. Power Shortfalls and Water Emissions

The history of these conflicts affects the water, as well as the air we breathe. In 2012, the GenOn Kendall Station plant in Cambridge, Massachusetts would have had to either violate the plant’s Clean Water Act National Pollution Discharge Elimination System (“NPDES”) discharge permit or violate an order to it issued by the FERC-authorized and FERC-regulated New England Independent System Operator (“ISO-NE”), requiring the...
plant to continue running at full capacity to ensure that the electric grid operated to serve the greater Boston area.31 ISOs are FERC-sponsored managers of regional transmission grids, see Figure 2, and legally authorized pursuant to federal law.32 ISOs manage regional power transmission utilities pursuant to ISO-filed tariffs which must be approved by FERC pursuant to the Federal Power Act.33

EPA demanded that the plant comply with its environmental water discharge permit limits by taking twenty-seven megawatts (“MW”) of the plant’s generating capacity off-line and out of operation,34 while ISO-NE ordered that Kendall Station’s full generating capacity—including the twenty-seven MW at issue with EPA—was “critical to reliability within the Northeast Massachusetts/Boston Load Zone.”35 When Kendall Station responded to the EPA demand by requesting ISO-NE to allow it to “de-list” the twenty-seven Mw that EPA order not to operate, ISO-NE refused and issued an order requiring Kendall Station to continue operating at full capacity.36 GenOn appealed ISO-NE’s order to FERC in a legal attempt to resolve the conflict created between environmental and energy requirements.37

32. United States Government Accountability Office, Electricity Restructuring: FERC Could Take Additional Steps to Analyze Regional Transmission Organizations’ Benefits and Performance, GAO-08-987 (2008) (FERC oversees six RTOs that cover part or all of 35 states and D.C.). In the PJM ISO, which serves multiple Eastern states, there are two retail energy markets, a real-time (spot) and a day-ahead (forward) market. The basis of calculating the electricity price in either market is Locational Marginal Pricing. PJM’s capacity-market model, the Reliability Pricing Model, was implemented in 2007 as the successor to its Capacity Credit Market design, as a series of auctions for a delivery year approximately three years in the future. PJM’s demand curve, the Variable Resources Requirement, defines the price for a given capacity commitment relative to the applicable reliability requirement, defined for each constrained Locational Delivery Area. PJM, Agreements/Governing Documents, http://www.pjm.com/documents/agreements.aspx; FERC, Electric Power Markets: PJM, http://www.ferc.gov/market-oversight/mkt-electric/pjm.asp.
33. Regional Transmission Organizations (RTOs) or Independent System Operators (ISOs) are FERC-approved and regulated entities, which facilitate commercial electricity transfers, through a private corporation that function as a tariff administrator. RTOs are responsible for managing both electrical and financial transactions, including scheduling transmission transactions, dispatching generation, and managing the entire accounting for the grid capacity and energy charges and transmission fees. See Ferrey, The Law of Independent Power, supra note 1, §§ 8:10, 10:87, 10:91; Steven Ferrey, The New Rules, at 49–50 (Pennwell Publishers, 2000).
35. Id. at ¶ 61,668 (Clark, C., concurring).
36. Id. at ¶ 61,666.
37. Id.
Based on a procedural reason, FERC declined to decide the issue of whether the NPDES environmental water discharge requirements or the regional electric energy grid reliability requirements had precedence.38

C. Conflicting Authority Silos over CO2 and Power Reliability

1. Between Federal Agencies

There is conflict between federal agencies each exercising authority from their respective jurisdictional silos: the authority of the two primary federal agencies with relevant authority over these issues is legally distinct and separate as applied. The EPA has no specific jurisdiction over energy, even though it exercises jurisdiction over power generation facility emissions of certain magnitudes of identified pollutants. With the exception of hydroelectric generation-related environmental matters, FERC regulates no environmental matters which are subject to FERC jurisdiction under Part I of the Federal Power Act.39 This Act directs FERC to regulate all interstate electricity transmission and to ensure the reliability of the national electricity grid.40 Federal Power Act sections 205 and 20641 empower FERC exclusively to regulate rates for the interstate and wholesale sale and transmission of electricity.42

2. Between Similar State and Federal Agencies

There are significant conflicts between the exercise of federal and state authority over energy, as well as whether there are mitigating environmental reasons for a state to over-reach its authority. California used environmental justifications for an energy regulation to encourage distributed on-site

38. Id. at ¶ 61,667 (noting that ISO-NE intended to reconsider GenOn’s request to de-list the twenty-seven Mw before the plant’s deadline for compliance with the NPDES permit); ISO New Eng., 140 Fed. Energy Reg. Comm’n, at 61,667 (FERC also suggested that GenOn could reduce Kendall Station’s generating capacity by twenty-seven MW and still supply the same amount of power to the grid by purchasing the generation capacity from another producer); id. (stating that GenOn could submit “a demand bid in reconfiguration auctions, or [enter] into a bilateral contract to supply [the electricity]”); id. at 61,667–68 (after hearing Kendall Station’s appeal, two FERC commissioners urged Congress to resolve the potential conflict) (Moeller, C. concurring) (Clark, C., concurring).


41. Id. at § 824.

combined heat and power generation by mandating that utilities and their
customers pay such generators more than the market price for their power
sold to the California utilities. After enacting a feed-in-tariff ("FIT")
requiring California state utilities to make these wholesale power purchases
in excess of wholesale market rates for power and in excess of wholesale
“avoided costs” established under the Federal Power Act, California was
challenged before the FERC as to whether this violated the Federal Power
Act and the Supremacy Clause of the U.S. Constitution.

California argued that (1) its environmental purpose for regulation should
make it exempt from preemption under the Supremacy Clause in setting
above-market wholesale renewable FIT rates for cogeneration facilities of
less than twenty MW and (2) that environmental costs could be considered
to inflate avoided costs under the federal Public Utilities Regulatory Policies
Act ("PURPA"). The affected California utilities countered that: (1)
federal law does not allow state regulation of wholesale sales even if used
to achieve state environmental goals, (2) federal preemption cannot be
avoided based on an environmental purpose of the preempted state regulation,
and (3) states may not, under the guise of environmental regulation, adopt
an economic regulation that requires purchases of electricity at a wholesale
price outside the framework of the Federal Power Act or, if acting under
PURPA, at a price which exceeds “avoided cost.”

FERC rejected all of California’s arguments using environmental rationales
to justify the state’s establishment of wholesale energy power purchase rates
in excess of limits set by federal law or as set by FERC. In response to
California argument that its environmentally beneficial purposes should make
it exempt from constitutional preemption in setting non-market-conforming
wholesale rates for a state FIT, FERC found that the state purpose does not
permit illegal establishment of FITs requiring purchases of electricity at
inflated wholesale prices. Renewable wholesale generators could receive no
more than fair wholesale market prices under federal law. FERC reiterated

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44. Id.
45. Id.
46. Id. ¶ 61,337.
47. Id.
48. 132 FERC at ¶ 61,337.
49. Id. ¶ 61,338 (rejected all of California’s arguments regarding generic environmental
  rationales for wholesale rates in excess of limits under federal law or set by FERC).
  clarification and dismissing rehearing).
that only the federal government can regulate commerce between the states, and California cannot attempt to regulate commerce outside its borders.\footnote{Id.; see also Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 584 (1986); see also Baldwin v. G.A.F. Seelig, Inc., 294 U.S. 511, 521 (1935) ("[One state] has no power to project its legislation into [another state] by regulating the price to be paid in that state for [products] acquired there.").}

Energy and environmental preemption are positionally inverse. While the Federal Power Act preempts certain state energy regulatory authority, on environmental matters under the Clean Air Act, states enjoy the first implementer role. The federal EPA has “no authority to question the wisdom of a state’s choice of emission limitations if they are part of a plan which satisfies the standards of [Section 110 of the Clean Air Act].”\footnote{See Virginia v. EPA, 108 F.3d 1397, 1407–08 (D.C. Cir. 1997) (quoting Union Electric Co. v. Train, 427 U.S. 246 (1976)).} With the federal government exercising the preemptive hand on certain energy matters, while states exercise the first upper hand on certain environmental matters, the lack of any guidance on energy versus environmental regulation baked into federal statutes, is juxta-positioned in its exercise. This does not facilitate practical clarity.

### III. THE NEW CLEAN POWER PLAN AND SUBNATIONAL DISCRETION

Recent federal regulation has deepened the divide between state and federal regulation, rather than bridged it. A significant legal battle now looms with the 2015 promulgation of the new EPA Clean Power Plan by unilateral executive branch regulation. The Clean Power Plan, in addition to its substantive provisions to attempt to limit power plant CO$_2$ emissions, sets in motion jurisdictional and cooperative federalism provisions:

- Imposing federal rate-based CO$_2$ emission limits on states related to their power production facilities, but not imposing those directly on the sources themselves unless EPA imposes a federal implementation plan because a state refuses to create a state plan within three years;

- Not taking account of the grid reliability aspects of power generation units;

- Giving the states discretion and three years to develop plans to achieve these CO$_2$ emission reduction either at the generation plants or outside the facilities;

- Allowing the states to develop and implement either rate-based or mass-based emission limitations as part of their state plans;

- Allowing the states to meet the federal requirements individually, or through combining efforts and standards with other states.
These jurisdictional variations could put several states at odds with EPA or their ISO energy-regulated regions, and place FERC at odds with EPA. There is significant subnational discretion in the Plan. At issue, also in legal challenges, is whether EPA has the authority unilaterally to implement by regulation the Clean Power Plan, without additional legislative action and new statutory law. This is not only an issue of the extent of executive discretion, but also whether a conflict is created with the existing Clean Air Act.

A. Existing Coal Facility Emission Reductions

1. New Executive Branch Regulations

Under Section 111(d) of the Clean Air Act, EPA finalized different new rules in 2015 restricting CO₂ emissions from existing power plants. Each state will be required to develop standards of performance to limit CO₂ emissions from existing generating facilities. Seventeen state attorneys general filed comments highlighting “numerous legal defects” and system reliability issues in the EPA’s proposal to regulate power plant emissions under Section 111(d) of the Clean Air Act. Environmental justice advocates told EPA that the proposed carbon dioxide limits for power plants “doesn’t emphasize equity and offers too much flexibility to states,” and more than half the states currently are suing EPA regarding its authority to issue these regulations.

EPA determined differentially the Section 111 Best System of Emission Reduction (BSER) based on each state’s mix of individual existing generating


55. Patrick Ambrosio, Comments Show Split in State Support for EPA Proposed Power Plant Rule, BLOOMBERG BNA ENV’T REP., Dec. 2, 2014. The comments were signed by attorneys general from Alabama, Florida, Georgia, Indiana, Kansas, Louisiana, Michigan, Montana, Nebraska, North Dakota, Ohio, South Carolina, South Dakota, Utah, West Virginia and Wyoming. Id.

sources as a statewide lbs/MWh emission rate.\textsuperscript{57} The “New Source Rule” issued by EPA establishes separate performance standards for new coal and gas-fired power plants.\textsuperscript{58} This requires states to flexibly determine how to reduce CO\textsubscript{2} emissions. In various states this is up to a 50\% cut in carbon intensity of existing generation.\textsuperscript{59} States have freedom to use a mass-based or rate-based calculation and can come up with a multi-state plan.\textsuperscript{60} This will allow state plans that establish administered CO\textsubscript{2} controls “beyond the fence line” of the affected project’s metes and bounds. What is required is for a state to hit an assigned state emission average for electricity production. States can comply by:\textsuperscript{61}

\begin{itemize}
  \item 4.3–6\% improvement for coal plant operating heat rates;
  \item More use of renewable energy;
  \item Dispatch the operation of cleaner power generation technologies.
\end{itemize}

The governors in Texas, Indiana, Wisconsin, and Mississippi, and Louisiana threatened not to comply with the final regulation of the Clean Power Plan even before its regulations were promulgated in final form, while Oklahoma pledged not to comply with the rule regardless of its final form.\textsuperscript{62} Fourteen states sued EPA before the EPA regulations were final to enjoin EPA from moving forward with the Clean Power Plan, which suit was dismissed as premature; and the states asked the D.C. Circuit to
rehear the case a month before the regulations were promulgated. Oklahoma brought a separate pre-promulgation suit against the EPA Clean Power Plan which also was dismissed as premature, and resulted in an appeal to the U.S. Court of Appeals for the 10th Circuit. The Supreme Court took the highly unusual step of staying/enjoining operation of the Clean Power Plan in 2016, even before the D.C. Circuit had heard appeal against the plan. This will likely stay in place until the D.C. Circuit issues an opinion in 2017, and perhaps until the Supreme Court renders a decision on appeal in 2018 or later. State plans were required to be submitted to the EPA in 2018.

So, if this regulation is upheld after the now ongoing litigation, it could affect the frequency of dispatch orders for coal plants, which is key to whether or not they are operated in the future. Figure 3 shows the relative degree of GHG emissions by state, with the darker colors illustrating greater GHG emissions.

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2. CPP Options for States as Subnational Units of Government

States can allow trading or not of allowances with other states. Individual states can elect to roll new plants into coverage under their plans or not. Every state has a different rate-based (lbs/Mwh) requirement, distinct from every other neighboring state and varying in total pounds of CO2 per unit of power produced by as much as a factor of 3:1 among states. While the state implementation role carved out in the Clean Power Plan, on one level gives states more control, it also constricts states in many ways. Because two-thirds of the states and their utilities buy and sell wholesale power through regional ISOs or similar regional transmission organizations (RTOs), the actual market for power is regional, although states are given individual in-state authority to limit carbon based on (and arguably from) in-state existing power generation resources.

While this mechanism is subject to state discretion, the actual physical power markets are regional, and the back-stop authority is federal. Therefore, as opposed to other aspects of the Clean Air Act which are not aimed only

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at the power sector, the Clean Power Plan is; it tests even more profoundly “cooperative federalism” in the control of CO2. There are multiple other moving regulatory spheres: Separately proposed in 2010 and finalized in 2011, the Transport Rule (also known as the Cross-State Air Pollution Rule) addresses a state’s obligations under the Good Neighbor Provision in regards to three other ambient air quality standards.67 With all of these moving pieces and discretion over markets operating not in synchronization at different national and subnational levels of governance, the implementation is uncertain and the legal authority itself under ongoing judicial challenge.

B. Executive Branch CO2 Regulation of Power Generation

The environmental challenge of this decade is the litigation now beginning regarding the jurisdictional authority of EPA to promulgate its recent Clean Power Plan regulations by executive action, without further congressional authority. There are recent judicial markers for some of the issues presented in Clean Power Plan litigation.

A coalition of more than 20 states recently overturned EPA regulation of mercury and other hazardous pollutants because the “EPA must consider cost—including cost of compliance—before deciding whether regulation is appropriate and necessary. . . . One would not say that it is even rational, never mind ‘appropriate,’ to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits.”68 In that challenged regulation, EPA attributed $37-90 billion in annual public health benefits (not from the mercury and other hazardous air pollutant that were directly regulated but from secondary incidental reduction of fine particulate matter and other pollutants regulated under other sections of the Clean Air Act) even though the agency could only quantify $4-6 million in benefits to reductions of hazardous air pollutants, a fraction of one percent of the EPA-claimed total “benefits.”69 The Administration’s Clean Power Plan also counts a very large amount of “co-benefits” from reduction of other than the specifically targeted CO2, and counts many

67. See EME Homer City Generation, L.P., 696 F.3d 7, 15 (D.C. Cir. 2012) (addressing the three NAAQS including 1997 annual PM2.5, the 1997 ozone NAAQS, and the 2006 24-hour PM2.5); see also EPA Implementation Plans, 40 C.F.R. §§ 51-2, 72, 78, 97 (2016); see also discussion infra Section III.D.
69. Id. at 2705–06.
international climate benefits with relatively limited domestic climate benefits, evaluated against substantial future domestic U.S. compliance costs.

The 2014 Supreme Court *Utility Air Regulatory Group* majority opinion applied to new sources of fossil-fuel generation, casts doubt on going “beyond the fence line” for states to achieve compliance with the Clean Power Plan, rather than regulating specific emission sources for CO₂ at the local plant site.⁷⁰ This decision specifically references other court holdings that Clean Air Act Prevention of Deterioration (PSD) Best Available Control Technology (BACT) pollution controls cannot be used to force fundamental re-design of the proposed source, and that EPA’s current BACT guidance for greenhouse gases contemplates that only pollutants emitted on-site by the source can be regulated.⁷¹

A significant jurisdictional issue confronting the Clean Power Plan emanates from its exact language. In the original Clean Air Act amendments in 1970, section (111(d) authorized EPA to establish a program for state regulation of existing sources within a source category when EPA sets a New Source Performance Standard (NSPS) technology-based Best System of Emission Reduction standard for new and modified stationary sources in that category.⁷² The 1990 Clean Air Act amendments contained different Senate and House versions of amendments to Section 111(d) which were combined without clear reconciliation in the final enacted version of the amendments. The Senate amendment was a technical amendment regarding NSPS criteria pollutant regulation without substantive change; the House amendment made the same technical change and added that section 111(d) could not be applied to a category of sources regulated under section 112 which regulates hazardous air pollutants unrelated to the criteria pollutants. Both versions are included in the final amendments. Neither is inconsistent with the other, as far as the basic technical provision.

Under the Senate version of Section 111(d) of the Clean Air Act, if a source category is regulated under the Clean Air Act’s hazardous air pollutant provision embodied in Section 112, other pollutants emitted by that source category are excluded from regulation under Section 111(d), which is the

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⁷¹ See Steven Ferrey, *Presidential Executive Action: Unilaterally Changing the World’s Critical Technology and Infrastructure*, 64 Drake L. Rev. 43, 72 n.159 (2016) (discussing that the “best system of emission reduction” (BSER) and the “best available control technology” (BACT) are both similarly economically-determined emission standards).
legal foundation of the Clean Power Plan.\textsuperscript{73} In contrast, under the House version of Section 111(d), only the pollutants regulated under Section 112 that are exempt from regulation under Section 111(d). This presents a case of first impression as the Clean Power Plan is now challenged.\textsuperscript{74}

When both are included in the final bill, canons of statutory construction would give full intended interpretation to all words included in a final legislative version. The plaintiff challengers will submit that a rulemaking to regulate the same sources under both Sections 111(d) and 112 is ultra vires because the amended Act prohibits statewide regulation under the former and direct source regulation under the latter. Though the EPA may admit that this is one interpretation of the statute, it will argue that this interpretation could not be the intent of Congress, because if it were, then Section 111(d) would be almost completely useless, as “over 100 source categories, covering the full range of American industry, have been regulated under section 7412 in regard to some hazardous pollutant.”\textsuperscript{75}

EPA will counter that it has the discretion pursuant to the \textit{Chevron} doctrine to choose one version of legislative language in a statute and ignore the other. In an earlier challenge, the EPA explained that prior to 1990 it was plainly able to regulate existing sources using Section 111(d).\textsuperscript{76} The 1990 bill did not mention a concern that sources would be double regulated; it only prohibited the double-regulation of pollutants using Section 111(d).\textsuperscript{77} However, a footnote Justice Ruth Bader Ginsburg included in her majority opinion in the U.S. Supreme Court decision in \textit{American Electric Power Co. v. Connecticut} suggests a more strict construction: \textsuperscript{78}

\begin{quote}
EPA may not employ §7411(d) [111(d)] if existing stationary sources of the pollutant in question are regulated under the national ambient air quality standard program, §§7408-7410, or the ‘hazardous air pollutants’ program, § 7412.
\end{quote}

This confronts the courts with whether regulating a plant for hazardous air pollutants under Section 112 of the Clean Air Act, which EPA uses to regulate coal plant emissions, thus could bar EPA from issuing carbon


\textsuperscript{74} In re Murray Energy Corporation, 788 F.3d 330,335 (D.C. Cir. 2015).

\textsuperscript{75} Id.


\textsuperscript{77} See id.; West Virginia Amici Brief, at 7.

dioxide standards under Section 111(d) now through Clean Power Plan executive action. Because power plants as a category, and specifically coal-fired power plants, are regulated under Section 112, it becomes a matter to be confronted by a likely divided court as to which interpretation controls and whether EPA had authority to issue its final regulations. If states do not comply, federal implementation plans (FIPs) applying rate-based limits on all large fossil-fuel-fired plants can be imposed on a state by EPA after 2018.

C. The “Second Shoe” of “Cooperative Federalism”

Two deeper legal questions are presented: (1) Can a federal agency, such as EPA, enjoy deference to determine the substantive scope of its own authority to take unilateral executive actions without specific congressional authority, and (2) if so, what happens when states refuse to “cooperate” with “cooperative federalism” regarding CO2 limitations (as several states have said they will not, and as Senate majority leader McConnell is urging states not to cooperate). As to the first question, in 2013, the Supreme Court held that federal agencies have discretion to determine the substantive scope of their own authority.

As to the second question, there are precedents for this under the Clean Air Act. For attainment of National Ambient Air Quality Standards, federal law provides states complete discretion under state SIPs as to how states achieve and maintain required NAAQS. The EPA only has discretion to veto a state SIP if the macro-level math does not compute, regardless of the micro-level policy choices made by the state to achieve compliance. The Clean Air Act scheme has been interpreted “as erecting a statutory

79. EPA’s Proposal to Update the Air Quality Standards for Ground-Level Ozone: Designations, Monitoring and Permitting Requirements, ENVTL. PROT. AGENCY, at 2.
80. The EPA asserts in the preamble and in the legal memorandum supporting the proposed rule that this conflict creates an ambiguity that the agency may resolve, and that it is entitled to deference under Chevron. Standards of Performance for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 FR. 22392-01 (Apr. 13, 2012).
85. Id.
federalism bar” that “prohibits EPA from using the SIP process to force [s]tates to adopt specific control measures.86 If an SIP would result in compliance with EPA standards, the EPA may not question the choices of the state as to how it complies with them.87 Moreover, the EPA cannot condition its approval of state SIPs on the adoption of specific control measures by states.88 States have the “first-implementer role,”89 while EPA “is relegated . . . to a secondary role.”90 The EPA has “no authority to question the wisdom of a state’s choice of emission limitations if they are part of a plan which satisfies the standards of [Section 110].”91

Yet, the EPA strongly influences state discretion in this cooperative model through its threat to drop the second shoe of taking over state decisions with a Federal Implementation Plan.92 As part of achieving SIP compliance, the EPA issues Alternative Control Technique documents (ACTs) for all sources with emissions of NOx larger than 25 tons per year (TPY), as a guide for Reasonably Achievable Control Technology (RACT) on existing stationary sources.93 The EPA also issues Control Technique Guidelines (CTGs) regarding RACT techniques for VOC emissions.94 These target power generation facility emissions for limitation.

Courts have noted that EPA guidance on ACTs and CTGs for RACT are only “informal suggestions.”95 While not required to follow the CTGs or ACTs, these do a significant part of the design work for the states, and ACTs describe what techniques EPA will more readily approve when exercising routine approval over SIPs.96 While states have discretion to

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89. *EME Homer City Generation, L.P.*, 696 F.3d at 28 (quoting Train, 421 U.S. at 79) (emphasis omitted).
95. *Citizens for a Better Env’t v. Costle*, 515 F. Supp. 264, 278 (N.D. Ill. 1981) (arguing that CTGs, while informal guidelines, are preemptory attempts by the EPA to force states to follow EPA targeting of power plants, court deferred deciding this issue); *see also* Nat’l Steel Corp. v. Gorsuch, 700 F.2d 314 (6th Cir. 1983).
follow the CTGs and ACTs or develop their own alternative techniques to control emissions, these place significant pressure on the states to do what EPA’s ACTs and CTGs suggest in order to expedite state SIP approval by EPA.\textsuperscript{97} If disapproved, the EPA eventually can impose a FIPs and/or there can be loss of federal highway funds.\textsuperscript{98} The Clean Air Act affords states a period of time to submit a new or revised SIP after the EPA sets emission standards.\textsuperscript{99} If the state fails to submit a timely or sufficient SIP, the EPA may enforce a FIP.\textsuperscript{100} However, in fact, there is more EPA influence/control of state environmental decisions with the addition of the jurisdictional battle over the Clean Power Plan.\textsuperscript{101}

\textbf{D. Added Federal Authority when Multistate Dispersion of Air Pollution is Involved}

Air pollution generally drifts and spreads in a down-wind direction. However, nothing is more global than CO\textsubscript{2} and global warming; a molecule of CO\textsubscript{2} or other global warming gas emitted anywhere warms the entire planet, not just the region where the emission occurred. And when there is a necessity to arrest interstate contribution to pollution, this multi-state air regulation has been upheld as a federal EPA responsibility.

The original EPA interstate endeavor regarding criteria pollutants, the Clean Air Interstate Rule (CAIR) cap-and-trade regulation was stricken in 2008 by the D.C. Circuit Court of Appeals.\textsuperscript{102} EPA next issued and substituted the Cross-State Air Pollution Rule (CSAPR) addressing interstate air transport of SO\textsubscript{2} and NO\textsubscript{x} contributing to ground-level ozone and fine particle pollution from fossil fuel-fired power plants in 27 Eastern states.\textsuperscript{103} The D.C. Circuit court initially struck CSAPR because of its flawed method for determining the emission reduction obligation imposed on states.\textsuperscript{104} CSAPR imposed a FIP on the states before they could file a SIP and have it reviewed as to adequacy.\textsuperscript{105} EPA argued that states are obligated

\textsuperscript{97} 42 U.S.C. § 7410(c); see also Ferrey, The Law of Independent Power, supra note 1, at 6-344 through 6-345.
\textsuperscript{98} 42 U.S.C. § 7506(a); N.R.D.C. v. Browner, 57 F.3d 1122, 1124 (D.C. Cir. 1995).
\textsuperscript{99} 42 U.S.C. § 7410(a).
\textsuperscript{100} Id. at § 7410(c)(1).
\textsuperscript{102} Id.
\textsuperscript{104} EME Homer City Generation, L.P., 696 F.3d at 31.
\textsuperscript{105} Id. at 28. Critics of CSAPR suggested that the rule was passed too quickly and that it illustrated the EPA’s “unusual sense of urgency, even at the expense of procedural obligations under the CAA and the Administrative Procedures Act.” Margaret Campbell
to comply with NAAQS and the “good neighbor provision” simultaneously, and that the regulated states had failed to submit an appropriate SIP, entitling the EPA to enforce a FIP.\footnote{See \textit{EME Homer City Generation, L.P.}, 696 F.3d at 32.}

The D.C. Circuit court held that the EPA’s argument was flawed because EPA crossed this federalism barrier by forcing states by default to conform to a federal FIP without giving them the opportunity to file a SIP.\footnote{\textit{Id.} at 33.} It did not defer to state implementation plans and state discretion in implementation under the federalism split authority of the Clean Air Act.\footnote{\textit{Id.} at 37.} By imposing a FIP before states had the opportunity to submit a SIP, the EPA violated fundamental principles of federalism.\footnote{While employing a different mechanism than CAIR to address cross-state pollution, the court found that it required some states to reduce emissions by more than they contributed to downwind state pollution. Fifteen states sought review of CSAPR, while six states intervened to support the rule. \textit{Id.} at 38.} The court took a “hard look” and held that one level of government cannot cross the federalist line of its jurisdiction “down the rabbit hole.”\footnote{\textit{See Texas v. EPA}, 690 F.3d 670, 679–80 (5th Cir. 2012) (demonstrating the Fifth Circuit’s EPA deference to SIP’s); \textit{contra Texas v. EPA}, 726 F.3d 180, 198–99 (D.C. Cir. 2013).}

In a 6-2 opinion, the Supreme Court reversed the D.C. Circuit holding in 2014, reaffirming deference to agency discretion in devising Clean Air Act regulations, as per \textit{Chevron}: “The statute … calls upon the Agency to address a thorny causation problem: How should EPA allocate among multiple contributing upwind States responsibility for a downwind State’s excess pollution?”\footnote{\textit{EME Homer City Generation, L.P.} v. EPA (\textit{In re EME Homer City Generation}), 134 S. Ct. 1584, 1604 (2014).} The Court allowed the EPA leeway to devise its air control scheme for interstate cross-state pollution. The majority opinion denominates the allocation choices EPA made as “sensible,” “equitable,”
“efficient” and “making good sense,”"112 citing Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc., 467 U. S. 837.113

The Court concluded that EPA must give states a reasonable opportunity to allocate their emission budgets before issuing FIPs.114 The Clean Air Act was held to mandates SIP compliance with the good neighbor provision, which requires SIPs to “contain adequate provisions . . . prohibiting . . . any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will . . . contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any . . . [NAAQS].  42 U.S.C. § 7410(a)(2)(D)(i).”115

The Supreme Court’s dissenting opinion, agreeing with the D.C. Circuit Court majority, underscored limits to unilateral executive action, concluding: “Too many important decisions of the Federal Government are made nowadays by unelected agency officials exercising broad lawmaking authority, rather than by the people’s representatives in Congress. Today, the majority approves [a] undemocratic revision of the Clean Air Act.”116 This dissent echoes strands of the non-delegation doctrine.117 This did not end the contest: The Utility Air Regulatory Group then challenged the EPA’s technical revisions to the cross-state rule, including revised emissions budgets for thirteen states.118

112.  Id. at 1607; id. at 1593–94 (“[C]urtailing interstate air pollution poses a complex challenge for environmental regulators. . . . The overlapping and interwoven linkages between upwind and downwind States with which EPA had to contend number in the thousands. . . . Rather, as the gases emitted by upwind polluters are carried downwind, they are transformed, through various chemical processes, into altogether different pollutants. The offending gases at issue in these cases—nitrogen oxide (NOx) and sulfur dioxide (SO2)—often develop into ozone and fine particulate matter (PM2.5) by the time they reach the atmospheres of downwind States.”).


114.  In re EME Homer City Generation, 134 S. Ct. at 1600.

115.  Id.

116.  Id. at 1595 (Scalia, J., dissenting).


E. Federal Authority over Energy Transmission and Ubiquitous Interstate Power Markets

The federal circuit court of appeals, in a unanimous opinion written by Judge Richard Posner, upheld FERC approval of independent electric power system operator allocation of the terms and costs of transmission of renewable energy to all consumers in the ISO. Judge Posner and the circuit court cited a law review article by Professor Ferrey as authority for the federal and state legal and constitutional requirements determining electric power regulation of renewable energy policy, and noted that states cannot discriminate against out-of-state renewable energy. The Seventh Circuit declared unconstitutional state unequal treatment of in-state low-carbon renewable generation compared to out-of-state renewable energy, as a violation of the Commerce Clause: “[i]t trips over an insurmountable constitutional objection. Michigan cannot, without violating the commerce clause of Article I of the Constitution, discriminate against out-of-state renewable energy.”

Another federal court held that the Act invests the FERC with “exclusive authority to regulate the transmission and sale at wholesale of electric energy in interstate commerce,” and struck state regulation as unconstitutional:

Congress has drawn a bright line between state and federal authority in the setting of wholesale rates and in the regulation of agreements that affect wholesale rates. States may not regulate in areas where FERC has properly exercised its jurisdiction to determine just and reasonable wholesale rates or to insure that agreements affecting wholesale rates are reasonable. Miss. Power & Light Co. v. Miss. ex rel. Moore, 487 U.S. 354, 374 (1988) ... a state “must ... give effect to Congress' desire to give FERC plenary authority over interstate wholesale rates, and to ensure that the States do not interfere with this authority.” Nantahala Power & Light Co. v. Thornburg, 476 U.S. 953, 966 (1986) ... Under the “filed-rate doctrine,” state courts and regulatory agencies are preempted by federal law.

119. Illinois Commerce Comm’n v. FERC, 721 F.3d 764, 777 (7th Cir. 2013).
120. Id. at 776.
121. Id. Michigan actually initiated the issue of in-state electric power discrimination in its RPS program as a demonstration that out-of-state powered transmitted to it was not recognized as of the same value as in-state electricity, therefore Michigan should not pay a share of power line tariffs transmitting power from out of state that did not have equal recognition and benefit. Instead of supporting its position, this assertion caused Judge Posner to respond to this assertion, even though it was not the tariff issue before the Court. See id.
from requiring the payment of rates other than the federal filed rate. See Entergy La., Inc. v. La. Pub. Serv. Comm’n, 539 U.S. 39, 47 (2003) (“The filed rate doctrine requires ‘that interstate power rates filed with FERC or fixed by FERC must be given binding effect by state utility commissions determining intrastate rates.’”).

FERC also regulates discrimination in who is permitted to build new transmission capacity in those two-thirds of the states which participate in an ISO to manage the transmission grids of multiple utilities. FERC approves all RTO and ISO terms of service and the financial tariffs. FERC Order 1000 requires incumbent transmission providers (utilities) and the RTOs that manage regional multi-state transmission systems, to remove rights-of-first-refusal from FERC-approved transmission tariffs. Where there is a state right-of-first-refusal, the deck is effectively stacked against non-incumbent transmission providers, despite any opportunity to compete through an RTO-administered competitive transmission project selection process. While FERC regulates the terms of transmissions service, states regulate the construction of the transmission facilities themselves. This federal regulation was upheld by the D.C. Circuit.

IV. CONCLUSION

Subnational governance is an operative concept embedded in the fabric of American law. It is even more profoundly etched in energy regulation since enactment of the Federal Power Act of 1935 and in environmental regulation since the Clean Air Act amendments in 1970. There is significant tension, or in some cases direct conflict, between federal energy and environmental regulation. In a second dimension, there is conflict in “cooperative federalism” between federal and state authority in environmental regulation. Both national and subnational levels of government need to be synchronized to effectively address climate change, which synchronization has not yet occurred, and is not mitigated by the recent Clean Power Plan.


126. 76 Fed. Reg. 49,842-01.

127. South Carolina Public Service Authority v. FERC, 762 F.3d 131 (D.C. Cir. 2014) (challenging FERC Order 1000, 136 FERC ¶ 61,051 (July 21, 2011)).
There is no federal case law, nor any regulatory FERC, DOE, or EPA rules, which have resolved such direct conflicts between a FERC order or other regulation on necessary energy generation, and an EPA order or regulation on resultant emissions to the environment. Both operate independently. It is now a case of first impression for the judiciary.

The Clean Power Plan requires that EPA sets standards, and that states choose from a variety of options to achieve aggressive carbon reduction. Without both national and subnational levels of government coordinating cooperatively, the program will not be successful. One-third of U.S. states already sued EPA contesting federal authority even before the Clean Power Plan regulation was promulgated in final form, and once final, more than half the states became challengers to this new federal environmental requirement imposed on power generation facilities. The Supreme Court took the unusual step of staying implementation of the CPP even before the D.C. Circuit had heard a challenge to the CPP. The escalating degree of fundamental dissent between subnational and national levels of government, and between energy and environmental objectives, is increasingly palpable.

There will be legal conflict and friction during the next three years as states develop CPP plans or refuse to do so, and the courts wrestle with legal challenges to the rule and the plans developed by the states thereunder. Both energy and environmental regulation will be in motion. It creates significant new tensions and conflicts in “cooperative federalism” and the development and operation of energy generation. How this unfolds legally in the U.S. has major international implications for other major CO₂ emitting countries with strong subnational governance embedded in their legal structures, including Canada, India, and Germany.