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The Tipping Point of Federalism

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The Tipping Point of Federalism

AMY L. STEIN

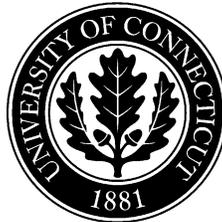
As the Supreme Court has noted, “it is difficult to conceive of a more basic element of interstate commerce than electric energy, a product that is used in virtually every home and every commercial or manufacturing facility. No state relies solely on its own resources in this respect.” And yet, the resources used to generate this electricity (e.g., coal, natural gas, or renewables) are determined largely by state and local authorities through their exclusive authority to determine whether to approve construction of a new electricity generation facility. As the nation finds itself faced with important decisions that directly implicate the source of our electricity, including climate change and grid reliability, the proper functioning of a system of exclusive state control over the siting of electricity generation is increasingly strained.

Continued state control over the siting of electricity generation is particularly curious when viewed in relation to other infrastructure siting regimes. This Article traces the evolution of authority governing the siting of railroads, natural gas pipelines, wireless telecommunications, and electricity transmission, finding that they share many of the same federalism justifications for centralized control that exist in the siting of electricity. Yet, in every case except for electricity generation, Congress tipped the balance of power to allow for more federal authority over these siting decisions.

This Article explores this disparity between state control over the siting of electricity generation and enhanced federal control in the other siting regimes. It concludes that this disparity may be at least partially explained by more initiative on the part of relevant federal agencies. Whereas federal agencies played a minimal role in affecting the tensions caused by increasing national interests in the other infrastructure regimes, federal agencies are taking significant steps to further the national interest in the siting of electricity generation. These actions can reduce the pressure to formally alter the federalism balance through congressional action, and can play a key role in the broader federalism literature surrounding the circumstances that foster tips from state towards federal authority.

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The Tipping Point of Federalism

AMY L. STEIN*

I. INTRODUCTION

As the Supreme Court has noted, “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.”¹ And yet, the resources used to generate this electricity (e.g., coal, natural gas, or renewables) are determined largely by state and local authorities through their exclusive authority to determine whether to approve construction of a new electricity generation facility.²

The physical equipment of a modern electric power system is divided into three basic categories: generation, transmission, and distribution. Generation refers to the conversion of one form of energy to electric energy, a process that often occurs through the burning of fossil fuels to produce steam to spin a turbine at a power plant. Transmission refers to the transfer of electric energy over an interconnected group of lines and equipment at high voltages from its place of origin to distribution lines. Distribution refers to the final stage in delivery of low voltage electricity to the end users. For purposes of this Article, the focus is on the jurisdiction over the “siting of electricity generation,” defined as the authority to determine whether to approve construction of a new electricity generation facility (often a power plant) which necessarily entails an assessment of the resources used by the facility to generate electricity, as well as determinations about location.³

*Associate Professor, Tulane University School of Law. The author thanks Washington and Lee Law School for sponsoring the 2012 conference on “Reclaiming Environmental Federalism” and her co-panelists, Bill Buzbee and Rob Glicksman for their comments. Thanks to Keith Werhan, Adam Feibelman, Claire Dickerson, Shu-yi Oei, Saru Matambanadzo, and Alfred Light for their support and thoughtful comments and to the tireless research of Emily Russell, Katy Whisenhunt, Gillian Egan, and Rick Eisenstat.

¹ FERC v. Mississippi, 456 U.S. 742, 757 (1982).

² In 1935, Congress explicitly reserved the authority over all electricity siting decisions with respect to generation, transmission, and distribution facilities to the states. Federal Power Act, 16 U.S.C. § 824(b)(1) (2012).

³ It is worth noting that jurisdiction over these three areas is complex, and any analysis depends on whether the focus is on jurisdiction over the service or the physical infrastructure. For example, FERC has jurisdiction over the rates charged to transmit electricity (the transmission service), but states retain jurisdiction over the siting of the transmission lines themselves (the physical infrastructure). For generation, the jurisdictional split is even more complex. On the service side, FERC has jurisdiction

In 1935, Congress codified this state control in the amendments to the Federal Power Act (FPA). The FPA provides the states with exclusive authority to regulate all siting decisions with respect to electric energy generation facilities.⁴ This places significant power with the state legislatures, whose laws govern the decision making of the state public utility commissions regarding the type of power supply approved for a given area.⁵ Many states have delegated siting authority to more local levels of government, and the regulatory requirements and number of jurisdictions involved differs substantially depending on the size of the facility and the state where the generating facility is proposed.⁶ As the D.C. Circuit has noted, “State and municipal authorities retain the right . . . to require retirement of existing generators, to limit new construction to more expensive, environmentally-friendly units, or to take any other action in their role as regulators of generation facilities without direct interference from the [Federal Energy Regulatory] Commission.”⁷ This exclusive state authority over the siting of generation has been affirmed repeatedly by courts.⁸

over the rates charged for electricity generated and sold for resale (wholesale rates), and states retain jurisdiction over the rates charged to end users (retail rates). On the infrastructure side, states retain jurisdiction over the siting of the electricity generation itself. Federal Power Act, 16 U.S.C. § 824(b)(1).

⁴ Federal Power Act, 16 U.S.C. § 824(b)(1).

⁵ See, e.g., Dave Markell & J.B. Ruhl, *An Empirical Assessment of Climate Change in the Courts: A New Jurisprudence or Business as Usual?*, 64 FLA. L. REV. 15, 44–46 (2012) (discussing the Indiana PUC’s and South Dakota PUC’s approval of new coal-fired power plants and the Florida PUC’s denial of two new pulverized coal generating units based on questionable cost effectiveness due to potential carbon controls).

⁶ See, e.g., ENVTL. L. INST., STATE ENABLING LEGISLATION FOR COMMERCIAL-SCALE WIND POWER SITING AND THE LOCAL GOVERNMENT ROLE 1, 5–20 (2011), available at http://www.elistore.org/reports_detail.asp?ID=11410 (categorizing the fifty states into differing degrees of authority, including local authority, dual authority, and state authority over the siting of wind energy).

⁷ Conn. Dep’t of Pub. Util. Control v. FERC, 569 F.3d 477, 481 (D.C. Cir. 2009).

⁸ *Id.*; see also *Miss. Power & Light Co. v. Mississippi*, 487 U.S. 354, 389 (1988) (Brennan, J., dissenting) (“FERC does not, after all, have any jurisdiction over a utility that simply builds its own generating facility and retails the electricity.”); *Transmission Access Policy Study Grp. v. FERC*, 225 F.3d 667, 718 (D.C. Cir. 2000) (noting that “petitioners correctly point out that section 201(b) of the [FPA] denies FERC jurisdiction over ‘facilities used for the generation of electric energy’” but also noting that this jurisdiction is limited by FERC’s authority to “exercise jurisdiction over generation facilities to the extent necessary to regulate interstate transmission”). Federal regulation of the siting of electricity generation extends only to hydroelectric and nuclear power determinations. See Uma Outka, *Siting Renewable Energy: Land Use and Regulatory Context*, 37 ECOLOGY L.Q. 1041, 1047 (2010) (noting “nuclear facilities are subject to extensive federal regulation, from siting to decommissioning, that does not apply to renewable resources”). FERC has jurisdiction over licensing of non-federal hydroelectric projects if the project meets one of four criteria. *Jurisdiction Determination*, FERC, <http://www.ferc.gov/industries/hydropower/gen-info/comp-admin/jur-deter.asp> (last visited June 23, 2012); see also 16 U.S.C. § 817(1) (requiring a federal permit to develop electric power or construct a dam in or incidental to any navigable waters of the United States).

State or local control⁹ over generation siting functioned adequately, more or less, for over seventy years. But as the nation finds itself faced with important decisions that directly implicate the source of our electricity, the proper functioning of exclusive state control over electricity siting is becoming increasingly strained. Electricity demand continues to rise. The vast majority of our electricity comes from cheap, domestic, and reliable fossil fuels, namely coal and natural gas. Combustion of these same fossil fuels are the primary contributors to the world's greenhouse gas emissions,¹⁰ increasing the scrutiny on the nation's continued reliance on these sources of electricity generation.

Even though the legislative branch has failed to pass comprehensive legislation to address climate change, the executive and judicial branches have recognized the importance of moving towards reliance on cleaner sources of electricity generation, including renewable energy and energy efficiency. In 2007, the Supreme Court acknowledged the perils of climate change and the authority of the Environmental Protection Agency (EPA) to regulate carbon dioxide as a pollutant.¹¹ In 2009, the Obama Administration issued a call for renewable energy to supply twenty-five percent of the nation's electricity by 2025,¹² and in his joint address to Congress, President Obama stated that “[the U.S.] will double [the] nation's supply of renewable energy in the next three years,” a prediction that has failed to be achieved.¹³ As a result, complex trade-offs involving cost, reliability, national security, and the environment are infused into decisions regarding the siting of electricity generation.

At first blush, state or local control over the siting of electricity generation may not be surprising. Siting decisions, after all, are ones that require localized input and whose impacts are felt most by the immediate community. But this state or local control over the siting of electricity

⁹ Many scholars make a distinction between state and local levels of government for federalism purposes. See, e.g., Heather K. Gerken, *Foreword: Federalism All the Way Down*, 124 HARV. L. REV. 4, 21–25. For purposes of this analysis, however, the key distinction is between federal and sub-federal levels of government, allowing state and local levels of government to be grouped together on the decentralized side of the federalism ledger.

¹⁰ See U.S. ENVTL. PROTECTION AGENCY, INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2010 ES-7 (2012), available at <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2012-Main-Text.pdf> (“As the largest source of U.S. greenhouse gas emissions, CO₂ from fossil fuel combustion has accounted for approximately 78 percent of GWP-weighted emissions since 1990, growing slowly from 77 percent of total GWP-weighted emissions in 1990 to 79 percent in 2010. Emissions of CO₂ from fossil fuel combustion increased at an average annual rate of 0.4 percent from 1990 to 2010.”).

¹¹ *Massachusetts v. EPA*, 549 U.S. 497, 532 (2007).

¹² *President Obama Calls for Greater Use of Renewable Energy*, U.S. DEP'T OF ENERGY (Jan. 21, 2009), http://www1.eere.energy.gov/femp/news/printable_versions/news_detail.html?news_id=12194.

¹³ President Barack Obama, Remarks as Prepared for Delivery Address to Joint Session of Congress (Feb. 24, 2009), available at http://www.whitehouse.gov/the_press_office/Remarks-of-President-Barack-Obama-Address-to-Joint-Session-of-Congress.

generation becomes a little more curious when viewed in comparison to other commonplace infrastructure siting regimes.

The siting of infrastructure in this country has experienced an evolution in its federal balance. Decisions regarding whether and where to locate railroads, natural gas pipelines, wireless telecommunications, and electricity transmission (“infrastructure regimes”) were all originally committed to state or local authority. Despite their traditionally local nature, an increasing number of factors began to suggest that more centralized control was needed. In each of the siting regimes, one or more of the five traditional justifications for federal control became apparent. Some involved externalities that were caused by interstate issues, some could not function effectively without some uniform standards or harmonization, some raised concerns that states were under-regulating, some raised concerns that states were over-regulating, and some needed to pool resources to reach their full potential. Each of these infrastructure siting regimes reached a point where state or local control was no longer the most effective method of siting. The regimes reached a “tipping point” where the pressure points pushing towards more centralized control eventually coincided with the proper political atmosphere. A “tipping point of federalism” is defined for purposes of this Article as congressional action that formally shifts the balance of power from state or local control to some form of enhanced federal control.¹⁴ In every case except for electricity generation, Congress tipped the balance of power to allow for more federal authority over these siting decisions.

Given this history, one might expect to see the same in the siting of electricity generation. Like the other infrastructures, the siting of electricity generation began under state or local control. And like the other infrastructures, a number of federalism pressure points are beginning to challenge the traditional level of governance. First, although the siting of one power plant within state lines is not as overt as an interstate issue—as compared to the siting of railroad lines, natural gas pipelines, or transmission lines that traverse through multiple states—electricity itself is an item of interstate commerce and the way that it is generated has pollution impacts with interstate implications. Second, national energy

¹⁴ This Article does not allege to be a comprehensive assessment of all federalism tips involving siting decisions. That assessment, which should include authority between the federal and subfederal systems specific to siting schemes such as nuclear waste disposal sites, landfills, hydroelectric (FERC-dominated), and hydrokinetic (FERC-Bureau of Energy Management cooperative) siting, as well as analyses of tips from state to federal power in other non-siting contexts, and tips from federal to state power. For example, in response to the 1973 Oil Embargo, Congress passed the 1974 Emergency Highway Energy Conservation Act that established a national speed limit only to repeal the law over twenty years later to tip power back to the states. For further discussion, see Daniel Albalade & Germán Bel, *Speed Limits in America: Economics, Politics and Geography* 5 (Institut de Recerca en Economia Aplicada Regional i Pública, Working Paper, 2010).

policies focused on renewable energy are conflicting with state laws providing preference for fossil fuels. This can support arguments that states are overregulating in ways that make it difficult for renewable energy to be sited within their borders. Conversely, the decision by twenty-one of our fifty states not to adopt binding renewable portfolio standards can be characterized as an example of the third justification, under-regulation, allowing fossil fuel generators to flock to the states with the least restrictive requirements or allowing states to free ride on the social benefits of renewable energy located in other states. And lastly, the potential dangers associated with a non-diversified fuel supply and accompanying threats to reliability of our national grid evoke discussions of the need to pool resources to protect national security.

Despite shared justifications for more enhanced federal authority across all the siting regimes, control over the siting of electricity generation remains firmly in the hands of the state and local authorities. This Article explores this disparity between the siting regimes to determine whether there is an explanation unique to the siting of electricity. A number of factors may exist to counter one or more of these federalism justifications in support of centralized power, including an argument that Congress would have a more difficult time asserting constitutional authority over the siting of electricity generation than it did in asserting authority over the other infrastructure regimes. Although this authority would likely stem from the Commerce Clause, defending this constitutional authority is not the purpose of this analysis.¹⁵ Instead, this analysis assumes that Congress would have the authority to regulate the siting of electricity generation if it so chose to do so.

For purposes of this analysis, however, three counterarguments seem particularly noteworthy. First, this Article assesses whether the decentralized control over the siting of electricity generation realizes some

¹⁵ Although construction of the Commerce Clause has changed over the years that are covered in this tip analysis, a strong argument exists that even under the more constrained interpretation of the Commerce Clause that currently prevails, Congress's power to regulate purely intrastate activities that "substantially affect interstate commerce" could encompass the siting of electricity generation. See *United States v. Lopez*, 514 U.S. 549, 559 (1995) (providing a wide variety of examples of economic activity that has been held to substantially affect interstate commerce). Although the purely intrastate siting of electricity generation does not cross over state lines, as do railroads, natural gas pipelines, and transmission, it has at least as "substantial" of an effect on interstate commerce as the siting of intrastate wireless towers. *Id.* For a fuller assessment of Congress's authority over energy, see Robin Kundis Craig, *Constitutional Contours for the Design and Implementation of Multistate Renewable Energy Programs and Projects*, 81 U. COLO. L. REV. 771, 780–81 (2010) (discussing the resilience of energy regulation legislation under the Commerce Clause and repeated failed challenges of the constitutionality of such legislation); Sandeep Vaheesan, *Preempting Parochialism and Protectionism in Power*, 49 HARV. J. LEGIS. 87, 128–29 (2012) (noting Congress's broad authority to regulate the electric power sector even under modern Commerce Clause jurisprudence and quoting the Supreme Court's dicta that the electric utility industry is "so fused and interdependent that the whole enterprise is within the reach of Congress" (quoting *Conn. Light & Power v. Fed. Power Comm'n*, 324 U.S. 515, 529–30 (1945) (internal quotation marks omitted))).

critical federalism virtues that the other siting regimes do not. Second, it explores whether authority remains with the states and localities because electricity siting decisions are uniquely decisions of a “traditionally local nature.” Lastly, it considers whether elements of public choice theory can explain why rational, self-interested federal legislators may not see fit to tip the balance of power of electricity siting away from the states but may see fit to do so in the other siting regimes. Although each of these theories has merit in explaining why any one infrastructure regime has tipped, their limits lie in their inability to inform a comparative analysis. Arguments in support of these explanations apply with similar force to the other siting regimes, rendering these explanations unsatisfactory.

Instead, this Article proposes another explanation for the disparity: the ability of federal agencies to exert their federal influence through alternative outlets. Where an agency is able to use its existing statutory authority to shape a decision that has been reserved to the state or local governments, it may reduce the pressure to formally alter the federalism balance. This Article uses electricity siting to demonstrate how federal agencies are able to exert an element of federal control over the fuel source used to generate electricity through alternative legal outlets without resorting to a formal tip in the actual federalism balance. By acting on the margins through existing statutory authorities, the Federal Energy Regulatory Commission, the Environmental Protection Agency, and the Department of Interior have each been able to exert a degree of influence over the siting of electricity generation that may be sufficient to counteract the justifications for a formal tip in the federalism balance. Such exercise of existing statutory authority by relevant agencies may play a key role in explaining the disparity in the siting regimes, as well as provide insights into the broader federalism literature surrounding the circumstances that affect tips from state towards federal authority.

Part II begins with an explanation into the traditional justifications for centralized federal control. These justifications are: (1) transboundary issues across state lines that create externalities; (2) the need for uniformity or harmonization; (3) under-regulation that can result in a race to the bottom between states, threatening state public safety and welfare; (4) overregulation that can result from “Not in My Backyard” (“NIMBY”) scenarios threatening national public safety and welfare; and (5) the provision of public goods that require resource pooling.

Part III chronicles how control over the siting of similar commonplace infrastructure—railroads, natural gas pipelines, telecommunications, and electricity transmission—all began with a commitment to state control and later tipped through congressional action to some form of enhanced federal control. It highlights the federalism justifications for centralized authority that were placing pressure on the prior federalism design, as well as the limited actions of the respective federal agencies to address national

interests.

Despite these tips, authority over the siting of electricity generation is resistant to this trend and remains under state and local control. Part IV applies the traditional federalism justifications for centralized authority to the siting of electricity generation. It demonstrates how the siting of electricity generation reflects many of the same federalism justifications for federal involvement as the other siting regimes, yet it yields different results.

Since all of the siting regimes share some of the traditional centralized federalism justifications for federal involvement, Part V analyzes other possible factors that may be unique to the siting of generation that may temper federalism justifications for federal involvement in deciding the source of our electricity. It looks to federalism virtues associated with decentralized state or local control, a longstanding tradition of state or local control over land use decisions, and public choice theories for guidance in explaining the disparity, ultimately finding each unsatisfying.

Part VI sets forth an alternative explanation for the disparity: the availability of alternative outlets for expressing a growing federal interest. It highlights a distinguishing feature between the federal interest in siting electricity generation and the siting of other infrastructure. Rather than a federal interest limited to ensuring the infrastructure is ultimately sited, the federal interest in the siting of electricity generation extends to the *type* of infrastructure being sited. This allows for slightly more flexibility in avenues by which to affect the type of electricity generation being sited without running afoul of jurisdictional boundaries. This section provides examples of the ways that the Federal Energy Regulatory Commission, the Environmental Protection Agency, and the Department of Interior may have each been able to exert a sufficient degree of influence over the type of resources used to generate electricity sited through their existing statutory authorities to alleviate the pressure to formally tip toward enhanced federal control.

The analysis ends with Part VII, which identifies continuing pressures on the proper balance of power in siting regimes and urges continued focus on the role of administrative agencies in affecting the circumstances surrounding tipping points of federalism.

II. TRADITIONAL FEDERALISM JUSTIFICATIONS FOR CENTRALIZED CONTROL

Traditional discussions about allocating authority between federal and subfederal (state and local) systems typically involved taking one of two polar positions along the federalism spectrum. At one end of the spectrum lie those speaking in favor of a stronger national government and a more

restrictive state and local power, often referred to as centralization¹⁶ or federalization.¹⁷ At the other end of the spectrum lie those arguing for greater authority in the state or local government, often evoking terms like decentralization¹⁸ or devolution.¹⁹ Contemporary discussions seem to place much more emphasis on the center, grouping those regimes which argue for shared power between the federal and subfederal governments into a category often referred to as “cooperative federalism.”²⁰ To assess the normative merits of each approach, scholars and judges have coalesced around a package of abstract virtues associated with state authority (decentralized)²¹ and federal authority (centralized), respectively.²²

But the level of power for any given regime is far from static. Not only has there been an increasing volume of literature focusing on iterative or dynamic federalism,²³ which envisions a fluid back and forth between different levels of government, but there are also formal congressional tips from one level of power to another. What is it that facilitates these tips? And more importantly for purposes of this analysis, what is it that facilitates congressional tips from state and local to more enhanced federal control? One answer may lie in changes to the presence and strength of the federalism justifications associated with a given activity.

¹⁶ See Abigail R. Moncrieff & Eric Lee, *The Positive Case for Centralization in Health Care Regulation: The Federalism Failures of the ACA*, 20 KAN. J.L. & PUB. POL’Y 266, 266 (2011).

¹⁷ William P. Marshall, *Federalization: A Critical Overview*, 44 DEPAUL L. REV. 719, 720 (1995); see also Abigail R. Moncrieff, *Federalization Snowballs: The Need for National Action in Medical Malpractice Reform*, 109 COLUM. L. REV. 844, 847 (2009) (explaining how the federal government’s previous intervention in healthcare spending has necessitated federalization of medical malpractice).

¹⁸ See Mark Moller, *The Rule of Law Problem: Unconstitutional Class Actions and Options for Reform*, 28 HARV. J.L. & PUB. POL’Y 855, 883, 900 (2005) (discussing the merits of decentralization in the context of multidistrict litigation as one possible way to better reform class action lawsuits, noting that decentralization can reduce the cost of error by government decision makers and encourage competition between different “power centers of government”).

¹⁹ See Paul E. Peterson, *Devolution’s Price*, 14 YALE L. & POL’Y REV. 111, 114 (1996).

²⁰ “Decentralization is no longer an alternative to centralization. Both are needed. The complementary roles of national and subnational actors should be determined by analyzing the most effective ways and means of achieving a desired objective.” Chanchal Kumar Sharma, *Emerging Dimensions of Decentralization Debate in the Age of Glocalization*, 1/2009 INDIAN J. FED. STUD. 47, 48–49 (2009); see also Oliver A. Houck & Michael Rolland, *Federalism in Wetlands Regulation: A Consideration of Delegation of Clean Water Act Section 404 and Related Programs to the States*, 54 MD. L. REV. 1242, 1244 (1995) (arguing “that the national interest in clean water and related wetlands functions merits a strong federal presence,” while also acknowledging the benefits of “an active state partnership”); Philip J. Weiser, *Cooperative Federalism and Its Challenges*, 2003 MICH. ST. DCL L. REV. 727, 728 (2003).

²¹ See discussion *infra* Part V.A.

²² See discussion *infra* at Part II.

²³ See, e.g., Ann E. Carlson, *Iterative Federalism and Climate Change*, 103 NW. U. L. REV. 1097 (2009) (discussing iterative federalism in the context of environmental policymaking); Kirsten H. Engel, *Harnessing the Benefits of Dynamic Federalism in Environmental Law*, 56 EMORY L.J. 159, 175–77 (2006) (discussing dynamic federalism in the context of environmental law).

Federalism scholars like Professor Robert Glicksman have identified five traditional federalism justifications for a move towards centralized control, focused primarily on collective action problems: (1) transboundary issues across state lines that create externalities; (2) the need for uniformity or harmonization; (3) under-regulation that can result in a race to the bottom between states, threatening state public safety and welfare; (4) overregulation that can result from NIMBY scenarios, threatening national public safety and welfare; and (5) the provision of public goods that require resource pooling.²⁴ Importantly, not all five federalism virtues need to be realized to justify a tip towards federal control. In fact, the presence of just one strong federalism virtue can be enough.²⁵ This section explains each of these justifications in more detail below.

A. *Transboundary Issues*

The first justification for federal involvement is its ability to better deal with externalities associated with transboundary issues. Policies adopted to maximize a state's own welfare can impose external costs on neighboring states, decreasing national efficiency.²⁶ State and local governments sometimes seek to shift negative regulatory byproducts or stigmas onto outsiders.²⁷ Exporting negative regulatory byproducts, such as pollution, is often a problem in environmental regulation.²⁸ For example, "a state may regulate a factory in a manner that protects its citizens, but causes pollution to be thrown off to people in bordering states."²⁹ Additionally, "political economists generally agree that it is appropriate for the national government to restrict regulation by the states that may impose great negative externalities on sister states."³⁰

²⁴ Robert Glicksman & Richard E. Levy, *A Collective Action Perspective on Ceiling Preemption by Federal Environmental Regulation: The Case of Global Climate Change*, 102 NW. U. L. REV. 579, 594–600 (2008).

²⁵ See Barry Friedman, *Valuing Federalism*, 82 MINN. L. REV. 317, 405–10 (1997) (providing a non-comprehensive list of common reasons for centralized national control—uniformity, race to the bottom, public goods, and externalities—and noting that there may be other reasons to exercise national authority); Richard B. Stewart, *Pyramids of Sacrifice?: Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 YALE L.J. 1196, 1211–20 (1977) (identifying several justifications for the movement toward centralized federal environmental regulation).

²⁶ Glicksman & Levy, *supra* note 24, at 594.

²⁷ David B. Spence & Paula Murray, *The Law, Economics, and Politics of Federal Preemption Jurisprudence: A Quantitative Analysis*, 87 CALIF. L. REV. 1125, 1137 (1999).

²⁸ See, e.g., Daniel C. Esty, *Revitalizing Environmental Federalism*, 95 MICH. L. REV. 570, 601 n.101 (1996) ("[A]ir pollution is a problem that rarely falls within ready-made political boundaries. In any metropolitan area both the social costs incurred in failing to control it and the benefits to be derived from regulation within a single political subdivision inevitably spill over into other jurisdictions The necessity for . . . uniformity is rather generally agreed upon." (quoting *Air Pollution*, 1967 *Hearings Before the Subcomm. on Air and Water Pollution of the Senate Comm. on Public Works*, 90th Cong. 993 (1967) (testimony of Lewis C. Green of the Missouri Air Conservation Commission))).

²⁹ Friedman, *supra* note 25, at 407.

³⁰ *Id.*

Centralization can maximize efficiency by internalizing this spillover effect “through the incentives implicit within a national legislature.”³¹ And centralization need not tip all the way to federal control. For instance, states have attempted to address transboundary issues, such as management of the Great Lakes, by centralizing to a level of regional interstate compacts as opposed to federal governance.³²

B. *Uniformity or Harmonization*

The second justification for centralized control is the ability to provide uniformity through single federal standards. Industry may call for federal regulation where it enables them to avoid disparate regulatory burdens across fifty states.³³ Uniform federal laws result in greater efficiency by reducing transaction costs between states.³⁴ Federal legislation may be warranted when businesses operating between states are encumbered by a lack of uniformity among states.³⁵ National policies also prevent a “piecemeal judicial approach” which undermines predictability and inhibits free trade.³⁶ Professor Barry Friedman touts free trade as “likely to play more of a role in the future in centralizing regulatory authority.”³⁷ Because trade thrives on uniformity, local legislation often “runs the risk of imposing novel requirements that inhibit the easy movement of goods and

³¹ Robert P. Inman & Daniel L. Rubinfeld, *Making Sense of the Antitrust State-Action Doctrine: Balancing Political Participation and Economic Efficiency in Regulatory Federalism*, 75 TEX. L. REV. 1203, 1229 (1997). Professors Issacharoff and Sharkey explored the implications of situations when “claims of state sovereignty do pose risks to the rest of the country, when experiments of democracy within one state’s borders have spillover effects that adversely affect citizens of other states,” noting that this may deprive the citizens of other states “of the political means of compelling democratic accountability on economic actors shielded by other states’ claims of sovereignty.” Samuel Issacharoff & Catherine M. Sharkey, *Backdoor Federalization*, 53 UCLA L. REV. 1353, 1355 (2006).

³² See Noah D. Hall, *Toward a New Horizontal Federalism: Interstate Water Management in the Great Lakes Region*, 77 U. COLO. L. REV. 405, 406 (2006) (describing cooperative horizontal federalism as a way to utilize common minimum standards that are imposed on states by an interstate compact as opposed to the federal government).

³³ Jonathan H. Adler, *When Is Two a Crowd? The Impact of Federal Action on State Environmental Regulation*, 31 HARV. ENVTL. L. REV. 67, 85 (2007) (discussing how federal preemption of automobile emissions standards resulted from lobbying by U.S. automakers who feared the potential for different states to adopt different emissions standards).

³⁴ Robert M. Ackerman, *Tort Law and Federalism: Whatever Happened to Devolution?*, 14 YALE L. & POL’Y REV. 429, 453 (1996).

³⁵ *Id.* at 452. The Reagan Administration, for example, concluded that product liability law required federal standardization. “Implicit in this decision was a determination that conflicting state product liability laws have created such significant burdens on interstate commerce that preemptive federal legislation was necessary to provide consistent nationwide treatment of product liability disputes.” C. Boyden Gray, *Regulation and Federalism*, 1 YALE J. ON REG. 93, 96 (1983) (referencing the Reagan administration’s support for national legislation to supplant state laws).

³⁶ Arthur H. Harding & Paul W. Jamieson, *Dismantling the Final Regulatory Entry Barriers: A Call for the FCC to Assert Its Preemptive Authority*, 12 HARV. J.L. & TECH. 533, 554 (1999).

³⁷ Friedman, *supra* note 25, at 375.

people.”³⁸ It is “almost always easier and less costly to comply with one standard than to attempt to comply with multiple standards that vary depending on the jurisdiction.”³⁹ Therefore, businesses and free-market advocates prefer a centralized system because a uniform national policy radically simplifies operations.⁴⁰

C. *Race to the Bottom*

The third justification for centralized control is the ability to protect the citizenry by preventing a race to the bottom. The race to the bottom theory suggests that decentralized competition may “lead a state to eschew policies that it truly desires for fear that they will influence a mobile citizenry and commercial-industrial base to react in ways that undermine local welfare.”⁴¹ States may have little incentive to impose more stringent regulations than other states for fear that businesses will find the more relaxed regulatory environment more favorable and shift their contribution to the tax base and local economy to the less stringent state.⁴² It is particularly this type of under-regulation where enhanced federal control

³⁸ *Id.* at 376.

³⁹ Thomas W. Merrill, *Preemption and Institutional Choice*, 102 NW. U. L. REV. 727, 732 (2008).

⁴⁰ *Id.*

⁴¹ Evan H. Caminker, *State Sovereignty and Subordinacy: May Congress Commandeer State Officers to Implement Federal Law?*, 95 COLUM. L. REV. 1001, 1012 (1995). *But see* Kirsten H. Engel, *State Environmental Standard-Setting: Is There a “Race” and Is It “to the Bottom”?*, 48 HASTINGS L.J. 271, 278 (1997) (arguing that interstate competition in real world situations is in fact detrimental to social welfare despite theoretical models showing it to be beneficial); Daniel R. Fischel, *The “Race to the Bottom” Revisited: Reflections on Recent Developments in Delaware’s Corporation Law*, 76 NW. U. L. REV. 913, 920 (1982) (explaining that state control over corporate law does not create a “race-to-the-bottom,” but rather a “climb to the top”); Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the “Race-to-the-Bottom” Rationale for Federal Environmental Regulation*, 67 N.Y.U. L. REV. 1210, 1253 (1992) (challenging the race-to-the-bottom rationale for centralized environmental legislation and arguing that state competition is presumptively beneficial).

⁴² One contemporary example of the race to the bottom is the regulation of the fracking of shale formations to release natural gas. When fracking comes to town, mineral rights owners become millionaires, the unemployment rate drops, businesses prosper from the influx of developers, and the state derives tax dollars. *See, e.g.*, Brian A. Shactman, *Unemployed? Go to North Dakota*, MSN MONEY, Oct. 5, 2011, available at <http://money.msn.com/investing/unemployed-go-to-north-dakota-cnbc.aspx> (attributing an influx of billions of dollars to the state economy, a jobless rate that is one-third that of the national rate, and a high demand for new housing developments to the fracking boom in North Dakota). These benefits are difficult to ignore, providing the state with a strong financial interest in luring the developers within their borders, even if it involves doing so with environmental regulation that is less restrictive than its shale-sharing neighbors. In 2010, the governor of New York imposed a moratorium on fracking until the state could complete an environmental review. *See* Matt Willie, Comment, *Hydraulic Fracturing and “Spotty” Regulation: Why the Federal Government Should Let States Control Unconventional Onshore Drilling*, 2011 BYU L. REV. 1743, 1763 (2011) (discussing the controls New York has placed on fracking). Pennsylvania, in stark comparison to New York’s strict regulatory regime, has taken a more laissez-faire approach to drilling and permitted 2,349 wells to be drilled in the Marcellus Shale between 2008 and 2010, “with 1,386 of those wells drilled in 2010 alone.” Beren Argetsinger, Comment, *The Marcellus Shale: Bridge to a Clean Energy Future or Bridge to Nowhere? Environmental, Energy and Climate Policy Considerations for Shale Gas Development in New York State*, 29 PACE ENVTL. L. REV. 321, 326 (2011).

may be beneficial to the welfare of the citizens. A noble justification for centralization is to “guarantee a minimum level of environmental protection to citizens regardless of their place of residence . . . [that] helps guarantee that citizens can travel freely without encountering unreasonable risks to their health or welfare from environmental conditions.”⁴³ In response, federal control can alleviate such a race to the bottom by leveling the playing field between the states.⁴⁴

D. *NIMBY*

A fourth justification for centralized control is the ability to address problems of overregulation. This justification typically arises in the context of the NIMBY phenomenon. Furthermore, “[t]he NIMBY phenomenon arises when there is some undesirable but necessary activity or facility that must be located somewhere. . . . In such cases, states may impose regulatory burdens intended to drive the activity into other states.”⁴⁵ In these circumstances, calls for federal action may arise to prevent the states from blocking projects that can be beneficial to the nation as a whole. The most common NIMBY example is the siting of a nuclear waste storage facility, an activity that few, if any states want to engage in, and yet is important for the benefit of the nation.⁴⁶ In the context of high-level nuclear waste, for instance, the federal government imposed the storage of high-level nuclear waste on the state of Nevada despite state efforts to block the activity.⁴⁷

E. *Public Goods*

The last traditional justification for centralized authority is the ability

⁴³ Robert V. Percival, *Environmental Federalism: Historical Roots and Contemporary Models*, 54 MD. L. REV. 1141, 1171–72 (1995).

⁴⁴ *Id.* at 1151 (noting that match companies called for federal regulation of white phosphorus where states were reluctant to adopt measures that would drive employers out of state).

⁴⁵ Glicksman & Levy, *supra* note 24, at 600. “This scenario is essentially the flipside of a negative externality problem because the source of a NIMBY problem is a positive externality—the state that is the location of the activity bears all or most of the environmental burdens, but the economic benefits are spread to other states.” *Id.*

⁴⁶ One hundred and four nuclear reactors are currently operating in our country, storing over 60,000 tons of radioactive spent fuel across our country. Matthew McKinzie, *Sixty Thousand Tons of Commercial Spent Nuclear Fuel Stored at U.S. Reactors for 60 Years?*, SWITCHBOARD NATURAL RES. DEF. COUNCIL STAFF BLOG (Feb. 23, 2011), http://switchboard.nrdc.org/blogs/mmckinzie/sixty_thousand_tons_of_commerc.html.

⁴⁷ See Nuclear Waste Policy Amendments Act of 1987, PUB. L. NO. 100-203, 101 Stat. 1330, 227–28 (codified as amended at 42 U.S.C. § 10172 (1988)) (designating Yucca Mountain, Nevada, as the sole repository site to be characterized). The storage facility was abandoned for other reasons, but only after twelve billion dollars had been spent on characterizing and initial site development of the site. Hannah Northey, *GAO: Death of Yucca Mountain Caused by Political Maneuvering*, N.Y. TIMES, May 10, 2011, <http://www.nytimes.com/gwire/2011/05/10/greenwire-gao-death-of-yucca-mountain-caused-by-politica-36298.html?pagewanted=all>.

of the federal government to provide public goods that states may be lacking incentives to provide.⁴⁸ These are often characterized by a lack of sufficient resources by any individual state, but that can be sufficient through the pooling of resources. For example, a danger to our country may present the need for a strong national defense that each individual state could not provide. Illnesses that affect all of our citizens may present a need for a scientific research broadly applicable to all of our citizens that each individual state may not have the resources to provide. In such technical fields, states “lack sufficient incentives to provide public goods, such as scientific or economic research, that would improve their decision-making capability.”⁴⁹ If a state invests in a technical regulatory area, the results “will be tailored to their unique situation and not necessarily applicable in other areas of the country.”⁵⁰ And public goods such as sewer systems, clean water, and clean air generate social benefits (positive externalities) that are not fully captured in their private costs, which could result in undersupply without the intervention of the federal government.⁵¹ Poor states often lack the federal government’s “technical competence” to regulate effectively.⁵² While the national government also has budget constraints, it has more fiscal tools to fund regulation to address egalitarian concerns.⁵³

In sum, the presence of one or more of the five traditional federalism justifications for increased centralized control can support a corresponding tip. The next section will evaluate the relevance of these five justifications to the tips that occurred in the infrastructure siting regimes.

III. TIPPING POINTS OF SITING REGIMES

Siting of infrastructure in our country is rife with federalism controversies. The most high-profile federalism siting controversies involve Congress’s attempts to alter the balance of power between the states and the federal government with regard to a single, high-impact siting. Two examples are the siting of a permanent repository for

⁴⁸ Friedman, *supra* note 25, at 406–07.

⁴⁹ Benjamin K. Sovacool, *The Best of Both Worlds: Environmental Federalism and the Need for Federal Action on Renewable Energy and Climate Change*, 27 STAN. ENVTL. L.J. 397, 424 (2008).

⁵⁰ *Id.* at 424–25.

⁵¹ Friedman, *supra* note 25, at 406 (“Public goods are those that would not be provided if it were not for the existence of some central authority to fund them.”).

⁵² Sovacool, *supra* note 49, at 426. One argument is that “the federal government is well-equipped to provide capital-intensive services like the construction of deep salt-lined storage facilities for high-level nuclear waste, but is likely to be inept at conducting labor-intensive services like the management of public hearings to minimize public opposition to waste sites.” Roderick M. Hills, Jr., *The Political Economy of Cooperative Federalism: Why State Autonomy Makes Sense and “Dual Sovereignty” Doesn’t*, 96 MICH. L. REV. 813, 869–70 (1998).

⁵³ Larry Kramer, *Understanding Federalism*, 47 VAND. L. REV. 1485, 1549–50 (1994).

high-level nuclear waste at Yucca Mountain, Nevada⁵⁴ and the siting of a 1,700 mile Keystone XL oil pipeline that would run from Canada, through six states in the heartland of the nation, down to Texas.⁵⁵

But in many ways, the more important siting decisions are those that occur on a regular basis. These decisions include the siting of railroad tracks and facilities, telecommunications towers and fiber optic cables, natural gas pipelines, electricity transmission lines, and the generators that power our electric grid. As opposed to one-time, big ticket sitings that elicit great controversy and public scrutiny, these repetitive siting decisions occur frequently, often under the media's radar, and often elicit controversy only from those living closest to the siting. Although they reflect a small sample size in the broad world of tips, the focus on siting authority can provide some useful insights into factors affecting tipping points for other areas. This analysis yields a number of general principles concerning the impact of the regulated community, the federal government, the states, and the affected citizenry on the political decision to tip from state to federal control.

Not surprisingly, all of the siting regimes discussed in this analysis were initially governed by state or local authority. In their most general sense, siting decisions are characterized by two elements: A governmental entity first decides (1) whether there is a "need" for the infrastructure to be sited,⁵⁶ and then decides (2) where the infrastructure should be sited.

⁵⁴ After years of trying to secure a permanent repository for the nation's high-level nuclear waste, the federal government eventually decided to force over 60,000 tons of the highly radioactive substance onto the state of Nevada against its strong objections. See Nuclear Waste Policy Act of 1982, 42 U.S.C. §§ 10132, 10172 (2006) (charging DOE with the responsibility to find a site and subsequently narrowing the choices to Yucca Mountain, Nevada in 1987); see also Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 66 Fed. Reg. 32,081 (June 13, 2001) (discussing why Yucca Mountain was chosen). After two decades, "the Secretary of Energy has decided that a geologic repository at Yucca Mountain is not a workable option for long-term disposition of these materials." U.S. Dep't of Energy's Motion to Withdraw 1, In re U.S. Dep't of Energy (High-Level Waste Repository), No. 63-001 (N.R.C. Mar. 3, 2010), available at http://energy.gov/sites/prod/files/edg/media/DOE_Motion_to_Withdraw.pdf.

⁵⁵ Nebraska opposes the siting of this 1,700 mile pipeline through the nation's heartland, a siting decision that rests with the State Department due to its transnational effects across Canada and the U.S. In January 2012, President Obama refused to approve the pipeline under a congressionally-imposed accelerated timeframe, but would consider alternative routes that do not "risk[] the health and safety of the American people and the environment." Statement by the President on the Keystone XL Pipeline, Jan. 18, 2012, available at <http://www.whitehouse.gov/the-press-office/2012/01/18/statement-president-keystone-xl-pipeline>. To counter this state interest, Congress has declared that "[t]he development and delivery of oil and gas from Canada to the United States is in the national interest of the United States in order to secure oil supplies to fill needs that are projected to otherwise be filled by increases in other foreign supplies." North American-Made Energy Security Act, H.R. 1938, 112th Cong. § 2(4) (2011).

⁵⁶ Transmission lines and natural gas pipelines require a certificate of need; telecommunications infrastructure requires a certificate of necessity, and railroads require a certificate of convenience and necessity. See, e.g., *infra* notes 68 and 133.

Implicit in these analyses is often a decision about the type of infrastructure to be constructed and the resources that will be used. In all cases, a state or local entity initially handled these decisions. In some situations, Congress enacted legislation to secure the role of the states over these local issues.⁵⁷ In other cases, the decentralized authority was a natural default for the manner in which this infrastructure developed. Perhaps more surprising is the fact that all of these infrastructure siting regimes, except for the siting of electricity generation, eventually tipped towards some form of enhanced federal control.⁵⁸

This section demonstrates the historic control of the states, the presence of one or more of the traditional federalism justifications for centralized authority in each of the regimes, and the congressional action that tipped the balance of power from state towards enhanced federal control over the siting of four types of commonplace infrastructure: (1) railroads; (2) natural gas; (3) telecommunications; and (4) electricity transmission.

A. *Railroad Tip*

The first siting regime to tip was the railroads. From the dawn of the railroad, the decision to lay down tracks or other railroad infrastructure fell to a local level.⁵⁹ Railroad owners had largely free rein as to the creation and location of railroad infrastructure, limited only by state regulation, which had been described as “crude.”⁶⁰ Since at least 1832, state railroad commissions began to take a more active role in the siting decisions.⁶¹ For nearly half a century, railroads faced little competition from other transportation options, resulting in the “golden age” of railroads where the rail network grew from 35,000 miles of tracks to a peak of 254,000 miles

⁵⁷ As described *supra*, Congress codified state control over the siting of generation, transmission, and distribution infrastructure in the FPA.

⁵⁸ For purposes of this Article, enhanced federal control includes any shift in the power balance toward a more centralized level of authority, including complete preemption, partial preemption, or some form of backstop authority.

⁵⁹ Since its first use in the United States in 1827, railroads have been under state control. See Railroad Industry Overview Series- History of the Railroad Industry, IRS, <http://www.irs.gov/Businesses/Railroad-Industry-Overview-Series---History-of-the-Railroad-Industry--October-2007> (last updated Sept. 27, 2012).

⁶⁰ *National Railroad Regulation*, N.Y. TIMES, Dec. 3, 1885, available at <http://query.nytimes.com/mem/archive-free/pdf?res=9901E1DF1F39E533A25750C0A9649D94649FD7CF>.

⁶¹ Mark T. Kanazawa & Roger G. Noll, *The Origins of State Railroad Regulation: The Illinois Constitution of 1870*, in THE REGULATED ECONOMY: A HISTORICAL APPROACH TO POLITICAL ECONOMY 13, 14 (Claudia Goldin & Gary D. Libecap eds., 1994) (“[F]or three decades before the passage of the Interstate Commerce Act, many states regulated tariffs and routes for both passengers and freight.”).

in 1916, all under state control.⁶²

James Ely, in chronicling the rise of federal control over the rail industry, has noted that “eminent authorities had long urged federal control of the industry.”⁶³ But “[i]t was easier, however, to clamor for federal controls than to decide upon the appropriate type of legislation.”⁶⁴ “[F]ew doubted that rail operations were within the power of Congress,”⁶⁵ and Congress enacted several statutes that strengthened the Interstate Commerce Commission (“ICC”) and greatly enlarged national control of railroads.⁶⁶

For our purposes, the relevant point in the march towards federalization was the Transportation Act of 1920 (“Transportation Act”).⁶⁷ The Transportation Act amended the Interstate Commerce Act, providing the ICC with exclusive siting authority over new rail lines or facilities. It provided that no extensions or new lines could be built, nor could any portion of a line be abandoned, without a certificate of convenience and necessity from the ICC.⁶⁸ The Supreme Court affirmed this exclusive authority of the federal government to determine whether railroad infrastructure was necessary and in the public interest, rejecting attempts by a state railroad commission to do so.⁶⁹ Notably, this federal control established a presumption that rail construction projects are in the public interest unless shown otherwise.⁷⁰ Unlike in other siting regimes discussed

⁶² *Railroad Industry Overview Series*, IRS, <http://www.irs.gov/Businesses/Railroad-Industry-Overview-Series—History-of-the-Railroad-Industry—October-2007> (last visited Sept. 27, 2012).

⁶³ James W. Ely, Jr., “*The Railroad System Has Burst Through State Limits*”: *Railroads and Interstate Commerce, 1830–1920*, 55 ARK. L. REV. 933, 966 (2003).

⁶⁴ *Id.* at 966.

⁶⁵ *Id.*

⁶⁶ *See id.* at 967 (stating that federal control began in 1862 with the Interstate Commerce Act that created the Interstate Commerce Commission and the Safety Appliance Act of 1893, but continued in quick succession with the Elkins Act of 1903, the Hepburn Act of 1906, and the Mann-Elkins Act of 1910).

⁶⁷ Melvin F. Fincke, *Is Competition Between Carriers To Be Considered by the Interstate Commerce Commission When Granting Certificates of Convenience and Necessity?*, 25 TEX. L. REV. 406, 406 (1947) (citing Transportation Act of 1920, Pub. L. No. 66-152, 41 Stat. 456 (1920) (codified in scattered sections of 49 U.S.C.)).

⁶⁸ ROGERS MACVEAGH, *THE TRANSPORTATION ACT, 1920: ITS SOURCES, HISTORY, AND TEXT, TOGETHER WITH ITS AMENDMENTS TO THE INTERSTATE COMMERCE ACT, EXPLAINED, ANALYZED, AND COMPARED 195* (1923). Consistent with contemporary Commerce Clause jurisprudence, Congress did not give the ICC authority over rail lines located wholly within one state. *Id.* at 197, 219. The Supreme Court has declared that the ICC can regulate intrastate commerce only as an incident to the control of interstate commerce. Ely, *supra* note 63, at 976 (noting that “calls for federal control of the rail industry steadily mounted after the Civil War”).

⁶⁹ *R.R. Comm’n of Cal. v. S. Pac. Co.*, 264 U.S. 331, 347 (1924).

⁷⁰ *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 552 (8th Cir. 2003) (finding that 49 U.S.C. § 10901(c) gives rise to statutory presumption that rail construction is to be approved).

below, even the location of the lines is subject to federal approval.⁷¹ This federal power to issue a certificate of convenience and necessity for railroad infrastructure continues today through the ICC's successor, the Surface Transportation Board ("STB").⁷²

Enhanced federal control over rail lines was prompted by a number of factors. First, in the early 1900s, the federal government faced the then-unique threat of a world war. Only three weeks before Congress declared war on Germany, the Supreme Court upheld congressional legislation that foisted an eight-hour work day upon the rail industry, reasoning that an "emergency may afford a reason for the exercise of living power already enjoyed" and paved the way for the emergency powers doctrine.⁷³ In 1917, the federal government seized control of the railroads for the duration of the war.⁷⁴ Following the end of World War I, President Wilson returned control to private actors, but further strengthened federal control of the railroads by vetoing a bill that would have stripped the Railroad Administration of its power over rates and schedules and returned the ICC's pre-war rate-making authority, holding that the Railroad Administration's "authority . . . was necessary to enable it promptly to meet operating emergencies."⁷⁵ Passed in 1920, the Transportation Act preserves the President's right to assert federal control over railroads and other transportation systems in times of war.⁷⁶

Second, there was the desire to minimize inefficiencies associated with piecemeal planning. In the aftermath of mass production during wartime, the nation was left with excess supply and unnecessary and parallel lines.⁷⁷ A speech by Senator Cummins of Iowa prior to the passage of the Transportation Act of 1920 indicated that the United States railroad system was suffering as a result of the "unguided, uncontrolled right of owners to build railroads wherever they may see fit."⁷⁸ Railroad companies

⁷¹ 49 C.F.R. § 1150.4 (2011). The railroad's plan is also subject to environmental review and must meet federal and state environmental regulations. 49 C.F.R. § 1150.7 In some situations, this may indirectly give states a role in determining where a line is located.

⁷² 49 U.S.C. § 10901 (2006) (discussing how similar to the ICC, the STB must issue a certificate authorizing construction and operation of railroad lines unless it finds that the activities are inconsistent with public convenience and necessity).

⁷³ Michal R. Belknap, *The New Deal and the Emergency Powers Doctrine*, 62 TEX. L. REV. 67, 79–81 (1983).

⁷⁴ Railroad Industry Overview Series: History of the Railroad Industry, IRS, <http://www.irs.gov/businesses/article/0,,id=175287,00.html> (last updated Aug. 25, 2011).

⁷⁵ *President Vetoes Pre-war Rate Bill*, N.Y. TIMES, Nov. 18, 1919, available at <http://query.nytimes.com/mem/archive-free/pdf?res=9806E2DB153BEE32A2575AC1A9679D946896D6CF>.

⁷⁶ *Toledo, P. & W. R.R. v. Stover*, 60 F. Supp 587 (S.D. Ill. 1945) (citing Ch. 91, § 402, 41 Stat. at 457–58 (1920)).

⁷⁷ MACVEAGH, *supra* note 68, at 219.

⁷⁸ *Id.* at 221.

abandoned overbuilt lines,⁷⁹ and the courts became overcrowded with cases regarding the legal obligations associated with those abandoned railroad lands. This untenable situation demonstrated a need for federal control over the abandonment of railroad lines.⁸⁰ And as the Supreme Court has subsequently noted in other contexts, “the Federal Government has determined that a uniform regulatory scheme is necessary to the operation of the national rail system.”⁸¹

A third catalyst for the tip was the infringement on fundamental rights that was occurring on some railroads under state control. Railroads were discriminating against African-Americans, and Senator Cullom proposed a bill in 1884 that would provide federal regulation to address this behavior. Senator Cullom’s bill prohibited “any company engaged in transportation from one State to another from making unreasonable charges, or charging more to one person than to another for the same service, or refusing equal facilities to all.”⁸² As a *New York Times* description of the bill notes, “The public judgment is very potent for the correction of evils provided it is properly enlightened.”⁸³ The bill also provided the proposed National Railroad Commission with federal power to investigate allegations of discrimination, and even more significantly, to report any information collected on the railroad companies to the Secretary of the Interior on an annual basis.⁸⁴ Three years later, just two months after the creation of the Interstate Commerce Commission, it found railroad companies in violation of the Interstate Commerce Act “by failing to provide African-American passengers with accommodations equal to those of whites,” consequently creating “the doctrine of separate but equal almost a decade before *Plessy v. Ferguson* was decided.”⁸⁵ Thus, the federal government justified its involvement in the railway system through various facets of discrimination. As Cass Sunstein has noted, “When a national moral commitment is involved, the case for uniformity is much stronger.”⁸⁶

In sum, authority over railroad infrastructure tipped from state control towards increased federal control in light of national security concerns, as a

⁷⁹ Danaya C. Wright, *The Shifting Sands of Property Rights, Federal Railroad Grants, and Economic History: Hash v. United States and the Threat to Rail-Trail Conversions*, 38 ENVTL. L. 711, 721 (2008).

⁸⁰ See *id.* (showing that the current system was insufficient to address the abandonment of railroad lines).

⁸¹ *United Transp. Union v. Long Island R.R.*, 455 U.S. 678, 688 (1982).

⁸² *A National Railroad Commission*, N.Y. TIMES, April 25, 1884, available at <http://query.nytimes.com/mem/archive-free/pdf?res=9F01E0DB173FE533A25756C2A9629C94659FD7CF>.

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ Reuel E. Schiller, Comment, *The Administrative State, Front and Center: Studying Law and Administration in Postwar America*, 26 L. & HIST. REV. 415, 420–21 (2008).

⁸⁶ CASS R. SUNSTEIN, *AFTER THE RIGHTS REVOLUTION: RECONCEIVING THE REGULATORY STATE* 226 (1990).

response to piecemeal planning and economic waste, and to provide transparency to invidious racial discrimination occurring on the railroads.

B. *Natural Gas Tip*

A second example of Congress altering a federalism framework from a decentralized, state-centered authority to complete preemption by the federal government is in the siting of natural gas pipelines.⁸⁷ Siting of pipelines began locally. Although one of the first natural gas pipelines ran only 5.5 miles in 1859, by 1891, pipelines had grown to 120 miles.⁸⁸ Initial distribution networks were largely within one municipality and fell under the regulatory powers of local governments.⁸⁹ But as the networks began to cross over city lines, state governments intervened.⁹⁰ And as they crossed over state lines, the federal government intervened.⁹¹

In 1938, Congress enacted the Natural Gas Act (“NGA”) that provided the Federal Power Commission (“FPC”) with jurisdiction over the pricing of natural gas in interstate commerce, as well as with exclusive siting authority over pipelines that would deliver “natural gas into a market already served by another pipeline.”⁹² Before that time, there is no evidence of the FPC playing any meaningful role in the siting of natural gas pipelines, as regulation occurred through municipalities and state public utility commissions.⁹³ This meant that in order to build an interstate pipeline, companies must first receive the approval of the FPC.⁹⁴ As a

⁸⁷ Notably, control over the siting of onshore liquefied natural gas (“LNG”) terminals (which provide the point of entry and departure for liquefied natural gas that has been compressed and loaded into tankers) also came under exclusive federal control, but is not included in this analysis. LNG development began after the NGA was enacted, so authority over siting was never quite clear. FERC approved construction applications on a case-by-case basis, but jurisdictional uncertainties arose concerning LNG that was to be used solely for intrastate distribution, with California challenging FERC’s authority over the siting of such terminals. Fearing delays for LNG projects nationwide, FERC asked Congress to intervene and grant exclusive federal authority. Jacob Dweck, David Wochner & Michael Brooks, *Liquefied Natural Gas (LNG) Litigation After the Energy Policy Act of 2005: State Powers in LNG Terminal Siting*, 27 ENERGY L.J. 473, 480 (2006). In 2005, Congress provided FERC with express authority over applications to site, construct, expand, or operate onshore LNG terminals. Natural Gas Act, 15 U.S.C. § 717b(e)(1) (2006). Since authority for the siting of these projects was never clearly with the states, this action is not characterized as a tip for purposes of this analysis, but an action to clarify federal jurisdiction.

⁸⁸ *History*, NATURALGAS.ORG, <http://www.naturalgas.org/overview/history.asp> (last visited May 28, 2012) (“One of the first lengthy pipelines was constructed in 1891. This pipeline was 120 miles long, and carried natural gas from wells in central Indiana to the city of Chicago.”).

⁸⁹ *Id.*

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *Id.*; see also Carl I. Wheat, *Administration by the Federal Power Commission of the Certificate Provisions of the Natural Gas Act*, 14 GEO. WASH. L. REV. 194, 196 (1945–1946) (explaining the subsequent clarification of “a market in which natural gas is already being served”).

⁹³ *Id.*

⁹⁴ *Id.*

result, the NGA provides the federal government with exclusive control over siting interstate pipelines.⁹⁵ This federal power continues today through the FPC's successor, the Federal Energy Regulatory Commission ("FERC").

The initial tip towards federal control over the natural gas pipelines began not with control over the physical infrastructure, but with control over the rates charged for natural gas, a move prompted by the concerns over monopoly power.⁹⁶ This federal control over rates eventually spilled over into control over the infrastructure with Congress's passage of the NGA.⁹⁷ There, the tip from state to federal control over siting can be largely attributed to the desire to avoid piecemeal and inefficient outcomes. As technology improved, natural gas could be transported over longer distances, and soon states were regulating transport over state lines. This development, however, subjected natural gas firms to multiple regulations from multiple states, which, at times, were in conflict with each other.⁹⁸ Federal control, combined with technological advances, led to a "post-war pipeline construction boom lasted well into the '60s, and allowed for the construction of thousands of miles of pipeline in America."⁹⁹

C. Telecommunications Tip

A third example of Congress altering the balance of power involves telecommunications infrastructure: the "cables, antennas, poles, [and] towers," and in the case of wireless/broadband facilities, fiber optic cables.¹⁰⁰ The tip in the telecommunications industry focuses on the siting of wireless communications towers. As with railroad infrastructure, the power to site telecommunications infrastructure initially rested with the states. After the invention of the telephone by Alexander Graham Bell,

⁹⁵ Natural Gas Act, 15 U.S.C. § 717b(e)(1) (2012). Although the vast majority of natural gas pipelines are interstate, more than ninety intrastate natural gas pipelines operate in the lower-forty-eight states, primarily in Texas. These are pipelines that operate totally within one state, do not physically interconnect, and are not subject to FERC jurisdiction. *About Natural Gas Pipelines*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/pub/oil_gas/natural_gas/analysis_publications/ngpipeline/intrastate.html (last visited May 28, 2012).

⁹⁶ Richard J. Pierce, Jr., *The Evolution of Natural Gas Regulatory Policy*, 10 NAT. RESOURCES & ENV'T 53, 53 (1995).

⁹⁷ See 15 U.S.C. §§ 717–717z.

⁹⁸ *Id.*

⁹⁹ *History*, NATURALGAS.ORG, <http://www.naturalgas.org/overview/history.asp> (last visited May 28, 2012) (noting welding techniques, pipe rolling, and metallurgical advances allowed for the construction of reliable pipelines).

¹⁰⁰ In the Matter of Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, 26 F.C.C.R. 5384, 5385 (2011).

states began regulating telephone service in the early 1900s.¹⁰¹ In 1934, Congress passed the Communications Act of 1934, which established a dual regulatory model for radio and wire communications.¹⁰² It created the Federal Communications Commission (“FCC”), which was given authority over all interstate communications,¹⁰³ and left intrastate communications in the hands of the states to regulate through their PUCs.¹⁰⁴ Frequently described by scholars as a “natural monopoly,”¹⁰⁵ state governments and even the federal government embraced the idea of a telecommunications industry dominated by the Bell system and decried competition as redundant.¹⁰⁶

Control over telecommunications tipped in 1996 when Congress passed the Telecommunications Act of 1996 (“Telecommunications Act”).¹⁰⁷ This statute both deregulated the telecommunications industry and tipped the balance of power over the siting of wireless telecommunications infrastructure from complete state control towards federal control. Notably, “[b]efore adopting the statute in conference, Congress considered a bill that would have assigned the FCC broad rulemaking power over the State and local siting process.”¹⁰⁸

Unlike some of the other siting regimes, which involved complete

¹⁰¹ Michigan, for example, began regulating in 1913. TELECOMMUNICATIONS ASS’N OF MICH., MICHIGAN TELECOMMUNICATIONS ACT HANDBOOK 2 (2003), available at www.telecommich.org/Documents/mta_handbook.pdf.

¹⁰² Communications Act of 1934, 47 U.S.C. § 154 (2012).

¹⁰³ *Id.*

¹⁰⁴ 47 U.S.C. § 152 (2012); see also Duane McLaughlin, Note, *FCC Jurisdiction over Local Telephone Under the 1996 Act: Fenced Off?*, 97 COLUM. L. REV. 2210, 2213 (1997) (“[T]he 1934 Act . . . give[s] the FCC authority over all interstate communications but reserve[s] authority over intrastate communications to the states.”).

¹⁰⁵ See, e.g., John T. Soma et al., *The Essential Facilities Doctrine in the Deregulated Telecommunications Industry*, 13 BERKELEY TECH. L.J. 565, 603 (1998) (“AT&T was a natural monopoly protected from rivalry by public restrictions on entry.”); Robert B. Friedrich, Note, *Regulatory and Antitrust Implications of Emerging Competition in Local Access Telecommunications: How Congress and the FCC Can Encourage Competition and Technological Progress in Telecommunications*, 80 CORNELL L. REV. 646, 659 (1995) (describing local networks as “textbook examples of natural monopolies”).

¹⁰⁶ Richard A. Posner, *Natural Monopoly and Its Regulation*, 21 STAN. L. REV. 548, 548 (1969); see also *MCI Commc’ns Corp. v. Am. Tel. & Tel. Co.*, 708 F.2d 1081, 1133 (7th Cir. 1983) (explaining that Bell Systems was regarded as a natural monopoly because “it would not be economically feasible for MCI [a would-be competitor] to duplicate Bell’s local distribution facilities (involving millions of miles of cable and line to individual homes and business), and regulatory authorization could not be obtained for such an uneconomical duplication”).

¹⁰⁷ 47 U.S.C. § 251 (2006).

¹⁰⁸ Matthew K. Schettenhelm, *Accelerated Wireless Build-Out: Responding to DAS and “Shot Clock,”* 2 (Apr. 2011), <http://www.millervaneaton.com/WirelessBuildout.pdf> (footnote omitted); see Gregory Tan, Note, *Wading Through the Rhetoric of the Telecommunications Act of 1996: Uncertainty of Local Zoning Authority Over Wireless Telecommunications Tower Siting*, 22 VT. L. REV. 461, 462–63 (1997) (explaining that the Telecommunications industry would have preferred to bypass local zoning authorities and that it pushed the federal government to preempt local siting authority with the Telecommunications Act of 1996).

federal preemption, authority over the siting of wireless communications and electricity transmission lines tipped towards federal control but stopped short of exclusive federal authority. Congress only partially preempted state siting authority over wireless telecommunications infrastructure, providing the federal government with control over the licensing of wireless infrastructure¹⁰⁹ and leaving control over the location specifics largely to the states.¹¹⁰ But to ensure that state decisions would not hinder development of wireless telecommunications infrastructure,¹¹¹ Congress imposed three significant limitations on state regulation: (1) state regulation “shall not unreasonably discriminate among providers of functionally equivalent services”;¹¹² (2) “state regulation shall not prohibit or have the effect of prohibiting the provision of wireless services”;¹¹³ and (3) the local government cannot regulate on the basis of the environmental effects of radio frequency emissions if those facilities comply with relevant FCC regulations.¹¹⁴ Despite these federal restrictions imposed on state agencies, states have been successful in exerting their authority over siting decisions, even to the point of denying siting approval for wireless towers based on aesthetics.¹¹⁵

The tip from state control to the partial federal preemption over wireless telecommunications infrastructure is attributed to a number of factors. First, rising demand led to a national interest in growing the wireless communications industry. There was an explosion in new communication technologies, including wireless telephone use.¹¹⁶ When

¹⁰⁹ FCC: WIRELESS COMM’N BUREAU, FACT SHEET #2: NATIONAL WIRELESS FACILITIES SITING POLICIES 4 (1996), available at <http://wireless.fcc.gov/siting/preconstruction.html>.

¹¹⁰ The FCC encourages licensed providers to conduct research before applying for tower siting so that they may “target . . . site locations that are compatible with the proposed use, such as industrial zones, utility rights of way and pre-existing structures.” *Id.* at 7.

¹¹¹ Steven J. Eagle, *Wireless Telecommunications, Infrastructure Security, and the NIMBY Problem*, 54 CATH. U. L. REV. 445, 466 (2005). In a somewhat ironic move, Congress entitled the relevant provision that partially preempted state siting authorities as “*Preservation of Local Zoning Authority*.” 47 U.S.C. § 332(c)(7) (2006).

¹¹² 47 U.S.C. § 332(c)(7)(B)(i)(I) (2006).

¹¹³ 47 U.S.C. § 332(c)(7)(B)(i)(II) (2006). “The heart of the House-Senate compromise [regarding whether FCC had total authority over tower siting], embodied in Section 704, is that states and localities can regulate the placement of wireless towers but cannot prohibit them.” Eagle, *supra* note 111, at 466.

¹¹⁴ 47 U.S.C. § 332(c)(7)(B)(iv)(2006); Matthew N. McClure, Comment, *Working Through the Static: Is There Anything Left to Local Control in the Siting of Cellular and PCS Towers After the Telecommunications Act of 1996?*, 44 VILL. L. REV. 781, 788 (1999).

¹¹⁵ Matthew K. Schettenhelm, *Accelerated Wireless Build-Out: Responding to DAS and “Shot Clock,”* 8 (Apr. 2011), <http://www.millervaneaton.com/WirelessBuildout.pdf> (citing *NextG Networks of Cal., Inc. v. City of Newport Beach*, No. SACV 10-1286, 2011 WL 717388, (C.D. Cal. Feb. 18, 2011)); see *infra* note 223.

¹¹⁶ See Sara A. Evans, Note, *Wireless Service Providers v. Zoning Commissions: Preservation of State and Local Zoning Authority Under the Telecommunications Act of 1996*, 32 GA. L. REV. 965, 974 n.39 (1998) (observing that “[i]n 1981 the Federal Communications Commission [FCC] made its first invitation to telephone service providers to apply for licenses to provide cellular services in 306

the majority of telephone calls were intrastate, the state-controlled system worked well. Initially, ninety-eight percent of telephone calls were in-state and forty-five states had local regulatory commissions.¹¹⁷ Additionally, both local and long-distance telephones were considered natural monopolies, and because of this shared assumption, the FCC and the states regulated in a similar, consistent manner with little conflict.¹¹⁸ But the dynamic development surrounding the telecommunications industry began to change. By 1996, the number of cellular customers in the United States grew from zero to 44 million, with the number of cellular users having risen to over 128 million by 2001, and almost 332 million by 2011.¹¹⁹ This increased demand in cellular use led to a call for more wireless communications towers. In fact, the more wireless towers that were added to the network, the more valuable the network became. These “network effects,”¹²⁰ facilitated more demand, as well as increased management and coordination needs. And as scholars have observed, “[t]hese increases in the value of network membership not only confer benefits upon existing users, but also encourage additional users to join, which in turn drives up the value of network membership even further.”¹²¹

Second, increasing monopoly power led to calls for the federal government to deregulate the telecommunications industry in an effort to encourage competition and decrease prices.¹²² In the 1950s, the FCC began to introduce competition into certain established areas of communications, and courts provided the FCC with expanded jurisdiction over new services, even if they could be characterized as intrastate communications.¹²³ In the 1960s and 1970s, economists and policymakers

metropolitan service areas and 428 rural areas” (internal quotation marks omitted). “New innovations in cellular technology have led to the development of digital phones and combined handset technology called Personal Communications Services (PCS).” *Id.*

¹¹⁷ Daniel A. Lyons, *Technology Convergence and Federalism: Who Should Decide the Future of Telecommunications Regulation?*, 43 U. MICH. J.L. REFORM, 383, 389 (2010).

¹¹⁸ McLaughlin, *supra* note 104, at 2221.

¹¹⁹ U.S. *Wireless Quick Facts*, CTIA, <http://www.ctia.org/advocacy/research/index.cfm/aid/10323> (last visited May 27, 2012).

¹²⁰ David S. Law & Mila Versteeg, *The Evolution and Ideology of Global Constitutionalism*, 99 CALIF. L. REV. 1163, 1183 (2011) (an economic description of a market good that increases in value as the size of the network increases).

¹²¹ *Id.*

¹²² See Eagle, *supra* note 111, at 461 (noting that the TCA is “an omnibus overhaul of the federal regulation of communications companies, intended ‘to provide for a pro-competitive, deregulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services . . . by opening all telecommunications markets to competition’” (quoting *Sprint Spectrum, L.P. v. Willoth*, 176 F.3d 630, 637 (2d Cir. 1999))); see also David W. Hughes, *When NIMBYs Attack: The Heights to Which Communities Will Climb to Prevent the Siting of Wireless Towers*, 23 J. CORP. L. 469, 476–77 (1998) (discussing exceptions in the Communications Act which limit local government authority). Evolving perceptions on monopolies contributed largely to states’ loss of regulatory control over the industry.

¹²³ McLaughlin, *supra* note 104, at 2221.

concluded that not all telecommunications were a natural monopoly, and that AT&T was exploiting its monopoly over local telephone service in order to prevent competition in other aspects of telecommunication service, such as long-distance.¹²⁴ Finally, in 1982, the long-distance monopoly of AT&T ended, although it continued for local telephone service.¹²⁵ To add to the confusion, there was also inconsistency in court decisions concerning the boundary of FCC and state power.¹²⁶ Arguing for the passage of the Telecommunications Act of 1996, Congress referred to the telecommunications industry as an “economic apartheid” and referenced how a small number of companies commanded various sectors of the industry.¹²⁷

Third, “the federal goals of the [Telecommunications Act of 1996] translate into a mandate for thousands of new antennas to emerge across the country, touching every community that the telecommunications industry serves.”¹²⁸ Wireless telecommunication facilities were a catalyst for a wave of NIMBYism, creating obstacles to wireless providers that sought zoning board approval of siting applications.¹²⁹ Federal involvement was seen as necessary to prevent states and localities from interfering with the development of the wireless communications network.

In sum, the authority over wireless infrastructure tipped from state control towards increased federal control in light of an explosion in new cellular use across interstate lines, a national interest in enhancing competition by deregulating the industry, and a desire to prohibit states from imposing state regulations that limit the siting of wireless communications infrastructure.¹³⁰

D. *Electricity Transmission Tip*

The last example of Congress altering the balance of power over siting rests with the siting of electricity transmission lines. As opposed to the

¹²⁴ Lyons, *supra* note 117, at 389.

¹²⁵ See McLaughlin, *supra* note 104, at 2221 (noting that “[t]hirty years of antitrust inquiries and litigation against AT&T culminated in a 1982 consent decree known as the Modification of Final Judgment (MFJ)”).

¹²⁶ See *id.* at 2214 (“A large body of case law has developed as courts have attempted to specify the limits of federal and state power. Most disputes have been sparked by the problem noted in *Louisiana PSC*, namely, that the same physical equipment is used for both intrastate and interstate communications.”).

¹²⁷ 142 CONG. REC. S686 (daily ed. Feb. 1, 1996) (Telecommunications Act of 1996 Conference Report).

¹²⁸ Tan, *supra* note 108, at 466.

¹²⁹ Peter M. Degan et al., *The Telecommunications Act of 1996: § 704 of the Act and Protections Afforded the Telecommunications Provider in the Facilities Siting Context*, 3 MICH. TELECOMM. & TECH. L. REV. 1, 2 (1997) (noting that “this wireless telecommunications revolution has encountered significant resistance at the grassroots level . . . [leading to] a ‘not in my backyard’ attitude towards the infrastructural requirements associated with cellular telephone service”).

¹³⁰ See *supra* Part III.C.

siting of electricity generation, which involves consideration of the source of our electricity, the siting of transmission lines is about how to connect the sources of our electricity to the existing grid and transport the electricity generated to the distribution lines. Traditionally, state, rather than federal, authorities retained the power to review proposals for electric transmission lines.¹³¹ Like the natural gas industry, the federal government became involved in the regulation of interstate pricing of the commodity. Just as it did with natural gas, in 1935, Congress amended the FPA to provide the FPC with jurisdiction over the pricing of electricity in interstate commerce.¹³² But unlike the NGA, which provided the federal government with control over the siting of interstate pipelines, the FPA provides the states with sole authority over all siting decisions with respect to generation, transmission, and distribution facilities.¹³³ More specifically, “[s]tates have exclusive jurisdiction over transmission siting, and the FERC has no authority under the FPA to order the construction or expansion of transmission facilities, nor does it have authority to approve transmission siting.”¹³⁴

¹³¹ Tara Benedetti, *Running Roughshod? Extending Federal Siting Authority over Interstate Electric Transmission Lines*, 47 HARV. J. LEGIS. 253, 253 (2010) (“While states have historically controlled the siting of interstate electric transmission lines, many federal legislators and regulators believe stronger federal authority over siting is necessary.” (footnote omitted)); *see also* *Piedmont Env'tl. Council v. FERC*, 558 F.3d 304, 310 (4th Cir. 2009) (“The states have traditionally assumed all jurisdiction to approve or deny permits for the siting and construction of electric transmission facilities.”).

¹³² Federal Power Act, 16 U.S.C. § 824(b)(1) (2006); *see* Sovacool, *supra* note 49, at 446.

¹³³ Federal Power Act, 16 U.S.C. § 824(b)(1) (2006); *see* Sovacool, *supra* note 49, at 446 (“The Federal Power Act of 1935 gave the Federal Power Commission . . . jurisdiction over the interstate sale and transmission of electricity at the wholesale level, but left explicit jurisdiction of electricity transmission and sale at the retail level, creating separate roles for each level of government.”). State public utility commissions generally issue the requisite certificate of need and site permit with route approvals, and address the proper allocation of costs of the new lines amongst ratepayers. *See, e.g.*, Press Release, Great River Energy, CapX2020 Granted Certificate of Need for 345-kilovolt Projects in Minnesota (Apr. 16, 2009), *available at* <http://www.reuters.com/article/2009/04/16/idUS206762+16-Apr-2009+BW20090416> (highlighting the Minnesota Public Utilities Commission grant of a certificate to construct electronic transmission lines in Minnesota); Press Release, Minnesota Public Utilities Commission, Minnesota Public Utilities Commission Approves Need for, and Route of, Hiawatha Transmission Lines (Jan. 12, 2012), *available at* http://www.puc.state.mn.us/portal/groups/public/documents/pdf_files/013647.pdf (highlighting the Minnesota Public Utilities Commission approval of a certificate for the Hiawatha transmission lines).

¹³⁴ Hoang Dang, *New Power, Few New Lines: A Need for a Federal Solution*, 17 J. LAND USE & ENVTL. L. 327, 329 (2002); *see also* Notice of National Transmission Grid Study 2001, 66 Fed. Reg. 47460, 47461 (Sept. 12, 2001) (“[T]he existing regime for siting and permitting of transmission facilities remains fundamentally state based. This regime may not be well adapted to reviewing proposed new transmission facilities from a regional perspective. The policy options for addressing transmission siting and permitting in a restructured electricity industry fall into three major categories: (1) Options to establish regional or federal siting institutions with authority to obtain rights-of-way for new transmission projects; (2) options to improve the existing state-based regime for transmission siting; and (3) options that could improve siting practices by government agencies and the electricity industry under any governance structure.”).

As technology and the production, distribution, and consumption of electricity changed over the twentieth century, however, Congress took a step toward expanding the federal role in the siting of transmission lines. In 2005, Congress expanded FERC's jurisdiction over the siting of transmission lines in certain instances by means of Section 216 of the Energy Policy Act of 2005 ("EPAAct").¹³⁵ Specifically, in areas of the country designated as high congestion areas by the Department of Energy,¹³⁶ where a state withholds approval on a transmission line, FERC may exercise federal backstop authority to approve the transmission line.¹³⁷ FERC interpreted Section 216 to mean that the federal agency may intervene in siting decisions where the state takes no action, as well as those situations where the state rejects a transmission line.¹³⁸

This federal backstop authority has been effectively neutered by the courts. The courts have dismissed FERC's interpretation as too broad,¹³⁹ and have rejected the DOE's only two congestion designations, which are necessary preconditions to federal exercise of this backstop authority.¹⁴⁰ As of the time of this writing, FERC has failed to exercise this backstop authority to enable additional transmission lines to be constructed. Despite the failure to effectively enhance the federal power over transmission line siting, there was a congressional intent to do so.

Explanations for the partial tip towards federal control over transmission lines can all be traced to a growing national interest in investing in transmission infrastructure. More specifically, the tip can be

¹³⁵ Energy Policy Act of 2005, 16 U.S.C. § 824(a)(2) (2006).

¹³⁶ Congress explicitly provided for federal authority to designate specific areas, known as national interest electric transmission corridors, as a solution to transmission congestion. Energy Policy Act of 2005, 16 U.S.C. § 824p. EPAAct also grants FERC the authority to construct or modify these corridors by issuing permits and relying on the doctrine of eminent domain. See Mark A. de Figueiredo, Note, *A Regulatory Framework for Investments in Electricity Transmission Infrastructure*, 26 VA. ENVTL. L.J. 445, 446 n.8 (2008) ("In order to issue a construction permit in a national interest corridor, FERC must find that 'a State in which the transmission facilities are to be constructed or modified does not have authority to . . . approve the siting or facilities.'" (quoting 16 U.S.C. § 824p(b)(1)(A))).

¹³⁷ *Id.*

¹³⁸ See *Piedmont Envtl. Council v. FERC*, 558 F.3d 304, 311 (4th Cir. 2009) ("On November 16, 2006, FERC issued its final rule, which . . . interpreted the phrase to include a state's *denial* of a permit within the one-year statutory time frame.").

¹³⁹ *Id.* at 309–10. The Fourth Circuit rejected FERC's interpretation, limiting their backstop authority to those cases where a state has taken no action on the siting of transmission lines and expressly rejected the idea that FERC could overrule a state's rejection of transmission lines. *Id.* at 313–15. As a result, any sophisticated state could thwart federal efforts to intervene in transmission line siting decisions with a mere "no," and any attempt to increase federal involvement in the siting of transmission lines fails. Notably, there are four other ways that the federal government could exert its authority under section 216(b)(2)–(6). 16 C.F.R. § 824p(b)(2)–(6)(2006).

¹⁴⁰ *Cal. Wilderness Coal. v. U.S. Dep't of Energy*, 631 F.3d 1072, 1095 (9th Cir. 2011) (vacating congestion areas on procedural grounds for a failure to properly consult with the states as required by the FPA Section 216).

attributed to a need to expedite the siting of transmission lines. House and Senate reports pointed to delays in state regulatory approval of new transmission lines and lack of siting coordination among the states as reasons for including electric transmission provisions in the EPAct.¹⁴¹ Just as Congress was trying to encourage the telecommunications industry by passing the Telecommunications Act, Congress passed the EPAct in an attempt “to address the under-investment in electricity transmission infrastructure.”¹⁴²

Increased energy demand was also leading to congestion on the existing lines,¹⁴³ thereby threatening the reliability of the grid. Justifying the addition of this new Section 216 to the FPA, Congress noted that “[t]he states have traditionally assumed all jurisdiction to approve or deny permits for the siting and construction of electric transmission facilities. . . . In recent times[,] increasing concerns have been expressed about the capacity and reliability of the grid.”¹⁴⁴ A House report pointed to the August 2003 blackout that hit the Northeast and Midwest as a demonstration of the lack of reliability in the electricity transmission system, highlighting the need for legislation that addressed issues of “transmission capacity, operation, and reliability.”¹⁴⁵ The growing gap between energy supply and demand also created concerns in Congress about national energy security.¹⁴⁶

Furthermore, siting issues associated with transmission lines are particularly susceptible to interstate conflict. When the proposed transmission line will traverse multiple states, the utility company must obtain separate approvals from each state.¹⁴⁷ If the line is located across

¹⁴¹ See H.R. REP. NO. 109-215, pt. 1, at 171 (2005) (stating that “state regulatory approval delays siting of new transmission lines by many years”); S. REP. NO. 109-78, at 8 (2005) (stating that “[u]ncertainty in the marketplace about the rules and regulations that will govern generation and transmission facilities contributes to financial instability and endangers reliability of service”).

¹⁴² Figueiredo, *supra* note 136, at 446; see also Dang, *supra* note 134, at 327 (“New power, few new lines. This simple statement sums up the present situation facing the electricity industry as it moves from a highly regulated, monopolistic industry towards a deregulated, competitive one.”).

¹⁴³ National Electric Transmission Congestion Report, 72 Fed. Reg. 56,992, 57,702–04 (Oct. 5, 2007).

¹⁴⁴ *Piedmont Envtl. Council v. FERC*, 558 F.3d 304, 310 (2009) (discussing the concerns which prompted Congress to enact § 216 of the FPA).

¹⁴⁵ H.R. REP. NO. 109-215, pt. 1, at 171 (2005); see also Carol M. Rose, *Rethinking Environmental Controls: Management Strategies for Common Resources*, 1991 Duke L.J. 1, 9 (1991) (discussing regulation of a resource as one way of managing congestion).

¹⁴⁶ See S. REP. NO. 109-78, at 6 (2005) (“A combination of energy production, conservation, efficiency, and development of new technologies is the bedrock of a sound energy policy aimed at closing the supply and demand imbalance. Such a policy is necessary to ensure the country’s continued growth and prosperity and to protect our national security.”).

¹⁴⁷ See, e.g., Debbie Swanstrom & Meredith M. Jolivet, *DOE Transmission Corridor Designations & FERC Backstop Siting Authority: Has the Energy Policy Act of 2005 Succeeded in Stimulating the Development of New Transmission Facilities?*, 30 ENERGY L.J. 415, 451 (2009) (explaining that the Devers PV2 project required approval from both California and Arizona).

three states, “the states on either end can demonstrate to their constituents what the benefits of that transmission line will be, but the state in the middle has a very difficult time demonstrating the benefit. So, it’s almost impossible to get the line built and approved.”¹⁴⁸ The most famous case may be what has been referred to as the “extension cord” case, where Arizona rejected a proposal by a California utility to construct a 210-mile power line between Arizona and California.¹⁴⁹ One of the latest development projects, Centennial West Clean Line, is working to avoid a reprise of the extension cord case, as its proposed 900-mile transmission line is planned to extend from New Mexico through Arizona to California.¹⁵⁰ Some states have embarked on efforts to centralize transmission line siting up to the regional level, reflecting an understanding of some of the inefficiencies of piecemeal transmission line siting on a state level.¹⁵¹

As with telecommunications, the congressional tip consisted not of complete preemption, but a more limited form of federal control through the imposition of federal backstop authority. This may be in part because of the active involvement of the FERC to try to address some of these federal issues on the margins.¹⁵² Siting over wireless infrastructure tipped for a number of reasons, including a furtherance of a national purpose and a desire to expedite the siting and to address potential security and reliability issues.

In sum, each of the infrastructure siting regimes discussed above involved a tipping point in the balance of power between the states and the federal government. Each of these commonplace infrastructure siting regimes discussed above started with state or local control. In each, the justifications for centralized authority were growing, but none of the regimes possessed all five justifications. And in each of these regimes, agency action to provide an escape valve for growing pressure on the prior

¹⁴⁸ Dang, *supra* note 134, at 339 (citations omitted).

¹⁴⁹ In Re S. Cal. Edison Co., 2007 WL 2126365, at *1–2, *6–7 (Ariz. C.C. June 6, 2007).

¹⁵⁰ Clean Line Energy Partners, *Project Description*, CENTENNIAL WEST CLEAN LINE, http://www.centennialwestcleanline.com/site/page/project_description (last visited June 23, 2012).

¹⁵¹ Various mechanisms exist to aid in coordination, including Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs), the National Association of Regulatory Commissioners’ (NARUC) affiliate groups, the North American Electric Reliability Corporation (NERC), and Interstate Compacts. NAT’L COUNCIL ON ELECTRICITY POL’Y, COORDINATING INTERSTATE ELECTRIC TRANSMISSION SITING: AN INTRODUCTION TO THE DEBATE 14–18 (2008); *see also* NEW ENGLAND STATES COMM. ON ELECTRICITY, PRESS RELEASE: NEW ENGLAND STATES FORM INTERSTATE TRANSMISSION SITING COLLABORATIVE (June 23, 2011), *available at* http://www.nescoe.com/uploads/Interstate_Siting_Collaborative.pdf (discussing the New England Committee on Electricity whose purpose is “to consider and to implement as appropriate means to increase coordination of states’ siting processes required for interstate transmission facilities in New England”).

¹⁵² *See infra* note 278.

state-controlled regimes was limited, resulting in formal congressional action that tipped the balance of power from state toward more enhanced federal power.

IV. NO TIP IN ELECTRICITY GENERATION SITING

Standing in stark contrast to the other infrastructure siting regimes discussed, control over the siting of electricity generation remains firmly with the states. This continued state or local control over siting of electricity generation is particularly surprising given the similarities between the siting of electricity generation and the other infrastructure siting regimes. As with railroads, natural gas, wireless, and electricity transmission, authority over the type and location of electricity generation originally rested with the states.¹⁵³ And as with the other regimes, there are a number of federalism justifications for centralized authority, many of which can be made (of varied strength) based on the traditional justifications for centralized authority. This section applies each of the five traditional justifications for centralized federal authority discussed above to the siting of electricity generation, demonstrating the similarities between the centralized justifications that resulted in enhanced federal control in the other regimes and those that apply to the siting of electricity generation: (1) transboundary issues across state lines that create externalities; (2) the need for uniformity or harmonization; (3) under-regulation that can result in a race to the bottom between states, threatening state public safety and welfare; (4) overregulation that can result from NIMBY scenarios, threatening national public safety and welfare; and (5) the provision of public goods that require resource pooling.¹⁵⁴

A. *Transboundary Applied to Generation Siting*

In some respects, the interstate nature of railroads, pipelines, and transmission lines presents a stronger case for federal control than the intrastate siting of generation. Railroads and transmission lines are more likely to cross over state lines than a coal plant or a natural gas plant. Even the siting of wireless telecommunications towers, although purely intrastate, has network effects that could justify a federal presence.¹⁵⁵

But a physical cross over interstate lines is not necessary to trigger the need for federal control. In fact, the traditional case for federal control based on transboundary issues involves an activity that exists solely

¹⁵³ States and localities have long controlled the source of generation within their borders, and Congress affirmed this authority in 1935 when it amended the Federal Power Act to provide the states with exclusive jurisdiction over the siting of generation. Dang, *supra* note 134, at 329.

¹⁵⁴ Friedman, *supra* note 25, at 406.

¹⁵⁵ See *supra* notes 120–21.

intrastate but imposes externalities on other states. For example, although the choice to construct a new coal plant may be advantageous for a given state in terms of economic growth, this decision can impose external costs on the rest of the country. Differing levels of both traditional pollutants and greenhouse gases (“GHG”) are associated with the different types of generation, and states that are downwind of fossil-fuel fired plants endure more externalities than states that are downwind of wind farms. In at least this respect, more centralized control over the type of electricity generated can be justified by the transboundary issues associated with differing levels of environmental externalities imposed on neighboring states.¹⁵⁶

B. *Uniformity Applied to Generation Siting*

Although some of the regulated industries analyzed called for uniformity or harmonization as a means to address perceived obstacles caused by state regulation, this justification for centralized control does not have a lot of traction when applied to the siting of electricity generation. This section analyzes two of the primary catalysts for uniformity in the other siting regimes: (1) calls for uniformity by the regulated community; and (2) a need to assist in coordinated planning.

First, tips toward federal control in some of the other siting regimes were prompted by the regulated community. For instance, even after the passage of the Transportation Act, representatives of railroad companies continued to advocate for federal oversight, citing state regulation as a source of confusion and a barrier to transportation system development.¹⁵⁷ Similarly, developers of transmission lines began to call for increased federal siting authority.¹⁵⁸ Other calls for uniformity occurred in the other

¹⁵⁶ See, e.g., Clean Air Act, 42 U.S.C. § 7410(a)(2)(D)(i)(I) (2006) (noting that the “Good Neighbor Provision” gives EPA the power to cut down interstate pollution that interferes with the attainment and maintenance of the national ambient air quality standards protecting public health).

¹⁵⁷ See *Proposed Amendment to Transportation Act, 1920: Hearings Before the Committee on Interstate and Foreign Commerce of the House of Representatives on H.R. 6861 and H.R. 8131*, 67th Cong., 2d Sess. 554 (1922) (statement of Howard Elliot, Chairman of Northern Pacific Railway and Member of the Executive Committee of the New York, New Haven, and Hartford Railroad) (arguing before the House of Representatives that “[t]he railroad executives as a whole . . . by force of the drift in this country toward nationalization of some of these great agencies, have practically as a unit come to the conclusion that if you are going to have a first-class, adequate transportation machine, to serve all the people of all the States, and all the United States, you have got to have somebody who is supreme in this regulatory question, and that somebody must be the Nation rather than 48 independent bodies with no head to them”).

¹⁵⁸ NAT’L COMM’N ON ENERGY POL’Y, SITING CRITICAL ENERGY INFRASTRUCTURE: AN OVERVIEW OF NEEDS AND CHALLENGES 9 (2006) (“The 1992 Energy Policy Act, for example, gave FERC greater jurisdiction over energy infrastructure decisions and placed a new emphasis on interstate and regional planning approaches to identify future infrastructure needs for both natural gas pipelines and electricity transmission systems. In the past, federal agency involvement in siting projects occurred only after state and local permitting had begun, if at all. The revision of federal energy

regimes, but not at the behest of the regulated industry.¹⁵⁹ One area of inconsistency that may prompt some calls for uniformity in the siting of electricity generation stems from the variety of state siting laws, many of which express different preferences for different types of generation. Some states have a direct mandate for a preference of new renewable energy sources¹⁶⁰ and some states have a presumption in favor of fossil fuel energy sources.¹⁶¹ Although there is disparity in the state regulations that affect the type of generation built within their borders,¹⁶² the regulatory discrepancy is not sufficient to prompt utilities to seek federal involvement. The absence of calls for federal involvement may also be attributable to the fact that the majority of utilities in the United States function within just one state. Of the more than 3,273 traditional utilities, which includes investor-owned, publicly-owned, cooperatives, and federal utilities,¹⁶³ the majority of investor-owned utilities operate in a single state.¹⁶⁴

Regardless, calls for federal intervention in the electricity generation regime are few and far between.¹⁶⁵ Such calls may be less likely to occur

priorities to focus on interstate and regional issues, however, prompted significant shifts in jurisdiction.”).

¹⁵⁹ For instance, state railway commissioners acknowledged the need for centralized coordination. *Proposed Amendment to Transportation Act, 1920*, *supra* note 157, at 543 (statement of Mr. Howard Elliott, Chairman, Northern Pacific Railway and Member, Executive Committee of the New York, New Haven & Hartford Railroad, New York City) (testifying that a joint statement from the Interstate Commerce Commission and the National Association of Railway and Utilities Commissioners stated in part that “[t]he prime essential to [cooperation between ICC and NARUC] is realization of the nature and difficulties of the common problem . . . [and that t]he State commissions realize that the railroads form a national transportation system which is not split into parts by State lines and that the public interest demands a rate structure, State and interstate, as simple and harmonious as practicable”).

¹⁶⁰ *See, e.g.*, MINN. STAT. § 216B.2422 (2010) (stating that Minnesota’s explicit preference for renewable energy, and a non-renewable energy source may be approved only if it found that a renewable energy facility would not be in the public interest).

¹⁶¹ *See infra* notes 184–85 and accompanying text.

¹⁶² GARY D. ALLISON & JOHN L. WILLIAMS, *RESOURCES FOR THE FUTURE: THE EFFECTS OF STATE LAWS AND REGULATIONS ON THE DEVELOPMENT OF RENEWABLE SOURCES OF ELECTRIC ENERGY* 140–46, available at <http://www.rff.org/rff/documents/rff-bck-allisonandwilliams-statelaws.pdf> (describing the centralized, traditional public interest, and market approaches to the siting of generation).

¹⁶³ *Electric Power Industry Overview 2007*, U.S. ENERGY INFO. ADMIN., <http://www.eia.gov/cneaf/electricity/page/prim2/toc2.html> (last visited July 1, 2012).

¹⁶⁴ *See EEI U.S. Member Company Service Territories*, EDISON ELEC. INST., <http://www.eei.org/whoware/ourmembers/USElectricCompanies/Documents/EEIMemCoTerrMap.pdf> (last visited Jan. 5, 2012).

¹⁶⁵ Calls that do occur come from scholars as opposed to industry. *See, e.g.*, Uma Outka, *The Renewable Energy Footprint*, 30 STAN. ENVTL. L.J. 241, 257 n.73 (2011) (citing James T. Ramey & James P. Murray, Jr., *Delays and Bottlenecks in the Licensing Process Affecting Utilities: The Role of Improved Procedures and Advance Planning*, 1970 DUKE L.J. 25, 42 (1970), A. Dan Tarlock et al., *Environmental Regulation of Power Plant Siting: Existing and Proposed Institutions*, 45 S. CAL. L. REV. 502, 552 (1972)) (discussing examples of calls for federal intervention); Mason Willrich, *The Energy-Environment Conflict: Siting Electric Power Facilities*, 58 VA. L. REV. 257, 334–36 (1972)

within a fragmented industry such as the electricity generation industry. Even though there are trade associations that represent the utilities,¹⁶⁶ in the electricity generation “industry,” the participating entities may be too diffuse to have common interests that align. The electricity siting “industry” is composed of a number of different entities, including coal, natural gas, nuclear, solar, and wind. Even the fossil fuel entities cannot agree on a strategy for their survival.¹⁶⁷ One does not expect that the renewable energy generators would be sufficiently aligned with the fossil-fuel generators to present a unified call to action. In fact, within this broad swath of “industry,” some energy generators may benefit from local authority and some may benefit from more centralized authority, a fact that renders calls for uniformity extremely unlikely.

Second, many of the other siting regimes were faced with inefficiencies that could be remedied by more centralized planning or permitting. Centralized planning was seen as a remedy to railroads that were being constructed in piecemeal fashion without an eye towards efficient planning.¹⁶⁸ And centralized governance was seen as a remedy for transmission lines that were being constructed without sufficient regard to broader planning goals.¹⁶⁹

Unlike many of the other regimes, the siting of electricity generation does not appear to have the same types of inefficiencies. Despite expected delays associated with meeting these requirements, PUCs have been found to generally act promptly on applications for certificates of need.¹⁷⁰ And more to the point, there is no indication that the federal government would be any more efficient at permitting generation than a state or local authority.

Thus far, the federalism justifications for the siting of electricity

(offering a conceptual framework for expediting the siting process in response to increasing demand for electricity); Gregory J. Rigano, Note, *The Solution to the United States' Energy Troubles is Blowing in the Wind*, 39 HOFSTRA L. REV. 201, 204 (2010) (proposing that BOEM be the lead agency with “exclusive authority to approve or deny any application for the siting, construction, expansion, or operation of an offshore wind project”).

¹⁶⁶ See, e.g., *About EEI*, EDISON ELEC. INST.,

<http://www.eei.org/whoweare/abouteei/Pages/default.aspx> (last visited July 1, 2012).

¹⁶⁷ As EPA works towards more stringent controls affecting coal plants, even natural gas plants find themselves at odds with their fossil fuel competitors. See *infra* Part VI.B.

¹⁶⁸ See *supra* notes 77–81 and accompanying text.

¹⁶⁹ The state of Colorado, for example, has considered creating a “statewide transmission siting and permitting framework for electric transmission facilities” to combat current “inconsistent processes and requirements among local governments, unnecessary delay, increased opportunity for litigation, increased costs . . . and inconsisten[cy] with the increasingly regional nature of the modern electric industry.”

DEP’T OF REGULATORY AGENCIES, REPORT OF THE TASK FORCE ON STATEWIDE TRANSMISSION SITING AND PERMITTING 3 (Dec. 1, 2011), available at http://www.dora.state.co.us/puc/projects/TransmissionSiting/SB11-45/Report/SB11-45TF_RptToGA_12-01-2011.pdf.

¹⁷⁰ Swanstrom & Jolivert, *supra* note 147, at 418.

generation do not appear as strong as they were in some of the other infrastructure siting regimes. Yet the federalism literature is explicit that not all given justifications need to be present to justify a tip—even one would suffice.¹⁷¹

C. *Race to the Bottom Applied to Generation Siting*

Perhaps the best example of a potential race to the bottom with the siting of electricity can be illustrated through Renewable Portfolio Standards (“RPS”). An RPS requires utilities to obtain a certain percentage of their electricity generation from renewable energy.¹⁷² As there is no national RPS, each state has been left to its own devices to determine whether it wants to adopt a RPS. The first RPS was adopted in 1983 in Iowa¹⁷³ and by 2010, twenty-nine states had binding RPS requirements.¹⁷⁴

But what of the other twenty-one states with no RPS requirements? Eight states have nonbinding goals, but thirteen states have no such requirement.¹⁷⁵ One could argue that this could lead to a race to the bottom, where generators of fossil fuels flock to the states with less stringent renewable energy requirements. More empirical analysis is needed to confirm this suspicion, but of the thirteen states with no RPS requirements, a number of them reside at the bottom of the ranking for installed non-hydropower renewable energy capacity.¹⁷⁶ Furthermore, the thirteen states without RPS may be free-riding on the social benefits of renewable energy (e.g., abatement of GHGs and pollutants) that extend beyond the state borders of those with RPS.¹⁷⁷ For many of the same reasons, scholars have criticized the decentralized, state-centered federalism that currently exists for RPS and climate change policies.¹⁷⁸

¹⁷¹ See *supra* note 25.

¹⁷² Lincoln L. Davies, *Power Forward: The Argument for a National RPS*, 42 CONN. L. REV. 1339, 1341–42 (2010).

¹⁷³ *Id.* at 1357.

¹⁷⁴ Ivan Gold & Nidhi Thakar, *A Survey of State Renewable Portfolio Standards: Square Pegs for Round Climate Change Holes?*, 35 WM. & MARY ENVTL. L. & POL'Y REV. 183, 189 (2010).

¹⁷⁵ U.S. ENERGY INFO. ADMIN., *supra* note 163, at 4, 61 tbl.1.28. The thirteen states with no RPS are Alabama, Alaska, Arkansas, Georgia, Idaho, Indiana, Kentucky, Louisiana, Mississippi, Nebraska, South Carolina, Tennessee, and Wyoming. *Id.*

¹⁷⁶ *Id.* at 35–36 tbl. 1.15; U.S. ENERGY INFO. ADMIN., RENEWABLE ENERGY ANNUAL 2009 45 tbl. 1.20 (Jan. 2012), available at <http://www.eia.gov/electricity/annual/archive/03482009.pdf>.

¹⁷⁷ Federal involvement could also alleviate potential Dormant Commerce Clause vulnerabilities associated with an RPS that favors in-state generation. See *Complaint* at 27–29 *North Dakota v. Swanson*, No. 0:11-CV-3232, (D. Minn. 2011) (alleging a similar theory with respect to carbon reduction requirements contained in Minnesota’s Next Generation Energy Act).

¹⁷⁸ Sovacool, *supra* note 49, at 403–04 (explaining that decentralization facilitates interstate spillovers, provides a lack of uniformity for industry, provides no economies of scale, and promotes a race to the bottom between states).

D. NIMBY Applied to Generation Siting

NIMBY responses can be seen in many of the historical siting regimes, as well as in the electricity generation regime. In the past, states and localities were often resistant to the sitings, and the federal government intervened to prevent the states and localities from being too stringent and creating an obstacle to the development of the relevant infrastructure. Congress partially preempted localities from preventing the siting of wireless towers and provided federal backstop authority for transmission lines if the states were dragging their feet in getting the lines sited.¹⁷⁹ Rising demand for wireless communications led to a national interest to promote cell tower growth.¹⁸⁰ Centralized permitting was seen as a remedy to eliminate state or local opposition that was standing in the way of development.¹⁸¹ And rising demand for electricity led to a national interest to promote the creation of more transmission lines.¹⁸²

Similarly, the circumstances surrounding the siting of electricity generation are drastically different today than they were in 1935, when Congress established separate spheres for federal and state governments and affirmed state control over siting of electricity infrastructure. The selection of resources used to supply the nation's electricity now has more of a national impact than was previously envisioned. For example, energy efficiency is touted as a cornerstone of national security efforts.¹⁸³ The decision to site a fossil fuel plant is not just about jobs and local air pollution anymore. The decision now has larger consequences associated with climate change, national security, and reliability of our electric grid.

In electricity siting, some states have passed siting laws that have made it much more difficult for renewable energy to be sited within its borders. This phenomenon could be characterized as a NIMBY collective action problem. For example, a utility applying for a non-coal energy facility in Pennsylvania must prove to the PUC that a coal energy generation facility is not reasonably suited for that site and that there is a strong probability that coal would be more costly.¹⁸⁴ West Virginia's Public Energy Authority Act states in part that "the health, happiness, safety, right of

¹⁷⁹ See *supra* note 109.

¹⁸⁰ See Eagle, *supra* note 111, at 447–48, 461–62 (describing the rapid increase in demand for wireless communication technology and noting that the Telecommunications Act of 1996 was "designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies and services" (quoting Sprint Spectrum, L.P. v. Willoth, 176 F.3d 630, 637 (2d Cir. 1999))).

¹⁸¹ See *supra* note 129 and accompanying text.

¹⁸² See *supra* note 143 and accompanying text.

¹⁸³ Mark D. Mutschink, *Facing the Future of Oil in U.S. Courts: A Recommendation for Changing the Bremen Doctrine on Enforceability of Forum Selection Clauses*, 63 SMU L. REV. 1343, 1345 (2010).

¹⁸⁴ 66 PA. CONS. STAT. § 519 (2000).

gainful employment and general welfare of the citizens of this [s]tate will be promoted by the establishment . . . of coal fired electric generating plants and transmission facilities.”¹⁸⁵ And Virginia law has tied the hands of the PUCs, prohibiting them from considering non-mandated environmental effects in their determination of whether a project is in the public convenience and necessity.¹⁸⁶ This has resulted in the rejection of projects that take environmental concerns into account that were not mandated by environmental laws.¹⁸⁷ The state siting processes for wind energy are similarly rife with examples of parochial tendencies. For instance, a Kansas county board of commissioners adopted a zoning ordinance that prohibited commercial wind projects.¹⁸⁸ And some state laws allow homeowner associations to reject solar power installations in certain circumstances.¹⁸⁹ If there is value in the efficiency created by the federal government stepping in to prohibit state and local authority from posing an obstacle to the siting of wireless infrastructure, then the same efficiency may be realized by the federal government stepping in to prohibit state and local authorities from posing an obstacle to the siting of renewable generation.¹⁹⁰ In these situations, federal intervention could be justified to remedy such parochial actions.¹⁹¹

¹⁸⁵ W. VA. CODE § 5D-1-2 (West 2011).

¹⁸⁶ VA. CODE § 56-580 (West 2012).

¹⁸⁷ The Virginia Corporation Commission rejected Appalachian Power’s application for a \$2.2 billion dollar Integrated Gasification Combined Cycle “clean coal” plant. Appalachian Power Co., 264 P.U.R. 4th 308, 2008 WL 1822541 (Va. S.C.C. Apr. 14, 2008).

¹⁸⁸ “Land owners and wind rights holders filed suit, and in 2009 the Kansas Supreme Court upheld the county zoning ordinance, finding that the board’s decision to prohibit commercial wind was within its legislative discretion, and that it was reasonably supported by the record. The court noted that a total ban might be ‘unwise’ but was not illegal.” ENVTL L. INST., STATE ENABLING LEGISLATION FOR COMMERCIAL-SCALE WIND POWER SITING AND THE LOCAL GOVERNMENT ROLE 7 (2011), available at http://www.elistore.org/reports_detail.asp?ID=11410.

¹⁸⁹ North Carolina law that provides that city and county ordinances may prohibit the installation of solar energy collectors that that are visible from the ground and installed:

- (1) On the facade of a structure that faces areas open to common or public access;
- (2) On a roof surface that slopes downward toward the same areas open to common or public access that the facade of the structure faces; or (3) Within the area set off by a line running across the facade of the structure extending to the property boundaries on either side of the facade, and those areas of common or public access faced by the structure.

Gen. Assemb. N.C. 1387, 2009., Reg. Sess. (N.C. 2009); see also Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 508 (2011).

¹⁹⁰ See Ashira Pelman Ostrow, *Process Preemption in Federal Siting Regimes*, 48 HARV. J. ON LEGIS. 289, 292–93 (2011) (noting that by placing constraints on local siting decisions, the Telecommunications Act of 1996 has succeeded in dramatically increasing the number of cell towers).

¹⁹¹ See Patricia E. Salkin & Ashira Pelman Ostrow, *Cooperative Federalism and Wind: A New Framework for Achieving Sustainability*, 37 HOFSTRA L. REV. 1049, 1051–52 (2009) (arguing for federal constraints on state siting processes that restrict wind development).

E. *Public Goods Applied to Generation Siting*

Since at least the Federalist Papers, danger has been a justification for federal involvement. In assuaging the fears of the anti-Federalists, James Madison explained that “[t]he operations of the federal government will be most extensive and important in times of war and danger; those of the State governments, in times of peace and security.”¹⁹²

How one interprets “danger” alters the arguments for an enhanced federal role in the context of the siting of electricity. Where danger is narrowly interpreted to mean only that associated with war from foreign nations, the argument for enhanced federal involvement is limited. Some historians attribute the tip from state to federal control in the railroad industry to fallout from the Civil War.¹⁹³ As was noted earlier, Congress relied on emergencies resulting from the war as justifications for federal control over the railroads.¹⁹⁴ There was also an element of danger associated with allowing liquefied natural gas to be stored in tankers as opposed to on onshore terminals,¹⁹⁵ a factor that may have contributed to the complete federal preemption of the siting of liquefied natural gas terminals to receive these tankers.¹⁹⁶ Under this narrow construction of danger, there may be little argument that the intrusion of the federal government into the siting of electricity infrastructure is unwarranted.

But where danger is more broadly interpreted to include a range of threats to the health and happiness of the United States,¹⁹⁷ a number of arguments can be made to support an enhanced federal role with respect to the siting of renewable energy. First, renewable energy can be viewed as an undersupplied public good. The comparatively better environmental and health benefits associated with renewable energy as opposed to fossil fuel energy are social benefits that are not fully captured by the private costs of renewable energy. Second, renewable energy can be viewed as a good essential to grid reliability, a national need that states may not have sufficient resources to provide. The growing gap between energy supply and demand created concerns in Congress about national energy security,¹⁹⁸ as was evidenced by prior blackouts¹⁹⁹ and delays in state

¹⁹² THE FEDERALIST No. 45, at 263 (James Madison) (ABA ed., 2009).

¹⁹³ Ely, *supra* note 63 at 965–67 (noting that “calls for federal control of the rail industry steadily mounted after the Civil War”).

¹⁹⁴ See *supra* notes 73–76 and accompanying text.

¹⁹⁵ See James A. Fay, *Spills and Fires from LNG and Oil Tankers in Boston Harbor*, GREEN FUTURES (Aug. 26, 2003), <http://www.greenfutures.org/projects/LNG/Fay.html> (showing that accident to an LNG tanker in Boston Harbor could cause almost instantaneous fires that would be beyond the capabilities of any existing firefighting technique and would bring catastrophic damage).

¹⁹⁶ See *supra* note 87.

¹⁹⁷ THE FEDERALIST No. 45, at 259 (James Madison) (ABA ed., 2009) (“[T]he public good . . . is the supreme object to be pursued.”).

¹⁹⁸ S. REP. NO. 109-78, at 6 (2005).

regulatory approval of new transmission lines.²⁰⁰ Notably, even the FPA provides an exception to state control over the siting of electricity infrastructure in times of war or a shortage of generation facilities.²⁰¹

Under this broader construction of danger, many arguments exist as to the dangers posed by climate disruption from the combustion of fossil fuels.²⁰² Environmental disasters have often been the impetus for calls for federal involvement, including releases of noxious fumes,²⁰³ the Santa Barbara oil spill,²⁰⁴ and coal ash waste.²⁰⁵

¹⁹⁹ H.R. REP. NO. 109-215, pt. 1, at 171 (2005).

²⁰⁰ *Id.*; S. REP. NO. 109-78, at 8 (2005).

²⁰¹ 16 U.S.C. § 824a(c) (providing that if FERC determines that there is an emergency in wartime or because of a shortage of facilities for the generation of electric energy, it has the authority “to require by order . . . such generation . . . of electric energy as in its judgment will best meet the emergency and serve the public interest”).

²⁰² *See infra* notes 282–84 and accompanying text; RICHARD B. ALLEY ET AL., CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS 5, 7 (2007) (“[W]arming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global mean sea level. . . . At continental, regional, and ocean basin scales, numerous long-term changes in climate have been observed. These include changes in Arctic temperatures and ice, widespread changes in precipitation amounts, ocean salinity, wind patterns and aspects of extreme weather including droughts, heavy precipitation, heat waves and the intensity of tropical cyclones.” (footnote omitted)); *Massachusetts v. EPA*, 549 U.S. 497, 507 (2007) (acknowledging climate change disruption). Although oil is not a primary resource for electricity, similar danger exists with respect to oil. *See CNA, POWERING AMERICA’S DEFENSE: ENERGY AND THE RISKS TO NATIONAL SECURITY* vii (2009) (identifying the risks to national security created by America’s energy policies and practices, including how “U.S. dependence on oil weakens international leverage, undermines foreign policy objectives, and entangles America with unstable or hostile regimes,” and how “overreliance on oil burdens the military [and] undermines combat effectiveness”). Further, some of the revenue made through U.S. purchases of petroleum is used to fund terrorism activities aimed to disrupt U.S. interests. *Id.* at 4.

²⁰³ One of the first incidents to raise awareness of the need for federal control over air pollution was a disaster in the small town of Donora, Pennsylvania. In 1948, a zinc mill released a plume of noxious smoke that killed twenty residents. Devra Lee Davis & Carrie Forrester, *Past and Present Environmental Health Challenges in Southwestern Pennsylvania: Some Comments on the Right to a Clean Environment*, 30 AM. J.L. & MED. 305, 309, 312 (2004). By 1955, Congress passed the Air Pollution Control Act to gather information on “the causes and effects of air pollution.” *Id.* at 316. Twelve years later, Congress passed the Federal Air Quality Act and the Clean Air Act in 1970. *Id.* at 317. Today, a plaque memorializing the tragedy states: “[m]ajor Federal clean air laws became a legacy of this environmental disaster that focused national attention on air pollution.” *Id.* at 316.

²⁰⁴ The Santa Barbara oil spill occurred in 1969 and is widely credited as the impetus for passage of major federal environmental legislation including the National Environmental Policy Act. Keith C. Clarke & Jeffrey J. Hemphill, *The Santa Barbara Oil Spill: A Retrospective*, 64 Y.B. OF THE ASS’N OF PAC. COAST GEOGRAPHERS 157, 157–62 (Darrick Dana ed., Univ. of Haw. Press 2002). Described by President Nixon as a disaster that “frankly touched the conscience of the American people,” the federal government admitted that it “had largely ignored the need to protect commercial, recreational, aesthetic, and ecological values of the area.” *California v. Norton*, 311 F.3d 1162, 1166–67 (9th Cir. 2002) (quoting Clarke & Hemphill, *supra* at 160).

²⁰⁵ States retain authority over coal ash waste, a byproduct of the coal production process. In 2008, the Tennessee Valley Authority’s Kingston Fossil Plant released 5.4 million cubic yards of toxic coal sludge onto 300 acres of surrounding land, an environmental disaster that many thought was sure to prompt federal regulation of the residue. Matthew Pearl, *The Aftermath of the December 2008*

Where the federal government can provide assurances of its commitment to renewable resources to better insulate the nation from the dangers posed by the current energy policies, consensus of the dangers may justify a tip from state to enhanced federal control over the siting of electricity generation.

In sum, while the federalism virtues in support of centralized control over the siting of electricity generation do not stack up uniformly in favor of a tip towards federal power, other infrastructure siting regimes tipped with similar justifications. This suggests that there must be some other factor at play in the siting of electricity generation that does not exist with respect to the other infrastructure siting regimes.

V. FACTORS OFFSETTING JUSTIFICATIONS FOR CENTRALIZATION

By no means does the mere presence of one or more of these justifications for centralized authority guarantee that a particular regime will tip from state towards federal control. There are a number of factors that may counter one or more of these federalism justifications supporting more centralized power.²⁰⁶ For purposes of this analysis, three such counterarguments to centralized power seem noteworthy, particularly with an eye towards trying to explain the disparity in tips between the siting of electricity and the siting of the other infrastructure. First, this Article assesses whether electricity siting realizes competing federalism virtues supporting decentralized control that the other siting regimes do not. Second, it explores whether authority remains with the states and localities

Incident in East Tennessee Illuminates the Inadequate Regulation of Coal Ash Impoundments, 16 U. BALT. J. ENVTL. L. 195, 195–96 (2009). But four years later, the federal government has yet to finalize its draft rule. Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities, 75 Fed. Reg. 35128 (proposed June 21, 2010) (to be codified at 40 C.F.R. pt. 257, 261, 264, 265, 268, 271, 302).

²⁰⁶ Included in this list would be theories that “lower levels of government serving smaller numbers of constituents have a comparative advantage in delivery of labor-intensive services, while higher-level governments with greater capital resources have a comparative advantage in delivering capital-intensive services where there are significant economies of scale,” Hills, *supra* note 52, at 869, that the level of authority should match the level of the harm, Henry N. Butler & Jonathan R. Macey, *Externalities and the Matching Principle: The Case for Reallocating Environmental Regulatory Authority*, 14 YALE L. & POL’Y REV. 23, 25 (1996) (advocating that the level of environmental regulation should be matched to the level of environmental pollution and that local concerns should be resolved locally), and that state failures drive a tip towards federal control, see Percival, *supra* note 43, at 1144 (“Like civil rights law, environmental law became federalized only after a long history of state failure to protect what had come to be viewed as nationally important interests.”). *But see* Jonathan H. Adler, *The Fable of Federal Environmental Regulation: Reconsidering the Federal Role in Environmental Protection*, 55 CASE W. RES. L. REV. 93, 101–02 (2004) (rejecting the theory that states failed to protect environmental quality, and instead suggesting four alternative factors that played a role in the centralization of environmental law: (1) increased environmental consciousness after World War II; (2) the nationalization of American politics; (3) the delegitimization of states’ rights during the civil rights era; and (4) rent-seeking on the part of regulated entities).

because electricity siting decisions are uniquely decisions of a “traditionally local nature.” Lastly, it considers whether elements of public choice theory can explain why rational, self-interested federal legislators may not see fit to tip the balance of power of electricity siting away from the states but may see fit to do so in the other siting regimes. This section discusses each of these possible explanations in turn and explains why each fails to explain the resistance of the electricity siting regime to a tip. Although each of these theories has merit in explaining why any one infrastructure regime has tipped, their limits lie in their inability to inform a comparative analysis.

A. Decentralized Federalism Virtues Support State Control of the Siting of Electricity Generation

Despite the presence of centralized federalism justifications supporting federal control over the siting of electricity generation, there may be equal or stronger decentralized federalism justification supporting state or local control. A tip from federal to state or local authority is often justified on six grounds: (1) enhanced public participation in democracy;²⁰⁷ (2) better accountability; (3) state as laboratories for experimentation;²⁰⁸ (4) better protection of citizens’ health, safety, and welfare; (5) enhanced cultural and local diversity; and (6) diffused power to protect liberty.²⁰⁹

Just as the federalism virtues supporting centralized authority can be used to justify enhanced federal control over the siting of electricity generation, the federalism virtues supporting decentralized authority can also be invoked to counter these arguments with support for state or local control. And just as scholars have long relied on centralized federalism

²⁰⁷ See, e.g., *Gregory v. Ashcroft*, 501 U.S. 452, 458 (1991) (noting that federalism “increases opportunity for citizen involvement in democratic processes; it allows for more innovation and experimentation in government; and it makes government more responsive by putting the States in competition for a mobile citizenry”).

²⁰⁸ See Friedman, *supra* note 25, at 389–405; John O. McGinnis, *Laws for Learning in an Age of Acceleration*, 53 WM. & MARY L. REV. 305, 307–08, 337–38 (2011) (arguing that decentralization will have benefits for “social learning” because states can experiment with different policies, citing as examples federal frameworks which allow states to come up with their own methods of achieving federal goals, including with healthcare through the Patient Protection and Affordable Care Act and education through the Race to the Top Program); see also *United States v. Lopez*, 514 U.S. 549, 581 (1995) (Kennedy, J., concurring) (noting that “the theory and utility of our federalism are revealed” with guns in school zones, for the states may perform their role as laboratories for experimentation to devise various solutions where the best solution is far from clear); *FERC v. Mississippi*, 456 U.S. 742, 787–90 (1982) (O’Connor, J., concurring in part and dissenting in part) (“[T]he Court’s decision undermines the most valuable aspects of our federalism. Courts and commentators frequently have recognized that the [fifty] States serve as laboratories for the development of new social, economic, and political ideas [F]ederalism [also] enhances the opportunity of all citizens to participate in representative government Finally, our federal system provides a salutary check on governmental power.”).

²⁰⁹ Glicksman & Levy, *supra* note 24, at 600.

virtues to advocate for increased federal control over a number of areas, including environmental pollution,²¹⁰ greenhouse gases,²¹¹ welfare,²¹² transmission lines,²¹³ corporate law,²¹⁴ tort law,²¹⁵ insurance,²¹⁶ medical malpractice,²¹⁷ and immigration,²¹⁸ scholars use the presence of decentralized virtues to advocate for a tip toward state control, including

²¹⁰ See, e.g., Percival, *supra* note 43, at 1172 (pointing to transboundary pollution, guarantees of minimum standards, economies of scale, and industry preference, for uniform regulations as reasons for the federalization of environmental regulation); Richard B. Stewart, *Pyramids of Sacrifice? Problems of Federalism in Mandating State Implementation of National Environmental Policy*, 86 YALE L.J. 1196, 1211–19 (1977) (explaining why centralization of environmental legislation is necessary in order to: (1) address the tragedy of the commons and realize national economies of scale; (2) mitigate the disparities in effective political representation; (3) correct market failures arising from pollution externalities; and (4) best take advantage of the public opinion that environmental regulation is the pursuit of “moral ideals” and assure that the sacrifices are shared).

²¹¹ See, e.g., Joseph Forreder, *State Sponsored Global Warming Litigation: Federalism Properly Utilized or Abused?*, 18 MO. ENVTL. L. & POL’Y REV. 23, 62–63 (2010) (applying the federalism values to the Supreme Court’s opinion in *Connecticut v. AEP* to assess its furtherance of federalism).

²¹² See, e.g., Sheryll D. Cashin, *Federalism, Welfare Reform, and the Minority Poor: Accounting for the Tyranny of State Majorities*, 99 COLUM. L. REV. 552, 621 (1999) (arguing against the complete decentralization of welfare reform and advocating for an increased federal role in the form of national standards).

²¹³ See, e.g., Dang, *supra* note 134, at 328–29 (arguing that the Federal Power Act should be amended to give FERC the power to grant transmission siting approval and to mandate construction and expansion of the transmission grid); Richard J. Pierce, Jr., *Environmental Regulation, Energy, and Market Entry*, 15 DUKE ENVTL. L. & POL’Y F. 167, 183 (2005) (arguing for an increased federal role, perhaps by a federal agency or federal courts with authority to override the decisions of state and local governments in certain decisions regarding siting); John Noor, Note, *Herding Cats: What To Do When States Get in the Way of National Energy Policy*, 11 N.C. J.L. & TECH. 145, 175 (2009) (arguing that FERC should be granted siting authority for transmission projects involving renewable energy). *But see* James A. Holtkamp & Mark A. Davidson, *Transmission Siting in the Western United States: Getting Green Electrons to Market*, 46 IDAHO L. REV. 379, 387 (2010) (arguing for a regional transmission siting process instead of a federal preemption of state siting requirements); Jim Rossi, *The Trojan Horse of Electric Power Transmission Line Siting Authority*, 39 ENVTL. L. 1015, 1041–43 (2009) (arguing that expanding federal authority to transmission siting could “crowd out” conservation and efficiency at the state level and provide a means to transmit more power from dirty fuel sources).

²¹⁴ See, e.g., William L. Cary, *Federalism and Corporate Law: Reflections Upon Delaware*, 83 YALE L.J. 663, 663–64 (1974) (explaining the risk of a race-to-the-bottom effect under state control of corporate law and proposing a unifying, federal regime).

²¹⁵ Robert M. Ackerman, *Tort Law and Federalism: Whatever Happened to Devolution?*, 14 YALE L. & POL’Y REV. 429, 432 (1996) (providing a “basis for federal intervention in tort law, resting upon sound constitutional theory and public policy”).

²¹⁶ See, e.g., Danielle F. Waterfield, Note, *Insurers Jump on Train for Federal Insurance Regulation: Is It Really What They Want or Need?*, 9 CONN. INS. L.J. 283, 286 (2002) (noting the traditional state regulation of the insurance industry, followed by calls for federal intervention).

²¹⁷ See, e.g., Moncrieff, *supra* note 17, at 846–50 (arguing for federalization of medical malpractice to correct spillover effects resulting from federal spending on healthcare and that the need for administrative efficiency and correction of interstate externalities trumps arguments for state authority such as the traditional role of states in medical malpractice and the fact that medical malpractice is primarily a matter of local concern).

²¹⁸ See, e.g., Keith Cunningham-Parmeter, *Forced Federalism: States as Laboratories of Immigration Reform*, 62 HASTINGS L.J. 1673, 1673–76 (2011) (asserting that arguments for decentralization of immigration policy based on states acting as laboratories for experimentation are flawed because states do not internalize the costs of these laws or yield replicable results).

medical marijuana²¹⁹ and environmental protection.²²⁰ This would suggest that the disparity between state control over generation siting and federal control over the other siting regimes might be explained by identifying decentralized virtues realized in electricity generation that are not realized in the other infrastructure siting regimes. Unfortunately, these virtues do not appear to be unique to the siting of electricity generation and could easily apply to other siting regimes. This section first provides some examples of the decentralized federalism virtues that can be realized by maintaining authority over the siting of electricity generation at a state and local level.²²¹ It then explains why use of the federalism virtues in this way have their explanatory limits, weakening their use in this type of comparative analysis.

1. *Decentralized Federalism Virtues*

A key benefit of decentralization is that local experts can be more flexible and adept at incorporating the area's unique "temporal and geographic information . . . to design optimal policies."²²² This virtue, often referred to as the ability to better protect the health, safety, and welfare, is particularly relevant to the decision about where to site infrastructure. All of the infrastructure analyzed involves some form of potential adverse local impacts, including aesthetic impacts, land use issues, and health issues. An increased role for the federal government runs the risk of usurping the important role of the localities in determining

²¹⁹ J. Mitchell Pickerill & Paul Chen, *Medical Marijuana Policy and the Virtues of Federalism*, 38 PUBLIUS 22, 24 (2008) (concluding that the federal government should not assert preemptive jurisdiction over medical marijuana policy based on three "classic virtues" of federalism which support state authority: policy experimentation and innovation, diversity of policy preferences, and protection and enhancement of individual rights and liberties).

²²⁰ See Sovacool, *supra* note 49, at 429–30 ("[T]he case for devolution of environmental policy often rests on a set of four interconnected assumptions: (i) that decentralization induces experimentation and innovation; (ii) devolution provides more flexibility in responding to environmental problems; (iii) decentralization improves accountability and equity; and (iv) states will engage in welfare-enhancing competition to craft better environmental policies.").

²²¹ Other decentralized virtues, like the ability to enhance public participation, are unlikely to be threatened by many forms of increased federal control. Public participation may be minimal in any but the most controversial of PUC hearings. See, e.g., Jeremy C. Ruark, *PUC Taking Public Comments over PacificCorp Rate Hike Proposal*, SEASIDE SIGNAL, Aug. 22, 2012, available at http://www.seasidesignal.com/news/article_9307aa70-ebdf-11e1-a185-0019bb2963f4.html ("[D]ue to extremely low attendance the PUC phased out public hearings involving this type of rate case Instead, the Commission is using public comment boxes on the PUC website linked to the rate cases so customers can weigh in when it is most convenient to them."); see also PUC Aug. 21st Public Forum on Smart Meter Issues—Recap, BAN TEX. SMART METERS (Oct. 6, 2012), <http://www.bantexasmartmeters.com> (discussing the unexpectedly low attendance at a public forum of a contentious issue). Even if local citizens can better participate in the siting process through hearings that take place locally as opposed to in a centralized hearing in Washington, D.C., there are ways to structure increased federal control in a way that still places the day-to-day hearings and ability of citizens to participate locally with the state PUCs.

²²² Sovacool, *supra* note 49, at 431.

the type and location of the infrastructure. It is the localities that are the ones that need to adjust any decreases in property values, tax implications, loss of views, or health or environmental impacts. And it is the localities that may be able to best mitigate against such impacts. For instance, aesthetics are a primary concern of those opposed to telecommunications facilities.²²³ The visual impact from towers may be minimized by disguising the towers as natural features such as trees,²²⁴ and some municipalities have required “stealth design” within the requisite performance standards for communication facilities.²²⁵

An argument can be made that this need for local input is even more pronounced in the decisions about the siting of electricity generation than in decisions about the other types of infrastructure. This is because the localities may care as much, if not more, about the type of generation to be built as they care about where the generator is built. The type of generation built has a much greater diversity in impacts than the type of wireless tower or natural gas pipeline that is built. For example, one type of railroad tracks brings the same types of land use, congestion, and pollution from the locomotives as the next type of railroad tracks. And one type of telecommunications tower generally presents the same types of aesthetics, radio emissions, and environmental externalities as another.²²⁶

In contrast, state public utility commissions are often faced with alternatives that are rife with trade-offs that the decentralized federalism virtues suggest is best determined by a local level of authority. The generation of coal energy results in more greenhouse gas emissions than the generation of wind energy, but it is less costly and may result in less harm to endangered birds and bats.²²⁷ Cleaner-burning natural gas

²²³ See, e.g., *VoiceStream Minneapolis, Inc. v. St. Croix Cnty.*, 342 F.3d 818, 824 (7th Cir. 2003) (describing letters objecting to a “proposed tower because of aesthetic considerations [and] a petition from twelve residents living near the . . . site opposing the tower for aesthetic and other reasons”); *Sw. Bell Mobile Sys., Inc. v. Todd*, 244 F.3d 51, 61 (1st Cir. 2001) (“Few people would argue that telecommunication towers are aesthetically pleasing. Some of the disapproving comments in the cases about generalized aesthetic concerns refer to negative comments that are applicable to any tower, regardless of location.”).

²²⁴ Mary Ann O’Toole Holley, ‘Stealth’ Tower Not So Stealthy, NEWSMAGAZINE NETWORK, Jan. 13, 2011, <http://www.newsmagazinenetwork.com/201101131471/stealth-tower-not-so-stealthy>.

²²⁵ OVERLAND PARK, KAN., MUNICIPAL CODE § 18.395.070 (2009).

²²⁶ If anything, the federal jurisdiction over siting of such infrastructure has ensured even more uniformity in type. The FCC, for example, has standardized radio frequency emissions such that telecommunications towers are not distinguished on this basis and the TCA stipulates that local governments may not base regulation of the wireless industry on health concerns. Laurie Dichiara, *Wireless Communication Facilities: Siting for Sore Eyes*, 6 BUFF. ENVTL. L.J. 1, 14 (1998). And the FCC has recently addressed concerns over tower height and migratory bird populations by requiring that proposed towers over 450 feet tall conduct an environmental assessment. 47 C.F.R. § 1.1307 (2012).

²²⁷ In 2002, the U.S. Fish and Wildlife Service estimated 33,000 bird deaths annually from collisions with wind turbines. U.S. FISH & WILDLIFE SERVICE, *MIGRATORY BIRD MORTALITY 2* (2002), available at www.fws.gov/birds/mortality-fact-sheet.pdf. Since then, that estimate has

generation may be able to utilize cheap domestic resources, but can have significant impacts on the water quality and supply of the area.²²⁸ The generation of solar energy may be free from greenhouse gas emissions, but it is an intermittent resource that can affect the reliability of the grid.²²⁹ The generation of nuclear energy may have near zero combustion emissions, but it is dependent on imported uranium and elicits public opposition because of real or perceived dangers particular to this method of generation.²³⁰ And the generation of large-scale renewable energy may have zero combustion emissions, but it is expensive and often involves extensive land use and endangered species issues.

In fact, the unique geographic features of each state with respect to electricity generation weigh in particular favor of a decentralized framework. Each state has its own unique geographic strengths related to energy production; some have high amounts of coal, some have consistent winds, and so on. This has resulted in great variation in both the RPS adopted by the states,²³¹ as well as variation in siting procedures, such as different size thresholds and different criteria that must be satisfied to begin construction.²³²

A second decentralized virtue that may be realized by maintaining the current state-centered level of authority for the siting of electricity generation is the ability of state and local authorities to experiment with solutions more readily than federal authorities. Local programs are credited as being a “positive contagion,” reacting faster to problems and

increased to 440,000. See Umair Irfan, *Bats and Birds Face Serious Threats from Growth of Wind Energy*, N.Y. TIMES, Aug. 8, 2011, <http://www.nytimes.com/cwire/2011/08/08/08climatewire-bats-and-birds-face-serious-threats-from-gro-10511.html?ref=earth>.

²²⁸ New York City, for example, opposed natural gas drilling in the Marcellus Shale for years because of the likelihood that the increased industrial activity in the watershed and road construction will contaminate the unfiltered water supply of its eight million residents. N.Y.C. DEP’T OF ENVTL. PROT., COMMENTS ON THE REVISED DRAFT SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT ON THE OIL, GAS AND SOLUTION MINING REGULATORY PROGRAM 1, 3 (Jan. 11, 2012), available at http://www.nyc.gov/html/dep/pdf/natural_gas_drilling/nycdep_comments_on_rdsgeis_for_hvhf_20120111.pdf.

²²⁹ See Andrew Ratzkin, *When the Wind Don’t Blow, When the Sun Don’t Shine: The Risks of Intermittency*, 41 TRENDS, Sept./Oct. 2009, at 1, 12 (describing the risks associated with intermittent renewable sources, including their inability to be increased or decreased as demand dictates).

²³⁰ See, e.g., U.S. N.R.C., RECOMMENDATIONS FOR ENHANCING REACTOR SAFETY IN THE 21ST CENTURY: THE NEAR-TERM TASK FORCE REVIEW OF INSIGHTS FROM THE FUKUSHIMA DAI-ICHI ACCIDENT 1 (2011) (describing the Fukushima accident and the need for new regulations to better protect public health and safety).

²³¹ See, e.g., U.S. Dep’t of Energy, *Hawaii: Incentives/Policies for Renewables & Efficiency*, DSIRE DATABASE OF STATE INCENTIVES FOR RENEWABLES & EFFICIENCY, available at http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=HI06R&re=1&ee=1 (showing that renewable portfolio standards vary between ten percent (Wisconsin) and forty percent (Hawaii) in the percentage of renewables required, the timeframes for compliance, and what type of power qualifies as “renewable”).

²³² See *supra* notes 160–61; ALLISON & WILLIAMS, *supra* note 162, at 140–46.

spurring the federal government to overcome regulatory inertia.²³³ When the Supreme Court held that the FPA preempted state regulation of utilities, Justice Jackson stated: “If now and then some state does not regulate its utilities according to the federal standard, it may be a small price to pay for preserving the state initiative which gave us utilities regulation far in advance of federal initiative.”²³⁴ Indeed, state legislatures can be credited with responding to proposals to impose mandates for renewable energy faster than the federal government; state legislatures have passed over thirty-seven pieces of RPS legislation over the last twenty-eight years, while the federal government has failed over twenty-five times to produce a national RPS.²³⁵

2. *Limits of Decentralized Virtues for Explaining the Disparity*

Just as the centralized federalism virtues failed to sufficiently explain the disparity in authority between the siting of electricity generation and the siting of other infrastructures, similar limitations exist with respect to the decentralized federalism virtues. Specifically, the use of these virtues to try to explain the disparity poses at least two fundamental problems, each described below.

The first problem with using federalism virtues to justify either state or federal control is that the virtues rarely line up neatly on one side of the federalism–state federalism ledger. Instead, we are often faced with an area of the law that is a kind of “hybrid,” one that exhibits characteristics of both decentralized and centralized power allocations. What happens when the factors cut different ways? For instance, what is the appropriate level of government when the particular area at issue presents a need to address transboundary issues, but there is also a benefit in states serving as laboratories for experimentation? In these situations where the law can realize virtues on both sides of the ledger, there is no clear “prevailing” power level of authority and the federalism virtues lose much of their persuasive force towards either state or federal power.²³⁶

Each of the siting regimes discussed reflects this type of hybrid that exhibits characteristics of both decentralized and centralized authority. The siting of infrastructure clings to many historical characteristics that

²³³ Sovacool, *supra* note 49, at 436–37.

²³⁴ *Power Comm’n v. E. Ohio Gas Co.*, 338 U.S. 464, 489 (1950) (Jackson, J., dissenting).

²³⁵ Davies, *supra* note 172, at 1341; *State Funding Resources and Renewable Portfolio Standards*, EPA (last updated Oct. 2, 2012), <http://www.epa.gov/lmop/publications-tools/funding-guide/state-resources/index.html>.

²³⁶ Although this may, in part, explain the rising popularity of cooperative federalism, advocates of cooperative federalism often fall short of providing details about how such shared authority should function. See, e.g., Reza Dibadj, *From Incongruity to Cooperative Federalism*, 40 U.S.F. L. REV. 845, 865–73 (2006) (arguing for a cooperative federalism framework to govern corporation-shareholder relationships that envisions the federal government setting “minimal shareholder protections” and then leaves the issue of details to the states based on certain priorities, such as fighting fraud).

suggest a decentralized system is appropriate. But contemporary siting regimes also reflect many characteristics that suggest some centralized authority may be in order. There is no clear “prevailing” level of power indicated by the virtues, yet many of these regimes have tipped from state to enhanced federal control while the siting of generation remains in state control.

In the end, it may not be the mere presence of the virtues, but degrees that matter. Decisions about the proper balance of power may not rest with only the realization of virtues, but the degree to which each level of government can best realize the virtues. Although the localized and diverse impacts associated with the siting of electricity may suggest that decentralized authority would better further the virtues of federalism in this context, the decisions regarding the type of generation constructed also impose externalities on other states, which suggests that centralization may be appropriate, creating a type of hybrid that fails to point conclusively towards state or federal control. Importantly, the federalism virtues justifying decentralized control over the siting of electricity generation are no more unique than the federalism virtues justifying decentralized control over traditionally local areas. Yet the other regimes, including railroads, natural gas pipelines, wireless communications, and electricity transmission are now governed by some form of shared or overlapping federal and state authority.

Second, even if the virtues did line up neatly towards state or federal power, it is far from absolute that the presence of particular virtues renders the corresponding power allocation the best fit in all situations. In fact, although these virtues align with either state or federal authority in theory, it is unclear that they align so neatly in practice. As Barry Friedman has asserted:

On the state side of the balance, we do not know whether retaining governmental authority at the subnational level fosters democracy, or even what we necessarily mean by this. We have not determined whether states really are laboratories for experimentation, and under what circumstances experimentation will flourish. We do not know if state governance enhances accountability. And so on.²³⁷

For instance, although state authority is traditionally viewed as the most effective level of power to enhance public welfare, a more centralized level of government may sometimes be in a better position to provide for the public welfare of state citizens.²³⁸ Similarly, although the federal

²³⁷ Friedman, *supra* note 25, at 319.

²³⁸ See *infra* notes 242–43 (describing West Virginia’s extreme reliance on coal despite studies that demonstrate it is a net cost to the state); see also Sabrina Tavernise, *As Gas Drilling Spreads*,

government is generally thought to be in a better position to provide uniformity, states can, even by loose agreement amongst themselves, realize the virtues of a centralized system without ceding power to the federal government.²³⁹ As David Barron has noted, there is a need to “acknowledge the more complicated relationship between local autonomy and central power.”²⁴⁰

A similar phenomenon can be said to exist with respect to the siting of electricity. It is unclear that state control better advances federalist values for electricity generation and that federal control best advances federalism values in the other siting regimes. For example, it is uncertain that a state and local governments are better positioned to protect their citizens’ health, safety, and welfare.²⁴¹ For instance, repeated decisions by PUCs to site additional coal plants in lieu of renewable energies or demand response measures can have detrimental impacts on the amount of GHG emissions, other pollutants, and other full life-cycle environmental and health effects. West Virginia legislators, for example, are uniformly in favor of retaining coal as a dominant energy source and the state relies on coal for over 96% of its power needs.²⁴² Such a decision may be justified on the basis of protecting their citizens’ welfare, arguing that reliance on coal provides local jobs, enhances the tax base, and otherwise helps the local economy. Yet, at least two reports on coal-dependent West Virginia and Kentucky demonstrate that coal production is a net loss to the states due to the high

Towns Stand Ground over Control, N.Y. TIMES, Dec. 14, 2011, at A20 (highlighting the debate between local and state governments over the regulation of fracking shale deposits to access natural gas).

²³⁹ See Friedman, *supra* note 25, at 409; see also, Marion W. Benfield, Jr., *Wasted Days and Wasted Nights: Why the Land Acts Failed*, 20 NOVA L. REV. 1037, 1040 (1996) (stating that in 1896, every state adopted the Uniform Negotiable Instruments law, developed by the National Conference of Commissioners on Uniform State Laws); Norman Silber, *Why the U.C.C. Should Not Subordinate Itself to Federal Authority: Imperfect Uniformity, Improper Delegation and Revised Section 3-102(c)*, 55 U. PITT. L. REV. 441, 456 (1994) (stating that states also achieved a “rough” uniformity under the Uniform Commercial Code (UCC) by each adopting its own version, subject to continuing state legislative modification and judicial interpretation). *But see* Robert H. Bork & Daniel E. Troy, *Locating the Boundaries: The Scope of Congress’s Power to Regulate Commerce*, 25 HARV. J.L. & PUB. POL’Y 849, 886 (2002) (arguing state tort law allows a single state to set national standards in violation of the commerce clause).

²⁴⁰ David J. Barron, *A Localist Critique of the New Federalism*, 51 DUKE L.J. 377, 381 (2001). Barron argues that “a single-minded desire to protect local autonomy by limiting central power actually may do little to promote the values normally associated with local autonomy.” *Id.* at 379.

²⁴¹ See Daniel J. Weiss et al., *Dirty Deeds Done Dirt Cheap*, CTR FOR AM. PROGRESS (Feb. 6, 2012), http://www.americanprogress.org/issues/2012/02/csapr_contributions.html/print.html (stating that sixteen states are suing to halt implementation of the EPA’s interstate air pollution rule that seeks to protect downwind states from upwind emitters and that those sixteen states are responsible for more than ninety percent of the nation’s total sulfur dioxide and nitrogen oxide air pollution from power plants that these laws are trying to reduce).

²⁴² *Where Does Your Electricity Come From?: West Virginia*, AMERICA’SPOWER.ORG, <http://www.cleancoalusa.org/abundant/where-does-your-electricity-come> (last visited Feb. 24, 2012).

costs of coal-related health impacts.²⁴³

In the end, the federalism virtues fail to fully explain the disparity between the siting of electricity and other siting regimes.

B. *Siting of Electricity Generation is Traditionally Local*

Another possible explanation for disparity between the siting regimes is that siting authority for electricity generation remains with the state and local authorities because these decisions are uniquely of a “traditionally” local nature. As Professor William W. Buzbee has indicated, land use decision making remains one of the few areas of the law left overwhelmingly to state and local control, and some Supreme Court jurisprudence demonstrates a judicial reluctance to intrude upon this area.²⁴⁴ The land use context is particularly prone to resolving federalism discussions in favor of the state given the inherently local nature of land use. Professors Ashira Ostrow and Uma Outka have recently focused on the crossroads of energy infrastructure siting and local land use law, with Professor Ostrow noting that despite the national impact that local siting decisions may have “scholars and policymakers often reject the notion of an expanded federal role.”²⁴⁵

Nevertheless, the literature highlights a number of areas thought to be traditionally under “local control” that have tipped to enhanced federal control. Professor Buzbee notes that “federal environmental regulation can impinge on local and state land use regulatory choices by denying actions that might otherwise be allowed, or by imposing additional conditions on approvals.”²⁴⁶ Federal programs, grants, and initiatives increasingly encroach on traditionally “essential functions” of state governance such as health and family law.²⁴⁷ For example, state control over family law has been usurped by federal concern over interstate child support, concerns over international human rights, and even with the administration of

²⁴³ RORY MCILMOIL ET AL., COAL AND RENEWABLES IN CENTRAL APPALACHIA: THE IMPACT OF COAL ON THE WEST VIRGINIA STATE BUDGET x–xiv (2010), available at http://www.downstreamstrategies.com/documents/reports_publication/DownstreamStrategies-coalWV.pdf); MOUNTAIN ASS'N FOR CMTY. ECON. DEV., THE IMPACT OF COAL ON THE KENTUCKY STATE BUDGET 1, 2 (2009), available at <http://www.maced.org/coal/exe-summary.htm>.

²⁴⁴ See *Solid Waste Agency of N. Cook Cnty. v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 173–74 (2001) (expressing concern that expanding federal jurisdiction over ponds and mudflats under Migratory Bird Rule would impinge significantly on traditional state power over land and water use); William W. Buzbee, *Asymmetrical Regulation: Risk, Preemption, and the Floor/Ceiling Distinction*, 82 N.Y.U. L. REV. 1547, 1560 (2007) (stating that state and local governments traditionally regulate land use).

²⁴⁵ Ashira Pelman Ostrow, *Land Law Federalism*, 61 EMORY L.J. 1397, 1400; Uma Outka, *supra* note 165, at 309 (arguing that federalism norms about local control over land use are too entrenched to offer much hope for structural reform).

²⁴⁶ Buzbee, *supra* note 244, at 1560.

²⁴⁷ James G. Hodge, Jr., *The Role of New Federalism and Public Health Law*, 12 J.L. & HEALTH 309, 336 (1998).

federal taxes and pensions.²⁴⁸ Therefore, traditional classification of cases into “family law,” “interstate travel,” “foreign affairs,” or “governmental administration” has become nearly impossible.²⁴⁹

In the area of health and environmental law, the federal government now regulates “air and water quality, food and drug safety, tobacco advertising, pesticide production and sales, consumer product safety, occupational health and safety, and medical care.”²⁵⁰ As the states’ police power is usurped by the federal government’s commerce and spending powers, the modern public health system is now “driven by national priorities in the pursuit of national health goals.”²⁵¹ In the environmental realm, courts have consistently upheld federal authority to promulgate policies impacting areas traditionally controlled by the states.²⁵² For example, courts upheld the constitutionality of the Clean Air Act, Clean Water Act, Endangered Species Act and Comprehensive Environmental Response, Compensation, and Liability Act because these federal laws explicitly regulated industrial or commercial activity.²⁵³ In short, traditionally local activities are not immune from federal intervention.

Similarly, the siting of all of the infrastructure discussed in this Article—railroads, natural gas, telecommunications, and electricity—were considered traditionally local activities that carried with them a presumption of decentralized control.²⁵⁴ Nevertheless, for almost all of these siting regimes, this traditionally local nature of siting did not prevent the tip towards more federal involvement. The siting of electricity generation remains an exception despite the fact that its “traditionally” local roots are shared by all the siting regimes. Just as the traditionally local nature of these other siting regimes was not sufficient to withstand a

²⁴⁸ Ernest A. Young, *The Rehnquist Court’s Two Federalisms*, 83 TEX. L. REV. 1, 106 (2004).

²⁴⁹ *Id.*

²⁵⁰ Hodge, *supra* note 247, at 336.

²⁵¹ *Id.* at 338.

²⁵² See Jonathan H. Adler, *Judicial Federalism and the Future of Federal Environmental Regulation*, 90 IOWA L. REV. 377, 405 (2005) (noting that, “[t]hus far, federal appellate courts have uniformly rejected Commerce Clause challenges to the scope of federal environmental regulation”).

²⁵³ *Id.*

²⁵⁴ Ostrow, *supra* note 190, at 295–96 (citing the Supreme Court’s landmark decision in *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 386–87 (1926), which led to states and local governments to regulate the fields of zoning and land use and upheld local zoning practices in recognition of rapid development of urban populations and the need to regulate land use to accommodate competing interests). When Congress was in the process of passing the Transportation Act of 1920 to tip towards federal control over railroads, New York Governor Smith voiced vehement opposition to the bill as a violation of states’ rights. *Says Railroad Bills Violate State Rights*, N.Y. TIMES, Jan. 27, 1920, at 34. In the electricity generation context, Professor Outka has analyzed some of the early power plant siting statutes, noting the siting decisions were in the hands of local governments. See Outka, *supra* note 165, at 309. When the EPA Act of 2005 was proposed, those opposed to it claimed that the power to site LNG terminals was within the traditional authority of states to determine land use patterns and ensure citizen safety. Scott A. Zimmermann, Comment, *Feds and Fossils: Meaningful State Participation in the Development of Liquefied Natural Gas*, 33 ECOLOGY L.Q. 789, 791–92 (2006).

tip towards federal control, the siting of electricity generation may be similarly vulnerable. At the very least, its traditionally local nature is not sufficient to explain why authority over the siting of electricity generation remains under state control.

C. *Self-Interested Legislators Prefer State Control over the Siting of Electricity Generation*

A final explanation for the lack of a federal tip is politics.²⁵⁵ Some argue that determining when market correction is needed or when social costs should be internalized are complex issues largely resolved through the political process.²⁵⁶ Indeed, lobbyists have extensive influence over the actions of legislators. One theory that captures the essence of legislators who are driven by strong lobbyists is public choice theory. Some have relied on public choice theory to suggest that “Congress will delegate to local regulators only when the political support it obtains from deferring to the states is greater than the political support it obtains from regulating itself.”²⁵⁷ Although this theory has some intuitive appeal, its limits lie in comparative analyses. This section explains the basic foundations of public choice theory, some generally applicable critiques, and why it has limited application to explain why the legal regime over the siting of electricity has remained under state control.

1. *Public Choice Theory*

Public choice is one of those terms that is used often, but rarely understood.²⁵⁸ Although there are many dimensions to public choice theory, including social impact, “[t]he unifying thread of modern public choice theory is that ‘[w]e must always seek to understand political outcomes as a function of self-interested individual behaviors.’”²⁵⁹ It

²⁵⁵ ANTHONY J. BELLIA, JR., *FEDERALISM* 214 (2010) (“Political factors often dictate wholesale federal legislative reliance on state regulation and implementation.”). Some suggest that FERC’s moves towards federal control over the siting of transmission lines is driven by former FERC Commissioner Kelliher’s new position working for NextEra Energy, a company that needs more transmission lines to bring its power to market. See *FERC’s Transmission Siting Federalism Coup*, STOPPATH WV BLOG (Aug. 27, 2011), <http://www.stoppathwv.com/1/post/2011/08/fercs-transmission-siting-federalism-coup.html>.

²⁵⁶ Daniel J. Gifford, *Federalism, Efficiency, the Commerce Clause, and the Sherman Act: Why We Should Follow a Consistent Free-Market Policy*, 44 EMORY L.J. 1227, 1260 (1995).

²⁵⁷ Jonathan R. Macey, *Federal Deference to Local Regulators and the Economic Theory of Regulation: Toward a Public-Choice Explanation of Federalism*, 76 VA. L. REV. 265, 267 (1990).

²⁵⁸ See, e.g., D. Daniel Sokol, *Explaining the Importance of Public Choice for Law*, 109 MICH. L. REV. 1029, 1031 (2011) (reviewing MAXWELL L. STEARNS & TODD J. ZYWICKI, *PUBLIC CHOICE CONCEPTS AND APPLICATIONS IN LAW* (2009)) (observing that more than sixty years after its initial use by Duncan Black and Kenneth Arrow circa 1950, “legal academics oftentimes do not understand public choice and hold a caricatured view of what it embraces”).

²⁵⁹ Jim Rossi, *Public Choice Theory and the Fragmented Web of the Contemporary Administrative State*, 96 MICH. L. REV. 1746, 1752 (1998) (citations omitted) (reviewing JERRY L.

views the political sphere as “a market in which voters and representatives, like consumers and firms, act as if they are rational, maximizing individuals pursuing their self-interests.”²⁶⁰ Public choice theory “defines the legislative process as an arena for fundamentally self-serving behavior as legislators trade off votes on specific legislation to advance their prospects for reelection.”²⁶¹ It applies the “rational actor model of economic theory to the realm of politics,” and leads to the conclusion that systems need to be created that automatically restrain the self-serving behavior of “rent-seeking” politicians.²⁶² After all, politicians would not be politicians for very long if they did not care about electability.

An application of public choice theory to legislators resonates with many people. A premise that people act as rational wealth-maximizers (however wealth may be defined), has been expounded by many economists, most predominantly Judge Richard Posner.²⁶³ A growing number of scholars across economics, political science, and law have explored the viability of public choice theory. The result is an extensive amount of empirical data that appears to support the general theory that individuals act in accordance with their own self-interest. Empirical proof has even been offered to support the allegation that self-interest drives legislators the same way as it drives individuals in a market.²⁶⁴

2. *Explanatory Limits of Public Choice*

Public choice theory also has its share of critics. Some argue that the theory is too simple, that the values each individual actor considers when making a choice are too varied for the actor himself to rank, let alone for outsiders to predict.²⁶⁵ Others find public choice theory lacking when describing the activities of political parties as a whole, and they find unsatisfying the distillation of myriad perspectives and values into one

MASHAW, GREED, CHAOS, & GOVERNANCE: USING PUBLIC CHOICE TO IMPROVE PUBLIC LAW (1997)).

²⁶⁰ *Id.*

²⁶¹ Samuel Issacharoff & Richard H. Pildes, *Politics as Markets: Partisan Lockups of the Democratic Process*, 50 STAN. L. REV. 643, 650 (1998).

²⁶² William F. Shughart II, *Public Choice*, THE CONCISE ENCYCLOPEDIA OF ECONOMICS, <http://www.econlib.org/library/Enc/PublicChoice.html> (last visited Feb. 13, 2012).

²⁶³ *E.g.*, Richard A. Posner, *On Theory and Practice: Reply to “Richard Posner’s Praxis”*, 49 OHIO ST. L.J. 1077, 1078 (1989) (defending his views on a wealth maximizing society).

²⁶⁴ Edward L. Rubin, *Public Choice in Practice and Theory*, 81 CAL. L. REV. 1657, 1658–59 (1993) (reviewing DANIEL A. FARBER & PHILIP P. FRICKEY, *LAW AND PUBLIC CHOICE* (1991) (“Farber and Frickey affirm the behavioral assumptions of the public choice vision, rejecting the romantic notion often proposed by civil republicans that both voters and legislators are, or can be, motivated by public spirit rather than self-interest, and that they can effectuate their desires through rational discourse rather than strategic, self-maximizing behavior.”)).

²⁶⁵ *See, e.g.*, Richard H. Pildes & Elizabeth S. Anderson, *Slinging Arrows at Democracy: Social Choice Theory, Value Pluralism, and Democratic Politics*, 90 COLUM. L. REV. 2121, 2142 (1990) (“Rationality must be understood to be a matter of interpretation and evaluation, not merely of aggregation and calculation.”).

hierarchy of values.²⁶⁶ And still its view of people—both acting as individuals and in a legislative capacity—has been criticized as “ruthless” and “wealth-maximizing,”²⁶⁷ as too unfair (people are capable of altruism),²⁶⁸ and as too generous (people are not always rational or educated, and thus do not always act in ways that maximize their own wealth).²⁶⁹ An example of this type of altruism can be found in environmental regulation. Professor Richard Stewart observes that “many Americans regard environmental quality as an important national good that transcends individual or local interests.”²⁷⁰ Congress reacted to strong public sentiment by passing the National Environmental Policy Act.²⁷¹ The Act was not a result of special interest lobbying, and its continued existence “may provide evidence of the continued broad-based support for environmental protection as a national moral imperative.”²⁷² The demand for environmental regulation “tends to increase over time as wealth, technical capability, scientific knowledge, and environmental impacts increase.”²⁷³

Similar limitations exist in the usefulness of public choice theory to explain the disparity of control between the siting of electricity generation and other infrastructure siting regimes. Despite a number of justifications for centralized control similar to the other siting regimes, one could argue that control over electricity siting continues to rest with the states due to legislators that are not keen on rocking the boat with their respective state contingencies. Shifting power that has remained with the state for over seventy years is bound to deplete some of their political capital—a form of

²⁶⁶ Samuel Issacharoff & Laura Miller, *Democracy and Electoral Processes* 14 (N.Y.U. School of Law Pub. Law & Legal Theory Research Paper Series, Working Paper No. 09-16, 2010), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1366503 (“[P]ublic choice models generally abstract the party into a single entity with well-behaved policy preferences.”).

²⁶⁷ Mark Kelman, *On Democracy-Bashing: A Skeptical Look at the Theoretical and “Empirical” Practice of the Public Choice Movement*, 74 VA. L. REV. 199, 223 (1988) (describing the standard public choice model as one which is grounded in the idea that voter and official behavior is motivated by maximizing their own wealth).

²⁶⁸ See, e.g., *id.* (“[T]he true claim of most public choice theorists is not just that . . . financial selfishness exists, it is that no other motivation does. This claim is simply groundless.”).

²⁶⁹ See, e.g., Russell B. Korobkin & Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics*, 88 CALIF. L. REV. 1051, 1055–57 (2000) (arguing that rational choice theory, similar to public theory but applied to individuals rather than public officials, does not deal with the nuances of human motivations).

²⁷⁰ Paul S. Weiland, *Federal and State Preemption of Environmental Law: A Critical Analysis*, 24 HARV. ENVTL. L. REV. 237, 244 (2000) (citation omitted) (internal quotation marks omitted).

²⁷¹ See *id.* at 244 (arguing that the National Environmental Policy Act was not the result of special interest lobbying but widespread public support).

²⁷² *Id.* But see Adler, *supra* note 33, at 72 (attributing the passage of environmental law to “strong public demand, coupled with exploitation of that demand by ideological and credit-seeking politicians” (quoting Daniel A. Farber, *Politics and Procedure in Environmental Law*, 8 J.L. ECON. & ORG. 59, 61 (1992))).

²⁷³ Adler, *supra* note 33, at 98–99.

wealth they may be seeking to maximize—and even risk their electability, and hence another wealth index. But could not the same be said of the other siting regimes?

Although public choice provides some valuable insights, it is hard to provide specific information in any particular moment. And although the legitimacy of public choice theory as one possible explanation for behavior has been largely accepted, the foundations upon which it rests make it difficult to use as a comparative tool. First, the effects of self-interested actions apply to all legislators, rendering it difficult to isolate specific interests that resulted in continued state control over electricity generation from specific interests that resulted in tips towards federal control for the other siting regimes. As Professor David Skeel notes, some criticize public choice theory as excessively malleable, “lending itself to any conclusion a commentator wishes to reach.”²⁷⁴ Although it is plausible to suggest that the siting of electricity generation has remained under state control because rational legislators find that to be in their own self-interest, it is difficult to empirically demonstrate that this same self-interest led similarly situated rational legislators to tip towards federal control in all the other siting regimes.

Second, assuming that all legislators act in their own self-interest provides no consistent correlation to either state or federal power. For instance, where self-interested legislators are reluctant to act in a manner that jeopardizes their reelection, their actions may be more aligned with the protection of state sovereignty and decentralized state authority. But for legislators that are not in an election year, their self-interest may lead them in different directions. Those legislators may be more focused on obtaining necessary votes from their fellow legislators to accomplish goals, making them more reluctant to act in a manner that jeopardizes those votes for their pet projects. Their pet projects, or those of their fellow legislators, may be more aligned with national security, climate change, or other issues, suggesting an increased role for the federal government over electricity siting. As Professor Daniel Sokol notes, “An overly broad generalization about rationality has its limits. If self-interest can mean just about anything, then it is not constraining the analysis.”²⁷⁵ Along similar lines, self-interests do not lead legislators to act in a linear fashion that always points towards state control.

In sum, the prevailing theories for explaining the discrepancy between state control over electricity generation siting and enhanced federal control over the other siting regimes are unsatisfying. All of the siting regimes

²⁷⁴ David A. Skeel, Jr., *Public Choice and the Future of Public-Choice-Influenced Legal Scholarship*, 50 VAND. L. REV. 647, 669 (1997) (reviewing MAXWELL STEARNS, *PUBLIC CHOICE AND PUBLIC LAW: READINGS AND COMMENTARY* (1997)).

²⁷⁵ Sokol, *supra* note 258, at 1040 (citation omitted).

were traditionally local, the federalism virtues fail to conclusively point towards either state or federal authority for the different regimes, and a focus on self-interested legislators fails to correlate to one particular level of authority. Upon closer examination, any overarching account of these tips breaks down and becomes nuanced and contingent on the specifics of a dynamic and complicated balance.

VI. ALTERNATIVE OUTLETS FOR FEDERAL INVOLVEMENT

If these theories do not fully explain the disparity in control between the siting of electricity generation and the siting of the other infrastructure, then what else can be weighing in favor of state control? Something must be serving as a counterbalance against the justifications for centralized control. One often overlooked answer is the presence of an alternative outlet for federal involvement.

This analysis thus far has focused on statutory tips that occur as a result of federal legislative action. As previously discussed, developing national interests in an area that is governed by state or local control can create a tension in the proper functioning of the power structure.²⁷⁶ This tension can be resolved through statutory adjustments. But it can also be resolved through agency action. The ability of a federal agency to step in and address the national interest on the margins can create a release valve to reduce the pressure on Congress to act formally to tip the balance of power. Congress is less likely to find the need to endure the political costs associated with amending a statute, let alone a politically charged federalism provision of a statute, when the federal government is able to accomplish some of its federal objectives without necessitating a formal amendment.

This phenomenon plays out in the siting analysis. In the earlier siting regime tips, agency action does not appear to have played a critical role in diffusing the tensions caused by growing federal interests. There is little evidence that either the ICC or the FPC were issuing regulations that expressed a federal interest in ensuring the railroads and natural gas lines were being built prior to their respective congressional tips. On the contrary, in both the telecommunications and transmission lines siting regimes, the respective agencies, FCC²⁷⁷ and FERC,²⁷⁸ made some sort of

²⁷⁶ Proper functioning in this instance refers to a balance of power that furthers the values of our federalism system.

²⁷⁷ *See, e.g.*, Facilitating Access to Federal Property for the Siting of Mobile Services Antennas, 60 Fed. Reg. 42,023 (Aug. 14, 1995) (requiring agency administrators to develop procedures for the siting of mobile service antennas on federal lands); Wireless Service; General Wireless Communications Service, 60 Fed. Reg. 40,712, 40,713 (Aug. 9, 1995) (to be codified at 47 C.F.R. pts. 1, 26) (showing FCC's use of its broad authority under the Communications Act of 1934 to issue wireless regulations that promoted the growth of the then-nascent wireless industry by reallocating

effort to address national interests prior to the statutory tips. Is it a coincidence that these are the two areas where the congressional tip consisted not of complete preemption, but a more limited form of federal control through a partial preemption? This may be in part because of the active involvement of the FCC and FERC to try to address some of these federal issues on the margins.²⁷⁹ Their limited success may have mitigated the need for a full preemption on these matters. Had the federal agencies not been making strides in furtherance of the national interest, Congress may have had more motivation to enact tips towards stronger federal control.

Similarly, with respect to the siting of electricity generation, an active administrative agency may be minimizing the incentives of Congress to formally tip the balance of power from state towards more federal control. Federal agencies may be better able to address the national interest in electricity siting because of the nature of the federal interest. Rather than a federal interest limited to making sure the infrastructure is ultimately sited, for instance, the federal interest in the siting of electricity generation extends to the *type* of infrastructure being sited (electricity generation based on renewable or coal, for instance), and perhaps more importantly, an interest in the type of fuel source relied upon by each new electric-generating facility.²⁸⁰ Where the federal interest is limited to making sure the new infrastructure is constructed, as it was in so many of the other infrastructure regimes, the federal government has few options by which to

spectrum from the federal government to public use.). The FCC created the General Wireless Communications Service for the purpose of “benefit[ing] the public by permitting and encouraging the introduction of new services and the enhancement of existing services” leading to job creation, economic growth and improved access to communications. *Id.* at 40,712.

²⁷⁸ See, e.g., Removing Obstacles to Increased Electric Generation and Natural Gas Supply in the Western United States, 66 Fed. Reg. 15,858, 15,860 (Mar. 21, 2001) (discussing agency action to increase energy supply and protect consumers from supply disruptions). Recognizing the need for additional transmission lines to be constructed, but understanding its jurisdictional limitations, FERC tried to influence the siting of transmission lines through traditional carrot and stick techniques:

In order to provide incentives for the construction of such projects at the earliest date possible, we propose to give transmission owners of projects that increase transmission capacity at present constraints and can be in service by July 1, 2001, a cost-based rate reflecting a 300 basis point premium on equity and a 10-year depreciable life.

Id. at 15,860. FERC also used its broad authority under the Federal Power Act to propose regulations to facilitate the construction of transmission lines by eliminating discriminatory transmission tariffs. See, e.g., Remedying Undue Discrimination Through Open Access Transmission Service and Standard Electricity Market Design, 67 Fed. Reg. 55,452 (Aug. 29, 2002) (to be codified at 18 C.F.R. pt. 35).

²⁷⁹ See *supra* notes 277–78.

²⁸⁰ This is not to minimize the federal interest in ensuring that electricity generators are ultimately sited. Surely, the federal government has an interest in ensuring that the nation has a reliable and affordable supply of electricity, but compared to the other siting regimes, the federal interests in electricity siting are even broader to include type.

directly influence a state or local decision in lieu of a formal congressional tip. But where the federal interest is in the type of the facility, the federal government has more options available to influence the type of facility constructed. Where the relevant federal agencies can address the national interest they had in siting (the type of resources used to generate electricity) through other means, it may provide an important counterbalance to the justifications for centralized control.

This section describes the efforts of three federal agencies to find alternative outlets to influence the type of electricity produced within each state: (1) FERC; (2) EPA; and (3) Department of Interior (DOI). All three have been acting within their existing statutory authorities to address the issues of current federal interest: enhanced reliance on renewables and other clean energy sources. I argue that these efforts are minimizing the strain on the existing electricity regime, providing a critical release valve on the federalism tensions. This highlights an important additional factor that may counter any federalism justifications for a formal congressional tip towards federal control.

A. *FERC's Outlet on Renewables*

The first example of an outlet for a growing federal interest in cleaner energy sources lies with FERC. FERC, an agency not traditionally known for its environmental values, has taken steps to advance the national interest in renewable energy. FERC's mission has been to assist consumers in "obtaining reliable, efficient and sustainable energy services at a reasonable cost through appropriate regulatory and market means."²⁸¹ But with carbon-laden fossil fuels providing 88% of the nation's electricity²⁸² and 79% of the nation's greenhouse gases,²⁸³ FERC's attention has begun to shift towards climate change and renewable energy, echoing the Obama Administration's emphasis on clean energy as a national priority:

The use of renewable energy resources to generate electricity has the potential to be a cost-effective means not only to reduce greenhouse gas emissions, but also to diversify the

²⁸¹ *Strategic Plan FY 2009–FY 2013*, FERC (Feb. 13, 2012), <http://www.ferc.gov/about/strat-docs/strat-plan.asp>.

²⁸² U.S. ENERGY INFO. ADMIN., *ELECTRIC POWER ANNUAL 2009 2* (2011), available at <http://www.eia.gov/electricity/annual/archive/03482009.pdf>.

²⁸³ U.S. ENVTL. PROTECTION AGENCY, *INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990–2010 ES-7* (2012), available at <http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2012-Main-Text.pdf> ("As the largest source of U.S. greenhouse gas emissions, CO₂ from fossil fuel combustion has accounted for approximately 78 percent of GWP-weighted emissions since 1990, growing slowly from 77 percent of total GWP-weighted emissions in 1990 to 79 percent in 2010. Emissions of CO₂ from fossil fuel combustion increased at an average annual rate of 0.4 percent from 1990 to 2010.")

fuels used to generate electricity. The Commission will continue to pursue market reforms to allow all resources, including renewable energy resources, to compete in jurisdictional markets on a level playing field. . . . By implementing these or other reforms, the Commission's actions have the potential to increase the amount of electricity being produced from renewable energy resources.²⁸⁴

FERC did not stop with sweeping statements about its efforts to enhance our nation's reliance on renewable energy. FERC has also injected itself into the state and local electricity generation siting decisions in a number of ways.²⁸⁵ An important method involves using FERC's broad authority under the FPA to review rates and charges to ensure that they are "just and reasonable" and not "unduly discriminatory."²⁸⁶ Relying on its broad authority under these provisions, the agency also issued two recent rulemakings that seek to enable more renewable energy generation in this country. In July 2011, FERC issued Order 1000, the "Final Rule on Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities" that resulted in significant changes related to the construction of transmission lines in a way that allows "for reliably and cost-effectively integrating location-constrained renewable energy resources."²⁸⁷ Whereas transmission line planners previously evaluated proposed transmission lines based on only two benefits—reliability and economics—FERC's new Order 1000 requires that each public utility transmission provider also provide for the consideration of "Public Policy requirements established by state or federal laws or regulations."²⁸⁸ Not only does FERC specifically call out "the renewable portfolio standards

²⁸⁴ *Integration of Renewables*, FERC (Nov. 29, 2011), <http://www.ferc.gov/industries/electric/indus-act/integration-renew.asp>; see also James H. McGrew, *FERC's Green Agenda*, TRENDS, Mar./Apr. 2010, at 1.

²⁸⁵ Other FERC regulations have eliminated other barriers to the integration of renewable resources onto the grid, including FERC Order 2005, Standardization of Small Generator Interconnection Agreements & Procedures, (May 12, 2005), available at <http://www.ferc.gov/EventCalendar/Files/20050512110357-order2006.pdf>, and FERC Order 2003, Interconnection for Wind Energy, Order No. 661, Appendix G to Order 2003, (June 2, 2005), available at <http://www.ferc.gov/whats-new/comm-meet/052505/E-1.pdf>.

²⁸⁶ 16 U.S.C. § 824e(a). Section 824e provides that if FERC finds any "rate, charge, or classification" or any "rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential, the Commission shall determine the just and reasonable rate, charge, classification, rule, regulation, practice, or contract to be thereafter observed and in force, and shall fix the same by order." *Id.*

²⁸⁷ Federal Energy Regulatory Commission, *Final Rule on Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 136 FERC ¶ 61,051 at 66 (July 21, 2011), available at <http://www.ferc.gov/whats-new/comm-meet/2011/072111/E-6.pdf>.

²⁸⁸ *Id.* at 9.

adopted by many states²⁸⁹ as an example of such “Public Policy requirements,” but the term is broad enough to encompass a large range of federal interests that can include environmental priorities. Again, FERC based the issuance on this order on its jurisdiction under Section 206 of the FPA to “ensure that the rates, terms and conditions of service provided by public utility transmission providers are just and reasonable and not unduly discriminatory or preferential.”²⁹⁰

More recently, in June of 2012, FERC issued a second relevant renewable energy rulemaking. FERC issued a final rule as a means of removing barriers to the integration of renewable energy, which it termed “variable energy resources.”²⁹¹ Renewable resources present a unique challenge for grid operators and suppliers due to their intermittent nature. FERC found that the existing rules have the potential to discriminate against renewable energy generators, triggering FERC’s duty to prevent “unjust or preferential rates.”²⁹² In a statement about the proposed rulemaking, FERC Chairman Jon Wellinghoff stated that it “will help to manage the cost-effective integration of variable energy resources into the grid and to meet the future’s other challenges in a way that maintains reliability.”²⁹³ Chairman Wellinghoff has stated:

Quite frankly, FERC is sort of operating independently of the electoral process. . . . We’ve been acting under our statutory federal authority to move forward toward what I see as our responsibilities under the Federal Power Act, and that is to ensure rates are just and reasonable. And part of that I see as improving efficiency and competition in the markets, and incorporating new resources into the markets, including

²⁸⁹ *Id.* at 66. Renewable portfolio standards are state mandates that requires utilities to obtain a specified percentage of their electricity from renewable energy sources.

²⁹⁰ *Id.* at 7.

²⁹¹ Integration of Variable Energy Resources, 77 Fed. Reg. 41,482, 41,515 (July 13, 2010) (to be codified at 18 C.F.R. pt. 35) (stating that FERC seeks to define a VER as “a device for the production of electricity that is characterized by an energy source that: (1) is renewable; (2) cannot be stored by the facility owner or operator; and (3) has variability that is beyond the control of the facility owner or operator”). The rule adopts two reforms from a November 2010 Notice of Proposed Rulemaking (NOPR) by requiring transmission providers to offer customers the option of scheduling transmission service at fifteen-minute intervals and by requiring generators using variable energy resources to provide transmission owners with certain data to support power production forecasting.

²⁹² 16 U.S.C. § 824e(a) (2006).

²⁹³ FERC, Statement of Chairman Wellinghoff on Integration of Variable Energy Resources NOPR (Nov. 18, 2010), *available at* <http://www.ferc.gov/media/statements-speeches/wellinghoff/2010/11-18-10-wellinghoff-E-1.asp>.

renewables and the demand side.²⁹⁴

B. EPA's Outlet on Pollution Control Limits

The second outlet for federal influence over the type of power generated is EPA's recent regulations regarding GHGs. A 2007 Supreme Court decision affirming the ability of EPA to regulate GHGs under the Clean Air Act²⁹⁵ set the course for a new era of Clean Air Act regulations specific to GHGs. Over the last five years, EPA has been feeling its way through this uncharted territory, starting with key regulatory findings that GHGs endanger the public welfare with respect to mobile sources,²⁹⁶ continuing with reporting regulations,²⁹⁷ specially tailoring existing regulations for new source controls to account for the unique character of GHGs,²⁹⁸ tightening fuel efficiency standards for the first time in 30 years,²⁹⁹ and most recently, proposing New Source Performance Standards for all fossil-fuel boilers.³⁰⁰

This most recent proposal may be the most indicative of EPA's ability to exert its influence over the type of electricity generated. EPA is required to establish emissions standards for industrial categories.³⁰¹ It defined the industrial category as "fossil-fuel-fired boilers," and determined that all fossil-fuel burning plants (whether they be coal, natural gas, or oil) must meet the emissions standard established by combined cycle natural gas plants.³⁰² This effectively mandates that all new fossil-fuel (i.e., nonrenewable) plants that will be constructed must be natural gas, resulting in a potential phase-out of coal and oil plants.³⁰³ Although

²⁹⁴ Peter Behr, *FERC Moves Ahead with Campaign To Promote Energy Efficiency and Renewable Energy*, N.Y. TIMES, Nov. 12, 2010, <http://www.nytimes.com/cwire/2010/11/12/12clim-atewire-ferc-moves-ahead-with-campaign-to-promote-en-22696.html?pagewanted=all>.

²⁹⁵ *Massachusetts v. EPA*, 549 U.S. 497, 528 (2007); *see also* *Coal. for Responsible Regulation v. EPA*, 684 F.3d 102 (D.C. Cir. 2012) (per curiam) (rejecting challenges to EPA's greenhouse gas regulations).

²⁹⁶ *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1).

²⁹⁷ *Mandatory Reporting of Greenhouse Gases*, 74 Fed. Reg. 56,260 (Oct. 30, 2009) (to be codified at 40 C.F.R. pts. 86, 87, 90, 94, 98, 1033, 1039, 1042, 1045, 1048, 1051, 1054, 1065).

²⁹⁸ *Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule*, 75 Fed. Reg. 31,514 (June 3, 2010) (to be codified at 40 C.F.R. pts. 51, 52, 70, 71).

²⁹⁹ *Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards; Final Rule*, 75 Fed. Reg. 25,324 (May 7, 2010) (to be codified at 40 C.F.R. pts. 85, 86, 600).

³⁰⁰ *Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units*, 77 Fed. Reg. 22,392 (Apr. 13, 2012) (to be codified at 40 C.F.R. pt. 60).

³⁰¹ 42 U.S.C. § 7411(d)(1) (2006).

³⁰² *Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Utility Generating Units*, 77 Fed. Reg. 22,392 (Apr. 13, 2012) (to be codified at 40 C.F.R. pt. 60).

³⁰³ EPA acknowledges that coal plants could satisfy the new standards with the installation of carbon capture and sequestration, a largely unproven technology on a commercial scale. *Id.*

not specifically mandating renewable energy, it reduces the likelihood that state PUCs will approve applications to construct new coal or oil power plants within their state borders.

C. Department of Interior's Outlet on Federal Lands

The third outlet for federal agency influence over the type of power generated is through the siting of renewable energy on federal lands. The Energy Policy Act of 2005 encourages agencies to site renewable energy projects on federal lands³⁰⁴ and subsequent executive orders added more teeth to this encouragement.³⁰⁵ As I have described elsewhere, the DOI, the agency that manages millions of acres of federal land in the United States, has taken many steps to implement these orders by fast-tracking siting of solar and wind projects on federal lands both onshore and offshore.³⁰⁶ As a result, over nine solar and twenty-five wind projects have been approved in recent years,³⁰⁷ with many more applications in the pipeline.³⁰⁸

In summary, although politics, special interests, moral commitments, federalism justifications, and a host of other factors contribute to these decisions, continued state control over the siting of electricity generation may be at least partially explained by the additional underappreciated variable of the availability of alternative outlets for federal control. This analysis suggests that even though there is an emerging national interest in the source of our electricity and some federalism justifications for more centralized authority, an active administrative agency is able to effect some of that national purpose on the margins through regulation.

It should be noted that such agency actions have the potential to backfire. Agency actions that affect the balance of power between the

³⁰⁴ See Federal Energy Management Program, *Energy Policy Act of 2005*, U.S. DEP'T OF ENERGY, <http://www1.eere.energy.gov/femp/regulations/epact2005.html#rer> (last visited July 1, 2012) (requiring that the federal government source increasing amounts of its electricity use from renewables but granting a "double credit bonus for Federal agencies if renewable electricity is produced on-site at a Federal facility, on Federal lands, or on Native American lands").

³⁰⁵ Exec. Order 13,423, 72 Fed. Reg. 3,919 (Jan. 26, 2007); Federal Energy Management Program, *Executive Order 13,423* U.S. DEP'T OF ENERGY, <http://www1.eere.energy.gov/femp/regulations/eo13423.html> (last visited Mar. 11, 2012). "By using renewable energy, Federal agencies increase national security, conserve natural resources, and meet regulatory requirements and goals." Federal Energy Management Program, *Renewable Energy*, U.S. DEP'T OF ENERGY, http://www1.eere.energy.gov/femp/technologies/renewable_energy.html (last visited Aug. 13, 2012).

³⁰⁶ See Amy Stein, *Renewable Energy Through Agency Action*, COLO. L. REV. (forthcoming 2013).

³⁰⁷ U.S. DEP'T OF THE INTERIOR & U.S.D.A., *NEW ENERGY FRONTIER: BALANCING ENERGY DEVELOPMENT ON FEDERAL LANDS* 14, 17 (2011), available at <http://www.doi.gov/whatwedo/energy/upload/NewEnergyFrontier050511.pdf>.

³⁰⁸ *Id.* at 17.

states and federal government have been under scrutiny for some time.³⁰⁹ Despite mandates from the Executive Branch to carefully consider the impacts on federalism prior to rulemaking, studies have revealed agency failures to comply.³¹⁰ In fact, the Administrative Conference of the United States recently recommended a number of procedures to better ensure agency compliance with Executive Orders mandating that the agencies ensure proper respect for federalism.³¹¹ As Professor Robert Percival has noted, “history also demonstrates that efforts to achieve federal goals will be thwarted if they are pursued without sensitivity to state and local concerns.”³¹²

Furthermore, greater federal involvement in renewables is dependent on the political preferences of the federal government at the time. As one scholar observed:

The political valences of national power and state autonomy constantly have shifted back and forth throughout our history. In the Progressive Era, liberals were often based in the states and distrusted federal (particularly federal judicial) power; in the 1960s and 1970s, the opposite was more often true. Prior to the Civil War, slaveholders relied on federal authority to recover escaped slaves, while more enlightened state governments in the North sought to preserve some modicum of due process for accused escapees. It is an ahistorical mistake to take the particular political patterns of the last third of a century for immutable structural truth. One simply cannot ascribe a reliable political tendency to federalism.³¹³

In much the same way, it would be a mistake to assume that federal agency actions with regard to electricity generation siting would necessarily result in the promotion of renewable energy. Just as the political valences of national power and state autonomy flip-flopped over time, the results of active federal agencies would likely flip-flop with the political parties in control of the various branches. Some have even argued that national efforts to enhance renewables can have unintended negative

³⁰⁹ Exec. Order No. 12,612, 3 C.F.R. 252 (1987); Exec. Order No. 13,132, 3 C.F.R. 206 (2000); ADMINISTRATIVE CONFERENCE OF THE UNITED STATES, ADMINISTRATIVE CONFERENCE RECOMMENDATION NO. 2010-1: AGENCY PROCEDURES FOR CONSIDERING PREEMPTION OF STATE LAW 1 (2010), available at <http://www.acus.gov/wp-content/uploads/downloads/2011/06/Recommendation-2010-1-Preemption.pdf> [hereinafter ADMINISTRATIVE CONFERENCE RECOMMENDATION].

³¹⁰ ADMINISTRATIVE CONFERENCE RECOMMENDATION, *supra* note 309, at 3.

³¹¹ *Id.*

³¹² Percival, *supra* note 43, at 1180.

³¹³ Ernest A. Young, *Welcome to the Dark Side: Liberals Rediscover Federalism in the Wake of the War on Terror*, 69 BROOK. L. REV. 1277, 1307–08 (2004) (citations omitted).

consequences.³¹⁴ One such consequence could be an increased reliance on cheaper fossil fuels to offset the more expensive renewables that might be required by federal mandates.

VII. CONTINUING PRESSURES ON THE PROPER BALANCE IN SITING REGIMES

Discussions about the proper balance of power in siting and other areas of the law are sure to continue. In the two areas where Congress took small steps towards preemption or federalization, telecommunications and electricity transmission, for instance, movements to enhance federal control continue. In 2009, the FCC issued a “Shot Clock” Rule³¹⁵ that further forced the hand of the local authorities to approve requests for tower siting more swiftly.³¹⁶ And in April 2011, the FCC reopened issues surrounding the proper balance of power over siting of wireless infrastructure. The FCC issued a Notice of Inquiry that it “intended to update [the FCC’s] understanding of current rights of way and wireless facilities siting policies.”³¹⁷ The FCC viewed the Inquiry as “a necessary step towards determining whether there is a need for coordinated national action to improve rights of way and wireless facilities siting policies, and if so, what role the Commission should play in conjunction with other stakeholders.”³¹⁸ Not surprisingly, local organizations spoke out against the expansion of the FCC’s authority over broadband and wireless facilities³¹⁹ while members of the telecommunications industry fully

³¹⁴ See Robert J. Michaels, *National Renewable Portfolio Standard: Smart Policy or Misguided Gesture?*, 29 ENERGY L.J. 79, 88 (2008) (arguing that a national RPS would not result in a net increase in employment as some have predicted because “[l]abor is [simply] reallocated to renewables” and workers “are paid with funds that households and businesses would have spent elsewhere”).

³¹⁵ *FCC Establishes Shot Clock for Tower Siting Applications*, GA. MUN. ASS’N (Dec. 15, 2009), <http://www.gmanet.com/MDR.aspx?CNID=45651>.

³¹⁶ *Id.* (citing Pub. L. No. 104-104, 110 Stat. 56 (1996) (amending Communications Act of 1934, 47 U.S.C. § 151 (1934)). This declaratory ruling clarified the TCA’s general directive to local zoning authorities to act “within a reasonable time” on requests for tower siting by establishing deadlines of 90 and 150 days for review of applications for wireless communication facilities including collocations and tower siting applications. Failure to act after these deadlines opens the door for legal action by the applicant against the local zoning authority. 47 U.S.C. § 332.

³¹⁷ FCC Notice of Inquiry, Docket No. 11-59, 5384, 5388 (Apr. 7, 2011), http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-11-51A1_Rcd.pdf.

³¹⁸ *Id.* at 5388; see also Acceleration of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, 76 Fed. Reg. 28,397 (May 17, 2011) (to be codified at 47 C.F.R. ch. 1).

³¹⁹ See PIEDMONT ENVTL. COUNCIL, COMMENTS ON THE FCC NOTICE OF INQUIRY REGARDING ACCESS TO PUBLIC AND PRIVATE RIGHTS-OF-WAY 1 (2011), available at <http://apps.fcc.gov/ecfs/document/view.action?id=7021692588> (questioning the FCC’s substitution of “zoning decisions, which are discretionary acts” with “right-of-way permits, which are ministerially granted”); see also Member Alert: Comments Due Sept. 30 on FCC Wireless Facility Siting Policy, ASS’N OF CAL. WATER AGENCIES, <http://acwa.symssoftsolutions.com/content/federal-relations/member->

supported the government's attempt to deploy broadband on a larger scale.³²⁰

On the electricity transmission side, the courts have significantly limited FERC's backstop authority.³²¹ In response, FERC indicated a "do it alone" attitude where it indicated that it was going to seek a delegation of authority from DOE to FERC to avoid having to engage in the legislative process.³²² For now, DOE rejected FERC's proposal to consolidate authority.³²³ Additionally, the DOI has made several efforts to expedite the siting of transmission lines.³²⁴ The National Commission on Energy Policy observed in 2006 that "energy-facility siting and permitting remains a major cross-cutting challenge for U.S. energy policy" and cited "processes in which local concerns trump broader regional or national objectives" as an obstacle to permitting and building major facilities where they are needed most.³²⁵ If interstate controversies become more commonplace, the

alert-comments-due-sept-30-fcc-wireless-facility-siting-policy (last visited Oct. 2, 2012) (disagreeing with the wireless communications industry's portrayal of local governments as an obstacle to expansion of broadband services).

³²⁰ Reply Comments of the National Telecommunications Cooperative Association at 2, In re Acceleration of Broadband Deployment: Expanding the Reach and Reducing the Cost of Broadband Deployment by Improving Policies Regarding Public Rights of Way and Wireless Facilities Siting, No. 11-59, (F.C.C. 2011), available at <http://ecfsdocs.fcc.gov/filings/2011/09/30/6016843616.html> (encouraging the FCC to use its authority "to regulate the public rights-of-way and wireless facilities siting process" and recommending that the FCC "open a Notice of Proposed Rulemaking . . . and explore further enforceable regulatory action").

³²¹ See *supra* notes 139–40 and accompanying text.

³²² See Peter Behr, *DOE Shelves Controversial Plan to Hand Off 'National Corridor' Power Line Role to FERC*, CLIMATEWIRE (Oct. 12, 2011), available at <http://www.eenews.net/climatewire/2011/10/12/archive/4?terms=DOE+shelves+controversial+plan> (reporting that the Department of Energy Secretary abandoned the Obama administration's proposal to delegate the authority to designate "National Interest Energy Transmission Corridors" to FERC).

³²³ *Id.*

³²⁴ Constrained by the FPA from making siting decisions on private land, the DOI has taken a much more active role in siting transmission lines on federal lands. Section 368 of the Energy Policy Act of 2005 directs the Secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to designate under their respective authorities corridors on federal land in eleven western states for oil, gas, and hydrogen pipelines, as well as electricity transmission and distribution facilities. WEST-WIDE ENERGY CORRIDOR PROGRAMMATIC EIS INFO. CTR., <http://corridoreis.anl.gov/> (last visited July 1, 2012). In 2011, DOI entered into a Memorandum of Understanding with several other federal agencies for the purpose of "expedit[ing] the siting and construction of qualified electric transmission infrastructure in the United States." MEMORANDUM OF UNDERSTANDING AMONG THE U.S. DEPARTMENT OF AGRICULTURE, DEPARTMENT OF COMMERCE, DEPARTMENT OF DEFENSE, DEPARTMENT OF ENERGY, ENVIRONMENTAL PROTECTION AGENCY, THE COUNCIL ON ENVIRONMENTAL QUALITY, THE FEDERAL ENERGY REGULATORY COMMISSION, THE ADVISORY COUNCIL ON HISTORIC PRESERVATION, AND DEPARTMENT OF THE INTERIOR, REGARDING COORDINATION IN FEDERAL AGENCY REVIEW OF ELECTRIC TRANSMISSION FACILITIES ON FEDERAL LAND 1 (2009), available at <http://www.whitehouse.gov/files/documents/ceq/Transmission%20Siting%20on%20Federal%20Lands%20MOU.pdf>. Under the MOU, DOI is the point of contact for companies applying for permits to build transmission lines on public lands and national forests. *Id.* at 9.

³²⁵ NAT'L COMM'N ON ENERGY POLICY, SITING CRITICAL ENERGY INFRASTRUCTURE: AN OVERVIEW OF NEEDS AND CHALLENGES 1 (2006), available at

push towards federal intervention may grow. But if states continue to voluntarily centralize the power over siting through regional organizations, the need for federal intervention may diminish. One study, conducted by Edison Electric Institute,³²⁶ forecasts that investor-owned utilities will invest approximately \$64 billion in future transmission systems through the year 2022.³²⁷

And for generation, states continue to chime in when agencies seem to exert their influence too close into their realm. Where the states feel threatened by federal actions, they are more likely to dig in their heels to oppose any tip in the balance of power. For example, when FERC issued its recent Order 1000, commenters raised concerns about its federalism impacts, making a point to reiterate that “the FPA gives the Commission no authority to determine what resources should be used by load-serving entities, regardless of whether or not those resources are needed to meet public policy requirements.”³²⁸ Others commented that “the Final Rule should make explicit that any provisions do not impede or interfere with state commission authority to accept or approve integrated resource plans, make decisions about generation, demand-side resources, resource portfolios, or to modify policy based on cost thresholds.”³²⁹ States have drawn a line in the sand about the inability of the federal government to affect directly the type of generation used by the states.

VIII. CONCLUSION

This Article provides a number of insights for continuing discussions about tips from state to federal control. For those resistant to tips from state to federal control, they should not take comfort in the fact that the area has “traditionally” been regulated at the local level. They should not be overconfident that the historical dominance of the states will be sufficient to thwart efforts to enhance federal power. More is needed to insulate state power from a tip toward enhanced federal control. Any potential dangers to the country should be minimized. The industry should

http://bipartisanpolicy.org/sites/default/files/Siting%20Critical%20Energy%20Infrastructure_448851db5fa7d.pdf.

³²⁶ Edison Electric Institute is the association of U.S. Shareholder-Owned Electric Companies. Its members serve 95% of the ultimate customers in the shareholder-owned segment of the industry, and represent 70% of the U.S. electric power industry. *About EEI*, EDISON ELEC. INST., <http://www.eei.org/whoweare/abouteei/Pages/default.aspx> (last visited July 1, 2012).

³²⁷ EDISON ELEC. INST., *TRANSMISSION PROJECTS: AT A GLANCE* iv (2012), available at http://www.eei.org/ourissues/ElectricityTransmission/Documents/Trans_Project_lowres.pdf.

³²⁸ *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, 76 Fed. Reg. 49,842, 49,872–73 (Aug. 11, 2011) (to be codified at 18 C.F.R. pt. 35).

³²⁹ *Id.* at 49,872. *But see id.* at 49,858 (stating that many commenters defended FERC’s jurisdiction, with one noting that “courts have consistently recognized the Commission’s need to adjust its regulation under the FPA to meet the changing needs of the industry”).

not complain about its diverse regulatory burdens. The states should collaborate to resolve any disputes. Sub-federal entities should work to streamline their permitting processes. There may even be some merit in allowing administrative agencies to exercise “creative” interpretations within their existing authority, even if they implicate the balance of power. Where these actions are taken with respect for state sovereignty, they may be able to alleviate growing tensions over national issues without warranting a congressional tip.³³⁰ But by the same token, pro-state authority advocates should highlight callous federal actions that fail to respect state sovereignty.

For those in support of tips towards more federal power, they should not be dissuaded by the fact that the area had traditionally been under the control of the sub-federal entities. It is also not enough to point to an outdated law that fails to conform to contemporary realities. It is not even enough that the area implicates interstate issues. More is needed to elicit a tip toward enhanced federal control. Any dangers posed to the country by leaving the issue in sub-federal hands should be emphasized. The regulated industry should coordinate and determine whether there is enough common ground to present a unified front. Interstate disputes, delays, and economic inefficiencies should be highlighted. Administrative agencies should refrain from “creative” interpretations within their existing authority that unduly disrupt the balance of power, highlighting any gaps in federal control. And perhaps most important, any move toward an enhanced federal role should be respectful of state sovereignty and craft a method of tipping that preserves as much local control as possible while effecting the changes needed.³³¹ In the end, although all of the regimes share traditionally local roots, federalism theory justifications arguing for both centralized and decentralized control, and complicated politics, the disparity in control may be distinguished based on the lack of alternative outlets for federal agencies to affect the earlier siting decisions and the multiple avenues that federal agencies have to affect the type of electricity

³³⁰ For instance, the language in the Telecommunications Act reveals a delicate balance between Congress’s desire to encourage the growth of the industry and efforts to avoid restricting state and local authority over siting of telecommunication towers. Eagle, *supra* note 111, at 463–64.

³³¹ Even where strong arguments can be made that an Administration desires a federal policy, however, the Supreme Court has noted that “desirability for a federal policy is not a sufficient reason to oust state regulation.” Philip J. Weiser, *Federal Common Law, Cooperative Federalism, and the Enforcement of the Telecom Act*, 76 N.Y.U. L. REV. 1692, 1735 (2001) (citing *Louisiana Pub. Serv. Comm’n v. FCC*, 476 U.S. 355, 370 (1986)). Furthermore, an assessment of “federal desirability” is complicated by the multi-faceted nature of the federal government. For instance, even though the Obama Administration desires renewable energy, Congress has recently proposed cuts to renewable subsidies and other incentives, which might argue against “federal desirability.” See Philip J. Weiser, *Chevron, Cooperative Federalism, and Telecommunications Reform*, 52 VAND. L. REV. 1, 34 (1999) (stating that in the absence of a “clearly superior” policy, Congress should not dictate to the states a particular approach to telecommunications regulation).

that is developed under state and local jurisdiction. Expanding future federalism discussions to include consideration of such variables can lead to a richer and more satisfying analysis.

