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Reconstituting the Federalism Battle in Energy Transportation

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RECONSTITUTING THE FEDERALISM BATTLE IN ENERGY TRANSPORTATION

Alexandra B. Klass & Jim Rossi***

This Article explores the growing federalism tensions arising from efforts to expand the nation's energy transportation infrastructure—the electric transmission lines, natural gas pipelines, natural gas import and export terminals, and related facilities that power the nation. It examines two controversial energy transport projects for the purpose of evaluating current barriers to more comprehensive energy infrastructure planning and implementation. The first project is the Plains & Eastern Clean Line—an interstate electric transmission line project designed to transport wind energy resources across several south-central states. The second project is the Constitution Pipeline—a natural gas pipeline designed to transport new natural gas resources from the Marcellus Shale region of Pennsylvania to New York. The federal-state tensions associated with these projects highlight how a fixation on establishing clear jurisdictional lines between federal and state authority in energy infrastructure approval processes has failed to provide an adequate framework for addressing today's energy needs. These projects also show that these federalism battles manifest themselves in similar ways regardless of whether the states are the primary decision-makers—as is the case with interstate electric transmission lines—or whether federal agencies are the primary decision-makers—as is the case with interstate natural gas pipelines.

Drawing from these illustrations, we evaluate how reforms to the governmental approval processes for energy transport projects can result in more efficient decision-making that can lead to more rapid integration of diverse energy resources and implementation of new energy technologies. We conclude that federal regulators—historically much more attuned to federal and national energy needs in making project approval decisions—can benefit substantially from taking a more proactive approach towards state interests and concerns associated with multistate energy transport projects in cases where federal authority preempts state authority. Such reforms can in turn prompt state regulators to articulate state and local land use and environmental concerns in the early stages of the project review process, better ensuring that these impacts are more fully vetted and addressed prior to federal approvals. Moreover, a more proactive approach by regulators and project proposers can help to diffuse interest group behavior that tends to limit the ability of regulators to fully consider regional and national needs as well as environmental concerns in energy transportation approval, regardless of whether the primary decision-maker is a state or a federal agency.

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INTRODUCTION

In March 2016, the U.S. Department of Energy (“DOE”) agreed to partner with a private, merchant electric transmission line company, Clean Line Energy Partners,¹ to construct a high-voltage, direct current electric transmission line.² DOE’s decision was based on section 1222 of the Energy Policy Act of 2005 (“EPAAct 2005”), a previously unused provision of law that may grant the federal government the authority to approve an interstate electric transmission line, even over the objection of a state regulator.³ For years, sponsors of the Plains & Eastern Clean Line, which would transport wind power more than 700 miles from western Oklahoma to the Arkansas-Tennessee border, had been unable to obtain all the required approvals for the project from state regulators, primarily because Arkansas regulators had determined that Clean Line Energy Partners was not a traditional public utility and thus was not able to

1. *See About Clean Line Energy*, CLEAN LINE ENERGY PARTNERS, <https://perma.cc/5ABU-5HMV>; *Projects*, CLEAN LINE ENERGY PARTNERS, <https://perma.cc/VB6V-47GU>.

2. *Plains & Eastern Clean Line Transmission Line*, U.S. DEP’T OF ENERGY, <https://perma.cc/FX37-G96M>; *Plains & Eastern Clean Line*, CLEAN LINE ENERGY PARTNERS, <https://perma.cc/4RPS-BALL>.

3. *See Plains & Eastern Clean Line Transmission Line*, U.S. DEP’T OF ENERGY, *supra* note 2.

establish sufficient in-state “need” for the line. Interstate electric transmission line projects, like the Plains & Eastern Clean Line, are difficult to build because state law rather than federal law controls the approval process, subject to a few, narrow exceptions that Congress created in 2005.⁴ As a result, any project developer proposing a multistate electric transmission line must obtain approvals from two or more state regulators rather than from a single federal regulator. By granting Clean Line’s application to partner with DOE, the agency used its federal authority in section 1222 to override those barriers presented by this multistate project, allowing Clean Line to work with DOE to build the line despite a state holdout.

In April 2016, the New York State Department of Environmental Conservation denied Water Quality Certification under section 401 of the Clean Water Act (“CWA”) for the Constitution Pipeline, a 125-mile interstate natural gas pipeline proposed by energy infrastructure giant Williams Partners,⁵ to transport natural gas from resource-rich areas of Pennsylvania through New York State.⁶ This denial is notable because the Federal Energy Regulatory Commission (“FERC”) had already granted a certificate of public convenience and necessity for the pipeline under the Natural Gas Act of 1938.⁷ In the 1930s, Congress transferred all siting⁸ and eminent domain authority for interstate natural gas pipelines from the states to FERC’s predecessor, the Federal Power Commission (“FPC”).⁹ Thus, unlike the approval process for interstate electric transmission lines, the congressionally adopted framework for interstate natural gas pipeline siting and eminent domain leaves limited opportunity for states to control whether and where to build such pipelines within their bor-

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4. Beyond the exceptions created in the EPAAct 2005, federal authority over interstate electric transmission lines has generally been limited to the portions of those lines that cross federal lands and the approval of transmission lines to connect federal hydropower facilities to the electric grid. See *infra* notes 93–96 and accompanying text.
 5. *Our Company*, WILLIAMS, <https://perma.cc/JS8N-FHFU>.
 6. See *New York State Department of Environment Conservation Denies Water Quality Certificate Required for Constitution Pipeline*, N.Y. DEP’T OF ENVTL. CONS. (Apr. 22, 2016), <https://perma.cc/2QMJ-2GKV>; *Constitution Committed to Building Federally Approved Pipeline, Delivering Energy Savings and Environmental Benefits to Northeast U.S.*, CONSTITUTION PIPELINE (Apr. 25, 2016), <https://perma.cc/JA4B-AL92>.
 7. 15 U.S.C. §§ 717c, 717f(c)–(h) (2012).
 8. When we refer to the “siting” of a pipeline or an electric transmission line, we mean the state or federal regulatory approval of the pipeline or transmission line, through the issuance of a certificate of need, certificate of public convenience and necessity, or similar approval mechanism.
 9. This policy change was made because state legislatures and regulatory agencies had blocked several interstate natural gas pipelines from Oklahoma and Texas to East Coast cities, leading to natural gas shortages and industry layoffs and shutdowns. Alexandra B. Klass, *The Electric Grid at a Crossroads: A Regional Approach to Siting Transmission Lines*, 48 U.C. DAVIS L. REV. 1895, 1906–07 (2015).

ders.¹⁰ This makes New York's effort to use its CWA to stop the Constitution Pipeline—a decision that the pipeline's sponsors called “unprecedented,”¹¹ and that could be repeated in other controversial natural gas pipeline cases—even more significant than DOE's efforts to approve the Plains & Eastern Clean Line.¹²

This Article explores how these two distinct regulatory decisions stem from similar tensions and, despite different statutory frameworks, can best be addressed with similar legal solutions. Both regulatory actions occurred against the backdrop of a rapidly changing domestic energy supply landscape that experts and policymakers could not and did not contemplate even a decade ago. Since 2007, the U.S. hydraulic fracturing boom has opened up vast, low-cost natural gas resources in Pennsylvania and other states that had not been major energy-producing centers for over a century.¹³ During this same time period, utility-scale wind energy grew dramatically in the Midwest and Plains states, and dropped so significantly in cost that it is competitive with traditional fossil fuel electric energy resources in many parts of the country.¹⁴ The abundance of these new energy resources in new locations has led private investors to explore the development of new energy transport infrastructure necessary to move these new energy resources to where they are needed.

As these current controversies illustrate, the federal government faces considerable pressure from energy suppliers, consumers, and infrastructure project developers (and in the case of the Plains & Eastern Clean Line, from clean energy advocates) to help facilitate the means of transporting these new domestic energy resources. For both projects, there is also an equally forceful resistance to new energy infrastructure from some private property owners, states, and environmental advocates, primarily out of concern that these multistate transportation projects could unduly interfere with private property rights or

10. *Id.*

11. *Constitution Pipeline Refused Water Permit by New York Regulator*, SHALE GAS INT'L (Apr. 27, 2016), <https://perma.cc/AC2W-Q4NT>.

12. As explained later in the Article, DOE's ability to rely on section 1222 of EPA Act 2005 to approve an electric transmission line project is limited to certain western states. By contrast, a state's ability to deny water quality certification under the CWA applies to any FERC-approved natural gas pipeline throughout the country. See *infra* notes 97–114, 156–59 and accompanying text.

13. See, e.g., Jenny Mandel, *2017 Will Bring Fundamental Natural Gas Market Shift*, EIA Says, ENERGYWIRE (July 13, 2016) (discussing significant rise in U.S. natural gas production and exports as a result of hydraulic fracturing technology and the permitting and construction of new export facilities to meet demand).

14. See Katie Fehrenbacher, *Wind Now Competes with Fossil Fuels. Solar Almost Does.*, FORTUNE (Oct. 6, 2015), <https://perma.cc/M6NX-P6BL>; see also LAZARD, LAZARD'S LEVELIZED COST OF ENERGY ANALYSIS VERSION 10.0 (2016), <https://perma.cc/VXW4-PNQQ> (showing that utility-scale wind and solar energy is cost competitive with fossil fuel energy resources to generate electricity).

state environmental resources. For instance, in New England, the region's natural gas suppliers have relied on more expensive imported natural gas transported by ship from the Caribbean to meet consumer demand because of local opposition to new pipeline infrastructure that could transport less expensive natural gas from the Marcellus Shale region in Pennsylvania.¹⁵ This has resulted in new federalism conflicts between federal regulators and state legislatures and agencies. The federalism tension presented by energy transportation projects is hardly novel. But the current demand to transport new energy supply resources to customers, coupled with the emergence of new market actors (such as merchant transmission line companies), presents new pressure points and has led to renewed efforts by regulators, interested parties, and courts to better demarcate these jurisdictional battle lines to favor either state or federal authority to make regulatory siting determinations.

Efforts to address these tensions are critical for the energy industry, environmental advocates, and the public. In the natural gas pipeline context, it will be difficult for electric utilities to replace coal-fired generation with gas-fired generation at a reasonable cost in regions of the country that do not have natural gas resources without expanded pipeline infrastructure. As for the electricity sector, it will be difficult if not impossible to integrate large percentages of utility-scale wind and solar energy into the nationwide electric grid without long-distance, interstate transmission lines to transport these renewable energy resources from where they can be generated in the Midwest and Plains States to population centers.¹⁶ Moreover, even putting renewable energy needs aside, the grid is in need of expansion to address congestion and aging infrastructure, and to meet ongoing reliability concerns.¹⁷ Finally, the federalism battles over these projects are a harbinger of the difficulties to come in any future efforts to pursue large infrastructure projects beyond pipelines and transmission lines, such as intra-city or inter-city rail expansion.

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15. *To Avoid Pipelines, New England Favors Imported Fuel*, ENERGYWIRE (July 13, 2016).
 16. See, e.g., Herman K. Trabish, *Utility Wind Rush Set to Strengthen as Low Prices Allow Resource to Spread Across Nation*, UTILITYDIVE (Mar. 16, 2017), <https://perma.cc/7CML-3ZJ7> (reporting on rapid growth of wind energy generation but noting that transmission capacity remains a significant constraint on growth and that “[j]ust as transmission capacity can be a wind enabler, the lack of it can be an impediment to deployment”).
 17. See, e.g., AM. SOC’Y OF CIV. ENG’RS, 2017 INFRASTRUCTURE REPORT CARD, ENERGY 2 (2017), <https://perma.cc/RWK3-MT5R> (giving a D+ grade to the nation’s energy infrastructure, reasoning that the grid is decades old, in need of replacement, and that lack of adequate capacity “raises concerns with distribution, reliability, and cost of service, producing constraints for delivering power from remote generation sites, specifically from renewable sources, to consumers”). *But see* Steve Huntoon, *Electric Infrastructure: Sky Keeps Not Falling*, RTO INSIDER, Apr. 18, 2017 (arguing that the American Society of Civil Engineers report is wrong in concluding that the electric grid is at risk of a failure and citing data showing significant long-term investments in the grid).

The regulatory actions associated with the Plains & Eastern Clean Line and the Constitution Pipeline have already led to protracted litigation, as well as renewed calls for reform of energy infrastructure siting regimes. They have encouraged interest groups to entrench their respective positions in favor of state or federal regulatory power. They also have thwarted comprehensive and efficient energy planning, and have stood in the way of greater integration of new technologies and more diverse energy resources.¹⁸ The Plains & Eastern Clean Line and Constitution Pipeline projects thus provide ideal case studies for exploring contemporary federalism disputes in energy transportation and evaluating approaches to resolving them. As we will argue, these disputes illustrate that the focus on using either federal or state law solutions to resolve these disputes simply misses the mark. Regulatory solutions to these kinds of disputes will depend on a more nuanced set of regulatory tools for evaluating state and national interests concerning new energy infrastructure—interests that neither federal nor state law is equipped to address on its own. Ultimately, we conclude that federal regulators—which have historically been much more attuned to regional and national energy needs in making project siting decisions—have a statutory responsibility to be proactive in addressing state and local interests and concerns associated with multistate energy transport projects in cases where federal siting authority overrides that of the states, as in the case of interstate natural gas pipelines. Likewise, state regulators, along with private project sponsors, also have opportunities to take additional actions to better facilitate the collection of economic and environmental data on particular project routes and other local land use concerns and ensure that data is part of a federal record for review and decision.

Part I of this Article compares and contrasts the federalism balance Congress struck for approving interstate natural gas pipelines and interstate electric transmission lines. One might assume that both types of interstate energy transport projects are subject to a federal approval process because of their interstate nature (similar to the interstate highway system), but for historical reasons, they are subject to very different approval regimes under separate statutes. This distinction has important implications today, when more infrastructure projects are needed to integrate new sources of energy supply, such as wind and

18. For example, these battles are taking place during a time when gas and electricity markets are increasingly connected because of the growing dominance of natural gas in the electricity sector. As recently as 1990, coal provided approximately 53% of U.S. electricity production and natural gas provided only 12%. By contrast, in 2016, coal provided just over 30% of U.S. electricity production and natural gas provided nearly 34%. See *What is U.S. Electricity Generation by Energy Source?*, U.S. ENERGY INFO. ADMIN., <https://perma.cc/8MDT-ENFY>; see also ADAM SIEMINSKI, U.S. ENERGY INFO. ADMIN., ANNUAL ENERGY OUTLOOK 2017, at 30 (2017), <https://perma.cc/3LKY-KAU3> (showing that natural gas-fired electricity generation surpassed coal-fired electricity generation in 2016).

solar energy, into interstate energy markets and to facilitate greater deployment of new technologies, like utility-scale battery storage.

Part II discusses legal developments in the federal approval process for interstate natural gas pipelines, and shows how these developments have impacted the current disputes over the Constitution Pipeline project in New York. It then explores the laws governing interstate electric transmission lines, and shows how those developments have impacted the current disputes over the Plains & Eastern Clean Line project. A review of these two projects shows that the arguments in favor of each project focus on the multistate, regional, and national benefits associated with low-cost natural gas and low-cost wind energy, while the arguments against each project focus on private property rights and impacts on local environmental and aesthetic resources. Part II also evaluates how congressional efforts to shift the federalism balance are at the source of both disputes. In the case of the Plains & Eastern Clean Line, section 1222 of the EPOA 2005 created new authority for DOE to partner with certain private transmission line projects and, to some extent, override state primacy in the field of electric transmission line siting and approval in certain parts of the country.¹⁹ In the case of the Constitution Pipeline, section 401 of the CWA gives states a potential veto point over projects, despite federal primacy in the field of natural gas pipeline siting and approval.²⁰

We believe that these current federalism skirmishes foreshadow continued battles between the states and the federal government over energy transport infrastructure projects. We also think that, under existing law, courts are ill-equipped to solve these entrenched jurisdictional disputes on their own. It is a feature of federalism that some legal battles just cannot be won by focusing on jurisdictional lines, no matter how hard they are fought. Rather, these struggles should lead federal agencies, states, and project proposers to re-evaluate regulatory review and approval of these types of interstate infrastructure projects. Part III demonstrates the process and legal benefits of procedural reforms to energy project permitting. Based on the case studies in this Article, we advocate for a more proactive role by federal and state agencies, as well as private project sponsors, to help ensure early and full evaluation of federal, state, and local concerns within existing regulatory frameworks. To the extent that federal agencies proactively solicit and consider state concerns and interests in siting proceedings and begin to ensure that data developed by states concerning environmental impacts is considered part of the record for permitting decisions, this holds promise to improve the efficiency and quality of agency decisions, reduce the likelihood of reversal by courts, and diffuse the most obstructionist interest group behaviors. Perhaps more than any past disputes, these most recent con-

19. 42 U.S.C. § 16421 (2012); *infra* notes 156–59 and accompanying text.

20. 33 U.S.C. § 1341 (2012); 15 U.S.C. § 717b(d) (2012); *infra* notes 97–114 and accompanying text.

flicts present an opportunity for a constitutive transformation towards a more collaborative siting process that recognizes more integrated rules for both regulators and project sponsors in addition to supporting a more comprehensive assessment of a project's benefits and burdens.

I. CONVENTIONAL BATTLE LINES FOR APPROVAL OF INTERSTATE ENERGY TRANSPORTATION INFRASTRUCTURE

Although interstate natural gas pipelines and interstate electric transmission lines are both necessary to transport energy supply resources from production sites to distribution points, the regulatory structure governing approval for building each type of infrastructure differs, primarily for historical reasons. This Part begins with a discussion of the events leading up to the Natural Gas Act of 1938, which transferred siting and eminent domain authority for interstate natural gas pipelines from the states to FERC's predecessor agency, the FPC, in order to allow consideration of national need rather than solely in-state need for any particular interstate pipeline. It then discusses the contrasting situation of siting and eminent domain authority for interstate electric transmission lines. Unlike interstate natural gas pipelines, most interstate electric transmission lines are subject solely to state law approval often based primarily on an evaluation of the in-state need for the line rather than regional or national need.

A. *The Federalization of Interstate Natural Gas Pipeline Siting*

Natural gas is a fossil fuel—originating from the remains of plants and animals buried and compressed underground for millions of years—that is trapped in layers of rocks.²¹ Natural gas was first discovered in the United States in the mid-1800s.²² By the early 1920s, large natural gas reserves had been discovered in Texas, Oklahoma, Kansas, and Louisiana, leading to significant growth (as well as consolidation) of the natural gas industry.²³ Concerns about monopoly power in the natural gas industry led Congress to adopt the Natural Gas Act of 1938, which created federal authority in the FPC to regulate natural gas prices and sales and established a federal process—the federal certificate of public convenience and necessity (“certificate”)—for the approval and siting of interstate natural gas pipelines.²⁴ Several years later, Congress expanded federal jurisdiction to include eminent domain authority for these interstate natural gas

21. *Background*, NATURALGAS.ORG, <http://perma.cc/H58C-NX4J>. Natural gas is an odorless, colorless liquid made up of hydrocarbons—primarily methane—but also containing ethane, butane, and propane. *Id.*

22. *History*, NATURALGAS.ORG, <https://perma.cc/GQ7L-3NJY>.

23. CHRISTOPHER J. CASTANEDA, *INVISIBLE FUEL: MANUFACTURED AND NATURAL GAS IN AMERICA, 1800–2000*, at 84 (1999).

24. 15 U.S.C. §§ 717c, 717f(c)–(h); *see also* CASTANEDA, *supra* note 23, at 107.

pipelines when states, influenced by coal and railroad interests, refused to grant eminent domain authority to interstate natural gas pipelines delivering gas to the East Coast.²⁵

Under section 7 of the Natural Gas Act, a company must obtain a certificate from FERC to construct, extend, acquire, or operate any facility to transport or sell natural gas in interstate commerce.²⁶ The provision applies to interstate natural gas pipelines (as well as related facilities, such as compressor stations), authorizing FERC to issue the certificate after notice, a hearing, and a determination that the company is “able and willing to comply” with the applicable federal regulations governing pipelines, and the pipeline “is or will be required by the present or future public convenience and necessity.”²⁷ FERC may attach “reasonable terms and conditions” to the certificate, either by issuing a “blanket” certificate which allows the company to construct the pipeline and engage in other activities without seeking further FERC approval or by conditioning approval on future events.²⁸ Pursuant to a 1999 FERC policy statement, FERC’s certificate evaluation considers “the enhancement of competitive transportation alternatives, the possibility of overbuilding, the avoidance of unnecessary disruptions of the environment, and the unneeded exercise of eminent domain.”²⁹ Although this evaluation takes the impact on state environmental resources into account, the primary focus of the analysis is on multistate regional or national “need” for the project rather than the specific impact on the states in which the pipeline travels, since natural gas markets are not contained within a single state’s borders. Moreover, in 1988, the U.S. Supreme Court confirmed that the Natural Gas Act occupies the field of interstate natural gas rates, facilities, and sale of natural gas, thus preempting state law.³⁰

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25. Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947, 994–99 (2015) (discussing the history behind the enactment of the Natural Gas Act and transfer of authority over interstate natural gas pipeline siting and eminent domain from the states to the FPC in 1947).
 26. 15 U.S.C. § 717f(c)(1)(a).
 27. 15 U.S.C. §§ 717f(c)–717f(e); see also BRANDON MURRILL, CONG. RESEARCH SERV., R44432, PIPELINE TRANSPORTATION OF NATURAL GAS AND CRUDE OIL: FEDERAL AND STATE REGULATORY AUTHORITY 2 (2016).
 28. 15 U.S.C. § 717f(e); 18 C.F.R. §§ 157.203, 157.206, 157.208; see also *N. Nat. Gas Co. v. Iowa Utils. Bd.*, 377 F.3d 817, 819 (8th Cir. 2004) (explaining FERC blanket certificates). All such activities must be consistent with federal environmental statutes such as the Clean Air Act (“CAA”), the CWA, and the Coastal Zone Management Act. See *infra* Part II.A.
 29. Certification of New Interstate Natural Gas Pipeline Facilities, 88 FERC ¶ 61,227 (Sept. 15, 1999). This policy statement was further clarified in 2000. Certification of New Interstate Natural Gas Pipeline Facilities, 92 FERC ¶ 61,094 (July 28, 2000). See also *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1309 (D.C. Cir. 2015).
 30. See *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293, 306–08 (1988); see also *Myersville Citizens for a Rural Cmty., Inc.*, 783 F.3d at 1315 (citing *Schneidewind*, 485 U.S. at 306–08); *N. Nat. Gas Co.*, 377 F.3d at 821–23 (finding that FERC’s extensive environmental standards for granting certificates for interstate natural gas pipelines preempt any more stringent

Thus, as a result of the Natural Gas Act of 1938 and subsequent court decisions interpreting it, FERC has plenary authority over siting and eminent domain for interstate natural gas pipelines and associated infrastructure, leaving the states with minimal authority over those projects and relegating them primarily to intervenor status. Accordingly, states can participate in the certificate process and appeal to the courts in the event of a decision adverse to state interests, but cannot generally override the grant of a certificate.³¹

Nevertheless, Congress, and FERC itself, have left some room for state regulation. First, in the EPAct 2005, discussed in more detail below, Congress enacted a savings clause which protects states' "rights" from preemption under three federal environmental statutes—the CWA, the Clean Air Act ("CAA"), and the Coastal Zone Management Act.³² Each of these statutes delegates authority to states to either (1) obtain federal approval for state environmental standards to be implemented as part of the federal review of a project (e.g., State Implementation Plans that the U.S. Environmental Protection Agency ("EPA") approves under the CAA and federally approved Coastal Zone Management Plans under the Coastal Zone Management Act) or (2) impose state conditions on federal permits (i.e., the section 401 state water certification process under the CWA). These federal statutes are unique in that they encourage federal-state cooperation by transforming what would otherwise simply be state regulations or conditions into federal standards that apply to the project subject to federal approval.³³ In other words, these federal environmental laws provide states "with the option of being deputized regulators under the authority of federal law."³⁴ But apart from these three statutes that delegate federal authority to the states and are subject to the Natural Gas Act savings clause, state envi-

state environmental standards). Federal law can preempt state law under the Supremacy Clause of the U.S. Constitution when Congress expressly states that it intends to preempt state regulation (express preemption), when Congress regulates so pervasively that it creates an inference that Congress left no room for state law (implied field preemption), or if state regulations conflict with federal law, even if Congress has not completely occupied the field (implied conflict preemption). *See id.* at 821.

31. MURRILL, *supra* note 27, at 3–5.

32. 15 U.S.C. § 717b(d).

33. *Myersville Citizens for a Rural Cmty., Inc.*, 783 F.3d at 1315 (discussing savings clause); MURRILL, *supra* note 27, at 4.

34. *See* *Islander E. Pipeline Co., LLC v. Conn. Dep't of Env'tl. Prot.*, 482 F.3d 72, 89 (2d Cir. 2006); *see also* *Islander E. Pipeline Co., LLC v. Conn. Dep't of Env'tl. Prot.*, 525 F.3d 141, 143 (2d Cir. 2008) ("[T]he Clean Water and Coastal Zone Management Acts are notable in effecting a federal-state partnership to ensure water quality and coastal management around the country, so that state standards approved by the federal government become the federal standard for that state.").

ronmental regulations that might go beyond the requirements of a FERC certificate are preempted.³⁵

Second, FERC itself has stated that even though the Natural Gas Act and FERC regulations “generally preempt state and local law,” FERC encourages applicants “to cooperate with state and local agencies with regard to the siting of pipeline facilities, environmental mitigation measures, and construction procedures.”³⁶ According to FERC, despite the preemptive effect of the Natural Gas Act, “as a matter of policy” and “in part to implement the National Environmental Policy Act,”³⁷ FERC requires applicants to cooperate with state and local authorities “through conditions placed in newly issued certificates of public convenience and necessity.”³⁸ But FERC was careful to note that this encouragement of federal-state cooperation “does not mean that state and local agencies, through application of state and local laws, may prohibit or unreasonably delay the construction of facilities approved by this Commission.”³⁹ Thus, while FERC encourages federal-state cooperation, to the extent there is a conflict between state and federal law, or state law interferes or unreasonably delays the construction of a project with a certificate, the certificate trumps state and local laws.⁴⁰

The fact that federal law rather than state law governs the construction of interstate natural gas pipelines has allowed the natural gas industry to significantly expand the infrastructure necessary to meet increased production when necessary. For instance, between 1950 and the 1980s, U.S. natural gas production grew significantly with the discovery of new natural gas reserves and new technological developments.⁴¹ Because of a streamlined federal siting process, pipeline companies were able to triple and quadruple their capacity to meet the demand created by new supplies. The same was true beginning in the late 2000s, with the advent of hydraulic fracturing, which allowed natural gas companies to access massive new reserves of natural gas trapped in shale rock in Pennsylvania, Texas, Oklahoma, and other states. Between 2000 and 2011,

35. *See N. Nat. Gas Co.*, 377 F.3d at 824 (holding that regulations imposed by the Iowa Utilities Board requiring particular recovery of agricultural land after natural gas pipeline developments were preempted by the Natural Gas Act).

36. *Maritimes & Ne. Pipeline, LLC*, 80 FERC ¶ 61,166, 61,729 (1997) (quoting *Iroquois Gas Transmission Sys., L.P.*, 59 FERC ¶ 61,094, 61,346 (1992)).

37. *Maritimes & Ne. Pipeline, LLC*, 80 FERC at 61,730.

38. *N. Nat. Gas Co.*, 377 F.3d at 823.

39. *Maritimes & Ne. Pipeline, LLC*, 80 FERC at 61,479 n.40; *N. Nat. Gas Co.*, 377 F.3d at 823.

40. *See N. Nat. Gas Co.*, 377 F.3d at 823–24; *see also* MURRILL, *supra* note 27, at 3 (“In the past, FERC has apparently taken the view that state or local laws that affect siting of an interstate natural gas pipeline facility might not be preempted unless they conflict with FERC’s exercise of its jurisdiction under federal law or would pose an obstacle to the facility’s construction.”).

41. *Klass & Meinhardt*, *supra* note 25, at 998–99.

pipeline companies built 14,600 miles of interstate natural gas pipelines, and twice as much transmission capacity was added to the U.S. natural gas pipeline network in 2008 as in 2007.⁴² A 2013 Government Accountability Office report concluded that, based on industry statistics, most interstate natural gas pipelines can obtain approval within a year and be built and put into operation soon after that.⁴³ Moreover, in the EPAAct 2005, Congress created new processes to streamline and expedite the construction of natural gas infrastructure. The new law made FERC the lead agency for federal environmental review of pipeline projects, granted FERC exclusive authority to review and approve liquefied natural gas (“LNG”) import and export terminals (which are used to transport natural gas across oceans in liquefied form stored in tankers), and, as discussed in more detail in Part II, granted a right of immediate appeal to the federal circuit courts for any action by states to block a pipeline project FERC has approved.⁴⁴

Thus, with a few exceptions discussed above and in Part II, the federal government, through FERC, has exclusive siting and eminent domain authority over interstate natural gas pipelines. Although states may comment on and participate in the federal process, they possess limited independent authority to say “no” to a federally-approved project or its routing. For many decades, this sweeping federal authority over natural gas pipeline approval and routing was not particularly controversial. Expanding natural gas pipeline infrastructure allowed for increased supplies of natural gas across the country, leading to lower gas prices for heating and, in more recent years, allowed natural gas to replace coal as the dominant fuel to generate electricity. Although the production of natural gas, particularly via hydraulic fracturing, can have significant adverse environmental and land use impacts, its displacement of coal has allowed the United States to reduce its contribution to global greenhouse gas (“GHG”) emissions even while the economy grew. This is because even though there are significant GHG emissions associated with the production of natural gas, the use of natural gas in power plants to generate electricity produces far fewer GHG emissions than the equivalent amount of energy produced in coal-fired power plants.⁴⁵

42. INTERSTATE NAT. GAS ASS'N OF AM. FOUND., NORTH AMERICAN NATURAL GAS MID-STREAM INFRASTRUCTURE THROUGH 2035: A SECURE ENERGY FUTURE 8–9 (2011); PAUL W. PARFOMAK, CONG. RESEARCH SERV., INTERSTATE NATURAL GAS PIPELINES: PROCESS AND TIMING OF FERC APPLICATION REVIEW 8 (2015).

43. See PARFOMAK, *supra* note 42, at 8.

44. *Id.*; MURRILL, *supra* note 27; MICHAEL RATNER ET AL., CONG. RESEARCH SERV., U.S. NATURAL GAS EXPORTS: NEW OPPORTUNITIES, UNCERTAIN OUTCOMES 3–5 (2015); Alexandra B. Klass, *Future-proofing Energy Transport Law*, WASH. U. L. REV. (forthcoming 2017) (discussing clarification by Congress in EPAAct 2005 that FERC, rather than the states, have exclusive siting authority over LNG import and export terminals).

45. LINCOLN L. DAVIES ET AL., ENERGY LAW AND POLICY 126–27 (2015).

But in recent years, environmental advocates have partnered with landowners to pressure state and local governments to oppose the development of all fossil fuels, including natural gas, in favor of renewable energy alternatives.⁴⁶ Opponents to these projects have focused on the climate change impacts of fossil fuels as well as the water pollution and adverse land use impacts associated with both natural gas and oil pipelines. Controversy over the Keystone XL oil pipeline and the Dakota Access pipeline has drawn particular attention to the role energy transport infrastructure can play in facilitating the increased production and use of fossil fuels, and throughout the 2010s there has been a well-coordinated effort to more broadly oppose all fossil fuel infrastructure projects.⁴⁷ This opposition has been more challenging in the natural gas context than the oil context because FERC is more difficult to influence on a project-by-project basis than a state legislature or state public utility commission that has jurisdiction over interstate oil pipelines but not interstate natural gas pipelines. Some environmental groups have even accused FERC of harboring institutional bias in favor of approving pipeline projects and against any sort of comprehensive environmental review of pipelines.⁴⁸ Due to such concerns, pressure is growing, leading to new legal efforts to create cracks in the federal process attempting to streamline new natural gas transport infrastructure.⁴⁹

B. *State Primacy in Interstate Electric Transmission Line Siting*

The history and current status of siting and eminent domain for interstate electric transmission lines is quite different from that of interstate natural gas

46. See Hannah Northey, *Developers Face "New Reality" of Protests, Longer Reviews*, GREENWIRE (June 3, 2016), <http://perma.cc/R843-LL5K> (discussing recent delays in FERC approval process for interstate natural gas pipelines in part due to increasing numbers of applications and in part due to increased opposition by landowners and environmental groups requiring additional environmental review by FERC).

47. Klass, *supra* note 44; see, e.g., Robinson Meyer, *Donald Trump and the Order of the Pipelines*, THE ATLANTIC (Jan. 25, 2017), <http://perma.cc/ZJF4-A7CW>; Darran Simon & Elliott C. McLaughlin, *Keystone and Dakota Access Pipelines: How Did We Get Here?*, CNN (Jan. 25, 2017), <http://perma.cc/9U76-F862>.

48. See "Institutional" Bias Lead to FERC Approvals—*Enviros*, ENERGYWIRE (Mar. 6, 2017), <http://perma.cc/25FN-ZY7W>. As the Delaware Riverkeeper Network noted in a brief filed with the D.C. Circuit, "[T]he commission, PennEast, the United States, and amici collectively cannot cite a single instance in the last 30 years that refutes plaintiffs' allegation that the commission has a 100 percent voting record for approving natural gas pipeline projects, that the commission has never issued an environmental assessment recommending further environmental review, or that the commission has never granted a rehearing request of a nonindustry party." Keith Goldberg, *FERC Pipeline Powers Cause Actionable Harm*, *Enviros Say*, LAW360 (June 8, 2016), <http://perma.cc/3DSB-L6LH>.

49. See generally *infra* notes 169, 197–99, 289 (discussing EPA and environmental interest group pressures on FERC).

pipelines—exhibiting an institutional bias in favor of states rather than the federal government in project siting.

At the time Congress was creating federal authority over the natural gas industry and natural gas transport infrastructure in the 1930s, the nation's electric grids remained fairly localized. At the turn of the twentieth century, Westinghouse and General Electric—the first public utilities founded by George Westinghouse and Thomas Edison with the later help of Samuel Insull—used the electric transmission technology they developed to begin to transmit power longer distances.⁵⁰ Between 1893 and 1903, transmission distances grew from two miles to over one hundred miles. Cities like Philadelphia consolidated neighborhood electric companies into a single utility.⁵¹ Both municipally owned utilities and private utility companies began to achieve economies of scale and increased efficiency, and linked steam turbines and hydropower generation facilities to provide greater amounts of power to customers over longer distances with greater reliability.⁵²

By the 1920s, utilities across the country were constructing interstate electric transmission lines in addition to intrastate lines, and state public utility commissions began to regulate electricity rates in exchange for granting utilities monopolies over designated service territories to reduce overbuilding of infrastructure and increase efficiencies.⁵³ In 1927, the Supreme Court declared that the dormant Commerce Clause of the U.S. Constitution prevented states from regulating interstate sales of electricity because of the threat of discrimination against out-of-state interests and declared that only Congress could fill the regulatory gap (known as the “Attleboro gap” after the Supreme Court’s decision).⁵⁴ This holding led Congress to enact the Federal Power Act of 1935, in which it granted the FPC jurisdiction over the sale of wholesale electricity in interstate commerce and the transmission of electricity in interstate commerce, and required the agency to ensure that prices set for these transactions were nondiscriminatory and “just and reasonable.”⁵⁵ At the time, however, there was not the same urgency to create federal authority over interstate electric transmission lines. Most transmission lines were fairly localized and owned by state regulated

50. Klass, *supra* note 9, at 1909–13.

51. *Id.*

52. *Id.*

53. See, e.g., DAVIES ET AL., *supra* note 45, at 310–11, 317–18 (explaining the “regulatory compact” between electric utilities and states, whereby the utility receives an exclusive service territory free from competition in exchange for allowing the state to regulate prices and services); JIM ROSSI, REGULATORY BARGAINING AND PUBLIC LAW 1–27 (2005) (describing the history, evolving scope, and legal significance of the regulatory compact in the electric power sector).

54. Pub. Util. Comm’n v. Attleboro Steam & Elec. Co., 273 U.S. 83, 89–90 (1927); see also New York v. FERC, 535 U.S. 1, 5–8 (2002) (describing Attleboro gap and congressional response); FERC v. Elec. Power Supply Ass’n, 136 S. Ct. 760, 767, 780–81 (2015).

55. Federal Power Act, 16 U.S.C. § 824 (2012); New York v. FERC, 535 U.S. at 5–8.

public utilities. Throughout the 1900s, these grids were interconnected, but most lines were designed to serve a single utility's customers (either in-state or in adjoining states) or in some cases crossed a single state border to connect with a utility in a neighboring state.⁵⁶

Moreover, electric generating plants powered by coal, nuclear energy, or natural gas (which could be transported to the generating plants by railroad, truck, ship, or pipeline), could be constructed near population centers, and thus did not require electric transmission lines that crossed multiple state borders. As for hydropower, although investor-owned public utilities utilized (and continue to utilize) this renewable resource where it was and is plentiful (such as in the Pacific Northwest), the federal government, through the Bureau of Reclamation and the U.S. Army Corps of Engineers, constructed the bulk of the nation's major hydropower facilities and related infrastructure.⁵⁷ Thus, there was no real need in the early part of the twentieth century for private, investor-owned utilities to build long-distance transmission lines that crossed multiple states, and thus no real pressure on Congress to displace state jurisdiction over such lines in favor of a single, federal approval process. In other words, the economic and geographic demands on the natural gas system in the early twentieth century described in Part I.B that drove a shift from state to federal siting authority for interstate natural gas pipelines did not exist in the electricity sector at that time. This time period, of course, particularly the New Deal period of the 1930s and 1940s, was precisely the time when Congress was most open to expanding federal authority in many areas of the U.S. economy.⁵⁸ Because state laws were blocking the expansion of natural gas infrastructure during that time, but not electricity infrastructure, the New Deal expansion of federal authority in general was implemented strongly in the area of natural gas transportation but not in the area of electricity transportation.⁵⁹

It was not until the latter part of the twentieth century—long after the New Deal era of federal regulatory expansion was over—that pressure began to build on the interstate electric grid, and the limitations of leaving interstate electric transmission line siting and eminent domain authority to the states became more evident. This process began with the Public Utility Regulatory Policies Act of 1978, in which Congress required for the first time that investor-owned utilities purchase power from alternative generators—most notably, renewable energy generators—at the same price it would cost the utility to gener-

56. Klass, *supra* note 9, at 1915–16.

57. KELSI BRACMORT, ADAM VANN & CHARLES STERN, *HYDROPOWER: FEDERAL AND NONFEDERAL INVESTMENT* 1–5 (2015).

58. Alexandra B. Klass & Elizabeth J. Wilson, *Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch*, 65 *VAND. L. REV.* 1801, 1862–63 (2012).

59. *Id.*

ate its own power.⁶⁰ However, utilities did not necessarily want to grant access to electric transmission lines (which they controlled) to alternative power generators. This resistance led to a series of FERC orders in the 1990s and 2000s that required utilities to grant “open access” to the transmission grid at nondiscriminatory prices published in advance in “transmission tariffs” and imposed new requirements on investor-owned utilities and other transmission owners to engage in regional planning processes for new transmission.⁶¹ Congressional legislation and FERC orders during this time also authorized and encouraged the creation of “regional transmission organizations” (“RTOs”) and “independent system operators” (“ISOs”)—nonprofit entities that utilities and other transmission providers may join—that manage the transmission of interstate electricity through the transmission lines, substations, and other physical transmission-related assets of their members.⁶² Many RTOs also run organized wholesale electricity markets within their regional footprints.⁶³ These regional organizations operate an interconnected interstate transmission grid, facilitating the delivery of bulk power over a large multistate area⁶⁴ that includes more than 60% of the U.S. power supply.⁶⁵

Also during the 1990s and 2000s, as states enacted renewable portfolio standards (“RPSs”) mandating that utilities and other electricity providers generate or purchase a certain percentage of electricity from renewable energy sources, the cost of non-hydropower renewable energy began to drop.⁶⁶ These

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60. Alexandra B. Klass & Jim Rossi, *Revitalizing Dormant Commerce Clause Review for Interstate Coordination*, 100 MINN. L. REV. 129, 145 (2015) (discussing FERC orders).
 61. *Id.* at 147–48.
 62. *Id.* at 141–42, 147–48. Although RTOs and ISOs oversee the day-to-day operation of electric transmission lines and coordinate the planning of new transmission lines within their footprints, the power to actually approve the construction of these lines remains with the states.
 63. *Id.* For a summary of the geographic areas covered by RTOs, see *Regional Transmission Organizations (RTO)/Independent System Operators (ISO)*, FERC, <http://perma.cc/HX7A-EZ9H>; see also *Electric Power Markets: National Overview*, FERC, <http://perma.cc/5ET9-LYH9>.
 64. Grid reliability is based on the resilience of grid assets within three large “interconnections” within the United States—one covering the United States approximately east of the Rocky Mountains (the Eastern Interconnection), another covering the United States approximately west of the Rocky Mountains (the Western Interconnection), and a separate interconnection for Texas (the Electric Reliability Council of Texas or “ERCOT”). See *Learn More About Interconnections*, U.S. DEP’T OF ENERGY, <http://perma.cc/2PUY-8HNT>; see also *North American Electric Reliability Corporation Interconnections*, U.S. DEP’T OF ENERGY, <http://perma.cc/Z9RW-HWFF>.
 65. See *About 60% of the U.S. Electric Power Supply is Managed by RTOs*, U.S. ENERGY INFO. ADMIN. (Apr. 4, 2011), <http://perma.cc/G7UJ-K2EE>.
 66. See generally Klass, *supra* note 44 (discussing trends in electric energy resources); see also Ann C. Mulkern, *Utility Nears Hitting 33% Green Power Mandate*, ENERGYWIRE (Mar. 17, 2017), <https://perma.cc/T9J4-QGG5> (reporting that California’s largest utility, Pacific Gas & Electric, delivered nearly 33% of its electricity from wind, solar, geothermal, biomass, and

laws were prompted by concerns over the electric power sector's contribution to global climate change (constituting over 30% of U.S. GHG emissions—the largest single contributor), new technological and market pressures, and efforts to promote economic development in rural areas (where wind turbines and solar farms are often sited).⁶⁷ In some states, as a result of RPSs, non-hydropower renewable energy sources such as wind and solar generate more than 20% of electricity needs.⁶⁸ On a nationwide basis, that percentage is more modest but increasing: not quite 9% non-hydropower renewable energy generation in 2016, compared to approximately 2% prior to 1990.⁶⁹ Still, the falling costs of renewable energy production, coupled with favorable tax incentives and ample supplies (at least in some areas) means the potential exists for much more significant growth.⁷⁰ But renewable energy resources bring additional challenges to the electric transmission grid. Unlike coal, uranium, or natural gas, which can be transported through existing energy transport pathways such as ships, trucks, and pipelines, renewable energy can, for the time being, only be transported via electric transmission lines and cannot be stored for later use.⁷¹ And like natural gas, renewable energy resources, particularly wind energy, are not evenly distributed throughout the country. For instance, the best wind generation re-

small-scale hydroelectric resources in 2016, coming very close to meeting its 2020 RPS mandate of 33% renewable energy).

67. See, e.g., CLEAN ENERGY STATES' ALLIANCE, *THE STATE OF STATE RENEWABLE PORTFOLIO STANDARDS* (2013); *State Renewable Portfolio Standards and Goals*, NAT'L COUNCIL OF STATE LEGISLATURES, <http://perma.cc/Z6T2-RFMQ>; Lincoln L. Davies, *State Renewable Portfolio Standards: Is There a "Race" and Is It to "the Top"?*, 3 SAN DIEGO J. CLIMATE & ENERGY L. 3 (2011–12).
68. See, e.g., Daniel Cusick, *Midwestern States Now Get a Fifth of Their Power from Wind*, CLIMATEWIRE (Mar. 7, 2017), <http://perma.cc/9MUT-EHFY> (discussing surge in investment in U.S. wind power and the fact that several Midwestern states now produce over 20% of their electricity from wind energy).
69. Klass, *supra* note 9, at 1931–35; Klass, *supra* note 44; see also *What is U.S. Electricity Generation by Energy Source?*, U.S. ENERGY INFO. ADMIN., <http://perma.cc/NT7N-CKWN>; *Electricity*, U.S. ENERGY INFO. ADMIN., <https://perma.cc/33S2-9KLN> (forecasting that non-hydropower renewable energy will grow to 9% of total electricity generation in 2017 and 10% in 2018). At the end of 2016, wind energy alone surpassed hydropower for the first time as the largest source of renewable electricity. Diane Cardwell, *Capacity of Wind Power Surpasses Hydroelectric*, N.Y. TIMES, Feb. 9, 2017, at B2.
70. Klass, *supra* note 9, at 1931–35.
71. This limitation on renewable energy may change if grid-scale and distribution-level battery storage technologies become commercially viable, allowing wind and solar energy to be stored for later use when the wind is not blowing and the sun is not shining. See Diane Cardwell & Clifford Krauss, *A Big Test for Big Batteries*, N.Y. TIMES (Jan. 14, 2017), <https://perma.cc/9L5S-6JNH>; Paolo D'Aprile et al., *The New Economics of Energy Storage*, MCKINSEY & CO. (Aug. 2016), <https://perma.cc/MB53-3GAD>.

sources are located in the middle of the country far from population centers and from existing long-distance, high-voltage electric transmission infrastructure.⁷²

These factors have created new incentives for the construction of long-distance, high-voltage transmission lines to bring renewable energy to population centers, along with new market actors, such as merchant transmission line companies.⁷³ For instance, Clean Line Energy Partners, a merchant transmission line company, has proposed five separate high-voltage direct current (“HVDC”) transmission lines across the Midwest and Southwest to bring wind power to population centers.⁷⁴ The U.S. electric grid was built using high-voltage alternating current (“AC”) transmission lines (meaning that the voltage and the current on those lines oscillates in a wave-like pattern), because the technology did not exist to efficiently convert the high voltages traveling on direct current (“DC”) lines to the lower voltage necessary for use in homes and businesses.⁷⁵ Today though, HVDC lines can move large amounts of power long distances more efficiently than AC lines and with less “line losses” as the electricity travels over the line.⁷⁶

However, states, public utilities, and other competing sources of electricity generation have often opposed these new, interstate transmission lines.⁷⁷ Some state public utilities and state legislatures see no significant in-state benefits to

72. DENNIS ELLIOTT ET AL., NAT’L RENEWABLE ENERGY LAB., 80 AND 100 METER WIND ENERGY RESOURCE POTENTIAL FOR THE UNITED STATES (2010), <https://perma.cc/ZK6U-ETDE>.
73. Unlike public utilities which receive a regulated, cost-based rate of return from electricity customers on transmission line projects and other investments, merchant transmission companies assume the risk of the project and obtain revenue solely from contracts they sign with electricity generators to transmit electricity over the line. See Heidi Wertz, *Let’s Make a Deal: Negotiated Rates for Merchant Transmission*, 28 PACE ENVTL. L. REV. 421, 424 n.13 (2011).
74. See *Projects*, CLEAN LINE ENERGY PARTNERS, <http://perma.cc/YRZ2-GRWH> (showing map of projects).
75. See Patrick J. Kiger, *High-Voltage DC Breakthrough Could Boost Renewable Energy*, NAT’L GEOGRAPHIC NEWS (Dec. 7, 2012), <http://perma.cc/35UC-D926>.
76. See Klass, *supra* note 9, at 1928; *How HVDC Works*, CLEAN LINE ENERGY PARTNERS, <http://perma.cc/NG22-EWNT>; SIEMENS, FACT SHEET: HIGH-VOLTAGE DIRECT CURRENT TRANSMISSION (HVDC) 2 (2014), <http://perma.cc/YK8C-TVR6>; *Rise of the Supergrid*, THE ECONOMIST (Jan. 14, 2017) (explaining benefits of HVDC transmission lines for long distances).
77. See, e.g., *Morgan Stanley Capital Grp., Inc. v. Pub. Util. Dist. No. 1*, 554 U.S. 527, 535–36 (2008) (“Historically, electric utilities had been vertically integrated monopolies. For a particular geographic area, a single utility would control the generation of electricity, its transmission, and its distribution to consumers. Since the 1970’s [sic], however, engineering innovations have lowered the cost of generating electricity and transmitting it over long distances, enabling new entrants to challenge the regional generating monopolies of traditional utilities.”) (citations omitted); Klass & Rossi, *supra* note 60, at 201–17 (discussing state laws that create barriers to new transmission market entrants in favor of in-state, incumbent public utilities).

those lines, especially to the extent that they would carry electricity that is not intended for use by their citizens, would impact private property rights, or would interfere with scenic values or environmentally sensitive areas.⁷⁸ Indeed, many state public utilities commissions (“PUCs”), state legislatures, and state courts have rejected interstate transmission lines designed to serve out-of-state or national electricity needs as opposed to exclusively (or at least primarily) in-state needs.⁷⁹ Likewise, public utilities do not necessarily want competing transmission lines, and would prefer to build any lines in their territories so as to obtain rate recovery from retail customers for the new transmission assets (at least in traditionally regulated states).⁸⁰ Incumbent public utilities have convinced some states to enact “right of first refusal” laws to grant the utility the initial option to build a transmission line before the option is given to non-utility transmission market actors.⁸¹ In sum, particularly in regions not part of RTOs, public utilities may have reduced incentives to build the type of long-distance interstate transmission lines required to bring wind or solar energy to population centers several states away, and any utility-initiated transmission build-out is often focused on improving reliability of the existing grid within the utilities’ more limited service territories.⁸²

Finally, although public utilities in traditionally regulated states also maintain significant generation assets, with some exceptions, those consist primarily of coal, natural gas, and nuclear facilities. Although some public utilities are increasingly building their own new wind and utility-scale solar plants, they often choose instead to enter into power purchase agreements (“PPAs”) with

78. Klass & Rossi, *supra* note 60, at 181–84.

79. *Id.*

80. About half the states are traditionally regulated—meaning that utilities own generation assets and also sell electricity at retail to customers within a state-granted monopoly area of the state—and about half are “restructured”—meaning that utilities provide transmission and distribution services, but do not own generation capacity and, in some cases, must compete with other retail electricity providers to sell energy services. In traditionally regulated states, utilities obtain state-approved rate recovery from utility customers for generation, transmission, and distribution investments, while in restructured states, utilities obtain rate recovery solely for transmission and distribution investments. *See, e.g.*, DAVIES ET AL., *supra* note 45, at 426–30; SEVERIN BORENSTEIN & JAMES BUSHNELL, ENERGY INST. AT HAAS, THE U.S. ELECTRICITY INDUSTRY AFTER 20 YEARS OF RESTRUCTURING (2015), <http://perma.cc/9SES-AY3G>; REGULATORY ASSISTANCE PROJECT, ELECTRICITY REGULATION IN THE US: A GUIDE 7–15 (2011); *see generally* U.S. DEP’T OF ENERGY, A PRIMER ON ELECTRIC UTILITIES, DEREGULATION, AND RESTRUCTURING OF U.S. ELECTRICITY MARKETS (2002), <http://perma.cc/FPY5-4HPR>.

81. Klass & Rossi, *supra* note 60, at 193–94; *see also* James J. Hoecker & Douglas W. Smith, *Regulatory Federalism and Development of Electric Transmission: A Brewing Storm?*, 35 ENERGY L.J. 71, 88–90 (2014).

82. *See* Brian Eckhouse & Joe Ryan, *Tapping Wind Power of Great Plains to Light Faraway Cities*, DAILY ENV’T REP. (BNA) No. 28, at A-10, Feb. 10, 2016, <http://perma.cc/P3DW-RR9T>.

independent power producers to meet some or all of any requirements they have under state RPSs or otherwise add renewable energy to their generation portfolios.⁸³ Without their own wind or utility-scale solar assets, there may be less incentive for utilities to build the high-voltage, long-distance electric transmission lines that are critical to the viability of large renewable energy projects, but are less necessary to meet the needs of retail customers. Moreover, a major, interstate electric transmission line often takes a decade to plan, obtain all state approvals, and address any legal challenges to eminent domain authority, in advance of construction, if it can be built at all.⁸⁴ For instance, the CapX2020 project in the Mid-Continent Independent System Operator (“MISO”) RTO⁸⁵ has been held up as a model of several utilities working together for over a decade to plan and build a series of interstate electric transmission lines to integrate more renewable energy into the electric grid as well as increase reliability

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83. See, e.g., Trabish, *supra* note 16 (reporting that regulated and unregulated utilities played an increased ownership role in wind project development in 2016, holding at least partial ownership in approximately 50% of the projects that went online that year, and that this trend “is expected to continue into 2017, with utilities of all types expanding their investments in wind energy through PPAs or direct ownership”); Peter Maloney, *Xcel Energy Seeks to Add 1,500 MW of Wind Power*, UTILITYDIVE (Sept. 23, 2016), <https://perma.cc/4MUB-8BZ6> (discussing Xcel Energy 2016 request for proposals for wind energy and stating that “typically Xcel has contracted for wind power using PPAs from third-party suppliers, but going forward the company says it plans to own and operate more wind farms”); Mike Hughlett, *Xcel Unveils New Phase of Wind Power Construction, with Huge Plant in South Dakota*, STAR TRIBUNE (Mar. 17, 2017), <https://perma.cc/FR79-NPX3> (reporting on several new Xcel Energy large-scale wind energy projects in multiple states, some of which Xcel will own and place in its rate base and others which will be owned by third parties with Xcel instead purchasing the energy under PPAs); Mark Chediak, *Trump’s Coal Promise Faces a Test from “Monstrous” Wind Farms*, ENV’T REP. (BNA) No. 11 (Mar. 16, 2017) (describing Moody’s Investors Service report on how economic forces are resulting in wind energy replacing coal, stating that “U.S. utilities are increasingly seeking to build wind power instead of buying it, even in the absence of state mandates on renewable energy” and that “[p]ower companies see investments in the renewable resource as an opportunity to grow earnings, lower electric bills and offer more clean power”).
84. JUDY W. CHANG & JOHANNES P. PFEIFEINBERGER, THE BRATTLE GROUP, WELL-PLANNED ELECTRIC TRANSMISSION SAVES CUSTOMER COSTS: IMPROVED TRANSMISSION PLANNING IS KEY TO THE TRANSITION TO A CARBON-CONSTRAINED FUTURE 4 (2016) <https://perma.cc/5S65-BYP4>; Klass, *supra* note 9, at 1928–29 & n.171; John Fialka, *Promoters of Cleaner Electric Grid Zapped by Roadblocks*, E&E NEWS (Sept. 8, 2016), <https://perma.cc/H2GN-DMLA> (discussing long delays in obtaining approvals for long-distance electric transmission lines).
85. *Electric Power Markets: Midcontinent (MISO)*, FERC (Mar. 10, 2016), <http://perma.cc/N546-JWSE>. The CapX2020 transmission lines were part of MISO’s Multi-Value Project (“MVP”) transmission expansion that was subject to challenge by Illinois and several utilities on how MISO planned to spread the costs of the expansion among its member transmission owners. FERC approved MISO’s cost allocation approach, and the U.S. Court of Appeals for the Seventh Circuit affirmed FERC’s decision. See *Ill. Commerce Comm’n v. FERC*, 721 F.3d 764 (7th Cir. 2013).

in the region.⁸⁶ Notably, a project like CapX2020 is the exception, rather than the rule, and even that project took more than a decade to come to fruition.⁸⁷

Thus, by the dawn of the twenty-first century, the U.S. electric grid had evolved from localized, primarily state-based grids, to three large regional electric grids.⁸⁸ Additionally, with growing concern over the electricity sector's contribution to global climate change, there has been pressure at the state and federal levels to reduce the use of coal-fired generation in favor of natural gas (made cost competitive by hydraulic fracturing after 2007) and renewable energy resources.⁸⁹ The United States fairly quickly has been able to replace significant amounts of coal-fired generation with natural gas due to increasing supplies, decreasing prices, and the ability to rapidly expand the natural gas transportation system through federal siting procedures for interstate natural gas pipelines, including expedited "pre-filing" procedures.⁹⁰ By contrast, the limitations of the existing electric transmission grid; the concentration of wind energy in the Midwest and utility scale solar energy in the Southwest; and state siting and eminent domain barriers to new, long-distance transmission lines have limited the ability of the nation to integrate more renewable energy into the grid.⁹¹ Indeed, experts contend that more interstate, regional transmission planning and construction is not only more cost-effective, but is necessary in light of the aging grid (most of which was built in the 1960s and 1970s), the need for increased reliance on renewable energy resources (which require a

86. MARTA C. MONTI ET AL., U. OF MINN. HUMPHREY SCH. OF PUB. AFF., TRANSMISSION PLANNING AND CAPX2020, at x-xii (2016), <http://perma.cc/Z6NF-5VHZ>.

87. *See id.* at 58.

88. *See supra* note 64, and accompanying text (explaining the three U.S. interconnections).

89. *See* Klass, *supra* note 9, at 1931-35.

90. *See, e.g.*, MURRILL, *supra* note 27, at 2-8 (comparing the federal siting and eminent domain processes for interstate oil pipelines and interstate natural gas pipelines and concluding that lack of a federal process for interstate oil pipelines may make it more difficult for pipeline companies to obtain all necessary approvals, "particularly when strong opposition from local landowners and the public exists," as compared with interstate natural gas pipelines); PARFOMAK, *supra* note 42, at 1-9 (discussing FERC's pre-filing procedures to expedite the interstate natural gas certificate review process and finding that the FERC process takes about a year for pre-filed projects). *But see* Northey, *supra* note 46 (citing industry figures that the time from application through construction and operation of an average interstate natural gas pipelines has grown from three years to four years based on increasing environmental and landowner opposition to such projects); *supra* note 41-44 and accompanying text (discussing rapid interstate natural gas pipeline expansion after 2007).

91. BIPARTISAN POLICY CTR., CAPITALIZING ON THE EVOLVING POWER SECTOR: POLICIES FOR A MODERN AND RELIABLE U.S. ELECTRIC GRID 28-29 (2013); James J. Hoecker & Douglas W. Smith, *Regulatory Federalism and Development of Electric Transmission: A Brewing Storm?*, 35 ENERGY L.J. 82, 86-88 (2014) (discussing state siting barriers to interstate transmission projects); Klass, *supra* note 9, at 1924-25; *see also* Richard Martin, *Getting Cheap Wind Power Where It's Needed Shouldn't Be This Hard*, MIT TECH. REV. (Apr. 25, 2016), <http://perma.cc/3BDY-UY6J>.

larger footprint to address variability limitations), and the fact that transmission projects require as long as a decade to plan and construct.⁹² As a result, just as changes in attitudes toward natural gas pipelines have created new pressures on FERC to take state concerns into account in the natural gas pipeline siting process, the same pressures have been building in reverse in the case of interstate electric transmission lines—to better recognize federal and regional electricity needs against the backdrop of a state-based siting process. These pressures and responses to them are discussed in Part II.

II. CRACKS IN THE FOUNDATION: STATE PRESSURE ON NATURAL GAS PIPELINE SITING AND FEDERAL PRESSURE ON INTERSTATE TRANSMISSION LINE SITING

By the latter part of the twentieth century, the conventional framework for energy transportation infrastructure siting reflected a clear division of authority: federal law, through FERC, governed siting and eminent domain for interstate natural gas pipelines and state law was the primary vehicle for addressing siting and eminent domain for interstate electric transmission lines.

There were some limited exceptions to these general rules, at least in the case of electric transmission lines. First, if an electric transmission line crossed federal lands, then the federal government, generally the Bureau of Land Management within the U.S. Department of the Interior, reviewed and approved that portion of the line.⁹³ But almost all lines that cross federal lands also cross non-federal lands, and in those instances, a state siting permit from one or more states, and if necessary, state eminent domain authority, would still be required. Second, the hydropower provisions of the Federal Power Act provide that federal law governs certain transmission lines necessary to connect federal hydropower projects to the electric grid.⁹⁴ Last, there were a few instances in the last few decades where Congress specifically provided funding or authorization for a federal power marketing administration (“PMA”) to build a line to improve the transmission grid or enhance the distribution of existing federal electric generation sources.⁹⁵ In those situations where Congress had directed a

92. See, e.g., CHANG & PFEIFEINBERGER, *supra* note 84; see also U.S. DEP’T OF ENERGY, REDUCING WIND CURTAILMENT THROUGH TRANSMISSION EXPANSION IN A WIND VISION FUTURE, at iv–v (2017), <http://perma.cc/A57M-S46W> [hereinafter “REDUCING WIND CURTAILMENT”] (finding that electric transmission expansion is “critical” to greater integration of renewable energy resources and will provide “substantial health, environmental, and economic benefits”).

93. Klass, *supra* note 9, at 1918.

94. See 16 U.S.C. § 797(e) (2012); see also Hoecker & Smith, *supra* note 91, at 82–83.

95. The main purpose of a PMA is to market wholesale power from federal hydropower facilities that are generally owned by the U.S. Bureau of Reclamation and other federal agencies. See *Federal Power Marketing Administrations Operate Across Much of the United States*, U.S. ENERGY INFO. ADMIN. (June 12, 2013), <http://perma.cc/77UZ-YC8X> (describing the PMAs and showing map of PMA territories). PMAs also play a significant role in transmission and

PMA to study, fund, or build a particular electric transmission project, federal courts have held under the Supremacy Clause of the U.S. Constitution that state siting permits and eminent domain authority were not required to build those lines.⁹⁶ But these exceptions have always been narrow: for the vast majority of energy transportation projects, the general regulatory framework is based on the conventional division between federal and state authority with virtually complete federal authority for siting natural gas pipelines and virtually complete state authority for siting electric transmission lines.

Beginning in the latter part of the twentieth century, however, this conventional division of authority began to unravel. Political pressure built first, in favor of the states and environmental protection concerns in the 1970s. Then, as the nation faced increasing concerns over reduced domestic oil and gas supplies, energy security, and a vulnerable transmission grid in the mid 2000s, the pendulum swung back in favor of an expanded role for federal authority in both natural gas and electricity infrastructure, as described in the sections below.

A. Federal Environmental Legislation and Expansion of State Authority over Federal Energy Projects

The traditional story told in connection with the environmental movement of the 1970s and the explosion of federal environmental laws at that time is that the states were, for the most part, not doing enough to protect the nation's waters, air, and natural resources from pollution, and thus Congress enacted the CAA, CWA, and a host of other environmental laws to provide federal standards to address pollution, and entrusted EPA with the regulatory authority over these new laws. This story is in large part accurate. But what this narrative often misses is that these same federal environmental protection laws also contained provisions to allow states to exercise greater authority over federal energy

electric power systems within their regions. *See id.* Four PMAs—the Bonneville Power Administration (“BPA”), the Western Area Power Administration (“WAPA”), the Southeastern Power Administration (“SEPA”), and the Southwestern Power Administration (“SWPA”)—sell electricity from federally owned hydropower facilities in thirty-three states (mostly outside the northeast and Midwest states) and some PMAs operate electric transmission systems within those regions. *See id.* Together, the four PMAs sell approximately 40% of the nation's hydroelectricity generation. *See id.*

96. *See, e.g.,* *Citizens & Landowners Against the Miles City/New Underwood Powerline v. U.S. Dep't of Energy*, 683 F.2d 1171, 1178 (8th Cir. 1982) (holding that WAPA need not seek a state siting permit prior to building a transmission line in South Dakota based on federal statutes authorizing DOE, through the federal power agencies, to plan and build transmission lines to implement federal electricity policies and programs); *United States v. 14.02 Acres of Land More or Less in Fresno Cty.*, 547 F.3d 943, 953–54 (9th Cir. 2008) (holding that WAPA was not required to comply with California siting and eminent domain laws when it partnered with investor-owned utilities to build transmission lines to address transmission constraints and to facilitate increased power sales between California and the Pacific Northwest region).

projects in order to protect state air quality, water quality, and coastal zones. Indeed, in the area of federal energy projects (such as federal dams and hydro-power projects) and federally approved energy projects (such as FERC-approved interstate natural gas pipelines or private hydropower projects), the concern was that the federal government was compromising environmental protection in favor of competing energy goals. In these circumstances, the states, rather than a federal agency, were potentially in the best position to review, question, and, at the extreme, block such projects unless state environmental protection conditions were met.

For example, section 401 of the CWA grants states the power to ensure that projects that require federal CWA permits meet state water quality standards by essentially giving states veto power over projects that may threaten the state's water supply.⁹⁷ Congress's purpose in enacting the CWA was to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" with a goal of realizing "water quality which provides for the protection and propagation of fish, shellfish, and wildlife."⁹⁸ The Act was aimed at addressing national pollution broadly, but Congress also recognized the unique ability of state and local authorities to protect their natural resources on a more local level.⁹⁹ Thus, section 401 of the CWA was intended to "continu[e] the authority of the State . . . to act to deny a permit and thereby prevent a Federal license or permit from issuing to a discharge source within such State."¹⁰⁰ Indeed, Senator Ed Muskie stated that the rationale behind section 401 was to ensure that:

No polluter will be able to hide behind a Federal license or permit as an excuse for a violation of water quality standard[s]. No polluter will be able to make major investments in facilities under a Federal license or permit without providing assurance that the facility will comply with water quality standards. No State water pollution control agency will be confronted with a *fait accompli* by an industry that has built a plant without consideration of water quality requirements.¹⁰¹

Under section 401, an "applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable water[s]" must obtain certification from the state that the project will comply with relevant provisions of the Act, including water quality standards established by the

97. 33 U.S.C. § 1341(a) (2012).

98. *Pub. Util. Dist. No. 1 v. Wash. Dep't of Ecology*, 511 U.S. 700, 704 (1994) (citing 33 U.S.C. § 1251(a), (a)(2)).

99. See Angus E. Crane, *Who's in Charge Here? An Analysis of the Enforcement of State Water Quality Certification Standards*, 1 *WIS. ENVTL. L.J.* 89, 92 (1994).

100. *S.D. Warren Co. v. Me. Bd. of Env'tl. Prot.*, 547 U.S. 370, 380 (2006) (quoting S. REP. NO. 92-414, at 69 (1971) (Conf. Rep.)).

101. *Id.* at 386 (quoting 116 CONG. REC. 8984 (1970)).

state.¹⁰² Section 401 thus gave states the authority to veto federally approved projects that would result in discharges to state waters by denying water quality certification or, in the alternative, granting certification with particular conditions imposed on projects to protect state water quality.¹⁰³

States have been active in using section 401 to block projects or impose conditions on projects in order to protect states' water resources and the U.S. Supreme Court has supported the states in their efforts. For instance, in 1994, in *PUD No. 1 v. Washington Department of Ecology*,¹⁰⁴ the Supreme Court reviewed whether a state environmental agency could impose minimum stream flow requirements on a federally approved hydropower facility.¹⁰⁵ The Court determined that this was a valid exercise of power Congress had delegated to state regulators under the CWA. It reasoned that once the existence of a discharge has been established, thus invoking the section 401 certification requirement, a state may "impose 'other limitations' on the project in general to assure compliance with various provisions of the CWA and with 'any other appropriate requirement of State law.'"¹⁰⁶ Over a decade later, in 2006, the Court reaffirmed a broad reading of section 401 in *S.D. Warren Co. v. Maine Board of Environmental Protection*.¹⁰⁷ In that case, the Court held that a state may impose certain stream flow requirements on the relicensing of a hydroelectric dam because the common understanding of "discharge" includes releases from dams, thereby invoking the certification provision.¹⁰⁸

While many of the lawsuits concerning section 401 certification have involved hydropower facilities, states increasingly are also invoking this same provision of the CWA to protect their waterways from a wider array of federal projects. These water quality impacts include "inadequate river flow, inundation of habitat, dissolved oxygen levels, and impacts on fish and other wildlife."¹⁰⁹ For instance, in 2009, in *AES Sparrows Point LNG, LLC v. Wilson*,¹¹⁰ the U.S. Court of Appeals for the Fourth Circuit held that Maryland's denial of section 401 water quality certification for a proposed LNG export terminal¹¹¹ adjacent

102. *Id.* (quoting 33 U.S.C. § 1341(a)(1)); see also CLAUDIA COPELAND, CONG. RESEARCH SERV., 97-488, CLEAN WATER ACT SECTION 401: BACKGROUND AND ISSUES 2-3 (2015).

103. See *S.D. Warren Co.*, 547 U.S. at 380; see also COPELAND, *supra* note 102, at 3.

104. 511 U.S. 700 (1994).

105. *Id.* at 703.

106. *Id.* at 711; see also Debra L. Donahue, *The Untapped Power of Clean Water Act Section 401*, 23 *ECOLOGICAL L.Q.* 201, 213-14 (1996).

107. 547 U.S. at 373.

108. *Id.* at 373.

109. COPELAND, *supra* note 102, at 1.

110. 589 F.3d 721 (4th Cir. 2009).

111. To transport natural gas across water, it must be cooled to liquid form at an LNG facility before it is containerized for ocean transport by ship. An LNG export facility cools the gas to liquid form and facilitates ocean transport, and an import facility at the destination heats the LNG back into a gas for transport by pipeline to end users. See *Liquefied Natural Gas*, U.S.

to Baltimore Harbor on four independent bases, including the effects of deep channel dredging on the state's water quality, was not arbitrary and capricious.¹¹² Likewise, in 2008, the U.S. Court of Appeals for the Second Circuit upheld Connecticut's denial of water quality certification for the proposed Islander East natural gas pipeline. Although two years earlier the court had found the state's basis for denial arbitrary and capricious,¹¹³ following remand to the state agency, the Second Circuit found that the state's subsequent analysis of the project's drilling impacts on the state's water quality supported the state's denial of water quality certification.¹¹⁴ In light of these Supreme Court and circuit court decisions, section 401 of the CWA has proven to be an effective veto power for states over projects like hydropower facilities, LNG facilities, and interstate natural gas pipelines, even where the federal government otherwise has primary authority over the siting and approval process.

Beyond the CWA, Congress also gave states a role in protecting coastal natural resources from harm from federally approved projects through the Coastal Zone Management Act of 1972. The Act sought to strike a balance between development and preservation interests of the coast and its valuable resources¹¹⁵ based upon an understanding of coastal areas as unique environmental zones, which require special protections given their significance as natural resources.¹¹⁶ The purpose of the Act was "to enhance state authority by encouraging and assisting the states to assume planning and regulatory powers over their coastal zones," with "no attempt to diminish state authority through federal preemption."¹¹⁷ Both the language and legislative history of the Act explicitly deny any congressional attempt within the legislation to pre-empt state regulation of such areas.¹¹⁸ However, Congress was not seeking to broaden state authority without purpose; rather, given the inadequacy of local coastal

DEPT OF ENERGY, <https://perma.cc/6AFD-S9QJ>; U.S. ENERGY INFO. ADMIN., GROWTH IN DOMESTIC NATURAL GAS PRODUCTION LEADS TO DEVELOPMENT OF LNG EXPORT TERMINALS (2016) (discussing LNG and LNG terminals).

112. *AES Sparrows Point LNG, LLC*, 589 F.3d at 723, 733.

113. *See* *Islander E. Pipeline Co., LLC v. Conn. Dep't of Env't. Prot.*, 482 F.3d 79, 95, 105 (2d Cir. 2006).

114. *See* *Islander E. Pipeline Co., LLC v. McCarthy*, 525 F.3d 141, 143 (2d Cir. 2008).

115. FRANK P. GRAD, 5-10 TREATISE ON ENVIRONMENTAL LAW § 10.04(2)(b) (2016); *see also* Martin J. LaLonde, *Allocating the Burden of Proof to Effectuate the Preservation and Federalism Goals of the Coastal Zone Management Act*, 92 MICH. L. REV. 438, 438 (1993).

116. Bruce Kuhse, *The Federal Consistency Requirements of the Coastal Zone Management Act of 1972: It's Time to Repeal This Fundamentally Flawed Legislation*, 6 OCEAN & COASTAL L.J. 77, 78-79 (2001) (noting the term "coastal zone" allegedly first appeared in the 1969 Stratton Commission report, "Our Nation and the Sea").

117. Erin Ryan, *Negotiating Federalism*, 52 B.C. L. REV. 1, 60 (2011) (quoting S. REP. NO. 92-753, at 1 (1972)).

118. *Cal. Coastal Comm'n v. Granite Rock Co.*, 480 U.S. 572, 593 (1987).

zone regulation at the time, Congress hoped to encourage local and state governments to more effectively protect these valuable regions.¹¹⁹

While state participation under the Coastal Zone Management Act is voluntary, Congress sought to encourage state protection of their coastal zones by allocating grant funding to states instituting coastal management programs that meet federal guidelines as well as funding for the implementation of approved programs.¹²⁰ States with federally approved coastal zone management plans may deny or impose conditions upon permits for projects affecting their coastal zones (land, water, or natural resources).¹²¹ Projects requiring federal permits that would alter a state's coastal zone generally must obtain certification from the state, which verifies that the project is "consistent" with the state's federally approved coastal zone management plan.¹²² However, the state does not have the same type of "veto" authority under the Coastal Zone Management Act that it does under the CWA. Instead, the Secretary of Commerce may determine that the proposed "activity is consistent with the objectives" of an approved state coastal management program or "is otherwise necessary in the interest of national security" and issue the requested federal permit without the state's concurring certification, or the Secretary may even request the President grant an exemption for the project.¹²³ Thus, there is a widespread understanding that states lack veto power under the Coastal Zone Management Act, even when determining that a federal activity will hinder the state's coastal region.¹²⁴ Indeed, the legislative history behind the Act's current consistency provision (amended in 1990 following a Supreme Court decision that Congress believed unfavorably narrowed the consistency requirement that federal activities align with a state's federally approved coastal management plan) includes numerous statements from members of Congress indicating that Congress did not perceive the Coastal Zone Management Act as granting states veto power over federal projects.¹²⁵

States have used their authority under the Coastal Zone Management Act, often in conjunction with section 401 of the CWA, to attempt to block the development of natural gas facilities by refusing to issue a consistency certificate

119. *Norfolk S. Corp. v. Oberly*, 822 F.2d 388, 393 (3d Cir. 1987).

120. GRAD, *supra* note 115.

121. MURRILL, *supra* note 27, at 19.

122. Ryan, *supra* note 117, at 59.

123. *Id.* at 61; MURRILL, *supra* note 27, at 19.

124. LaLonde, *supra* note 115, at 454.

125. *Id.* at 442–43, 454 & n.88 (citing 136 CONG. REC. H8080 (daily ed. Sept. 26, 1990) (statement of Rep. Panetta) (Section 307(c)(1) "does not give the State a veto power."); 136 CONG. REC. H8101 (daily ed. Sept. 26, 1990) (statement of Rep. Tauzin) (It has been "asserted that the original amendment creates a veto authority. It does not."); 136 CONG. REC. E543 (daily ed. Mar. 6, 1990) (statement of Rep. Jones) (Section 307(c)(1) "will not result in the veto of vital national projects or activities.")).

to proposed projects. Indeed, in the 2006 *Islander East* case discussed above, Connecticut also rejected the proposed pipeline as inconsistent with its coastal management plan.¹²⁶ *Islander East* responded to this denial by requesting that the Secretary of Commerce override Connecticut's decision, which the Secretary did.¹²⁷ Although the federal district court determined that the Secretary's decision was arbitrary and capricious,¹²⁸ the second *Islander East* decision in the Second Circuit did not address this dispute, and instead the project was stopped based on the court's approval of the state's CWA certification denial.¹²⁹ In sum, the Coastal Zone Management Act preserves a strong role for state environmental permits and regulation so long as the state's required measures do not conflict with federal law. Though the statute proffers a mechanism for resisting a natural gas pipeline facility, it is less forceful than the ability of a state to issue an outright veto over a federal project under section 401 CWA authority.

Although the CWA and the Coastal Zone Management Act focus on water resources, states also have federal authority to protect state air resources against a variety of energy projects. Under the CAA, natural gas projects must obtain federal and state permits for compressor stations and other natural gas transport infrastructure.¹³⁰ Compressor stations, which are generally placed every forty to one hundred miles along the route of a pipeline, are necessary to maintain the required pressurization of natural gas within pipelines so that the gas may travel from the gathering facility to the processing facility.¹³¹ These compressor stations emit various air pollutants, such as "volatile organic compounds; particulate matter; nitrogen oxides; carbon monoxide; sulfur dioxide; greenhouse gases (carbon dioxide, methane and nitrous oxide); and small amounts of hazardous air pollutants (e.g., benzene, acetaldehyde, formalde-

126. *Islander E. Pipeline Co. v. Conn. Dep't of Envtl. Prot.*, 482 F.3d 79, 86 n.6 (2d Cir. 2006).

127. *Id.*

128. *Connecticut v. U.S. Dep't of Commerce*, No. 3:04cv1271, 2007 WL 2349894, at *16 (D. Conn. Aug. 15, 2007).

129. *Islander E. Pipeline Co. v. McCarthy*, 525 F.3d 141, 164 (2d Cir. 2008).

130. See RICHARD K. LATTANZIO, CONG. RESEARCH SERV., AN OVERVIEW OF AIR QUALITY ISSUES IN NATURAL GAS SYSTEMS 2, 7 (2016) (noting that daily administration of the CAA, including permitting activities, has primarily been designated to local governments within states); JAMES E. MCCARTHY ET AL., CONG. RESEARCH SERV., CLEAN AIR ACT: A SUMMARY OF THE ACT AND ITS MAJOR REQUIREMENTS 15 (2011); Steven H. Lord, Jr., *Aggregation Consternation: Clean Air Act Source Determination Issues in the Oil and Gas Patch*, 29 PACE ENVTL. L. REV. 645, 647 (2012); Michael K. Reer, *Bursting the Bubble: Moving Toward "The Common Sense Principle" When Considering Air Aggregation of Oil and Gas Facilities*, 26 VILL. ENVTL. L.J. 61, 69 (2015).

131. Reer, *supra* note 130; *The Transportation of Natural Gas*, NATURALGAS.ORG, <http://perma.cc/7BTX-N5GD>.

hyde, toluene, ethyl benzene and xylenes).¹³² As discussed in Part I, the Natural Gas Act savings clause protects states' rights to protect air quality under the CAA in addition to their rights to protect water and coastal zone resources.¹³³ With the rapid construction and expansion of natural gas facilities due to the hydraulic fracturing boom, individuals and interest groups opposed to natural gas development projects have frequently opposed the air quality emissions associated with compressor stations.¹³⁴

Some opposition groups have even advocated that state or local governments deny air quality emission permits required for individual compressor stations in an attempt to thwart entire pipeline projects by preventing construction of the necessary compressor stations. For instance, opponents of the Constitution Pipeline urged the New York Department of Environmental Conservation to deny permits for a compressor station in an attempt to prevent construction of the pipeline.¹³⁵ Citizen groups have also formed in efforts to rescind compressor station air quality permits that regulators in other states have already issued.¹³⁶ In 2016, some Massachusetts residents hostile to the expansion of an existing pipeline indicated that they saw that their best chance to defeat the overall development would be to convince state regulators to deny the required state permits for a new compressor station necessary for the expansion.¹³⁷ The opposition group had argued that the Massachusetts Department of Environmental Protection should deny the proposed compressor station due to harmful emissions and the possibility of an explosion.¹³⁸ Although states have yet to be

132. OHIO ENVTL. PROT. AGENCY, AIR POLLUTION CONTROL PERMITS FOR NATURAL GAS COMPRESSOR STATIONS 3 (2016).

133. *Myersville Citizens for a Rural Cmty., Inc. v. FERC*, 783 F.3d 1301, 1315 (D.C. Cir. 2015); *supra* notes 32–35 and accompanying text.

134. See Elizabeth Shogren, *Air Quality Concerns Threaten Natural Gas's Image*, NPR (June 21, 2011), <http://perma.cc/8MDJ-JN8B> (describing air pollution problems that have accompanied the recent development of natural gas as an increasingly-exploited energy source in the United States).

135. Joe Mahoney, *Pipeline Opponents Target Permit for Compressor Station*, DAILY STAR (Dec. 5, 2014), <http://perma.cc/H9XA-ANNC>.

136. See *Myersville Citizens for a Rural Cmty., Inc.*, 783 F.3d at 1306, 1319–20 (arguing that, in the context of a state-approved compressor station, FERC improperly hampered the state's rights under the CAA by conditionally certifying the project prior to state authorization); *Citizens for Pa.'s Future v. Ultra Res., Inc.*, 898 F. Supp. 2d 741, 742, 744 (M.D. Pa. 2012) (plaintiffs alleging purported violations of the CAA due to nitrogen oxide emissions from seven operating compressor stations).

137. See Christian Schiavone, *Weymouth Compressor Station Opponents Plan Big Presence at State Permit Hearing*, PATRIOT LEDGER (Mar. 23, 2016), <http://perma.cc/438B-XZWR>.

138. *Id.*; see also Fred Hanson, *State Agency Proposes Extension for Review of Weymouth Compressor Station*, PATRIOT LEDGER (Aug. 5, 2016), <http://perma.cc/AXD3-WC5R> (reporting that the state coastal zone management agency would delay review and decision on the project until the project obtained a required permit from the state department of environmental protection).

as active in opposing federal energy projects using their authority under the CAA as they have under the CWA and Coastal Zone Management Act, it appears likely that the opposition to permitting for new natural gas compressor stations will continue as one item in the state toolbox to fight natural gas developments.

B. Energy Security Concerns and the Energy Policy Act of 2005

Fast forward to 2005 when Congress enacted the first comprehensive energy policy legislation in over a decade. That law—EPAAct 2005—arose out of the nation’s significant energy security concerns over the vulnerability of the nation’s energy supplies, supporting infrastructure, and reliability. The 2003 blackouts—where a single power line outage caused by falling trees had a devastating, cascading effect that left approximately 50 million people without power throughout the Northeast and Midwest—called into question the reliability of the nation’s transmission grid.¹³⁹ Also in 2005, domestic oil and gas supplies were low, resulting in both high fuel prices and increasing dependence on foreign sources of oil and gas, leading to additional energy security concerns.¹⁴⁰ The provisions of EPAAct 2005 were designed to respond to these concerns by increasing and diversifying a wide range of energy supplies, promoting energy efficiency, and improving the interstate energy transport system.¹⁴¹ In his signing statement for EPAAct 2005, President George W. Bush stated that the legislation “promotes dependable, affordable, and environmentally sound production and distribution of energy for America’s future.”¹⁴²

EPAAct 2005 as a whole reflects very different national concerns than those contained in the CWA, the Coastal Zone Management Act, and other 1970s federal legislation that had imposed new, significant environmental protection conditions on energy development. EPAAct 2005 was all about producing more domestic energy (both renewable energy and fossil fuels); using those resources more efficiently and effectively, and improving the transportation, distribution, and security of these energy resources. Thus, unlike the 1970s legislation, which granted states a greater voice in energy-related decisions that could adversely impact their land, water, and resources, EPAAct 2005 shifted back to aug-

139. See, e.g., DAVIES ET AL., *supra* note 45, at 461; Debbie Swanstrom & Meredith M. Jolivert, *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, 423 (2009); JR Minkel, *The 2003 Northeast Blackout—Five Years Later*, SCI. AM. (Aug. 13, 2008), <https://perma.cc/GUK8-YSRG>.

140. Swanstrom & Jolivert, *supra* note 139, at 422 (citing S. REP. NO. 109-78, at 6, 8 (2005); H.R. NO. 109-215, at 171 (2005)).

141. *Id.* (citing S. REP. NO. 109-78 at 2–6, 9 (2005); H.R. NO. 109-215, at 169 (2005)).

142. Statement on Signing the Energy Policy Act of 2005, 2 PUB. PAPERS 1315, 1315–16 (Aug. 8, 2005).

menting federal authority, particularly over energy transport infrastructure, to reduce barriers states had erected by exercising their new powers granted in the 1970s.

On the energy production side, EPOA 2005 contains provisions that: (1) mandated the use of large amounts of biofuels in gasoline for the first time to reduce U.S. dependence on foreign oil and spur the development of domestic biofuels as a substitute; (2) created significant tax incentives for the production of renewable energy, oil and gas, coal, and nuclear energy as well as new energy efficiency programs, grants, and incentives; and (3) encouraged greater production of energy on federal lands by reducing royalties for some oil and gas production, increased access to drilling on federal lands, and promoted leasing of federal lands for geothermal energy.¹⁴³

As for grid reliability, EPOA 2005 authorized FERC to certify a national electric reliability organization (“ERO”) to enforce mandatory reliability standards for the electric grid and impose penalties on public utilities and other grid operators for non-compliance.¹⁴⁴ It also established federal siting and eminent domain authority for interstate electric transmission lines in some circumstances.¹⁴⁵ Referred to colloquially as “backstop siting authority,” section 1221 of EPOA 2005 directed DOE to study electric transmission congestion every three years and, if warranted, designate certain transmission corridors with congestion problems as “national interest electric transmission corridors” (“NIETCs”).¹⁴⁶ This process was designed to facilitate a partnership between DOE and FERC in deciding when preemption of state siting laws is appropriate: once DOE designated a NIETC, FERC was authorized to issue construction permits for lines designed to ease congestion if states did not authorize the lines under certain circumstances.¹⁴⁷ Notably, states still retained the primary authority regarding the siting of transmission lines, and any FERC preemption of state siting was characterized as a “backstop” to dysfunctional state siting processes.

Initially, many experts believed that section 1221 would create major inroads into state primacy for interstate electric transmission line siting. The National Association of Regulatory Utility Commissioners (“NARUC”) and the National Governors Association vehemently opposed any transfer of even limited siting and eminent domain authority for interstate transmission lines from the states to the federal government, arguing that states were in a much better position to consider concerns of affected citizens and businesses with regard to

143. See, e.g., MARK HOLT & CAROL GLOVER, CONG. RESEARCH SERV., RL33302, ENERGY POLICY ACT OF 2005: SUMMARY AND ANALYSIS OF ENACTED PROVISIONS 1–5 (2006).

144. See *id.* at 1.

145. See *id.* at 2.

146. See 16 U.S.C. § 824p(a) (2012); Swanstrom & Jolivert, *supra* note 139, at 422.

147. 16 U.S.C. § 824p(b).

the costs and physical impact of new transmission lines.¹⁴⁸ These and other interests opposed to any additional federal transmission line siting authority also made efforts in later years to repeal section 1221.¹⁴⁹

Though these interest groups were unable to legislatively block or repeal section 1221, two federal circuit courts eventually endorsed a very limited view of federal authority over transmission siting—rendering section 1221 effectively inert. A decision by the U.S. Court of Appeals for the Fourth Circuit rejected FERC’s “expansive” interpretation of section 1221 in adopting its backstop transmission siting regulations.¹⁵⁰ The Court reasoned that the clear language of the statute only allowed FERC to preempt a state if the state affirmatively withheld approval of a transmission line siting permit for more than a year, but not (as FERC’s rules provided) if a state regulator denied an application.¹⁵¹ After a decision finding that DOE did not adequately consult with states in designating the first NIETC, the U.S. Court of Appeals for the Ninth Circuit

148. See, e.g., *The Energy Policy Act of 2005: Hearings Before the Subcomm. on Energy and Air Quality of the H. Comm. on Energy & Commerce*, 109th Cong. (2005) [hereinafter *Energy Policy Act of 2005 Hearings*] (statement of Hon. Marilyn Showalter, President, NARUC) (stating that “NARUC is strongly opposed to any role (direct or backstop) for FERC in authorizing or siting transmission lines,” that there is no evidence, beyond anecdotes, that states have prevented needed transmission projects, and that states “are better positioned to identify and evaluate alternatives to a specific project” and to “consider comments from affected citizens and businesses”); *id.* at 227 (statement of Frank M. Murkowski, Chairman, Nat. Res. Comm., Nat’l Governors Ass’n) (noting that federal agencies often interfere with transmission lines that cross federal lands or impact federal resources, that preempting state law would not necessarily expedite the siting process as a result of already slow federal processes by federal land management agencies, that neighbors, communities, environmental groups, and others are typical intervenors in transmission line projects, and that “[s]ince the costs of a transmission project often fall on consumers who have no direct say in whether they want to pay those costs, regulators and siting authorities must weigh very carefully their responsibility for passing along construction costs to people who will not benefit”).

149. See *National Interest Electric Transmission Corridors: Hearing Before the Subcommittee on Domestic Policy of the H. Comm. on Oversight & Gov’t Reform*, 110th Cong. 62–65 (2007) (testimony of Hon. H. William DeWeese, Majority Leader, Pennsylvania House of Representatives) (arguing in favor of repealing section 1221 and stating that “[i]f the FERC is permitted to use its congressionally conveyed authority to commandeer and usurp the traditional role of states and their administrative agencies to review and approve the location and construction of high voltage transmission lines, Pennsylvania, not unlike every other state, would have no control, no say, and no recourse other than expensive litigation; over transmission planning, location, and construction within its geographic borders”); *id.* at 15 (testimony of Rep. Henry Waxman, Chairman, Comm. on Oversight and Gov’t Reform) (criticizing the Energy Policy Act of 2005 and particularly section 1221, stating that “[r]ather than being respectful of the traditional federal-state relationship, the Energy Policy Act trampled on it by creating a legal mechanism for energy companies to end-run the states and get practically any transmission project—no matter how ill-considered—approved here in Washington, D.C.”).

150. See *Piedmont Envtl. Council v. FERC*, 558 F.3d 304, 309–10 (4th Cir. 2009).

151. See *id.*

also sent federal regulators back to the drawing board in implementing section 1221.¹⁵² Since that time, DOE has not designated any additional NIETCs, and FERC has not attempted to exercise backstop siting authority or propose any new rules to facilitate it.

While these federal decisions focused on detailed procedural requirements Congress had included in section 1221, both majority opinions seemed somewhat dismissive of core legislative purposes related to EPAct 2005. Notably, Judge Traxler partially dissented from the Fourth Circuit decision, disputing the clarity of the statutory provision used by the Fourth Circuit to reject FERC's backstop transmission siting rules based on extensive legislative history.¹⁵³ He detailed the concerns Congress had expressed regarding the reliability of the grid leading up to the enactment of section 1221, the inability of states to site necessary interstate transmission lines, and why a more significant federal role was needed to address these reliability concerns, particularly in light of the 2003 blackout.¹⁵⁴ This legislative history included DOE reports and congressional statements warning that the grid had evolved since the enactment of the Federal Power Act in 1935 from a local grid to multistate, regional grids; that construction of new transmission lines was not keeping up with electricity demand as a result of state permitting bottlenecks; and that these deficiencies, in part as a result of the lack of federal siting and eminent domain authority for key interstate electric transmission lines, had resulted in higher consumer electricity costs and blackouts.¹⁵⁵

Finally, another provision of EPAct 2005 relating to grid reliability—section 1222—received little attention at the time of its enactment (at least as compared to section 1221 backstop siting authority) but, as discussed below, may yet play a role in a new balance of federalism in the electric grid context. Section 1222 of EPAct 2005 grants authority to two federal PMAs covering multiple states in the West and Southwest—WAPA and SWPA—to design, construct, or operate a new electric power transmission project within any state in which they operate if DOE determines the project will reduce congestion of electricity transmission, is needed to accommodate increased electric transmis-

152. *Cal. Wilderness Coal. v. U.S. Dep't of Energy*, 631 F.3d 1072, 1079 (9th Cir. 2011).

153. *See Piedmont Envtl. Council*, 558 F.3d at 320, 325–26 (Traxler, J., concurring in part, dissenting in part).

154. *Id.*

155. *See, e.g., U.S. DEP'T OF ENERGY, NATIONAL TRANSMISSION GRID STUDY 58–59* (2002); *Energy Policy Act of 2005 Hearings*, *supra* note 148, at 25–28 (statement of Cynthia A. Marlette, General Counsel, FERC); 150 CONG. REC. S3732 (daily ed. Apr. 5, 2004) (statement of Sen. Domenici) (“To avoid future blackouts and provide our industry and consumers with the reliable electricity they need, we need to invest in critical transmission infrastructure; provide limited Federal siting of transmission lines to ensure the transmission of national interest lines, and avoid the most significant areas where we had gridlock; streamline the permitting of siting for transmission lines to assure adequate transmission. . . . We need all these parts of the Energy bill.”).

sion capacity, and meets other requirements.¹⁵⁶ The legislation authorizes WAPA and SWPA to act alone or to partner with other entities to design, construct, or operate a transmission project that meets the statutory criteria.¹⁵⁷ Thus, this provision provided the potential for WAPA and SWPA to step in and authorize a private transmission line project meeting these requirements even if a state had denied a siting permit or the exercise of eminent domain.¹⁵⁸ The limited legislative history for section 1222 focused on the past need for special legislation for each private-public collaboration on a transmission line project and that the new law would allow such partnerships as a general matter within WAPA and SWPA for projects that meet the statute's requirements.¹⁵⁹ DOE utilized this provision for the first time in 2016, when it authorized the Plains & Eastern Clean Line as discussed in more detail below, see *infra* Part II.D.

As for natural gas infrastructure, in EPAAct 2005, Congress created several new provisions to streamline the construction of new infrastructure by increasing federal authority over natural gas facilities and significantly limiting state authority. With regard to natural gas pipelines, section 313(b) of EPAAct 2005 amended section 19 of the Natural Gas Act to provide that the U.S. court of appeals for the circuit in which an interstate natural gas pipeline or LNG terminal is proposed to be constructed, expanded, or operated shall have original and exclusive jurisdiction over any civil action to review certain orders or actions.¹⁶⁰ These include orders or actions by a federal agency other than FERC, or a state administrative agency acting pursuant to federal law, to issue any condition or deny any permit, license, concurrence, or approval under federal law other than the Coastal Zone Management Act of 1972.¹⁶¹ Thus, this jurisdictional provision expressly applies to actions taken by states to impose additional conditions on FERC-approved natural gas facilities under the CWA and the CAA.¹⁶² The legislative history associated with this provision indicates it

156. See 42 U.S.C. § 16421(a) (2012).

157. *Id.* § 161421(b).

158. See *supra* note 96 and accompanying text (discussing cases finding no state permit or eminent domain required for transmission line projects authorized by PMAs based on the Supremacy Clause).

159. See HOLT & GLOVER, *supra* note 143, at 76–77 (“Before enactment [of section 1222], the enabling statutes for power marketing administrations could have restricted third-party financing, construction, operation, and maintenance of transmission facilities.”) (citing 16 U.S.C. § 460 (2012) (SWPA) and 43 U.S.C. § 485 (2012) (WAPA)).

160. See 15 U.S.C. § 717r (2012); MURRILL, *supra* note 27, at 4–5; *Islander E. Pipeline Co. v. McCarthy*, 525 F.3d 141, 148–49 (2d Cir. 2008) (discussing judicial review amendments).

161. See 15 U.S.C. § 717r(d)(1).

162. See MURRILL, *supra* note 27, at 4–5. Although states also have authority to place conditions on natural gas facilities under the Coastal Zone Management Act, that law is subject to a separate administrative review process through the U.S. Department of Commerce and thus is not subject to these appeal provisions. See *id.*

was prompted by concerns that applicants for interstate natural gas pipeline certificates “were encountering difficulty proceeding with natural gas projects that depended on obtaining state agency permits.”¹⁶³ According to the Director of the Office of Energy Projects at FERC, natural gas pipeline projects were subject to “a series of sequential administrative and State court and Federal court appeals that [could] kill a project with a death by a thousand cuts just in terms of the time frames associated with going through all those appeal processes.”¹⁶⁴

The other provision of EAct 2005 that related to natural gas infrastructure was section 311, which amended the Natural Gas Act to confirm exclusive siting authority with FERC for LNG import and export terminals.¹⁶⁵ Prior to EAct 2005, some states had attempted to block LNG facilities and had argued that they had veto power over any FERC approval of such facilities.¹⁶⁶ Congress clarified federal siting authority for LNG terminals in response to increasing concerns in the early 2000s that the United States would soon face a natural gas shortage based on diminishing domestic supplies coupled with recent state denials of permits for LNG facilities to import supplies from overseas. Of course, in 2007, soon after the enactment of EAct 2005, the fracking revolution began and these concerns, at least for now, became moot. Nevertheless, section 311 was used to site several new import terminals in 2006 and 2007 and, in the years since then, to site several new export terminals to facilitate the sales of the new sources of U.S. natural gas overseas.

Taken together, these EAct 2005 provisions represented an effort to increase federal authority to expedite the approval of interstate natural gas and electricity infrastructure based on concerns over energy security and infrastructure reliability. There was a clear sentiment in Congress by 2005 that the states were standing in the way of the nation’s energy needs. Nevertheless, despite EAct 2005, states retained enough authority to create roadblocks and delays for federal natural gas pipeline projects and LNG terminals under the savings clause in EAct 2005 discussed earlier, particularly when the fracking boom prompted a significant increase in the number of these projects.¹⁶⁷ Likewise, despite EAct 2005, the federal government still had very limited authority over interstate electric transmission line projects (particularly after adverse court decisions). Thus, as time went on, federal agencies had growing incentives to

163. *Islander E. Pipeline Co., LLC v. Conn. Dep’t of Env’tl. Prot.*, 482 F.3d 79, 85 (2d Cir. 2006) (citing legislative history to explain new federal appeals process for state Clean Water Act certification denials).

164. *Id.*

165. Energy Policy Act of 2005, Pub. L. No. 109-58, § 311, 119 Stat. 594, 685–88 (2005); Natural Gas Act, 15 U.S.C. § 717.

166. For discussion, see generally Richard J. Pierce, Jr., *Environmental Regulation, Energy and Market Entry*, 15 DUKE ENVTL. L. & POL’Y F. 167 (2005).

167. *See supra* notes 32–34 and accompanying text.

use what existing authority they had to “override” state siting decisions perceived as harming national goals of facilitating the efficient delivery of the nation’s electric energy and states had similar incentives to push back against natural gas pipeline projects perceived as having adverse environmental impacts on the states. The following sections highlight two examples of these “federalism battles.”

C. Contemporary State Pressures on Natural Gas Pipeline Siting: The Fracking Boom, Natural Gas Infrastructure Expansion, and the Constitution Pipeline

Since the fracking boom, pipeline siting has become a central battleground for environmental groups concerned with the nation’s continued dependence on fossil fuels and the impact of this dependence on global climate change. The highest profile examples of this, of course, are the Keystone XL and Dakota Access oil pipelines, which the Obama Administration blocked but the Trump Administration revived.¹⁶⁸ For its part, natural gas is a low-carbon fossil fuel, especially when compared to coal or oil, but it is hardly exempt from opposition from environmental groups and local communities as a result of concerns associated with methane leaks, earthquakes, water pollution, and other environmental and land use issues. Indeed, over the past two years, it has become routine for almost every major gas pipeline approval by FERC to engender high visibility political protests.¹⁶⁹

In December 2014, FERC issued an order granting a certificate to construct the \$683 million Constitution Pipeline project and a related transfer compressor station.¹⁷⁰ This 124-mile, 30-inch diameter pipeline would extend from a natural gas-rich area of Pennsylvania to Schoharie, New York, where it would interconnect with the proposed Wright Compressor Station.¹⁷¹ In issuing the certificate FERC concluded the benefits that “the Constitution Pipeline Project and the Wright Interconnection Project will provide to the market outweigh any adverse effects on existing shippers, other pipelines and their captive customers, and on landowners and surrounding communities.”¹⁷² In its environmental review for the project, FERC acknowledged that “the projects will result

168. See *supra* note 47 and accompanying text (discussing both pipelines).

169. Cf. Michael R. Pincus, *FERC Pipeline Siting Program Deals with Legal Challenges*, 30 NAT. RES. & ENV’T 44, 44 (2016) (“FERC is almost under constant fire from environmental groups and landowners that oppose the construction of new or expanded pipelines . . .”); Susan Phillips, *Pipeline Opponents Target FERC in a Week of Actions*, STATE IMPACT PA. (May 17, 2016), <https://perma.cc/2WPA-GSJJ>; Hannah Northey, *Public Barred from Meeting as Protests Loom*, E&E NEWS (May 19, 2016), <https://perma.cc/D87Q-EGEX>.

170. Constitution Pipeline Co., LLC, 149 FERC ¶ 61,199 (2014); CONSTITUTION PIPELINE, <https://perma.cc/Z42V-27AV> (discussing the cost of the project).

171. CONSTITUTION PIPELINE, *supra* note 170.

172. Constitution Pipeline Co., LLC, 149 FERC at 62,203.

in some adverse environmental impacts,” but concluded that proposed mitigation efforts as well as FERC staff recommendations (adopted as conditions to the approval of the pipeline and compressor station) reduced these impacts to “less-than-significant” levels.¹⁷³ FERC received numerous comments in support of the projects, asserting that they would bring jobs to the area. A variety of private environmental organizations had requested an evidentiary hearing before FERC to address their concerns in the certificate proceeding, but FERC denied their requests.¹⁷⁴

FERC’s environmental review process for the proposed pipeline and compressor station lasted more than two years.¹⁷⁵ The agency held scoping meetings in New York and Pennsylvania in late 2012 featuring more than 100 speakers, and received more than 750 letters from interested stakeholders regarding the project, including federal, state, and local agencies.¹⁷⁶ A variety of environmental issues were addressed in the review, including the impacts of the pipeline’s construction and operation on New York’s geology, water bodies, wetlands, forests, migratory birds, bats, property values, and public safety, as well as induced development of natural gas production, cumulative impacts, and alternatives.¹⁷⁷ New York environmental regulators participated in these proceedings, and as part of their ongoing interactions with state regulators regarding impacts on water, Constitution agreed to route part of the pipeline to a different location.¹⁷⁸ In approving Constitution’s certificate, FERC noted specifically that “impacts on waterbodies and wetlands will be further mitigated by Constitution’s compliance with the conditions of the [Army Corps of Engineers section 404 wetlands permits] and the New York State Department of Environmental Conservation’s (NYSDEC) section 401 permits required under the CWA (including compensatory mitigation).”¹⁷⁹ In addition to relocating part of the project,¹⁸⁰ as a condition to the certificate approval, Constitution agreed to fund \$18 million for wetland mitigation and banking, as well as approximately \$8.6 million for the restoration and preservation of migratory bird habitats.¹⁸¹

In issuing its certificate, FERC included standard boilerplate language to the effect that “[a]ny state or local permits issued with respect to the jurisdictional facilities authorized herein must be consistent with the conditions of this

173. *Id.* at 62,213.

174. *Id.* at 62,205.

175. *Id.* at 62,216.

176. *Id.*

177. *Id.* at 62,218.

178. See *New Marcellus Constitution Pipeline Announce “Final” Route*, MARCELLUS DRILLING NEWS (Jan. 21, 2013), <https://perma.cc/5EGT-X5FT>.

179. Constitution Pipeline Co., LLC, 149 FERC ¶ 62,214 (2014).

180. See *New Marcellus Constitution Pipeline Announce “Final” Route*, *supra* note 178.

181. See *Constitution Pipeline Refused Water Permit by New York Regulator*, SHALE GAS INT’L (Apr. 27, 2016), <http://perma.cc/2F5Z-ZD7L>.

certificate.¹⁸² While FERC encouraged cooperation between interstate pipelines and local officials, it also stated, “this does not mean that state and local agencies, through application of state or local laws, may prohibit or unreasonably delay the construction or operation of facilities approved by this Commission.”¹⁸³ In August 2016, New York environmental regulators did not request rehearing of this FERC order approving the routing of the Constitution pipeline, nor did they appeal it.¹⁸⁴

Although the pipeline was initially expected to be in service by 2015, on Earth Day 2016, the New York Department of Environmental Conservation refused to issue a permit for Constitution’s project under section 401 of the CWA on the grounds that the project did not comply with New York’s water quality standards.¹⁸⁵ In rejecting Constitution’s application¹⁸⁶ New York raised particular concerns with cutting of trees near streams and directly on banks of streams, resulting in potential damming. It also mentioned that New York had filed comments during FERC’s environmental review process requesting additional information (in concurrence with comments filed by the U.S. Army Corps of Engineers) and proposing alternative routing of the pipeline along I-8.¹⁸⁷ New York noted that it “repeatedly asked Constitution to analyze alternative routes that could have avoided or minimized impacts to an extensive group of water resources, as well as to address other potential impacts to these resources,” but Constitution failed to “substantively” address these concerns.¹⁸⁸ In addition, New York highlighted “cumulative negative effects” of multiple stream crossings with the proposed pipeline.¹⁸⁹ New York did not hold a hearing prior to issuing the letter, but the letter provided Constitution an opportu-

182. Constitution Pipeline LLC, 149 FERC at 62,224.

183. *Id.* (citing *Schneidewind v. ANR Pipeline Co.*, 485 U.S. 293 (1988); *Nat’l Fuel Gas Supply v. Pub. Serv. Comm’n*, 894 F.2d 571 (2d Cir. 1990); *Iroquois Gas Transmission Sys., L.P.*, 59 FERC ¶ 61,094 (1992); *Iroquois Gas Transmission Sys., L.P.*, 52 FERC ¶ 61,091 (1990)).

184. A party who is dissatisfied with FERC’s decision can seek rehearing. *See* 15 U.S.C. § 717r(a) (2012); *see also* *Corpus Christi Liquefaction, LLC, Cheniere Corpus Christi Pipeline, L.P.*, 151 FERC ¶ 61,098, 61,651 (2015). If rehearing is unsuccessful, an affected party can seek judicial review. *See* 15 U.S.C. § 717r(a).

185. The New York State Department of Environmental Conservation’s concerns with issuing a permit are outlined in a letter. Letter from John Ferguson, Chief Permit Adm’r, to Linda Schubring, Eenvtl. Project Manager (Apr. 22, 2016), <http://perma.cc/R7ZT-YBAU> [hereinafter N.Y. Dep’t of Eenvtl. Conserv. Letter].

186. Constitution jointly filed its application with the Army Corps of Engineers, which remained pending at the time the New York Department of Environmental Conservation issued its letter.

187. N.Y. Dep’t of Eenvtl. Conserv. Letter, *supra* note 185, at 2.

188. *Id.* at 3.

189. *Id.*

nity to either request a hearing or to reapply for a water quality certificate application.¹⁹⁰

While New York's denial of water quality certification for the Constitution pipeline does not cite climate change concerns as a reason for the decision, the denial does note that climate change will likely exacerbate certain environmental and safety risks associated with the proposed pipeline.¹⁹¹ During his time in office, New York Governor Andrew Cuomo has identified addressing climate change as one of his administration's most important legacies, and he has accordingly implemented numerous clean energy initiatives,¹⁹² including banning fracking statewide in 2014—to the surprise of many environmentalists.¹⁹³ Thus, the Cuomo administration's rejection of the Constitution Pipeline on narrow water quality grounds was viewed by some as more than merely the denial of a single natural gas pipeline due to aquatic concerns, but instead as a calculated decision to embrace another vital weapon in the larger realm of state power in combatting climate change and championing clean energy initiatives.¹⁹⁴ Notably, Constitution Pipeline alleges in a legal challenge to the decision that while the New York Department of Environmental Conservation had drafted and was ready to issue the section 401 certification for the project in August 2015, the Governor's office halted issuance of the permit.¹⁹⁵ Although it remains to be seen how influential this decision will be both within New York and beyond, the denial has energized many clean energy proponents and even

190. *Id.* at 14.

191. *Id.* at 13 (stating that the dangers associated with improper pipeline depth from high water flow activity require considerable retroactive efforts to address and that "flooding conditions from extreme precipitation events are projected to increase on the operational span of the pipeline due to climate change").

192. See STATE OF NEW YORK, REFORMING THE ENERGY VISION: REV, STATE OF NEW YORK (2015), <https://perma.cc/P892-46M5>; STATE OF NEW YORK, REFORMING THE ENERGY VISION: CLEAN ENERGY STANDARD (2016), <https://perma.cc/ULU4-7FAV>.

193. Scott Waldman, *With Initiatives, Cuomo Moves to Solidify Climate Credentials*, POLITICO (Jan. 8, 2016), <https://perma.cc/4CAA-3LNX>.

194. Scott Waldman, *Cuomo Administration Rejects Constitution Pipeline*, POLITICO (Apr. 22, 2016), <https://perma.cc/DPJ6-9G52> (quoting Roger Downs, conservation director of the Atlantic Chapter of the Sierra Club, who declared that the denial of the Constitution Pipeline "represents a turning of the tide, where states across the nation that have been pressured into accepting harmful gas infrastructure projects by the Federal Energy Regulatory Commission may now feel emboldened to push back.").

195. Complaint at 22, Constitution Pipeline Co. v. N.Y. State Dep't of Env'tl. Conservation, No. 1:16-CV-0568 (N.D.N.Y. May 16, 2016). Constitution has challenged the denial of water quality certification in both the Second Circuit (on the merits) and in federal district court (on grounds that the Natural Gas Act preempts New York's requirement that Constitution obtain water quality permits beyond those associated with section 401 of the Clean Water Act). See Hunton & Williams LLP, *Constitution Pipeline Cases Reflect Tension in States' Roles in Permitting Natural Gas Projects*, PIPELINELAW.COM (Aug. 5, 2016), <https://perma.cc/2DDJ-32ZA> (discussing the basis for each lawsuit).

spurred members of the New York State Assembly to urge Governor Cuomo to “impose a statewide moratorium on granting permits, water quality certifications or other regulatory approvals for transmission pipelines, power generating plants, compressor stations and fossil fuel projects that are environmental hazards and would perpetuate New York’s dependence on burning natural gas, coal and oil for energy generation.”¹⁹⁶

Moreover, New York’s action came at a time when both DOE and FERC were under pressure from EPA and others to evaluate “upstream and downstream” impacts of natural gas exports and infrastructure, including upstream and downstream climate change impacts, in their review of natural gas export decisions, LNG terminals, and pipelines.¹⁹⁷ Indeed, in October 2016, EPA publically criticized FERC for failure to evaluate the upstream and downstream climate impacts associated with an interstate natural gas pipeline proposed to run 160 miles through production areas in Ohio, Pennsylvania, West Virginia, and Kentucky.¹⁹⁸ Although this pressure on FERC from EPA is very unlikely to continue during the Trump Administration, states and environmental groups will continue to urge FERC to expand its environmental review of these projects to include climate impacts, both in future FERC proceedings and in the courts. A pending appeal of FERC’s certificate order on the Constitution Pipeline to the U.S. Court of Appeals for the Second Circuit will provide a further opportunity to clarify the application of the National Environmental Policy Act (“NEPA”) to FERC’s pipeline certificate proceedings. In its briefs,

196. Letter from Barbara Lifton et al., Assembly Members of the N.Y. State Assembly, to Honorable Andrew M. Cuomo, Governor of New York (July 7, 2016), <http://perma.cc/T4V2-XF7H>.

197. See Michael Burger & Jessica Wentz, *Downstream and Upstream Greenhouse Gas Emissions: The Proper Scope of NEPA Review*, 41 HARV. ENVTL. L. REV. 109 (2017); Keith Goldberg, *EPA Urges FERC to Review Climate Impacts in LNG Reviews*, LAW360 (Jan. 20, 2016), <http://perma.cc/5WGE-9KGU>; see also *EarthReports, Inc. v. FERC*, 828 F.3d 949, 955–56 (D.C. Cir. 2016) (holding that FERC was not required to consider indirect effects, including climate impacts, of increased natural gas exports as part of its environmental review associated with approving the conservation of Cove Point LNG facility in Maryland from an import terminal to an export terminal); *Sierra Club v. FERC*, 827 F.3d 36, 47 (D.C. Cir. 2016) (describing a similar analysis with regard to approval of LNG facility in Texas). In August 2016, the Obama Administration’s Council on Environmental Quality issued a guidance document directing FERC to consider climate impacts associated with pipeline siting in NEPA review. See Susan Phillips, *Obama Instructs FERC to Review Climate Impacts of Pipelines*, STATEIMPACT (Aug. 3, 2016), <http://perma.cc/5L8S-MSQ6>.

198. Letter from Kenneth A. Westlake, Chief, NEPA Implementation Section, EPA to Kimberly D. Bose, Sec’y, FERC (Oct. 11, 2016) (enclosing comments on final environmental impact statement); Hannah Northey, *EPA Blasts FERC Reviews, Seeks “Definitive Resolution”*, ENERGYWIRE (Oct. 13, 2016), <https://perma.cc/8SRP-FWNM>; see also Hannah Northey, *EPA to FERC: “We Really Need to Talk”*, GREENWIRE (Oct. 24, 2016), <http://perma.cc/R72E-5YWG> (reporting on EPA request to FERC seeking a headquarters-level discussion “to promote deeper, more comprehensive climate reviews of proposed natural gas pipelines”).

FERC has taken the position that its approval complied with both NEPA and the Natural Gas Act and that, in effect, challengers are asking the Second Circuit to engage in de novo review of its approval decision.¹⁹⁹

The proposed Constitution Pipeline shows how FERC's pipeline approval process, while often viewed as preempting state law through a consolidated federal regulatory review, falls far short of the simple, integrated process that conventional accounts of siting jurisdiction would suggest. This case study illustrates how the process does not routinely allow for the vetting of evidence related to environmental harms, such as water and climate impacts—the kind of evidence that state regulators may be especially well-equipped to assess in the context of CWA compliance. While the CWA undoubtedly gives states an important enforcement role and encourages states to adopt more stringent standards than federal floors,²⁰⁰ relying entirely on a state assessment of environmental harms seems to be in tension with precedents that give FERC broad preemptive authority over contrary state and local laws. Nevertheless, FERC and project proposers may need to think more proactively about how they can better integrate state environmental concerns into its certificate process so as to soften the effect of state veto points over energy infrastructure projects. In addition, as the example of the Constitution Pipeline shows, FERC may need to improve its assessment of “upstream” impacts associated with the approval of new pipelines, and it can do so through federal environmental review as part of the certificate process. Regardless of how federal appellate courts resolve the pending dispute surrounding pipeline siting between FERC and the states, at the very minimum it is an oversimplification to suggest that the federal integrated process for pipeline review under the Natural Gas Act provides an efficient and complete assessment of a pipeline's impacts, including the interests of state and local environmental regulators.

D. Contemporary Federal Pressures on Electric Transmission Line Siting: The Rise of Wind Energy, New Transmission Line Market Actors, and The Plains & Eastern Clean Line

As noted earlier in this Part, there have always existed narrow circumstances in which the federal government, rather than a state government, has authority to approve interstate electric transmission lines. However, for the most part these provisions rarely applied or were rarely exercised. Yet, by the early 2000s, pressure was building to integrate more renewable energy into the electric grid nationwide as a result of growing concerns over the continuing use

199. See Brief for Respondent FERC at 7–10, *Catskill Mountainkeeper, Inc. v. FERC*, No. 16-345 (2d Cir. filed Feb. 5, 2016).

200. See, e.g., Donahue, *supra* note 106, at 301 (arguing that section 401 serves “to give effect to, and ensure that federally permitted activities are consistent with, existing state requirements respecting water quality”).

of fossil fuels; state RPSs mandating that utilities sell more renewable energy to customers (either by generating it themselves, purchasing it from independent generators, or purchasing renewable energy credits); dropping costs of wind energy; and opening up of energy generation and transmission markets due to the congressional legislation and FERC orders discussed in Part I. These pressures provided an entry point for new transmission actors—most notably merchant transmission line companies—that saw new business opportunities to build DC transmission lines²⁰¹ to carry wind and other forms of renewable energy to markets. However, as discussed in Part I, even if markets would support these new transmission actors and projects, their efforts were often stymied by opposition from incumbent utilities coupled with state laws that either expressly prohibited non-utility actors from building new transmission lines or were at best unclear on that issue.²⁰²

It was at this time, in 2005, that Congress enacted sections 1221 and 1222 of EAct 2005, detailed earlier in this Part, to provide a greater role for the federal government in interstate transmission line siting. As noted earlier, the courts thwarted FERC and DOE's initial efforts to implement section 1221 and those agencies have been hesitant to try again. As for section 1222, the provision rested in obscurity until March 2016, when DOE made major news after it exercised its authority for the first time in approving Clean Line Energy Partners' Plains & Eastern Clean Line project. Recall from earlier in this Part that section 1222 granted authority to WAPA and SWPA, working through DOE, to partner with a private party to design, construct, or operate a transmission project within WAPA and SWPA's geographic footprint on the condition that DOE determined the project would reduce congestion of electricity transmission, would accommodate increased electric transmission capacity, and would meet other requirements.²⁰³ As part of its implementation of section 1222, DOE issued a request for proposal ("RFP") in 2010 setting forth more detailed requirements for projects that wished to engage in the types of partnerships the new law authorized.²⁰⁴ The RFP stated that if the project met the section 1222 statutory criteria, DOE and the relevant PMA would conduct an initial evaluation of the project based on an analysis of the following factors:

- whether the project is in the public interest;

201. See *supra* note 75–76 and accompanying text (explaining the difference between DC and AC transmission lines).

202. Klass & Rossi, *supra* note 60, at 189–97.

203. Energy Policy Act of 2005, 42 U.S.C. § 16421(a) (2012).

204. Request for Proposals for New or Upgraded Transmission Line Projects Under Section 1222 of the Energy Policy Act of 2005, 75 Fed. Reg. 32,940 (June 10, 2010) [hereinafter RFP]; see also U.S. DEP'T OF ENERGY, SUMMARY OF FINDINGS, IN RE APPLICATION OF CLEAN LINE ENERGY PARTNERS LLC PURSUANT TO SECTION 1222 OF THE ENERGY POLICY ACT OF 2005, at 3–4 (2016) [hereinafter U.S. DEP'T OF ENERGY, SUMMARY OF FINDINGS] (discussing RFP).

- whether the project will facilitate the reliable delivery of power generated by renewable resources;
- an evaluation of the benefits and impacts of the project in each state it traverses, including economic and environmental factors;
- whether the project is technically viable, considering engineering, electric, and geographic factors; and
- whether the project is financially viable.²⁰⁵

The RFP also provides additional details on what the agencies want to see in an application with regard to each of the criteria.²⁰⁶

Clean Line Energy Partners submitted its section 1222 application to partner with SWPA in July 2010. As detailed in the March 2016 approval document, the initial proposal was for two HVDC lines that could deliver 7,000 MW of wind energy from projects in Oklahoma, Kansas, and Texas to the southeastern United States.²⁰⁷ Clean Line amended the proposal in January 2015 to seek approval for a single 720-mile 600 kV, HVDC transmission line capable of delivering 4,000 MW of primarily renewable energy from Oklahoma and Texas to the southeastern United States with an interconnection to the Tennessee Valley Authority (“TVA”).²⁰⁸ There would also be a converter station in Arkansas that would allow the line to connect with the MISO transmission system.²⁰⁹ Clean Line would contribute funds totaling \$14.1 million for SWPA to acquire the necessary property rights for the project using federal eminent domain authority and for environmental review costs and administrative expenses. Clean Line would also pay for and manage all other aspects of the project.²¹⁰ Clean Line submitted various updates to its application detailing its efforts to obtain the necessary state approvals for the project; negotiations with local governments and landowners; feasibility studies and interconnection negotiations with utilities, federal power agencies, and RTOs; and other economic and technical evaluations of the project.²¹¹

In its 2016 Summary of Findings, DOE explained that Clean Line was “not a traditional public utility with a franchised service territory, an obligation to serve captive customers, and cost-of-service rates including an approved return on equity.”²¹² Instead, it was engaged in the project as a “merchant” transmission line company—a “relatively recent entrant in the U.S. transmission market”—that would charge negotiated rates and assume all the financial risks associated with the project, rather than being assured a state-approved cost-

205. RFP, *supra* note 204, at 32,941.

206. *Id.* at 32,941–42.

207. U.S. DEP’T OF ENERGY, SUMMARY OF FINDINGS, *supra* note 204, at 4.

208. *Id.* at 5.

209. *Id.*

210. *Id.* at 4.

211. *Id.* at 4–5.

212. *Id.* at 5.

based rate paid for by retail customers.²¹³ DOE stated that “[m]erchant transmission projects are part of a broader trend toward market competition in the electric industry” that Congress and FERC “have promoted over the past two decades.”²¹⁴ DOE recognized that merchant transmission developers “often lack legal status as public utilities in the state where a proposed development is located,” making state approvals difficult.²¹⁵

DOE then detailed the efforts Clean Line had made to obtain state regulatory approvals for the project since 2010. In Oklahoma, Clean Line sought status as an “electric transmission-only public utility” providing bulk, wholesale electricity service in Oklahoma but without seeking to provide service to retail customers in the state like a traditional public utility.²¹⁶ The Oklahoma Corporation Commission granted the request in 2011 based on state law that allowed this form of transmission-only public utility status.²¹⁷

However, in Arkansas, the state public service commission denied a similar request by Clean Line in 2011.²¹⁸ In rejecting Clean Line’s application, the Arkansas commission determined that Clean Line could not obtain public utility status in the state because applicable law required it to transmit power “to or for the public for compensation,” and Clean Line had no contracts for providing electricity to the public in the state of Arkansas. In its decision denying the request, the commission stated that:

The difficulty the [Arkansas] Commission now faces is that the law governing public utilities was not drafted to comprehend changes in the utility industry such as this one—where a non-utility, private enterprise endeavors to fill a void in the transmission of renewable power that is much needed but for which the Commission is unable to afford any regulatory oversight.²¹⁹

Although the Arkansas commission left open the possibility that Clean Line could reapply for utility status, the Arkansas General Assembly essentially foreclosed that possibility when it enacted legislation in March 2015 prohibiting an independent, merchant transmission line from obtaining a certificate of public convenience and necessity. Under the new state law, a certificate cannot be issued to an entity that is not currently a public utility, primarily transmits electricity, and has not been directed or designated to construct an electric trans-

213. *Id.*; see also *supra* note 73 (defining merchant transmission line company).

214. U.S. DEP’T OF ENERGY, SUMMARY OF FINDINGS, *supra* note 204, at 5.

215. *Id.*

216. *Id.* at 5–6.

217. *Id.* at 6 (citing Plains & E. Clean Line LLC, Cause No. PUD 201000075, Order No. 590530 (Okla. Corp. Comm’n Oct. 28, 2011)).

218. *Id.*

219. *Id.* (citing and quoting Plains & E. Clean Line LLC, Docket No. 10-041-U, Order No. 10 (Ark. Pub. Serv. Comm’n Jan. 11, 2011)).

mission facility by an RTO.²²⁰ Thus, the law expressly prohibits merchant transmission companies from seeking certificates and constructing lines in the state of Arkansas.²²¹

Notably, Clean Line has faced similar difficulties obtaining state approval for its Grain Belt Express project in Missouri and its Rock Island project in Illinois, despite obtaining the approval of neighboring states for both projects. For the Grain Belt Express project, Clean Line obtained approval from the Indiana, Kansas, and Illinois commissions to build the line but in 2015, the Missouri Public Service Commission denied the company's request for a certificate.²²² The reasons for the denial included that the project did not address reliability needs in the state, the project was not needed for in-state utilities to meet their state renewable portfolio requirements, and that the project was not in the public interest because it would impose burdens on affected landowners that outweighed any benefits to the general public.²²³ After the denial, Clean Line attempted to build local support for the project and entered into contracts to supply power from the line to municipal utilities and other local utilities in Missouri. These utilities subsequently supported the project, causing the commission to reconsider its denial in an evidentiary proceeding in March 2017.²²⁴ With regard to the Rock Island project, the Illinois Commerce Commission had granted approval, but landowners challenged it in court leading the Illinois Court of Appeals to hold that the approval was invalid because Clean Line was

220. *Id.* (citing H.B. 1592, 90th Leg. Reg. Sess. (Ark. 2015), <http://perma.cc/M7UC-QLZA> (codified at ARK. CODE ANN. § 23-3-205 (2015))).

221. For a fifty-state survey of which states allow and which states do not allow merchant transmission lines to obtain certificates of public convenience and necessity or equivalent approvals to construct transmission lines in the state and exercise eminent domain authority, see Alexandra B. Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079, 1123-26 (2013).

222. See JOSEPH E. ETO, BUILDING ELECTRIC TRANSMISSION LINES: A REVIEW OF RECENT TRANSMISSION PROJECTS 15-16 (2016) (describing the Grain Belt Express project).

223. See *id.* at 16; see also Grain Belt Express Clean Line LLC for a Certificate of Convenience and Necessity, Report and Order, File No. EA-2014-0207, at 22, 25-26 (Mo. Pub. Serv. Comm'n, July 1, 2015), <https://perma.cc/A5TJ-5AX4>.

224. After the Missouri commission denial, Clean Line obtained "the backing of 38 utilities, nearly 70 municipalities, the Missouri Chamber of Commerce, and about 10 Fortune 100 corporate entities with a presence in Missouri that want that clean power to meet their own sustainability goals." Travis Zimpfer, *Clean Line Closing in on Final Order with PSC*, MO. TIMES (Oct. 16, 2016), <http://perma.cc/N4Y7-JX9G>. The utilities entered into transmission service agreements "because they cannot get energy as cheap as they can from the grain belt project." *Id.*; see also Forrest Gossett, *Missouri Regulators to Hear Grain Belt Express Case March 20-24*, HANNIBAL COURIER POST (Mar. 7, 2017), <https://perma.cc/TLS2-SKHG> (describing the conflict as an urban versus rural battle); Benjamin Peters, *More Cities Line up for Grain Belt Express Deals as PSC Hears Case for a Second Time*, MO. TIMES (Mar. 22, 2017).

not a public utility.²²⁵ That decision is on appeal to the Illinois Supreme Court.²²⁶

Despite setbacks at the state level for the Plains & Eastern project, Clean Line sought and obtained permission from FERC to conduct direct negotiations with wind farms and other electricity generators for transmission service rates.²²⁷ DOE also began the environmental review process for the project and evaluation of the section 1222 RFP requirements, resulting in consultation with other federal agencies as well as solicitation of comments from the public.²²⁸

In the March 2016 Summary of Findings, DOE detailed the conditions of the participation agreement with Clean Line. These include DOE assisting with right-of-way acquisition and exercising eminent domain authority when necessary, once Clean Line satisfied conditions related to the commercial viability of the project.²²⁹ DOE would own all the project facilities in Arkansas, but all costs of these facilities, like all the costs of the project, would be borne by Clean Line.²³⁰ DOE also set forth the reasons why it believed it had authority to enter into the participation agreement with Clean Line and also exercise eminent domain authority for the project, if needed.²³¹ The detailed discussion of DOE's legal authority was likely prompted by the numerous public comments DOE received from state attorneys general, members of Congress, and others contending that use of eminent domain authority without state approval would improperly interfere with states' authority over property rights and land use regulation within their borders.²³²

The Summary of Findings went on to explain why the proposal met all the section 1222 statutory factors—that the project would meet a projected increased demand for electricity, would be consistent with transmission needs

225. *Ill. Landowners All. v. Ill. Commerce Comm'n*, 2016 IL App (3d) 150099 (Ill. Ct. App., 3rd Dist., Aug. 10, 2016) (holding that Rock Island Clean Line is not a public utility and thus cannot obtain a certificate of public convenience and necessity to construct an electric transmission line in the state because it does not have assets in the state, does not have agreements for service with renewable energy generators in the state, and does not devote assets to public use in the state without discrimination because the anchor wind tenants are in other states).

226. Jeffrey Tomich, *Ill. High Court to Hear Clean Line Transmission Dispute*, ENERGYWIRE (Nov. 28, 2016), <http://perma.cc/64XC-58YH>.

227. *See* U.S. DEP'T OF ENERGY, SUMMARY OF FINDINGS, *supra* note 204, at 6. FERC typically grants such authority to merchant transmission lines but not to traditional public utilities because merchant transmission line companies assume all the market risks of a project and have no captive customers to recover costs, as is the case with a traditional public utility. *See id.* (citing Plains & E. Clean Line LLC, 148 FERC ¶ 61,122 at ¶ 1 n.1 (2014)).

228. *See id.* at 7–9.

229. *See id.* at 10–11.

230. *See id.* at 11.

231. *See id.* at 15–18.

232. *See id.* at 15 n.83, 15–18, 20–21 (discussing criticisms and responses to DOE's assertion of authority to exercise eminent domain authority for the project).

identified by the relevant RTO, would improve grid reliability, would be operated consistent with prudent utility practices, and would operate in conformance with rules of the appropriate RTOs.²³³ Finally, the decision document addressed each of the DOE's RFP factors—public interest, promoting renewable energy, economic and environmental impacts in affected states, and technical and financial viability.²³⁴ For these factors, the decision document focused mostly on whether the project would facilitate the development of renewable energy (concluding that it would) and also the extent to which the project would create jobs and enhance economic development in the states in which the project traverses.²³⁵ Thus, in addition to a more traditional federal review of the project's regional and national benefits, similar to what FERC does in reviewing interstate natural gas pipelines, the RFP required DOE to conduct a very careful review of the economic and environmental benefits and harms to two specific states—Oklahoma and Arkansas.

With regard to its assessment of impacts in Oklahoma and Arkansas, DOE concluded that the project would generate short-term and long-term jobs in both states; that economic benefits would flow from the construction, operation, and maintenance of the project; and that the project would generate substantial tax revenues for both states because the project facilities that would be built in both states are taxable.²³⁶ According to DOE, these economic benefits also included the development of wind resources and associated jobs in Oklahoma facilitated by the project²³⁷ and a significant decrease in energy production costs in Arkansas—and thus lower costs to Arkansas citizens and businesses—as a result of Arkansas utilities gaining greater access to low-cost wind energy.²³⁸ As for negative landowner and environmental impacts, DOE noted that “landowner impacts are a regrettable but unavoidable consequence of infrastructure projects,” and that this is “especially true for linear infrastructure projects that traverse long distances, such as transmission lines, pipelines, railroads, and highways.”²³⁹ Because of the inevitability of these impacts, the key point, according to DOE, was whether the project has made efforts to minimize the impacts, and in this case, DOE found that Clean Line had done so.²⁴⁰

DOE's decision on the Plains & Eastern Clean Line project is significant. First, the decision is the first time DOE has exercised the authority Congress granted it in section 1222 of the EPAct 2005 to collaborate on a private project in an effort to overcome state siting and eminent domain barriers to an inter-

233. *See id.* at 21–41.

234. *See id.* at 41–68.

235. *See id.*

236. *See id.* at 43–44, 57–62.

237. *See id.* at 58.

238. *See id.* at 60.

239. *Id.* at 44.

240. *See id.* at 44–48.

state electric transmission line designed to serve multistate regional electricity needs and promote renewable energy. If the Trump Administration DOE continues to support Clean Line, and the courts uphold DOE's authority, this action represents a potential new path towards regional grid expansion that better matches contemporary regional energy needs and policies in at least the portion of the nation within the WAPA and SWPA footprints.

Perhaps more importantly, however, DOE's decision represents a new approach towards approving multistate energy transport projects that differs from the conventional FERC model for interstate natural gas pipelines as well as the traditional state model for interstate electric transmission lines. The FERC model for interstate natural gas pipelines pays little attention to state economic impacts associated with projects.²⁴¹ That is simply beyond the scope of the relevant evaluation, because applicable FERC regulations place the focus on regional and national energy needs. There is also not nearly as much emphasis on landowner opposition and concerns in affected states (separate and apart from traditional environmental impacts studied in the environmental review process) in evaluating interstate natural gas pipelines. On the flip side, states often do not consider regional or national electric transmission and electric energy needs in evaluating interstate electric transmission lines. Understandably, state public utility commissions tend to view their jurisdiction as predominantly limited to state economic and energy issues, ensuring that the project will benefit the state's electricity ratepayers.

By contrast, DOE's Summary of Findings has an extensive evaluation of both regional and in-state impacts of the project. There is a significant discussion of how the project will connect with other regional grid operators, including RTOs, and of how the project will facilitate increased renewable energy penetration over a multistate region. Unlike a FERC approval document for an interstate natural gas pipeline, the Summary of Findings contains a broad discussion of economic, landowner, and environmental impacts in the states of Arkansas and Oklahoma. Because of the RFP factors, this evaluation is highly relevant to DOE's decision, thus giving state impacts a more prominent role than is generally seen in a federal evaluation of an energy transport project. Thus, the DOE Summary of Findings represents a potential new approach to striking a federalism balance between the federal government and the states in the controversial area of interstate electric grid expansion.

241. See *supra* Part I.A.

III. RECONSTITUTING THE BATTLE LINES: INTEGRATING STATE INTERESTS INTO FEDERAL APPROVALS TO OVERCOME SITING IMPASSES

The conventional framework for approaching jurisdiction over the siting and planning of energy transportation infrastructure has led to a regulatory and policy impasse. It has enabled contentious and prolonged disputes surrounding FERC's approval of new natural gas pipeline projects, as well as a concern that overly broad preemption in Natural Gas Act certificate proceedings invites federal regulators to run roughshod over state and local interests. For interstate electric transmission lines, the conventional framework has encouraged state regulators to block several important efforts to expand electric transmission infrastructure that would increase grid reliability and allow greater integration of renewable electric energy resources.

However, a solution to these federalism battles does not necessarily rest on Congress expanding federal preemption of states in the siting of interstate natural gas pipelines and interstate electric transmission lines. It is certainly true that calls to expand federal authority have been the "go-to" solution in the past when dealing with roadblocks facing interstate infrastructure such as natural gas pipelines in the 1930s, LNG import and export terminals in the early 2000s, and road transportation projects like the national highway system in the 1950s. It is also true that a one-stop, federal siting approach creates a more streamlined and efficient approval process with less veto points. This would mean creating enhanced federal siting and eminent domain authority for interstate electric transmission lines. It would also mean eliminating or modifying existing state veto points in interstate natural gas pipeline siting by eliminating state CWA section 401 certification requirements in that context or granting federal override authority, similar to the process under the Coastal Zone Management Act. Indeed, in the context of interstate electric transmission lines, in earlier work both authors have emphasized the need for federal siting authority as one solution to addressing federalism battles that have hindered electric grid expansion (and thus renewable energy integration expansion).²⁴²

But we also recognize that reducing state veto points will thwart enforcement of important environmental standards and silence important voices in the evaluative process that are more attuned to local environmental and land use impacts and, in the case of natural gas pipelines, often more attuned to global climate change concerns and promoting renewable energy than are federal

242. See, e.g., Ashley Brown & Jim Rossi, *Siting Transmission Lines in a Changed Milieu: Evolving Notions of the "Public Interest" in Balancing State and Regional Considerations*, 81 U. COLO. L. REV. 705, 741–48 (2010); Klass, *supra* note 9, at 1943–46; Klass & Rossi, *supra* note 60, at 133–34; Klass & Wilson, *supra* note 58, at 1859–65; Jim Rossi, *The Trojan Horse of Transmission Line Siting*, 39 ENVTL. L. 1015, 1017 (2009).

agencies.²⁴³ Like the NEPA process itself, meaningful state evaluation and input can result in projects with reduced adverse environmental and land use impacts and, in some cases, can prevent projects that, in hindsight, were neither cost-effective nor environmentally sound. For instance, states played a major role in the early 2000s in blocking several long-distance, interstate electric transmission lines that would have facilitated the addition of major, coal-fired power plants into the northeastern electric grid.²⁴⁴ At the time, no one anticipated that the United States would ever move away from coal as a major source of baseload electric generation. Now, of course, the nation has already done so and is quickly moving towards an electricity future focused on natural gas and renewable energy as a matter of economics, even if not necessarily supported by federal policy during the Trump Administration.

Moreover, congressional expansion of federal siting authority for electric transmission lines and reduction of existing state veto authority under the CWA for interstate natural gas pipelines will not reduce opposition to projects or protracted litigation over them. Unless states are rendered completely voiceless in the process (which is highly unlikely under any presidential administration or Congress), opponents (i.e., governments and other interested parties) can be expected to use whatever tools they have to oppose such projects for local land use, environmental, economic, or climate change reasons, and thus more federal authority for such projects as a stand-alone solution may help in some cases, but not in all cases.

Notably, both state and federal regulators have recently made some significant efforts to innovate beyond conventional jurisdictional battle lines. When faced with jurisdictional impasses, regulators have developed new approaches that do not rely on placing ultimate siting authority clearly on one side or the other of the jurisdictional divide. In lieu of the conventional approach to dividing authority—presumptively favoring federal authority for pipelines and state authority for electric transmission lines—both state and federal regulators have shown appreciation for a more collaborative approach to energy transportation siting. Such approaches may help to move energy transportation debates be-

243. It is well recognized in the energy industry that states are more responsive to local concerns than are federal regulators, allowing local opponents of energy infrastructure projects more power to successfully oppose projects where state law governs. See, e.g., Jenny Mandel, *Protesters' Win "a Wakeup Call" for Other Pipeline Projects*, ENERGYWIRE (Dec. 6, 2016), <http://perma.cc/FW2Q-65J6> (quoting public affairs expert stating that it is easier to work with FERC and federal legislators for project approval “than it is to go to 50 different towns along your pipeline route’ holding open houses and coffee gatherings, only to be met by state officials worried about the level of local opposition they’re experiencing”).

244. See, e.g., Steve Huntoon, *The Rise and Fall of Big Transmission*, PUB. UTIL. FORT. 32, 39–41 (Sept. 2015) (arguing that state proceedings and open stakeholder processes are a potentially good correction to slow down, modify, or kill many “big transmission” projects that, in hindsight, were not necessary and that such state and stakeholder processes work instead in favor of more incremental transmission solutions).

yond the impasse that has plagued conventional debates surrounding energy siting, even in the absence of congressional action.

For instance, FERC's initial rule on backstop siting authority over electric transmission lines under EPAAct 2005 only seemed to shift in one direction—in favor of increased federal authority based on the conventional approach to natural gas pipeline siting. By contrast, recent efforts by federal regulators in addressing electric transmission siting in the context of the Plains & Eastern Clean Line project illustrate how a federal process can better integrate the judgment and expertise of state regulators into federal siting procedures. Although the DOE decision did not necessarily integrate the views of state regulators, it at least evaluated state benefits and costs and, in a future proceeding, could take the next step to more fully integrate state concerns. Indeed, present day trends towards a greater integration of gas and electric in the operation of the energy sectors highlights how the days of thinking about siting jurisdiction as a one-way ratchet have come to an end. Especially since gas has become integral to the transformation towards a lower carbon emission electric grid, it is more important that FERC and state regulators both play a major role in recognizing this connection and using existing authority under the Natural Gas Act and the Federal Power Act to bring the siting regimes more in line. Thus, in this Part, we draw on recent innovations by regulators to discuss particular opportunities for siting convergence between gas and electric regulation.

With these issues in mind, this Part evaluates potential actions federal agencies and project proposers can take to create innovative regulatory pathways for project siting. Section A explores in more detail how the DOE's recent integration of state concerns into its exercise of section 1222 authority produces substantial procedural and legal benefits—which courts may reinforce through judicial review. Section B discusses how extending state input and enhanced evaluation of state economic benefits early in the FERC pipeline permitting process can produce similar procedural and legal benefits. Section C delves further into how recognition of an enhanced analysis of state benefits and harms early in the FERC process can produce positive incentives for private interest groups, by encouraging project proposers to offer more targeted mitigation (both environmental and economic) that can address at least some state and local concerns prior to the issuance of a federal certificate in the case of interstate natural gas pipelines and state approvals in the case of interstate electric transmission lines.

A. Encouraging Federal Regulators to Weigh State Interests in Electric Transmission Line Siting

As discussed above,²⁴⁵ DOE's approval of the Plains & Eastern Clean Line application illustrates a potential new path for federal regulators to approach transmission line siting through a process that, at least on the surface, appears

245. See *supra* Part II.D.

to be respectful of state concerns.²⁴⁶ Instead of making its own assessment of need based entirely on interstate grid concerns, such as a need for grid expansion to meet national objectives, DOE explicitly placed considerable weight on in-state benefits in approving Clean Line's application.²⁴⁷ By recognizing the significance of state interests in approving new interstate energy transportation processes, such as economic growth and new jobs, DOE has taken an approach that no longer risks leaving state and local governments sitting on the sideline in federal siting processes. Such an approach by federal regulators has significant promise in overcoming jurisdictional impasses over the siting for new electric transmission infrastructure, though there are also at least two limitations to it.

The first limitation relates to the pragmatic limitations of federal regulators. Without doubt, a federal regulator such as DOE is better able to bring an objective, "big picture" evaluation to the assessment of the benefits to a state of siting a new project, especially where the state or local process is mired in parochial concerns. Federal regulators may also be best positioned to trade off costs and benefits between states, where one state benefits at another's costs. But federal regulators may not have access to the best information regarding *how* each state benefits, or to fully assess the degree of benefits to each state. A state regulatory process is more likely to produce a more accurate and fuller picture of this. Nor should a federal regulatory process such as DOE's approval of applications under section 1222 of EPAAct 2005 be approached in a manner that crowds out state and local discussion of a project's benefits and costs. It would seem important that federal regulators give state and local governments the first bite at the apple, so to speak, in initiating any discussion of a project's state benefits and costs. Of course, in the end, federal regulators can ultimately reject a state or local government's findings regarding benefits—especially when parochial interest groups dominate a local regulatory process. In doing so, federal regulators should first make a determination that a local government either failed to consider or was insufficiently attentive to these benefits.

The second limitation is jurisdictional. Federal siting and eminent domain authority under section 1222 is only available for limited projects in certain regions of the country.²⁴⁸ Still, DOE's recent approach of recognizing vital state interests in evaluating electric transmission line approval provides a fruitful

246. Of course, there is significant disagreement on this point, as evidenced by the Arkansas congressional delegation's introduction of federal legislation attempting to overturn DOE's decision. See Bill Loveless, *Battle over Big Energy Infrastructure Heats Up*, USA TODAY (Mar. 29, 2016), <https://perma.cc/3YK5-RXU7>. DOE's decision has also been subject to legal challenge by landowners, states, and other parties on grounds that DOE did not adequately take state interests into account in its approval and that it lacks authority to approve the project under federal law.

247. See *supra* Part II.D.

248. See *id.*

template for federal regulators considering infrastructure siting decisions in other contexts. These include future efforts by DOE to adopt NIETCs over which FERC can exercise backstop siting authority, where state regulators may be better positioned to evaluate potential project benefits and location-related issues prior to DOE.²⁴⁹ Similarly, in approaching backstop siting, FERC should not focus entirely on national or regional needs but should also recognize how any project presents both benefits and harms for each affected state prior to making a decision to preempt state regulators. Engaging these benefits and harms will better integrate state regulators into the federal siting processes and reduce the likelihood of conflict if a federal regulator decides to exercise preemption authority, including eminent domain.

These recent efforts by DOE in utilizing section 1222 are consistent with recent executive branch policy as well as DOE rules.²⁵⁰ A memorandum issued by the Obama Administration in 2012 called for expedited review of domestic pipeline projects, as well as better coordination between federal agencies and the states.²⁵¹ DOE's recent approach to electric transmission infrastructure in implementing section 1222 is consistent with the objectives of these directives. They also are consistent with congressional efforts to implement better coordination in pipeline siting. EPLA 2005, the same statute that added section 1222, also amended the Federal Power Act to add section 2116(h),²⁵² which directed the DOE to "act as the lead agency for coordinating all applicable Federal authorizations and related environmental reviews required under Federal law in order to site an electric transmission facility" and to issue any necessary implementing regulations.²⁵³ In September 2016, DOE issued a final rule pursuant to this provision to establish a "simplified Integrated Interagency Pre-application ['IIP'] process to site electric transmission facilities."²⁵⁴ A primary focus of this regulation is to create an optional pre-application process to coor-

249. For example, Ashira Ostrow has argued that, although federal law imposes constraints on the transmission line siting process, it must be attentive to procedures that encourage participation by state and local governments. See Ashira Ostrow, *Process Preemption in Federal Siting Regimes*, 48 HARV. J. ON LEGIS. 289, 290 (2011).

250. President Trump has also stated that he will make infrastructure projects a priority for his administration, although it is unclear how infrastructure is to be defined. See, e.g., Press Release, White House, President Trump is Working to Rebuild Our Nation's Infrastructure (Feb. 28, 2017), <https://perma.cc/G7U5-VDUG>; David Shepardson, *Trump to Meet with Business Leaders on Infrastructure*, REUTERS (Mar. 8, 2017), <https://perma.cc/CBA3-96YT>.

251. See Memorandum from the President, *Expediting Review of Pipeline Projects from Cushing, Oklahoma to Port Arthur, Texas and Other Domestic Pipeline Infrastructure Projects* (Mar. 22, 2012), <http://perma.cc/8U9Q-6U8N>.

252. 16 U.S.C. § 824p(h) (2012).

253. U.S. DEP'T OF ENERGY, SUMMARY OF REGULATIONS IMPLEMENTING FEDERAL POWER ACT SECTION 216(H) 1 (Sept. 2008), <https://perma.cc/CCX2-HER7>.

254. DOE Coordination of Federal Authorizations for Electric Transmission Facilities, 81 Fed. Reg. 66,500, 66,500-02 (Sept. 28, 2016) (codified at 10 C.F.R. § 900.1).

dinate NEPA review and evaluation when multiple federal agencies must sign off on a transmission project (for instance, a project that crosses federal lands, impacts endangered species or historic resources, requires a water crossing that triggers a federal permit requirement, etc.). But the rule also emphasizes early, pre-application coordination with “non-federal entities,” such as states, local governments, and stakeholders.²⁵⁵ DOE’s IIP rule details the creation of an “IIP administrative file” and requires a summary of “early identification project issues” intended to provide “a summary of stakeholder outreach or interactions . . . to inform the development of issues and project alternatives for study in an environmental review document.”²⁵⁶ When the administrative record contemplated by the rule is complete, DOE convenes a series of meetings with federal and non-federal entities to discuss potential impacts of the project as well as potential avoidance and mitigation measures. All of the written materials and meetings become part of the “IIP Process administrative file” which in turn becomes part of each federal agency’s record for purposes of the agency’s decision and judicial review.²⁵⁷

DOE’s IIP rule, along with DOE’s separate efforts to evaluate state benefits and impacts as part of the section 1222 process, illustrates a potential path forward to early involvement and fuller evaluation of environmental and economic issues of interest to both federal and state permitting entities and stakeholders. Such early collaboration and evaluation of the issues may, at least in some instances, allow for route changes, mitigation measures, and structured discussion among stakeholders and state and federal permitting entities that can reduce post-permitting vetoes or legal challenges. Indeed, one representative of the National Rural Electric Cooperative Association, which represents electric utility cooperatives nationwide, stated that the new rule can “encourage transmission developers to do a lot of consultation—not only with federal agencies, but state agencies and tribes—before the application, and that would be a way of facilitating more coordination after the application actually gets done.”²⁵⁸

255. *Id.* at 66,507. The rule defines a “non-federal entity” as:

an Indian Tribe, multistate governmental entity, or state and local government agency with relevant expertise and/or jurisdiction within the project area, that is responsible for conducting permitting and environmental reviews of the proposed qualifying project or its attendant facilities, that has special expertise with respect to environmental and other issues pertinent to or that are potentially affected by the proposed qualifying project or its attendant facilities, or provides funding for the proposed qualifying project or its attendant facilities.

Id. at 66,508.

256. *Id.* at 66,510.

257. *Id.* at 66,513.

258. Rebecca Kern, *Utilities Optimistic Rule Will Shorten Transmission Line Siting*, DAILY ENV’T REP. (BNA) 47 ENR 2822 (Sept. 30, 2016) (quoting Pam Siberstein, Senior Dir., Power Supply Counsel at the National Rural Electric Cooperative Association).

These approaches create substantial pragmatic procedural benefits for both private parties and regulators. For instance, the Great Northern Transmission Line designed to bring hydropower resources from Manitoba, Canada to northern Minnesota demonstrates how a project proposer's efforts to engage in early consultation with local communities prior to route selection diminishes local opposition in the permitting process and expedites both state and federal permitting processes. The Great Northern Transmission Line is a 224-mile, 500-kV transmission line developed by Minnesota Power, an investor-owned utility in northern Minnesota, proposed to transport 883 MW of hydropower resources from the Minnesota-Manitoba border to Grand Rapids, Minnesota, to serve Minnesota Power's customers.²⁵⁹ Minnesota Power conducted seventy-five public information workshops in the area of the proposed line, many of which took place before the proposer submitted its state certificate of need application or selected a final proposed route.²⁶⁰ Because the line crosses an international border, Minnesota Power had to obtain a Presidential Permit from DOE, a certificate of need and a route permit from the Minnesota Public Utilities Commission, and complete state and federal environmental review processes associated with the multiple state and federal approvals required.²⁶¹ Minnesota Power obtained the state certificate of need in June 2015, the state route permit in April 2016, and the Presidential Permit in November 2016.²⁶²

The state and federal environmental review processes were conducted jointly, saving time and expense. According to a Lawrence Berkeley National Laboratory report evaluating the project in connection with a broad review of current transmission projects around the country, all of the state and federal permits were obtained within three years "in part because of extensive advance public outreach that reduced potential opposition and roadblocks to the project, and in part because the federal and state environmental review process took place in tandem."²⁶³ Moreover, according to this report, "[p]roactive engagement enabled the project developers to hear and take into consideration public and stakeholder concerns before putting forth routing proposals" which "signaled early on their openness to hearing public and stakeholder concerns" and a "willingness to address these concerns by taking explicit account of them in their initial routing proposal."²⁶⁴ Thus, the Great Northern Transmission line project as well as the CapX2020 transmission line projects in the Midwest dis-

259. ETO, *supra* note 222, at 13.

260. *Id.* at 13–14.

261. *Id.* at 14–15; see also U.S. DEP'T OF ENERGY, GREAT NORTHERN TRANSMISSION LINE ENVIRONMENTAL IMPACT STATEMENT (2016), <http://perma.cc/UND7-7L56> (repository of EIS-related documents for project).

262. ETO, *supra* note 222, at 13–15; U.S. DEP'T OF ENERGY NO. PP-398, PRESIDENTIAL PERMIT MINN. POWER (2016), <http://perma.cc/PY4X-M7F5>.

263. ETO, *supra* note 222, at 15.

264. *Id.* at 22.

cussed earlier show that projects can avoid protracted delays and litigation with careful planning and early consultation with stakeholders.

These examples illustrate that early consultation with federal and state agencies and the public and a willingness to negotiate on routing can save time and expense in the long run. It is important to note however that the Great Northern Transmission Line project had several additional factors in its favor that distinguish it from the Clean Line projects and other projects that have not fared so well. First, Minnesota Power is an investor-owned utility with retail customers in the state who will stand to benefit directly from Minnesota Power's procurement of additional low-cost, renewable energy resources. Second, Minnesota Power had to obtain a siting permit from a single state, rather than multiple states, and thus could focus its efforts on public outreach and articulating in-state benefits in a single forum rather than multiple forums. Indeed, the Lawrence Berkeley National Laboratory report that highlighted Minnesota Power's success also discussed Clean Line's Grain Belt Express project, and recognized that projects involving multiple states are "more complicated," and it is imperative that the project proposer ensure "that there are identifiable project beneficiaries within each state from which approval has to be obtained."²⁶⁵ Finally, the Great Northern Transmission Line traverses a part of Minnesota that is sparsely populated, leading to less opposition than often exists with regard to transmission lines in other parts of the country. Nevertheless, the experience of the Great Northern Transmission Line, coupled with the new DOE rule and DOE's efforts under section 1222, create a template committed project proposers and agencies can utilize to reduce permitting roadblocks and improve agency evaluation of the costs and benefits associated with electric transmission expansion projects.

Finally, the benefits of such an approach go beyond pragmatic politics. They also extend to arbitrary and capricious review by courts. Courts have long held agencies to a decision-making standard that disfavors a one-sided rush to judgment that does not fully vet a broad range of values, including those of local communities, to ensure that agency decisions reflect a pluralist set of values and are not made in a biased manner.²⁶⁶ Where an agency has made a proactive effort to address state concerns in a siting proceeding, it is less likely to be reversed for failing to consider an important aspect of the problem it is addressing in approving (or failing to approve) a project.²⁶⁷ Where Congress has specifically directed an agency to consider various perspectives and evidence, as

265. *Id.* at 23.

266. See *Citizens to Preserve Overton Park v. Volpe*, 401 U.S. 402 (1971); see also Peter L. Strauss, *Revisiting Overton Park: Political and Judicial Controls over Administrative Actions Affecting the Community*, 39 UCLA L. REV. 1251 (1992).

267. See *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 42-43 (1983) (noting that a decision is arbitrary and capricious where an agency "entirely failed to consider an important aspect of the problem").

it has in NEPA, the agency has an even greater responsibility to ensure that it is not ignoring these perspectives in its ultimate decision. Agencies should thus expect courts to be more deferential to their ultimate decisions involving project siting where they have proactively taken a comprehensive approach similar to DOE's recently invoked section 1222 process.

B. Reforming FERC Natural Gas Pipeline Siting to Integrate State and Local Interests in Determining Project Routing and Approval

The federal-state conflict is perhaps at its height in the context of natural gas pipeline siting, where a combination of environmental interests concerned with the climate change impacts of continued dependency on fossil fuels have built formidable coalitions with property right advocates to encourage state regulators to hold out from project approval. As the ongoing objections of New York regulators to the Constitution Pipeline illustrate,²⁶⁸ FERC's natural gas pipeline siting determinations could also benefit from earlier and more substantive integration of state interests in its analysis—as the Obama Administration recommended in its 2012 memorandum on pipeline infrastructure siting.²⁶⁹ Conventionally, FERC's centralized approach to pipeline siting has relegated state governments to a seat on the sidelines. This federal-centric process may historically have made gas pipelines less of a political firestorm than interstate electric transmission lines, but that has changed—as is evident in the number of high visibility recent protests surrounding FERC's approval of natural gas pipeline and compressor station projects.²⁷⁰

New York's recent rejection of the Constitution Pipeline underscores how federal environmental law still provides state governments a meaningful procedural point of entry, even in the federal-centric interstate gas pipeline siting process. FERC-sponsored hearings on the Constitution Pipeline provided some opportunity for state and local input on the project.²⁷¹ The concerns of state regulators were weighed as input by FERC, primarily as a part of the federal environmental review process.²⁷² These discussions led the applicant to adopt a new route for the pipeline, reducing the environmental impacts as well as the need for an additional compressor station.²⁷³ At the same time, FERC rejected a request for a hearing to address environmental concerns during the section 7 proceedings.²⁷⁴ The New York environmental regulator's rejection of the project's section 401 certification under the CWA following FERC's ap-

268. *See supra* Part II.C.

269. *See supra* note 251.

270. *See, e.g., supra* note 169 and accompanying text (reporting on protests at FERC).

271. *See supra* notes 176–81 and accompanying text.

272. *See id.*

273. *See supra* note 178.

274. *See supra* note 174 and accompanying text.

proval of the section 7 certificate under the Natural Gas Act, in effect, allowed an eleventh-hour veto point over the project—a decision that many who are concerned with the climate impacts of the Constitution Pipeline celebrated.²⁷⁵

While the savings clause in the Natural Gas Act, along with case law, appears to allow states some ability to address environmental concerns such as water quality following the issuance of a certificate by FERC, this is a costly and inefficient procedural way of addressing these important state issues. We see two primary deficiencies in FERC's current approach to pipeline approval. First, FERC does not systematically invite state environmental regulators to share their expertise and judgment on the record in federal pipeline certification decisions, or regularly provide a forum for vetting these concerns. Second, the timing of FERC's section 7 certificate process seems to invite potential challengers and state regulators to sit back and let FERC decide the locational issues without fully addressing environmental concerns, inviting eleventh hour state veto points in CWA permits that conflate siting and environmental issues and have no ready resolution. Addressing these deficiencies can produce many of the same benefits as DOE's section 1222 transmission line approval process, including more efficient procedures and a higher likelihood of courts upholding FERC pipeline permitting decisions.

1. *Facilitating Early Consultation with States and Other Stakeholders*

Consistent with the Obama Administration's 2012 memorandum calling for better coordination in pipeline siting²⁷⁶ (an approach the Trump Administration might be expected to follow in its efforts to expand energy infrastructure), we believe that the interactions between decisions regarding pipeline routing and environmental impacts are best addressed earlier, in an integrated federal siting procedure. One way for this to occur would be for FERC to model its review of gas pipeline routing applications after DOE's consideration of state interests in approving Clean Line's section 1222 application. It could also adopt a version of DOE's IIP Process under its existing statutory authority in order to better coordinate and evaluate state and local interests that might otherwise arise after the fact through CWA or Coastal Zone Management Act objections.

In other words, rather than making a determination regarding the routing of a project prior to state environmental review—an approach that encourages state regulators and environmental interest groups to hold out in presenting information and formally expressing concerns with a project—FERC could explicitly invite and engage state participation in the pre-filing stage of pipeline certificate review as well as concurrent with its review of the routing of projects

275. See *supra* note 194 and accompanying text.

276. See *supra* note 251.

in the certification proceedings. In making a provisional assessment of pipeline routing in pipeline certificate proceedings, FERC could improve the quality of environmental evaluation of a project by incorporating input from state environmental regulators into the federal assessment of a project's impact. FERC also might consider a streamlined, fast-track approach to pipeline certification in situations where the applicant has received conditional state approval from state regulators of environmental permits related to pipeline routing—placing the state environmental review of a project before FERC's review. Such approaches would allow FERC to more formally integrate an assessment of the benefits and burdens for individual states into its approval of pipeline projects. As is discussed below, the net effect of such approaches would be to encourage project developers to more proactively pursue state and local environmental review early on, and make concessions if necessary, reducing the need for interest groups to look to state environmental processes as a way of blocking projects at the back end, which (as the example of the Constitution Pipeline shows) can serve as an eleventh-hour veto point.

To improve the engagement of state regulators in the pre-filing stage of pipeline approval, FERC could adopt a guidance document or a rule similar to the DOE's IIP Process that highlights how state environmental regulators can play a role in this early phase of pipeline consideration. FERC and pipeline sponsors routinely hold informational meetings regarding pipelines at the pre-filing stage of pipeline certification,²⁷⁷ but FERC should consider seeking the formal input of state regulators at this stage too.²⁷⁸ More formal consultation with state regulators early in the federal pipeline siting process can also improve the quality of the record on which FERC is making decisions regarding pipeline routing.²⁷⁹ FERC should consider multistage consultation with state regulators,²⁸⁰ perhaps inviting EPA to also play a role early in the pipeline siting

277. See, e.g., *Pre-Filing for All Natural Gas Projects*, FERC, <http://perma.cc/FC23-93VB>.

278. FERC already seeks early input from the Army Corps of Engineers at the pre-filing stage in interstate gas pipeline siting proceedings. See Memorandum of Understanding Between U.S. Army Corps of Engineers and the Federal Energy Regulatory Commission Supplementing the Interagency Agreement on Early Coordination of Required Environmental and Historic Preservation Reviews Conducted in Conjunction with the Issuance of Authorizations to Construct and Operate Interstate Natural Gas Pipelines Certificated by the Federal Energy Regulatory Commission (June 30, 2005), <http://perma.cc/U9C6-G4UW>.

279. On the benefits of agency consultation in improving coordination, see Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1133 (2012).

280. Pursuant to 18 C.F.R. §§ 4.38, 5.1(d), and 16.8, applicants seeking an exemption, original license, new license, or an amendment to a license for a hydropower project must consult with relevant federal, state, and interstate resource agencies, Indian tribes, and non-governmental agencies. 18 C.F.R. §§ 4.38, 5.1(d), 16.8 (2017). FERC routinely uses multistage consultation in the context of hydropower licensing, although there is a continued need for better coordination with state regulators. See, e.g., *Initial Consultation Contact List*, FERC, <http://perma.cc/5X9R-MRAJ> ("Pursuant to 18 C.F.R. §§ 4.38, 5.1(d), and 16.8, applicants

process in order to resolve any conflicts between FERC and states regarding whether state conditions relating to the location or routing of a pipeline relate to “water quality” under the CWA, or stem from other concerns. This may prove especially important in the context of multistate projects in which different state regulators have a different assessment of environmental impacts affecting water quality.

Yet another option would be for FERC to act pursuant to the Fixing America’s Surface Transportation Act (“FAST Act”), which Congress enacted in 2015, to include the reforms suggested in this section to expand the certificate of need process to include greater emphasis on state concerns, including climate and other environmental impacts. The FAST Act²⁸¹ was “Congress’s first multiyear federal transportation bill enacted in a decade.”²⁸² One section of the law created additional procedures for federal permitting of major infrastructure projects to promote improved coordination and stricter deadlines for permitting decisions.²⁸³ The law creates the new Federal Infrastructure Permitting Improvement Steering Council with most control of the council vested in the Office of Management and Budget and the Council on Environmental Quality.²⁸⁴ The law covers federal approvals for a wide range of energy infrastructure projects requiring federal approvals (including pipelines) that are subject to NEPA review and are likely to involve more than \$200 million in investment.²⁸⁵ The Council includes representation from numerous executive agencies, but also FERC and the Nuclear Regulatory Commission, independent agencies that have not previously been part of executive branch agency coordination on permitting.²⁸⁶ Notably, the law also contains new provisions to coordinate state and federal environmental review processes for projects and to allow for the formation of interstate compacts for regional infrastructure development.²⁸⁷ It also creates shorter timetables for judicial review of the NEPA process for covered projects.²⁸⁸ Thus, FERC, through rulemaking or on a case-by-case basis through the new Steering Council, could rely on the FAST Act to revise its

seeking an exemption, original license, new license, or an amendment to a license for a hydropower project must consult with relevant Federal, State, and interstate resource agencies, Indian tribes, and non-governmental agencies.”)

281. Fixing America’s Surface Transportation Act, Pub. L. No. 114–94, 129 Stat. 1312 (2015).

282. See THOMAS C. JENSEN, SANDRA A. SNODGRASS, & MATTHEW CASTELLI, HOLLAND & HART, INFRASTRUCTURE PERMIT STREAMLINING UNDER THE FAST ACT 1 (2016), <https://perma.cc/98EU-WJ53>.

283. *Id.* at 2.

284. *Id.* at 2, 4.

285. *Id.* at 4.

286. *Id.* at 4–5.

287. See MARIE QUASIU ET AL., K&L GATES, FAST ACT EXPEDITES PERMITTING AND ENVIRONMENTAL REVIEW FOR LARGE INFRASTRUCTURE PROJECTS (2016), <http://perma.cc/YU8G-629E>.

288. See *id.*

current approach to pipeline project reviews and facilitate broader state and regional review of pipeline projects.

Finally, although FERC has so far resisted efforts by environmental groups, states, and EPA to expand its evaluation of environmental impacts of natural gas pipelines to include upstream and downstream climate impacts, one wonders whether FERC could reduce some of the opposition to its projects by doing so. One can certainly argue that merely considering those impacts in the permitting process and then approving the project anyway will not in any way reduce opposition to those projects. Simply because an agency like FERC does a NEPA analysis of environmental impacts does not eliminate or arguably even reduce lawsuits challenging the validity of the analysis after it is completed. But at least in some cases, a fuller analysis of climate impacts may show that certain natural gas pipeline projects, by displacing coal, actually have climate benefits, while other natural gas pipelines projects, which would tend to replace renewables, will result in adverse climate impacts and thus perhaps should not go forward or should be modified. It is true that in the Trump administration; it is likely that EPA will no longer put pressure on FERC to evaluate these impacts, but that will not stop states and environmental groups from doing so and, ultimately, courts may become more sympathetic to their arguments. Moreover, FERC is an independent federal agency and thus even if EPA reduces its pressure on FERC to take action, FERC may choose on its own to conduct a greater evaluation of climate impacts even if it is not consistent with the Trump administration agenda.²⁸⁹

2. *Other Procedural Improvements to the FERC Permitting Process*

Even beyond improving engagement and consultation with state regulators and expanding the scope of analysis, FERC should consider other procedural improvements to its pipeline siting process. For example, FERC could withhold final determination of a proposed pipeline's routing pending a state environmental regulator's initial decisions regarding CWA permits. This could be done by issuing a provisional pipeline siting permit, pending the outcome of

289. For instance, in February 2017, FERC revised its guidance for natural gas project applicants, directing them to quantify the project's local and regional contribution to global warming and expanded the analysis of air quality impacts required to be submitted to FERC. This guidance revision may be a partial response to the continued criticism by the Obama EPA and environmental groups that FERC had been too narrow in its review of climate-related impacts of natural gas infrastructure projects. See FERC, *MANUAL FOR ENVIRONMENTAL REPORT PREPARATION FOR APPLICATIONS FILED UNDER THE NATURAL GAS ACT* 4-1 (2017), <https://perma.cc/PZC3-TZXH>; FRED JAUSS & CHAD RICHARDS, DORSEY & WHITNEY, *FERC ISSUES UPDATED GUIDANCE MANUAL FOR ENVIRONMENTAL REPORT PREPARATION UNDER THE NATURAL GAS ACT* (2017), <https://perma.cc/3A6G-XX9N>; Hannah Northey, *FERC Keeps Obama Guidance Alive in Manual for Gas Projects*, GREENWIRE (Feb. 24, 2017), <https://perma.cc/J2LA-4BCW>.

state environmental review that affects the project's ultimate routing—as would the permit decisions of New York regulators for the Constitution Pipeline.²⁹⁰ Such procedural improvements would allow FERC to base pipeline routing decisions on more complete information regarding potential environmental harms, given that a proposed project would be able to draw on the expertise and policy judgment of state environmental regulators. The conventional approach of seeking FERC certificate approval prior to state environmental permitting allows state regulators to withhold their assessment of a project and to allow evidence of environmental harms to be used to deny a permit, even if that evidence was not vetted in the context of FERC's review. FERC certainly has not made the situation any better in its certificate approval decisions, many of which assert general preemption of state and local laws in a sweeping manner, rather than speaking specifically to which state and local laws are preempted and why.²⁹¹ Moreover, the current process invites state environmental regulators to make routing determinations that conflict with federal pipeline certification proceedings, leading to a possibility of litigation that can further delay final resolution of pipeline project approval.²⁹²

One objection to such procedural changes is that any complete environmental review of a pipeline project depends, first and foremost, on an evaluation of the pipeline's environmental impacts given a specific location, and the routing of a project may change pending the outcome of FERC's pipeline certification proceedings. But there are serious risks to any federal pipeline certification process that artificially separates decisions regarding the location of a pipeline from an assessment of its environmental impacts. As one Minnesota appellate court has recognized in another context, any regulator's decision about the location of a project only benefits from a more complete approach to environmental review.²⁹³ This underscores the significance of addressing any envi-

290. See *supra* Part II.C.

291. See Russell Kooistra, Note, *How FERC Confuses the Role of State and Local Authorities in Regulating Certified Natural Gas Pipelines*, J. ENERGY & ENVTL. L. 59, 59–60 (Winter 2015).

292. For example, Constitution Pipeline has filed challenges to New York's denial of its water permits in federal court, alleging that New York regulators based their rejection of Constitution's permits on considerations that extend beyond "water quality" under the CWA and that are preempted by FERC's authority to approve a pipeline certificate under section 7 of the Natural Gas Act. See, e.g., *Constitution Pipeline Co. v. N.Y. State Dep't of Envtl. Conservation*, No. 16-1568 (2d Cir. May 16, 2016); see also Hunton & Williams, *Constitution Pipeline Cases Reflect Tension in States' Roles in Permitting Natural Gas Projects*, PIPELINE.LAW.COM (Aug. 5, 2016), <https://perma.cc/J65H-PR9P>.

293. *In re N.D. Pipeline Co.*, 869 N.W.2d 693 (Minn. Ct. App. 2015) (holding that a state agency certificate of need determination regarding oil pipeline project routing prior to environmental review violates the Minnesota Environmental Policy Act).

ronmental review concerns early in the assessment of a pipeline project, rather than only after a project's location has been determined.²⁹⁴

Congress has required FERC to coordinate a consolidated record for judicial review of pipeline certification proceedings, which includes the decisions of all federal and state agencies acting under federal law.²⁹⁵ This includes state regulators' decisions regarding environmental permits, to the extent that they are issued under authority delegated by Congress under the CWA's cooperative federalism program.²⁹⁶ It seems odd for Congress to require a federal agency to maintain a record, but not to envision that agency will also base any final federal decision on information in that record. Of course, state environmental regulators must continue to exercise their statutory role in assessing the environmental harms associated with the routing of such projects. Under the CAA, the Coastal Zone Management Act, and the CWA, states should always have an opportunity to independently evaluate environmental impacts.²⁹⁷ In projects that span multiple states, FERC's initial review of a certificate application could benefit substantially from knowing the positions of various state regulators on pipeline routing—especially where states differ on the assessment of environmental harms. And where there is a potential for disagreement between FERC and state regulators (if perhaps a state water or air permit has been denied, on grounds that FERC might question), FERC could seek EPA's input before accepting a certificate application, inviting broader national expertise in assessing environmental harms and ensuring that the ultimate siting determination is attentive to broader environmental goals. All of these kinds of reforms should not only create benefits by making the agency's procedures more efficient, but also they should enhance the likelihood that FERC's pipeline permitting determinations will be upheld by courts on review.

294. As is illustrated in FERC's flowchart regarding the process for pipeline approval, state environmental permitting is considered an afterthought, only triggered after FERC approves a project under section 7 of the Natural Gas Act. See *Pre-Filing Environmental Review Process*, FERC, <https://perma.cc/3QUN-5S3K> (identifying opportunities for stakeholder input, but mentioning no specific role for state regulators other than environmental review if a project is approved by FERC).

295. This was added by section 313 of EPAAct 2005. Pub. L. No. 109-58, 119 Stat. 594 (2005). FERC implemented this mandate with Order 665. See *Regulations Implementing Energy Policy Act of 2005; Pre-Filing Procedures for Review of LNG Terminals and Other Natural Gas Facilities*, 113 FERC ¶ 61,015 (Oct. 7, 2007) (codified at 18 C.F.R. pts. 153, 157, 375, 385), <http://perma.cc/V237-RARG>.

296. See *Regulations Implementing Energy Policy Act of 2005*, 113 FERC ¶ 61,015 at 48.

297. See *supra* Part II.A.

C. *Collaborative Benefits of FERC and Project Sponsors Better Engaging State Interests in Infrastructure Siting Decisions*

Many scholars and policymakers have called for “hybrid” governance approaches to issues related to energy infrastructure.²⁹⁸ We agree that these kinds of approaches are desirable and have shown enormous promise in addressing many interstate energy projects by making procedures more efficient and enhancing the likelihood that an agency’s permitting decision will withstand judicial scrutiny. When it comes to project siting decisions—where state and local governments have a strong interest in retaining control over land use—some of the most ambitious proposals to overcome siting impasses have remained elusive. To take one example, in EPAct 2005, Congress explicitly provided for interstate compacts as a way of overcoming siting impasses involving three or more states.²⁹⁹ So far none of these compacts have been formed, in large part because states, facing pressure from both landowners and environmental groups, have voiced reluctance to cede regulatory turf and authority to federal regulators.³⁰⁰

This might seem unexpected, given that an interstate compact can help a state to avert any increased federal intervention into electric power transmission siting. Given that the federal government has no stick in transmission line siting, however, state interest groups are readily able to avoid both interstate compacts and federal encroachment into their siting decisions. The resulting impasse arguably invites states, along with interest groups opposed to projects, to focus on the exercise of veto points over projects. Similarly, a pipeline siting process that only considers limited environmental concerns at the back end of federal permitting approvals encourages state environmental regulators and environmental interest groups to take a wait-and-see approach, which maximizes the impact of any potential veto point state regulators possess over a project.

A process that maximizes the influence of veto points may serve to maximize a state or interest group’s ability to control the outcome of energy permitting, but this comes at considerable cost—regardless of whether one values an

298. See, e.g., Hari M. Osofsky & Hannah J. Wiseman, *Hybrid Energy Governance*, 2014 U. ILL. L. REV. 1 (arguing for hybrid forms of energy governance); Klass, *supra* note 9 (arguing for greater regional governance).

299. EPAct 2005 established advanced consent for interstate compacts between three or more contiguous states. 16 U.S.C. § 824p(i) (2012). States that enter into such compacts are immune from backstop siting authority. 16 U.S.C. § 824p(i)(4). But once the courts interpreted FERC’s backstop siting authority narrowly, reducing any risk that it would be applied to override state siting denials, the incentive for entering into interstate compacts was significantly reduced. See Klass, *supra* note 9, at 1946–48 (discussing EPAct 2005 provisions on backstop siting authority and interstate compacts).

300. See Klass & Rossi, *supra* note 60, at 135 n.16 (discussing interstate compact authority for approving transmission projects); see also Jim Malewitz, *To Bolster Energy Grid, States Weigh Compact*, USA TODAY (July 26, 2013), <https://perma.cc/JY5J-4RDT>.

expansion of energy infrastructure or environmental protection. It contributes to highly inefficient decision-making. It also fails to produce comprehensive information about the environmental and other impacts of energy projects early enough to be considered in any meaningful way in key permitting decisions. As the case studies presented in this Article show, there are demonstrated tools that can reduce these kinds of federalism conflicts in interstate electricity and gas infrastructure siting, without requiring either states or the federal government to cede authority. We believe that these tools are more likely to be adopted than statutory reforms to federal jurisdiction because, unlike any concession of regulatory authority, they will also produce collaborative benefits for states and private interest groups.

Both states and project proposers themselves could better facilitate interstate engagement regarding the siting of energy infrastructure if they were to more proactively address the state and local impacts in evaluations of electric transmission line projects and natural gas pipelines. Recognition by federal regulators and project proposers of the benefits and harms of particular energy projects could help to encourage more collaboration between states in developing and evaluating information regarding the impacts of particular projects. For example, if state regulators knew that federal regulators would review any assessment of a project's benefits, this would encourage states to back up these claims with credible evidence. Likewise, if state environmental regulators were aware that federal regulators were likely to evaluate their findings regarding environmental and land use harms, this might encourage them to present better evidence to federal regulators in the certificate and federal environmental review processes, rather than sit back and wait to raise evidence supporting objections to a project as a part of state environmental review following a certificate approval.³⁰¹ Greater emphasis on state concerns in the federal siting process may also place additional pressures on project proposers to offer additional routing and mitigation concessions early in the process to appease both federal regulators and state regulators because they know that failure to do so may hold up the federal siting permit.

301. Although the process for FERC to approve hydroelectric plant licenses differs from both the approval process for natural gas pipelines and electric transmission lines, laws enacted in the context of hydropower licensing on collaboration among regulatory agencies are helpful in the present context. A 1986 law required FERC to balance environmental interests with the need to develop new sources of power in hydroelectric licensing, and to consult with other agencies regarding the impacts of these decisions. See Electric Consumers Protection Act of 1986, Pub. L. 99-495, 100 Stat. 1243 (amending Federal Power Act sections 4(e), 10(a), and 10(j)); Gina S. Warren, *Hydropower: It's a Small World After All*, 91 NEB. L. REV. 925, 933-38 (2013) (discussing 1986 amendments to Federal Power Act provisions governing hydropower licensing). One study of FERC's hydroelectric relicensing process found that when a greater number of federal agencies participate in the FERC proceeding, on average, a greater number of conditions were placed on the license. See J.R. DeShazo & Jody Freeman, *Public Agencies as Lobbyists*, 105 COLUM. L. REV. 2217, 2265-67 (2005).

Moreover, where an energy infrastructure project stands to benefit multiple states, state regulators might be more inclined to work with neighbors in their region in developing good information about a project's benefits rather than opt to assess benefits to a state on its own. This kind of collaborative pooling in developing information about a project's benefits and harms seems far superior to a framework where each state attempts to develop a record concerning the benefits and burdens of a project. This could only help in facilitating greater coordination between states, as states would have better leverage in raising arguments before federal regulators where there is strength in numbers. Moreover, if developers of projects knew that the benefits and harms to individual states would be taken seriously and compared by some regulators, they would be more willing to reroute projects to areas with less significant environmental impacts or offer mitigation or other concessions to potential hold out states.³⁰² Indeed, the recent example of Clean Line's effort to build in-state support for the Grain Belt Express project through power contracts with municipal utilities after failing to obtain a state siting certificate raises the question of whether Clean Line might have obtained a more favorable result from state regulators in the first instance if it had made these efforts much earlier in the process.³⁰³

As another example of how such changes can benefit both federal and state regulation, consider FERC's Order 1000, which requires regional transmission planning entities and utilities to consider state public policy requirements.³⁰⁴ RTOs and utilities planning for new electric transmission can no longer go it alone in assessing their transmission needs, but at the very least must consider state requirements such as RPSs. The very existence of such an expectation requires utilities to think more explicitly about how new transmission policies create different benefits across multiple states. Order 1000 also assures states seeking to promote new policies that their initiatives will not be shipwrecked by parochial power grid interests, thus encouraging states to continue to innovate in their clean energy policies. In reviewing transmission plans,

302. For example, in the context of DOE's approval of the Plains & Eastern project, Clean Line also offered many mitigation measures and other concessions, though this was after state regulators had considered and rejected the project. See U.S. DEP'T OF ENERGY, DOE/EIS-0486, MITIGATION ACTION PLAN FOR THE PLAINS & EASTERN CLEAN LINE TRANSMISSION PROJECT (2016), <http://perma.cc/3KBB-C6FW> (describing various measures to mitigate adverse environmental concerns adopted by Clean Line as a condition to DOE's approval of the project despite Arkansas regulators' objections).

303. ETO, *supra* note 222, at 24 ("It remains to be seen whether the fact of a Missouri entity signing an agreement that could be seen as demonstrating the public-interest value of the project in Missouri will result in the Missouri PSC approving the project on its third attempt in the state.")

304. Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 136 FERC ¶ 61,051 (2011) (codified at 18 C.F.R. pt. 35), *aff'd*, S.C. Pub. Serv. Auth. v. FERC, 762 F.3d 41 (D.C. Cir. 2014).

FERC focuses on whether these various benefits have been considered by planning bodies—in order to ensure that benefits of new projects are not ignored or dismissed in favor of an incumbent utility's projects.³⁰⁵

In addressing transmission line siting, of course, FERC does not have explicit authority to preempt the land use decisions of state and local authorities. Yet, much as with Order 1000, federal regulators might be able to promote greater coordination in siting decisions by producing information regarding the benefits of siting new projects and in encouraging project sponsors to negotiate with holdout states if there were an expectation that federal regulators would be evaluating the benefits of projects to particular states, as well as national or regional benefits.

There are at least two primary counterarguments to this emphasis on the benefits of improved federal-state coordination. The first is the concern some scholars have voiced that contemporary efforts by federal agencies and the White House to encourage states to play an active role in the federal regulatory process and to promote federalism values has not actually accomplished those goals. As Professor Miriam Seifter has detailed, many federal agencies that solicit “state” input as a result of regulatory requirements or Executive Order mandates obtain input from national groups representing state interests such as the National Governors Association, the National Association of Regulatory Utility Commissioners, the National Association of Insurance Commissioners, the Interstate Oil and Gas Compact Commission, and the like.³⁰⁶ Since these groups are well staffed and operate on a large scale, they seem particularly well positioned to overcome barriers to individual state participation and encourage consideration of federalism-based values in agency decision-making. However, Professor Seifter also points out that the heavy reliance on these national interest groups serves to entrench a homogenous perspective on state interests, thus undercutting some of the primary aims of administrative federalism. In particular, because of their commitment to protecting state regulatory authority and their practice of speaking with a single voice, national interest groups representing state interests do not convey valuable expertise and information to federal agencies about the various impacts on individual states. These trans-state interest groups that often participate in federal discussions are also “less transparent

305. *Id.*

306. See Miriam Seifter, *States as Interest Groups in the Administrative State*, 100 VA. L. REV. 953, 961–67 (2014). Executive Order 13,132, known as the 1999 Federalism Executive Order, requires federal agencies to follow “fundamental federalism principles” to ensure that issues that are not national in scope are addressed by the level of government “closest to the people,” that the states should function as “laboratories of democracy,” and that the federal government should defer to the states when federal actions affect state policymaking discretion. Exec. Order No. 13,132, 64 Fed. Reg. 43,255, 43,255–56 (Aug. 4, 1999). The Order also “endorses state interest groups as appropriate state representatives.” Seifter, *supra*, at 971–72 (citing and quoting Exec. Order No. 13,132, 64 Fed. Reg. 43,255 (Aug. 4, 1999)).

and less accountable to state citizens" because of differing needs and views among the states.³⁰⁷

Concerns like these certainly seem valid in situations where an agency is evaluating general federal policies regarding the environment, health care, energy policy, or other substantive areas of the law that can significantly impact each state's regulatory authority and policy in similar ways on a nationwide basis. However, they seem less relevant to individual project siting decisions where the project costs and benefits will generally fall on a select few states, and produce conflicts between specific states concerning costs and benefits. In these situations, national interest groups representing state interests seldom are involved and play a less significant role, because, as shown in the case of the Clean Line projects and in many pipeline projects, some states favor these projects and some states oppose them. Accordingly, there is little opportunity for a national group representing state interests to speak with a single voice and federal agencies are forced to consult with individual state agency representatives, who do represent their citizens (unlike state interest groups), to set the appropriate balance between federal and state power and obtain expertise on the project's impact on state resources and citizens. Thus, in the context of federal siting decisions, improving federal-state coordination can improve decision-making and advance federalism values in many cases.

A second counterargument is the reality that in many cases, states oppose projects not because of specific environmental and land use concerns that can be addressed through rerouting or other mitigation, but because landowners, local governments, interest groups, or the state itself is simply opposed to the project in any way, shape, or form. Indeed, this may be the case with regard to the Constitution Pipeline if in fact the primary driver behind New York's denial of section 401 water quality certification is opposition to fossil fuel infrastructure projects in general, rather than this particular pipeline route and associated local impacts in particular. This is true in many cases, and such disputes cannot easily be resolved by better federal-state coordination. Still, looking to electric transmission as an example, Clean Line's continued negotiations with Missouri utilities for the Grain Belt Express project and the example of the Great Northern Transmission Line suggest that in at least some cases, early efforts by project proponents to negotiate and mitigate adverse impacts can work to reduce state and local opposition to projects. This holds true whether the state is the primary siting authority (as in the case of electric transmission lines) or a potential veto point over federal siting authority (as in the case of interstate natural gas pipelines). Similarly, early efforts by environmental interest groups and state agencies to generate and vet information regarding environmental and land use impacts can help to memorialize any concerns they have. If this were considered a part of the record of any federal project permit, these interest groups

307. Seifter, *supra* note 306, at 979.

would see more benefit to participating at the front-end of federal energy approval proceedings rather than the conventionally preferred wait-and-see approach to presenting adverse environmental impacts.

We thus believe that modest procedural reforms to the federal siting process can serve to encourage involvement by project developers and interest groups at earlier stages of regulatory proceedings, helping to promote and vet information regarding state and local impacts associated with projects. By diffusing the most counterproductive state and interest group behaviors, including those that might discourage early concessions by energy project developers, or invite the strategic delay in presenting information of negative project impacts to federal regulators, this will not only benefit federal permitting decisions; it can also help to improve the quality of state environmental regulation.

CONCLUSION

This Article has explored the growing federalism tensions over the infrastructure required to transport natural gas and electricity throughout the United States. For many decades, a strict federalism divide granted the federal government primary authority over interstate natural gas pipeline siting and eminent domain, while allowing states primary authority over interstate electric transmission line siting and eminent domain. Because of rapid changes in the amount and location of U.S. energy resources, coupled with growing concerns over the use of fossil fuels and the infrastructure required to transport it to markets, we argue that consistent focus on changes to respective federal and state authority in this divide is failing to meet the nation's energy and environmental protection needs. Rather, more modest procedural reforms can create a new system that more appropriately balances the federal, state, and local interests in this area.

We believe that recent federal innovation in energy permitting decisions demonstrates how these procedural reforms can produce significant benefits. Important lessons can be drawn from the DOE's recent decision to approve the Plains & Eastern Clean Line project under EPA Act 2005, as well as the New York environmental regulator's decision to reject CWA certification for the Constitution Pipeline. These case studies illustrate how, in both the interstate electric transmission line and interstate natural gas pipeline realms, there is considerable room for federal agencies and project proposers to proactively engage a wider range of stakeholders in the approval process, including state environmental regulators, in ways that can improve the quality of the decision-making process and avoid protracted, after-the-fact litigation.

There is no doubt that the hydraulic fracturing boom of the past decade and rapid growth of utility-scale renewable energy has placed growing pressures on the nation's energy transport infrastructure. By bearing the brunt of many of these pressures, regulatory regimes governing energy transportation often seem

to reinforce jurisdictional lines reflecting a bias in favor of either state authority, as in electric power, or federal authority, as in gas pipelines. But these added pressures also provide a valuable opportunity for energy regulators to step beyond entrenched jurisdictional battle lines. Modest agency-led procedural reforms can help reconstitute energy permitting struggles towards improved federal-state dialogue and better quality energy permitting decisions, and away from protracted legal wrangling over federal versus state jurisdiction. The procedural reforms we propose can improve agency decisions, increase the likelihood of their acceptance by courts, and, perhaps most importantly, diffuse the most obstructionist interest group behaviors that plague the decision-making process surrounding many important energy projects.