Maine Law Review

Volume 66 | Number 1 Article 8

January 2013

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Kevin Decker[*]

Expansion and improvement of the nation's electricity transmission system are crucial for increasing the amount of electricity generated by renewable energy sources.[1] Renewable energy sources, such as wind and tidal, tend to be located far from population centers, and electricity transmission lines must bridge that gap.[2] In addition to its importance for meeting renewable energy goals, a better connected and more robust transmission system also bolsters reliability because it can draw on many generation sources in the event that a generator or segment of the transmission network fails.[3] And transmission facilitates generator competition by making it possible to transport lower-cost electricity from one part of the country to another area with higher electricity prices.[4]

Unfortunately, the current regulatory regime for siting transmission facilities has proven to be a barrier to needed transmission development. Historically, states have authority over physical siting of transmission lines whereas the federal government and Federal Energy Regulatory Commission (FERC) have had jurisdiction over the actual interstate transmission and sale of electricity. This division of power still exists today, despite recent legislative and regulatory attempts to overcome the limitations of the current federalism balance. With a focus on transmission challenges in Maine and New England, this Comment explores the current regulatory model and its balance of power between the federal and state governments and evaluates solutions proposed by commentators.

The need for transmission is especially critical to meet New England's future renewable energy goals.[5] And this need may be more pressing than previously thought. The transmission grid operation for New England, ISO-NE, sent a memorandum to its stakeholders in June 2013 explaining that transmission constraints made it necessary to curtail output from wind generators.[6] The

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* J.D. Candidate, 2014, University of Maine School of Law. The Author thanks his colleagues on the *Maine Law Review* for their tireless assistance and valuable suggestions. The Author is also grateful to Sarah Tucker for her patience and support.

1. *See* Michael Dworkin et al., *Energy Transmission and Storage*, *in* THE LAW OF CLEAN ENERGY: EFFICIENCY AND RENEWABLES 531, 546 (Michael B. Gerrard ed., 2011). A recent study by Stanford researchers concluded that it was feasible for New York State to rely completely on renewable energy in the coming decades, but this would require expedited transmission development. Mark Z. Jacobson et al., *Examining the Feasibility of Converting New York State's All-Purpose Energy Infrastructure to One Using Wind, Water, and Sunlight*, 57 ENERGY POL'Y 585, 598-99 (2013).

2. *See* Dworkin, *supra* note 1, at 546.

3. *See* MATTHEW H. BROWN & RICHARD P. SEDANO, NAT'L COUNCIL ON ELEC. POL'Y, ELECTRICITY TRANSMISSION: A PRIMER 7-11 (2004).

4. *See id.*

5. NAT'L RENEWABLE ENERGY LAB., EASTERN WIND INTEGRATION AND TRANSMISSION STUDY 27 (rev. 2011) [hereinafter *EWITS*].

6. Memorandum from Eric Wilkinson, External Affairs, ISO-NE, to New England Stakeholders (June 28, 2013), http://www.iso-ne.com/pubs/pubcomm/corr/2013/curtailment_summary_2013.pdf

memorandum noted that there were 700 megawatts of installed wind energy capacity at the start of 2013 and that another 2,053 megawatts of capacity were in the study pipeline.[7] These new generation facilities tend to be located near weaker, lower voltage (e.g., 115 kV) transmission lines, "in areas with the least robust transmission facilities" that were "not designed to accommodate the addition of generation sources or the movement of large amounts of power."[8]

Much of the academic literature on electricity transmission focuses on Midwestern and Western states.[9] This is understandably so, given the potential for renewable energy generation in those locations and the comparatively greater distances between generation sites and cities. This Comment addresses transmission challenges generally, but also focuses on the regulatory regimes in Maine and other New England states. Also, unlike most Western states, states in the Northeast and Mid-Atlantic regions belong to Regional Transmission Organizations (RTOs), which present different challenges and solutions.[10]

The present shortfall of transmission capacity is in part attributable to a mismatch between an early twentieth century regulatory framework and twenty-first century problems. Part I of this Comment begins with a sketch of the historical development of the electricity industry and its regulators, in order to comprehend and diagnose the current regulatory challenges confronting transmission development. Part II then turns to state regulation of electricity transmission in Maine, Massachusetts, and New Hampshire.

[hereinafter *Wilkinson Memo*]. *See also* Wilson Ring & David Sharp, *Wind Power Systems Hit Hurdles*, BOS. GLOBE, Aug. 9, 2013, http://www.bostonglobe.com/metro/2013/08/08/challenge-for-wind-power-can-reaching-customers/FYloeNteh7ZliwZuEesgPL/story.html; Tux Turkel, *Inadequate Transmission Lines Keeping Some Maine Wind Power Off The Grid*, PORTLAND PRESS HERALD, Aug. 4, 2013, http://www.pressherald.com/news/there-is-a-problem-withwind-power-in-maine_2013-08-04.html.

7. *Wilkinson Memo*, *supra* note 6.

8. *Id.* The constraints on the New England electricity grid and their effect on energy generation mirror constraints on the region's natural gas transmission system. Many policymakers see natural gas as making renewables less favorable in the short term or as a bridge fuel source between other fossil fuels and renewable energy, but as recently as the winter of 2012-2013 New England experienced problems with natural gas pipeline congestion and scarcity. *See Grid Chief Warns of New England Power Issues*, PORTLAND PRESS HERALD, Mar. 19, 2013, http://www.pressherald.com/news/Grid-chief-warns-of-future-NE-power-problems.html; Matthew L. Wald, *In New England, a Natural Gas Trap*, N.Y. TIMES, Feb. 15, 2013, http://www.nytimes.com/2013/02/16/business/electricity-costs-up-in-gas-dependent-new-england.html. Gordon van Welie, President and CEO of ISO-New England, testified before the House Subcommittee on Energy and Power that New England's natural gas pipeline infrastructure is inadequate to accommodate the region's increased reliance on natural gas as an electricity source. Testimony of Gordon van Welie, H. Subcomm. on Energy & Power, American Energy Security and Innovation: The Role of Regulators and Grid Operators in Meeting Natural Gas and Electric Coordination Challenges (March 19, 2013), http://docs.house.gov/meetings/IF/IF03/20130319/100527/HHRG-113-IF03-Wstate-vanWelieG-20130319-U1.pdf. Van Welie noted that utilities have retired coal and nuclear power plants in favor of natural gas fired plants and that New England now derives fifty-two percent of its electricity from natural gas. *Id.*

9. *See, e.g.*, Ashley C. 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 (2010).

10. *See Regional Transmission Organizations (RTO)/Independent System Operators (ISO)—Industries, Electric, Industry Activities*, FEDERAL ENERGY REGULATORY COMMISSION (FERC), http://www.ferc.gov/industries/electric/indus-act/rto.asp (last updated Aug. 28, 2013). For the FERC order creating RTOs see Regional Transmission Organizations, 65 Fed. Reg. 810 (Jan. 6, 2000).

After canvassing the history leading up to the current transmission regulatory structure, Part III of this Comment turns to defining the federalism problem confronting electricity transmission. The overlapping jurisdiction between states, regional entities, and the federal government over transmission cost allocation, planning, and siting creates numerous opportunities for interested parties to delay or even kill a transmission project. Part III explores this problem with several theories of administrative regulation and federalism. Part IV then analyzes FERC Order 1000[11] as an attempt to address this problem.

Although on the whole Order 1000 seems like a step toward a better regulatory scheme for electricity transmission planning, it is far from a total solution. Even if it addressed issues involved with cost allocation and planning, barriers to siting planned and funded transmission projects would still exist. Part IV, therefore, critically evaluates potential solutions suggested by commentators. The first solution is simple and blunt—avoid the localized interests and collective action problems that stymie transmission development by completely preempting state authority over transmission siting.[12] The second, more moderate approach is coordinated[13] or process preemption, in which states retain decision-making authority cabined by federally-defined standards and procedures.[14] A third solution would allow states to retain authority over transmission siting approval, but increase the FERC's limited "backstop" authority to intervene in the event of state delay, recalcitrance, or even denial. A fourth solution is for states to reform their process for siting transmission projects.[15] In the end, however, a fifth approach is perhaps the best solution: vesting siting authority in Regional Transmission Organizations (RTOs) or regional transmission planning entities. Finally, potential state-level reforms are considered, especially reforms that Western states have adopted.[16] Part V concludes.

I. THE PAST AND PRESENT OF THE ELECTRICITY INDUSTRY AND ITS REGULATION

Generation, transmission, and distribution are the three primary components of the electricity industry.[17] Generators produce electricity from various fuel sources, including coal, natural gas, nuclear energy, dams, and, more recently, wind, solar, and tidal energy.[18] Once generated, the transmission system transports electricity

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11. Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 76 Fed. Reg. 49,842 (Aug. 11, 2011) [hereinafter Order 1000].

12. *See* Sandeep Vaheesan, *Preempting Parochialism and Protectionism in Power*, 49 HARV. J. ON LEGIS. 87, 123-28 (2012).

13. *See* JIM ROSSI, REGULATORY BARGAINING AND PUBLIC LAW 215 (2005).

14. *See* Ashira Pelman Ostrow, *Process Preemption in Federal Siting Regimes*, 48 HARV. J. ON LEGIS. 289, 321 (2011); Alexandra B. Klass & Elizabeth J. Wilson, *Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch*, 65 VAND. L. REV. 1801, 1865 (2012).

15. *See* ROSSI, *supra* note 13, at 219-20.

16. *See* Brown & Rossi, *supra* note 9.

17. JOSEPH P. TOMAIN & RICHARD D. CUDAHY, ENERGY LAW IN A NUTSHELL, 262 (2004). *See* SALLY HUNT, MAKING COMPETITION WORK IN ELECTRICITY 17-23 (2002).

18. HUNT, *supra* note 17, at 17-18; *Sources of Energy—Energy Explained, What Is Energy*, U.S. ENERGY INFO. ADMIN., http://www.eia.gov/energyexplained/index.cfm?page=about_sources_of_energy (last updated Aug. 1, 2013).

from power plants to local distribution systems.[19] The unique physical properties of electricity make managing the transmission system a delicate process.[20] Generally it is not possible to deliver specific electrons from a generator to a particular customer because electricity flows over the path of least resistance, not where we tell it to go.[21] This makes an agreement between a customer and generator to purchase electricity a legal fiction—the electricity the customer receives could come from anywhere on the network.[22] If the amount of electricity generated into the transmission system does not match load, a blackout can occur.[23] The physical limitations of a transmission network can lead to congestion, which limits the amount of electricity that can travel between two points.[24]

Despite its delicacy, the transmission system fulfills several crucial functions besides simply carrying electrons from one location to another. An interconnected transmission system can draw on many generation sources and bolsters the reliability of the system in the event that a generator or segment of the transmission network fails.[25] Transmission also facilitates generator competition by making it possible to transport lower-cost electricity from one part of the country to another area with higher electricity prices.[26] And, of course, transmission is critical for connecting far-flung renewable energy sources in remote locations to population centers.[27]

The complexity of the transmission system means that it requires careful management to avoid malfunction. System operators orchestrate the process by dispatching various generators to match demand.[28] In New England, ISO New England (ISO-NE) handles system operation, among other functions.[29]

The third aspect of the electricity system is distribution.[30] The distinction between transmission and distribution is not always clear, but generally distribution refers to the wires that connect to and deliver electricity to residential, commercial, and industrial customers.[31] Distribution also includes customer service functions, billing, and metering.[32]

Finally, there is also a distinction between wholesale and retail sales of electricity.[33] Retail sales are sales to end-users of electricity, whereas wholesale in this context means sales for resale.[34] Though this distinction may seem trivial, it forms one of the boundaries between state and federal jurisdiction over electricity

19. TOMAIN & CUDAHY, *supra* note 17, at 262.
20. *See* HUNT, *supra* note 17, at 30-32.
21. *See* BROWN & SEDANO, *supra* note 3, at 29-30.
22. *See id.* at 30.
23. HUNT, *supra* note 17, at 32.
24. *See* BROWN & SEDANO, *supra* note 3, at 31-32.
25. *Id.* at 8-9.
26. *Id.* at 10-11.
27. *Id.* at 9. *See EWITS.*, *supra* note 5, at 27.
28. *See* HUNT, *supra* note 17, at 20-21.
29. *See Overview—About ISO-NE, Company Profile*, ISO NEW ENG., http://www.iso-ne.com/aboutiso/co_profile/overview/index.html (last visited Sep. 14, 2013).
30. *See* TOMAIN & CUDAHY, *supra* note 17, at 262.
31. *See id.* at 263.
32. *See* HUNT, *supra* note 17, at 23.
33. *See id.* at 23-24.
34. *Id.* at 23-24.

sales, as discussed in the next section.[35]

Given the complexity, delicacy, and importance of the electricity system, it is hardly surprising that the industry attracted regulation. The system's complexity compounds the challenge of drawing legal distinctions and jurisdictional lines, and the century-long history of electricity industry regulation is defined by a struggle to draw these lines.

A. A Century of Growing Federal Regulation of Electricity Transmission

For the first fifty years of its existence, the electricity industry attracted little regulation.[36] Technological constraints forced the first power plants in the 1880s to be located a short distance from customers, which initially produced a decentralized model for the electricity system, with many small power plants dispersed throughout an urban area.[37] As advances in transmission technology allowed transportation of electricity over greater distances and the holding company corporate form attracted investors, the electricity industry underwent rapid consolidation in the early 1900s.[38] As economies of scale allowed larger electric companies to dominate the industry, those companies became perceived by state regulators as natural monopolies requiring regulation to avoid abuse.[39] According to historian Robert Hirsh, at least some in the electric industry welcomed regulation as a monopoly because the regulation protected them from competition while also guaranteeing a reasonable return on investment.[40] In the 1930s, the electricity industry consisted primarily of vertically-integrated, investor-owned utilities,[41] although there were also some municipally-controlled power companies.[42] State and local governments were the primary regulators for these utilities.[43]

Yet state regulation of electric utilities ran into a problem—the dormant Commerce Clause limited states' authority to regulate electricity sold interstate.[44] In *Public Utilities Commission of Rhode Island v. Attleboro Steam & Electric Co.*, decided in 1927, the United States Supreme Court held that states could not regulate interstate electricity sales.[45] Rhode Island-based Narragansett Electric Light Company had entered a twenty-year contract with Attleboro Steam & Electric Company to provide, at a certain rate, electricity for distribution to the Massachusetts city of Attleboro.[46] After the cost of generating electricity increased, Narragansett Company filed with the Rhode Island Public Utilities

35. *See id.* at 24
36. *See* TOMAIN & CUDAHY, *supra* note 17, at 265-66.
37. *See* RICHARD F. HIRSH, POWER LOSS: THE ORIGINS OF DEREGULATION AND RESTRUCTURING IN THE AMERICAN ELECTRIC UTILITY SYSTEM 12 (1999).
38. *See id.* at 34-36; TOMAIN & CUDAHY, *supra* note 17, at 265-66.
39. *See* HIRSH, *supra* note 37, at 20-23, 29-31.
40. *See id.* at 26-29, 33.
41. *See* HUNT, *supra* note 17, at 24-26.
42. *See* HIRSH, *supra* note 37, at 14-15.
43. *See* New York v. FERC, 535 U.S. 1, 5 (2002); HIRSH, *supra* note 37, at 26.
44. *See* New York v. FERC, 535 U.S. at 5.
45. Pub. Util. Comm'n of R.I. v. Attleboro Steam & Elec. Co., 273 U.S. 83, 89-90 (1927).
46. *Id.* at 84.

Commission (PUC) a new, increased rate schedule, which the PUC granted after finding the old rate to be unreasonable.[47] The Supreme Court held that the Rhode Island PUC order granting the new rate was a direct burden on interstate commerce, and that only Congress had the authority under the Commerce Clause to regulate wholesale electricity transactions between states.[48] The holding created what became known as the *Attleboro* gap because states lacked authority to regulate interstate sales and transmission of electricity, but Congress had not yet exercised its authority over wholesale transactions and interstate transmission.[49]

The federal government began regulating the electricity industry in 1935. First, it indirectly regulated the industry by passing the Public Utility Holding Company Act of 1935 (PUHCA),[50] which required utility holding companies to register with the SEC and was intended to curb manipulation and abuse.[51] The PUHCA effectively confined utilities to operate within state lines and contributed to the traditional model of a vertically-integrated public utility that controlled the generation, transmission, and distribution of electricity within a state.[52]

Congress then created direct federal regulation of electricity transmission and wholesale sales with the Federal Power Act of 1935 ("FPA"), [53] which amended and expanded on the Federal Water Power Act of 1920 governing hydroelectric dams.[54] The Act created the Federal Power Commission ("FPC"), known today as the Federal Energy Regulatory Commission ("FERC"), and Section 201(a) of the FPA granted FERC jurisdiction over "transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce."[55] The newly created federal jurisdiction over interstate transmission and wholesale transactions closed the *Attleboro* gap.[56] Congress clearly circumscribed the authority it granted to FERC, however, by clarifying that federal regulation of electricity would "extend only to those matters which are not subject to regulation by the States."[57] Congress denied FERC, with some exceptions, jurisdiction over generation and distribution facilities.[58] The FPA thus drew a jurisdictional line between, on the one hand, federal authority over interstate wholesale transactions and transmission and, on the other, state authority over retail sales, distribution, and the siting of generation and transmission facilities.[59] This line defined a regulatory

47. *Id*. at 85-86.

48. *Id.* at 89-90.

49. *See* TOMAIN & CUDAHY, *supra* note 17, at 267.

50. Public Utility Act of 1935, ch. 687, 49 Stat. 803 (codified at 15 U.S.C. §§ 79-79z) (repealed 2005).

51. *See* TOMAIN & CUDAHY, *supra* note 17, at 266-67.

52. *See id*. at 266-67; BROWN & SEDANO, *supra* note 3, at 3.

53. Federal Power Act, ch. 687, 49 Stat. 847 (1935) (codified as amended at 16 U.S.C. §§ 824-824w (2006)).

54. Federal Water Power Act, ch. 285, 41 Stat. 1063 (1920) (codified as amended at 16 U.S.C. §§ 791a – 823d (2006)).

55. 16 U.S.C. § 824(b)(1) (2006).

56. *See id.* § 824(b)(1); TOMAIN & CUDAHY, *supra* note 17, at 267.

57. 16 U.S.C. § 824(a).

58. *Id.* § 824(b)(1) ("The Commission . . . shall not have jurisdiction . . . over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce.").

59. *See* BROWN & SEDANO, *supra* note 3, at 3.

status quo that only began to erode toward the end of the twentieth century.[60]

FERC exercises its authority under the FPA primarily by setting rates for electricity. Section 205 of the FPA provides that utilities may charge only "just and reasonable rates" for interstate transmission or sale of electricity.[61] Nor may public utilities confer "undue preference or advantage" in setting rates or charge an unreasonable difference in rates between localities or types of service.[62] Public utilities must file a schedule of rates with FERC and give notice of any changes. FERC may then hold a hearing to review the rates on its own initiative or upon a complaint.[63] Pursuant to Section 206 of the FPA, if FERC determines that a rate was "unjust, unreasonable, unduly discriminatory or preferential," it must then determine and fix a just and reasonable rate.[64]

Far from crippling the electricity industry, the FPA heralded several decades of incredible growth in the electricity industry.[65] According to Hirsh, utility managers, manufacturers, consumers, regulators, and investors tacitly approved of a "grow-and-build strategy" for the electricity industry, which led to a feedback loop of lower prices and increased demand in the post-World War II decades.[66] Incremental technological innovation gradually improved generation efficiency, while electricity use by factories and consumers with their new household appliances led to increased demand.[67] These two factors led to consistent declines in electricity prices, which kept customers and regulators happy.[68] Meanwhile, the regulated public utilities and their investors earned back their growth costs plus a reasonable rate of return.[69]

The electricity industry at this time, regulated within the 1935 framework of the FPA, built the foundation for the physical transmission system we have today. The state-regulated, vertically-integrated monopolies built transmission facilities to connect their newly-built generators to customers.[70] Although some utilities interconnected with each other to realize reliability and efficiency gains,[71] public utilities generally had little incentive to invite competition by building a well-integrated transmission grid.[72]

The conditions for the public utility industry's unraveling began to appear in the 1960s. A combination of stagnant efficiency gains (due to thermodynamic

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60. *See* BROWN & SEDANO, *supra* note 3, at 3-4.

61. 16 U.S.C. § 824d(a) ("All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable.").

62. *Id.* § 824d(b).

63. *Id.* § 824d(c)-(e).

64. *Id.* § 824e(a).

65. *See* TOMAIN & CUDAHY, *supra* note 17, at 269.

66. HIRSH, *supra* note 37, at 46-50.

67. *See* HIRSH, *supra* note 37, at 46-50.

68. *See* HIRSH, *supra* note 37, at 46-50; TOMAIN & CUDAHY, *supra* note 17, at 269.

69. *See* HIRSH, *supra* note 37, at 49; TOMAIN & CUDAHY, *supra* note 17, at 270.

70. *See* Jim Rossi, *The Trojan Horse of Electric Power Transmission Line Siting Authority*, 39 ENVTL. L. 1015, 1018 (2009).

71. *See* ADAM VANN, CONG. RESEARCH SERV., R40657, THE FEDERAL GOVERNMENT'S ROLE IN ELECTRIC TRANSMISSION FACILITY SITING 2 (2010).

72. *See* Rossi, *supra* note 70, at 1018-19.

properties of steam turbines), higher fuel costs, the advent of environmentalism and the conservation movement, and insufficient generating capacity to meet demand contributed to the decline in the traditional vertically-integrated public utility model.[73] At the same time, rising operating costs and huge capital investments in long-delayed nuclear energy facilities forced public utilities to raise rates, which created political pressure on state regulators and led to a drop in consumer demand.[74]

Beginning in 1978, Congress laid the groundwork for a drastic change in the electricity industry when it passed the Public Utility Regulatory Policy Act (PURPA).[75] Among the goals of PURPA were conservation, increased efficiency, reasonable ratemaking, and better wholesale distribution.[76] Section 210 of PURPA amended the FPA by requiring public utilities to purchase and resell power from independent "qualifying facilities" (QFs).[77] Prior to PURPA, public utilities generally enjoyed a monopoly and could decline to purchase power from independent power generation facilities.[78] After PURPA's passage, independent companies could also generate and sell power created by qualifying cogeneration or small-scale generation facilities.[79] In implementing PURPA, FERC further encouraged generator competition by requiring public utilities to purchase power generated by QFs at the "avoided costs," which meant the higher amount it would have cost the public utility to generate the same energy.[80] In addition, FERC had the authority to exempt certain non-utility generators from provisions of the FPA and PUHCA, which allowed for innovation in the financing and structure of companies owning QFs.[81]

Although PURPA expanded federal regulation of electricity generation, states retained broad authority in regulating electricity transmission. PURPA stopped short of mandating state adoption of federal policy goals, in the form of federal ratemaking standards, in the areas of energy efficiency and conservation.[82] Instead, under PURPA states were required only to "consider" the federal ratemaking standards, and states could reject the standards after a formal hearing.[83]

In *FERC v. Mississippi*, the Supreme Court upheld the provision of PURPA requiring states to consider federal ratemaking standards and the provision

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73. *See* HIRSH, *supra* note 37, at 55.

74. *See* TOMAIN & CUDAHY, *supra* note 17, at 270-71.

75. Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat 3117 [hereinafter PURPA] (codified at 16 U.S.C. §§ 824a-3, 2601-2642 and throughout other titles).

76. 16 U.S.C. § 2601 (2006).

77. *Id.* § 824a-3(a). *See also* HUNT, *supra* note 17, at 41-45 (explaining single-buyer market model created by PURPA).

78. *See* FERC v. Mississippi, 456 U.S. 742, 750-51 (1982).

79. 16 U.S.C. § 824a-3(a). A cogeneration facility is one that produces electricity and "steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating, or cooling purposes," *id.* § 796(18)(A), whereas a small power production facility is one that uses biomass, waste, or renewable resources to produce electricity and has a capacity of no more than eighty megawatts, *id.* § 796(17)(A).

80. 18 C.F.R. § 292.304(b)(2) (2013). *See also* HIRSH, *supra* note 37, at 89-91.

81. *See* 18 C.F.R. § 292.601-602; HIRSH, *supra* note 37, at 87.

82. PURPA, *supra* note 75, § 111(a).

83. *Id.*

requiring public utilities to purchase electricity from QFs.[84] The Court held that these provisions did not violate the Commerce Clause, reasoning that Congress had a rational basis for concluding that electricity generation and transmission had an immediate effect on interstate commerce.[85] In confronting a more difficult issue, the Court also held that compelling states to consider federal ratemaking standards did not violate the Tenth Amendment, reasoning that transmission regulation was a pre-emptible field.[86]

Although Section 210 of PURPA attracted relatively little attention during the legislative debate, it had far-reaching consequences for the structure of the electricity industry and its regulation.[87] PURPA opened the electricity generation market to competition, but it also revealed regulatory problems regarding transmission.[88] Non-utility generators faced a product delivery problem: obtaining fair access to the public utilities' transmission network.[89] To address this problem, PURPA granted FERC the authority to issue orders that required public utilities to provide transmission services to QFs, known as "wheeling" orders.[90] PURPA subjected FERC's wheeling authority to a number of constraints, however, including the requirement that the wheeling order maintain existing competitive relationships and promote energy conservation.[91] In addition, not all non-utility generators met the definition of "qualifying facility," and thus did not enjoy the favorable provisions in PURPA.[92]

In partial response to this transmission access problem, Congress passed the Energy Policy Act of 1992 (EPAct 1992).[93] The Act created a new entity, the Exempt Wholesale Generator ("EWG"), a category that encompassed independent power producers that previously did not qualify for QF status, and exempted them from PUHCA limitations on firm structure.[94] EPAct 1992 also facilitated FERC's wheeling authority by eliminating the requirements that a wheeling order preserve existing competitive relationships and promote energy conservation, although the order still had to be in the public interest.[95] Nonetheless, some limitations on

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84. FERC v. Mississippi, 456 U.S. 742, 745 (1982).

85. *Id.* at 755-56.

86. *Id.* at 771.

87. *See* TOMAIN & CUDAHY, *supra* note 17, at 273-74.

88. *See id*. For a critical take on QFs and an argument that regulations requiring utilities to purchase power from QFs led to much higher electricity prices, see Richard J. Pierce, Jr., *Completing the Process of Restructuring the Electricity Market*, 40 WAKE FOREST L. REV. 451, 459 (2005).

89. *See* TOMAIN & CUDAHY, *supra* note 17, at 273.

90. 16 U.S.C. § 824j(a) (2006) ("Any electric utility, Federal power marketing agency, or any other person generating electric energy for sale for resale, may apply to the Commission for an order under this subsection requiring a transmitting utility to provide transmission services (including any enlargement of transmission capacity necessary to provide such services) to the applicant.").

91. PURPA, *supra* note 75, § 203. *See also* TOMAIN & CUDAHY, *supra* note 17, at 275-76.

92. *See* TOMAIN & CUDAHY, *supra* note 17, at 275.

93. Energy Policy Act of 1992, Pub. L. 102-486, 106 Stat. 2776 (codified as amended in Title 16 and scattered titles of U.S.C.).

94. *Id.* § 711. The full definition of an Exempt Wholesale Generator is "any person determined by the Federal Energy Regulatory Commission to be engaged directly, or indirectly through one or more affiliates . . . , and exclusively in the business of owning or operating, or both owning and operating, all or part of one or more eligible facilities and selling electric energy at wholesale." *Id.*

95. *See* 16 U.S.C. § 824j(a).

FERC's wheeling authority to order transmission access remained. For instance, FERC still could not act until application by a party, although the EPAct 1992 added "any other person generating electric energy for sale for resale" to the entities eligible to apply to FERC for a wheeling order.[96] This limitation forced FERC to open transmission access to non-utility generators on a case-by-case basis, instead of setting a nationwide policy.

In order to implement EPAct 1992, and also to go beyond the Act by avoiding the case-by-case limitation on its wheeling authority, FERC issued Order 888 in 1996.[97] FERC's stated goal in Order 888 was "to facilitate the development of competitively priced generation supply options, and to ensure that wholesale purchasers of electric energy can reach alternative power suppliers and vice versa."[98] FERC acknowledged that, by itself, the case-by-case wheeling authority under PURPA and EPAct 1992 was insufficient to secure open transmission access across the country.[99] To accomplish its goal, Order 888 required "all public utilities that own, control or operate facilities used for transmitting electric energy in interstate commerce . . . [t]o file open access non-discriminatory transmission tariffs that contain minimum terms and conditions of non-discriminatory service."[100] FERC intended that these open access transmission tariffs (OATTs) would ensure transparent pricing and minimum terms for services that a transmission utility "is reasonably capable of providing," regardless of whether the utility currently provides those services to itself.[101]

Order 888 also mandated "functional unbundling," which required public utilities to separately state wholesale generation and transmission rates and also to take its own transmission services under the same tariff as it offered to others.[102] But FERC stopped short of a corporate unbundling requirement that transmission utilities divest generation facilities or create separate corporate affiliates for transmission and generation.[103] FERC did not require unbundling of retail transmission and generation, but it did apply an open access requirement on retail access that the utility had voluntarily unbundled.[104]

Unsurprisingly, public utilities and states challenged Order 888's expansion of federal regulation of transmission.[105] After all, in enacting EPAct 1992, Congress had increased FERC's ability to issue wheeling orders but had not given FERC broad authority to require open transmission access. Nonetheless, in *New York v. FERC* the Supreme Court concluded that FERC had the legal authority to mandate open transmission access and to require both retail and wholesale functional

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96. *Id.*

97. Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, 61 Fed. Reg. 21,540 (April 24, 1996) [hereinafter Order 888]; *reh'g*, Order No. 888-A, 62 Fed. Reg. 12,274 (Mar. 4, 1997); *reh'g*, Order No. 888-B, 62 Fed. Reg. 64,688 (Nov. 25, 1997).

98. Order 888, *supra* note 97, at 21,547.

99. *Id.* at 21,547.

100. *Id.* at 21,541.

101. *Id.* at 21,572; *see* BROWN & SEDANO, *supra* note 3, at 5.

102. Order 888, *supra* note 97, at 21,552.

103. *Id.* at 21,551.

104. *Id.* at 21,571-72.

105. *See* VANN, *supra* note 71, at 7.

unbundling.[106] In Order 888[107] and before the Court,[108] FERC argued that its legal authority to require open transmission access and functional unbundling was found in its ratemaking authority pursuant to Sections 205 and 206 of the FPA to remedy undue discrimination, and not the wheeling authority expanded in EPAct 1992. New York argued that FERC lacked authority over retail transmissions, an area it argued that Congress had left to the states.[109] The Court agreed with FERC, noting that "the landscape of the electric industry has changed since the enactment of the FPA, when the electricity universe was 'neatly divided into spheres of retail versus wholesale sales.'"[110] Retail transmission, as well as wholesale transmission, was effectively interstate transmission "because of the nature of the grid."[111] The Court reached its conclusion despite New York's argument that legislative history showed that Congress's sole purpose in passing the FPA was to close the *Attleboro* gap, that is, regulate interstate wholesale, not retail, transmission of electricity.[112] The Court disagreed with New York's reading of the legislative history while also noting, "here [legislative history] is not particularly helpful because of the interim developments in the electric industry."[113]

In 1999, to further its goal of achieving open, non-discriminatory transmission access, FERC issued Order 2000, which encouraged voluntary formation of independent Regional Transmission Organizations ("RTOs") to manage and coordinate transmission, of which individual transmission utilities are members.[114] FERC identified two transmission-related barriers to competitive wholesale markets.[115] First, "engineering and economic inefficiencies" resulted from individual transmission owners making independent decisions about use and expansion of the grid, even though the grid is actually part of one larger system.[116] FERC noted that increased generation competition had strained the transmission system.[117] Second, FERC expressed concern about continued undue discrimination by transmission owners in the services they provided to generation competitors.[118] Even the appearance of discrimination impeded the competitiveness of the market.[119] FERC determined that RTOs would remedy these two barriers to competition.[120] Yet FERC decided to make participation in an RTO voluntary, after most of the investor-owned utilities protested against mandatory

106. New York v. FERC, 535 U.S. 1, 4-5 (2002).
107. Order 888, *supra* note 97 at 21,560.
108. New York v. FERC, 535 U.S. at 11-13.
109. *Id.* at 16.
110. *Id.* (quoting Transmission Access Policy Study Group v. FERC, 225 F.3d 667, 691 (D.C. Cir. 2000)).
111. *Id.* at 17.
112. *Id.* at 20.
113. *Id.* at 23.
114. Regional Transmission Organizations, 65 Fed. Reg. 810 (Jan. 6, 2000) [hereinafter Order 2000].
115. *Id.* at 817.
116. *Id.*
117. *Id.*
118. *Id.* ("It is in the economic self-interest of transmission monopolists, particularly those with high-cost generation assets, to deny transmission or to offer transmission on a basis that is inferior to that which they provide themselves.").
119. *Id.*
120. *Id.* at 825.

participation.[121] FERC also declined to mandate a structure for an RTO, allowing either non-profit independent system operators (ISOs) or for-profit Transco's, or some other form.[122] Order 2000 set out four minimum characteristics[123] and eight minimum functions of an RTO.[124] At present, there are seven RTOs in the United States, including ISO-NE, which covers all six New England states.[125]

Despite increased federal regulation of wholesale electricity markets and transmission planning, authority over transmission *siting* historically belonged to the states, and for the most part it still does.[126] But Congress granted FERC authority over transmission siting when it passed the Energy Policy Act of 2005 (EPAct 2005).[127] EPAct 2005 added Section 216 to the FPA, which granted FERC backstop transmission siting authority.[128] For the first time, FERC had authority not only to regulate interstate transmission and wholesale transaction, but also to approve the construction of physical transmission facilities.

Congress split the delegated siting authority between the Department of Energy (DOE) and FERC.[129] First, DOE must conduct a transmission congestion study and, based on the conclusions of that study and input from potentially affected states, designate "national interest electric transmission corridors" ("NIETCs").[130] In deciding whether to designate a NIETC, the statute directs DOE to consider the following factors:

> (A) the economic vitality and development of the corridor, or the end markets served by the corridor, may be constrained by lack of adequate or reasonably priced electricity;
> (B) (i) economic growth in the corridor, or the end markets served by the corridor, may be jeopardized by reliance on limited sources of energy; and
> (ii) a diversification of supply is warranted;
> (C) the energy independence of the United States would be served by the designation;
> (D) the designation would be in the interest of national energy policy; and
> (E) the designation would enhance national defense and homeland security.[131]

Once DOE designates a corridor, FERC then has "backstop" authority to site electricity transmission facilities in certain situations: (1) when the relevant state lacks authority to approve the transmission facility or consider interstate benefits in

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121. *Id.* at 831.
122. *Id.* at 836.
123. *Id*. at 842. These characteristics are independence from market participants, appropriate scope and regional configuration, operational authority over transmission facilities, and exclusive authority over short-term grid reliability. *Id.*
124. *Id.* at 811.
125. *See Regional Transmission Organizations (RTOs)/Independent System Operators (ISO)*, FERC, http://www.ferc.gov/industries/electric/indus-act/rto.asp (last updated Sep. 20, 2013).
126. *See* Dworkin, *supra* note 1, at 538-39.
127. Energy Policy Act of 2005, Pub. L. 109-58, 119 Stat. 594 (codified in various U.S.C. titles). Congress also directed FERC to establish incentive-based rates to encourage reliability and new investment in transmission. 16 U.S.C. § 824s (2006).
128. 16 U.S.C. § 824p.
129. *Id.*
130. *Id.* § 824p(a).
131. *Id.* § 824p(a)(4).

making a siting decision; (2) if the transmission utility cannot obtain siting approval because it does not serve customers in the relevant state; or (3) the state agency has authority to approve the siting but either withholds approval for more than one year or imposes conditions on approval that make the project economically unfeasible.[132]

Congress thus allowed FERC to approve the siting of new transmission facilities, but FERC's authority is conditioned first on DOE designation and then on state agency inaction, inability to act, or unreasonable action.[133] If the conditions in the statute are satisfied, FERC may issue a construction permit for the transmission facility.[134] In addition to receiving siting approval, the holder of a FERC-granted permit can exercise eminent domain in federal or state court to acquire property from hold-outs.[135]

Pursuant to the newly added Section 216 of the FPA, in 2007 DOE released the results of its first National Electric Transmission Congestion Study.[136] Two areas were designated Critical Congestion Areas: the Mid-Atlantic region, from New York City to Northern Virginia; and Southern California (Southwest Area).[137] DOE also found four Congestion Areas of Concern, one of which was New

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132. *Id*. § 824p(b). The statute states that FERC may issue a siting permit in a NIETC if it finds that:

> (1)(A) a State in which the transmission facilities are to be constructed or modified does not have authority to—
> (i) approve the siting of the facilities; or
> (ii) consider the interstate benefits expected to be achieved by the proposed construction or modification of transmission facilities in the State;
> (B) the applicant for a permit is a transmitting utility under this Act but does not qualify to apply for a permit or siting approval for the proposed project in a State because the applicant does not serve end-use customers in the State; or
> (C) a State commission or other entity that has authority to approve the siting of the facilities has—
> (i) withheld approval for more than 1 year after the filing of an application seeking approval pursuant to applicable law or 1 year after the designation of the relevant national interest electric transmission corridor, whichever is later; or
> (ii) conditioned its approval in such a manner that the proposed construction or modification will not significantly reduce transmission congestion in interstate commerce or is not economically feasible.

Id.

133. Section 824p(b)(1) also provides five other conditions that must be met before FERC may issue a construction permit for a transmission line:

> (2) the facilities to be authorized by the permit will be used for the transmission of electric energy in interstate commerce;
> (3) the proposed construction or modification is consistent with the public interest;
> (4) the proposed construction or modification will significantly reduce transmission congestion in interstate commerce and protects or benefits consumers;
> (5) the proposed construction or modification is consistent with sound national energy policy and will enhance energy independence; and
> (6) the proposed modification will maximize, to the extent reasonable and economical, the transmission capabilities of existing towers or structures.

Id.

134. *Id.*

135. *Id.* § 824p(e)(1).

136. National Electric Transmission Congestion Report, 72 Fed. Reg. 56,992 (Dep't of Energy, Oct. 5, 2007).

137. *Id.* at 56,995.

England.[138] Based on the critical congestion areas, DOE designated the Mid-Atlantic National Corridor and the Southwest Area National Corridor as NIETCs for a duration of twelve years.[139] Commenters on the draft designation voiced numerous concerns and arguments against the NIETC designation: Section 216 of the FPA violated the Fifth and Tenth Amendments; transmission companies improperly influenced DOE; DOE should instead focus on conservation and energy efficiency; DOE did not allow sufficient public input; the designated corridors included culturally or environmentally sensitive lands; the corridors were drawn too broadly; and DOE did not adequately consult with states in the corridors.[140]

In the following years states and conservation groups challenged both the FERC and DOE aspects of the backstop siting authority conferred by EPAct 2005 in *Piedmont Environmental Council v. FERC*[141] and *California Wilderness Coalition v. Department of Energy*.[142] Both decisions further constrained DOE and FERC's already limited authority to site transmission facilities.

In *Piedmont*, the Fourth Circuit in 2009 narrowly construed FERC's siting authority in holding that FERC could not exercise its siting authority when a state actually denies a transmission siting application.[143] State utility commissions and environmental advocacy organizations challenged FERC's broad interpretation of one of the conditions triggering its backstop siting authority, when a state agency has "withheld approval for more than 1 year."[144] FERC interpreted "withheld" to include a state's denial of a siting application.[145] The Fourth Circuit, despite applying *Chevron* deference,[146] held that FERC's interpretation was contrary to the plain meaning of "withheld" in Section 216 of the FPA.[147] The court reasoned that Congress intended to grant FERC only limited authority, and that FERC's interpretation would effectively preempt state authority if a state utility commission denied a permit.[148] Judge Traxler, dissenting from the majority's interpretation of FPA Section 216, noted the broader purpose of EPAct 2005 to expand the transmission system to avoid blackouts and higher costs due to congestion.[149] Judge Traxler argued that Congress could have added "for more than 1 year" to "withheld" to allow a state utility commission to deny an application, change its mind, and grant a permit within one year.[150] And Congress could not have intended to allow FERC siting authority when a state imposed project-killing

138. *Id.* The other three were the Phoenix-Tucson area, San Francisco Bay area, and the Seattle-Portland area. *Id.*

139. *Id.* at 57,014, 57,021.

140. *See id.* at 56,997, 57,001-02, 57,005, 57,009.

141. Piedmont Envtl. Council v. FERC, 558 F.3d 304 (4th Cir. 2009).

142. Cal. Wilderness Coal. v. Dep't of Energy, 631 F.3d 1072 (9th Cir. 2011).

143. *Piedmont*, 558 F.3d at 313.

144. *Id.* at 310-11.

145. *Id.* at 313. "Congress intended to act in a measured way and conferred authority on FERC only when a state commission is unable to act on a permit application in a national interest corridor, fails to act in a timely manner, or acts inappropriately by granting a permit with project-killing conditions." *Id.* at 315.

146. Chevron U.S.A. Inc. v. Natural Res. Def. Council Inc., 467 U.S. 837, 842-43 (1984).

147. *Piedmont*, 558 F.3d at 313.

148. *Id.* at 314.

149. *Id.* at 321 (Traxler, J., dissenting in part and concurring in part).

150. *Id.* at 323.

conditions but not when a state simply denied an application.[151] Less than one month after the *Piedmont* decision, Acting Chairman of FERC, Jon Wellinghoff, asked the Senate Committee on Energy and Natural Resources to grant FERC increased transmission siting authority.[152] So far, Congress has declined to do so.

Two years later, in 2011, a number of state public utility commissions and environmental advocacy groups challenged the DOE aspect of the backstop siting authority. In particular, the challenges focused on the way DOE conducted the congestion study mandated by EPAct 2005 and its subsequent designation of the two NIETCs.[153] The Ninth Circuit in *California Wilderness* held that DOE acted beyond the scope of its authority in EPAct 2005 because it failed to adequately consult with affected states in conducting the congestion study.[154] DOE argued that it satisfied its obligation to consult with states through notice-and-comment proceedings.[155] The court rejected this argument and concluded, based on the ordinary meaning of and case law defining "consult," that DOE failed to consult with the states.[156] In particular, DOE did not circulate a draft of the congestion study to states, did not affirmatively reach out to states, and did not provide states with the modeling data it used in the study, and DOE's failure to meaningfully consult with the states was not harmless error.[157]

In 2011, DOE solicited comments on a FERC proposal for DOE to delegate its congestion study and NIETC authority to FERC, which would have consolidated federal backstop siting authority in one agency.[158] DOE ultimately decided against delegation, instead promising to make the congestion study and NIETC designation process more efficient and transparent.[159] DOE has conducted public workshops and received comments in connection with its 2012 National Electric Transmission Congestion Study, but it has not yet released the final study.[160]

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151. *Id.* at 324.

152. *Hearing on Legislation Regarding Electric Transmission Lines Before the S. Comm. on Energy & Nat. Resources*, 111th Cong. 2, 6 (2009) (statement of Jon Wellinghoff, Chairman of FERC).

153. Cal. Wilderness Coal. v. Dep't of Energy, 631 F.3d 1072, 1079 (9th Cir. 2011). *See* 16 U.S.C. § 824p(a)(1) (2006) ("[T]he Secretary of Energy . . . , in consultation with affected States, shall conduct a study of electric transmission congestion.").

154. *Cal. Wilderness Coal.*, 631 F.3d at 1079.

155. *Id.* at 1086.

156. *Id.*

157. *Id.* at 1087-90.

158. *FERC Proposal for Delegation of DOE Authority*, ENERGY.GOV (Sept. 9, 2011, 1:00 PM), http://energy.gov/oe/articles/ferc-proposal-delegation-doe-authority.

159. *DOE and FERC Joint Public Statement on Back Stop Siting*, ENERGY.GOV (Oct. 11, 2011, 1:32 PM), http://energy.gov/articles/doe-and-ferc-joint-public-statement-back-stop-siting.

160. *2012 National Electric Transmission Congestion Study*, ENERGY.GOV, http://energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/2012-national (last visited Oct. 10, 2013). The New England States Committee on Electricity (NESCOE), composed of appointees of each of the six state's Governors, filed a comment with DOE about the 2012 Congestion Study. Letter from New England States Committee on Electricity to David Meyer, Dep't of Energy (Jan. 31, 2012), http://nescoe.com/uploads/2012CongestStudyCommentsJan2012.pdf. NESCOE reminded DOE that New England was no longer a "Congestion Area of Concern" in DOE's 2009 Congestion Study and stated that congestion in New England "is today virtually nonexistent." *Id.* NESCOE then described various transmission projects in New England that have been sited or were in the process of being sited to show that congestion would not be a problem in the future. *Id. But see* discussion *infra* notes 6-8 and accompanying text.

The recent history of the electricity industry is one of vertically-integrated, state-regulated public utilities suddenly confronted with competition by non-utility generators. To promote competition in generation, Congress, by enacting PURPA and EPAct 1992, forced public utilities to open up their transmission facilities for use by competitors, and FERC has implemented a policy of open access to transmission services through Orders 888 and 2000. In addition, in recent decades merchant transmission developers—non-utility transmission owners who recover transmission project costs by negotiating rates, not cost-based rates[161]—and independent transmission developers have introduced competition into the transmission-side of the electricity industry by building transmission projects not owned by incumbent public utilities.[162]

Despite these policy and market developments, the current transmission infrastructure still requires significant upgrade to reliably accommodate both a robust wholesale electricity market and renewable energy sources.[163] Siting new transmission lines has traditionally been the domain of the states,[164] and FERC's backstop siting authority in Section 216 of the FPA, especially as limited by *Piedmont* and *California Wilderness*, does little to change the status quo. The next part of this Comment considers how states have exercised their siting authority.

II. THE STATE ROLE IN REGULATING ELECTRICITY TRANSMISSION

State regulation of electricity transmission siting varies in several respects: regulatory structure; the entities that may build transmission facilities; the standards for granting a certificate to build a new transmission facility; and whether state regulators may coordinate with other states or consider out-of-state benefits in approving or denying a transmission project. Some regions of the country have undergone at least partial deregulation of the electricity industry, where transmission and distribution utilities are required to divest their generation assets and some sort of independent operator (e.g., an ISO) operates the transmission grid in the region.[165]

A majority of states place the authority to approve a transmission project in one state agency, usually a public utility commission (PUC).[166] Some states have created siting boards composed of representatives from various state agencies.[167] The rest of the states do not consolidate siting authority in one state agency, instead requiring developers to seek approval from multiple agencies.[168]

161. Order 1000, *supra* note 11, at 49863.

162. *See* Heidi Werntz, *Let's Make A Deal: Negotiated Rates for Merchant Transmission*, 28 PACE ENVTL. L. REV. 421, 424 (2011) ("Merchant transmission providers are distinguished from other transmission providers by the fact that they do not serve captive retail customers and assume all market risk of a transmission project.").

163. *See* Rossi, *supra* note 70, at 1024, 1029-30.

164. *See id.* at 1019.

165. *See* Pierce, *supra* note 88, at 469-70.

166. BROWN & SEDANO, *supra* note 3, at 16, 18.

167. *Id. See, e.g.*, MASS. GEN. LAWS ANN. ch. 164, § 69H (West 2003 & Supp. 2012).

168. *See* BROWN & SEDANO, *supra* note 3, at 16, 18. *See e.g.,* EDISON ELECTRIC INSTITUTE, STATE GENERATION & TRANSMISSION SITING DIRECTORY 31, 43, 103 (2012) (Georgia, Indiana, and Oklahoma).

States also differ on whether they issue certificates to build transmission projects to non-public utilities, and, if so, whether a merchant transmission developer may apply to become a public utility. For instance, Arkansas Public Service Commission (PSC) lacked authority to recognize a merchant transmission developer, Plains and Eastern Clean Line LLC, as a public utility so that it could build two transmission lines to bring renewable wind energy from Oklahoma and through Arkansas to other states in the southern part of the United States.[169] Although the Arkansas PSC expressed its support for merchant transmission development generally, it only had jurisdiction to grant a public utility the Certificate of Public Convenience and Necessity required to build a transmission line.[170] The Arkansas PSC concluded that Clean Line was not a public utility within the meaning of the relevant Arkansas statute because it did not own or operate transmission in the state or have any contracts to deliver power in Arkansas.[171] Oklahoma, on the other hand, granted Clean Line public utility status for a transmission project that would not serve the public in Oklahoma but would transfer windpower from Oklahoma to Tennessee.[172] This example of conflicting regulations in neighboring states illustrates the challenge confronting merchant or independent transmission developers that wish to build an interstate transmission line.

In many states, regulatory approval of a new transmission line is conditioned on demonstrated public need.[173] Regulatory approval in the form of a certificate of public need is frequently also a prerequisite for exercising eminent domain authority.[174] "Need" typically has a narrow meaning restricted to the necessity of the new transmission facility within the state only.[175] One criticism of such a restricted meaning of "need" in the approval of transmission projects is that state regulators do not consider potential benefits or costs to an entire region, even though the development of wholesale energy markets makes it likely that new transmission facilities will affect several states.[176]

Finally, states differ on whether their statutes allow state agencies to coordinate with other states for the purpose of transmission planning and siting.[177] A report by the National Council on Energy Policy from 2008 found that twelve

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169. In the Matter of the Application of Plains and Eastern Clean Line LLC for a Certificate of Public Convenience and Necessity to Construct, Own and Operate as an Electric Transmission Public Utility in the State of Arkansas, Docket No. 10-041-U (Ark. P.S.C., Jan. 11, 2011) [hereinafter Clean Line Arkansas Application], *available at* http://www.apscservices.info/pdf/10/10-041-u_41_1.pdf.

170. *Id.* at 9-11. *See* ARK CODE ANN. §§ 23-3-201(a), 23-3-205 (2012).

171. Clean Line Arkansas Application, *supra* note 169, at 10-11.

172. In re Application of Plains and Eastern Clean Line LLC, to Conduct Business as an Electric Utility in the Sate of Oklahoma, PUD 201000075 (OCC Oct. 28, 2011 (Order No. 590530)), available at http://imaging.occeweb.com/ap/orders/0300D92C.pdf.

173. *See* Rossi, *supra* note 70, at 1019.

174. *See id.*; Alexandra B. Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079 (2013) (analyzing the state statutes and the issue whether merchant transmission developers can exercise eminent domain authority).

175. *See* Rossi, *supra* note 70, at 1019; Brown & Rossi, *supra* note 9, at 721-24.

176. *See* Brown & Rossi, *supra* note 9, at 721-24.

177. *See* JULIA FRIEDMAN & MILES KEOGH, NAT'L COUNCIL ON ELEC. POLICY, COORDINATING INTERSTATE ELECTRIC TRANSMISSION SITING: AN INTRODUCTION TO THE DEBATE 7-10 (2008) (compiling state statutes).

states have statutes that are silent on the issue of interstate coordination, whereas twenty-three states had statutes encouraging some form of interstate coordination for electricity regulation generally.[178] Some states also encourage or require state agencies to participate in RTOs.[179]

The rest of this Part explores how Maine, Massachusetts, and New Hampshire exercise their authority over transmission siting. Maine is a potential net wind energy producer, and a transmission line delivering wind power generated in Maine to load centers would likely travel through New Hampshire and Massachusetts.

A. Maine

In Maine, transmission developers must apply to the Maine Public Utilities Commission (MPUC) for a certificate of public convenience and necessity (CPCN) to build a transmission line.[180] A CPCN is also necessary before MPUC may grant a transmission and distribution utility[181] eminent domain authority for transmission construction.[182] A Maine statute imposes an extendable six-month time limit on the MPUC to make a determination whether to issue a CPCN.[183]

The MPUC must find that a "public need" for the transmission line exists before granting a CPCN.[184] Maine's definition of "public need" is somewhat broader than many other states, in that it allows the MPUC to consider a non-exhaustive list of relevant factors in determining public need.

In determining public need, the commission shall, at a minimum, take into account economics, reliability, public health and safety, scenic, historic and recreational values, state renewable energy generation goals, the proximity of the proposed transmission line to inhabited dwellings and alternatives to construction of the transmission line, including energy conservation, distributed generation or load management.[185]

By including "state renewable energy generation goals" in its statute, Maine allows the MPUC to consider the state's explicit public policy of promoting renewable energy generation, which tends to require more transmission facilities than traditional fossil-fuel or hydroelectric generation.[186] In addition, MPUC uses

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178. *Id.* at 7-8.

179. *Id.* at 9-10.

180. 35-A M.R.S.A. § 3132 (2010 & Supp. 2012).

181. *Id.* § 102(20-B).(A "transmission and distribution utility" is "a person, its lessees, trustees or receivers or trustees appointed by a court, owning, controlling, operating or managing a transmission and distribution plant for compensation within the State.").

182. 35-A M.R.S.A. § 3136(4) (2010) ("The commission may not approve a location to be taken by eminent domain for the construction, rebuilding or relocation of a transmission line that requires a certificate of public convenience and necessity under section 3132, unless the commission has issued a certificate of public convenience and necessity for that transmission line.").

183. *Id.* § 3132(2) (2010 & Supp. 2012).

184. *Id.* § 3132(6).

185. *Id.*

186. *See id.* § 3210(1) ("In order to ensure an adequate and reliable supply of electricity for Maine residents and to encourage the use of renewable, efficient and indigenous resources, it is the policy of this State to encourage the generation of electricity from renewable and efficient sources and to diversify electricity production on which residents of this State rely in a manner consistent with this section."); *id.* § 3210(3-A) (listing renewable energy generation goals); *id.* § 3402 (2010) ("The

language almost identical to the statute in its rule implementing Section 3132.[187]

Despite Maine's relatively broad statutory definition of "public need" for CPCN approval, it is limited in several ways that discourage transmission development. Any explicit consideration of regional transmission needs, including meeting other states' renewable energy goals,[188] is absent from the list in Section 3132(6). If, for instance, Maine could produce enough renewable energy to exceed its own goals, but neighboring states were failing to meet their own renewable goals for lack of renewable generation resources like wind or tidal power, Section 3132(6) does not explicitly allow MPUC to consider the demand for renewable energy in other states.[189] Additionally, eminent domain authority might be limited to transmission lines with a demonstrable benefit to Maine citizens.[190]

Furthermore, MPUC must deny a CPCN application upon finding "that the transmission line is reasonably likely to adversely affect any transmission and distribution utility or its customers."[191] The Maine Legislature added this clause in 2009.[192] This clause, by protecting not only ratepayers but also incumbent utilities, adds an additional barrier for independent developers seeking to invest in new transmission lines.[193]

Legislature finds that it is in the public interest to explore opportunities for and encourage the development, where appropriate, of wind energy production in the State . . . .").

187. *See* 65-470 C.M.R. ch. 330, § 9-B (2012). For an example of MPUC applying the CPCN factors, *see Re Cent. Me. Power Co.*, Request for Certificate of Public Convenience and Necessity for the Maine Power Reliability Program Consisting of the Construction of Approximately 350 Miles of 345 kV and 115 kV Transmission Lines ("MPRP"), No. 2008-255, Order, pp. 20-21 (Me. P.U.C. June 10, 2010).

188. *See, e.g.*, MASS. GEN. LAWS ANN. ch. 25-A, § 11F (West 2010) (renewable energy portfolio standard).

189. It may, however, consider the economic benefit to Maine in transmitting excess renewable generation capacity to other states under the "economics" factor in Section 3132(6).

190. *See* Steven J. Eagle, *Securing A Reliable Electricity Grid: A New Era in Transmission Siting Regulation?*, 73 TENN. L. REV. 1, 14 (2005) ("While the need for siting transmission lines is regional and national, courts generally act on the proposition that a State cannot use its power of eminent domain for the benefit of the citizens of another State. Courts find this limitation within the source of the legislative power; the sovereign is obligated to protect and promote the health, safety, morals, and welfare of citizens of the individual state.").

191. 35-A M.R.S.A. § 3132(6) (2010 & Supp. 2012).

192. P.L. 2009, ch. 123, § 5.

193. The outcome of an Arkansas PSC/Clean Line scenario in Maine is not clear—whether a merchant transmission developer that did not own any transmission or generation assets in Maine could obtain a CPCN to build a transmission line through the state. Section 3132 states that "a person may not construct any transmission line" without a CPCN, 35-A M.R.S.A. § 3132 (2010 & Supp. 2012), and also that a "person" shall file a petition with MPUC to build a transmission line of more than 69 kV, *id.* § 3132(2). The use of "person" is clearly broader than public utility, and presumably would allow a merchant transmission developer to petition the MPUC for a CPCN. On the other hand, statute grants MPUC jurisdiction over "[a]ll public utilities and certain other entities as specified in [Title 35-A]" and directs it to "regulate public utilities in accordance with [Title 35-A]." *Id.* § 103(2)(A)-(B). These provisions limit MPUC jurisdiction to public utilities and "certain other entities," and it is unclear whether "certain other entities" includes the "persons" in Section 3132 defining the requirement for a CPCN to build transmission. Furthermore, even if a merchant transmission developer could obtain a CPCN in Maine, it may not be able to exercise eminent domain authority because a Maine statute limits such authority to a "transmission and distribution utility" to exercise eminent domain with the approval of MPUC. *Id.* § 3136(1) (2010). A "transmission and distribution utility" is "a person . . . owning, controlling, operating or managing a transmission and distribution plant for compensation within the

B. Massachusetts

Massachusetts vests transmission siting authority in the Massachusetts Energy Facilities Siting Board ("Siting Board") composed of representatives from several states agencies, the utilities commission, and the public.[194] The Siting Board exercises its authority so as "to provide a reliable energy supply for the commonwealth with a minimum impact on the environment at the lowest possible cost."[195] The statute creating the Siting Board thus clearly articulates values that should guide siting decisions: reliability, environmental protection, and efficiency. The statute draws on the same values when it directs the Siting Board to review proposed transmission projects based on the "need for, cost of, and environmental impacts of transmission lines."[196] Developers must seek approval from the Siting Board to build a transmission project, and no other state agency may issue a permit for the project before the Siting Board gives its approval.[197] The Siting Board must conduct a public hearing and make a decision on the petition within one year.[198]

In addition, the Siting Board has robust backstop authority to grant a Certificate of Environmental Impact and Public Interest (CEIPI) for a transmission developer if another state or local agency delays approval, imposes conditions that make the project unfeasible, raises a "nonregulatory issue" like aesthetic impact or recreation, makes a decision inconsistent with another agency, or denies approval.[199] The Siting Board's backstop authority over other state and local agencies is therefore considerably broader than FERC's backstop authority over states pursuant to Section 216 of the FPA. The Siting Board must decide on the petition for a CEIPI "[a]s expeditiously as possible but in no event later than six months" after the petition is filed.[200] The Siting's Board CEIPI decision must be in writing and include findings and opinions about (1) "the need for the facility to meet the energy requirements of the applicant's market area" based on agreements with other utilities and "energy policies as adopted by the commonwealth"; (2) "the compatibility of the facility with considerations of environmental protection, public health and public safety"; (3) the project's consistency with state and local laws; and (4) "the public interest, convenience and necessity requiring construction and operation of the facility."[201] Like many states, Massachusetts bases its siting decision on need, but broadens the definition somewhat to include need based on energy policies, including the Massachusetts Renewable Portfolio Standard

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State." *Id.* § 102(20-B) (2010 & Supp. 2012). A merchant transmission developer with no transmission or distribution assets in Maine may not to fit this definition.

194. MASS. GEN. LAWS ANN. ch. 164, § 69H (West 2003 & Supp. 2013).

195. *Id.*

196. *Id.*

197. *Id.* § 69J ("No applicant shall commence construction of a facility at a site unless a petition for approval of construction of that facility has been approved by the board and, in the case of an electric or gas company which is required to file a long-range forecast pursuant to section sixty-nine I, that facility is consistent with the most recently approved long-range forecast for that company.").

198. *Id.*

199. *Id.* § 69K.

200. *Id.* § 69O.

201. *Id.*

requirements.[202] The Siting Board could find that a transmission facility was necessary to satisfy the Commonwealth's renewable energy goals by, for instance, connecting to wind generators off Cape Cod or in the Berkshires, or in another state like Maine.[203] Yet the Massachusetts statute is silent on the issues of interstate coordination[204] and consideration of regional benefits in approving a transmission siting project.

Massachusetts' statute also allows any person, not just public utilities, to petition the Siting Board for approval of a transmission project.[205] However, only an "electric, gas or oil company" may petition the Siting Board to issue a CEIPI in the event of an adverse state or local agency decision.[206] Under Section 69G, an "electric company", for the purposes of Siting Board jurisdiction, includes a corporation organized under the laws of Massachusetts or another state to "generate, transmit, distribute or sell electricity for ultimate use by fifty or more persons," as well as the general definition of "electric company" for Chapter 164 of the Massachusetts General Laws.[207] The general definition, in Section 1, means "a corporation organized under the laws of the commonwealth . . . for selling, transmitting, distributing, transmitting and selling, or distributing and selling, electricity *within the commonwealth,*" but does not include "a corporation only transmitting and selling, or only transmitting, electricity" unless that corporation is affiliated with a Massachusetts distribution company.[208]

The general definition of "electric company" in Section 1 therefore appears to exclude a merchant or independent transmission developer, unless the developer is affiliated with a local distribution company. The general definition also requires that the transmission company transmit electricity within Massachusetts, and it is not clear on the face of the statute whether a transmission line that merely passes through Massachusetts would meet this definition.[209] However, the more specific definition of "electric company" for Siting Board jurisdiction in Section 69G does seem to encompass a merchant transmission developer, so long as the company serves at least fifty persons, and the statute does not explicitly require those persons to be citizens of Massachusetts. Therefore, based on the more specific definition in Section 69G, it seems as though an independent or merchant transmission developer could petition the Siting Board for a CEIPI.

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202. *See* MASS. GEN. LAWS ANN. ch. 25-A, § 11F (West 2010 & Supp. 2013) (creating renewable portfolio standard).

203. *See* Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd., 858 N.E.2d 294, 301 n.9 (Mass. 2006) (noting that a change in the Siting Board's statutory mandate broadened the Board's focus from need to reliability).

204. *See* FRIEDMAN & KEOGH, *supra* note 177, at 7.

205. *See* MASS. GEN. LAWS ANN. ch. 164, § 69G (West 2003 & Supp. 2013) ("'Applicant', a person or persons who submits to the department or board . . . a petition to construct a facility . . . ."); *id.* § 69J ("No *applicant* shall commence construction of a facility at a site unless a petition for approval of construction of that facility has been approved by the board. . . . ") (emphasis added).

206. *Id.* § 69K.

207. *Id.* § 69G.

208. *Id.* § 1.

209. *Cf.* Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd., 932 N.E.2d 787, 806 (Mass. 2010) (concluding that petitioners had waived argument that developer, organized as an LLC, was not a "corporation" within the meaning of Section 1).

C. New Hampshire

New Hampshire, like Massachusetts, has created a specific body for siting transmission projects—the Site Evaluation Committee, whose members are representatives from various state agencies.[210] Unlike the Massachusetts Energy Facilities Siting Board, however, the Site Evaluation Committee has no authority to override the decisions of other state agencies.[211] Instead, the Site Evaluation Committee receives applications for certificates to construct energy facilities, conducts a preliminary review of the completeness of the application within 60 days, forwards applications to relevant state agencies, and conducts public hearings in affected counties.[212] Within eight months each state agency reports to the Site Evaluation Committee its final decision on the part of the application within its jurisdiction, and then the Site Evaluation Committee, within nine months of accepting the application, denies or approves the project.[213] Unlike the Massachusetts Siting Board with its backstop authority, the New Hampshire Siting Evaluation Committee lacks the authority to grant a certificate if another state agency denies approval.[214]

If all state agencies do grant approval on a project, then the Site Evaluation Committee may issue a certificate "after having considered available alternatives and fully reviewed the environmental impact of the site or route" if it finds that the site and facility will be built by an applicant with technical and financial ability to complete the project, "[w]ill not unduly interfere with the orderly development of the region," and "[w]ill not have an unreasonable adverse effect on aesthetics, historic sites, air and water quality, the natural environment, and public health and safety."[215] There is no requirement that the Site Evaluation Committee base its determination on a finding of "need," although the New Hampshire legislature in creating the Site Evaluation Committee found that it was in the public interest that the state have "an adequate and reliable supply of energy in conformance with sound environmental principles."[216] Finally, unlike either Maine or Massachusetts, the New Hampshire legislature explicitly stated that the Site Evaluation Committee "may consult with interested regional agencies and agencies of border states in the consideration of certificates."[217]

One of the New Hampshire state agencies other than the Site Evaluation Committee with jurisdiction over transmission line siting is the New Hampshire Public Utilities Commission (NHPUC).[218] The relevant statute provides that "[n]o *person or business entity* . . . shall . . . begin the construction of a plant, line, main, or other apparatus or appliance to be used therein . . . without first having obtained

210. *See* N.H. REV. STAT. ANN. §162-H:3 (2002 & Supp. 2012).
211. *Id.* § 162-H:16.
212. *Id.* § 162-H:7.
213. *Id.* (Supp. 2012).
214. *Id.* § 162-H:16(I) (2002 & Supp. 2012) ("[T]he committee shall not issue any certificate under this chapter if any of the other state agencies denies authorization for the proposed activity over which it has jurisdiction.").
215. *Id.* § 162-H:16(IV).
216. *Id.* § 162-H:1.
217. *Id.* § 162-H:16(III).
218. N.H. REV. STAT. ANN. § 374:22 (2009 & Supp. 2012).

the permission and approval of the [NHPUC]."[219] The NHPUC jurisdiction to approve a transmission line is thus not limited to public utilities. The NHPUC is also required to participate in:

> [A]ctivities of the New England Conference of Public Utility Commissioners, the National Association of Regulatory Utility Commissioners, and the New England States Committee on Electricity, or other similar organizations, and work with the New England Independent System Operator . . . to advance the interests of New Hampshire with respect to wholesale electric issues, including policy goals relating to fuel diversity, renewable energy, and energy efficiency, and to assure nondiscriminatory open access to a safe, adequate, and reliable transmission system at just and reasonable prices.[220]

NHPUC is thus explicitly mandated to participate in regional transmission planning activities, although (understandably) the intention behind this provision seems more to advocate for New Hampshire's own interests in the region rather than to encourage cooperation for the good of the entire region.

Finally, the eminent domain authority that the NHPUC may confer has two limitations. The first is that only a "public utility" may petition the NHPUC to exercise eminent domain in building a transmission line.[221] A "public utility" is defined broadly as "every corporation, company, association, joint stock association, partnership and person . . . owning, operating or managing any plant or equipment or any part of the same . . . in the generation, transmission or sale of electricity ultimately sold to the public."[222] This definition seems to allow independent or merchant transmission developers to acquire eminent domain authority. A second, more interesting limitation is that a public utility may not exercise eminent domain for a transmission project unless that project has been approved for regional cost allocation by ISO-NE.[223] This provision was added in 2012[224] as a result of the proposed Northern Pass merchant transmission line.[225]

States have historically had physical siting authority for electricity infrastructure projects like transmission and, accordingly, have established regulatory regimes to approve projects planned and proposed by traditional vertically-integrated public utilities.[226] The requirement to demonstrate need reflects the concern in the traditional model that a monopoly utility might overbuild transmission facilities and pass the costs on to its captive customers in the state.[227] Nor do statutes passed decades ago contemplate the possibility of non-utility transmission developers, and states (inadvertently or not) have insulated incumbent utilities from regional competition by failing to allow state PUCs and siting agencies the authority to coordinate regionally and consider regional costs and benefits. Limitations in state statutes and, perhaps more important, inherent lack of

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219. *Id.* (emphasis added).
220. *Id.* § 374-F:8 (2009).
221. *Id.* § 371:1 (2009 & Supp. 2012).
222. *Id.* § 362:2 (2009).
223. *Id.* § 371:1 (Supp. 2012).
224. *See* H.B. 648, 162nd Gen. Ct. (N.H. 2012).
225. *See infra* Part III.
226. *See* Brown & Rossi, *supra* note 9, at 706-07.
227. *See id.*

incentive for states to evaluate projects from a regional or national perspective have contributed to the inability to approve and site new transmission projects. Some states, as discussed above, have tried to move beyond these limitations by allowing, for instance, public utility commissions and siting agencies to consider public policy goals, like renewable energy requirements, in addition to reliability and efficiency. Nonetheless, the current federalism structure for transmission regulation presents serious barriers to a well-integrated grid capable of supporting renewable energy generation and increasing system reliability. The next Part explores the problems posed by federalism, before moving to possible solutions in Part IV.

III. FEDERALISM ISSUES IN ELECTRICITY TRANSMISSION

There are two primary federalism issues related to electricity transmission. The first issue involves transmission planning and cost allocation—what transmission facilities should be built and who will pay for them.[228] Even after planning and cost allocation decisions are made, however, the second issue of siting authority remains—who ought to approve where transmission projects get built.[229] FERC has asserted more authority over planning and cost allocation through its ratemaking authority under FPA Sections 205 and 206, but, as discussed above, states have almost exclusive jurisdiction over siting decisions.

Before considering potential solutions to the problems confronting transmission siting, this Part further defines the federalism challenges that create these problems. Examples of delayed or denied transmission projects illustrate the problems inherent in the current federalism model for transmission regulation. FERC recently exercised its authority to exert more control over regional transmission planning and cost-allocation by issuing Order 1000.[230] Order 1000 strikes a new federalism balance and, though it concerns planning and cost-allocation, may suggest a way to shift the federalism model for transmission siting.

A. Defining the Issues

As discussed above in Parts I and II, both the federal and state governments share jurisdiction over the electricity industry. To the extent that those jurisdictions overlap, regulation of the electricity industry presents a "regulatory commons" problem as conceptualized by Professor Buzbee.[231] A tragedy of the regulatory commons occurs when multiple regulators have overlapping jurisdiction over a problem and this overlap creates disincentives for regulators to fix the problem because they can deflect blame but will not be able to claim exclusive credit for a solution.[232] These overlaps can create a jurisdictional mismatch when the primary government regulator's jurisdiction is much broader or narrower than the problem

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228. *See id.* at 761-63.
229. *See id.*
230. *See* Order 1000, *supra* note 11.
231. *See* William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 IOWA L. REV. 1, 22 (2003).
232. *Id.*

that needs to be addressed.[233] In the case of transmission siting, there is a clear jurisdictional mismatch between state agencies and transmission siting: a state regulator's jurisdiction is generally smaller than the regional transmission problem.[234] In the case of interstate transmission, neighboring states have overlapping jurisdiction over one project. There can even be regulatory overlap within a state if multiple state agencies must approve a transmission project. And, finally, even federal backstop authority is split between DOE and FERC.

Moreover and somewhat paradoxically, Professor Wiseman notes that renewable energy resources exhibit regulatory "anticommons" features.[235] Transmission corridors, like parcels for wind or solar development, must overcome numerous exclusion rights held by both private property owners and also agencies at multiple levels of governments with the power to deny the project.[236] The holders of the exclusion rights have widely divergent interests, and this divergence impedes efforts to forge approval and agreement among all the rights holders.[237]

More concretely, federalism issues arise in the context of transmission siting because state interests do not match regional or national interests. Although large transmission projects tend to have regional or even national benefits, states generally consider only in-state benefits to decide whether to site those projects.[238] Even if a state agency or utility commission has authority to consider regional benefits, it will feel pressures from local interests more acutely than a regional or federal entity would.[239]

There are numerous examples of local and state-level opposition delaying projects for years (if not forever), like the Cape Wind project off the coast of Massachusetts.[240] A more recent local example is the opposition to the proposed Northern Pass merchant transmission line in New Hampshire.[241] The proposed line would carry hydroelectric power through New Hampshire, including its scenic White Mountains region, and ultimately connect to New England's power grid.[242] The project as currently proposed has provoked skepticism and in some cases opposition among environmental groups,[243] cities and towns,[244] and New

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233. *Id.* at 23-25.

234. *See* Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 508 (2011).

235. *See id.* at 499 (Wiseman refers to renewable energy "parcels" in the context of renewable energy generation, but her analysis also applies to transmission corridors.).

236. *See id.* at 499-500.

237. *See id.*

238. *See* Richard J. Pierce, Jr., *Environmental Regulation, Energy, and Market Entry*, 15 DUKE ENVTL. L. & POL'Y F. 167, 178 (2005).

239. *See id.*

240. *See* Alliance to Protect Nantucket Sound, Inc. v. Energy Facilities Siting Bd., 858 N.E.2d 294 (Mass. 2006).

241. *See Project Overview*, NORTHERN PASS, http://www.northernpass.us/project-overview.htm (last visited Sept. 7, 2013).

242. *See id.*

243. *See, e.g.*, *Northern Pass*, CONSERVATION L. FOUND., http://www.clf.org/northern-pass/ (last visited Sept. 7, 2013).

244. *See, e.g.*, Annmarie Timmons, *Concord Planning Board to Northern Pass: Bury the Lines*, CONCORD MONITOR (Apr. 7, 2013), http://www.concordmonitor.com/community/town-by-town/concord/5548794-95/concord-planning-board-to-northern-pass-bury-the-lines.

Hampshire citizens in general.[245] Regardless of these projects' merit or lack thereof, these struggles highlight the discrepancy between localized, intense interests to restrict transmission development and the regional and national need for a stronger electric grid.

B. Order 1000: A Balanced Solution for Planning

Over the past decade, Congress and FERC have taken faltering steps toward increased federal and regional authority over electricity transmission planning. Building on Orders 888[246] and 2000,[247] FERC issued Order 890 in 2007 to remedy undue discrimination in transmission planning and access to transmission services.[248] Citing "critical need for new transmission infrastructure" and noting that "vertically-integrated utilities do not have an incentive to expand the grid to accommodate new entries," FERC determined that the transmission planning process required changes.[249] FERC required public utility transmission providers, regardless of RTO/ISO membership, to follow certain planning principles and participate in a coordinated planning process.[250] FERC also expected non-utility transmission providers to participate in these planning processes.[251]

Less than five years after issuing Order 890, FERC issued Order 1000 after concluding that additional changes were necessary to facilitate open transmission planning and cost-allocation, and to prevent discrimination by public utility transmission providers.[252] In issuing Order 1000, FERC further tipped the allocation of power away from states and toward RTOs for transmission planning and cost-allocation in order to confront the critical need for transmission development.[253]

In general, FERC intended the reforms in Order 1000 "to work together to ensure an opportunity for more transmission projects to be considered in the transmission planning process on an equitable basis and increase the likelihood that transmission facilities in the transmission plan will move forward to construction."[254] In particular, the reforms in Order 1000 *require* transmission providers to plan ahead for new transmission projects by participating in a regional transmission planning process.[255] The requirement in Order 1000 that utilities engage in regional planning goes a step beyond the non-mandatory encouragement of Orders 890 and 2000. Order 1000 also requires transmission providers to

245. *See, e.g.*, Beth Daley, *They're Finding the Power to Just Say No: Many in North Country Unite Against Hydroelectric Project*, BOS. GLOBE, Dec. 23, 2012, at A1.

246. *See* Order 888, *supra* note 97.

247. *See* Order 2000, *supra* note 114.

248. Preventing Undue Discrimination and Preference in Transmission Service, 72 Fed. Reg. 12,266, 12,271 (Mar. 15, 2007) [hereinafter Order 890].

249. *Id.* at 12,275.

250. *Id.* at 12,279. These planning principles are "[c]oordination, openness, transparency, information exchange, comparability, dispute resolution, regional participation, and congestion studies." *Id.* at 12,319.

251. *Id.* at 12,321.

252. *See* Order 1000, *supra* note 11, at 49,845.

253. *Id.*

254. *Id.* at 49,851.

255. *Id.* at 49,867.

develop methods for spreading costs regionally and inter-regionally for new transmission[256] and to allow non-incumbent transmission developers[257] to bid on constructing and operating those new projects.[258] Furthermore, in addition to the traditional reliability and economic factors considered to determine if new transmission facilities are needed, FERC adopted a requirement that local and regional transmission planning processes also consider "public policy requirements" established by state or federal laws or regulations, such as state renewable portfolio standard requirements.[259]

The regional planning process required by Order 1000 expands the regional cooperation and information sharing among transmission providers required by Order 890 and further requires that planning proceed according to principles that were merely voluntary under Order 890.[260] It remains to be seen how transmission providers will implement Order 1000, but by mandating regional planning according to defined principles, Order 1000 should alleviate some of the transmission scarcity and development delay problems caused by local opposition and public utilities pursuing their own short-term self-interest.[261]

Another controversial reform in Order 1000 requires regional transmission

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256. *Id.* at 49,920. FERC noted that "[w]ithin RTO or ISO regions, particularly those that encompass several states, the allocation of transmission costs is often contentious and prone to litigation because it is difficult to reach an allocation of costs that is perceived by all stakeholders as reflecting a fair distribution of benefits." *Id.* at 49,921.

257. *Id.* at 49,880 ("[A] 'non-incumbent transmission developer' refers to two categories of transmission developer: (1) a transmission developer that does not have a retail distribution service territory or footprint; and (2) a public utility transmission provider that proposes a transmission project outside of its existing retail distribution service territory or footprint, where it is not the incumbent for purposes of that project.").

258. *Id.* at 49,880-81, 49,887.

259. *Id.* at 49,876. Order 1000 defines "public policy requirements" as "requirements established by 'state or federal laws or regulations,'" which means "enacted statutes (i.e., passed by the legislature and signed by the executive) and regulations promulgated by a relevant jurisdiction, whether within a state or at the federal level." *Id.* at 49,845.

260. *Id.* at 49,855-56. The planning principles are: "(1) [c]oordination; (2) openness; (3) transparency; (4) information exchange; (5) comparability; (6) dispute resolution; and (7) economic planning." *Id.* at 49,855 n.61.

261. Order 1000 also contains cost allocation reforms. Although FERC declined to mandate specific regional cost allocation methods, by requiring regional planning entities to adopt a FERC-approved method to spread costs among beneficiaries for regional transmission projects, Order 1000 provides a process to solve one of the thorniest issues preventing new transmission projects. *See Id.* at 49,929; Brown & Rossi, *supra* note 9, at 762. FERC even stated that it has the legal authority to require beneficiaries of regional transmission projects to pay involuntarily for costs, even if the beneficiary does not "have a contractual or formalized customer relationship with the entity that is collecting the costs." Order 1000, 76 Fed. Reg. at 49,925. FERC also declined to adopt a nationwide method for cost allocation for interregional transmission projects, instead requiring regional planning entities to develop their own cost allocation principles. *See id.* at 49,931. Perhaps FERC did not want to include another controversial requirement during an already controversial rulemaking, but a national standard for cost allocation could provide consistency and certainty for independent transmission developers. On the other hand, there are considerable differences between interregional needs, especially between transmission systems on the West Coast and denser East Coast, and FERC may have concluded that a national standard would not have been responsive to those needs. *See id.* at 49,933 ("Almost all commenters urge the Commission not to adopt a 'one-size-fits-all' approach to cost allocation and to retain regional and interregional flexibility.").

planning entities to consider public policy requirements in federal and state laws and regulations in addition to the traditional considerations of reliability and economic efficiency.[262] Perhaps the most important public policy requirements that regional transmission planning entities must now consider are state renewable portfolio standards. Although the order merely required "consideration" of such requirements, the consideration of state renewable energy goals should address one primary barrier to meeting those goals. By planning ahead for future transmission demand based on expected new renewable electricity generation instead of approving transmission projects on an ad hoc basis, RTOs and other regional planning entities can reduce the time and cost required to get clean energy hooked to the grid.

Finally, and perhaps most controversially, Order 1000 eliminates the federal right of first refusal for incumbent transmission developers for regional transmission projects.[263] FERC found this reform necessary to increase competition in constructing and providing transmission services;[264] in that sense, it may signal the beginning of a competitive transmission market similar to the reforms that led to a competitive wholesale electricity generation market in the 1990s.[265] Before Order 1000 eliminated the federal right of first refusal, an incumbent transmission developer—such as a public utility—had the opportunity to construct a regional transmission project proposed by a non-incumbent transmission developer, such as a merchant transmission company.[266] Public utilities could potentially use this power to stifle increased transmission access for new forms of electricity generation built by QFs and independent power producers or to bar new entrants to the transmission market.[267] To address this concern, Order 1000 requires regional planning processes to include standards for submitting and proposing regional transmission projects, and further requires that non-incumbent transmission developers have an opportunity to allocate costs of projects regionally.[268] In eliminating the federal right of first refusal, FERC had to walk a fine line between encouraging competition through new, smaller, and perhaps more innovative transmission developers, on the one hand, and alienating the traditional transmission utilities that remain crucial to maintaining reliability and expanding the nation's transmission systems. Ultimately, FERC in Order 1000 tipped the balance of power away from incumbent public utilities and toward non-incumbent competitors.

Needless to say, public utilities and incumbent transmission providers in many parts of the country opposed the elimination of a federal right of first refusal.[269]

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262. *See id.* at 49,876.

263. *Id.* at 49,880. An incumbent transmission developer or provider is "entity that develops a transmission project within its own retail distribution service territory or footprint." *Id.*

264. *See id.* at 49,880-81.

265. *Contra* Pierce, *Restructuring*, *supra* note 88, at 461 ("Transmission and distribution remain natural monopoly functions. No one except the folks at the Cato Institute support deregulation of transmission or distribution.").

266. Order 1000, 76 Fed. Reg. at 49,880.

267. *See id.* at 49,885.

268. *Id.* at 49,880.

269. Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 77 Fed. Reg. 32,184, 32,238-40 (May 17, 2012) [hereinafter Order 1000-A].

One major concern was that small, non-incumbent transmission developers who, unlike existing public utilities, have no obligation to serve customers, could propose a new transmission project, start construction, but then walk away if costs or an economic shift caused the project to become unprofitable.[270] There was also opposition to FERC mandated regional transmission planning[271] and consideration of public policy requirements in evaluating the need for new transmission facilities.[272] In response to concerns, FERC issued two orders on rehearing and clarification: Order 1000-A in May 2012[273] and Order 1000-B in October 2012.[274] Both orders affirmed the basic reforms in Order 1000, which set up a pending legal challenge to Order 1000 in the D.C. Circuit.[275]

C. ISO-NE Order 1000 Compliance Filing

FERC required each regional planning entity or RTO to submit a compliance filing describing how it expected to comply with Order 1000's requirements.[276] ISO-NE submitted its compliance filing on October 25, 2012.[277] The comments and protests to the filing illustrate the dynamics of the various interests in the transmission system, including state regulators, public utilities, merchant and independent transmission developers, generators, and environmental and conservation groups. Although the compliance filing addressed planning and cost allocation, the debate it generated is similar to debates over transmission siting.

For instance, to comply with Order 1000's required process to identify transmission needs driven by public policy requirements (e.g., RPS goals) and evaluate potential solutions, ISO-NE proposed to have state regulators drive the process.[278] The New England States Committee on Electricity (NESCOE), composed of regulators from the New England states, would have identified their own transmission needs created by RPS policies, and then selected proposed solutions for further evaluation, eventually choosing projects to place in the regional transmission plan.[279] This plan was supported by incumbent transmission members of ISO-NE, but few other stakeholders.[280] NESCOE, in its comments suggesting changes to the compliance filing, argued that states must have the central, "determinative" role in determining how to meet transmission needs created by the state's public policy.[281] Massachusetts, Connecticut, and Rhode Island separately commented to make a similar point.[282] The American Wind

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270. *See id.* at 32,239.
271. *Id.* at 32,203.
272. *Id.* at 32,232-33.
273. Order 1000-A, *supra* note 269.
274. Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 77 Fed. Reg. 64,890 (Oct. 18, 2012) [hereinafter Order 1000-B].
275. *See* S.C. Pub. Serv. Auth. v. FERC, Docket No. 12-1232 (D.C. Cir. May 25, 2012).
276. *See* ISO New England Inc., 143 FERC P 61,150 (2013).
277. *Id.* para. 5.
278. *See id.* paras. 79-84.
279. *Id*. para. 84.
280. *Id.* para. 85 n.154.
281. *Id.* paras. 93-94.
282. *Id.* para. 96. Note that the Department of Public Utilities of the Commonwealth of Massachusetts, the Rhode Island Public Utilities Commission and the Connecticut Public Utilities

Energy Association (AWEA) and, interestingly enough, the Maine PUC sounded alarm at too much state control over the process and argued that ISO-NE must make the final determination whether a proposed solution met an identified transmission need.[283] Ultimately, FERC agreed with AWEA and MPUC, and required ISO-NE to submit a further compliance filing with a procedure not driven solely by states.[284]

IV. POTENTIAL SITING SOLUTIONS: ALLOCATING POWER BETWEEN THE FEDERAL AND STATE REGULATORS

Even if a regional approach, where the federal government sets limits within which RTOs and state members may operate, strikes the right federalism balance for transmission planning, an imbalance remains with respect to transmission siting. In other words, once a transmission project is planned, the transmission developer must then secure siting approval to build the transmission lines in a specific area. Such siting approval authority is currently concentrated at the state level, despite the recent attempt in EPAct 2005 to create and extend federal siting authority.[285]

After President Obama took office in his first term, several Senators and Representatives proposed legislation that would have granted FERC more authority over transmission approval and siting.[286] Although none of these proposals made it out of committee in President Obama's first term, there is always the possibility, however remote, of similar proposals during his second term. In addition, the need for increased transmission to meet national reliability goals and to facilitate renewable energy development has led some commentators[287] and regulators[288] to call for a stronger federal presence in transmission siting and approval decisions.

This Section surveys and evaluates various proposals for finding a new, more efficient federalism balance for electricity transmission siting authority. First, in the most extreme option, Congress could simply preempt state siting authority, as it has for natural gas pipeline[289] and LNG terminal[290] siting. Second, instead of completely preempting state authority, Congress could adopt a "process preemption" regime, where initial siting authority remains with the state within federally-articulated limits.[291] Neither of these first two options may be politically feasible, nor wise policy, however. Even if some level of federal preemption of

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Regulatory Authority are intervenors and are identified collectively as the "Southern New England States". *Id.* app. A.

283. *Id.* paras. 97-98.

284. *Id.* para. 116.

285. 16 U.S.C. § 824p (2006).

286. *See* Tara Benedetti, Recent Developments, *Running Roughshod? Extending Federal Siting Authority over Interstate Electric Transmission Lines*, 47 HARV. J. ON LEGIS. 253, 261-70 (2010) (summarizing proposed legislation).

287. *See* Pierce, *supra* note 88, at 484-85; Vaheesan, *supra* note 12, at 87.

288. *Transmission Infrastructure: Hearing Before the S. Comm. on Energy and Natural Resources*, 111th Cong. 10 (Mar. 12, 2009) (statement of Jon Wellinghoff, Acting Chairman, Federal Energy Regulatory Commission).

289. Natural Gas Act, 15 U.S.C. § 717f (2006).

290. *Id.* § 717b(e)(1).

291. *See* Ostrow, *supra* note 14, at 290; Klass & Wilson, *supra* note 14, at 1865.

state siting authority is desirable, political obstacles may necessitate action that does not require Congress. Therefore, third, FERC and other federal agencies[292] may be able to improve regional cooperation in siting decisions. Finally, there are steps states could take to improve siting interstate transmission lines. For instance, the inclusion of a proposed transmission line in a regional plan approved by an RTO or other regional entity could carry with it a presumption of public need and convenience at the state-level siting decision.

A. Federal Solutions: Variations on Preemption

The first set of solutions involves varying levels of federal preemption of state siting authority. Preemption has the advantage of placing jurisdiction with an entity (i.e., FERC) in a position to consider regional and national benefits when determining whether to approve and where to site a transmission project. These approaches require action from Congress and would likely generate opposition from states and perhaps incumbent utilities and thus may not be politically feasible. In addition, the preemption options may not be good long-term policy, because preemption risks alienating states and undermining local autonomy.

1. Complete Federal Preemption

Some commentators have called for complete federal preemption of state and local siting authority by granting FERC full authority to approve the siting of interstate transmission lines.[293] Some have even suggested that FERC should have jurisdiction over interstate and *intra*state transmission lines above a given voltage.[294] Centralized siting authority with one federal regulator would greatly streamline the siting approval process for transmission developers and allow transmission projects to catch up to demand created by renewable energy sources.[295] Complete preemption would also take transmission siting out of the hands of state and local regulators, who feel pressure from the parochial and protectionist interests at the local level that stifle transmission projects.[296]

There are several examples of federal preemption in other areas of energy regulation that could serve as models for transmission siting. In 1938, Congress preempted state authority to regulate natural gas interstate transportation and sales.[297] Congress vested FERC's predecessor, the Federal Power Commission, exclusive authority to regulate natural gas.[298] Any company wishing to sell or transport natural gas goes to FERC, and not a state or local regulatory body, to obtain a certificate of public convenience and necessity.[299] A more recent

292. *See* Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131 (2012).

293. *See, e.g.*, Vaheesan, *supra* note 12, at 123-28 (arguing that Congress should completely preempt state and local authority over transmission siting).

294. *See id.* at 124-25.

295. *See* i*d.* at 126-27.

296. *See id.* at 125-26.

297. Natural Gas Act, Pub. L. No. 75-688, 52 Stat. 831 (1938) (codified as amended at 15 U.S.C. §§ 717-717z (2006)); *see* HUNT, *supra* note 17, 395-402.

298. 15 U.S.C. § 717o.

299. *Id.* § 717f.

preemption example appears in the EPAct of 2005, where, in addition to granting FERC backstop siting authority over electricity transmission, Congress delegated to FERC the authority to site liquefied natural gas (LNG) terminals, a power previously exercised by state and local governments.[300] The siting of LNG terminals may be even more contentious and subject to pressure at the state and local levels than electricity transmission siting, and Congress decided that preemption was necessary to site LNG terminals.

Preemption of state authority over natural gas regulation and LNG terminal siting provide a potential template for granting FERC exclusive electricity transmission authority.[301] Nonetheless, there are some significant differences between transmission lines, on the one hand, and natural gas pipelines and LNG terminals on the other. Natural gas pipelines are typically buried underground and therefore do not raise the aesthetic concerns of tall electricity transmission towers and lines. And, although LNG terminals may mar the view of the coastline,[302] they are confined to a localized area, whereas transmission lines stretch for miles. Given the greater visibility and land impact of transmission lines and towers, states and municipalities may resist federal preemption of electricity transmission siting more strongly than preemption of natural gas pipeline of LNG terminal siting.

Setting aside the issue of whether natural gas regulation or LNG siting are apt precedents for preemption of transmission siting authority, complete preemption may not be desirable as a matter of policy.[303] By consolidating siting authority in one federal agency, FERC, the complete preemption approach may carry increased risks of agency capture by incumbent public utilities. Instead of needing to capture multiple agencies in various states, incumbent transmission developers would only need to court regulators in one agency. In addition, incumbent transmission utilities are far more likely than local opposition groups to have the necessary funding and expertise to persuade a federal agency located in Washington, D.C.[304] Of course, avoiding parochialism and local obstruction is a benefit of preemption, but it does disempower local citizens and groups. Finally, federal preemption is probably not politically feasible, at least at present.[305] State governments and

300. Energy Policy Act of 2005 § 311 (codified at 15 U.S.C. § 717b(e)). *But see* Joshua P. Fershee, *Misguided Energy: Why Recent Legislative, Regulatory, and Market Initiatives Are Insufficient to Improve the U.S. Energy Infrastructure*, 44 HARV. J. ON LEGIS. 327, 357 (2007) ("[W]hile it is technically accurate that LNG siting is now solely a federal issue, the legislative history is replete with contradictory statements concerning the scope of FERC's exclusivity.").

301. *See* Vaheesan, *supra* note 12, at 131.

302. *See* Abigail Curtis, *Denver Company Tries to Sell Searsport on a Proposed Propane Terminal*, BANGOR DAILY NEWS, May 3, 2011, http://bangordailynews.com/2011/03/03/news/denver-company-tries-to-sell-searsport-on-a-proposed-propane-terminal.

303. *See* Rossi, *supra* note 70, at 1039-48 (criticizing increased federal authority over transmission siting and arguing that changes to transmission pricing and cost allocation are more important reforms); Jim Rossi & Thomas Hutton, *Judge Cudahy and the Deference Tension in United States Energy Law*, 29 YALE J. ON REG. 371, 382 (2012); Ari Peskoe, *A Challenge for Federalism: Achieving National Goals in the Electricity Industry*, 18 MO. ENVTL. L. & POL'Y REV. 209, 260-61 (2011) (arguing that preemption is undesirable). *Cf.* Amy L. Stein, *The Tipping Point of Federalism*, 45 CONN. L. REV. 217, 256-57 (2012) (discussing reasons against centralized authority for siting electricity generation facilities).

304. *See* Peskoe, *supra* note 303, at 260.

305. *See* Klass & Wilson, *supra* note 14, at 1864-65.

regulators likely will not give up control over transmission siting without a fight, just as New England states resisted ceding authority over evaluating and approving public policy transmission upgrades in their comments on the ISO-NE compliance filing. On the other hand, given current state budget challenges, perhaps some state legislatures would cede siting authority over transmission siting in order to cut spending on state public utility commissions.

2. Partial, Process Preemption and Coordinated Federalism

An alternative to both complete federal preemption and the status quo for transmission siting would be to partially shift the federalism balance for siting toward the federal government and FERC. For instance, concluding that "neither the federal government nor the state governments acting alone have the capacity to implement federal siting policies,"[306] Professor Ashira Pelman Ostrow has proposed a "process preemption" approach for facilities siting that would combine federal and local authority.[307] Instead of the current balance of federal, state, and local authority, however, she would reset the balance using as a model the cell phone tower siting process defined by the Telecommunications Act of 1996 (TCA).[308] The TCA allows state and local governments to retain decision-making authority over cell phone tower siting, but it places limits on this authority by prohibiting state or local governments from "unreasonably discriminat[ing] among providers" and from blocking provision of wireless service[309]; by requiring state and local governments to respond to requests to site cell phone towers "within a reasonable period of time"[310]; by requiring a denial to "be in writing and supported by substantial evidence contained in a written record"[311]; by preventing a denial based on "environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations."[312] In addition, the TCA provides for judicial review for "[a]ny person adversely affected by any final action or failure to act by a State or local government or any instrumentality thereof that is inconsistent" with the above limitations.[313] The substantive limitations the TCA places on state and local governments—the prohibitions on discrimination, blanket bans of cell phone towers, and using environmental effects if the tower complies with federal regulations—impose some national uniformity on cell phone tower

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306. Ostrow, *supra* note 14, at 323 ("Federal siting regimes thus present a classic interjurisdictional regulatory problem that cannot be effectively remedied by a regulatory regime that exclusively empowers one level of government.").

307. Ostrow, *supra* note 14, at 321. *See also* Ashira Pelman Ostrow, *Land Law Federalism*, 61 EMORY L.J. 1397, 1435-36 (2012) (suggesting a local-officials-as-federal-agents model for allocation of land use authority between federal and local government); Patricia E. Salkin & Ashira Pelman Ostrow, *Cooperative Federalism and Wind: A New Framework for Achieving Sustainability*, 37 HOFSTRA L. REV. 1049, 1091-97 (2009) (using TCA as a model to propose cooperative federalism approach for wind energy generation siting).

308. Ostrow, *supra* note 14, at 317-20. *See* Telecommunications Act of 1996, 47 U.S.C. § 332 (2006).

309. 47 U.S.C. § 332(c)(7)(B)(i).

310. *Id.* § 332(c)(7)(B)(ii).

311. *Id.* § 332(c)(7)(B)(iii).

312. *Id.* § 332(c)(7)(B)(iv).

313. *Id.* § 332(c)(7)(B)(v).

siting.[314] More important, as Professor Ostrow contends, the procedural protections in the TCA—the reasonable time for responses, the requirements of written denials supported by substantial evidence, and judicial review—"increase the transparency and consistency of the local siting process and facilitate judicial review of individual siting decisions," and "enhance the public's perception of fairness in the decision-making process, increasing public acceptance of the ultimate result."[315]

Professor Ostrow proposes applying a "process preemption" approach to renewable energy generator siting.[316] In particular, she focuses on siting wind energy generation facilities.[317] Although Professor Ostrow does not suggest adopting a process preemption or cooperative federalism approach to electricity transmission siting, such an application seems like a consistent extension of her proposal, as Professors Klass and Wilson suggest.[318] The parochialism, protectionism, and NIMBYism problems that afflict wind turbine siting[319] are similar to those that impede transmission line siting. At the same time, the benefits of expertise and regulatory experimentation at the state and local level are as relevant for electricity transmission as they are for wind turbines.[320]

Under a process preemption regime for electricity transmission siting, Congress could direct FERC to promulgate minimum procedural protections and substantive limitations that all state and local governments must follow when considering an application for a transmission siting project.[321] This is similar to FERC's action in Order 890, in which FERC articulated principles utilities had to follow in planning but left determinations about how to comply with those principles to the utilities. The procedural and substantive parameters of a siting coordinated federalism regime could apply only to transmission lines over a given voltage, although that might have the adverse side-effect of encouraging states to favor lower voltage transmission lines that may not be capable of meeting regional transmission needs.[322]

Like the TCA, Congress could require siting decisions to be made by states within a reasonable time, in writing, and based on substantial evidence, as well as

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314. Ostrow, *supra* note 14, at 325. *See also* Salkin & Ostrow, *supra* note 307, at 1098.

315. Ostrow, *supra* note 14, at 326-27.

316. *Id.* at 335-36. Professor Ostrow also proposes a process preemption approach for siting of radioactive waste disposal facilities. *Id.* at 337-340. *See also* Salkin & Ostrow, *supra* note 307, at 1091.

317. Ostrow, *supra* note 14, at 336 ("Process Preemption [for wind] would increase regulatory uniformity, facilitating the development of nation-wide renewable energy infrastructure, without unduly compromising the ability of local officials to respond to local conditions."). *See also* Salkin & Ostrow, *supra* note 307, at 1092 ("In particular, a federal wind siting policy should: (a) prohibit local governments from banning wind energy facilities; (b) require local governments to make decisions on wind siting within a reasonable period of time; and (c) require such decisions to be made in writing and supported by substantial evidence.").

318. *See* Klass & Wilson, *supra* note 14, at 1865-66.

319. *See, e.g.*, SAVE OUR SEASHORE, http://saveourseashore.org (last visited Oct. 8, 2013).

320. *See* Klass & Wilson, *supra* note 14, at 1866-67.

321. *See* Ostrow, *supra* note 14, at 320-22. Presumably, these procedural safeguards and substantive limitations would also apply to RTOs and ISOs.

322. *Cf. Wilkinson Memo*, *supra* note 6 (explaining that low voltage lines connecting wind generation to grid leads to curtailment).

allow for federal judicial or FERC review.[323] Congress could even go so far as to require state public utilities commissions or other siting approval entities to consider regional costs and benefits in their siting decisions. If Congress ever adopts a federal RPS or renewable energy policy, it could require that regional, state, and local officials consider that federal RPS or policy in making transmission decisions. At the same time, such an approach would leave discretion at the state and local level to account for regional differences and still allow for transparency and public participation by non-market participant stakeholders.[324]

Despite the attractiveness of a coordinated federalism or process preemption approach to transmission siting, there are some key problems. First, as Professor Ostrow acknowledges, there have been some notable examples of failed coordinated federalism regimes.[325] One of these is the scheme established by the Low-Level Radioactive Waste Policy Amendments of 1985 to dispose of low-level radioactive waste.[326] Aside from the Supreme Court striking down as commandeering the take-title provision of the Act,[327] what remained of the low-level waste scheme was insufficient to encourage states to site nuclear waste disposal facilities.[328]

Although the process preemption scheme in the TCA has been more successful for siting cell-phone towers,[329] there are some key differences between cell phone tower siting and electricity transmission line siting. First, as the history of the electric industry and its regulation shows, there are already thoroughly entrenched, divergent interests in electricity transmission (and generation and distribution), more so than the wireless telecommunications industry in 1986, when the TCA was enacted. Second and similarly, any new transmission development becomes part of an already established, delicate transmission network, whereas cell phone towers are standalone structures, which makes siting them easier. Finally, a key part of the problem in the electricity transmission siting status quo is the inability to account for regional differences, and it is not clear why continuing to allow states even federally-circumscribed control over the siting process would solve this part of the problem.

Moreover, legal and practical issues arise when state agencies must implement federal statutes. For instance, there are unsettled procedural and administrative law questions about how a federal court would review a state agency implementing federal siting standards according to federally-articulated procedural safeguards.[330]

323. *See* Ostrow, *supra* note 14, at 326; Salkin & Ostrow, *supra* note 307, at 1091-97.

324. *See* Klass & Wilson, *supra* note 14, at 1866.

325. Ostrow, *supra* note 14, at 316-17.

326. Low–Level Radioactive Waste Policy Amendments Act of 1985, Pub.L. 99–240, 99 Stat. 1842 (1986) (codified as amended at 42. U.S.C. §§ 2021b-2021j (2006)); *see* Ostrow, *supra* note 14, at 316-17.

327. New York v. United States, 505 U.S. 144 (1992).

328. *See* Ostrow, *supra* note 14, at 316-17.

329. *See* Ostrow, *supra* note 14, at 319.

330. *See* Josh Bender & Miles Farmer, Note, *Curing the Blind Spot in Administrative Law: A Federal Common Law Framework for State Agencies Implementing Cooperative Federalism Statutes*, 122 YALE L.J. 1280, 1283 (2013) (noting that questions include whether to apply *Chevron* deference, "whether state or federal law should govern, which actions are reviewable, what standard of review to use, and who bears the burden of proof in agency proceedings.").

Aside from these questions and even providing for federal judicial review, the likely regional and state variation in implementing a federal siting standard could undermine the standard's benefits, allowing states to reassert parochial interests. Finally, as Klass and Wilson acknowledge, Congress does not seem likely to pass an act completely overhauling the electricity transmission siting regime in the near future, especially in the face of staunch state opposition.[331]

3. Conditional Preemption: Increase FERC's Backstop Siting Authority

An alternative proposal to facilitate transmission siting would simply be for Congress to expand the backstop siting authority it delegated to FERC when it added Section 216 to the FPA in enacting EPAct 2005.[332] Congress could essentially overrule the *Piedmont Environmental Council*[333] decision by amending Section 216[334] to allow FERC to issue a construction permit for a transmission project when a state has denied approval of the project, and not just when a state has withheld approval.[335] This proposed solution of course involves questions similar to the process preemption solution about whether Congress is likely to enact such a solution in the near future.

Alternatively, despite the *Piedmont Environmental Council* decision,[336] FERC could attempt to assert a broad interpretation of its backstop siting authority in NIETCs outside the Fourth Circuit. Given that the Supreme Court denied cert[337] for the *Piedmont Environmental Council* decision, however, FERC might face a substantial risk of a similar outcome in other circuits. The Supreme Court could have denied cert to wait for a split among the circuits to emerge if FERC forced the issue. But of course FERC risked using its resources only to lose again in other circuits and providing opponents of broad FERC authority further advantage. A more immediate and difficult challenge for FERC is that DOE has designated only two NIETCs in which FERC may exercise its backstop authority, one in Southern California and another in the Mid-Atlantic.[338] *Piedmont Environmental Council* was limited to the Mid-Atlantic corridor, so FERC could only attempt to exercise its broad interpretation of its backstop authority in the Ninth Circuit. And this attempt, of course, would have little effect on New England.

Aside from obvious questions about the political or legal feasibility of this solution, the low number of DOE-designated NIETCs leads to a more fundamental problem with expanding FERC's backstop siting authority: it may not be fast or extensive enough to alleviate transmission problems. It takes years for DOE to complete its congestion studies, and affected states fight even designation in an

331. Klass & Wilson, *supra* note 14, at 1867.

332. Energy Policy Act of 2005, P.L. 109-58, 119 Stat. 946, § 1221 (2005) (codified at 16 U.S.C. § 824p). *See supra* note 128 and accompanying text.

333. Piedmont Envtl. Council v. F.E.R.C., 558 F.3d 304 (4th. Cir. 2009).

334. 16 U.S.C. § 824p (2006).

335. *Id.* at § 824p(b)(1)(C)(i).

336. *Piedmont Envtl. Council*, 558 F.3d at 304.

337. Edison Elec. Inst. v. Piedmont Envtl. Council,130 S.Ct. 1138 (2010).

338. *National Interest Electric Transmission Corridors*, DOE, http://energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-planning/national-1 (last visited Apr. 21, 2013).

NIETC, as *California Wilderness* illustrates. FERC's backstop authority as presently configured is thus limited by the NIETC limitation, and the inefficiency of the NIETC process leads to the conclusion that increased FERC backstop siting authority may not be enough to address transmission siting issues. Even if Congress explicitly gave FERC authority to approve a transmission project when a state denied the project, it would likely be years between the initial application to the state and approval by FERC. In that time, a project's investors would likely move on to other projects.

B. State-based Solutions

Even if no federal or regional solution to the transmission problem is forthcoming, there are reforms that states could implement to improve the coordinated exercise of their siting authority. First, as discussed above in Part II, states often adopt a narrow standard for siting transmission projects based on need or efficiency.[339] Ashley Brown and Professor Rossi even suggest eliminating the need determination altogether because developers are unlikely to build uneconomical transmission projects.[340] A less extreme solution would be for state legislatures to tailor the need determination to include regional benefits of transmission projects and, less controversially, in-state benefits that might accrue from economic development or exporting renewable energy.[341]

As an alternative or supplement to a broader definition of "public need" for siting and permitting a transmission project, states could also adopt a rebuttable presumption of need based on a project's approval in the RTO or regional planning process. The proposal would place the burden on project opponents to show that a transmission project was not necessary, which may affect the outcome in at least some siting decisions. This proposal thus would have benefits similar to vesting RTOs or regional planning entities with siting authority, but it has the advantage of not (legally, though it may politically) requiring states to act together. It would also preserve state autonomy by allowing state siting agencies to act against the presumption. Of course, the risk of such autonomy is to allow states and local opponents to reassert parochial interests and delay or kill transmission projects.

In addition, state legislatures and courts could expand their eminent domain statutes and doctrines to allow non-utility, independent, and merchant transmission developers to petition for eminent domain authority.[342] This would eliminate the advantage public utilities hold over merchant and independent transmission developers in negotiating rights-of-way for new projects and facilitate those developers' ability to improve the transmission system.[343]

Finally, state legislatures can direct their public utilities commissions or state siting agencies to coordinate with neighboring states and participate in the regional transmission planning process.[344]

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339. *See* BROWN & SEDANO, *supra* note 3, at 44; Brown & Rossi, *supra* note 9, at 721-23.
340. Brown & Rossi, *supra* note 9, at 749-50.
341. *See* Brown & Rossi, *supra* note 9, at 751.
342. *See* Klass, *supra* note 174, at 1151-52.
343. *See id.*
344. *See* FRIEDMAN & KEOGH, *supra* note 177, at 18-19.

C. Recommendation: Vest Siting and Permitting Authority at the Regional Level

The federal preemption and state-based solutions still face limitations, despite their probable benefits. Granting FERC some form of preemptive power over siting might undermine public participation in siting decisions that could result in concentrated local effects. This consequence is part of the benefit of the solution, but FERC-based siting authority may swing the pendulum too far away from local autonomy and alienate state and local regulators.[345] The state-based reforms, on the other hands, are on their own insufficient to address the nationwide shortage in transmission and do not change the understandable incentives states have to protect their own interests.

The best approach for solving the transmission federalism problem is to vest siting authority over interstate transmission lines in RTOs or other regional transmission planning entities created as a result of Order 1000.[346] This approach would build on the reforms made to regional planning and cost allocation in Order 1000[347] and extend the advantages of those reforms to siting. And, because Order 1000 directs RTOs to consider state public policy needs in making planning decisions, RTOs would already be able to consider those needs in making siting decisions.

Vesting RTOs or regional planning entities with this power could occur in at least two ways. First, Congress could delegate siting authority directly or delegate the power to FERC (as in the complete preemption approach) but instruct FERC to delegate such authority to regional entities. Second, state members of RTOs or regional planning entities could voluntarily cede their inherent siting authority and agree to be bound by RTO siting decisions. Conventional wisdom and the states' protests in the ISO-NE Order 1000 compliance filing suggest that the latter option is unlikely, and thus this solution would require Congressional action which, as discussed above, is unlikely. However, some states at least may be willing to give up their transmission siting authority if they received other benefits in return. For instance, states like Maine with more renewable energy generation resources than in-state demand for electricity produced by those resources may cede some transmission siting authority for interstate lines, if doing so would make it more likely that the transmission system would allow the state to export its renewable energy. States with insufficient or inefficient renewable resources to meet RPS goals may be inclined to delegate transmission siting authority, if doing so would result in the ability to import renewable energy.

This approach combines the efficiency advantages of a preemptive approach by mitigating state externalities in exercising siting authority, but would also, if structured properly, allow for greater transparency and stakeholder input. Vesting siting authority in RTOs or regional planning entities also allows for some flexibility to account for regional differences. One concern, however, is that the

345. *See* Peskoe, *supra* note 303303, at 260-61.

346. Professors Klass and Wilson suggest a related proposal that states voluntarily form interstate compacts which would have siting and permitting authority, as provided for in EPAct 2005. Klass & Wilson, *supra* note 14, at 1867-68. As they note, however, no states have yet exercised this option. Klass & Wilson, *supra* note 14, at 1867-68.

347. Order 1000, 76 Fed. Reg. 49,842 (Aug. 11, 2011). *See supra* Part III.

same concerns FERC expressed in Orders 890 and 1000 about undue discrimination and influence by public utility transmission providers in the RTO process could arise in the context of siting decisions.[348] This limited, regional preemption approach might allow large incumbent transmission utilities to avoid state regulators and seek approval for projects from the politically unaccountable RTO.[349] However, applying the strong reforms in Order 1000 related to fairness in planning and cost-allocation to regional siting decisions could mitigate this concern.

V. CONCLUSION

The United States faces a shortage in electricity transmission infrastructure, not only to meet basic reliability standards and relieve congestion, but also to implement renewable energy policies. The current federalism structure for regulating electricity transmission contributes to this national problem. The federal government exercises authority over the inherently interstate activity of electricity transmission and wholesale transactions, but states continue to hold their traditional authority over siting decisions. States and public utilities have interests that often conflict with regional and national transmission needs.

To alleviate this problem, it is necessary to shift the balance of power between the states and federal government over transmission siting. The question then becomes how much shifting is sufficient to address the problem while also maintaining a reasonable degree of state and local autonomy. Congress in EPAct 2005 attempted to tip the balance toward the federal government by granting FERC backstop siting authority, but the limitations on this authority rendered the reform insufficient. There are a number of proposals at the federal and states levels that would mitigate the federalism problems in transmission siting, but a solution focused at the regional level seems best suited to balance the need for regional transmission development with the benefit of preserving state and local participation.

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348. Order 890, 72 Fed. Reg. 12,266, 12,271 (Feb. 16, 2007); Order 1000, 76 Fed. Reg. at 49,845. *See* Michael H. Dworkin & Rachel Aslin Goldwasser, *Ensuring Consideration of the Public Interest in the Governance and Accountability of Regional Transmission Organizations*, 28 ENERGY L.J. 543, 578-592 (2007).

349. *See* ROSSI, *supra* note 13, at 220 ("Large transmitting utilities would be able to bypass the state political process, in which they must participate as an interest group alongside other stakeholders, including consumer and environmental groups, in favor of a regional coordinated solution of relatively homogenous transmission-owning firms.").