Interstate Electric Transmission Interference

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ABSTRACT: State control over siting and permitting for various land use regimes is being used in some states to restrict the construction of interstate electric transmission lines. In a moment where the American electricity system is undergoing radical changes to the quantity and nature of its generation systems, transmission must advance to accommodate those changes. Much of the land with the highest renewable energy production potential is in the Midwest and Southwest, while demand is concentrated most heavily in large population centers away from those regions. This necessitates building transmission infrastructure connecting critical supply hubs to demand areas. However, state siting laws can restrict this important infrastructure development. This Note suggests both federal and state law remedies to incentivize additional transmission development.

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INTRODUCTION

Electricity generation has entered a new era. As coal plants across the country are retired, solar and wind generation, along with battery storage, are occupying more of the United States's energy mix. Some states have enacted renewable portfolio standards that set a percentage of the state's energy consumption that must come from renewable sources. For other states, the economics of renewable energy generation encourage its development independent of statutory requirements. However, not all states can efficiently produce their own energy without adverse environmental consequences.

States with high populations or little land on which to produce energy must import electricity from other states. This clarion call can be readily answered by states in the Midwest and Southwest which produce wind and solar energy efficiently and affordably.

The present grid system and state siting laws make interregional transmission difficult, frustrating the efficient transmission of electricity to states where demand for clean power is high. Addressing the inefficiencies of the modern grid requires tackling state land use laws affecting transmission infrastructure development. States control their siting and permitting requirements, affording each state a functional veto of any interstate transmission project that crosses their borders. While some prior transmission projects have run out of money, state public utility commissions ("PUCs") and courts have vanquished several projects. The law cannot provide a remedy for a lack of resources, but it can protect projects from state land use decisions adverse to development.

Practically, a clean energy future will require a major investment in transmission infrastructure, including lines that traverse entire states, potentially without delivering pass-through states any energy. Many of these projects have faced intense resistance at the state level. Seemingly intractable horizontal conflict over allocating burdens and benefits between states may plague the future of interstate transmission infrastructure. Interstate friction may be exacerbated or eased by the degree to which states tie their energy futures to a regional market. Some states belong to independent system operators ("ISOs") or regional transmission organizations ("RTOs"), who act as part wholesale energy market broker and part grid operator for an entire region.[1] Other states are traditionally regulated, meaning the local utility provides electricity only to the end users in their service area. This Note examines how state laws or policy frameworks in each market type affect transmission development.

State land use and utility law restricts interstate electric transmission development, hindering the transition to reliable, affordable renewable energy across the United States. Various states wield certificates of public convenience, necessity requirements, and right-of-first-refusal laws to frustrate the siting and permitting of interstate transmission lines necessary to build out a renewable energy economy. Part I describes the traditional system of utility regulation and analyzes recent changes at the federal and state level that have promoted competition in generation and transmission. Part II samples state law both in traditionally regulated jurisdictions and in states that belong to an RTO across different regions of the United States. Several states have similar policy or legal frameworks that advance a regime of in-state preference that is

1. OFF. OF ELEC. DELIVERY & ENERGY RELIABILITY, U.S. DEP'T OF ENERGY, DOE/OE-0017, UNITED STATES ELECTRICITY INDUSTRY PRIMER 25–26 (2015), https://www.energy.gov/sites/prod/files/2015/12/f28/united-states-electricity-industry-primer.pdf [https://perma.cc/AD9G-U6AL]. This Note will use the term RTO to refer to both ISOs and RTOs. While differences between the two exist, these differences are not relevant for this Note.

detrimental to the development of an effective network of interstate transmission lines. Part III considers how to address state siting laws that hinder transmission infrastructure development. It suggests a statutory expansion of the Federal Energy Regulatory Commission's ("FERC") siting authority, leveraging existing federal siting law, and changing state law to promote transmission competition and interstate transmission development.

I. A CHANGING ENERGY LANDSCAPE

Safe, reliable transmission of electricity is crucial to the fabric of our society. As efforts in the United States to transition away from fossil fuels toward renewable[2] energy sources continue, reliable transmission of electricity will become even more important.[3] A clean energy transition is not without costs, though. First, renewable energy sources typically occupy more land than fossil fuel sources.[4] Population density in urban areas all but demands that renewable power be transmitted from areas with more abundant land availability.[5] Second, individual renewable sources, e.g., a single wind turbine, generate less power alone than one coal plant.[6] This creates a demand for a transmission grid that reaches more areas to access a greater supply of power.[7] Third, demand for electricity will increase as the transportation sector weans off gasoline and electrifies.[8] Fourth, different regions of the United States have more potential for certain power sources than others.[9] This may raise

2. This paper will use the term "renewable" in a manner that includes clean energy sources that are not technically renewable, i.e., including nuclear energy.

3. Robert Walton, *Propelling the Transition: New and Better Transmission Is Key to Zero Carbon; Here's What's Driving It*, UTIL. DIVE (Aug. 19, 2020), https://www.utilitydive.com/news/propelling-the-transition-new-and-better-transmission-is-key-to-zero-carbo/582331 [https://perma.cc/48Z8-PG5J].

4. SAMANTHA GROSS, BROOKINGS INST., RENEWABLES, LAND USE, AND LOCAL OPPOSITION IN THE UNITED STATES 2–3 (2020), https://www.brookings.edu/wp-content/uploads/2020/01/FP_20200113_renewables_land_use_local_opposition_gross.pdf [https://perma.cc/T4SR-B98M].

5. *See id.* at 2. Distributed generation ("DG") may defray the level of demand for interstate power transmission but, alone, is unlikely to supplant the need for interstate transmission of demand for a variety of reasons: (1) residential DG is unavailable to low-income Americans, who lack the money to buy rooftop solar or may lack the ability to affix solar panels to their roof because they rent, rather than own, the property; (2) difficulties with residential DG for apartment dwellers, who may be unable to install solar panels on the roof of their buildings; (3) intermittency challenges for commercial and industrial end users, who demand reliable power at high-volumes.

6. *See id.* at 3.

7. *See id.* at 3–5.

8. *See* KATE KONSCHNIK, NICHOLAS INST. FOR ENV'T POL'Y SOLS., DUKE UNIV., VEHICLE ELECTRIFICATION: COORDINATING TRANSPORTATION AND POWER SECTOR POLICIES TO MAXIMIZE AIR QUALITY BENEFITS 8 (2019), https://nicholasinstitute.duke.edu/sites/default/files/publications/Vehicle_Electrification-Coordinating_Transportation_and_Power_Sector_Policies.pdf [https://perma.cc/4UGF-ZUPW].

9. ANTHONY LOPEZ, BILLY ROBERTS, DONNA HEIMILLER, NATE BLAIR & GIAN PORRO, NAT'L RENEWABLE ENERGY LAB'Y, NREL/TP-6A20-51946, U.S. RENEWABLE ENERGY TECHNICAL

intermittency issues that require regional transmission planning to balance demand and supply of power.[10]

Interstate transmission of electricity may seem niche to a casual observer. Where we acquire our energy and how it is transmitted is immensely valuable, measured through the cost to consumers and effects on the environment. Fossil fuels expose consumers to inherent price volatility.[11] Ineffective transmission systems are more likely to produce blackouts and leave consumers without power.[12] A transition to a diverse clean energy mix and effective delivery of power requires interstate transmission. The power grid is aging and desperately needs improvement.[13] Undoubtedly, the American electricity market will transform during the next few decades to address these issues.[14] Conflicts over transmission will meaningfully animate those changes.[15] Assessing where state law imposes barriers to transmission development and how federal law may address transmission development issues are important inquiries as America transitions to a new energy economy.

A. TRADITIONAL ELECTRICITY REGULATION

The electricity delivery system is composed of three major parts: generation, transmission, and distribution.[16] Most electricity is generated on a large scale at power plants or renewable generation projects, but some is

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POTENTIALS: A GIS-BASED ANALYSIS 10–19 (2012), https://www.nrel.gov/docs/fy12osti/51946.pdf [https://perma.cc/EZ73-F4T5].

10. *See* JEFFREY LOGAN ET AL., NAT'L RENEWABLE ENERGY LAB'Y, NREL/TP-6A20-67645, ELECTRICITY GENERATION BASELINE REPORT 135, 161 (2017), https://www.nrel.gov/docs/fy17osti/67645.pdf [https://perma.cc/KB46-SSXS] (discussing the need for long-distance transmission lines to transport wind energy from resource-rich great plains states to the east coast and power produced from utility-scale solar projects to end users).

11. LAUREN MELODIA & KRISTINA KARLSSON, ROOSEVELT INST., ENERGY PRICE STABILITY: THE PERIL OF FOSSIL FUELS AND THE PROMISE OF RENEWABLES 11–12 (2022), https://rooseveltinstitute.org/wp-content/uploads/2022/05/RI_EnergyPriceStability_IssueBrief_202205.pdf [https://perma.cc/644Q-K62P].

12. *See, e.g.*, Peter Behr & Jason Plautz, *Grid Monitor Warns of U.S. Blackouts in 'Sobering Report,'* E&E NEWS (May 19, 2022, 7:01 AM), https://www.eenews.net/articles/grid-monitor-warns-of-us-blackouts-in-sobering-report [https://perma.cc/P6YC-8VDM]; EBP US & AM. SOC'Y OF CIV. ENG'RS, FAILURE TO ACT: ELECTRIC INFRASTRUCTURE INVESTMENT GAPS IN A RAPIDLY CHANGING ENVIRONMENT 20–24, 32 (2020), https://infrastructurereportcard.org/wp-content/uploads/2021/03/Failure-to-Act-Energy-2020-Final.pdf [https://perma.cc/5DM3-NN7S].

13. GROSS, *supra* note 4, at 11.

14. *See Modernizing America's Transmission Network*, ENV'T & ENERGY STUDY INST. (June 11, 2021), https://www.eesi.org/briefings/view/061121grid [https://perma.cc/DM7C-NGSC]; Nikos Tsafos, *The Next Decade in U.S. Power Sector Decarbonization*, CTR. FOR STRATEGIC & INT'L STUD. (Sept. 3, 2021), https://www.csis.org/analysis/next-decade-us-power-sector-decarbonization [https://perma.cc/X74W-XWKR].

15. *See, e.g.*, Justin Gundlach, *Transmission Siting Woes Are Slowing the Clean Energy Transition in New England*, AM. BAR ASS'N (June 27, 2022), https://www.americanbar.org/groups/environment_energy_resources/publications/trends/2021-2022/july-aug-2022/transmission-siting-woes (on file with the *Iowa Law Review*).

16. OFF. OF ELEC. DELIVERY & ENERGY RELIABILITY, *supra* note 1, at 6.

produced from distributed energy resources.[17] The electric grid is a network of transmission and distribution lines.[18] There is no truly *national* grid; four regional grids known as "interconnections" comprise the North American network.[19] Interconnections are subdivided (in some places) into RTOs and ISOs that operate the grid and manage the wholesale electricity market at the direction of the Federal Energy Regulatory Commission.[20] In other places (primarily the Southeast and Western United States), individual utilities manage transmission operations.[21] Transmission lines deliver power within these interconnections, sometimes over long distances, from generation facilities to distribution networks, which deliver power to individual consumers.[22]

1. The Regulatory Compact: State & Federal Involvement

For decades, electric utilities and government regulators formed a "regulatory compact."[23] Under this regime, utilities receive an exclusive service area, a guaranteed profit, and rights to use eminent domain.[24] In exchange, consumers receive reliable service and protection from unreasonable prices for electricity, and the state is responsible for regulating the entire enterprise, including pricing.[25] Before 1978, vertically integrated utilities met most consumers' needs for electricity by providing an entirely bundled product, i.e., they generated the electricity, transmitted and distributed it to consumers, forecasted consumer needs, and handled customer service.[26] Since then, the federal government has been encouraging more competition in the electricity

17. AM. PUB. POWER ASS'N, ELECTRICITY GENERATION 3 (2022), https://www.publicpower.org/system/files/documents/January%202022%20-%20Electricity%20Generation.pdf [https://perma.cc/2P8J-S7CP]. Distributed energy resources, as used in this Note, are sources of electricity located "behind the meter," i.e., by the end user without involvement from their utility or power supplier. PRITI PAUDYAL ET AL., NAT'L RENEWABLE ENERGY LAB'Y, NREL/CP-5D00-74736, THE IMPACT OF BEHIND-THE-METER HETEROGENEOUS DISTRIBUTED ENERGY RESOURCES ON DISTRIBUTION GRIDS 1 (2020), https://www.nrel.gov/docs/fy20osti/74736.pdf [https://perma.cc/U4VY-HENM].

18. OFF. OF ELEC. DELIVERY & ENERGY RELIABILITY, *supra* note 1, at 11.

19. *Id.* (displaying a map of the Western Interconnection, Eastern Interconnection, Electricity Reliability Council of Texas Interconnection, located wholly within Texas, and the Québec Interconnection).

20. *See supra* note 1 and accompanying text.

21. OFF. OF ELEC. DELIVERY & ENERGY RELIABILITY, *supra* note 1, at 26.

22. *See id.* at 13, 21.

23. *See, e.g.*, Leigh H. Martin, Note, *Deregulatory Takings: Stranded Investments and the Regulatory Compact in a Deregulated Electric Utility Industry*, 31 GA. L. REV. 1183, 1185 (1997) (writing about the features of the regulatory compact relationship between utilities and government regulators); Jersey Cent. Power & Light Co. v. Fed. Energy Regul. Comm'n, 810 F.2d 1168, 1189 (D.C. Cir. 1987) (Starr, J., concurring) (discussing eminent domain rights and exclusive service territory and benefits to consumers).

24. *Jersey Cent. Power*, 810 F.2d at 1189 (Starr, J., concurring).

25. *Id.*; *see* Martin, *supra* note 23, at 1185.

26. SCOTT HEMPLING, REGULATING PUBLIC UTILITY PERFORMANCE: THE LAW OF MARKET STRUCTURE, PRICING AND JURISDICTION 88–89 (2d ed. 2021).

industry.[27] These efforts have not been designed to completely annul the regulatory compact, though some have reduced the market control of investor-owned utilities.[28] However, some states are considered traditionally regulated utility markets because they "have yet to unbundle their electricity [services] and expose incumbents to competition."[29]

Monopolies in this field are not *necessarily* inefficient or harmful to consumers, but, without regulation, undesirable outcomes can occur.[30] State protections for utility monopolies encourage significant investments in capital and infrastructure because utilities can be guaranteed a margin of profit and an exclusive customer base to recoup their costs.[31] Others find state protections for monopolies unnecessary for this purpose. For example, then-professor Richard Posner found that market structure is not correlated with innovation and natural monopolies have ample incentive to innovate despite a lack of competition.[32]

Innovation aside, market power can foster market manipulation.[33] RTO markets illustrate this point. To oversimplify a complex process, RTOs host auctions to find the cheapest permutation of supply to meet anticipated demand projected over the succeeding three years.[34] Bids are arranged from cheapest to most expensive.[35] Once the market has reached sufficient supply, all generators who bid at or below the "clearing price," i.e., the price for highest accepted bid, are paid that price.[36] Suppliers can refuse to bid the entirety of their generation capacity[37] or overprice their bid to restrict supply

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27. *See generally* FERC Order No. 888, 18 C.F.R. § 35.28 (2022) (encouraging open access to transmission and generation competition).

28. *See infra* Section I.B.1. *But see* Jim Chen, *The Death of the Regulatory Compact: Adjusting Prices and Expectations in the Law of Regulated Industries*, 67 OHIO ST. L.J. 1265, 1338 (2006) (declaring the regulatory compact "dead").

29. Melissa Powers, *Anticompetitive Transmission Development and the Risks for Decarbonization*, 49 ENV'T L. 885, 889 (2019). "Unbundl[ing]" refers to separating "the cost of transmission [and] the cost of" the generation on a bill or invoice. New York v. Fed. Energy Regul. Comm'n, 535 U.S. 1, 4 (2002).

30. *See* A.J.G. PRIEST, PRINCIPLES OF PUBLIC UTILITY REGULATION 1–23 (1969) (discussing the purpose of public utility regulation and the requirement that rates charged to consumers be reasonable).

31. Martin, *supra* note 23, at 1185.

32. RICHARD A. POSNER, NATURAL MONOPOLY AND ITS REGULATION 42–44 (30th Anniversary ed. 1999).

33. *See, e.g.*, Ari Peskoe, *Is the Utility Transmission Syndicate Forever?*, 42 ENERGY L.J. 1, 20–23 (2021).

34. *Electricity Markets—101*, NAT'L GOVERNORS ASS'N, https://www.nga.org/electricity-markets [https://perma.cc/D8NB-PTEU].

35. *Id.*

36. SARAH K. ADAIR & FRANZ T. LITZ, NICHOLAS INST. FOR ENV'T POL'Y SOLS., DUKE UNIV., UNDERSTANDING THE INTERACTION BETWEEN REGIONAL ELECTRICITY MARKETS AND STATE POLICIES 4–6 (2017), https://nicholasinstitute.duke.edu/sites/default/files/publications/ni_primer_17_01_0.pdf [https://perma.cc/S48Q-VV7U].

37. Generator capacity is "[t]he maximum output, commonly expressed in megawatts (MW), that generating equipment can supply to system load, adjusted for ambient conditions." *Glossary*,

and escalate prices, increasing both consumer rates and utility profits.[38] In transmission markets, users may pay a fee to use a congested line.[39] Suppliers can exploit congestion to extract higher relief payments.[40] Prior to the creation of RTOs, a practice called "rate pancaking" was common when electricity needed to travel long distances.[41] As electrons traversed a region comprising many different utility service areas, the generator would pay a fee to each utility along the route—obviously increasing consumer prices.[42] The federal and state governments seek to restrict the worst abuses of monopoly power by ensuring a fair balance between utility profits and consumer prices.

2. Federalism and the "Bright Line" in Electricity Regulation

Public Utilities Commission of Rhode Island v. Attleboro Steam & Electric Co. proscribed state efforts to regulate pricing for interstate sales of electricity on Commerce Clause grounds.[43] This created the so-called *Attleboro* gap, a regulatory vacuum where neither states nor the federal government could regulate interstate sales of electricity (because at the time no federal legislation authorizing such regulation existed).[44] Congress enacted the Federal Power Act ("FPA") to remedy the *Attleboro* gap by granting the federal government the power to regulate interstate energy sales.[45] The Supreme Court interpreted the FPA as creating "a bright line easily ascertained, between state and federal

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U.S. ENERGY INFO. ADMIN., https://www.eia.gov/tools/glossary/index.php?id=G [https://perma.cc/2TRJ-BECU].

38. *See* GARY TAYLOR, SHAUN LEDGERWOOD, ROMKAEW BROEHM & PETER FOX-PENNER, MARKET POWER AND MARKET MANIPULATION IN ENERGY MARKETS: FROM THE CALIFORNIA CRISIS TO THE PRESENT 23–25 (2015).

39. Congestion occurs when the grid is under heavy use, restricting the free flow of the lowest-priced electricity to specific areas. PJM, TRANSMISSION CONGESTION CAN INCREASE COSTS 1 (2023), https://www.pjm.com/-/media/about-pjm/newsroom/fact-sheets/congestion-fact-sheet.ashx [https://perma.cc/59MT-QRT2].

40. *See* TAYLOR ET AL., *supra* note 38, at 26–27.

41. *See, e.g.*, Peskoe, *supra* note 33, at 27–28.

42. *See* Ky. Mun. Energy Agency v. Fed. Energy Regul. Comm'n, 45 F.4th 162, 177–80 (D.C. Cir. 2022) (vacating FERC's decision to remove a utility depancaking requirement for a failure to consider direct and indirect effects on consumer rates). Judge Richard Posner provides a useful illustration of the practice. Ill. Com. Comm'n v. Fed. Energy Regul. Comm'n, 721 F.3d 764, 778 (7th Cir. 2013) ("'[R]ate pancaking' . . . . [I]s illustrated by Henrich von Kleist's classic German novella *Michael Kohlhaas*. . . . [I]n 1810, what is now Germany was divided into hundreds of independent states. A road from Munich to Berlin, say, would cross many boundaries, and each state that the road entered could charge a toll as a condition for allowing entry. The toll would be limited not by the cost imposed on the state by the traveler, in wear and tear on the road or traffic congestion, but by the cost to the traveler of using a less direct alternative route. Like early nineteenth-century Germany, the American electric grid used to be divided among hundreds of independent utilities, each charging a separate toll for the right to send electricity over its portion of the grid." (citations omitted)).

43. Pub. Utils. Comm'n of R.I. v. Attleboro Steam & Elec. Co., 273 U.S. 83, 89–90 (1927).

44. Robert R. Nordhaus, *The Hazy "Bright Line": Defining Federal and State Regulation of Today's Electric Grid*, 36 ENERGY L.J. 203, 205 (2015).

45. *Id.*

jurisdiction," in electricity regulation where the federal government has a plenary power to regulate all wholesale electricity transactions in interstate commerce.[46] Some commentators have argued this "bright line" has faded as FERC has been able to regulate more than wholesale electricity transactions.[47] Others argue that the "bright line" lives on as states and FERC have exclusive jurisdiction over retail and wholesale rates respectively,[48] relying on recent Supreme Court opinions striking down attempts by either one to regulate in the other's domain.[49] If wholesale and retail markets blur into one, then FERC would occupy the field because the FPA provides it a broad grant of authority to regulate wholesale markets, and the Supremacy Clause grants it authority over the states.[50] In contrast, FERC does not occupy the field in transmission siting.

The division of authority between the federal and state governments over transmission infrastructure is murky, though states retain primary control over siting. The federal government, through FERC, regulates interstate transmission of electric power and the wholesale market for bulk power.[51] States control the retail market for power sales and the siting of transmission lines.[52] Section 201 (b) of the FPA grants FERC jurisdiction over "transmission of electric energy at wholesale in interstate commerce" without limitation.[53] Yet, FERC lacks both siting authority (in most instances) and an eminent

46. Fed. Power Comm'n v. S. Cal. Edison Co., 376 U.S. 205, 215–16 (1964).

47. *See, e.g.*, Nordhaus, *supra* note 44, at 207–11; Jim Rossi, *The Brave New Path of Energy Federalism*, 95 TEX. L. REV. 399, 430–37 (2016).

48. Steven Ferrey, *The Supreme Court's Constitutional "Bright Line": Preempting Authority of 47 of 50 States*, 10 NE. U. L. REV. 143, 147 (2018). *See generally* Matthew R. Christiansen & Joshua C. Macey, *Long Live the Federal Power Act's Bright Line*, 134 HARV. L. REV. 1360 (2021) (describing recent Supreme Court jurisprudence maintaining the bright line).

49. *See* Oneok, Inc. v. Learjet, Inc., 575 U.S. 373, 384–86 (2015) (upholding state antitrust law targeting practices that affect retail rates); Fed. Energy Regul. Comm'n v. Elec. Power Supply Ass'n, 577 U.S. 260, 279–82 (2016) (upholding FERC Order 745 compensating wholesale producers for demand response, i.e., for not consuming electricity, despite its effects on retail rates); Hughes v. Talen Energy Mktg., LLC, 578 U.S. 150, 164–66 (2016) (invalidating state law aimed at wholesale energy pricing).

50. 16 U.S.C. § 824(b) (2018); U.S. CONST. art. VI, cl. 2. Recent opinions add little clarity to the bright line. In 2020, the U.S. Court of Appeals for the District of Columbia upheld a FERC order that barred states from excluding electricity storage resources (batteries) from using distribution networks—traditionally within the state's purview—to sell power at wholesale. Nat'l Ass'n. of Regul. Util. Comm'rs v. Fed. Energy Regul. Comm'n, 964 F.3d 1177, 1186–90 (D.C. Cir. 2020).

51. 16 U.S.C. § 824(a)–(b); FED. ENERGY REGUL. COMM'N, ENERGY PRIMER: A HANDBOOK FOR ENERGY MARKET BASICS 48 (2020), https://www.ferc.gov/sites/default/files/2020-06/energy-primer-2020_0.pdf [https://perma.cc/2MSK-Q5GB].

52. 16 U.S.C. § 824(a); Alexandra B. Klass, *Expanding the U.S. Electric Transmission and Distribution Grid to Meet Deep Decarbonization Goals*, 47 ENV'T. L. REP. NEWS & ANALYSIS 10749, 10756–57 (2017).

53. New York v. Fed. Energy Regul. Comm'n, 535 U.S. 1, 18–19 (2002) (quoting 16 U.S.C. § 824(b)).

domain power to acquire the land for transmission lines.[54] There are some narrow exceptions, e.g., where transmission lines are on federal lands or in areas the Department of Energy ("DOE") designates as national interest electric transmission corridors ("NIETCs").[55]

In circumstances where a state is frustrating siting of an interstate transmission line within an NIETC, the Federal Government can act as a "backstop" and exercise siting authority over the line. This authority was granted to FERC in the Energy Policy Act of 2005.[56] For FERC to exercise its backstop siting authority, the Secretary of Energy must first issue a report designating an area as an NIETC based on findings from a study of electric transmission capacity constraints and congestion completed "in consultation with affected States and Indian Tribes."[57] The Secretary has not successfully designated an NIETC in the past, at least in part because of two federal circuit court cases.[58] The Fourth Circuit in *Piedmont Environmental Council v. Federal Energy Regulatory Commission* struck down FERC's exercise of backstop authority because § 824p only permitted the use of that authority when a state has *not* acted on an applicant's request for siting, meaning a state's denial of an application can short circuit FERC's backstop authority.[59] After *Piedmont*, states could merely block an application, frustrating FERC's siting authority. The Ninth Circuit piled on to obliterate FERC's backstop siting authority in *California Wilderness Coalition v. U.S. Department of Energy*, restricting the power to designate NIETCs by requiring a higher standard for consultation than mere notice and comment proceedings, including sharing relevant modeling data used in the congestion survey.[60] The Secretary of Energy has not designated an NIETC, nor has FERC exercised backstop siting authority since *California Wilderness Coalition*.[61] For proponents of backstop siting authority, the Infrastructure Investment and Jobs Act (colloquially referred to as the "Bipartisan Infrastructure Law") offers hope. It closed the *Piedmont* loophole, permitting FERC to exercise backstop authority when a state "has denied an application seeking approval pursuant to applicable law."[62] Additionally, the

54. *See* Alexandra B. Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079, 1101–03 (2013).

55. Klass, *supra* note 52, at 10758; *see also* 16 U.S.C. § 824p (establishing NIETC designation process and effects of designating an NIETC).

56. Energy Policy Act of 2005 § 1221, 16 U.S.C. § 824p.

57. 16 U.S.C.A. § 824p(a)(1) (West 2021).

58. Alexandra B. Klass & Jim Rossi, *Reconstituting the Federalism Battle in Energy Transportation*, 41 HARV. ENV'T L. REV. 423, 453–55 (2017).

59. Piedmont Env't Council v. Fed. Energy Regul. Comm'n, 558 F.3d 304, 314–15 (4th Cir. 2009).

60. Cal. Wilderness Coal. v. U.S. Dep't of Energy, 631 F.3d 1072, 1085–90 (9th Cir. 2011).

61. Klass & Rossi, *supra* note 58, at 454–55.

62. Infrastructure Investment and Jobs Act, Pub. L. No. 117-58, § 40105(b)(1)(C)(iii), 135 Stat. 429, 934 (2021) (to be codified at 16 U.S.C. § 824p(b)(1)(C)(iii)).

DOE can now consider *expected* transmission congestion when designating an NIETC instead of current congestion alone.[63]

B. THE UNFURLING OF TRADITIONAL ELECTRICITY REGULATION

Though less provocative than Friedrich Nietzsche's proclamation that "God is dead,"[64] some academics have claimed the regulatory compact is dead,[65] and one even goes as far to say that dual federalism in electricity regulation is dead.[66] Why? The dominant explanation is that the electricity market has changed so significantly that a wholesale and retail bifurcation of the market is no longer accurate.[67] Vertically integrated utilities are no longer the norm; there is competition from independent electricity generators, distributed electricity generation from consumers, and different business models for electricity delivery and demand response.[68] This change came slowly from federal legislation and piecemeal FERC rulemaking, which states resisted.

1. Legislation-Induced Competition: Greening the Energy Mix

Congress has encouraged changes to the energy and utility landscape over the past fifty years. The Public Utilities Regulatory Policy Act of 1978 ("PURPA") restructured the regulation of utilities; for the first time, the federal government imposed directives onto state utility regulators.[69] Most importantly, section 210 of PURPA authorized FERC to promulgate rules requiring utilities to buy electricity from "qualifying cogeneration facilities and qualifying small power production facilities."[70] This expanded the competitive market for generation, both in terms of increasing the number of generation sources and, eventually, diversifying the energy mix.[71] However, qualifying facilities ("QFs") struggled to capitalize on the opportunity presented by PURPA because of constraints on transmission capabilities. As a result, QFs needed to generate electricity in a particular utility's service area. If they did not, the QF was stuck in a bind: risk the utility using its monopsony power to minimize the QF's profits by overcharging for transmission services or risk an inability to negotiate a long-

63. *Id.* § 40105(a)(2)(B)(ii) (to be codified at 16 U.S.C. § 824p(a)(2)(B)(ii)).

64. FRIEDRICH NIETZSCHE, THE GAY SCIENCE 181 (Walter Kaufmann trans., 1974).

65. *See, e.g.*, Chen, *supra* note 28, at 1336–38.

66. Joel B. Eisen, *Dual Electricity Federalism Is Dead, but How Dead, and What Replaces It?*, 8 GEO. WASH. J. ENERGY & ENV'T L. 3, 3 (2017).

67. *See* New York v. Fed. Energy Regul. Comm'n, 535 U.S. 1, 23 (2002).

68. *See, e.g.*, Eisen, *supra* note 66, at 3–4.

69. Stanley A. Martin, *Problems with PURPA: The Need for State Legislation to Encourage Cogeneration and Small Power Production*, 11 B.C. ENV'T AFFS. L. REV. 149, 155–56 (1983).

70. Public Utility Regulatory Policies Act of 1978 § 210, 16 U.S.C. § 824a-3(a).

71. *See* STEVE ISSER, ELECTRICITY RESTRUCTURING IN THE UNITED STATES: MARKETS AND POLICY FROM THE 1978 ENERGY ACT TO THE PRESENT 85–86 (2015).

term transmission contract because FERC could not order a transmission line owner to wheel the power of a generator.[72]

The transmission issue was addressed head on in the Energy Policy Act of 1992, which allowed FERC to order utilities to wheel power from other generators on their transmission lines.[73] While PURPA did not permit wheeling orders that had anticompetitive effects,[74] the Energy Policy Act of 1992 authorized FERC to issue wheeling orders for any applying public utility on a case-by-case basis provided the order is in the public interest and promotes reliability.[75]

The Energy Policy Act of 2005 amended PURPA by terminating the mandatory purchase rule, subject to conditions.[76] The utility mandatory purchase rule could be terminated if the QF had nondiscriminatory access to (a) independently administered short and long term wholesale electricity markets, (b) transmission lines subject to an open access transmission tariff and a meaningfully competitive market that permits sale of a QF's power, or (c) "wholesale markets . . . of comparable competitive quality as" (a) or (b).[77] FERC, in Order No. 688, determined that the nondiscriminatory access requirement was met in several RTOs: Midcontinent ISO ("MISO"), PJM Interconnection ("PJM"), ISO New England, and the New York Independent System Operator.[78] In these markets, utilities have no obligation to purchase power from qualifying facilities.[79] Though utilities within RTOs are no longer obligated to purchase electricity from independent power producers, RTOs facilitate wholesale power markets where generators will sell their electricity; in this way, generators still sell electricity to utilities.[80]

2. FERC-Induced Competition: Chipping Away at Monopolies

FERC has made significant efforts to make wholesale electricity markets more competitive; its principal efforts are FERC Orders 888 and 1000. The purview of Order No. 888 was vast, but two provisions are particularly relevant

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72. *Id.* at 91. A utility wheels power when they "provide transmission services to unaffiliated wholesale generators." *New York*, 535 U.S. at 9.

73. Energy Policy Act of 1992 § 721, 16 U.S.C. § 824j.

74. *See* Se. Power Admin. v. Ky. Utils. Co., 26 FERC ¶ 61127, 61323 (1984).

75. Jeffrey D. Watkiss & Douglas W. Smith, *The Energy Policy Act of 1992—A Watershed for Competition in the Wholesale Power Market*, 10 YALE J. ON REGUL. 447, 456, 459–60 (1993); *see New York*, 535 U.S. at 9 ("[T]he Energy Policy Act of 1992 . . . authorized FERC to order individual utilities to provide transmission services to unaffiliated wholesale generators (*i.e.*, to 'wheel' power) on a case-by-case basis.").

76. Energy Policy Act of 2005 §1253(a), 16 U.S.C. § 824a-3(m).

77. *Id.* Long term wholesale electricity markets are described, see *supra* notes 34–36 and accompanying text; short term wholesale electricity markets would encompass day-ahead markets and real-time markets. *See Electricity Markets—101*, *supra* note 34.

78. FERC Order No. 688, 18 C.F.R. § 292.309 (2022).

79. *Id.*

80. FED. ENERGY REGUL. COMM'N, *supra* note 51, at 59–61.

to transmission and anticompetitive behavior. First, the order required "functional unbundling" of electricity services, which meant utilities had to separate the cost of generation, transmission, and retail transactions, creating price transparency on individual aspects of the electricity market.[81] Second, any entity using the transmission, both line owners and competitors, are charged the exact same rate.[82] This was transformative.[83] Transparency helped independent generators avoid being crowded out of the market by artificially inflated transmission prices.

The open access transmission tariff is no use if generation sources are stranded from transmission assets, which raises questions about transmission line ownership and siting. FERC, seeking to promote competition in transmission line ownership, issued Order No. 1000.[84] This order removed the preexisting federal right of first refusal ("ROFR") for the development of transmission lines selected in a regional transmission plan.[85] An ROFR is "the right of an incumbent transmission owner to construct, own, and propose cost recovery for any new transmission project that is (1) located within its service territory, and (2) approved for inclusion in a transmission plan developed through the Order No. 890 planning process."[86] Removing the ROFR allows developers to bid on a proposed transmission line instead of permitting incumbent transmission owners to develop the system themselves. Ultimately, this was short-lived as states began enacting their own laws to restrict competition in the electricity marketplace.

3. States' Efforts to Retain the Traditional Regulatory Compact

Some states oppose being part of a thoroughfare of a regional transmission line without receiving any benefit, like an alternate current line that diverts some power from the main line to residential consumers.[87] As a result, some states have enacted their own ROFR laws or have rendered decisions in their

81. New York v. Fed. Energy Regul. Comm'n, 535 U.S. 1, 11 (2002).

82. FERC Order No. 888, 18 C.F.R. § 35.28(c) (2022).

83. Theodore J. Kury, *Price Effects of Independent Transmission System Operators in the United States Electricity Market*, 43 J. REGUL. ECON. 147, 150 (2013).

84. Miranda Willson, *'Get Rid of Competition'? FERC and the Push for Power Lines*, E&E NEWS (May 6, 2022, 7:26 AM), https://www.eenews.net/articles/get-rid-of-competition-ferc-and-the-push-for-power-lines [https://perma.cc/B4ZQ-XBN3].

85. Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 136 FERC ¶ 61,051, at 231–33 (2011) (to be codified at 18 C.F.R. pt. 35).

86. RISHI GARG, NAT'L REGUL. RSCH. INST., WHAT'S BEST FOR THE STATES: A FEDERALLY IMPOSED COMPETITIVE SOLICITATION MODEL OR A PREFERENCE FOR THE INCUMBENT? STATE ADOPTION OF RIGHT OF FIRST REFUSAL STATUTES IN RESPONSE TO FERC ORDER 1000 AND THE DORMANT COMMERCE CLAUSE 4 (2013), https://pubs.naruc.org/pub/FA86B912-F8B8-74F6-AA34-4E7BCE42A234 [https://perma.cc/9WVU-5EYD].

87. *See* 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, 709–10 (2010).

state PUC that restrict merchant transmission companies from developing transmission lines.[88]

Merchant transmission companies are a recent development, and they are an alternative to a utility-owned transmission line. Unlike traditionally regulated utilities who recover capital costs through the ratemaking process,[89] merchant transmission companies recover their capital costs through contracts with entities that pay to use their service.[90] Generally, a merchant transmission company must acquire permission from the state PUC to build a transmission line.[91] The permission is usually granted in the form of "a Certificate of Public Convenience and Necessity" ("CPCN") or, in some states, "a Certificate of Need."[92] State PUCs determine whether a transmission project is necessary based on factors provided by the legislature, which may allow the PUC to consider regional needs or could restrict their assessment to whether the project benefits in-state residents.[93] The scope of review for the PUC matters a great deal. Without a CPCN, merchant transmission companies lack siting authority and eminent domain power, which could be necessary should a landowner refuse to grant the company an easement to site a transmission line.[94] Merchant transmission lines could be crucial to expanding access to renewable generation and grid reliability, which FERC has noted in several of its decisions.[95]

i. Right of First Refusal Laws

After FERC Order No. 1000, Texas, Minnesota, Nebraska, Oklahoma, North and South Dakota, Indiana, Iowa, and Michigan enacted their own

88. This Note will use the acronym PUC to refer to any state's administrative agency responsible for setting rates for the retail sale of electricity, even though some states use alternative naming conventions.

89. JAMES C. BONBRIGHT, ALBERT L. DANIELSEN & DAVID R. KAMERSCHEN, PRINCIPLES OF PUBLIC UTILITY RATES 92–93, 115–16, 236–37 (2d ed. 1988). Ratemaking is (much) more complex than merely recovering capital costs, as regulators seek to balance a variety of objectives, including attracting capital investment, encouraging efficiency, controlling demand, and promoting income transfer between buyers and sellers. *Id.* at 92–105.

90. JOSEPH H. ETO, LAWRENCE BERKELEY NAT'L LAB'Y, LBNL-1006331, PLANNING ELECTRIC TRANSMISSION LINES: A REVIEW OF RECENT REGIONAL TRANSMISSION PLANS 3 (2016), https://www.energy.gov/sites/prod/files/2017/01/f34/Planning%20Electric%20Transmission%20Lines–A%20Review%20of%20Recent%20Regional%20Transmission%20Plans.pdf [https://perma.cc/D8J2-S73U].

91. *See* Michael Dworkin et al., *Energy Transmission and Storage*, *in* THE LAW OF CLEAN ENERGY: EFFICIENCY AND RENEWABLES 531, 538 (Michael B. Gerrard ed., 2011).

92. Klass, *supra* note 54, at 1101–02.

93. Dworkin et al., *supra* note 91, at 538–39.

94. *See* Klass, *supra* note 54, at 1102.

95. *See* Heidi Werntz, *Let's Make a Deal: Negotiated Rates for Merchant Transmission*, 28 PACE ENV'T L. REV. 421, 424–25, 424 n.12 (2011) (collecting FERC decisions evincing their support for merchant transmission efforts).

state ROFR laws.[96] These states encompass two principal interstate electricity markets, MISO and the Southwest Power Pool ("SPP"), though small portions of Indiana and Michigan are in PJM.[97]

Practically, effective national transmission planning is difficult with a concentration of ROFR states in MISO because the RTO bisects the country. A merchant line will likely not develop a project if they must share ownership with an incumbent utility with whom they compete. Since sixty percent of electricity consumers receive their electricity from wholesale power markets, expanding regional and national transmission can open wholesale markets to a broader generation base and reduce costs for consumers.[98] States that only permit incumbent utilities to develop transmission lines subsidize a restricted generation market (and raise consumer prices) by choking off a state from cheaper generation sources.[99] Procedurally, ROFR laws sap the incentive for merchant companies to participate in regional transmission planning since they have nothing to gain.[100] Merchant companies "are also often independent generators who have a sophisticated understanding of where new renewable facilities will likely be sited," so their participation in regional planning would be a useful planning tool for RTOs.[101]

The future of these state laws is uncertain. They may violate the dormant Commerce Clause.[102] Merchant transmission companies have sought to invalidate state ROFR laws on these grounds in federal court. Circuits have split on whether ROFR laws run afoul of the dormant Commerce Clause. In the Eight Circuit, a Minnesota law was upheld,[103] but the Fifth Circuit struck down the law in Texas.[104] FERC recently proposed a rule to reinstate a federal ROFR law, provided the incumbent utility jointly develop the

96. TEX. UTIL. CODE ANN. § 37.056(e) (West Supp. 2022); MINN. STAT. § 216B.246, subdiv. 3 (2018); NEB. REV. STAT. § 70-1028 (2018); OKLA. STAT. tit. 17, § 292 (Supp. 2020); N.D. CENT. CODE § 49-03-02(2) (2014); S.D. CODIFIED LAWS § 49-32-20 (Supp. 2023); IND. CODE ANN. § 8-1-38-9 (West Supp. 2023); IOWA CODE § 478.16(2) (2023); MICH. COMP. LAWS ANN. § 460.593 (West Supp. 2023).

97. *See Electric Power Markets*, FERC (May 16, 2023), https://www.ferc.gov/electric-power-markets [https://perma.cc/4NHU-99YD].

98. Jim Rossi, *Promoting Cost-Effective Grid Modernization*, REGUL., Winter 2022–2023, at 34, 35.

99. *See id.* at 35–36 (discussing the cost-disadvantage that incumbent utilities may face under competition transmission development and how a transmission line could result in a stranded assets problem for utilities).

100. Powers, *supra* note 29, at 926–27.

101. *Id.* at 926.

102. *See* U.S. CONST. art. I, § 8, cl. 3. *See generally* Walker Mogen, *The Dormant Commerce Clause as a Way to Combat the Anti-Competitive, Anti-Transmission-Development Effects of State Right of First Refusal Laws for Electricity Transmission Construction*, 12 MICH. J. ENV'T & ADMIN. L. 291 (discussing why right of first refusal laws for electric transmission lines violate the dormant commerce clause).

103. LSP Transmission Holdings, LLC v. Sieben, 954 F.3d 1018, 1031 (8th Cir. 2020).

104. NextEra Energy Cap. Holdings, Inc. v. Lake, 48 F.4th 306, 321–28 (5th Cir. 2022).

transmission line with an unaffiliated nonincumbent transmission developer.[105] Simultaneously, FERC is hearing a case in which the plaintiff alleges that state ROFR laws increase transmission rates, and they seek an order to require "MISO to conduct competitive bidding to the greatest extent possible for regional and interregional projects in MISO's [Long Range Transmission Plan]."[106] Any of these issues could frustrate state ROFRs and leave immense uncertainty for state PUCs and RTOs about how to manage transmission siting.

ii. Certificate of Public Convenience and Necessity Requirements

In land use regulation, many states protected the market power of utilities by creating CPCN requirements for transmission lines to quell market entry by competitors.[107] CPCN requirements vary depending on jurisdiction, but they often prevent an entity from conducting utility-related business in the state without first receiving approval from the state PUC.[108] When building a transmission line, a company must acquire a CPCN to exercise eminent domain authority, though a few exceptions exist.[109] In some cases, the CPCN preempts county regulation of the transmission line. In these states, a developer with a CPCN may build without securing approval from each county on the path of the line, reducing transaction costs and the length of time required to operate the line.[110] Some states have used CPCN requirements

105. Building for the Future Through Electric Regional Transmission Planning and Cost Allocation and Generator Interconnection, 87 Fed. Reg. 26504, 26566 (proposed May 4, 2022) (to be codified at 18 C.F.R. pt. 35) ("We propose that an incumbent transmission provider may establish qualifying joint ownership structures with unaffiliated nonincumbent transmission developers as defined in Order No. 1000, or with another unaffiliated entity, including another incumbent transmission provider, if the joint ownership structure meets the requirements outlined in this section, including the requirement that the joint ownership structure offer a meaningful level of participation and investment in proposed transmission facilities to the incumbent transmission provider's unaffiliated partners." (footnotes omitted)).

106. Complaint of the Indus. Energy Consumers of Am. the Coal. of MISO Transmission Customers, the Wis. Indus. Energy Grp., the Resale Power Grp. of Iowa, Ass'n of Bus. Advocating Tariff Equity & Mich. Chemistry Council at 94, Indus. Energy Consumers of Am. v. Midcontinent Indep. Sys. Operator, Inc., No. el22-78-000 (F.E.R.C. filed July 22, 2022); *id.* at 55–57.

107. ISSER, *supra* note 71, at 22–23; Peskoe, *supra* note 33, at 62–63.

108. *See, e.g.*, N.D. CENT. CODE § 49-03-01.1 (2014) (restricting construction of new generation facilities, transmission or distribution lines, or expansion of service area without CPCN); 220 ILL. COMP. STAT. 5/8-406 (2022) (restricting utility construction or business transaction without CPCN); COLO. REV. STAT. § 40-5-102 (2023) (restricting public utilities from "exercis[ing] any right or privilege under any franchise, permit, ordinance, vote, or other authority" without receiving a CPCN from the public utility commission).

109. Klass, *supra* note 54, at 1114 n.220; *see, e.g.*, GA. CODE ANN. § 22-3-160.1 (2020) (describing eminent domain procedure in Georgia for transmission lines); *id.* § 46-3A-3 (2004) (leaving out certificate requirement for transmission lines).

110. *See* THE BRATTLE GRP., SURVEY OF TRANSMISSION SITING PRACTICES IN THE MIDWEST 11 (2004), https://pubs.naruc.org/pub/538D82DD-2354-D714-5157-244A2AA66041 [https://perma.cc/YWG6-Z7NQ]; Commonwealth Edison Co. v. City of Warrenville, 680 N.E.2d 465, 469–71 (Ill. App. Ct. 1997).

to resist federal directives intended to enhance marketplace competition.[111] PUCs may use their discretion to deny a CPCN to a transmission line developer if there is insufficient evidence the project will improve reliability or reduce costs.[112]

iii. Domestic Service Requirements

Some states refuse to grant CPCNs for transmission projects where a transmission line developer does not provide service to in-state residents or lacks a sufficient connection with the state. A handful of states refuse to grant these developers a CPCN if they are not a "public utility," which must provide electricity service to in-state residents.[113] It is worth noting that states prohibiting merchant transmission companies from acquiring certificates are outliers.[114] Merchant transmission companies may be prohibited by statute from siting transmission lines in a state; alternatively, a state PUC may interpret "utility" to exclude such efforts.[115] This result can greatly restrict the pool of potential bidders for a transmission line project, even in an allegedly competitive market. As Professor Alexandra Klass notes, part of the problem is "that many state laws do not allow—or are not clear whether they allow—merchant transmission lines and other non-utility transmission owners to obtain siting permits and exercise eminent domain authority."[116] Part II will seek to provide additional clarity on this question by analyzing state statutes and state PUC interpretations of those statutes to assess their effects on merchant transmission siting.[117]

II. FEDERALISM RUN AMOK: STATE RESTRICTIONS IN TRANSMISSION PERMITTING

Despite FERC's efforts to improve competition in the transmission marketplace, many states are reticent to adopt measures to follow FERC's

111. *See infra* Part II.

112. *See, e.g.*, Transource Pa., LLC v. Pa. Pub. Util. Comm'n, 278 A.3d 942, 960–62 (Pa. Commw. Ct. 2022) (upholding the Pennsylvania PUC's decision to deny a CPCN to Transource because their project would increase consumer costs).

113. *See, e.g.*, ARK. CODE ANN. § 23-1-101(9)(A)(i) (2015) (defining public utility to require service of in-state consumers); *id.* § 23-3-205(c)(1) (Supp. 2021) (limiting access to CPCNs to public utilities); *see also infra* notes 136–39, 175–83 and accompanying text (discussing Georgia and Illinois).

114. James J. Hoecker & Douglas W. Smith, *Regulatory Federalism and Development of Electric Transmission: A Brewing Storm?*, 35 ENERGY L.J. 71, 85–86 (2014).

115. *See, e.g.*, *In re* AEP Ky. Transmission Co., No. 2011-00042, 2013 WL 2639388, at *5–6 (Ky. P.S.C. June 10, 2013); *In re* Plains & E. Clean Line LLC, No. 10-041-U, at *9–12 (Ark. P.S.C. Jan. 11, 2011).

116. Klass, *supra* note 52, at 10756.

117. *See infra* Sections II.A–.B (discussing Georgia in Section II.A and Illinois and Kentucky in Section II.B).

lead; some have enacted statutes that actively hinder competition.[118] The effects of these laws vary depending on the geographic location of the state and whether the state participates in an RTO. The following subsections will analyze states with anticompetitive transmission laws in both traditionally regulated markets and RTO-managed markets. These anticompetitive laws can appear in various arenas. This Part will address the certificate process for siting transmission lines; a state's classification of a utility, or equivalent entity; and state ROFR laws. Section II.A analyzes the certificate process, challenges with siting on federal and private lands, and "utility" requirements in two traditionally regulated utility markets. Section II.B assesses an ROFR law and certificate processes in an RTO market.

A. TRADITIONALLY REGULATED UTILITY MARKETS

Unsurprisingly, states with traditionally regulated utility markets protect incumbent utilities from competition in the transmission marketplace.[119] However, since incumbent utilities have a monopoly on transmission favored by the state, laws promoting transmission competition are not aligned with state policy objectives. If a state has a legitimate interest in protecting their utility monopolies and lacks an interest in promoting transmission competition, what business is that of the federal government or neighboring states? First, there are reliability concerns at play—transmission expansion enhances reliability.[120] Studying reliability of the bulk power market and managing grid reliability are statutory obligations of the Federal Government.[121] Second, there are interstate commerce and preemption issues at play. Recall that the FPA closed the *Attleboro* gap by authorizing FERC to regulate interstate, wholesale power markets and transmission.[122] Many states import a substantial percentage of the electricity they consume.[123] Therefore, a state's interest in protecting

118. *See supra* Section I.B.3.

119. *See* Klass & Rossi, *supra* note 58, at 440–41.

120. RICHARD J. CAMPBELL, CONG. RSCH. SERV., IN11821, IIJA: EFFORTS TO ADDRESS ELECTRIC TRANSMISSION FOR RELIABILITY, RESILIENCE, AND RENEWABLES 1 (2021), https://crsreports.congress.gov/product/pdf/IN/IN11821#:~:text=Increased%20and%20more%20efficient%20transmission,electric%20grid%20reliability%20and%20resilience [https://perma.cc/SB9G-F8HJ].

121. 16 U.S.C. § 8240 (granting FERC oversight of the Electric Reliability Organization's reliability standards, mandating entities in the bulk power market comply with those reliability standards, and mandating FERC review of penalties for non-compliance); *id.* § 824a-2 (requiring the Secretary of Energy and FERC to conduct study of grid reliability, with the Secretary providing annual reports).

122. *See supra* notes 42–45 and accompanying text.

123. *See, e.g.*, *Mississippi: State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN. (Sept. 15, 2022), https://www.eia.gov/state/analysis.php?sid=MS [https://perma.cc/2JD5-CRL9] ("Mississippi consumes almost four times more energy than it produces."); *Idaho: State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN. (Apr. 20, 2023), https://www.eia.gov/state/analysis.php?sid=ID [https://perma.cc/SM7M-8QGX] ("Almost one-third of the electricity consumed in Idaho arrives over interstate transmission lines from out-of-state generating facilities . . . ."); *Vermont: State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN. (Oct. 20, 2022), https://www.

in-state utilities from transmission competition cannot occupy the field of transmission regulation because interstate transmission is required to meet current energy needs for many states. As a result, state laws restricting *all* interstate transmission development may run headlong into FERC's transmission authority or discriminate in effect against interstate commerce through protectionist transmission siting laws.[124]

Georgia and Arizona represent a useful sample of traditionally regulated jurisdictions and their siting laws. Both states are traditionally regulated and neither belongs to an RTO.[125] The two states differ in both their geography and renewable energy potential, although Arizona's potential is greater than Georgia's.[126]

Despite both states having traditionally regulated utility markets, Georgia and Arizona have widely diverging laws on transmission line siting. In Arizona, a utility seeking to develop a transmission line must acquire a certificate of environmental compatibility from the Arizona Corporation Commission.[127] The Arizona Corporation Commission balances "the need for an adequate, economical and reliable supply of electric power with the desire to minimize the effect thereof on the environment and ecology of this state."[128] In evaluating public need, the Arizona Corporation Commission may consider the effect of a transmission line on wholesale power markets and how it would affect regional need, rather than solely focusing on benefits to in-state residents.[129]

The Commission's consideration of regional needs for wholesale power does not mean the process is smooth. In the Western United States, just over

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eia.gov/state/analysis.php?sid=VT [https://perma.cc/DP85-YBX4] ("Vermont consumes more than three times as much energy as it produces.").

124. These constitutional considerations are beyond the scope of this Note, but they bear a passing reference.

125. *See* DANIEL SHEA, NAT'L CONF. OF STATE LEGISLATURES, ELECTRICITY MARKETS: A PRIMER FOR STATE LEGISLATORS 6 (2022), https://archive.ncsl.org/Portals/1/Documents/energy/Electricity_Markets_Rpt_V3_37335.pdf [https://perma.cc/NE44-CTQJ] (discussing the Southeast as traditionally regulated and mentioning the absence of RTO coordination in the region); James P. Paul Water Co. v. Ariz. Corp. Comm'n, 671 P.2d 404, 407 (Ariz. 1983) (en banc) ("It is well established that Arizona's public policy respecting public service corporations, such as water companies, is one of regulated monopoly over free-wheeling competition."); Nate Blouin, *Arizona Needs a Truly Regional Power Market to Keep the Lights On (and Affordable)*, AZCENTRAL (Jan. 12, 2022, 6:00 AM), https://www.azcentral.com/story/opinion/op-ed/2022/01/12/arizona-needs-truly-regional-electricity-power-market/9160437002 (on file with the *Iowa Law Review*) (discussing the absence of an RTO in Arizona's market).

126. *Compare Arizona: State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN. (May 18, 2023), https://www.eia.gov/state/analysis.php?sid=AZ [https://perma.cc/EN6Z-QNXZ] ("[Arizona] ha[s] abundant renewable energy resources."), *with Georgia: State Profile and Energy Estimates*, U.S. ENERGY INFO. ADMIN. (Jan. 19, 2023), https://www.eia.gov/state/analysis.php?sid=GA [https://perma.cc/WAY2-94LK] ("Georgia does not have any significant fossil fuel reserves.").

127. ARIZ. REV. STAT. ANN. § 40-360.03 (2011).

128. *Id.* § 40-360.07(B).

129. *See* Grand Canyon Tr. v. Ariz. Corp. Comm'n, 107 P.3d 356, 364 (Ariz. Ct. App. 2005).

forty-five percent of lands are federally owned.[130] Any transmission projects sited on federal lands will need approval from the DOE.[131] Overcoming federal and state review of projects on federal lands presents challenges for developers. In the case of the 4,500 megawatt SunZia transmission line from New Mexico to Arizona and California, the initial federal environmental review took 6.3 years, and the review of project rerouting took another two years.[132] Arizona's state-level environmental review was a six year process.[133] In the case of SunZia, the entire federal and state approval process took seventeen years.[134]

SunZia demonstrates the difficulties of securing approval for transmission projects where more than one entity has veto power. Difficult does not mean impossible, though. SunZia and TenWest, another interstate transmission project connecting Arizona and California, were both approved by state regulators in Arizona.[135] Approvals in the Western United States are more complex because interstate projects require clearing federal hurdles for approval in addition to disparate state approval processes, unlike development in the Eastern United States which typically only requires approval from several states. The federal government or any state along a transmission line could veto a project in the Western United States.

Georgia's approach to transmission siting is more laissez-faire than most states. Georgia does not have any certificate requirement for the development of transmission lines.[136] Electric power utility companies are empowered under Georgia law to exercise eminent domain authority to develop transmission lines, even when a county or administrative agency finds such a

130. CAROL HARDY VINCENT, LAURA A. HANSON & LUCAS F. BERMEJO, CONG. RSCH. SERV., R42346, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA 19–20 (2020), https://sgp.fas.org/crs/misc/R42346.pdf [https://perma.cc/DZZ2-HNHB].

131. 16 U.S.C. § 824p(h).

132. SW. POWER GRP., SUNZIA SOUTHWEST TRANSMISSION PROJECT ANNUAL PROGRESS REPORT: 2021, at 1, 6 (2021), https://www.wecc.org/Reliability/SunZia%202021%20APR.pdf [https://perma.cc/GQT9-DQ2C] (discussing initial review); BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, AZA-35058, SUNZIA SOUTHWEST TRANSMISSION PROJECT RIGHT-OF-WAY AMENDMENT FINAL ENVIRONMENTAL IMPACT STATEMENT AND PROPOSED RESOURCE MANAGEMENT PLAN AMENDMENT 10, 21 (2023), https://eplanning.blm.gov/public_projects/2011785/200481766/20078613/250084795/20230517%20SunZia%20ROD_508.pdf [https://perma.cc/R8SW-7KNV] (approving amendment to transmission line right of way two years after application).

133. SW. POWER GRP., *supra* note 132, at 6.

134. Daniel Moore, *SunZia Project Shows Bottleneck Risk in US Clean Energy Shift*, BL (Mar. 15, 2023, 4:00 AM), https://news.bloomberglaw.com/environment-and-energy/sunzia-project-shows-bottleneck-risk-in-us-clean-energy-shift (on file with the *Iowa Law Review*).

135. *In re* SunZia Transmission, LLC, No. l-ooooyy-15-0318-00171, 2016 WL 759560, at *1 (Ariz. Corp. Comm'n 2016); *In re* DCR Transmission, L.L.C., No. l-21088a-19-0309-00185, 2020 WL 1673803, at *1 (Ariz. Corp. Comm'n 2020).

136. *See* GA. CODE ANN. § 46-3A-3 (2004) (requiring certificate for power plant but leaving out certificate requirement for transmission lines); *see also* Klass, *supra* note 54, at 1114 n.220 (discussing the lack of a CPCN requirement in Georgia).

project unnecessary.[137] Electric utilities only have to comply with a few requirements to exercise their eminent domain authority. They must provide the public with notice of the planned development, hold public meetings, and put forth a good-faith effort to negotiate with private landowners to secure an easement for the transmission line.[138] However, only entities that provide electricity for public/private use in the state or generate electricity for export outside the state may exercise eminent domain authority.[139] This requirement excludes interstate transmission projects who do neither.

Both states could benefit from greater transmission development. Arizona has a renewable portfolio standard that requires utilities to provide 15% of their electricity from renewable sources by 2025.[140] In 2018, the utilities in Arizona were delivering electricity from renewable sources at 10.8% and 10.4%, only a few percentage points shy of the 2025 goal.[141] While expanding interstate transmission projects may not be necessary to meet statutory requirements, these projects could help Arizona's two major utilities meet their voluntary renewable energy targets, which are 65% and 30% by 2030.[142] Additionally, a law in Arizona restricting transmission development by companies that do not sell electricity at retail to Arizona consumers restricts the export potential of a solar energy rich jurisdiction, depriving the state of revenue and nearby states of clean energy.[143] Since Arizona is not part of an RTO, there are no regional grid management considerations at play.[144]

The case for transmission competition is focused on exports, rather than imports, for Georgia. The state lacks a renewable portfolio standard, so interstate transmission development would not make compliance with that statute any easier.[145] Further, Georgia is the ninth highest electricity generating state in the

137. Forsyth County v. Ga. Transmission Corp., 632 S.E.2d 101, 105 (Ga. 2006) ("Since our legislature has expressly chosen to allow EPUCs rather than local governments to decide the necessity of eminent domain, we decline to adopt Forsyth County's policy argument.").

138. GA. CODE ANN. § 22-3-160.1 (2020) (establishing public notice and meeting requirements); *id.* § 22-3-161(b) (establishing a good-faith negotiation requirement).

139. *Id.* § 22-3-160.

140. ARIZ. ADMIN. CODE § 14-2-1804 (Supp. 2022); *State Renewable Portfolio Standards and Goals*, NAT'L CONF. OF STATE LEGISLATURES (Aug. 13, 2021), https://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx [https://perma.cc/7WL5-3BKH].

141. EDWARD BURGESS, MARIA ROUMPANI, MELANIE DAVIDSON, SANTIAGO LATAPÍ & JENNIFER GORMAN, STRATEGEN CONSULTING, LLC, ARIZONA RENEWABLE ENERGY STANDARD AND TARIFF: 2020 PROGRESS REPORT 6, 14 (2020), https://www.ceres.org/sites/default/files/reports/2020-03/AZ%20REST%20-%20Final%20Report.pdf [https://perma.cc/6M2R-CH57].

142. *Id.* at 8.

143. *Arizona: State Profile and Energy Estimates*, *supra* note 126.

144. Blouin, *supra* note 125. A power pool is "[a]n association of two or more interconnected electric systems having an agreement to coordinate operations and planning for improved reliability and efficiencies." *Glossary*, *supra* note 37.

145. "Renewable Portfolio Standards (RPS) require that a specified percentage of the electricity utilities sell comes from renewable resources." *State Renewable Portfolio Standards and Goals*, *supra* note 140.

country.[146] More competition for interstate transmission line development would expand the available market for exporting electricity. At times where electricity supply in Georgia exceeds demand for in-state consumers, interstate transmission lines could facilitate lucrative sales to other markets.

In other traditionally regulated jurisdictions, transmission competition is still worthwhile to pursue. First, it helps bring renewable projects online. Renewable energy generation continues to grow, now providing a greater share of electricity to the United States than coal.[147] Yet many projects in RTOs languish in interconnection queues.[148] While federal queue reform may reduce these delays,[149] state reforms to their siting laws could allow energy from traditionally regulated jurisdictions to be exported into RTO markets. Reforms of this variety could assist some states and utilities meet their goals to sell a certain percentage of renewable energy to retail consumers, which are currently at the mercy of backlog in the interconnection queue.[150] Second, competition enhances grid resiliency during extreme weather events as power can be sent across longer distances. Deeper interregional transmission connections stave off power loss to major population centers during these events and, in some cases, prevent electricity price spikes.[151] Third, it reduces

146. U.S. ENERGY INFO. ADMIN., ELECTRIC POWER ANNUAL 2022, at 44 tbl.3.7 (2023), https://www.eia.gov/electricity/annual/pdf/epa.pdf [https://perma.cc/B5MA-R9FX].

147. *In the First Half of 2022, 24% of U.S. Electricity Generation Came from Renewable Sources*, U.S. ENERGY INFO. ADMIN. (Sept. 9, 2022), https://www.eia.gov/todayinenergy/detail.php?id=53779 [https://perma.cc/XXQ6-SJZ5]; *U.S. Electricity Generation from Renewables Surpassed Coal in April*, U.S. ENERGY INFO. ADMIN. (Jan. 2, 2020), https://www.eia.gov/todayinenergy/detail.php?id=42336 [https://perma.cc/G895-8TYD].

148. *See New Data Tool from Berkeley Lab Tracks Proposed Projects in Interconnection Queues*, BERKELEY LAB (Aug. 4, 2020), https://emp.lbl.gov/news/new-data-tool-berkeley-lab-tracks-proposed [https://perma.cc/EKY2-48Y8]. "[T]he Interconnection Queue is a list of transmission and generation projects that are currently proposed and seeking to join the grid." *Our Interconnection Queue Shows Unprecedented Growth of Clean Energy Investment in NY*, N.Y. ISO (Mar. 2, 2021), https://www.nyiso.com/-/road-to-2040-our-interconnection-queue-shows-unpresedented-growth-of-clean-energy-investment-in-ny [https://perma.cc/9HUB-L43G].

149. Addressing interconnection queue times is far more complex than simply allowing the federal government to preempt state siting law, which is by no means a panacea. FERC recently issued a final rule reforming the generator interconnection queue process. *See generally* Improvements to Generator Interconnection Procedures and Agreements, 88 Fed. Reg. 61014 (Sept. 6, 2023) (to be codified at 18 C.F.R. pt. 35) (adopting, among other things, a first-ready, first-served cluster study process for the generator interconnection queue). A more thorough analysis of this order or the generator interconnection queue is beyond the scope of this paper.

150. *Tackling High Costs and Long Delays for Clean Energy Interconnection*, OFF. OF ENERGY EFFICIENCY & RENEWABLE ENERGY (May 11, 2023), https://www.energy.gov/eere/i2x/articles/tackling-high-costs-and-long-delays-clean-energy-interconnection [https://perma.cc/PLZ7-VQL2] (discussing effects of the interconnection queue on state RPS requirements).

151. SHEILA TANDON MANZ, ANDREW BACHERT, AMIN NAJAFABADI, JASON MACDOWELL & GENE HINKLE, GEN. ELEC. INT'L, INC., ECONOMIC, RELIABILITY, AND RESILIENCY BENEFITS OF INTERREGIONAL TRANSMISSION CAPACITY: CASE STUDY FOCUSING ON THE EASTERN UNITED STATES IN 2035, at 13–17 (2022), https://www.nrdc.org/sites/default/files/ge-nrdc-interregional-transmission-study-report-20221017.pdf [https://perma.cc/7VGV-EDMF].

transmission congestion (and prices) as more pathways for the flow of electricity become available.[152] Finally, competition makes importing power, which many states need to do, simpler and cheaper.[153]

B. RTO MARKETS

RTOs venture to avoid the pitfalls of fractionalized power markets by pooling electricity supply and centralizing grid management. Effectuating these goals requires transmission networks that bring new generation online and ferry power cheaply and reliably between states. Some states in MISO have siting and permitting laws that advance the integration of renewable energy into the RTO network, while other states hinder such integration. Both influence reliability and electricity costs for consumers. This Section will discuss Iowa and Illinois as representative states in RTO markets to understand the effects of state laws that restrict and encourage transmission development.

In July 2022, MISO approved its "Tranche 1" transmission development plan.[154] It outlays $10.3 billion for eighteen new transmission lines to enable the retirement of fifty-eight gigawatts of generation (mostly coal-fired power plants) and bring ninety gigawatts (of mostly wind and solar) online.[155] Despite this outlay, RTOs cannot avoid state siting and permitting laws; any project they approve must likewise be approved by the state.[156] MISO's Tranche 1 plan only affects the Midwest subregion, to which Iowa and Illinois belong.[157] Both Iowa and Illinois employ laws that restrict transmission competition, though Illinois has a notable exception promoting high voltage direct current transmission projects.[158]

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152. *See Transmission Congestion & Constraints: Market Impediment or Opportunity?*, NRG (Sept. 17, 2018), https://www.nrg.com/insights/energy-education/transmission-congestion—constraints.html [https://perma.cc/BB93-WQYK].

153. *See* Jim Rossi, *The Trojan Horse of Electric Power Transmission Line Siting Authority*, 39 ENV'T L. 1015, 1024, 1043–45 (2009).

154. Ethan Howland, *MISO Board Approves $10.3B Transmission Plan to Support 53 GW of Renewables*, UTIL. DIVE (July 26, 2022), https://www.utilitydive.com/news/miso-board-transmission-plan-midcontinent-renewables/628108 [https://perma.cc/B5FM-SYYC].

155. MISO, MTEP21 REPORT ADDENDUM: LONG RANGE TRANSMISSION PLANNING TRANCHE 1 PORTFOLIO REPORT 4, 18 (2022), https://cdn.misoenergy.org/MTEP21%20Addendum-LRTP%20Tranche%201%20Report%20with%20Executive%20Summary625790.pdf [https://perma.cc/AKM5-KERD].

156. *See* Alexandra B. Klass, *The Electric Grid at a Crossroads: A Regional Approach to Siting Transmission Lines*, 48 U.C. DAVIS L. REV. 1895, 1915 (2015).

157. MISO, LRTP TRANCHE 1 PORTFOLIO DETAILED BUSINESS CASE 12 (2022), https://cdn.misoenergy.org/LRTP%20Tranche%201%20Detailed%20Business%20Case625789.pdf [https://perma.cc/N2LY-DSW5]. Parts of Illinois belong to MISO and other parts belong to PJM. *See* David Thill, *What's at Stake for Illinois as FERC Considers PJM Capacity Market Changes*, ENERGY NEWS NETWORK (Jan. 29, 2019), https://energynews.us/2019/01/29/whats-at-stake-for-illinois-as-ferc-considers-pjm-capacity-market-changes [https://perma.cc/475Z-PLNA].

158. *See infra* notes 185–88 and accompanying text (discussing Illinois' exception for certain transmission projects).

1. Right of First Refusal Laws

Iowa has an ROFR law that grants incumbent utilities the right to build new transmission lines approved in "a federally registered planning authority transmission plan," e.g., MISO Tranche 1.[159] In that plan, the two incumbent utilities owning the transmission in Iowa (ITC Midwest and MidAmerican Energy) will build the projects if the Iowa Utilities Board approves them.[160] MISO, despite generally using a competitive transmission development process,[161] has committed to comply with state right of first refusal laws, assigning a transmission owner to a project as appropriate within the state statute.[162]

Ownership of these lines matters. The Industrial Energy Consumers of America believes that eighteen percent—one billion dollars—of the five and a half billion dollars earmarked for Tranche 1 could be saved through competitive transmission bidding rather than the ROFR process.[163] Utilities can often pass costs from project overruns onto consumers (if the state utility board agrees), which may further increase costs.[164] Forgoing a competitive solicitation process may exclude a newcomer merchant transmission company from gaining experience in building and operating a line, which may be required to secure a CPCN in another state.[165] The ROFR may deny a merchant transmission company revenue from the transmission line that could be invested in other projects, including interregional transmission lines like the Clean Line projects.[166]

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159. IOWA CODE § 478.16(2) (2023). The future of this law is uncertain because the Supreme Court of Iowa granted a temporary injunction that stays its enforcement. LS Power Midcontinent, LLC v. State, 988 N.W.2d 316, 340 (Iowa 2023). Following that stay, the Iowa District Court for Polk County found section 478.16 unconstitutional and awarded LS Power a permanent injunction. MidAmerican Energy and ITC Midwest are barred from developing the transmission lines they were awarded under MISO's Tranche 1 long term transmission planning, which relied on Iowa's ROFR. Ruling on Motion for Summary Judgment at 13, 21–22, LS Power Midcontinent, LLC v. State, No. cvcv060840 (Iowa Dist. Ct. Dec. 3, 2023). As of this Note's publication, whether the parties will appeal the district court's decision is unclear.

160. Brittney J. Miller, *$10.3 Billion Power Line Portfolio Approved for the Midwest*, GAZETTE (Dec. 1, 2022, 8:24 AM), https://www.thegazette.com/environment-nature/10-3-billion-power-line-portfolio-approved-for-the-midwest (on file with the *Iowa Law Review*).

161. *Competitive Transmission Administration*, MISO, https://www.misoenergy.org/planning/competitive-transmission-administration [https://perma.cc/638Z-4MV3].

162. *States in the MISO Footprint with Right of First Refusal*, MISO (June 30, 2023), https://cdn.misoenergy.org/State%20or%20Local%20Rights%20of%20First%20Refusal514796.pdf [https://perma.cc/XM8D-N6JC].

163. Complaint, *supra* note 106, at 92 & n.267.

164. *See* Rossi, *supra* note 98, at 37–38.

165. *See, e.g.*, 220 ILL. COMP. STAT. § 5/8-406(b) (2022) (considering "that the utility is capable of efficiently managing and supervising the construction process and has taken sufficient action to ensure adequate and efficient construction and supervision thereof" when deciding to grant a certificate of public convenience and necessity).

166. Some merchant transmission companies seek to build interregional transmission lines to connect different RTO regions. *See, e.g.*, *Benefits*, GRAIN BELT EXPRESS, https://grainbeltexpress.com/benefits [https://perma.cc/G2G4-ZSNY] (showing that the Grain Belt Express line would

2. Certificate of Public Convenience and Necessity Requirements

Iowa and Illinois both have CPCN requirements that exact practical difficulties on would-be transmission developers. Iowa calls their CPCN a "franchise."[167] A merchant transmission company who fails to secure a franchise from the Iowa Utilities Board within three years of their original petition date can result in an outright denial of the franchise.[168] For example, Rock Island Clean Line project withdrew its application for a franchise when it failed to meet the three-year timeline.[169] If completed, the line would have connected 3,500 megawatts of wind energy in Iowa to the PJM transmission network in Illinois.[170]

Since merchant transmission companies recoup their costs by charging generators rather than using the ratemaking process,[171] they may encounter difficulties demonstrating necessity in their franchise application when proposed sources of generation languish in the interconnection queue. Projects built between 2011 and 2021 spent 3.7 years on average in the queues outside the MISO region.[172] Submissions for MISO's interconnection queue doubled between 2021 and 2022.[173] Given this lengthy timespan, it is no surprise that over forty percent of all projects in the MISO queue from 2016 to 2020 withdrew from the queue.[174] In this environment, merchant

link the Southwest Power Pool, MISO, and PJM regions); *Customers & Energy Markets*, SOO GREEN, https://soogreen.com/customers [https://perma.cc/S9UZ-GBQ5] (forecasting connection between MISO and PJM through the SOO Green high voltage direct current line).

167. *See* IOWA CODE §§ 478.1, 478.3(1)(a) (2023).

168. *Id.* § 478.6A. Many interstate transmission projects take far longer than three years, in fact, ten years is the average length of time to develop a project. Jonathan M. Moch & Henry Lee, *The Challenges of Decarbonizing the U.S. Electric Grid by 2035*, HARV. KENNEDY SCH. BELFER CTR. FOR SCI. & INT'L AFFS. (Feb. 2022), https://www.belfercenter.org/publication/challenges-decarbonizing-us-electric-grid-2035 [https://perma.cc/68Q2-78YS].

169. Order Accepting Withdrawal of Petitions at 1, *In re* Rock Island Clean Line LLC, No. e-22248, 2016 WL 7441139, at *1 (Iowa Util. Bd. Dec. 23, 2016). This project has been reimagined as an underground power line called the SOO Green HVDC link. *See* Rao Konidena, *Quick Fix: Why FERC Should Approve the SOO Green Transmission Project*, RENEWABLE ENERGY WORLD (Nov. 29, 2021), https://www.renewableenergyworld.com/policy-regulation/quick-fix-why-ferc-should-approve-the-soo-green-transmission-project [https://perma.cc/RJM7-SZCC].

170. Robert Walton, *Illinois Supreme Court Ruling Endangers Clean Line Transmission Project*, UTIL. DIVE (Sept. 25, 2017), https://www.utilitydive.com/news/illinois-supreme-court-ruling-endangers-clean-line-transmission-project/505709 [https://perma.cc/75HM-MY95].

171. *See supra* notes 89–90 and accompanying text.

172. JOSEPH RAND ET AL., LAWRENCE BERKELEY NAT'L LAB'Y, QUEUED UP: CHARACTERISTICS OF POWER PLANTS SEEKING TRANSMISSION INTERCONNECTION AS OF THE END OF 2021, at 3 (2022), https://escholarship.org/content/qt38m4d192/qt38m4d192.pdf [https://perma.cc/YM94-FE9C].

173. JOACHIM SEEL ET AL., LAWRENCE BERKELEY NAT'L LAB'Y, INTERCONNECTION COST ANALYSIS IN THE MIDCONTINENT INDEPENDENT SYSTEM OPERATOR (MISO) TERRITORY 2 (2022), https://eta-publications.lbl.gov/sites/default/files/berkeley_lab_2022.10.06-_miso_interconnection_costs.pdf [https://perma.cc/C89Y-JRJL].

174. SUSTAINABLE FERC PROJECT, NEW INTERACTIVE MAP SHOWS CLEAN ENERGY PROJECTS WITHDRAWN FROM MISO QUEUE: GRID CONSTRAINTS ARE HOLDING BACK RENEWABLES DEVELOPMENT

transmission companies cannot anticipate the precise geographic location of generation that will move through the queue. Nor can they predict how quickly potential generation sources will be approved for interconnection. This affects generators, too. RTOs may assign generators unexpected network upgrade costs to address transmission constraints, which may prompt late-stage withdrawals from the interconnection queue. In one case, upgrade costs were eight times higher than expected.[175]

Illinois has transmission siting laws that restrict competition in a different manner. Like many other states, Illinois requires that public utilities obtain a CPCN before constructing a transmission line.[176] In the case of a merchant transmission company, the state performs a threshold inquiry into whether the company is a public utility.[177] A "public utility" must satisfy three criteria in Illinois.[178] First, equipment must be owned or controlled within the state.[179] Second, that equipment must transmit, sell, or deliver electricity.[180] Finally, that transmission, sale, or delivery must be for public use.[181] The Rock Island project in Iowa, which would transmit wind power from Northwestern Iowa to the PJM Interconnection through Illinois, was initially granted a CPCN by the Illinois Commerce Commission.[182] The Commission's decision was rebuffed in *Illinois Landowners Alliance, NFP v. Illinois Commerce Commission* by the Illinois Supreme Court, who found that Rock Island was not a public utility since it did not presently own property in Illinois, only an option for future construction.[183] The Court left the question of whether such a project satisfies the public use requirement for another day.[184]

The Illinois Legislature amended their CPCN statute in 2021 to permit a "qualifying direct current project" to secure a certificate without owning property in Illinois, avoiding the *Illinois Landowners Alliance* problem.[185] "[Q]ualifying direct current applicant[s]" can avoid the in-state property ownership requirement for public utilities if the project goes through a specific set of counties and the applicant files their CPCN application before December 31, 2023.[186] The statute requires the Illinois Commerce Commission

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1 (2020), https://sustainableferc.org/wp-content/uploads/2020/08/MISO-Queue-Map-and-Analysis-2PageReport-8-26-20-2.pdf [https://perma.cc/P77P-U73W].

175. *Id.* at 2.

176. 220 ILL. COMP. STAT. § 5/8-406(b) (2022).

177. *See* Ill. Landowners All., NFP v. Ill. Com. Comm'n, 90 N.E.3d 448, 459 (Ill. 2017).

178. *See* 220 ILL. COMP. STAT. § 5/3-105(a) (2022); *see also Ill. Landowners All.*, 90 N.E.3d. at 459–60 (applying the requirements to the Rock Island Clean Line).

179. *See* 220 ILL. COMP. STAT. § 5/3-105(a) (2022).

180. *See id.*

181. *See id.*

182. *Ill. Landowners All.*, 90 N.E.3d at 450–51, 455.

183. *Id.* at 460–63.

184. *Id.* at 463.

185. 2021 Ill. Legis. Serv. 7329–30 (West).

186. 220 ILL. COMP. STAT. 5/8-406(b-5) (2022).

find that projects are for public use if they are designed to deliver electricity to the MISO and/or PJM grid.[187] Illinois's reform was narrowly targeted to approve a particular project. The Grain Belt Express Line, a merchant transmission project, is scheduled to be routed through the same counties as the statute allows.[188] The Grain Belt Express Line will connect wind energy resources from Southwestern Kansas to the PJM Interconnection, shipping renewable power to states in the Mid-Atlantic and Appalachia regions.[189]

Illinois's choice to exempt merchant transmission companies from meeting certain criteria is laudable. It at once improves the transmission of renewable power to large population centers and distant RTOs while simultaneously incentivizing economic development efforts in rural counties. Notably, this is not a perspective shared by all. Some private landowners have expressed opposition to these projects, criticizing their use of eminent domain.[190] The Grain Belt Express Line faced considerable resistance in Missouri from private landowner and agriculture organizations, though Grain Belt acquired over seventy percent of its land through private easement negotiations with landowners.[191] Illinois may have an incentive to encourage this project since its residents receive electricity from MISO and the PJM Interconnection. Nonetheless, promoting exceptions to the state's CPCN requirements allows for efficient transmission of electricity from the energy-rich Midwest to large population centers in the Eastern Interconnection.

In other states, jurisdictional questions prevent transmission developers from receiving a CPCN. Kentucky provides an illustrative example. Kentucky Transmission Company sought a CPCN to build wholesale electric transmission services in the state of Kentucky.[192] The Kentucky PUC denied the application because Kentucky Transmission Company would not have a tariff on file with the PUC to provide utility service to end users, therefore the PUC had no jurisdiction to grant a CPCN application.[193]

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187. *Id.*

188. Grain Belt Express LLC, No. 22-0499, 2023 WL 2560141, at *22–23 (Ill. Com. Comm'n Mar. 8, 2023).

189. *See* Jeffrey Tomich, *Midwest Wind Energy Transmission Line Gets Supersized*, E&E NEWS (July 12, 2022, 6:46 AM), https://www.eenews.net/articles/midwest-wind-energy-transmission-line-gets-supersized [https://perma.cc/9GXU-L3AE].

190. *See* James W. Coleman & Alexandra B. Klass, *Energy and Eminent Domain*, 104 MINN. L. REV. 659, 681–82, 704–05 (2019).

191. *See* Allison Kite, *Missouri Agriculture Groups Renew Criticism of Grain Belt Express over New Extension*, MO. INDEP. (Oct. 4, 2022, 10:01 AM), https://missouriindependent.com/2022/10/04/missouri-agriculture-groups-renew-criticism-of-grain-belt-express-over-new-extension [https://perma.cc/73VC-WU47]. Missouri also passed a law requiring transmission companies to compensate landowners at 150 percent of the value of the property when using eminent domain to secure easements. MO. REV. STAT. § 523.039(2) (2022).

192. *In re* AEP Ky. Transmission Co., No. 2011-00042, 2013 WL 2639388, at *1 (Ky. P.S.C. June 10, 2013).

193. *Id.* at *3, *5–6. For clarification,

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State legislatures have good reason to prefer statutes that promote reliable energy delivery to their constituents and the healthy growth of their utilities. However, this self-interest may be the precise reason that states are not well-suited to plan grid infrastructure projects. Illinois is an interesting exception because it belongs to two RTOs, which presents a need for regional transmission development to promote electric reliability to its residents. Very few states belong to more than one RTO, so Illinois's incentives to promote interregional transmission may not be shared by other states. This provides some evidence that a perspective that considers regional benefit for grid planning may be helpful.

III. ENHANCING TRANSMISSION COMPETITION: STATE AND FEDERAL SOLUTIONS

As the United States transitions to a renewable energy powered economy, balancing the supply of electricity with demand will pose challenges to grid operators and governments alike. The grid must modernize to meet these challenges, or we risk blackouts, higher electricity costs, and stranded renewable generation sources with no connection to the grid. In this landscape, a patchwork of state laws checkers the United States, imposing challenges in some areas to the development of interstate transmission lines between renewable energy rich states and densely populated locales. Some states act as laboratories of democracy by experimenting with novel approaches to transmission siting law; other states' laboratories grow covered in dust as legislatures abandon the next trial in their experiment.[194] The states that retain a traditional regulatory compact may create inefficiencies in grid siting decisions, e.g., going around a state to build a line or simply refusing to build the line at all.

> [a] tariff is a collection of rules that defines the relationship between a utility and its customers. Each utility has its own tariff [that] may . . . address service area, rates, allocation of costs for line extensions, allocation of costs for new customer connections, requirements for new customers (water right dedications), and other issues which define the responsibilities and authorities of the utility. Tariffs are intended to ensure that utilities apply non-discriminatory practices to all customers.

Tariffs, STATE OF NEV. PUB. UTILS. COMM'N (2021), https://puc.nv.gov/About/Docs/Tariffs [https://perma.cc/U8GR-6VER].

194. The laboratories of democracy idea originated with Justice Brandeis, who would have upheld an Oklahoma statute requiring those in the ice business to secure a certificate of public convenience and necessity before entering the ice trade. New State Ice Co. v. Liebmann, 285 U.S. 262, 280–81, 311 (1932) (Brandeis, J., dissenting); *see* Alexandra B. Klass & Elizabeth J. Wilson, *Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch*, 65 VAND. L. REV. 1801, 1830–31 (2012) (commenting on how state transmission siting law fails to act as an effective laboratory).

This tangled web of state laws makes regional planning fraught with uncertainty. Federal preemption may be the simplest means of cutting through this issue. The federal government could exercise its jurisdiction over electric transmission lines under the Federal Power Act to minimize horizontal conflicts between states. Alternatively, state governments could enact legislation that promotes transmission competition, interstate transmission lines, and independent power generation.

A. A FEDERAL PERMITTING REGIME?

The federal government has the authority to regulate and site interstate electric transmission lines. Congress granted FERC the authority to regulate interstate natural gas pipelines in the Natural Gas Act and its subsequent amendments.[195] Congress intended to avoid state interference with interstate commerce by granting pipeline companies the right to use eminent domain once FERC has approved its CPCN.[196] There is no constitutionally meaningful distinction between federal siting of gas pipelines and electric transmission lines. The federal government could take two approaches to promote the development of interstate transmission lines: outright preemption or selective preemption using its backstop siting authority.

1. Pursuing Outright Preemption

FERC could grant CPCNs for interstate electric transmission lines, as it does for gas pipelines. Congress has addressed federal permitting in recent legislation. In an unexpected quid pro quo in 2022, Senator Joe Manchin, a West Virginia Democrat, agreed to support the Inflation Reduction Act in exchange for federal permitting reform.[197] His permitting reform bill narrowed the scope of review for major federal projects under the National Environmental Protection Act ("NEPA") to focus only on "reasonably foreseeable environmental effects of [a] proposed . . . action" and limited an agency's consideration of alternatives to the action to those that are "technically and economically feasible."[198] Perhaps another unexpected compromise could prompt federal action on interstate electric transmission beyond what was crafted in the Bipartisan Infrastructure Law.

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195. 15 U.S.C. § 717f(c)(1)(A); Act of July 25, 1947, Pub. L. No. 80-245, 61 Stat. 459 (codified at 15 U.S.C. § 717f(h)) (amending Natural Gas Act of 1938 to allow entities holding a CPCN to exercise eminent domain authority to site pipelines).

196. PennEast Pipeline Co. v. New Jersey, 141 S. Ct. 2244, 2252, 2257 (2021).

197. Kelsey Brugger, *Manchin Releases Permitting Reform Package*, E&E NEWS (Sept. 21, 2022, 6:17 PM), https://www.eenews.net/articles/manchin-releases-permitting-reform-package [https://perma.cc/5LV5-RABC].

198. *See* Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, § 321(a), 137 Stat. 10, 38. This codifies similar regulations relating to "reasonably foreseeable" environmental effects and "alternatives that are technically and economically feasible." *See* 40 C.F.R. §§ 1508.1(g), (z) (2022). At the very least, this makes NEPA regulations less susceptible to future rollback by a later president.

One possibility would be the Streamlining Interstate Transmission of Electricity Act ("SITE Act"), introduced in the U.S. Senate in 2023. This statute would grant FERC authority to site interstate transmission lines and preempt state regulation of siting or permitting any transmission project with a federal CPCN.[199] Only Democrats sponsor the Senate and House versions of the SITE Act, which reduces its prospects for passage—at least in its current version.[200] Some commenters are generally optimistic about bipartisan legislation on transmission reform, citing backstop siting authority reform[201] in the bipartisan infrastructure law as evidence of its possibility.[202] Whether that happens remains to be seen. An authorizing statute expressly preempting state siting and permitting authority for interstate electric transmission lines would circumvent state regulation that slows development.

While federal action avoids the fractured patchwork of state permitting laws as well as the concurrent federal/state approval problem in the western United States, it carries bureaucratic costs, particularly for environmental review. Interstate electric transmission lines will be subject to NEPA review and potentially review under the Clean Water Act or Endangered Species Act. Recent NEPA reforms from the Manchin compromise limit the timeline for agency preparation of Environmental Impact Statements ("EIS") and Environmental Assessments ("EA") to two years and one year, respectively.[203] Project sponsors can petition a court to require the agency to complete the EIS or EA within a practicable timeline if the agency overshoots its original timeline.[204] These reforms should expedite the process for federal siting, which will likely still be faster than state-by-state permitting. Ten years is the average length of time it takes for a developer to complete a transmission project and fifteen-year timespans for long range interstate lines are not

199. SITE Act, S. 946, 118th Cong. § 224 (2023) ("[T]he Commission shall have exclusive jurisdiction over, and no State shall regulate any aspect of, the siting or permitting of an energy transmission facility constructed, modified, or operated under a certificate of public convenience and necessity issued under this section."). Another proposal is the BIG WIRES Act, sponsored by Senator John Hickenlooper of Colorado and Representative Scott Peters of California, which focuses on interregional transfer capacity. Press Release, John Hickenlooper, U.S. Senator for Colorado, Hickenlooper-Peters BIG WIRES Act Would Speed Permitting Reform, Simplify Grid Upgrades (May 25, 2023), https://www.hickenlooper.senate.gov/press_releases/hickenlooper-peters-big-wires-act-would-speed-permitting-reform-simplify-grid-upgrades [https://perma.cc/J4GS-AUTR].

200. SITE Act, S. 946, 118th Cong. (2023); SITE Act, H.R. 1766, 118th Cong. (2023).

201. *See supra* notes 56–63 and accompanying text.

202. *See, e.g.*, David Roberts, *Volts Podcast: The Challenges of Building Transmission in the US, and How to Overcome Them, with Liza Reed*, VOLTS, at 1:01:58–1:04:20 (Aug. 9, 2023), https://transcripts.volts.wtf/volts-podcast-the-challenges-of-building-transmission-in-the-us-and-how-to-overcome-them-with-liza-reed [https://perma.cc/24LP-BXXD].

203. Fiscal Responsibility Act of 2023, Pub. L. No. 118-5, § 107(g), 137 Stat. 10, 42.

204. *Id.*

uncommon.[205] Since congressional action on transmission siting is not expected to take place any time soon, alternative approaches to siting reform may be the preferable option.[206]

2. Exercising Backstop Siting Authority More Aggressively

In the absence of new legislation permitting FERC to preempt state siting of interstate transmission projects entirely, FERC could exercise its backstop siting authority to approve critical projects.[207] Chief among these critical projects are those that connect different RTOs and enable interregional transfer of electricity, which offer a few distinct benefits. First, they can improve reliability.[208] If a natural disaster hinders electricity generation on the east coast, interregional transmission lines can supplant that generation. Second, they assist utilities and RTOs balance peak load across time zones.[209] At 4 p.m. Mountain Standard Time, demand for electricity is far lower than 6 p.m. in Eastern Standard Time. Likewise, when demand spikes for an unexpected reason such as weather or transmission congestion, power can be drawn from another region with lower demand.[210] Finally, these lines permit states to import renewable energy to meet RPS requirements or voluntary clean energy goals.[211]

Backstop siting authority can circumvent state permitting or at least pressure states to approve a permit for siting a transmission line so they may have more control over the process. Prior to exercising this authority, the DOE needs to designate an area to be an NIETC.[212] As of August 2023, the DOE has only released a draft "National Transmission Needs Study."[213] The draft study found a need for increased transmission development in nearly

205. Moch & Lee, *supra* note 168. Interestingly, line length does not bear a strong relationship to project timespan. Two distinct projects, both ten miles long, took had radically different timelines: one took four years and the other is still ongoing after sixteen years. *Id.*

206. The Biden administration seems to think so in a recent notice of proposed rulemaking, and it has exercised its authority under the backstop siting provisions of the FPA and recent NEPA reforms to designate the DOE as the lead agency for NEPA review of transmission siting projects. *See* Coordination of Federal Authorizations for Electric Transmission Facilities, 88 Fed. Reg. 55826, 55842 (proposed Aug. 16, 2023) (to be codified at 10 C.F.R. pt. 900).

207. *See supra* notes 56–63 and accompanying text for a description of FERC's backstop siting authority.

208. Joseph Majkut & Cy McGeady, *The Power System Benefits of Interregional Transmission*, CTR. FOR STRATEGIC & INT'L STUD. (May 25, 2023), https://www.csis.org/analysis/power-system-benefits-interregional-transmission [https://perma.cc/39HE-RDZQ].

209. *See id.*

210. *Id.*

211. *See supra* Part II.

212. *See* notes 53–59 and accompanying text.

213. *See generally* U.S. DEP'T OF ENERGY, NATIONAL TRANSMISSION NEEDS STUDY: DRAFT FOR PUBLIC COMMENT (2023), https://www.energy.gov/sites/default/files/2023-02/022423-DRAFTNeedsStudyforPublicComment.pdf [https://perma.cc/US9F-9QB6].

every region in the country.[214] While finalizing this study is necessary for DOE to exercise its backstop siting authority, its early impressions of transmission development needs tend to support exercising that power.

Developers with a federal permit authorizing construction of a transmission line may exercise eminent domain along its right of way, but the developer must "ma[k]e good faith efforts to engage with landowners and other stakeholders early in the applicable permitting process."[215] Promoting early participation from community members in the process can improve the popularity of a project or the likelihood that it is accepted by the community.[216] The vagueness of "good faith efforts" notwithstanding, requiring developers to work with stakeholders early can build trust among landowners and enhance the legitimacy of a project.

Backstop siting authority is less aggressive than full preemption of state siting authority over transmission lines. It allows FERC to exercise its authority more sparingly, reducing overall burdens on states and landowners by only exercising its authority for crucially important transmission lines. One area for FERC to consider using this authority concerns long-range, high voltage direct current ("HVDC") transmission lines. HVDC lines improve grid reliability and outcompete a high voltage alternating current system for transmission capacity ratings and burdens on land use.[217] As extreme weather events increase and society depends on electrification, grid reliability becomes more important than ever.[218] Further, a national HVDC network, or at least improved interregional transfer capacity, would result in immense cost savings for consumers as the country transitions to intermittent renewables.[219] How aggressively or strategically FERC uses its backstop siting authority depends on the Commission's views; they could exercise extensive siting authority, preempting state siting regularly, or occasionally permit transmission lines that meet crucial interregional transfer goals.

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214. *Id.* at iv–xv.

215. 16 U.S.C.A § 824p(e)(1) (West 2021).

216. *See* Leonhard Späth & Anna Scolobig, *Stakeholder Empowerment Through Participatory Planning Practices: The Case of Electricity Transmission Lines in France and Norway*, ENERGY RSCH. & SOC. SCI., Jan. 2017, at 189, 196; JOHANNA BOZUWA & DUSTIN MULVANEY, A PROGRESSIVE TAKE ON PERMITTING REFORM: PRINCIPLES AND POLICIES TO UNLEASH A FASTER, MORE EQUITABLE GREEN TRANSITION 22–23 (2023), https://rooseveltinstitute.org/wp-content/uploads/2023/08/RI_Progressive_Permitting_Report_202308.pdf [https://perma.cc/9EMG-78JC].

217. ICF INC., ASSESSMENT OF THE POTENTIAL FOR HIGH-VOLTAGE DIRECT CURRENT TRANSMISSION TO MITIGATE IMPACTS OF NON-DISPATCHABLE GENERATION TECHNOLOGIES 10–11, 16 (2018), https://www.eia.gov/analysis/studies/electricity/hvdctransmission/pdf/transmission.pdf [https://perma.cc/SM83-A9QV].

218. Mathaios Panteli & Pierluigi Mancarella, *Influence of Extreme Weather and Climate Change on the Resilience of Power Systems: Impacts and Possible Mitigation Strategies*, 127 ELEC. POWER SYS. RSCH. 259, 260–61 (2015).

219. Alexander E. MacDonald et al., *Future Cost-Competitive Electricity Systems and Their Impact on US CO_2 Emissions*, 6 NATURE CLIMATE CHANGE 526, 528 (2016).

B. ALTERING STATE LAW

State legislatures could create a regulatory environment that is less resistant to transmission development. This is easier said than done. Many states have become more entrenched in their opposition to interstate transmission projects.[220] Despite that opposition, a variety of state-level reforms could improve the efficacy of interstate transmission siting while considering local interests. Section B.1 considers alternatives to state domestic service requirements, and Section B.2 argues for repealing state ROFR laws.

1. Addressing Domestic Service Requirements

Many states have some variety of domestic service requirement to site a transmission line.[221] States have an understandable interest in protecting consumer prices and promoting reliability for their citizens. For wholly intrastate projects, ignoring regional need is sensible—the project is designed to benefit the state, not the region. However, prioritizing generation within their state or intrastate transmission at the expense of interstate transmission may not be the best means to reduce costs, especially during extreme weather events.[222] Many state CPCN laws were enacted prior to 1999, when FERC enacted Order No. 2000, which encouraged states to enter RTOs. The underlying conditions that affect what constitutes public necessity have changed, which should encourage state legislatures that belong to RTOs to reform their laws to account for regional generation balancing when siting transmission lines.

i. Benefits to RTO Jurisdictions

States in the RTO receive obvious benefits from a grid with additional transmission (reliability, reduced cost, and improved access to diverse generation sources), even if their state is merely a pass-through state on an HVDC route.[223] Some states, like Colorado and Nevada, are requiring that the state join an RTO within a certain timeframe, creating opportunities for siting reform.[224]

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220. *See, e.g.*, Eli Goldfarb, Iqra Nasir & Amanda Spinner, *Electric Transmission Policy in the United States* 2–3 (CLOSUP, Working Paper No. 53, 2020), https://closup.umich.edu/sites/closup/files/uploads/working-papers/closup-wp-53-Goldfarb-Nasir-Spinner-Electric-Transmission-Policy-in-the-United-States.pdf [https://perma.cc/WBX7-KBEJ] (assessing opposition to transmission projects in various states).

221. *See supra* Section I.B.3.iii.

222. *See* MANZ ET AL., *supra* note 151, at 13–18, 23–24.

223. A pass-through state is one whose land is used for the route of a transmission line, but it neither adds nor receives power directly to its state from the line. These states tend to harbor more resistance to long-range transmission projects. *See, e.g.*, Kite, *supra* note 191 (describing this phenomenon in Missouri).

224. *See* Emma Penrod, *Colorado Legislators Direct All Transmission Utilities to Join an Organized Wholesale Market by 2030*, UTIL. DIVE (June 8, 2021), https://www.utilitydive.com/news/colorado-legislators-direct-all-transmission-utilities-to-join-an-organized/601423 [https://perma.cc/XD5N-E2QX]; Jason Plautz, *Nevada Passes Clean Energy Bill Requiring State to Join RTO, Accelerating $2B*

Several states that belong to RTOs have considered regional benefit in their siting decisions but use differing approaches. Illinois' statute finds that a qualifying HVDC line is automatically a "public use" if it connects to one of their RTO grids and passes through a certain set of counties.[225] So far, this is just the Grain Belt Express line. Legislative approval, transmission line by transmission line, is too slow and narrow, even if it does minimize or avoid litigation over whether the line is a "public use."

Pennsylvania uses a different approach, considering regional benefit of a line but requiring the state PUC to make an independent necessity determination rather than deferring to the RTO on necessity.[226] This has, depending on one's perspective, the advantage or disadvantage of additional state control. This statute rests on the underlying assumption that the state PUC is in a better position to assess regional grid benefits than the RTO. While state PUC commissioners are experts in electricity and utility matters, they focus more on retail rather than wholesale markets.[227] This makes them less equipped to assess what is best for regional wholesale markets than their RTO counterparts.

While some states, like Illinois, are content to find public use exists for a transmission line with an interconnection to one of its RTO grids (for one project). Others, like Pennsylvania, are unwilling to defer to the RTO entirely. Many states may be uncomfortable with limited control over the transmission siting process but desire a stronger regional grid to reduce energy prices and promote resiliency. Perhaps a regime like *Skidmore* deference to the RTO on questions of regional benefit could fashion a judicial compromise that privileges expertise on regional questions without entirely overruling the power of the state PUC.[228]

Some jurisdictions may be reticent to approve transmission line projects that do not directly deliver power to their residents. This is a natural concern for a commission charged with considering the benefit to in-state residents. If State A belongs to an RTO and a project delivers power to load in State B, which is within State A's RTO, State A will see benefits. More generation resources can

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Transmission Project, UTIL. DIVE (June 2, 2021), https://www.utilitydive.com/news/nevada-passes-clean-energy-bill-requiring-state-to-join-rto-accelerating/601106 [https://perma.cc/N999-JVPT].

225. *See supra* notes 185–87 and accompanying text.

226. *See* 66 PA. STAT. AND CONS. STAT. ANN. § 2805(a) (West 2021) (requiring regional cooperation and support of an ISO). *But see* Transource Pa., LLC v. Pa. Pub. Util. Comm'n, 278 A.3d 942, 959–63 (Pa. Commw. Ct. 2022) (affirming state PUC's decision that transmission line construction pursuant to PJM plan did not meet independent state necessity requirements in the code and regulations, despite § 2805).

227. *See supra* notes 46–55 and accompanying text.

228. *See* Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944) (finding "that the rulings . . . of the Administrator . . . , while not controlling upon the courts by reason of their authority, do constitute a body of experience and informed judgment to which courts and litigants may properly resort for guidance. The weight of such a judgment in a particular case will depend upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade.").

access wholesale markets, reducing the cost of power. More transmission provides additional pathways for power flow, reducing congestion costs on the grid. As the old adage goes, the rising tide lifts all boats.

ii. Benefits to Non-RTO Jurisdictions

Jurisdictions that do not belong to an RTO also have domestic service requirements.[229] The logic of this requirement makes more sense for traditionally regulated jurisdictions than RTOs since utilities are primarily responsible for generation, transmission, and distribution.[230] However, these utilities still likely purchase power from independent generators.[231] Since a portion of a utility's generation is produced by a different entity, transmission is still crucial to deliver power to the utility's customers. A state could modify their statute to permit developers to earn CPCNs if a state utility is an eligible energy purchaser from the transmission line. This serves the interest of state legislatures, who prefer to benefit their states' residents, because it diversifies the pool of eligible generators from whom a utility can purchase power which should lower costs.

Siting reform may be politically difficult to accomplish in non-RTO jurisdictions. Property owners will be concerned about eminent domain, and certain constituencies may have issues with the balance of benefits and burdens that come along with a preference for regional benefit. States that do not belong to an RTO could require a developer to pay a higher premium to use eminent domain authority if their state receives no direct benefit, e.g., if there are no energy purchasers in their state. For example, Missouri, although it belongs to two RTOs, passed a law requiring developers to compensate landowners at 150 percent of the fair market value of any easement procured to develop a transmission line on agricultural land.[232] While this approach may increase costs for developers, it also provides some potential benefits for the developer and the public. To the extent that public opposition to a project weighs against granting that project a CPCN, additional compensation to landowners could reduce opposition to the project. This may provide additional certainty for a developer that their project will receive a CPCN, depending on the economics of the project and the relevant considerations a PUC uses when granting a CPCN.

229. *See supra* note 139 and accompanying text (discussing Georgia's local power delivery requirement).

230. *See supra* notes 23–29 and accompanying text.

231. *See, e.g.*, ADVANCED ENERGY ECON., EXPANDING CORPORATE ACCESS TO ADVANCED ENERGY 10, 13 (2017), https://info.aee.net/hubfs/AEE_July2018/PDF/AEE-Policies-to-Expand-Corporate-Access-to-Advanced-Energy.pdf [https://perma.cc/2W8Y-NPJZ].

232. Missouri, as of 2022, requires utilities operating under a CPCN to compensate landowners 150 percent of the fair market value of the property if eminent domain is used to take agricultural or horticultural land. MO. REV. STAT. § 523.039(2) (2022).

A different alternative would require additional community input earlier in the process—prior to applying for a CPCN. At the very least, this allows property owners and community members to learn more about the project and understand its benefits. Community members can also start to build relationships with land agents for development companies, who can answer questions and address concerns. Adding meaningful process to the development timeline can be helpful for the transmission company as well. They can identify community concerns and promote the benefits of the project (economic development, reduced energy prices, etc.) to the counties through which it runs.

iii. Blocking FERC's Backstop Siting Authority

States who consider regional benefits to a transmission project and remove any requirements that transmission developers serve end-use customers in their state can block FERC's backstop siting authority.[233] Some states may be reticent to consider regional benefit in their transmission siting decisions because they worry about the negative effect it may have on their state. The same goes for domestic service requirements. For same states, concerns about federal backstop siting authority may be more worrisome than considering the project's benefit to the region or nixing the requirement to provide electricity to end users in the state. There is a stark partisan divide on whether the federal government should have backstop siting authority for transmission projects.[234] Ultimately, a state's decision about whether to amend its transmission siting law is its own to make. Eliminating domestic service requirements and considering regional benefit in transmission siting decisions have great promise for states and developers alike.

2. ROFR Laws Should Be Eliminated

States should repeal their ROFR laws. For interstate transmission lines and intrastate transmission lines, they discourage competition and promote inefficiencies by duplicating lines. Interstate lines are no longer economic investments for developers when the transmission line traverses a state with an ROFR law because the developer either loses ownership of the line or is not permitted to build at all. Instead, a developer may simply build a line elsewhere or abandon a potential project to improve grid reliability. Improving interregional electricity transfer capabilities requires additional transmission lines that traverse several states. The patchwork of midwestern states with ROFR laws hinders east-west interregional transmission lines that must pass

233. *See* 16 U.S.C. § 824p(b)(1)(A)(ii) (discussing regional benefit); *id.* § 824p(b)(1)(B) (discussing end-use customer service requirement).

234. *See, e.g.*, NAT'L ASS'N OF REGUL. UTIL. COMM'RS, ANNUAL REPORT 2021, at 8 (2021), https://pubs.naruc.org/pub.cfm?id=FD7B7804-1866-DAAC-99FB-6709C1031B43 [https://perma.cc/2SGU-NQFW] (discussing an amendment to strip backstop siting authority from the Bipartisan Infrastructure Law that failed in committee on a party-line vote).

through the middle of the country. Incumbent utilities have little incentive to develop long-range lines that extend far beyond their service area. Furthermore, they cannot recoup the costs of their transmission development through the traditional ratemaking process since their ratepayers are not receiving a direct benefit from the project.

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None of these state law solutions will be politically easy to accomplish. Local property owners will oppose efforts to simplify the CPCN process and grant eminent domain to transmission companies, particularly for transmission projects that have broader regional benefit. Incumbent utilities will object to an ROFR repeal because it diminishes their market power or excludes a potential investment from their rate base. Neither group is politically feeble, but that does not mean that these efforts are a moonshot. The federal government may exercise its siting authority once it declares certain parts of the country to be an NIETC; the statutory provisions are in place. States' concerns about federal preemption of their siting authority may prompt reforms to their permitting process that consider regional benefits rather than insular state benefits and remove requirements to serve consumers in the state to earn a CPCN.

CONCLUSION

Improved transmission infrastructure has the potential to provide reliable, renewable energy to consumers across the United States at a lower cost than fossil fuels. The federal system permits one stubborn state to block an interstate transmission project that would provide an essential public good to distant residents of another state. At some point, the public good provided in sum by such a project will exceed the costs to landowners in one state and justify its development. Interstate puzzles likely require national solutions. While there are several different ideas about how to address state efforts to restrict transmission competition and interstate transmission development, one thing is clear: FERC has a role to play. A bipartisan federal commission with expertise is well-positioned to make siting decisions about interstate projects, and interested parties can make public comments and seek judicial review to promote their perspective and litigate where appropriate. Congress should afford them the opportunity to do so.