NOTES

POWERFUL FRIENDS: *EPSA*, *HUGHES*, AND COOPERATIVE FEDERALISM FOR STATE RENEWABLE ENERGY POLICY

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Until recently, the Supreme Court interpreted the Federal Power Act (FPA) to draw an impermeable boundary between the jurisdiction of the Federal Energy Regulatory Commission (FERC) and those of state public utility commissions. But the Court's recent decisions in FERC v. Electric Power Supply Association *(*EPSA*) and* Hughes v. Talen Energy Marketing, LLC *appear to relax the formalistic test traditionally used to resolve that boundary, upholding a "program of cooperative federalism" and creating a zone of concurrent jurisdiction.*

Both cases vindicate federal authority against claims for state jurisdiction, but by acknowledging the degree to which the traditional domains of FERC and the states interweave and by endorsing cooperative federalism under the FPA, their combination also suggests an expanded zone of influence for the states. Hughes *even ends with a direct invitation to the states to continue innovating. This invitation likely strikes a chord with states like New York and California, which have recently adopted among the most aggressive renewable energy mandates in the United States.*

This Note examines, through the lens of state policymakers in New York and California, the extent to which the new jurisprudence will help states to reach their ambitious renewable energy goals in the absence of a comprehensive federal policy. Achieving these goals will likely require the use of programs that straddle the traditional federal–state jurisdictional divide. This Note analyzes four such policy tools: net metering, feed-in tariffs, mandatory bilateral contracting, and limitations on out-of-state power. It concludes that EPSA *and* Hughes *give states that plan to enact these policies significant legal ground to stand on. But each of these tools will still require FERC's support to be optimally successful. Without it, achieving states' ambitious goals may remain just out of reach.*

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INTRODUCTION

The electricity sector is the second-largest source of greenhouse gas emissions in the U.S. economy.[1] Nonetheless, even with clear and compelling evidence of the dangers of anthropogenic climate change,[2] the United States has enacted very little comprehensive national policy to address power-sector emissions of greenhouse gases.[3] In the absence of congressional action, states have taken the lead, developing increasingly ambitious goals for greenhouse gas reduction and the proliferation of renewable energy resources.[4] State authority to regulate electricity, however, is limited by the Commerce Clause[5] and the New Deal–era Federal Power Act (FPA), which apportions jurisdiction between federal and state actors.[6] Traditionally, courts have read the FPA to establish a scheme of dual federalism, favoring broad authority for the Federal Energy Regulatory Commission (FERC) at the expense of state influence.[7]

In the past two years, three major events have occurred at the confluence of renewable energy policy, state action on climate change, and the role of the states in energy regulation. First, in a series of cases, the Supreme Court has upended its traditional construction of the FPA, reaffirming broad federal authority over the power sector but potentially giving state regulators more leeway to influence the spread of renewable energy.[8] Second, California and New York have enacted among the most

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1. The largest source is the transportation sector. See U.S. Energy Info. Admin., DOE/EIA-0035(2018/2), February 2018 Monthly Energy Review 186–87 (2018), http://www.eia.gov/totalenergy/data/monthly/archive/00351802.pdf [http://perma.cc/X3B8-J7DL]. Until 2016, the electricity sector was the largest source of greenhouse gas emissions. See U.S. PIRG, New Federal Data Show Transportation Sector Now the Largest Source of Carbon Pollution in the United States, First Time in Nearly 40 Years (Aug. 4, 2016), http://www.uspirg.org/news/usp/new-federal-data-show-transportation-sector-now-largest-source-carbon-pollution-united [http://perma.cc/S4Z5-K8KA]; see also William Boyd & Ann E. Carlson, Accidents of Federalism: Ratemaking and Policy Innovation in Public Utility Law, 63 UCLA L. Rev. 810, 812 (2016).

2. See, e.g., NASA, The Consequences of Climate Change, http://climate.nasa.gov/effects/ [http://perma.cc/K5EU-2QJT] (last visited Feb. 6, 2018).

3. See infra notes 150–157 and accompanying text (discussing federal inaction and the origins of state policies to incentivize renewable and low-carbon electricity).

4. Id.

5. U.S. Const. art. I, § 8, cl. 3.

6. 16 U.S.C. §§ 791–828c (2012).

7. Dual federalism is a vision of federal–state relations in which each level of government is a "separate entity that regulates in its own distinct sphere of authority without coordinating with the other." Philip J. Weiser, Towards a Constitutional Architecture for Cooperative Federalism, 79 N.C. L. Rev. 663, 665 (2001); see also Jim Rossi, The Brave New Path of Energy Federalism, 95 Tex. L. Rev 399, 404 (2016) [hereinafter Rossi, Brave New Path] (remarking that courts have consistently interpreted statutory provisions affirming the importance of preserving state authority narrowly instead of "applying a presumption against preemption").

8. See infra section I.C (discussing new Supreme Court jurisprudence and how it signals a change in the Court's approach to jurisdiction and preemption under the FPA).

aggressive renewable energy mandates in the United States, ambitiously attempting to obtain fifty percent of their electricity from renewable sources by 2030.[9] Finally, Donald Trump has become President of the United States—bringing with him a cabinet replete with fossil fuel advocates and climate change skeptics—signaling a continuation, if not an intensification, of renewable energy inaction in Washington.[10] States like California and New York will therefore remain at the vanguard of renewable energy policy in the United States for the foreseeable future. Their authority under the FPA will remain central to renewable energy's success.

This Note examines, through the lens of state policymakers in New York and California, the effect of the new FPA jurisprudence on the ability of states to reach aggressive renewable energy goals without a comprehensive federal policy. The Court's recent decisions suggest a new analytical framework for policies that straddle what was once a sharp federal–state jurisdictional divide. This Note builds on existing literature that has analyzed such interstitial policies in the past, exploring whether changes in the doctrine will remove obstacles in states' paths.

Part I of this Note describes the structure of the interstate electrical power sector and traces the history of federal jurisdiction—and preemption of state authority—in the field of energy regulation. It ends with a discussion of the new Supreme Court jurisprudence on the federal–state jurisdictional boundary. Part II introduces new and exceptionally aggressive state goals in pursuit of a renewable power sector, discusses the preemption challenges that tools supporting those policies have faced under prior constructions of the FPA, and considers whether the new jurisprudence can resolve those challenges. Finally, Part III proposes that FERC can and should use the new jurisprudence to unlock latent cooperative federalism principles in the language of the FPA. It then explores how state regulators can work with—and potentially against—their federal counterparts to ensure the viability of their states' clean energy goals. The Note concludes that although the Supreme Court has probably saved several important state policy tools from preemption, states will remain dependent on FERC's cooperation to meet their increasingly ambitious renewable energy and emissions standards.

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9. See infra section II.A (describing California's and New York's renewable energy mandates and carbon emissions policies).

10. See Coral Davenport, Donald Trump Could Put Climate Change on Course for 'Danger Zone,' N.Y. Times (Nov. 10, 2016), http://www.nytimes.com/2016/11/11/us/politics/donald-trump-climate-change.html (on file with the *Columbia Law Review*); Mazin Sidahmed, Climate Change Denial in the Trump Cabinet: Where Do His Nominees Stand?, Guardian (Dec. 15, 2016), http://www.theguardian.com/environment/2016/dec/15/trump-cabinet-climate-change-deniers [http://perma.cc/U86T-94N2] (noting that many of Trump's cabinet nominees are skeptical of the dangers posed by climate change and consider mitigation strategies a low priority).

I. ENERGY FEDERALISM[11] FROM THE FEDERAL POWER ACT TO TODAY

This Part contextualizes the Supreme Court's new approach to questions of federalism in the electricity sector. Section I.A describes the electricity grid and the basic operation of electricity markets, providing a brief background to inform the law and policy discussions that follow. Section I.B discusses the origins of federal regulation of the industry, how courts have traditionally interpreted the scope of federal authority, and how changing electricity infrastructure has challenged these interpretations. Section I.C discusses the most recent jurisprudence on energy federalism and how it departs from the traditional jurisdictional analysis.

A. *Electricity, Electricity: An Overview of Electrical Power in the United States*

In the United States, electricity travels from producers to end users via a massive interstate network collectively known as the electric power grid ("the grid").[12] The grid comprises four central components: generation, transmission, distribution, and load.[13] Generation plants produce power—by burning fuel, sustaining controlled nuclear fission, or harnessing renewable natural processes—and then inject the resulting electricity into the long-range transmission system.[14] The high-voltage lines of the transmission system carry electricity to smaller regions, where short-range networks called the distribution system deliver it to end users.[15] Most residential and commercial customers receive power from the distribution network. In the prototypical model, generators sell their electricity to load-serving entities (LSEs) at wholesale—sale for resale[16]—over the transmission system. LSEs then sell that electricity at retail—sale to end users—over the distribution system.[17]

Structures for the ownership and management of generation, transmission, and distribution resources vary across the United States. Traditionally, vertically integrated utilities owned all power infrastructure and passed their costs to users through regulated rates approved by state public

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11. See, e.g., Hari M. Osofsky & Hannah J. Wiseman, Dynamic Energy Federalism, 72 Md. L. Rev. 773, 779 (2013) (referring to the multilevel structure of energy regulation as "energy federalism").

12. See Office of Elec. Delivery & Energy Reliability, U.S. Dep't of Energy, DOE/OE-0017, United States Electricity Industry Primer 4 (July 2015) [hereinafter Dep't of Energy, Electricity Industry Primer], http://www.energy.gov/sites/prod/files/2015/12/f28/united-states-electricity-industry-primer.pdf [http://perma.cc/3V2W-NDYU].

13. Fed. Energy Regulatory Comm'n, Energy Primer: A Handbook of Energy Market Basics 2 (Nov. 2015) [hereinafter FERC Energy Primer], http://www.ferc.gov/market-oversight/guide/energy-primer.pdf [http://perma.cc/8TUL-59W9].

14. See id. at 39.

15. See Dep't of Energy, Electricity Industry Primer, supra note 12, at 21.

16. This definition of "wholesale" is enshrined in the FPA. See 16 U.S.C. § 824(d) (2012); infra text accompanying notes 46–48 (quoting the jurisdictional provisions of the FPA).

17. See Dep't of Energy, Electricity Industry Primer, supra note 12, at 28–30.

utility commissions (PUCs).[18] Twenty states still implement some form of this model.[19]

In most of the country, covering two-thirds of total electricity traded in the United States,[20] transmission remains a regulated natural monopoly, but wholesale electricity rates are set through competitive auctions managed by one of six organizations, called independent system operators (ISOs) or regional transmission organizations (RTOs).[21] In wholesale energy markets, the various generators within the ISO or RTO region offer a set quantity of energy at a set rate for each unit of time during the day. The ISO or RTO then organizes these offers into a "supply stack," the priority order in which the operator will "dispatch" each generator, usually on the basis of cost.[22] All generators dispatched at a given moment receive the same rate as the highest-priced generator currently operating.[23] ISOs and RTOs operate markets like these for a number of grid services, including energy, installed capacity, and ancillary services.[24] Notably, many transactions in ISO and RTO regions occur through bilateral contracting, in which LSEs negotiate with independent generators to purchase a

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18. See Boyd & Carlson, supra note 1, at 836. This price regulation is a reaction to traditional utilities' roles as natural monopolies, private companies providing public services in the absence of competition. Lincoln L. Davies, Power Forward: The Argument for a National RPS, 42 Conn. L. Rev. 1339, 1346–47 (2010) [hereinafter Davies, Power Forward]. Generally, utilities initiate an adjudicatory rate-setting procedure by presenting evidence of costs incurred in making prudent investments in electricity infrastructure. The state PUC considers their proposal as well as interventions from other stakeholders and sets the final rate, designed to allow the utility to recoup its operating costs as well as a rate of return on appropriate investments. Boyd & Carlson, supra note 1, at 827–28.

19. See Boyd & Carlson, supra note 1, at 836. These states are found predominantly in the northwest, southeast, mountain west, and southwest. See Alexandra B. Klass & Elizabeth J. Wilson, Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch, 65 Vand. L. Rev. 1801, 1822 (2012).

20. FERC Energy Primer, supra note 13, at 40.

21. See Boyd & Carlson, supra note 1, at 837. The distinction between ISOs and RTOs, for the purposes of understanding this Note, is negligible.

22. See FERC Energy Primer, supra note 13, at 54.

23. See id. at 60. This rate is called the "market-clearing price." Id. ISOs and RTOs typically schedule energy in both day-ahead and real-time markets operating under this structure. Id. at 37.

24. See Dep't of Energy, Electricity Industry Primer, supra note 12, at 28–30. Installed capacity markets exist to ensure that sufficient generation remains available to meet anticipated load in the near future. Generators bid their capacity—the ability to meet a certain amount of load—at rates determined by their estimated cost of operation. LSEs, required by the market operator to reserve a given portion of anticipated future load, increase their bidding price until they have collectively purchased enough capacity to meet anticipated peak load plus a buffer. See Adam James, How a Capacity Market Works, Energy Collective (June 14, 2013), http://www.theenergycollective.com/adamjames/237496/energy-nerd-lunch-break-how-capacity-market-works-and-why-it-matters [http://perma.cc/M98B-PHVD]. Ancillary service markets function like energy markets but provide relatively smaller amounts of additional electricity to balance unexpected generator outages or load spikes. See Ancillary Services Market, PJM, http://learn.pjm.com/three-priorities/buying-and-selling-energy/ancillary-services-market.aspx [http://perma.cc/73XQ-9Y5C] (last visited Feb. 7, 2018).

specified quantity of energy at an agreed-upon rate over a particular period of time.[25]

Two regulatory bodies share authority over these electricity sales: FERC at the federal level and PUCs at the state level.[26] Among other responsibilities, these agencies set rates (directly or through markets) for the entities that operate generation, transmission, and distribution infrastructure. The apportionment of jurisdiction between these regulatory bodies is the primary subject of this Note.

B. *Power over Power: The Development of Energy Federalism*

Congress passed the Federal Power Act in 1935 to regulate interstate electricity sales.[27] It began as a gap-filling measure, designed only to occupy the regulatory void in which states could not provide for just and reasonable electricity rates. Over time, however, the Supreme Court has construed the Act to give federal regulators increasingly broad authority at the expense of state jurisdiction. This section outlines the statutory origins, and traces the judicial constructions, of federal energy regulation in the United States.

1. Attleboro *and the FPA: The Origins of Federal Regulation of the Electricity Industry.* — Extensive federal regulation of the power sector began in 1935 when Congress passed Part II of the Federal Power Act.[28] Before 1935, generation, transmission, and distribution services—whether the electricity was sold at wholesale or retail—were subject either to state and municipal oversight or to no authority at all.[29] The states' right to act as sole regulators, however, came to an end in *Public Utilities Commission of Rhode Island v. Attleboro Steam & Electric Co.*[30] In *Attleboro,* a Rhode Island power company sold electricity to a Massachusetts utility at a rate filed

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25. See Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1293 (2016).

26. See infra notes 36–40 and accompanying text (discussing the FPA's apportionment of jurisdiction between FERC and state commissions).

27. See infra note 36 and accompanying text.

28. 49 Stat. 847 (1935) (codified as amended at 16 U.S.C. §§ 791–828c (2012)); see also Robert R. Nordhaus, The Hazy "Bright Line": Defining Federal and State Regulation of Today's Electric Grid, 36 Energy L.J. 203, 205 (2015). Part I of the FPA, called the Federal Water Power Act at the time of its passage in 1920, created the Federal Power Commission to license hydroelectric dams. The complete FPA now encompasses 16 U.S.C. §§ 791–828c. See United States v. Appalachian Elec. Power Co., 311 U.S. 377, 398–99 & n.2 (1940) (discussing the FPA's amendment history). When referring to the Federal Power Act or FPA, this Note refers to Part II of the Act.

29. See Clinton A. Vince & John S. Moot, Federal Preemption Versus State Utility Regulation in a Post-*Mississippi* Era, 10 Energy L.J. 1, 9–10 (1989) ("[Electric utilities] were regulated solely by state public service commissions. . . . The monopoly power that utilities possessed, unencumbered by wholesale-level regulation, provided the seeds for corporate mischief and overreaching. To combat this void . . . state commissions asserted jurisdiction over wholesale purchases . . . ."); Everest Schmidt, Note, A Call for Federalism: The Role of State Government in Federally Controlled Energy Markets, 65 Rutgers L. Rev. 573, 578–79 (2013) (describing the breadth of early state electric-utility regulation).

30. 273 U.S. 83, 90 (1927).

with the Rhode Island Public Utilities Commission.[31] When the Commission allowed the seller to raise its rate, the buyer sued.[32] The case reached the U.S. Supreme Court, which invalidated Rhode Island's authority to regulate the interstate transaction.[33] The Court held that under the Commerce Clause of the U.S. Constitution, such interstate regulation "can only be attained by the exercise of the power vested in Congress."[34] This holding produced a condition known as the "*Attleboro* gap," a regulatory vacuum allowing unfettered latitude to businesses moving electricity across state lines, a commercial space that Congress had not chosen to—and states no longer could—regulate.[35]

Congress enacted the FPA to close this gap.[36] The Act charged the Federal Power Commission (FPC)—now FERC[37]—with ensuring that "[a]ll rates and charges . . . for or in connection with the transmission or sale of electric energy . . . and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable."[38] Congress authorized the FPC to exercise this power over "the transmission of electric energy in interstate commerce and . . . the sale of electric energy at wholesale in interstate commerce," but it withheld federal jurisdiction to regulate "any other sale of electric energy."[39] In particular, the statute preserved state jurisdiction "over facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce."[40] The FPA therefore draws jurisdictional distinctions along several axes: transaction type (wholesale vs. retail), service type (transmission vs. generation and distribution),

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31. Id. at 84–85.

32. Id. at 84–87.

33. Id. at 90.

34. Id. at 89–90. The *Attleboro* decision developed from the Court's Dormant Commerce Clause doctrine, an inference of constitutional limitation on state regulation that burdens the flow of interstate commerce. See Nordhaus, supra note 28, at 204 & n.3. *Attleboro* was the last in an oft-cited line of cases applying the Dormant Commerce Clause to natural gas and electricity sales. Id. at 204–05.

35. See Nordhaus, supra note 28, at 205.

36. See, e.g., Rossi, Brave New Path, supra note 7, at 409 n.47 (citing extensively to the congressional record to show that hearings before the relevant House and Senate committees reflect the "general consensus" that states have no power over interstate wholesale transactions in energy or in any other field). The Supreme Court also confirmed the relationship between *Attleboro* and the FPA following the Act's passage and continues to recognize that connection in modern jurisprudence. See infra note 118 and accompanying text (describing the reasoning in FERC v. Electric Power Supply Ass'n, 136 S. Ct. 760, 780 (2016)).

37. See Department of Energy Organization Act, 42 U.S.C. §§ 7171(a), 7172 (2012); 16 U.S.C. §§ 792, 824, 824a (2012). This Note will refer to whichever agency existed at the time of the events being discussed.

38. 16 U.S.C. § 824d(a).

39. Id. § 824(b)(1).

40. Id.

and geography (interstate vs. intrastate commerce).[41] The FPA, as interpreted by FERC and the courts, remains the primary basis for federal control over the electricity industry.

2. *The Bright Line and the Filed Rate Doctrine: Judicial Constructions of the Federalist Balance from 1935 to 2015.* — The FPA's passage refocused judicial analysis of state regulation over the power sector. Whereas the permissibility of state regulation had previously turned only on whether the regulatory action violated the Commerce Clause,[42] the principal question after 1935 was whether the FPA preempted state regulation under the Supremacy Clause.[43] The Supreme Court, initially careful to limit federal incursion into potential zones of state regulation, gradually expanded this federal jurisdiction, increasingly preempting state regulation.[44]

In the earliest cases interpreting the FPA, the Court recognized the Act as granting the federal government no more than the authority over wholesale rates that the Constitution denies to the states.[45] In *Connecticut Light & Power Co. v. Federal Power Commission*, it studied the FPA's legislative history, noting that a commissioner of the FPC (which had drafted the Act) had testified before Congress that "[t]he new title . . . is designed to . . . fill the gap in the present State regulation of electric utilities. It is conceived entirely as a supplement to, and not a substitution for, State regulation."[46] The Court also cited House and Senate reports averring that the bill "takes no authority from State commissions"[47] and that it is intended to "extend . . . regulation to those matters which cannot be regulated by the States and to assist the States in the exercise of their regulatory powers, but not to impair or diminish the powers of any State commission."[48]

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41. Jeffery S. Dennis, Suedeen G. Kelly, Robert R. Nordhaus & Douglas W. Smith, Federal/State Jurisdictional Split: Implications for Emerging Electricity Technologies 4 (2016), http://energy.gov/sites/prod/files/2017/01/f34/Federal%20State%20Jurisdictional%20Split–Implications%20for%20Emerging%20Electricity%20Technologies.pdf [http://perma.cc/BJ43-MYGT].

42. U.S. Const. art. I, § 8, cl. 3.

43. U.S. Const. art. VI, cl. 2; see also Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm'n, 461 U.S. 375, 379 (1983) ("[The FPA] shifted this Court's main focus—in determining the permissible scope of state regulation of utilities—from the constitutional issues that concerned us in *Attleboro* to analyses of legislative intent."). The relevance of the Commerce Clause further dissipated with the Court's shifting Commerce Clause jurisprudence. See Rossi, Brave New Path, supra note 7, at 410 & n.50.

44. See generally Nordhaus, supra note 28.

45. See Schmidt, supra note 29, at 582; see also Jersey Cent. Power & Light Co. v. FPC, 319 U.S. 61, 67–68 (1943) ("The primary purpose of Title II, Part II of the [FPA] was to give a federal agency power to regulate the sale of electric energy across state lines.").

46. 324 U.S. 515, 525 (1945) (internal quotation marks omitted) (quoting Hearings on H.R. 5423 Before the H. Comm. on Interstate and Foreign Commerce, 74th Cong. 245–46 (1935) (statement of Clyde L. Seavey, Comm'r, Federal Power Commission)).

47. Id. at 526–27 (quoting H.R. Rep. No. 74-1318, at 8).

48. Id. at 525–26 (internal quotation marks omitted) (quoting S. Rep. No. 74-621, at 48).

Finding this "[l]egislative history . . . illuminating as to the congressional purpose,"[49] the majority declared that the FPA withheld federal jurisdiction over all local distribution facilities that states could have regulated between *Attleboro* and the Act's passage, even if they traded in power that had traveled across state lines before being transferred for local distribution.[50] The Court recognized that generation, transmission, distribution, and load are technically sufficiently interdependent to bring "the whole enterprise . . . within the reach of the commerce power of Congress" and that there may even be advantages to regulating across the entire field of potential federal jurisdiction.[51] Nonetheless, the Court determined that Congress had purposefully cabined the Commission's authority to preserve state control over the industry, drawing a line between transmission and distribution irrespective of the "interstate" character of the electricity itself.[52]

This analysis developed into what would remain the prevailing doctrine until 2016: that the Act had apportioned jurisdiction among the state and federal governments by drawing a "bright line" between wholesale and retail electricity sales.[53] The Court articulated the bright line test most famously in *Federal Power Commission v. Southern California Edison Co.*, often called "the '*Colton*' Case"[54] or "*City of Colton*."[55] In that case, the utility Southern California Edison, which operated only in California but received power from the Hoover and Davis hydroelectric dams in Arizona and Nevada, contracted to supply the city of Colton with all of its required electricity.[56] Colton then resold the electricity to residential,

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49. Id. at 525.

50. See id. at 531.

51. Id. at 529–30.

52. See id. at 531.

53. See Panhandle E. Pipe Line Co. v. Pub. Serv. Comm'n of Ind., 332 U.S. 507, 517 (1947) ("The line of the statute was thus clear and complete. It cut sharply and cleanly between sales for resale and direct sales for consumptive uses. No exceptions were made in either category for particular uses, quantities or otherwise."). The "statute" in *Panhandle* was actually the Natural Gas Act of 1938, the natural gas industry's analogue to the FPA. It has since become well settled that constructions of one statute cross-apply to comparable provisions of the other. See FPC v. Sierra Pac. Power Co., 350 U.S. 348, 353 (1956); Ky. Utils. Co. v. FERC, 760 F.2d 1321, 1325 n.6 (D.C. Cir. 1985). The explicit application of the "bright line" principle to the FPA began with FPC v. S. Cal. Edison Co., 376 U.S. 205, 215–16 (1964). See infra notes 55–67 and accompanying text.

54. See Nordhaus, supra note 28, at 206.

55. Fed. Power Comm'n v. S. Cal. Edison Co. (*City of Colton*), 376 U.S. 205, 215–16 (1964); see also Kyle Chadwick, Crossed Wires: Federal Preemption of States' Authority over Retail Wheeling of Electricity, 48 Admin. L. Rev. 191, 198 (1996) (referring to *City of Colton* as the "leading 'bright line case'"); Frank R. Lindh, Federal Preemption of State Regulation in the Field of Electricity and Natural Gas: A Supreme Court Chronicle, 10 Energy L.J. 277, 291–92 (1989) (describing the Court's conclusion that Congress meant to draw a jurisdictional bright line in electric power markets); Rossi, Brave New Path, supra note 7, at 417 (same).

56. *City of Colton*, 376 U.S. at 208.

commercial, and industrial customers.[57] After initially allowing the California PUC to regulate the Edison–Colton sale, the FPC asserted jurisdiction over the transaction in 1958.[58] The FPC claimed authority on the basis that Edison sold electricity from the interstate grid for resale, placing it within the Commission's statutory jurisdiction.[59]

On review, the federal court of appeals tried to overcome this formalistic jurisdictional claim on the grounds that the Commerce Clause permitted state regulation of the Edison–Colton sale, which occurred wholly within California and had little impact on the national market.[60] The court reasoned that since § 201(a) of the FPA declared that "[f]ederal regulation . . . [is] to extend only to those matters which are not subject to regulation by the States," the FPC had no authority when the Commerce Clause permitted state regulation.[61] To rule out Commerce Clause concerns, the appellate court considered factors particular to the sale, including that the only other states conceivably prejudiced by California's authority already received federal protection in the form of Interior Department control over the Hoover and Davis dams.[62]

A unanimous Supreme Court rejected this context-heavy reading of the FPA. Instead, Justice Brennan wrote, "Congress meant to draw a *bright line* easily ascertained, between state and federal jurisdiction."[63] The Court determined that the FPA's role as a gap-filling measure did not actually protect every pre-*Attleboro* power of state PUCs from federal preemption.[64] Under this construction, an example of dual federalism,[65] *all* wholesale

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57. Id. at 206.

58. Id. at 206–07.

59. Id. at 208; see also 16 U.S.C. § 824(b)(1) (2012) (establishing federal jurisdiction over the "sale of electric energy at wholesale in interstate commerce"); id. § 824(d) (defining a wholesale transaction as "a sale of electric energy to any person for resale").

60. *City of Colton*, 376 U.S. at 209–11.

61. See id. at 209–10 (second alteration in original) (internal quotation marks omitted) (quoting 16 U.S.C. § 824(a)).

62. Id. at 211.

63. Id. at 215–16 (emphasis added).

64. The Court subsequently acknowledged this point explicitly, demonstrating the trend toward a greater role for the federal commission and a lesser one for the states. See New York v. FERC, 535 U.S. 1, 21 (2002) ("It is, however, perfectly clear that the original FPA did a good deal more than close the gap in state power identified in *Attleboro*. . . . [E]ven if *Attleboro* catalyzed the enactment of the FPA, *Attleboro* does not define the outer limits of the statute's coverage.").

65. See supra note 7 (defining dual federalism). Courts have supported this scheme by finding that the FPA "'occup[ied] the field' of wholesale energy sales." Rossi, Brave New Path, supra note 7, at 414. This language is the hallmark of field preemption, the invalidation of any state law within a field entirely reserved for federal regulation. See Crosby v. Nat'l Foreign Trade Council, 530 U.S. 363, 373 (2000). Field preemption is the broadest form of implied federal preemption, contrasted with impossibility preemption, in which it is impossible to give effect to the federal and state regulation simultaneously, and obstacle preemption, in which state regulation "stands as an obstacle to the accomplishment and

transactions—including even the slightest amount of electricity produced out of state, no matter how minor the interstate element and its effects on interstate commerce—fell to the FPC. Likewise, even interstate retail sales fell within state jurisdiction.[66] The bright line test is therefore highly formalistic, concerned only with whether the regulator acted on the wholesale or retail market while ignoring the subjective interstate effects of the transaction at hand.[67]

Although the FPA can reach only those wholesale transactions that occur in interstate commerce,[68] the Supreme Court has construed "interstate commerce" quite broadly. In *Federal Power Commission v. Florida Power & Light Co.*, the Court held that the FPA granted federal jurisdiction over Florida Power & Light (FP&L), a utility with no electrical connections to out-of-state power companies.[69] That FP&L interconnected with other utilities that *did* trade power across state lines was sufficient to find interstate activity, even without the certainty that FP&L ever transferred power to other utilities at the same time that those utilities were transferring power out of state.[70] The decision brought any wholesale transaction on any part of the transmission grid within federal jurisdiction.[71]

The FPA's bright line did not preempt only state regulation of the interstate wholesale market. It also limited state regulatory authority over retail sales, which lie firmly on the state side of the bright line, through a line of jurisprudence known as the "filed rate" doctrine.[72] When FERC

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execution of the full purposes and objectives of Congress." Id. (internal quotation marks omitted) (quoting Hines v. Davidowitz, 312 U.S. 52, 67 (1941)).

66. See Vince & Moot, supra note 29, at 14–16.

67. See Panhandle E. Pipe Line Co. v. Pub. Serv. Comm'n of Ind., 332 U.S. 507, 517 (1947) (explaining that the line separating federal and state jurisdictions leaves no room for exceptions "for particular uses, quantities, or otherwise"). Notably, courts have treated jurisdiction on either side of the line as exclusive. See Rossi, Brave New Path, supra note 7, at 404 & n.24, 420. Authority that is "exclusive," rather than merely "plenary" or "absolute," may not be delegated or shared. Courts have recognized exclusive authority only in the areas of energy regulation and immigration law. See id. at 404 n.24; see also Nantahala Power & Light Co. v. Thornburg, 476 U.S 953, 966 (1986) ("FERC clearly has exclusive jurisdiction over the rates to be charged . . . interstate wholesale customers.").

68. 16 U.S.C. § 824(b)(1) (2012); see also supra note 41 and accompanying text (noting that the FPA apportions jurisdiction based on transaction type, service type, and geography).

69. 404 U.S. 453, 468–69 (1972). FP&L was connected only to in-state consumers and power companies and transacted no electricity across state lines. Other Florida power companies that interconnected with FP&L, however, regularly exchanged power with a Georgia utility that connected to a national pool of power producers. Id. at 457.

70. Id. at 467–69.

71. Effectively, this includes almost every wholesale transaction in the United States, excluding only the electrically isolated enclaves of Texas, Alaska, and Hawaii. See Richard D. Cudahy, 70th Anniversary Celebration of the Federal Power Act, 26 Energy L.J. 389, 391 (2005).

72. See *Nantahala*, 476 U.S. at 966. The filed rate doctrine began with *Montana-Dakota Utilities Co. v. Northwestern Public Service Co.*, which held that

> the right to a reasonable rate is the right to the rate which the [Federal Power] Commission files or fixes, and that, except for review of the Commission's

approves the rate at which a utility purchases electricity at wholesale, a state PUC may not set a lower retail rate that makes a utility unable to recoup costs incurred in wholesale transactions.[73] The filed rate doctrine requires state deference not only to FERC-approved rates but also to the allocation of differently priced wholesale power among utilities, which "directly affects" the resulting cost of electricity.[74] The Court has repeatedly reaffirmed the filed rate doctrine, including twice in the era of restructured markets.[75]

3. *Blurring the Bright Line: Restructured Markets Complicate the Federalist Balance.* — The basic balance established under the New Deal–era FPA functioned smoothly for several decades as utilities and ratepayers benefited from steady growth and economies of scale.[76] In the late 1960s and early 1970s, however, increasing operation costs, inflation throughout the economy, failed investments in nuclear power, and the 1973 oil crisis resulted in sharp utility price hikes that chilled demand for electricity and threatened utilities' abilities to recover their investments through retail rates.[77] Utilities could no longer drive down prices with economies of scale, revealing that cost reductions from rapidly advancing technology had masked inefficient investments driven by a cost-of-service rate system that rewarded overbuilding.[78] These stark circumstances, combined with increasing interest in environmentally sustainable generation, led to calls for political intervention.[79]

> orders, the courts can assume no right to a different one on the ground that, in its opinion, it is the only or the more reasonable one.

341 U.S. 246, 251–52 (1951). See generally Vince & Moot, supra note 29, at 16–36 (describing and tracing the roots of the filed rate doctrine through 1989).

73. *Nantahala*, 476 U.S. at 970. The *Nantahala* Court referred to this impermissible practice as "trapping" costs. Id.

74. Id. at 966–67. The two most notable cases supporting this proposition are *Nantahala* and *Mississippi Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354 (1988). In the former, FERC's uneven allocation of high- and low-cost power between two utilities precluded the North Carolina Utility Commission from requiring the utilities to charge uniform rates. *Nantahala*, 476 U.S. at 966. In the latter, FERC's allocation of costs from a nuclear power plant preempted the Mississippi PUC's consideration of whether it was reasonable to construct or purchase power from the plant in the first place. *Miss. Power & Light Co.*, 487 U.S. at 369.

75. See Steven Ferrey, Pentagon Preemption: The 5-Sided Loss of State Energy and Power, 2014 U. Ill. J.L. Tech. & Pol'y 393, 409 (citing Morgan Stanley Capital Grp., Inc. v. Pub. Util. Dist. No. 1, 554 U.S. 527 (2008); Energy La., Inc. v. La. Pub. Serv. Comm'n, 539 U.S. 39 (2003); *Miss. Power & Light Co.*, 487 U.S. 354); *Nantahala*, 476 U.S. 953.

76. See Joseph P. Tomain & Richard D. Cudahy, Energy Law in a Nutshell 376–77 (2d ed. 2011); Boyd & Carlson, supra note 1, at 829–30; Schmidt, supra note 29, at 584.

77. See Boyd & Carlson, supra note 1, at 830.

78. See William Boyd, Public Utility and the Low-Carbon Future, 61 UCLA L. Rev. 1614, 1659 (2014).

79. See Tomain & Cudahy, supra note 76, at 378–80; Boyd & Carlson, supra note 1, at 830.

That intervention came in the form of the Public Utility Regulatory Policies Act of 1978 (PURPA).[80] Among other provisions, PURPA required utilities to begin purchasing power from small cogeneration and renewable energy generators—termed "qualifying" facilities (QFs)—at a rate not to exceed "the incremental cost to the electric utility of alternative electric energy," what is now universally called the utility's "avoided cost."[81] Importantly, Congress built PURPA around a theory of cooperative federalism; the statute gives FERC responsibility for verifying a facility's status as a QF and state PUCs—which in all other circumstances may not set wholesale rates[82]—broad authority to define avoided costs for the utilities in their jurisdictions.[83] Most states chose to award QF contracts under PURPA through competitive bidding.[84]

By guaranteeing a market for QFs, PURPA facilitated the entry of new non-utility generators (NUGs) into an electricity infrastructure dominated by massive, vertically integrated utilities. These nontraditional producers were wildly successful; by the 1990s, NUGs constituted almost ten percent of total generation.[85] The success of NUGs under PURPA demonstrated that, in the face of utility inefficiency and declining economies of scale, consumers could benefit from a competitive market of independent generators.[86]

As a result of PURPA's success, statutory development in the late twentieth and early twenty-first centuries has largely been motivated by the project of restructuring the energy sector to facilitate greater competition. In 1992, Congress passed the Energy Policy Act (EPAct),[87] which exempted independent generators offering electricity on the wholesale market (even those not qualifying as QFs) from burdensome statutory restrictions and authorized FERC to require utilities to open their transmission lines to

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80. Pub. L. No. 95-617, 92 Stat. 3117 (codified in scattered sections of 15 and 16 U.S.C.).

81. 16 U.S.C. § 824a-3(b) (2012). Regulations passed pursuant to the statute dictate that "[a]voided costs means the incremental costs to an electric utility of electric energy . . . which, but for the purchase from [QFs], such utility would generate itself or purchase from another source." 18 C.F.R. § 292.101(b)(6) (2017). Put simply, avoided cost is the cost a utility would incur to obtain the same amount of power elsewhere.

82. See supra notes 36–41 and accompanying text (introducing the FPA).

83. See Schmidt, supra note 29, at 586; see also FERC v. Mississippi, 456 U.S. 742, 767 (1982) (noting that PURPA created "a program of cooperative federalism that allows the States . . . to enact and administer their own regulatory programs . . . to meet their own particular needs"). Cooperative federalism generally describes programs that "envision[] a sharing of regulatory authority between the federal government and the states that allows states to regulate within a framework delineated by federal law." Weiser, supra note 7, at 665.

84. Richard D. Cudahy, PURPA: The Intersection of Competition and Regulatory Policy, 16 Energy L.J. 419, 425 (1995) [hereinafter Cudahy, PURPA].

85. See Schmidt, supra note 29, at 587.

86. See Tomain & Cudahy, supra note 76, at 381–83; Cudahy, PURPA, supra note 84, at 425.

87. Pub. L. No. 102-486, 106 Stat. 2776 (1992) (codified as amended in scattered sections of 26 U.S.C.).

these independent wholesale generators.[88] FERC took Congress up on its invitation to open up the grid,[89] and subsequent orders have only further encouraged deregulation and restructuring.[90] The ultimate result of this movement toward competition is the patchwork of competitive and vertically integrated market regions that exists today.[91]

This process of restructuring rendered the "bright line" between state and federal jurisdiction increasingly difficult to resolve, as many scholars have noted.[92] Deregulation has brought about a vast increase in the quantity of electricity sold at wholesale and in interstate commerce.[93] The electricity regulatory environment has changed so much as to be nearly unrecognizable to the one that bore the FPA and most of the jurisprudence reinforcing it, a fact the Court itself observed in its last major FPA jurisdiction case before 2016.[94] Nonetheless, before the Supreme Court's 2016 term, the retail–wholesale split remained the prevailing division of regulatory authority over the power sector.[95]

C. *Separate Spheres Collide:* FERC v. EPSA *and* Hughes v. Talen Energy Marketing

In early 2016, the Supreme Court decided two cases—*FERC v. Electric Power Supply Association* (*EPSA*)[96] and *Hughes v. Talen Energy Marketing, LLC*[97]—that diverged from the Court's traditional bright line approach to energy federalism. In *EPSA*, the Court held that FERC's jurisdiction under the FPA extended to a program substantially affecting retail markets, the traditional bailiwick of the states.[98] In *Hughes*, it held that state

88. Tomain & Cudahy, supra note 76, at 387.

89. See Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities, 62 Fed. Reg. 12,274, 12,275 (Mar. 14, 1997) (codified at 18 C.F.R. pt. 35).

90. See, e.g., 65 Fed. Reg. 12,088 (Feb. 25, 2000) (codified at 18 C.F.R. pt. 35) (encouraging the creation of RTOs).

91. For a description of the system as it exists, see supra section I.A (describing the structure of wholesale electricity markets in the United States).

92. See Nordhaus, supra note 28, at 209 (describing the "difficulty courts, the FERC, and the states face in applying the Bright Line to today's grid"); see also Hannah J. Wiseman, Moving Past Dual Federalism to Advance Electric Grid Neutrality, 100 Iowa L. Rev. Bull. 97 (2015) (arguing that the separate-spheres approach no longer serves the modern shape of the grid).

93. See supra section I.A (describing the current state of the electricity industry). This arrangement, in which all power flows through interstate wholesale markets before distribution and retail sales, combines with the filed rate doctrine to greatly constrict the effective authority of state regulators. See Ferrey, supra note 75, at 408.

94. See New York v. FERC, 535 U.S. 1, 16 (2002) (noting that the changing electric industry has called into question whether the field is truly "neatly divided in spheres of retail versus wholesale sales").

95. See Nordhaus, supra note 28, at 216.

96. 136 S. Ct. 760 (2016).

97. 136 S. Ct. 1288 (2016).

98. See infra notes 111–125 and accompanying text.

attempts to encourage new generation through a wholesale capacity market were preempted under the FPA.[99] Like previous FPA jurisprudence, each case extended or confirmed federal authority. Unlike previous jurisprudence, however, each case also forwent a strict bright line analysis, trading the traditional formalist jurisdictional test for a functionalist evaluation.

1. FERC v. EPSA. — *EPSA* concerned FERC's assertion of authority over a program called demand response, a process whereby businesses called aggregators organize energy consumers willing to reduce consumption during times of peak electricity demand and bid this reduction offer into the wholesale electricity market.[100] Consumers set a price they would accept to reduce their consumption (notably, from the retail market) by a set amount.[101] This reduction en masse liberates generators to serve other load, yielding the same effect as producing additional electricity without engaging inefficient, expensive, or carbon-intensive resources.[102]

To promote the adoption of such programs, FERC required wholesale market operators to incorporate demand response bids into their market auctions,[103] and subsequently required market operators to pay the same price to both generators producing electricity and demand response aggregators offering to reduce electrical consumption during the same period.[104] Notably, FERC allowed market operators to refuse demand response bids if the relevant state PUC had banned demand response.[105] EPSA, an industry group representing electric power producers, challenged FERC's authority to regulate wholesale compensation for demand response bids, claiming that FERC's regulation of a consumer-focused program "effectively" regulates retail prices and "lure[s]" retail customers into wholesale markets.[106]

The Court disagreed and held that the FPA authorizes FERC to regulate wholesale demand response.[107] In so deciding, the majority made three determinations. First, it found that demand response falls within FERC's authority under the FPA to regulate "rules and regulations affecting

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99. See infra notes 134–139 and accompanying text.

100. *EPSA*, 136 S. Ct. at 767.

101. See id. at 769–70.

102. See id.

103. See Wholesale Competition in Regions with Organized Electric Markets (Order 719), 73 Fed. Reg. 64,100, 64,101 (Oct. 28, 2008) (codified at 18 C.F.R. § 35.28(g)(1) (2015)); see also *EPSA*, 136 S. Ct. at 771. Order 719 carved out an exception for states whose PUCs had barred consumers from participating in demand response aggregation bids. *EPSA*, 136 S. Ct. at 779.

104. Demand Response Compensation in Organized Wholesale Energy Markets (Order 745), 76 Fed. Reg. 16,658, 16,659 (Mar. 24, 2011) (codified at 18 C.F.R. § 35.28(g)(1)(v)).

105. 18 C.F.R. § 35.28(g)(1).

106. *EPSA*, 136 S. Ct. at 777–78.

107. See id. at 774.

or pertaining to" wholesale rates.[108] Recognizing that authorizing FERC to regulate *anything* affecting wholesale rates would give the federal regulator near-infinite breadth,[109] *EPSA* adopted a test from the D.C. Circuit, "limiting FERC's 'affecting' jurisdiction to rules or practices that '*directly* affect the [wholesale] rate.'"[110] It nonetheless found FERC's demand response requirements to have such a direct effect.[111]

Second, the Court held that the order did not violate the FPA's bar on regulating retail energy sales—despite substantial effects on retail transactions—acknowledging that "the wholesale and retail markets in electricity . . . are not hermetically sealed from each other."[112] "[W]hatever the effects at the retail level," the Court observed, "every aspect of the regulatory plan happens exclusively on the wholesale market and governs exclusively that market's rules."[113] Pressing the point further, the Court adopted a test from the recent Natural Gas Act case *Oneok, Inc. v. Learjet, Inc.*, which counsels examining the "*target* at which the state law *aims* in determining whether" a state law (properly) regulates retail rates or (improperly) regulates wholesale rates.[114] All of FERC's justifications for regulating demand response focused on improving the wholesale market.[115] Pressing the point *still* further, the Court highlighted FERC's "notable solicitude" to the states in allowing them to opt out of demand response programs entirely.[116] The majority explicitly endorsed the wholesale demand response orders as "a program of cooperative federalism, in which the States retain the last word."[117]

Finally, the Court reinforced its decision by referencing the FPA's original purpose to "eliminate vacuums of authority over the electricity markets."[118] Both the majority and EPSA recognized that state PUCs

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108. Id. at 773–75.

109. See id. at 774 ("[E]verything—the whole economy, as it were—might influence [utilities'] demand. So if indirect or tangential impacts on wholesale electricity rates sufficed, FERC could regulate now in one industry, now in another, changing a vast array of rules and practices to implement its vision of reasonableness and justice."); see also Elec. Power Supply Ass'n v. FERC, 753 F. 3d 216, 221 (D.C. Cir. 2014) ("The Commission's rationale, however, has no limiting principle."); id. at 235 (Edwards, J., dissenting) (discussing the "specter of limitless federal authority").

110. *EPSA*, 136 S. Ct. at 764 (quoting Cal. Indep. Sys. Operator Corp. v. FERC, 372 F.3d 395, 403 (D.C. Cir. 2004)) (alteration in original). This finding implicitly accepts that the aggregator intermediary bidding into a wholesale market engages entirely in a wholesale transaction.

111. See id. at 774–75.

112. Id. at 776.

113. Id.

114. 135 S. Ct. 1591, 1599 (2015); see also *EPSA*, 136 S. Ct. at 776–77; supra note 53 (noting the Court's cross-application of FPA jurisprudence to the Natural Gas Act and vice versa).

115. *EPSA*, 136 S. Ct. at 776–77.

116. Id. at 779.

117. Id. at 780.

118. Id.

clearly could not regulate demand response bids in wholesale markets.[119] As a result, if FERC lacked authority over these bids, no regulator would have such authority, and wholesale demand response—a policy that Congress had explicitly encouraged—would simply be impossible.[120]

EPSA does not read like a bright line opinion. In fact, the phrase "bright line" appears nowhere in its pages. Rather than the formalistic language of separate spheres, *EPSA* repeatedly refers to the inextricable linkages between wholesale and retail markets that are not "hermetically sealed."[121] Instead of citing prohibitions on case-by-case analysis[122] and decrying "exceptions . . . for particular uses,"[123] *EPSA* examines the "target" of FERC's regulation.[124] Perhaps most tellingly, the case explicitly endorses a program of cooperative federalism under the same New Deal–era FPA provisions once construed to impart exclusive federal jurisdiction.[125]

Scholars have already begun to recognize the momentousness of *EPSA*'s departure from the Court's prior jurisprudence.[126] Demand response seemingly straddles the once-bright line (customers reduce their consumption in the retail market and then bid that reduction into the wholesale market) and *EPSA* signals the Court's preparedness to adapt its understanding of the FPA to further policies presenting similar questions.[127]

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119. Id.

120. See id. at 780–81. It appears that the new arrangement of the energy sector has inspired the Court to come full circle, marshaling the FPA's gap-filling purpose—once derided as a mere "policy declaration of great generality"—to contradict what had been taken as a "clear and specific grant of jurisdiction" in *City of Colton*. See 376 U.S. 205, 215 (1964).

121. *EPSA*, 136 S. Ct. at 776.

122. See supra note 63 and accompanying text (describing *City of Colton*'s repudiation of case-by-case analysis).

123. See supra note 53 and accompanying text.

124. *EPSA*, 136 S. Ct. at 776.

125. See Rossi, Brave New Path, supra note 7, at 414–15, 453 (2016); supra note 67 (defining exclusive jurisdiction). The target test and failure to find exclusive jurisdiction combine to imply a zone of concurrent jurisdiction shared by FERC and state PUCs. See Rossi, Brave New Path, supra note 7, at 436–37.

126. See Matthew R. Christiansen, *FERC v. EPSA*: Functionalism and the Electricity Industry of the Future, 68 Stan. L. Rev. Online 100, 102 (2016), http://www.stanfordlawreview.org/wp-content/uploads/sites/3/2016/04/Christiansen_PROOF.pdf [http://perma.cc/M8MC-G8WS] [hereinafter Christiansen, *FERC v. EPSA*] (arguing that *EPSA* replaces the Court's previous formalist approach to FPA jurisdiction with a functionalist one); Joel B. Eisen, *FERC v. EPSA* and the Path to a Cleaner Electricity Sector, 40 Harv. Envtl. L. Rev. Forum 1, 7–12 (2016) (discussing why *EPSA* is "a [l]andmark [d]ecision, and [i]ts [s]ignificance [c]annot be [u]nderstated"); Rossi, Brave New Path, supra note 7, at 401–03 (exploring how recent energy jurisprudence including *EPSA* erode the traditional dual sovereignty approach to federal–state jurisdiction under the FPA); Jim Rossi & Jon Wellinghoff, *FERC v. EPSA* and Adjacent State Regulation of Customer Energy Resources, 40 Harv. Envtl. L. Rev. Forum 23, 24 (2016), http://harvardelr.com/wp-content/uploads/2016/04/Rossi-Wellinghoff.pdf [http://perma.cc/F29U-9XDL] (discussing *EPSA*'s endorsement of cooperative federalism and potential to facilitate state policy experimentation).

127. Cf. Christiansen, *FERC v. EPSA*, supra note 126, at 109–10 (2016) ("*EPSA* should thus go a long way toward ensuring that the FPA's basic jurisdictional framework . . . can

Most critical discussions have read *EPSA*, along with *Oneok*, to signal the dissolution of the strict bright line approach.[128]

2. Hughes v. Talen Energy Marketing. — In *Hughes v. Talen Energy Marketing, LLC*,[129] decided just a few months after *EPSA*, the Court resolved one element of the federal–state boundary under *EPSA*'s new functionalist framework.[130] *Hughes* concerns attempts by the state of Maryland to encourage new in-state generation in response to concerns that there was insufficient generation available to serve local customers during times of heavy congestion.[131] Believing that a long-term reliable contract would most effectively encourage the construction of generation, the PUC solicited proposals for a new power plant, accepted one plant's rate proposal, and required LSEs to enter into twenty-year contracts with the facility at the rates specified.[132] The "contract for differences" was conditioned on the new facility's successfully selling its capacity at wholesale auction, although it would essentially trade its revenue from that auction to LSEs for the contract price.[133]

Competitors of the facility benefitting from Maryland's program challenged the state's scheme as intrusive on FERC's exclusive jurisdiction over wholesale electricity markets.[134] The Court agreed, holding that Maryland's incentive program effectively sets a wholesale rate determined outside of the market FERC designated as the appropriate mechanism to ensure "just and reasonable" rates, violating the Supremacy Clause.[135] Despite relying on preemption doctrine, the Court took great pains to narrow its holding in *Hughes*.[136] It based its preemption analysis on the fact that the generator did not transfer its capacity to another party in the process of contracting for a rate different than the one available on the wholesale market—with the result that it had no incentive to bid its capacity efficiently—in direct contravention of the market design approved by FERC.[137] The Court declined to hold that FERC's authority preempts any state policies with the potential to affect wholesale rates.[138] Instead,

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accommodate the fundamental changes that will come with the electricity sector of the future.").

128. See supra note 126.

129. 136 S. Ct. 1288 (2016).

130. See Scott B. Grover, The Supreme Court's Platonic Energy Policy, 31 Nat. Resources & Env't 52, 54 (2016) (noting that *Hughes* was closer to a bright line exercise than *EPSA* or *Oneok*, although it too seemed to abandon the formalist test).

131. *Hughes*, 136 S. Ct. at 1294–95.

132. Id.

133. Id. at 1295.

134. Id. at 1296.

135. Id. at 1291–92.

136. Stuart A. Caplan et al., Energy Bar Association Panel Regarding "The Court has Spoken: What Does it All Mean?", 37 Energy L.J. 307, 311 (2016) (stating that *Hughes* was a "very narrow decision about preemption").

137. *Hughes*, 136 S. Ct. at 1295–96.

138. Id. at 1299.

the Court concluded by very deliberately limiting its holding, even seeming to encourage states to continue incentivizing generation according to their policy preferences:

> Our holding is limited: We reject Maryland's program only because it disregards an interstate wholesale rate required by FERC. We therefore . . . do not address the permissibility of various other measures States might employ to encourage development of new or clean generation, including tax incentives, land grants, direct subsidies, construction of state-owned generation facilities, or re-regulation of the energy sector. Nothing in this opinion should be read to foreclose Maryland and other States from encouraging production of new or clean generation through measures "untethered to a generator's wholesale market participation." So long as a State does not condition payment of funds on capacity clearing the auction, the State's program would not suffer from the fatal defect that renders Maryland's program unacceptable.[139]

This new jurisprudence signals a vastly different role for the states in power regulation, seemingly replacing a "separate spheres" conception of federalism with a tolerance for—and even encouragement of—concurrent jurisdiction.[140] The Court in *Hughes* recognized that "[s]tates, of course, may regulate within the domain Congress assigned to them even when their laws incidentally affect areas within FERC's domain."[141] This statement is essentially the converse of the one in *EPSA* that countenances federal regulations with substantial repercussions in the sphere of regulation generally left to the states. Taken together, *EPSA* and *Hughes* suggest that both federal *and* state regulators have wide latitude to regulate in the gaps where the bright line has broken down. This interpretation is bolstered by the Court's citation to *Oneok*, counseling an examination of the "target at which the state law aims."[142]

Although *EPSA* and *Hughes* signal a massive shift in how the Court handles the jurisdictional divide in the FPA, the state of the doctrine after these two cases is not entirely clear. Both cases hold for federal jurisdiction: *EPSA* upholds a federal program against the putative authority of the states, and *Hughes* invalidates a state program as preempted under the FPA. And yet, in acknowledging the grid's interconnectedness and the

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139. Id. (citation omitted) (quoting Brief for Respondents at 40, *Hughes*, 136 S. Ct. 1288 (Nos. 14-614, 14-623), 2016 WL 183803).

140. See Rossi, Brave New Path, supra note 7, at 399; see also *Hughes*, 136 S. Ct. at 1300 (Sotomayor, J., concurring) (calling the FPA a "collaborative federalism statute[]" that "envisions a federal-state relationship marked by interdependence").

141. *Hughes*, 136 S. Ct. at 1290 (citing Oneok, Inc. v. Learjet, Inc., 135 S. Ct. 1591, 1599 (2015)).

142. *Oneok*, 135 S. Ct. at 1599 (emphasis omitted). Although Congress passed the FPA and Natural Gas Act separately, the Court considered provisions used to decide *Oneok* and *Talen* analogous and noted that cases interpreting either of the two statutes are routinely used to interpret the other. *Hughes*, 136 S. Ct. at 1298 n.10; see also supra note 53 (noting the Court's cross-application of FPA jurisprudence to the Natural Gas Act and vice versa).

resulting necessity of cooperative federalism, each also suggests an expanded zone of influence for the states. *EPSA* signals a departure from the bright line analysis that has consistently expanded the scope of federal preemption. *Hughes* supported federal preemption, but only narrowly and through the same functionalist lens developed in *Oneok* and carried through in *EPSA*. The cases still draw on the language of "wholesale"[143]—as the statute plainly dictates that they must—but the test has lost its ring of formalism. After all, even in invalidating a state policy, *Hughes* ends with a direct invitation to the states to continue innovating.[144] Part II will examine the extent to which this invitation rings true.

II. REINFORCING THE FRONT LINE, NOT THE BRIGHT LINE: THE EFFECT OF *EPSA* AND *HUGHES* ON AGGRESSIVE CLEAN ENERGY MANDATES IN CALIFORNIA AND NEW YORK

In his dissent to the decision in *New State Ice Co. v. Liebmann*, Justice Brandeis famously remarked that "[i]t is one of the happy incidents of the federal system that a single courageous state may . . . serve as a laboratory; and try novel social and economic experiments without risk to the rest of the country."[145] Scholars have explored this view of states as "laboratories of democracy,"[146] in many different spheres of law.[147] In few areas, however, has state leadership been more important than in renewable energy.[148] With no comprehensive renewable energy policy on the federal level, states have effectively led the charge in encouraging the construction and use of renewable resources.[149]

In many cases, this state leadership in alternative energy policy was born of frustration with federal inaction.[150] At the turn of the twenty-first

143. See supra note 38 and accompanying text (quoting the FPA's jurisdictional language).

144. See supra text accompanying note 139.

145. 285 U.S. 262, 386–87 (1932) (Brandeis, J., dissenting).

146. See generally Ann Althouse, Vanguard States, Laggard States: Federalism and Constitutional Rights, 152 U. Pa. L. Rev. 1745, 1750–76 (2004) (discussing the origins, meaning, and application of the conception of states as "laboratories of democracy").

147. See, e.g., Kirsten H. Engel, Harnessing the Benefits of Dynamic Federalism in Environmental Law, 56 Emory L.J. 159 (2006) (environmental law); Alexandra B. Klass, Tort Experiments in the Laboratories of Democracy, 50 Wm. & Mary L. Rev. 1501 (2009) (tort law); Thomas R. Oliver, Ideas, Entrepreneurship, and the Politics of Health Care Reform, 3 Stan. L. & Pol'y Rev. 160 (1991) (healthcare law).

148. See, e.g., James W. Coleman, Importing Energy, Exporting Regulation, 83 Fordham L. Rev. 1357, 1358, 1368 (2014) (emphasizing the role of the states as "laboratories of democracy" for energy policy). States have also been hailed as laboratories of democracy in energy industry regulation generally. See FERC v. Mississippi, 456 U.S. 742, 788–89 (1982) (O'Connor, J., concurring in part and dissenting in part) ("States serve as laboratories for the development of new social, economic, and political ideas. . . . Utility regulation itself is a field marked by valuable state invention.").

149. See Felix Mormann, Clean Energy Federalism, 67 Fla. L. Rev. 1621, 1625 (2015).

150. Vicki Arroyo, Kathryn A. Zyla, Gabe Pacyniak & Melissa Deas, State Innovation on Climate Change: Reducing Emissions from Key Sectors While Preparing for a "New Normal,"

century, the George W. Bush Administration and its contemporary Congress elected not to pursue an aggressive climate policy, deprioritizing carbon dioxide reduction in the power sector and abandoning negotiations on the Kyoto Protocol.[151] In response, states like California, New York, and Massachusetts developed renewable energy policies—most notably renewable portfolio standards (RPSs)[152]—under both Democratic and Republican governors.[153] Environmentally conscious energy policymaking on the state level—and congressional stagnation on the federal level—continued into the Obama Administration. Currently, twenty-nine states, Washington, D.C., and three U.S. territories have enacted RPSs,[154]

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10 Harv. L. & Pol'y Rev. 385, 386 (2016). Although state carbon reduction policies expanded rapidly during the George W. Bush Administration, the first RPS in the United States, Iowa's, predates Bush's presidency by nearly twenty years. Iowa's RPS remained the only such policy in the country from 1983 to 1996. By 1999, eight states had RPSs. See Davies, Power Forward, supra note 18, at 1357–58.

151. See Arroyo et al., supra note 150, at 386. There were notable, albeit failed, bipartisan attempts to pass greenhouse gas limitations in the form of a cap-and-trade statute by Senators John McCain, Joseph Lieberman, and John Warner during the Bush Administration; and by Senators Lindsay Graham and John Kerry and Representatives Henry Waxman and Ed Markey during the Obama Administration. See id.

152. A Renewable Portfolio Standard sets a goal to produce a certain percentage or raw amount of electricity renewably by a set date. See Steven Ferrey, Constitutional Disputes in Multiple Dimensions: The *Washington Post*, the *Wall Street Journal*, and Sustainable Energy Law, 25 Fordham Envtl. L. Rev. 251, 273 (2014). RPSs are usually operationalized through the creation of a market for state-issued renewable energy credits (RECs), which are created by the generation of a set quantity of renewable energy. Id. Utilities must maintain a particular balance of RECs—which they may produce themselves or purchase from other generators—to remain RPS compliant. See Steven Ferrey, Chad Laurent & Cameron Ferrey, Fire and Ice: World Renewable Energy and Carbon Control Mechanisms Confront Constitutional Barriers, 20 Duke Envtl. L. & Pol'y F. 125, 145 n.100 (2010) [hereinafter Ferrey et al., Fire and Ice].

153. Arroyo et al., supra note 150, at 386–88.

154. See Database of State Incentives for Renewables & Efficiency, Renewable Portfolio Standard Policies (Aug. 2016), http://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2014/11/Renewable-Portfolio-Standards.pdf [http://perma.cc/29N3-QBN6]. A further nine states have some form of less rigorous alternative energy goals. See Klass & Wilson, supra note 19, at 1809. For a discussion of how the widespread adoption of the RPS has influenced subsequent states to encourage clean energy under the same policy model, see Shelley Welton, Student Article, From the States Up: Building a National Renewable Energy Policy, 17 N.Y.U. Envtl. L.J. 987, 996 (2008). This passing of policy from state to state demonstrates the states' importance as laboratories of democracy for "horizontal" innovation. See Engel, supra note 147, at 182–83. Scholars have also examined the laboratories-of-democracy model's potential for "vertical" innovation, transferring useful policies from the states to the federal government. See Robert R. Kuehn, The Limits of Devolving Enforcement of Federal Environmental Laws, 70 Tul. L. Rev. 2373, 2383 (1996) (referring to federal environmental laws inspired by state legislation as examples of the successful implementation of laboratories of democracy). But see Aaron K. Chatterji, Opinion, Don't Look to States for New Ideas, N.Y. Times (Jan. 11, 2015), http://www.nytimes.com/2015/01/12/opinion/dont-look-to-states-for-new-ideas.html (on file with the *Columbia Law Review*) (suggesting that state policy experimentation has become too partisan and state-specific to realistically influence federal policy).

which are only one of several policy tools for carbon reduction.[155] Although most scholars support more robust federal action (like the adoption of a national RPS), many also see state leadership as a positive development in light of the immense difficulty of national intervention.[156] As the prospect of broad federal action on climate change and renewable power dwindles,[157] states will only become more critical to clean energy development in the United States.

This Part examines how the new energy federalism jurisprudence discussed in Part I will facilitate—or hamper—the policy tools necessary for states to remain an effective vanguard in renewable energy policy. To conduct this analysis, this Part looks to California and New York—arguably the states with the most aggressive renewable energy and greenhouse gas mitigation policies—as models.[158] Section II.A describes California's and New York's ambitious renewable energy and carbon reduction mandates. Section II.B isolates four policy tools—each essential or important to meeting these mandates—that straddle the traditional boundaries between federal and state jurisdiction, evaluating the effect of the new jurisprudence on their viability and potential effectiveness.

A. *A Renewable Power Surge: California's and New York's Aggressive Renewable Energy and Carbon Reduction Mandates*

California and New York have demonstrated exceptional leadership in promoting renewable energy. This section discusses their new, aggressive RPS and greenhouse gas reduction targets, and sketches the policy tools that will be necessary to advance those aims.

1. *California's Renewable Portfolio Standard.* — California has consistently demonstrated extraordinary commitment to establishing a clean electricity

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155. Another example is the Regional Greenhouse Gas Initiative (RGGI, pronounced "Reggie"), a voluntary electricity sector cap-and-trade program that auctions off emissions allowances and uses the proceeds to invest in efficient and renewable generation. See Arroyo et al., supra note 150, at 387.

156. See, e.g., Boyd & Carlson, supra note 1, at 881 ("It is difficult to know, of course, whether a more uniform system of federal regulation would produce a more innovative power sector . . . [b]ut . . . a system that maximizes policy experimentation may turn out to be more of an asset than we realize."); Davies, Power Forward, supra note 18, at 1343 (concluding that RPS policies are best implemented at the federal level); Mormann, supra note 149, at 1680–81 (same); Jim Rossi, "Maladaptive" Federalism: The Structural Barriers to Coordination of State Sustainability Initiatives, 64 Case W. Res. L. Rev. 1759, 1761 (2014) ("Many environmental law policymakers and scholars celebrate adaptive federalism because subnational institutions can better adapt to unique geographic conditions and promote policy experimentation . . . .").

157. See, e.g., Oliver Milman, Donald Trump Presidency a 'Disaster for the Planet', Warn Climate Scientists, Guardian (Nov. 11, 2016), http://www.theguardian.com/environment/2016/nov/11/trump-presidency-a-disaster-for-the-planet-climate-change [http://perma.cc/RFY8-ES9P].

158. See supra note 154 (describing the "horizontal innovation" process by which states transfer clean energy policy ideas among each other).

sector. By 2014, it was the only state to have adopted all five of what Professor Steven Ferrey identifies as the primary legal mechanisms for renewable energy and low-carbon development.[159] Since late 2015, California has doubled down on its commitment, continuing to set what are arguably the country's most aggressive legally binding clean energy requirements.[160] On October 7, 2015, Governor Jerry Brown signed Senate Bill 350, mandating that California procure fifty percent of its electricity from renewable sources by 2030.[161] On September 8, 2016, Governor Brown signed Senate Bill 32, similarly aggressive legislation that requires the state to reduce greenhouse gas emissions forty percent below 1990 levels by 2030.[162] Although this bill affects all sectors that emit greenhouse gases, its mandates will fall heavily on electric utilities, which accounted for twenty percent of California's total greenhouse gas emissions in 2014.[163]

When California first introduced its updated "50 by 30" RPS, it identified several potential tools to reach its target.[164] These included special requirements that utilities procure electricity from clean and efficient sources, similar requirements to encourage demand response, increased coordination with surrounding U.S. states and the Mexican state of Baja California, and a clean energy standard limiting the greenhouse gas emissions associated with any electrical energy sold in California.[165] Since California receives power from the interstate grid, the latter tool would apply to electricity sold in California from both in- and out-of-state sources.[166] The RPS statute also highlighted the importance

159. See Steven Ferrey, Carbon Outlasts the Law: States Walk the Constitutional Line, 41 B.C. Envtl. Aff. L. Rev. 309, 310 (2014). These policies are net metering, RPSs, renewable system benefit charges, carbon and greenhouse gas regulation, and feed-in tariffs. Id. For a discussion of RPSs, see supra note 152. For a discussion of net metering and feed-in tariffs, see infra section II.B.

160. See Chris Nichols, Does California Have the Most Ambitious Clean Energy Goals on the Planet?, PolitiFact (Nov. 3, 2015), http://www.politifact.com/california/statements/2015/nov/03/kevin-de-leon/does-california-have-most-ambitious-clean-energy-g/ [http://perma.cc/JC9T-PEQ4] (finding California State Senate leader Kevin de León's claim that California had the world's most ambitious clean energy targets "mostly true"). Hawaii's RPS, which aims to use 100% renewable energy by 2045, is arguably more aggressive, but Hawaii's economy and electric load are significantly smaller than California's. See id.

161. Cal. Energy Comm'n, Clean Energy & Pollution Reduction Act: SB 350 Overview, http://www.energy.ca.gov/sb350/ [http://perma.cc/8LUG-3W6J] (last visited Feb. 8, 2018).

162. Chris Megerian & Liam Dillon, Gov. Brown Signs Sweeping Legislation to Combat Climate Change, L.A. Times (Sep. 8, 2016), http://www.latimes.com/politics/la-pol-ca-jerry-brown-signs-climate-laws-20160908-snap-story.html [http://perma.cc/ETZ8-LBX9].

163. Cal. Envtl. Prot. Agency, California Greenhouse Gas Emissions for 2000 to 2014, at 5 (2016), http://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf [http:/perma.cc/8V92-CZHR].

164. See Cal. Energy Comm'n, California's 2030 Climate Commitment: Renewable Resources for Half of the State's Electricity by 2030, http://www.arb.ca.gov/html/fact_sheets/2030_renewables.pdf [http://perma.cc/H8RY-9H[J] (last visited Feb. 8, 2018).

165. See id.

166. See id.

of distributed generation (the integration of customer-sited generation into the distribution grid), requiring the PUC to consider its use[167] and using its deployment as an indication of whether a utility failing to comply with the RPS has made sufficient attempts to do so.[168]

These broad sketches are not exhaustive; further policy choices will likely emerge once the PUC has completed a series of studies mandated under SB 350.[169] It is already possible, however, to predict at least some conclusions of those studies. A paper by Jeffery Greenblatt of Lawrence Berkeley National Laboratory indicates that meeting California's ambitious goals will be achievable, if at all,[170] only if the state phases out imported power from coal plants, makes extensive use of distributed generation, increases energy storage capacity, and electrifies significant parts of the transportation and building sectors.[171]

2. *New York's Clean Energy Standard.* — In August 2016, New York joined California in setting an enforceable mandate to obtain fifty percent of electricity from renewables by 2030.[172] The so-called Clean Energy Standard (CES) is New York's first binding mandate, but it enters into force on the heels of other sweeping climate and energy goals within the state.[173] New York has folded the CES into an ongoing energy policy strategy overhaul called Reforming the Energy Vision (REV), which aims to rethink and reorganize utility models to better incorporate renewable generation into the wholesale and retail grids.[174] REV is structured

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167. See Cal. Pub. Util. Code § 400(b) (West 2017). Distributed generation is generation that feeds directly into the distribution grid. It can be consumer-sited (like residential solar panels) or owned by a utility. See U.S. Dep't of Energy, The Potential Benefits of Distributed Generation and Rate-Related Issues that May Impede Their Expansion: A Study Pursuant to Section 1817 of the Energy Policy Act of 2005 xvi (2007), http://www.ferc.gov/legal/fed-sta/exp-study.pdf [http://perma.cc/N3W6-Z9RQ].

168. Cal. Pub. Util. Code § 399.15(b)(5)(B)(iv).

169. See Cal. Pub. Res. Code § 25327 (West 2016).

170. See Jeffrey B. Greenblatt, Modeling California Policy Impacts on Greenhouse Gas Emissions, 78 Energy Pol'y 158, 158–72 (2015) (modeling the success of California's greenhouse gas emissions reduction targets under various policy scenarios and finding that only some of the modeled scenarios result in meeting 2030 emissions targets and that none meet 2050 targets).

171. See id.

172. Order Adopting a Clean Energy Standard, Case Nos. 15-E-0302 & 16-E-0270 (N.Y. Pub. Serv. Comm'n Aug. 1, 2016) (on file with the *Columbia Law Review*) [hereinafter N.Y. 50 by 30 Order].

173. Press Release, Office of Governor Andrew M. Cuomo, Governor Cuomo Announces Establishment of Clean Energy Standard that Mandates 50 Percent Renewables by 2030 (Aug. 1, 2016), http://www.governor.ny.gov/news/governor-cuomo-announces-establishment-clean-energy-standard-mandates-50-percent-renewables [http://perma.cc/XH92-RRM3].

174. See Andrew Ratzkin, You Say You Want a REV Solution: Considering New York's Marquee Energy Initiative as Climate Change Policy, 41 Colum. J. Envtl. L. 471, 474–79 (2016); Rory Christian, New York Takes a Major Step Toward Rethinking Utility Economics, Envtl. Def. Fund: Energy Exchange (June 2, 2016), http://blogs.edf.org/energyexchange/2016/06/02/new-york-takes-a-major-step-toward-rethinking-utility-economics/ [http://perma.cc/

primarily around the increased use of distributed generation.[175] Like California, New York has established carbon emissions reduction goals in addition to its RPS, including a forty percent reduction from 1990 levels by 2030 and an 80 percent reduction by 2050.[176]

New York's "50 by 30" order acknowledges that achieving its ambitious goal will require more than simply mandating that load-serving entities acquire a certain percentage of their power from renewable sources.[177] The order emphasizes that to actually meet the mandate, utilities and other power providers must procure significant new renewable resources, including "a mixture of technologies and combinations that are not fully developed at this time."[178] The order further recognizes that accomplishing the renewable generation and carbon-mitigation objectives while maintaining grid reliability will require the increased use of demand response and storage.[179] In light of these determinations, the order mandates a triennial review process to determine, among other things, the effectiveness of compliance mechanisms and fuel diversity.[180]

B. *Federalism Challenges on the Horizon:* EPSA, Hughes, *and State Policy Tools*

New York's and California's objectives are unprecedented in their aggressiveness, and each state is still finalizing its roadmap to achieve them. Both still have significant planning ahead of them, with established procedures for adjustment along the way.[181] This section examines four policies[182] central to New York's and California's nascent renewable energy

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Q6CV-5ALY]; N.Y. State, Reforming the Energy Vision, http://rev.ny.gov [http://perma.cc/VQ6U-5EHA] (last visited Feb. 8, 2018).

175. Order Adopting Regulatory Policy Framework and Implementation Plan, Case No. 14-M-0101 (N.Y. Pub. Serv. Comm'n Feb. 26, 2015) (on file with the *Columbia Law Review*) ("[T]he objective of REV is to create a marketplace for [distributed generation] based upon consumer information and choice . . . .").

176. Id. at 2 & n.1, 77–78. As in California, these RPS and carbon reduction policies are complementary but do not serve identical aims. The RPS exists not only to lower carbon dioxide emissions but also to diversify the generation mix, which may offer system-wide benefits—often in the form of cost, reliability, or flexibility—beyond the service of environmental aims. See id. at 77–78.

177. N.Y. 50 by 30 Order, supra note 172, at 77 ("The 50 by 30 goal is a cumulative outcome that will be achieved through a number of activities in addition to the LSE mandatory obligation."). The RPS does include a market for RECs, as is standard under such policies. See id. at 106–07; supra note 152.

178. N.Y. 50 by 30 Order, supra note 172, at 18. Enticing investors to develop and build these technologies will likely require the promise of substantial and sustained compensation.

179. Id. at 74, 86.

180. Id. at 117–18.

181. See id. (noting New York's triennial review process). California's Energy Commission will review that state's sixteen largest public utilities' plans to meet long-term goals beginning in 2019. See Cal. Energy Comm'n, supra note 161 (noting California's PUC's review of utility integrated resource plans).

182. Net metering, feed-in tariffs, incentives to enter wholesale markets, and restrictions on out-of-state power.

goals that, like demand response in *EPSA*,[183] blur the traditional bright line between wholesale transmission and retail distribution. It discusses preemption challenges that have plagued these policies in the past and evaluates the degree to which the Court's most recent jurisprudence has resolved those questions—or created new ones.

1. *Distributed Generation and Net Metering.* — New York and California have both expressed a clear interest in meeting their renewable energy goals through distributed generation.[184] Both states support distributed generation through a policy called net metering, currently the dominant method of compensating distributed resources.[185] Under a net metering scheme, customers with onsite generation or storage can both draw electricity from and feed excess electricity to the distribution grid. At the end of the billing period, the utility charges the customer only for its net use of electricity.[186] This method of compensation is a form of subsidy, since the customer effectively receives the retail rate—usually two to six times higher than the wholesale rate an independent generator on the transmission system would receive—for electricity "sold" to the grid.[187] Although both California and New York have considered revising their net metering

183. See supra section I.C.

184. See supra note 167 (defining distributed generation). Distributed generation is among one of the only methods of meeting state goals advanced directly in the legal documents setting the goals in the first place. See Cal. Pub. Util. Code § 400(a) (West 2017); N.Y. 50 by 30 Order, supra note 172, at 3.

185. See Melissa Powers, Small Is (Still) Beautiful: Designing U.S. Energy Policies to Increase Localized Renewable Energy Generation, 30 Wis. Int'l L.J. 595, 635 (2012) (describing net metering as the "dominant" policy to support distributed generation); Herman K. Trabish, Inside the Decision: California Regulators Preserve Retail Rate Net Metering Until 2019, Util. Dive (Feb. 1, 2016), http://www.utilitydive.com/news/inside-the-decision-california-regulators-preserve-retail-rate-net-meterin/413019/ [http://perma.cc/6VC9-HF8U] (describing California's net metering policy).

186. See Giovanni S. Saarman González, Comment, Evolving Jurisdiction Under the Federal Power Act: Promoting Clean Energy Policy, 63 UCLA L. Rev. 1422, 1442 (2016).

187. David B. Raskin, The Regulatory Challenge of Distributed Generation, 4 Harv. Bus. L. Rev. Online 38, 41 (2013), http://www.hblr.org/wp-content/uploads/2013/12/Raskin_The-Regulatory-Challenge-Of-Distributed-Generation.pdf [http://perma.cc/77UA-QYJK]. This creates a cost-shifting problem, beyond the scope of this Note, often called the "death spiral." The retail rate includes the cost of maintaining distribution infrastructure as well as the cost of energy. Therefore, when distributed generators receive discounts in the amount of the retail rate, they are not only avoiding costs for energy they *did not* use but also avoiding costs for grid infrastructure they *did* use. This subsidy places the burden of paying for grid infrastructure entirely on the remaining customers, who are often lower-income and unable to afford onsite generation like rooftop solar panels. The "death spiral" occurs when affluent customers without onsite generation see the resulting rate spikes and procure onsite generation to avoid them, compounding the problem. See Carrie Downey, Is Net Energy Metering Cost-Effective in California's 50% Renewable Portfolio Standard Future?, 21 Nexus: Chap. J. L. & Pol'y 11, 14–15 (2015–2016).

policies, both states will continue to implement the scheme described above for the time being.[188]

Like demand response, distributed generation and net metering straddle the traditional bright line between federal and state jurisdiction.[189] The same customers who purchase electricity from the distribution grid at retail appear to sell electricity back to the same grid at wholesale, breaking down the customary notion of the distribution market as an enclave of retail transactions and, by extension, state control. With the "bright line" gone, opponents of distributed generation—probably utilities or generators losing business to residential solar—could argue that states should be preempted under the FPA from setting the (technically wholesale) rate, whether states choose to pay distributed generators the retail rate or some other compensation. Under this logic, states could set the relevant wholesale rate only if distributed generators qualified as QFs under PURPA.[190] Even then, this rate would be limited to the relevant utility's avoided cost for energy, which is significantly less than the retail rate.[191]

Nevertheless, FERC has consistently disclaimed jurisdiction over net metering compensation schemes.[192] In a pair of administrative adjudications, FERC determined that transferring customer-sited power to the retail grid under a net metering scheme does not constitute a "sale" subject to federal jurisdiction as long as energy consumed exceeds energy fed into the grid within a single billing period.[193] Under this conception, the customer's contributions to the distribution system merely offset

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188. Utilities have lobbied California's PUC to offset producers' bills by less than the retail rate, but the state has preserved its net metering policy until at least 2019. See Trabish, supra note 185. Likewise, even if New York adopts the most viable alternative compensation scheme for net metering, residential customers will likely remain under—or in transition from—a standard net metering scheme for up to twenty-five years. See Comments of the Solar Progress Partnership on an Interim Successor to Net Energy Metering, Case 15-E-0751, at 16–17 (N.Y. Pub. Serv. Comm'n, Apr. 18, 2016) (on file with the *Columbia Law Review*) (suggesting an alternative compensation scheme, to be phased in during a transition period of between fifteen and twenty-five years).

189. See Saarman González, supra note 186, at 1444.

190. As amended by the Energy Policy Act of 2005, PURPA explicitly allows net metering. See EPAct 2005, 16 U.S.C. § 2621 (2012). PURPA does not, however, seem to endorse an offset equal to the retail rate or, for that matter, any rate higher than the value of the energy itself. See Raskin, supra note 187, at 42–43.

191. See supra note 81 (defining avoided cost).

192. Rossi & Wellinghoff, supra note 126, at 29.

193. MidAmerican Energy Co., Order Denying Request for Declaratory Order, 94 FERC ¶ 61,340, para. 7 (Mar. 28, 2001) (on file with the *Columbia Law Review*); Sun Edison, LLC, Declaratory Order, 129 FERC ¶ 61,146, para. 18 (Nov. 19, 2009), http://www.ferc.gov/whats-new/comm-meet/2009/111909/E-29.pdf [http://perma.cc/5GQV-TRRY]. If the distributed generator produces more than it consumes, then the rate applied falls under FERC jurisdiction under the FPA or state jurisdiction under PURPA. See Nordhaus, supra note 28, at 208. Under current FERC regulations, generators smaller than 1 megawatt may self-designate as PURPA-eligible QFs without filing with FERC. See Raskin, supra note 187, at 43–44.

consumption and net to a single unidirectional retail sale.[194] Before *EPSA*, however, the days of FERC's repudiating authority over these net sales appeared numbered. A pair of D.C. Circuit cases in 2010 and 2012 held that FERC could not define the converse of net metering—allowing generation facilities that export energy at wholesale to subtract their retail consumption of grid energy from their wholesale energy production as long as they export more than they consume during a "netting" period determined by FERC—as a single net transaction instead of a series of individual sales on two different markets.[195] It is highly plausible that a court would find the same with respect to net metering, were the question presented.[196] The primary question, therefore, is whether *EPSA* and *Hughes* reinforce state authority over net metering rates.

In all likelihood, the precedent set by *EPSA* will reinforce this state authority, or at least save FERC's jurisdictional disclaimer. *EPSA*'s adoption of the "target" test from *Oneok* suggests that "the how and the why" of state regulation plays a significant role in its permissibility when the regulated activity does not fall cleanly within federal or state jurisdiction.[197] Net metering policies operate on the distribution grid to advance a particular type and location of generation and to influence retail customers—by all accounts the traditional domain of the states.[198] Of course, the target test was not enough to save Maryland's policy in *Hughes*—also aimed at the type and location of generation—which the Court found to directly defy a wholesale market rate.[199] Crucially, however, the Maryland PUC offered a rate contrary to the one set by a wholesale market that FERC recognized explicitly and regulated heavily.[200] FERC makes no comparable

194. See Dennis et al., supra note 41, at 13.

195. See Calpine Corp. v. FERC, 702 F.3d 41, 42, 45 (D.C. Cir. 2012); S. Cal. Edison Co. v. FERC, 603 F.3d 996, 1000–01 (D.C. Cir. 2010). The *Edison* court noted that FERC's determination of "whether a retail sale occurs [based] on the length of the netting period . . . seems rather arbitrary and unprincipled—certainly as a jurisdictional standard." *Edison*, 603 F.3d at 1000.

196. The central issue in *Calpine* and *Edison* is that the sales occur on two separate markets. Since FERC does not have authority over both retail and wholesale transactions, it cannot declare netting appropriate (*Calpine* and *Edison* left open the possibility that FERC could allow netting if all sales were at wholesale and therefore FERC-jurisdictional). See *Calpine*, 702 F.3d at 45; *Edison*, 603 F.3d at 1000. It is only a minute inferential step to generalize this holding to find that if no single regulator (state or federal) has authority over both types of transaction, no regulator has the authority to declare netting appropriate.

197. See Grover, supra note 130, at 53.

198. See PPL Energyplus, LLC v. Solomon, 766 F.3d 241, 255 (3d Cir. 2014) ("The states may select the type of generation to be built—wind or solar, gas or coal—and where to build the facility."); Matthew R. Christiansen, Comment, FPA Preemption in the 21st Century, 91 N.Y.U. L. Rev. Online 1, 23 & n.115 (2016), http://www.nyulawreview.org/sites/default/files/NYULawReviewOnline-91-Christiansen_0.pdf [http://perma.cc/BG2E-EPEF] ("[E]ven after unbundling, nobody questions that States retain authority to directly influence the generation mix . . . .").

199. See Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1298 (2016).

200. See id. at 1294.

effort to recognize or regulate a wholesale market for generation on the distribution system. As a result, there are no federal rates for state PUCs to defy.

Further, if states lacked jurisdiction to regulate net metering, FERC's disavowal of—and apparent lack of interest in asserting—such authority could create a regulatory gap, a specter totally absent from *Hughes*.[201] *EPSA* reinforced that the FPA abhors a vacuum.[202] In *EPSA*, preserving a useful policy required FERC to regulate arguably retail activity. To preserve a similar policy here, states must maintain authority over the arguably wholesale component of net metering.

Even if a court were to find unmistakable federal jurisdiction over net metering, *EPSA* would probably preserve the ability of PUCs to set rates in line with state policies as long as they have FERC's (implicit or explicit)[203] blessing to do so.[204] By endorsing cooperative federalism in demand response, *EPSA* strongly suggests that FERC's deference to state policy choices—at least in the interstices between the traditional spheres of federal and state jurisdiction—is appropriate even where FERC could arguably preempt those choices.[205]

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201. There is a nuanced distinction between demand response and net metering. In *EPSA*, a failure to find federal jurisdiction would have created a gap because state jurisdiction is *impossible*. In the net metering context, a failure to find state jurisdiction would create a gap because federal jurisdiction is plausible but *disavowed*. Since the Court seemed to accept the possibility of concurrent jurisdiction in *Oneok* and *EPSA*—replacing its prior imposition of exclusive jurisdiction—a finding that FERC could (but has not) claimed jurisdiction does not automatically preempt a PUC's taking jurisdiction. See supra notes 67, 125 (discussing interpretations of the FPA as embodying exclusive and concurrent jurisdiction respectively).

202. FERC v. Elec. Power Supply Ass'n, 136 S. Ct. 760, 780 (2016).

203. *EPSA*'s apparent disavowal of a dual sovereignty interpretation of the FPA also challenges its potential to field preempt state regulation. Even if FERC does not explicitly invite states to regulate net metering, such state regulation may continue as long as FERC has not passed regulations under the FPA that conflict with state authority over net metering. See supra note 65 (describing and contrasting field, impossibility, and obstacle preemption).

204. See Jessica Bulman-Pozen, Executive Federalism Comes to America, 102 Va. L. Rev. 953, 1023–24 (2016) (arguing that agency assertions of "nonpreemption" should receive as much or more deference from courts as determinations of preemption). But see Raskin, supra note 187, at 45 (arguing that if customer injections into the distribution grid were FERC-jurisdictional wholesale transactions, FERC would be forced to recognize state rates as unduly discriminatory—and therefore prohibited by the FPA—because resources on the transmission and distribution grids receive different compensation).

205. See Christiansen, *FERC v. EPSA*, supra note 126, at 108 ("FERC's attempt to draw quasi-jurisdictional lines consistent with the purposes underlying the FPA is exactly the type of functional approach to its jurisdiction that the Court endorsed in *EPSA*."); Rossi & Wellinghoff, supra note 126, at 29. Granted, the scope of FERC's forbearance would be greater in the net metering context than it was in *EPSA*. In that case, states had only a binary choice—to allow demand response or not. See supra notes 115–117 and accompanying text. In the net metering context, states would also set the rates. *EPSA*, however, gave no indication that a simple yea or nay was the upper limit of discretion that FERC could give a state PUC.

2. *Feed-in Tariffs.* — Feed-in tariffs (FITs) are policy instruments that require utilities to purchase renewable energy over an extended period of time at a guaranteed (usually above-market) rate, often the sum of the market rate for electricity and a uniform or technology-specific premium.[206] Feed-in tariffs, popular in Europe,[207] are often considered alternatives (rather than complements) to RPS and CES policies.[208] Nonetheless, there is significant evidence that FITs are more effective incentives for renewable power than RPSs alone.[209] To the extent that the two policies can work compatibly,[210] their combination will be important—if not central—to renewable energy procurement goals as aggressive as California's and New York's.

In 2012, California adopted a FIT called the ReMAT geared toward small distributed generation,[211] and the New York Public Service Commission has considered a (FIT-like) bundled energy and REC plan, although it

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206. See Mormann, supra note 149, at 1631–32; Feed-In Tariffs, Nat'l Renewable Energy Lab., http://www.nrel.gov/technical-assistance/basics-tariffs.html [http://perma.cc/F8W5-S6FB] (last visited Feb. 23, 2018). The purpose of setting a technology-specific premium is to ensure that renewable energy investors do not flood the market with the cheapest form of eligible generation (to earn the greatest profit) at the expense of a diverse renewable energy mix. See id. ("So long as the payment levels are differentiated appropriately, FIT policies can increase development in a number of different technology types over a wide geographic area.").

207. Powers, supra note 185, at 641–43.

208. See Ferrey et al., Fire and Ice, supra note 152, at 144 (describing RPSs as "an alternative to feed-in tariffs"); Mormann, supra note 149, at 1628 n.25 (citing scholarship treating RPSs and FITs as mutually exclusive).

209. See Lincoln L. Davies, Reconciling Renewable Portfolio Standards and Feed-in Tariffs, 32 Utah Envtl. L. Rev. 311, 333–34 (2012) (describing comparative studies of FIT and RPS programs in Europe that found greater renewable production in jurisdictions with FIT policies).

210. Professor Felix Mormann has proposed a "hand-in-glove" model for the establishment of a FIT to enhance an RPS. Mormann, supra note 149, at 1628. He argues that an RPS eliminates "regulatory risk" by creating a market for renewables and letting that market set an efficient rate for RECs, but that it does little to mitigate "investor risk," the chance that a given renewable generator will not find a buyer or will face market complications from having to sell power and RECs on separate, often wildly different markets. See id. at 1661–64; see also supra note 152 (defining RECs and explaining their role in RPSs). Layering a FIT over the RPS eliminates this investor risk by guaranteeing investors both a buyer and a competitive rate. In Professor Mormann's model, renewable generators reap the benefits of both policies simultaneously by selling their energy and RECs to a single utility at a competitively determined rate that incorporates the value of the energy (the market price for electricity) and of its renewable character (the market price for RECs). See Mormann, supra note 149, at 1667–69. Notably, the relationship is symbiotic. Not only does the RPS benefit from an incentive to invest in renewable power generation, but the FIT also benefits from a competitive REC market to set the tariff efficiently. See id. at 1661. Professor Lincoln Davies previously described a similar model for reconciling RPS and FIT policies. See Davies, supra note 209, at 313–14. Mormann's and Davies's proposals both involve, in Davies's words, using "the RPS [to] set the renewable energy target desired and using the FIT as the primary incentive for greater [renewable energy] production." Id. at 314.

211. Decision Revising Feed-In Tariff Program, Decision No. 12-05-035, at 2 (Cal. Pub. Utils. Comm'n May 24, 2012) (on file with the *Columbia Law Review*).

has not called it a FIT.[212] The Commission acknowledged in its "50 by 30" order that investor concerns have the potential to limit the state's renewable energy goals, even with a mandatory RPS in place.[213] If New York's new clean energy procurement does not meet its intended schedule, it could implement a FIT or FIT-like program, pursuant to its triennial review process, to alleviate the investor anxiety it has already identified.

Like net metering, FITs do not fit comfortably on one side of the bright line. They deal primarily with procuring generation—a responsibility traditionally left to the states[214]—but they do so by compensating generators for their *wholesale* contributions to the grid. Also like net metering, state FIT programs have faced administrative challenge in the past and emerged with only a partial solution from FERC. Before its adoption of the ReMAT, California operated a differently structured FIT requiring utilities to purchase electricity from combined heat and power generators—without regard to QF status under PURPA[215]—at a price determined by the California PUC.[216] In implementing the FIT, the PUC sought a declaratory order from FERC that the FPA and PURPA did not preempt the tariff structure, arguing in part that the environmental concerns motivating the regulation should override arguments in favor of preemption.[217]

FERC's response was mixed. It held firmly against California's assertion that the PUC could define an offer price for non-QF generators on environmental or other grounds, finding that California's FIT impermissibly set a wholesale rate and was therefore preempted by the FPA.[218] FERC did allow, however, that insofar as the desired generation qualifies as a QF under PURPA, California maintains broad authority to determine the avoided cost at which it must be compensated.[219] In a clarifying order, FERC held that California may, consistent with PURPA, adopt a "multi-tiered avoided cost rate structure" that sets the required rate not at the lowest possible avoided cost but at the avoided cost of sourcing

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212. See Order Adopting Regulatory Policy Framework and Implementation Plan, Case No. 14-M-0101, at 82 (N.Y. Pub. Serv. Comm'n Feb. 26, 2015) (on file with the *Columbia Law Review*).

213. See N.Y. 50 by 30 Order, supra note 172, at 99 ("Investors simply will not look to build renewable generation facilities without sufficient certainty that they will successfully earn a return . . . . Without the assurances that a long-term contract [or similar mechanism] provides, the renewable generation projects that the State requires will not come to fruition."); see also supra note 210 (discussing investor concerns as a reason to layer a FIT over an RPS).

214. See supra note 203.

215. See supra notes 80–83 and accompanying text (discussing PURPA and QFs).

216. See Saarman González, supra note 186, at 1450.

217. See Cal. Pub. Utils. Comm'n, Order on Petitions for Declaratory Order, 132 FERC ¶ 61,047, paras. 36, 37 (July 15, 2010), http://www.ferc.gov/whats-new/comm-meet/2010/071510/E-1.pdf [http://perma.cc/U5EB-HKHK].

218. Id. para. 64.

219. Id. para. 65.

electricity from similar (in this case, renewable) sources, as long as state rules require utilities to procure electricity from "generators with certain characteristics."[220] This facilitates the central aim of a FIT—providing otherwise less-competitive renewables with a competitive rate. ReMAT is the result of California's attempt to comply with FERC's rulings.[221]

Recent scholarship has argued that FERC's position is a boon for states attempting to create FITs and RPSs in tandem.[222] It is, however, a limited boon. States must constrain their policies to QFs under PURPA and may set avoided cost rates tailored to renewable energy only under specific state policies. For California and New York, these limitations probably do not present significant challenges; both states intend to encourage the kind of small generation that can qualify for PURPA and already have expansive RPSs.[223]

Further, *EPSA* likely supports FERC's broad grant of rate-setting authority to the states with respect to QFs. Although the actual grant of state authority over QF compensation comes from PURPA (which the Court has long acknowledged embodies cooperative federalism)[224] and not the core of the FPA, the Court's strong endorsement of cooperative federalism in the latter reinforces its application to the former.[225] Likewise, *Hughes* does not counsel for preemption. Unlike the large power plant in *Hughes*, QFs under PURPA need not clear a capacity auction to

220. Cal. Pub. Utils. Comm'n, Order Granting Clarification and Dismissing Rehearing, 133 FERC ¶ 61,059, para. 27 (Oct. 21, 2010), http://www.ferc.gov/whats-new/comm-meet/2010/102110/E-2.pdf [http://perma.cc/ 4FJ2-63CC].

221. See Decision Revising Feed-In Tariff Program, supra note 211, at 38–39.

222. See Kaylie E. Klein, Comment, Bypassing Roadblocks to Renewable Energy: Understanding Electricity Law and the Legal Tools Available to Advance Clean Energy, 92 Or. L. Rev. 235, 259 (2013); Saarman González, supra note 186, at 1452–53.

223. See supra section II.A (describing California's and New York's RPS policies). Notably, FERC's position does place technology-specific FITs out of reach without very narrowly tailored RPS policies that include specific procurement requirements for each renewable technology. See Powers, supra note 185, at 654.

224. See supra note 82 and accompanying text (identifying PURPA as a scheme of cooperative federalism).

225. In a second holding beyond the scope of this Note, *EPSA* also confirmed what scholars have called the Supreme Court's "thin" rationality review of, or "super deference" to, many FERC decisions "because their subject matter is technical and complex." See Sharon B. Jacobs, Energy Deference, 40 Harv. Envtl. L. Rev. Forum 49, 55 (2016), http://harvardelr.com/wp-content/uploads/2016/04/Jacobs.pdf [http://perma.cc/7HMG-L49L]. The fact that the Supreme Court continues to defer to FERC beyond the traditional level of agency deference further blesses FERC's avoided cost decision.

run;[226] they therefore have no incentive or ability to distort a carefully regulated competitive market as the *Hughes* court feared.[227]

3. *FIT-Like Incentives for New Generation to Join Wholesale Markets.* — With the assistance of favorable administrative interpretations of PURPA, states have significant authority to incentivize renewable QF generators through FITs valued at the avoided cost for renewable generation. In the wake of *EPSA* and *Hughes*, however, the question remains how states can encourage *non-QF* generation to enter the wholesale capacity and energy markets in which the majority of electricity is traded.[228] California and New York both have ISO-operated energy and capacity markets,[229] and both states have stressed the need for significant new renewable generation capacity to meet their "50 by 30" goals.[230]

Although *Hughes* bars states from requiring utilities to guarantee generators a wholesale energy rate other than the one FERC deems "just and reasonable," its limited holding did not necessarily preempt "other measures States might employ to encourage . . . new or clean generation."[231] In fact, in addition to the means explicitly listed in the opinion (such as tax incentives, direct subsidies, and land grants), *Hughes* may have hinted at a very strong method by which states like New York and California could entice utility-scale renewables into their capacity and energy markets: mandated bilateral contracting.

In *Hughes*, Maryland argued that its incentive policy should not be preempted because its contract for differences was indistinguishable from a (permissible) bilateral contract for capacity, in which an LSE contractually engages a generator's capacity and bids it into the auction as its own.[232] Resolving the point against Maryland, the Court identified only one material difference between the circumstances in *Hughes* and a

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226. See Fed. Energy Reg. Comm'n, What Are the Benefits of QF Status?, http://www.ferc.gov/industries/electric/gen-info/qual-fac/benefits.asp [http://perma.cc/SG2V-A2LZ] (last updated Dec. 29, 2017) ("QFs also generally have the option to sell energy either 'as-available' . . . or as part of a legally enforceable obligation for delivery of energy or capacity over a specified term.").

227. See Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1298 (2016).

228. See supra notes 20–21 and accompanying text (noting that two-thirds of electricity in the United States passes through ISOs or RTOs).

229. See Cal. Indep. Sys. Operator, Capacity Markets—General Background Information 2, http://www.caiso.com/Documents/CapacityMarketGeneralOverview.pdf [http://perma.cc/V22S-U5S6] (last visited Feb. 23, 2018); Cal. Indep. Sys. Operator, Market Processes and Products, http://www.caiso.com/market/Pages/MarketProcesses.aspx [http://perma.cc/7BPE-XWYG] (last visited Feb. 8, 2018); N.Y. Indep. Sys. Operator, NYISO Markets: New York's Market Place for Wholesale Electricity 4, http://www.nyiso.com/public/webdocs/media_room/publications_presentations/Other_Reports/Other_Reports/NYISO%20Markets%20-%20New%20Yorks%20Marketplace%20for%20Wholesale%20Electricity.pdf [http://perma.cc/X2UG-5YKE] (last visited Feb. 23, 2018).

230. See supra note 177 and accompanying text.

231. See *Hughes*, 136 S. Ct. at 1299.

232. See id.

bilateral transaction: that the contract for differences allowed the generator to bid its own capacity rather than transferring capacity ownership to LSEs, removing the generator's incentive to send useful price signals.[233] What the Court did *not* identify as a material difference is that a traditional bilateral transaction is the product of arm's length negotiation, whereas Maryland's contract was forced on the utilities.[234] This suggests that a bilateral contract for a long-term (and possibly above-market)[235] wholesale transaction—even one the state requires utilities to enter—may be a legally feasible means of procuring "new or clean" generation. Even if the LSE-as-buyer sustains a loss (by paying an above-market rate in a bilateral capacity transaction but receiving the market rate when bidding that capacity into the auction), it is undoubtedly the *state PUC* with the authority to allow the LSE to recover those losses in the retail market.[236]

Granted, such a bilateral transaction would occur at wholesale and would therefore require FERC's certification as a just and reasonable rate,[237] but if FERC deemed a mandated purchase in line with state authority to be the basis of a just and reasonable rate—particularly given states' "traditional authority over . . . in-state generation"[238]—then it could theoretically allow such bilateral transactions to occur. Rather than being entirely preempted as it might have been before *EPSA* and *Hughes*, such a strategy may now rely—as must net metering and feed-in tariffs—on cooperative federalism. The legitimacy of state-mandated bilateral

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233. See id.

234. See id. at 1294.

235. See id. at 1299. Admittedly, this is almost the exact same policy structure that FERC struck down in *California Public Utilities Commission*. See Cal. Pub. Utils. Comm'n, Order on Petitions for Declaratory Order, 132 FERC ¶ 61,047, para. 64 (July 15, 2010), http://www.ferc.gov/whats-new/comm-meet/2010/071510/E-1.pdf [http://perma.cc/U5EB-HKHK]. The commission may reconsider this ruling in light of *EPSA*'s endorsement of collaborative federalism and *Hughes*'s implied leniency toward bilateral contracts.

236. See supra note 38 and accompanying text (quoting the FPA).

237. See *Hughes*, 136 S. Ct. at 1292. FERC usually approves bilateral contracts under the *Mobile-Sierra* doctrine, which requires FERC to "presume that the rate set in a freely negotiated wholesale-energy contract meets the 'just and reasonable' requirement imposed by [the FPA]." Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1, 554 U.S. 527, 530 (2008). The bilateral transactions described here, however, may not get the rubber stamp required by that doctrine. Although the *Mobile-Sierra* doctrine as applied to date may be "overcome only if FERC concludes that the contract seriously harms the public interest," it is possible that *mandated* contracts require closer examination. See id. As a result, FERC may have to make an independent determination of the rate's reasonableness.

238. *Hughes*, 136 S. Ct. at 1299. Equally importantly, FERC Order 1000 already mandates that transmission planning take into account state policies, including renewable energy procurement goals. See Order No. 1000, Transmission Planning and Cost Allocation by Transmission Owning and Operating Pub. Utils., 76 Fed. Reg. 49,842 (2011) (codified at 18 C.F.R pt. 35); Richard B. Miller, Neil H. Butterklee & Margaret Comes, "Buyer-Side" Mitigation in Organized Capacity Markets: Time for a Change?, 33 Energy L.J. 449, 457 (2012) (discussing Order 1000's requirement that transmission entities consider "public policy" set by the states). The same could be applied to generation planning and participation in capacity markets.

contracting therefore makes sense not only as a literal interpretation of *Hughes* but also as a practical way of upholding FERC's regulatory authority. Maryland's scheme *bypassed* FERC's rate-regulation scheme by guaranteeing a rate that FERC had no chance to review (either directly or through a market mechanism). Conversely, mandated bilateral contracting would not bypass FERC review, as contracts could go forward only with FERC's approval.

If the above-described scheme is indeed workable, it could be operationalized like a feed-in tariff layered over an RPS.[239] States could mandate that LSEs enter bilateral contracts with renewable generators at the market rate for capacity plus a premium based on the market rate for RECs.[240] FERC has already suggested that such a rate is appropriate for setting avoided cost under PURPA;[241] there is no reason to believe that, given the choice, it would not approve such a rate as just and reasonable.[242] Admittedly, this sort of mandate—which not only requires utilities to contract for renewable energy but also sets a price—stretches the new doctrine to its limits, but weaker forms are also possible. Instead of setting a particular rate, states could merely require utilities to contract with certain renewable energy providers at a bargained-for rate, or—in its weakest form—require utilities to negotiate with renewable energy providers without a requirement to buy. Connecticut has tried both of these weaker-form strategies, and the resulting judicial and administrative precedents (both pre- and post-*EPSA*) signal hope for both types of policy.

In 2013, Connecticut's legislature authorized the state Department of Energy and Environmental Protection to solicit proposals for renewable energy projects and to direct utilities in the state to enter bilateral contracts with selected projects.[243] The Department did so, and a power producer that did not submit a winning proposal sued in federal court.[244] Writing before the decision in *EPSA*, the district court held that Connecticut's actions did not impermissibly set an interstate rate; instead it permissibly regulated retail utilities within the State's jurisdiction.[245] When the Second Circuit determined that the issue was not ripe for judicial determination

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239. See supra note 210 (describing Professor Mormann's "hand-in-glove" model for a combined RPS and feed-in tariff).

240. See supra note 206 and accompanying text (discussing the use of FITs to set above-market rates).

241. See supra note 220 and accompanying text.

242. See Schmidt, supra note 29, at 615–16 ("One of the primary concerns of Congress has been for wholesale rates to be 'just and reasonable.' Beginning with the passage of PURPA, the use of competitive markets has been the method of choice to accomplish this goal."). Since PURPA is subject to the same "just and reasonable" standard as other energy transactions, it stands to reason that a just and reasonable PURPA rate is a just and reasonable electricity rate in general.

243. See Allco Fin. Ltd. v. Klee, 861 F.3d 82, 89 (2d Cir. 2017).

244. See id. at 90.

245. Allco Fin. Ltd. v. Klee, No. 13-cv-1874, 2014 WL 7004024, at *10 (D. Conn. Dec. 10, 2014).

because FERC had not considered it, the challenger brought the issue before the Commission.[246] FERC did not rule on the merits of the challenger's claims, but it did issue a Notice of Intent Not to Act, declining to invalidate the mandate.[247] After *EPSA*, such findings of nonpreemption are even more defensible, especially since FERC did not appear keen to pursue preemption even before the rigid scheme of dual federalism fell.

Connecticut authorized a similar mandate in 2015, but this time included new language absolving utilities of any responsibility to *accept* renewable generators' bids.[248] As a whole, the policy merely required that the utilities consider and negotiate with certain renewable power producers. In June 2017, the Second Circuit, citing heavily to *EPSA* and *Hughes*, upheld that policy's validity under the FPA.[249] The panel found that this weakest form of mandated bilateral contracting neither set a wholesale rate nor—since either party could terminate the contract at will—compelled utilities to enter wholesale transactions (it purposefully did not rule on whether such compulsion would render the scheme impermissible).[250] The panel also identified numerous differences between Connecticut's statute and the scheme invalidated in *Hughes*, finding the former to be "precisely what the *Hughes* court placed outside its limited holding."[251] In sum, there is a statutory basis for a spectrum of mandatory bilateral contracting policies, and fairly compelling judicial and administrative support for at least part of that spectrum. But, as the *Allco* court noted, any bilateral contract at wholesale remains "subject to FERC review for justness and reasonableness,"[252] and any scheme reliant on such contracts therefore remains reliant on FERC.

4. *Restrictions on Out-of-State Power.* — California's and New York's RPSs and emissions laws, in accordance with the norm for RPS standards generally, are goals not for in-state *capacity* but rather for in-state *consumption*.[253] But California and New York both import power from utilities in neighboring states.[254] In crafting their respective cap-and-trade policies more than ten years ago, both states realized that their ambitious policies could be offset by "leakage," in which less costly, non–carbon-controlled

246. *Allco*, 861 F.3d at 90–91.

247. Id. at 92; Allco Renewable Energy Ltd., Notice of Intent Not to Act, 154 FERC ¶ 61,007 (Jan. 8, 2016), http://www.ferc.gov/CalendarFiles/20160108095840-EL16-11-000.pdf [http://perma.cc/W3DT-KQXC].

248. *Allco*, 861 F.3d at 91 ("The draft 2015 [request for proposals (RFP)] included new language stating that '[t]his RFP process . . . does not obligate [utilities] to accept any bid.'").

249. Id. at 101.

250. Id. at 98.

251. Id. at 99 (citing Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1299 (2016)).

252. Id.

253. See Coleman, supra note 148, at 1372 (describing the typical RPS model as applying to purchased energy).

254. See id. at 1370.

power makes its way into the state from neighboring jurisdictions.[255] As a result, states like California and New York need ways to limit the carbon content of their imported power to meet their goals.

Constitutionally, that is easier said than done. Policies restricting the flow of energy from outside states have recently faced preemption challenges, even in the wake of *EPSA* and *Hughes*. In the recent case *North Dakota v. Heydinger*, the Eighth Circuit Court of Appeals invalidated a Minnesota statute limiting the importation of power from coal-fired power plants in neighboring states.[256] In addition to proscribing the construction of new large carbon-emitting energy facilities, the statute in question barred actors within the state from "import[ing] or commit[ing] to import from outside the state power from a new large energy facility that would contribute to statewide power sector carbon dioxide emissions," and from "enter[ing] into a new long-term power purchase agreement that would increase statewide power sector carbon dioxide emissions."[257] The statute defined "power sector carbon dioxide emissions" to include emissions from the generation of all power consumed in Minnesota, even if generated elsewhere.[258]

The panel unanimously struck down the law but could not agree on a single basis, suggesting that restrictions on out-of-state power may face challenges on multiple fronts. Writing for the panel but taking a minority position, Judge Loken found the statute preempted by the Commerce Clause.[259] Noting that electricity flows freely throughout the interstate grid, and certainly in the subsection balanced by the Midwest ISO (MISO), Judge Loken found it impossible for Minnesota to successfully prevent the importation of electricity from out-of-state carbon-intensive generators unless those generators were excluded from the grid *anywhere within MISO*.[260] He therefore found the law to control transactions wholly outside of Minnesota, an impermissible imposition on the Commerce Clause.[261] Judges Murphy and Colloton, by contrast, found the statute preempted by the FPA.[262] They found that in barring bilateral transactions with out-

255. See Steven Ferrey, Solving the Multimillion Dollar Constitutional Puzzle Surrounding State "Sustainable" Energy Policy, 49 Wake Forest L. Rev. 121, 145 (2014).

256. 825 F.3d 912, 922 (8th Cir. 2016).

257. Id. at 923–24.

258. Id. at 924.

259. Id. at 913–14.

260. Id. at 921–22.

261. Id.

262. See id. at 926 (Murphy, J., concurring); id. at 928 (Colloton, J., concurring). Judge Murphy disagreed with Judge Loken that the statute operated extraterritorially. She noted that it is technically impossible to trace the origins of electricity on the grid in a way that could give effect to Judge Loken's interpretation of the statute, a fact Minnesota recognized in its brief. Id. at 924–25 (Murphy, J., concurring). A more reasonable interpretation of the statute, she argued, extends its provisions only to bilateral contracts with particular generators, which poses no extraterritoriality issues. Id. at 925–26. After finding the state

of-state power plants, the statute directly regulated wholesale transactions in interstate commerce, which remain squarely within federal jurisdiction under *Hughes*.[263]

The decision could apply to greenhouse gas laws (limiting importation of carbon-heavy generation) and RPSs (limiting importation of non-renewables), although it is unlikely to be the final say. Judge Loken's Commerce Clause holding was convincingly rebutted by Judge Murphy's concurrence,[264] and commentators have contrasted[265] his decision with the one in *Energy & Environment Legal Institute v. Epel*, in which a Tenth Circuit panel (that included now-Justice Gorsuch) upheld a Colorado twenty percent RPS—and therefore the exclusion of some carbon-intensive energy from Colorado's energy market—against Commerce Clause challenges.[266]

Heydinger's FPA preemption holding, too, is unconvincing. Citing to *Hughes*, Judge Colloton contended that "[b]ecause a State may not regulate wholesale rates, it follows that a State may not impose a complete ban on wholesale sales, effectively forbidding the parties to arrive at *any* mutually agreeable price."[267] This holding, however, ignores important aspects of both *Hughes* and *EPSA*. *Hughes*'s holding was limited to the proposition that state PUCs could not set a wholesale rate different from FERC's market rate—it said nothing about blocking a class of sales entirely.[268] The difference is one of kind, not of degree; courts should be wary of extending a holding as purposely narrow as *Hughes*'s so far. Even more importantly, *EPSA explicitly endorsed* the right of states to ban demand response within their jurisdictions even after finding that FERC—not state PUCs—has authority over wholesale demand response rates.[269]

Nevertheless, *Heydinger* demonstrates that courts—on multiple bases—may find regulations affecting power produced out of state preempted. As a solution, Professor James Coleman has proposed that FERC review

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statute preempted by federal statute, Judge Colloton did not reach the question of extra-territoriality under the Commerce Clause. Id. at 927–28 (Colloton, J., concurring).

263. See id. at 926–28 (Murphy, J., concurring).

264. See supra note 262.

265. See, e.g., Ankur K. Tohan, Alyssa A. Moir & Gabrielle E. Thompson, Constitutional Limits to Greenhouse Gas Regulation: 8th Circuit Relies on the Dormant Commerce Clause to Reject Minnesota's GHG Limits on Imported Power, K&L Gates (July 20, 2016), http://www.klgates.com/constitutional-limits-to-greenhouse-gas-regulation-8th-circuit-relies-on-the-dormant-commerce-clause-to-reject-minnesotas-ghg-limits-on-imported-power-07-20-2016/ [http://perma.cc/P957-FKT9].

266. Energy and Env't Legal Inst. v. Epel, 793 F.3d 1169 (10th Cir. 2015), cert. denied, 136 S. Ct. 595 (2015).

267. *Heydinger*, 825 F.3d at 928 (Murphy, J., concurring).

268. See Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1297, 1299 (2016).

269. See FERC v. Elec. Power Supply Ass'n, 136 S. Ct. 760, 779–80 (2016) (finding that states' veto power over demand response "removes any conceivable doubt as to its compliance with [the FPA's] allocation of federal and state authority").

any "exported"[270] state regulation to determine whether it should be preempted.[271] Professor Coleman suggests that Congress instruct FERC to make this review.[272] But consistent with *EPSA* and *Hughes*, FERC can probably develop such a program even in the absence of Congressional intervention. These recent cases not only endorse a program of cooperative federalism but also take a functionalist approach to the jurisdictional divide, weighing the factors counseling in each direction rather than simply asking on which side of a bright line a particular action falls.[273] As a result, a program that evaluates whether an "exported" regulation truly does prejudice out-of-state actors is directly in line with the new jurisprudence.

Taken in aggregate, all four policies, which straddle the traditional bright line, benefit from the new and more flexible jurisprudence set down in *EPSA* and *Hughes*. Those cases preserve or extend the ability of states like California and New York to employ net metering, FITs, mandatory bilateral contracts, and restrictions on out-of-state power in at least some capacity. States' enhanced abilities to enact these policies, however, appear closely tied to cooperative federalism and, by extension, FERC's interpretations of the FPA and PURPA. Part III examines the relationship between FERC and the states and its effect on how much states will actually benefit from the Supreme Court's new constructions.

III. FERC AND THE STATES: OPERATIONALIZING COOPERATIVE FEDERALISM IN ENERGY POLICY

Part II evaluated current and anticipated elements of California's and New York's ambitious state renewable energy goals, determining that

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270. See Coleman, supra note 148, at 1357 (describing regulating in-state power consumption with the effect of limiting imports of unclean power from other states as "exporting" regulation).

271. Id. at 1388. Professor Coleman's solution has numerous benefits: First, coordination among neighboring states is unlikely to be easy or effective. Developing a mutually acceptable importation policy would require coordination and agreement of all states involved. The Western Interconnection (the part of the interstate transmission grid that serves California) contains some or all of eleven electrically interconnected states; the Eastern Interconnection, which serves New York, contains more than thirty. Second, courts often lack the technical expertise to evaluate whether a given state policy is even-handed or discriminatory. FERC review, however, would place the question in the hands of a regulator experienced with electricity markets and policy, yielding an accurate analysis of whether a given exported regulation is appropriately nondiscriminatory and may therefore apply in the absence of an interstate agreement. Third, FERC is experienced with evaluating "the federalism dimensions of authorization and preemption questions." Id. at 1388, 1392–94. The panel in *Heydinger* struggled with the technical underpinnings of the electric grid, which had enormous implications for how it decided the case. See *Heydinger*, 825 F.3d at 924.

272. See Coleman, supra note 148, at 1388.

273. See supra notes 130, 143 and accompanying text (discussing the ways in which the new jurisprudence adopts a functionalist approach to jurisdiction and preemption under the FPA).

the most aggressive policies will likely require significant collaboration with FERC to move forward and that *EPSA* and *Hughes* lay the groundwork for that cooperation. This Part explores that cooperation in more detail, dissecting its statutory underpinnings and evaluating its success under different policy scenarios. Section III.A discusses how the text of the FPA lends itself to this cooperative federalism and advocates for the broadest possible reading available to FERC under the most recent jurisprudence. Section III.B explores the approaches states like California and New York should—and will be able to—take under sympathetic and unsympathetic federal regulation. Section III.C contextualizes the overall effect of the new jurisprudence on state policies.

A. *The Words Remain the Same: Cooperative Federalism and the Language of the FPA*

The above discussions of cooperative-federalism approaches to net metering, feed-in tariffs, mandated bilateral contracting, and exported regulation each rely on a conception of FERC not as the *exclusive* arbiter of wholesale rates, but rather as the *final* such arbiter. In each case, FERC has allowed—or could theoretically allow—the states a degree of freedom in setting or affecting a rate that is arguably within FERC's jurisdiction over wholesale rates. *EPSA* clearly condoned such an approach, in part by reasoning from the FPA's policy motives.[274]

The question FERC will have to answer going forward is whether the language of the FPA can support cooperative federalism and solicitude for state policies as plainly as its legislative history does (and, if so, how extensively). As surprising as it is given its judicial history, the FPA does seem to support a construction of collaboration among federal and state regulators, even on its face. After all, the same Senate report the Court recognized in *Connecticut Light & Power* as saying the FPA extended only to "those matters which cannot be regulated by the States" also expressed a purpose "*to assist the States* in the exercise of *their* regulatory powers," suggesting that Congress meant for the boundaries separating state and federal jurisdiction to be porous.[275] Likewise, by the terms of the statute, FERC's jurisdiction does not exclude states from acting within FERC's domain if the Commerce Clause otherwise permits it. To the contrary, the only hard limits on jurisdiction in the FPA are those that limit *FERC*:

> The provisions of this subchapter shall apply to the transmission of electric energy in interstate commerce and to the sale of electric energy at wholesale in interstate commerce, but . . . *shall not apply to any other sale of electric energy* . . . . The Commission shall have jurisdiction over all facilities for such transmission or sale of electric energy, but *shall not have jurisdiction* . . . over

274. See supra note 120 (discussing *EPSA*'s reliance on the gap-filling policy of the FPA).

275. Conn. Light & Power Co. v. FPC, 324 U.S. 515, 526–27 (1945) (emphasis added) (quoting S. Rep. No. 621, 74th Cong., 1st Sess.).

> facilities used for the generation of electric energy or over facilities used in local distribution or only for the transmission of electric energy in intrastate commerce, or over facilities for the transmission of electric energy consumed wholly by the transmitter.[276]

The word exclusive never appears; nor is it plainly implied. Furthermore, in requiring FERC to ensure just and reasonable wholesale rates, the FPA does not prohibit state or other regulators from proposing or otherwise influencing rates before FERC ensures their reasonableness:

> All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.[277]

To the contrary, the statute requires that FERC monitor all *rules and regulations* affecting or pertaining to jurisdictional rates. For over eighty years, the Court apparently read this language to field preempt state authority over those rates and ensure a clean slate on which FERC may inscribe its orders.[278] But it lends itself just as (if not more) readily to the conclusion that states and FERC have some common jurisdiction and, where states have already regulated within that concurrent jurisdiction, FERC may choose to *accept* those regulations as just and reasonable.

As indicated above,[279] *Hughes* can be read to support this extremely broad conception of PUC-as-regulator and FERC-as-reviewer.[280] In *Hughes*, the FPA preempted Maryland's policy not merely because FERC oversaw a wholesale market to set the "just and reasonable" rate, but rather because FERC had taken great pains—in the form of market regulatory policies—to calibrate the market to its policy goals.[281] The Court interpreted this extensive policing as FERC's imposing an exclusive regime that would be frustrated by state interference.

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276. 16 U.S.C. § 824(b)(1) (2012) (emphasis added).

277. Id. § 824d(a).

278. See supra section I.B (discussing judicial interpretations of the FPA from the New Deal to 2016). Cf. supra note 7 (defining dual federalism as a system in which the federal and state governments regulate in their own separate spheres without taking input from, or coordinating with, each other).

279. See supra notes 231–236 and accompanying text.

280. This construction is an endorsement of *Hughes* as an "obstacle preemption" case. See supra note 65 (defining field, impossibility, and obstacle preemption and noting that the former is broader than the latter two). In this case, either field or impossibility preemption would likely lead to a much broader holding than the one in *Hughes*.

281. Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1294 (2016) ("FERC extensively regulates the structure of the PJM capacity auction to ensure that it efficiently balances supply and demand, producing a just and reasonable clearing price.").

Hughes is not incompatible, however, with the conclusion that FERC *could* explicitly allow states to set a price different from the market price.[282] If read narrowly—and the language of *Hughes* very clearly invites a narrow reading[283]—*Hughes* stands only for the proposition that in the absence of a clear statement from FERC, careful regulation of a market mechanism will be interpreted to impart exclusivity. If FERC were to indicate that its regulated market is *not* the exclusive mechanism for ensuring a just and reasonable wholesale rate, nothing in *Hughes* prevents states from participating in alternative mechanisms.[284]

Other parts of the statute also point to a role for state agents in otherwise FERC-jurisdictional activity. Notably, a little-used FPA provision provides for state PUC commissioners to hear interstate cases alongside *or even instead of* FERC commissioners.[285] Although the provision does not grant the states any independent rate-setting or policy authority, it does provide further evidence within the confines of the FPA's language that the statute endorses cooperative federalism.

FERC should embrace the opportunity *EPSA* and *Hughes* provide to broadly interpret the FPA and allow states to set rates and enact policies to support state-level clean energy policies wherever those actions do not directly conflict with FERC's aims. FERC has endorsed cooperative federalism schemes in the past only cautiously (for example, endorsing net metering not as a collaborative venture but as a mechanism beyond its jurisdiction).[286] *EPSA* and *Hughes* empower FERC to approve state policies through open recognition of concurrent jurisdiction. The following section proposes a means for FERC and the states to maximize this new leeway.

B. *Approaching Federalism Challenges Under Opposite Policy Scenarios*

Given the short timetable with which California and New York plan to achieve their renewable mandates, they cannot afford to wait for clarifying

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282. Cf. Rossi, Brave New Path, supra note 7, at 461–65 (discussing executive branch–led federalism, in which agencies rather than courts determine what policies are preempted).

283. See supra notes 136–138 and accompanying text (highlighting the explicit narrowness of *Hughes*'s holding).

284. Note that the *Hughes* Court does not *impose* jurisdiction on FERC; rather it surmises FERC's intention from its actions, suggesting that if FERC made contrary intentions known, the Court would respect them. See *Hughes*, 136 S. Ct. at 1297 ("FERC has approved the PJM capacity auction as the sole ratesetting mechanism for sales of capacity to PJM."); id. at 1300 (Sotomayor, J., concurring) ("FERC has approved the PJM Interconnection capacity auction as the proper mechanism to determine the 'just and reasonable' rate . . . ."). In fact, FERC had never explicitly determined the capacity auction as the *sole* mechanism. See Transcript of Oral Argument at 24, *Hughes*, 136 S. Ct. 1288 (No. 14-614), 2016 WL 1028389 ("[W]e don't have FERC's opinion [on whether the capacity market preempts Maryland's program].").

285. See FPA § 209(b), 16 U.S.C. § 824h(b) (2012); see also Nordhaus, supra note 28, at 214–15.

286. See supra note 192 and accompanying text (discussing FERC's disclaiming jurisdiction over net metering).

jurisprudence or congressional action. Against background assumptions of stagnant congressional policy and no further jurisprudence from the Court, this section considers potential routes for the states to work with FERC under a friendly and unfriendly Commission.

1. *Committed States and a Friendly FERC.* — As discussed in sections II.B and III.A, the new jurisprudence presents new opportunities for cooperative federalism under the FPA, granting the states a first crack at regulation[287]—provided that they are not preempted by the Commerce Clause[288]—if it would not interfere with FERC's preferred regulatory scheme.

The success of each of the policies described in section II.B seems to rely heavily on FERC's intervention on behalf of state PUCs. In all four policy areas, past state efforts have been challenged and had either no solution or a solution dependent on FERC action and approval.[289] Since their positions are fairly precarious,[290] state PUCs ought to coordinate with FERC immediately in order to begin the process of obtaining favorable orders and to insulate themselves from legal challenges.

To start, states should ask FERC to release updated guidance on its already permissive policies on net metering and FITs. Given the broad interpretation to which the language of the FPA—bolstered by *EPSA* and *Hughes*—lends itself,[291] FERC may reinterpret its organic statute to allow states more freedom in compensating net metering participants and incentivizing non-QF participation in wholesale markets. As noted above, FERC currently facilitates state net metering with a tenuous disclaimer of jurisdiction.[292] Under *EPSA* and *Hughes*, it can amend its position to continue disclaiming jurisdiction but to maintain that, in the alternative, it may delegate its putative net metering authority to states under the FPA. At a minimum, FERC should facilitate the state policies described in section II.B using the methods discussed therein.

Furthermore, California and New York in particular should seek FERC approval to take a greater role in setting ISO market rules. California's transmission system is balanced by the California ISO and New York's by the New York ISO—the only two ISOs in FERC jurisdiction that cover only one state.[293] As a result, the two states' PUCs could request FERC's

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287. See supra note 280 and accompanying text (explaining how *Hughes* supports this construction).

288. See supra note 261 and accompanying text (describing the lead opinion in *Heydinger*, finding against a Minnesota environmental regulation on Commerce Clause grounds).

289. See supra section II.B (evaluating state policies in light of *EPSA* and *Hughes*).

290. See supra section II.B (demonstrating that all policies rely on a non-obvious interpretation of the FPA by FERC).

291. See supra section III.A (construing broadly the language of the FPA).

292. See supra note 195.

293. Fed. Energy Regulatory Comm'n, Electric Power Markets: National Overview, http://www.ferc.gov/market-oversight/mkt-electric/overview.asp [http://perma.cc/YYE3-DCXX] (last updated Apr. 13, 2017). The CAISO also covers a small part of Nevada. Id.

permission to operate FITs or other renewable energy procurement tools directly through the wholesale markets.[294] The market does not encompass any additional states with policy objections, and the state PUC is apparently willing to pass higher wholesale costs on to its customers at retail. FERC has, in multiple contexts, expressed willingness to consider state policy goals in planning wholesale markets.[295] If it is willing to order utilities engaging in resource planning to consider state policy goals, it stands to reason that it would indulge those goals itself when there are no interstate conflicts within the regulated region.

States in multi-state ISO regions may not be able to integrate their policies as firmly into wholesale markets as California and New York, but they may still be able to enjoy a lesser degree of increased participation under the same scheme of FERC solicitude. Professor Jim Rossi and Thomas Hutton have proposed a model of "clean energy floors" under the FPA.[296] Under such a program, state standards may be more aggressive (but not more lax) than federal standards.[297] The states in an ISO region could adopt such a scheme, establishing a baseline policy to which all agree (such as a low FIT that all customers in the region are willing to bear) and incorporating it into wholesale markets. More ambitious states could develop their own policies outside of the ISO's or RTO's capacity and energy markets, presumably through bilateral contracts incorporating FIT-like payments or out-of-state energy restrictions subject to FERC's assent.

2. *An Unsympathetic FERC.* — Under a broad interpretation of the FPA[298] and a friendly federal regulator,[299] *EPSA*'s and *Hughes*'s principles of cooperative federalism and concurrent jurisdiction can go a long way in supporting state renewable energy and carbon emissions goals. But there is no guarantee of a friendly federal regulator. Since August 2017, a majority of FERC commissioners have been Trump appointees.[300] Although President Trump has not been actively hostile to state renewable energy goals, his appointments to other high-ranking government positions have included climate skeptics and fossil-fuel supporters.[301] It is highly unlikely

294. Although FITs and FIT-like incentives generally operate through bilateral contracting, if the state could create an ISO-level FIT, it could instead build the supply stack to prioritize eligible generation and incorporate the additional value of renewable energy directly into the market rate.

295. See supra note 238 and accompanying text (discussing FERC Order 1000 and its requirement of consideration for state policy priorities).

296. Jim Rossi & Thomas Hutton, Federal Preemption and Clean Energy Floors, 91 N.C. L. Rev. 1283, 1336 (2013).

297. Id. at 1288.

298. See supra section III.A.

299. See supra subsection III.B.1.

300. See Fed. Energy Regulatory Comm'n, Commission Members, http://www.ferc.gov/about/com-mem.asp [http://perma.cc/XK46-KD3Y] (last updated Feb. 2, 2018).

301. See, e.g., Coral Davenport & Eric Lipton, Trump Picks Scott Pruitt, Climate Change Denialist, to Lead E.P.A., N.Y. Times (Dec. 7, 2016), http://www.nytimes.com/2016/12/07/us/politics/scott-pruitt-epa-trump.html (on file with the *Columbia Law Review*). Although Pruitt

that he or Congress would prioritize renewable policy in making further appointments to FERC.

Under this scenario, policies that rest on FERC's solicitude to the states may fall into jeopardy if FERC changes its lenient interpretations or otherwise fails to promote cooperative federalism in future orders. The PURPA tiered-rate structure that bolsters FITs and the treatment of net metering as a non-wholesale transaction already rely on FERC, and other policies like capacity-market-based procurement and regulations on out-of-state electricity may have serious difficulty getting off the ground without FERC's attention.[302]

Importantly, reducing—or refusing to extend—solicitude to the states would not necessarily run counter to FERC's established mandate. Above all, FERC promotes reliability.[303] FERC has indicated that fulfilling its mission involves three key goals, among them the promotion of "safe, reliable, secure, and efficient infrastructure."[304] If a new set of FERC commissioners perceives that renewable generation challenges the reliability of the grid, FERC could revoke its interpretations benefitting the states on the grounds that they promote variable resources the grid cannot reliably absorb.[305]

This would not be a new or extreme position. When Tony Clark, a former Republican FERC commissioner, stepped down from his position in January 2016, he warned that the Clean Power Plan[306]—which would have reduced carbon emissions thirty-two percent by 2030 (a significantly

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has given significant lip service to federalism and state rights, he is frequently criticized for applying his enthusiasm for states' rights only to states *de*regulating the environmental space. See, e.g., Richard Revesz, Opinion, According to Scott Pruitt, States Only Have the Right to Pollute, Not Protect Their Environments, L.A. Times (Mar. 20, 2017), http://www.latimes.com/opinion/op-ed/la-oe-revesz-pruitt-epa-federalism-20170320-story.html [http://perma.cc/83SD-LRXP]; see also Lisa Friedman, Trump Names Former Texas Regulator as White House Environmental Adviser, N.Y. Times (Oct. 13, 2017), http://www.nytimes.com/2017/10/13/climate/trump-environmental-advisor.html (on file with the *Columbia Law Review*); Steven Mufson, Rick Perry Just Denied that Humans Are the Main Cause of Climate Change, Wash. Post (June 19, 2017), http://www.washingtonpost.com/news/energy-environment/wp/2017/06/19/trumps-energy-secretary-just-denied-that-man-made-carbon-dioxide-is-the-main-driver-for-climate-change/?utm_term=.f98d368cb6c7 (on file with the *Columbia Law Review*).

302. See supra section II.B.

303. See Fed. Energy Regulatory Comm'n, Strategic Plan 3 (Mar. 2014), http://www.ferc.gov/about/strat-docs/FY-2014-FY-2018-strat-plan.pdf [http://perma.cc/C48S-7WHA].

304. Id. at 4–5, 17.

305. See generally Robert Fares, Renewable Energy Intermittency Explained: Challenges, Solutions, and Opportunities, Sci. American: Plugged In (Mar. 11, 2015), http://blogs.scientificamerican.com/plugged-in/renewable-energy-intermittency-explained-challenges-solutions-and-opportunities/ [http://perma.cc/44VU-76G9] (describing challenges and potential consequences of integrating variable resources into a power grid with limited flexibility).

306. See generally EPA, Fact Sheet: Overview of the Clean Power Plan, http://19january2017snapshot.epa.gov/cleanpowerplan/fact-sheet-clean-power-plan-overview_.html [http://perma.cc/6M55-ZMQD] (last updated Apr. 11, 2016) (describing the clean power plan, a federal regulatory scheme to reduce greenhouse gas emissions from electrical power generation).

less stringent goal than New York's or California's)—would strain grid reliability.[307] It is likely that Trump's appointees will make the same determination, if not a more extreme one. If this prediction proves accurate, the Commission could halt all federal support for the nation's most aggressive clean energy plans for fear of the reliability impacts on major economies like California and New York, and the already-congested energy corridors they occupy.[308]

A FERC majority with little regard for climate change mitigation goals and a conservative approach to preserving grid reliability is unlikely to actively support any of the policies described in section II.B. An unfriendly regulator therefore poses a clear challenge to states with aggressive renewables mandates that rely heavily on distributed generation and the procurement of new renewable technology. Major support programs for these goals, like net metering and FITs, depend on FERC's solicitude.[309] Without it, meeting state goals on time is likely to be all but impossible.[310] Short of forming interstate compacts[311] or isolating their transmission lines from the national grid—almost certainly more difficult, time-consuming, and expensive than waiting for political change—states would have little choice but to attempt to meet their renewable generation and carbon reduction goals without relying heavily on the policies described in section II.B.

That said, states would not be entirely without options. Without FERC's support, states may still adopt relatively diluted forms of at least two of the policies described above. In particular, states could adopt the weakest version of mandated bilateral contracting: requiring utilities merely to negotiate with renewable generation. The principles present in *Hughes*, and the Second Circuit's recognition of those principles, indicate that policy's potential to survive federalism challenges. Furthermore, prevailing doctrine suggests that FERC will probably have to approve any rates that result, even if politically indisposed to renewable energy.[312] States outside of the Eighth Circuit may also continue to restrict the importation of carbon-intensive electricity in hopes that other Circuits

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307. See Robert Walton, FERC's Tony Clark Won't Seek Reappointment, Warns of CPP Challenges, Utility Dive (Jan. 25, 2016), http://www.utilitydive.com/news/fercs-tony-clark-wont-seek-reappointment-warns-of-cpp-challenges/412598/ [http://perma.cc/U9LC-4ALC].

308. See U.S. Dep't of Energy, National Electric Transmission Congestion Study, at xix, xvii (2015), http://www.energy.gov/sites/prod/files/2015/09/f26/2015%20National%20Electric%20Transmission%20Congestion%20Study_0.pdf [http://perma.cc/6L7E-3BYW] (discussing congestion and reliability challenges in heavily populated regions of New York and California).

309. See infra section III.C.

310. See supra note 170 (describing a report published by Lawrence Berkeley National Laboratory projecting California's success under different technology scenarios).

311. Robert Nordhaus has suggested that states could form interstate compacts under the Constitution's Compacts Clause, U.S. Const. art. I, § 10, cl. 3, to escape FERC jurisdiction, but such compacts would require like-minded contiguous states, an immense planning effort, and congressional authorization. See Nordhaus, supra note 28, at 213.

312. See supra note 237 (describing the *Mobile-Sierra* Doctrine).

will interpret the Court's new jurisprudence differently.[313] Even within the Eighth Circuit, states could try to craft their policies around *Heydinger*'s holding by, for example, giving greater retail rate incentives to utilities that trade in only clean energy.

States may also choose to focus on policies other than those described in II.B. The Court's decision to apply *Oneok*'s target test to energy federalism questions suggests that states could pass regulations that decarbonize the electricity sector only indirectly,[314] like extremely stringent generation emissions mandates, without invading FERC's turf. Finally, states could employ the policies explicitly left open by *Hughes*, focusing on subsidies and tax incentives rather than market-based policies like those described in section III.B.[315] These mitigating solutions, however, are second-best. Only FERC's support can unlock the full potential of the new latitude the Court has afforded the states.

C. *Policies in Context: Where Cooperative Federalism Leaves California and New York*

In light of the analyses in section II.B and the counterfactual scenarios in section III.B, the Supreme Court's new readings of the FPA seem to vindicate FERC's extant cooperative federalism orders and invite further solicitude to state policies when such latitude will not threaten FERC's duty to set just and reasonable rates. They do not, however, appear to extend significant new rights to the states to act over FERC's objections. Scholars and subject matter experts such as Professor Rossi and Jon Wellinghoff (a former FERC chairman) have celebrated this opportunity for state regulation "adjacent" to FERC's policy priorities.[316] By their lights, the cooperative model endorsed by *EPSA* "invites policy experimentation, without fixing a sphere of authority for state regulators that lays [sic] beyond the FPA's reach."[317] They see the federal backstop as an advantage, a way of protecting "competitive, efficient, and reliable interstate power markets."[318] States like California and New York, however, will

313. See supra notes 264–269 and accompanying text (contrasting *Heydinger*'s Commerce Clause opinion with a contrary Tenth Circuit decision and arguing that *Heydinger*'s FPA opinions may have misinterpreted *Hughes*).

314. See supra notes 110–115 and accompanying text (describing the *Oneok* target test and the *EPSA* directly affects test).

315. See supra note 139 and accompanying text (quoting the relevant passage from *Hughes*). New York recently invested $1.4 billion in alternative energy projects, the largest single commitment of funds by a U.S. state for that purpose to date. Press Release, N.Y. State Energy Research and Dev. Auth., Governor Cuomo Announces Establishment of Clean Energy Standard that Mandates 50 Percent Renewables by 2030 (Mar. 9, 2018), http://www.nyserda.ny.gov/About/Newsroom/2018-Announcements/2018-03-09-Governor-Cuomo-Announces-Formal-Request-for-New-York-Exclusion-From-Federal-Offshore-Drilling-Program [http://perma.cc/DNM2-P2VM].

316. Rossi & Wellinghoff, supra note 126, at 31.

317. Id.

318. Id.

likely see the caveat of federal oversight as a detriment, at least as long as climate skeptics dominate the White House and Congress.[319] The short-term legacy of *EPSA* and *Hughes* for states engaged in intensive renewable energy and carbon mitigation goals is therefore one of cautious optimism, presenting opportunities to incentivize renewable energy with a plethora of policy tools but also the serious prospect of disappointment in the eventuality of an uncooperative federal regulator.

CONCLUSION

EPSA and *Hughes* represent a massive shift in the Supreme Court's construction of state and federal jurisdiction under the FPA, favoring functionalism and cooperative federalism where the Court once imposed formalism and dual sovereignty. In opening the door to cooperative federalism, this new jurisprudence invigorates the renewable resource procurement and carbon mitigation policies of states like California and New York, which will rely on tools facilitated by cooperative federalism to meet their ambitious goals. Four tools in particular—net metering, feed-in tariffs, mandatory bilateral contracting, and limitations on out-of-state power—now have significant legal ground to stand on. But the door is merely ajar—without FERC's support, many of the tools the Court has made accessible to the states will remain just out of reach.

319. See supra note 10 (noting the appointment of climate skeptics to top White House positions).