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Dual Electricity Federalism Is Dead, But How Dead And What Replaces It?

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In a remarkable burst of activity, the U.S. Supreme Court decided three cases in the past year involving the split of jurisdiction between the Federal Energy Regulatory Commission ("FERC") and the states in the energy sector. *FERC v. Electric Power Supply Ass'n*[1] and *Hughes v. Talen Energy Marketing*[2] dealt with the relationship between FERC and the states in governing the electric grid under the Federal Power Act ("FPA"). *ONEOK v. Learjet*[3] involved regulation of natural gas pipelines under the Natural Gas Act ("NGA"), which also serves as precedent for decisions involving the electric grid.[4]

These watershed decisions[5] herald a new approach to governing the rapid evolution of the modern electric grid, but its precise contours will not be known for some time. They mark the end of "dual federalism" in electricity law[6] that treated federal and state regulators as operating within separate and distinct spheres of authority,[7] recognizing instead that state and federal initiatives frequently overlap. The Court has provided guidance to govern the interaction between FERC and the states going forward, but has also left considerable uncertainty. The impacts of these decisions will reverberate for years to come.

This transformative change in electricity law reflects the tectonic shift occurring today in the electric grid. For over six decades after the FPA's enactment in 1935, the nation's system of making electricity and delivering it to customers was stable and predictable.[8] The nation's major utilities were vertically integrated monopolies, much as the phone system once was. Utilities generated electricity in their power plants, moved it across their transmission wires, and delivered it to their customers.[9] State public utility commissions regulated utilities' rates and services to guard against the ills of monopolization.[10]

Now, there is change everywhere. Solar and wind power is being rapidly added to the grid.[11] This power is generated at the edge of the grid in places like residential rooftops and remote wind farms, rather than in central power stations. It requires new transmission lines, grid connections

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1. FERC v. Elec. Power Supply Ass'n, 136 S. Ct. 760 (2016).
2. Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288 (2016).
3. ONEOK, Inc. v. Learjet, Inc., 135 S. Ct. 1591 (2015).
4. The NGA and FPA are read *in pari materia*. Nw. Cent. Pipeline Corp. v. State Corp. Comm'n of Kan., 489 U.S. 493, 506 (1989) (citing 15 U.S.C. § 717c-d); Ky. Util. Co. v. FERC, 760 F.2d 1321, 1325 n.6 (D.C. Cir. 1985). Section 1(b) of the NGA, like section 206 of the FPA, gives FERC authority over "practices . . . affecting rates." *Compare* 15 U.S.C. § 717d(a), *with* 16 U.S.C. § 824e(a).
5. Matthew R. Christiansen, FERC v. EPSA: *Functionalism and the Electricity Industry of the Future*, 68 Stan. L. Rev. Online 100 (2016) (noting that *FERC v. EPSA* "may ultimately rank among the most significant energy law cases of all time"); Joel B. Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector*, 40 Harv. Envtl. L. Rev. F. 1, 7 (2016) (terming *FERC v. EPSA* a "landmark" decision) [hereinafter Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector*]; Anne Hoskins & Paul Roberti, *The Essential Role of State Engagement in Demand Response*, 40 Harv. Envtl. L. Rev. F. 14, 14 (2016) (Commissioners of two state PUCs term *FERC v. EPSA* "a defining moment in evolution of competitive electric markets").
6. Jim Rossi, *The Brave New Path of Energy Federalism*, 95 Tex. L. Rev. (forthcoming 2016) ("For many decades following the New Deal, dual sovereignty coexisted rather peacefully with traditional utility rate regulation in energy industries."); Hannah J. Wiseman, *Moving Past Dual Federalism to Advance Electric Grid Neutrality*, 100 Iowa L. Rev. Bull. 97, 99 (2015). For discussions of dual federalism, see generally Robert Post, *Federalism in the Taft Court Era: Can It Be "Revived"?*, 51 Duke L.J. 1513 (2002), and Ernest A. Young, *Dual Federalism, Concurrent Jurisdiction, and the Foreign Affairs Exception*, 69 Geo. Wash. L. Rev. 139 (2001).
7. Hoskins & Roberti, *supra* note 5, at 14 (noting that, after *FERC v. EPSA*, "there is no bright line preventing state utility commissions and the FERC from working in concert to advance a more efficient electricity system."); Jim Rossi & Jon Wellinghoff, FERC v. EPSA *and Adjacent State Regulation of Customer Energy Resources,* 40 Harv. Envtl. L. Rev. F. 23, 24 (2016) ("Rather than fixate on this divide, the EPSA majority approached FERC's jurisdiction in a functional manner, endorsing pragmatism over formalism in the regulation of energy markets."). For discussions of the jurisdictional "bright line," see generally Robert R. Nordhaus, *The Hazy "Bright Line": Defining Federal and State Regulation of Today's Electric Grid*, 36 Energy L.J. 203 (2015), and Rossi, *supra* note 6.
8. Nordhaus, *supra* note 7, at 207; Rossi, *supra* note 6, at *4.
9. New York v. FERC, 535 U.S. 1, 5 (2002) ("When the FPA became law, most electricity was sold by vertically integrated utilities that had constructed their own power plants, transmission lines, and local delivery systems.").
10. Rossi, *supra* note 6, at **33–34.
11. *Solar, Natural Gas, Wind Make Up Most 2016 Generation Additions*, U.S. Energy Info. Admin. (Mar. 1, 2016), http://www.eia.gov/todayinenergy/detail.cfm?id=25172 (showing that solar and wind make up more that two-thirds of scheduled capacity additions for 2016, and that "2016 will be the first year in which utility-scale solar additions exceed additions from any other single energy source"); *see also* David Roberts, *There's a Lot More Solar Power in the US Than We Thought*, Vox: Energy & Env't (July 2, 2015), http://www.vox.com/2015/7/2/8880311/solar-power-underestimated (claiming that EIA data may underestimate solar capacity by as much as one-third due to undercounting of small-scale rooftop solar PV systems).

and advanced management of increasingly diverse sources of power on the grid to protect its reliability.[12] New business models, technologies and upstart competitors such as demand response aggregators and solar leasing firms are competing with traditional utilities.[13] The utilities face a challenging competitive environment,[14] as shown vividly by debates over net metering and solar demand charges in well over two dozen states that highlight important issues relating to the industry shift.[15]

Today's grid is dramatically transforming into a Smart Grid.[16] Technologies like battery storage,[17] demand response, electric vehicles,[18] and "microgrids" (self-sustaining areas largely disconnected from the traditional grid)[19] are game changers. For example, if storage becomes more widely available and less expensive than Tesla's "Powerwall,"[20] consumers could keep the power they make from solar panels and provide it back to the grid when it would be most advantageous for them to do so.[21] Not far off in the future, the electric grid may be a transactive system[22] where power is traded[23] rather than simply consumed. Recognizing this, California and New York are experimenting with overhauling the entire system in which electricity is distributed to customers.[24] The watchword is change, and more of it is promised at a dizzying rate.

The grid's architecture has also changed dramatically. The regional wholesale markets that now trade over two-thirds of the nation's electricity under FERC oversight have existed only since the 1990s.[25] And, as a result of the restructuring (partial deregulation) of the 1990s, another major change took place at the retail level. Consumers in sixteen states and the District of Columbia can choose to have their electricity delivered by suppliers other than their utilities.[26] In Maryland, where the events leading to *Hughes* took place, roughly one-fourth of all residential customers are served in this fashion.[27]

The result is a complex, diverse and rapidly evolving system of electricity generation, transmission and delivery. The FPA's drafters would have considerable difficulty recognizing today's grid.[28] The statute's core provisions, however, are virtually unchanged since 1935,[29] when FDR was a year away from trouncing Alf Landon, the number one movie was Clark Gable's *Mutiny on the Bounty*, and a pound of sugar cost five cents. Under the FPA, FERC regulates the transmission of electricity in interstate commerce and rates, terms, and conditions of wholesale sales (any sales that are for resale, that is, not to an eventual consumer).[30] It also has the power to order a remedy if it finds a "rule, regulation, practice, or contract affecting such [wholesale] rate" to be "unjust, unreasonable, unduly discriminatory or preferential."[31] The states regulate retail sales to end users,

12. Joel B. Eisen, *Smart Regulation and Federalism for the Smart Grid*, 37 Harv. Envtl. L. Rev. 1, 12 (2013) [hereinafter Eisen, *Smart Regulation and Federalism for the Smart Grid*].
13. William Boyd, *Public Utility and the Low-Carbon Future*, 61 UCLA L. Rev. 1614, 1677 (2014) (discussing solar leasing firms); Joel B. Eisen, *Who Regulates the Smart Grid? FERC's Authority Over Demand Response Compensation in Wholesale Electricity Markets*, 4 San Diego J. Climate & Energy L. 69 (2013) [hereinafter Eisen, *Who Regulates the Smart Grid?*] (discussing demand response aggregators).
14. Boyd, *supra* note 13, at 1677 (noting that with increased deployment of distributed generation, "incumbent utilities, . . . are left with significant reductions in demand from their higher-end distributed generation (DG) customers and a shrinking number of non-DG customers left to pay systems costs."); *see generally* Edison Elec. Inst., Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business (2013), http://www.eei.org/ourissues/finance/documents/disruptivechallenges.pdf.
15. Boyd, *supra* note 13, at 1678; *see also infra* notes 165, 167, and accompanying text.
16. *See generally* Eisen, *Smart Regulation and Federalism for the Smart Grid*, *supra* note 12.
17. *See generally* Amy L. Stein, *Reconsidering Regulatory Uncertainty: Making a Case for Energy Storage*, 41 Fla. St. U. L. Rev. 697 (2014).
18. Mark Detsky & Gabriella Stockmayer, *Electric Vehicles: Rolling Over Barriers and Merging With Regulation*, 40 Wm. & Mary Envtl. L. & Pol'y Rev. 477, 478 (2016) (noting that "EVs are yet another nuance for utilities and regulators managing the impacts of distributed generation, demand-side management, smart grid, storage, net metering, and demand response technologies that have disrupted the electric utility market in the last decade").
19. Joel B. Eisen, *An Open Access Distribution Tariff: Removing Barriers to Innovation on the Smart Grid*, 61 UCLA L. Rev. 1712, 1719 (2014) [hereinafter Eisen, *An Open Access Distribution Tariff*]; *see also* Sara C. Bronin, *Curbing Energy Sprawl With Microgrids*, 43 Conn. L. Rev. 547 (2010); Uma Outka, *The Energy-Land Use Nexus*, 27 J. Land Use & Envtl. L. 245, 256 (2012). For a discussion of microgrids as a potential strategy for responding to climate change, see also James M. Van Nostrand, *Keeping the Lights on During Superstorm Sandy: Climate Change Adaptation and the Resiliency Benefits of Distributed Generation*, 23 N.Y.U. Envtl. L. J. 92 (2015).
20. *Tesla Power Wall*, Tesla, https://www.teslamotors.com/powerwall (last visited May 9, 2016).
21. Shelley Welton, *Clean Energy Justice*, Colo. L. Rev. (forthcoming 2016) (manuscript at 7) (discussing a "participatory grid" that "allow[s] consumers to use power when it is cheapest, and to supply power back to the grid when it is most expensive, thereby maintaining affordability."); Rossi, *supra* note 6, at 4 (noting that "[c]ustomers . . . sometimes are even becoming energy suppliers themselves").
22. *See generally* GridWise Architectural Council, GridWise Transactive Energy Framework Version 1.0 (2015), http://www.gridwiseac.org/pdfs/te_framework_report_pnnl-22946.pdf (discussing the attributes of a transactive energy system).
23. *See generally* Sharon Jacobs, *Consumer Generation*, Ecol. L.Q. (forthcoming 2016).
24. *See* discussion *infra* Part II.
25. Seven regional grid operators, known as "independent system operators" (ISOs) and "regional transmission organizations" (RTOs) today operate markets and "serve over one-half of the nation and provide two-thirds of the nation's electricity." Joel B. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, 49 U.C. Davis L. Rev. 1783 (2016) [hereinafter Eisen, *FERC's Expansive Authority to Transform the Electric Grid*]. For discussions of the development of the wholesale markets, see Emily Hammond & David B. Spence, *The Regulatory Contract in the Marketplace*, 69 Vand. L. Rev. 141, 143 (2016), and David B. Spence, *Can Law Manage Competitive Energy Markets?*, 93 Cornell L. Rev. 765, 769 (2008); *see also Benefits of a Regional Market*, Cal. Indep. Sys. Operator Corp., https://www.caiso.com/informed/Pages/RegionalEnergyMarket/BenefitsofaRegionalEnergyMarket.aspx (last visited May 10, 2016) (discussing the possible transformation of the California ISO into an energy market spanning the entire West).
26. *Status of Electricity Restructuring by State*, U.S. Energy Info. Admin., http://www.eia.gov/electricity/policies/restructuring/restructure_elect.html (last visited May 10, 2016).
27. *Electric Choice: Monthly Enrollment Reports*, Md. Pub. Svc. Comm'n, http://www.psc.state.md.us/electricity/electric-choice-monthly-enrollment-reports/ (last visited May 10, 2016) (providing March 2016 report, which shows 21.7% of residential customers are served by retail suppliers).
28. Hammond & Spence, *supra* note 25, at 198 (noting that the FPA did not envision today's wholesale markets); James J. Hoecker & Douglas W. Smith, *Regulatory Federalism and Development of Electric Transmission: A Brewing Storm?*, 35 Energy L.J. 71, 73 (2014) (noting that "[t]he electricity industry has changed in fundamental ways . . . never contemplated by the drafters of the FPA").
29. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1786.
30. 16 U.S.C. § 824(b). FERC's transmission jurisdiction is therefore much broader than its sale jurisdiction. Rossi, *supra* note 6, at 10 n.33.
31. 16 U.S.C. § 824e(a).

siting of power plants and transmission lines, and other matters.[32] This jurisdictional divide between "wholesale" and "retail" reflected Congressional intent to close the "*Attleboro* gap," named for the 1927 Supreme Court decision that proclaimed that the federal government regulated sales of electricity that crossed state lines.[33]

In 1935 and for decades thereafter, jurisdiction over the electric grid could be neatly fenced off at state borders.[34] This bright line was typical of the early twentieth century's dual federalism, which posited that federal and state regulatory authority could be separated neatly into exclusive spheres.[35] In today's interconnected electricity network, this no longer makes sense. A system of shared responsibility is more appropriate than a jurisdictional bright line, as both the states and FERC are taking actions simultaneously to influence such matters as how many power plants get built and how much renewable energy is added to the grid.[36] In this new environment, many state or federal actions can have impacts on both retail electricity rates and wholesale markets. A bright line jurisdictional test is impractical in these situations,[37] and forces an arbitrary choice that deprives a level of government of opportunities to promote innovation.

Instead, a system of shared, or concurrent federalism, would be more useful. If designed properly, it would minimize jurisdictional disputes and promote the respective capabilities of FERC and the states for innovating on the grid, while protecting reliability and other attributes that are central to the grid's operation.[38] A modern analogue is environmental law's "cooperative federalism," where states and the Environmental Protection Agency ("EPA") share responsibility for implementing environmental laws. But the eighty-year-old framework still calls for FERC and the states to operate independently. This is the last vestige of dual federalism, which elsewhere is long gone from the national scene.[39]

The Supreme Court could not act simply because the FPA's bright line may not fit today's realities. Without Congressional action, of course, the Court could not change the FPA's text, nor could it render an advisory opinion to reinterpret the FPA. Under the Constitution, there must be a case or controversy that the Court can hear.[40] Even that is no guarantee that the case will find its way to the Supreme Court, which controls its docket and takes few of the cases presented to it.[41] Usually, the Court takes cases where two or more circuit courts have split on the issues.[42] *Hughes* featured no circuit split, for the two Circuits that considered the issues agreed about the FPA's reach.[43] Nor did *FERC v. EPSA*, which originated in the D.C. Circuit Court of Appeals, and *ONEOK*, which involved a Ninth Circuit decision without any corresponding decision of another Circuit.[44]

In the absence of a circuit split or a case invoking its original jurisdiction, the Court chooses cases it believes are of utmost national importance.[45] Here, the Court felt compelled to tackle three cases that squarely presented variations on the question introduced above: which level of government should control the transition underway in the electric grid? Inevitably, given the concurrent actions by both levels of government, conflicts were bound to—and did—arise. The Court's decisions addressed these conflicts and aimed to allocate responsibility for decisions affecting the grid going forward, within the limitations of statutory language written many years ago.[46]

In Part I, this Article describes the results in all three decisions, and explains the guidance the Court has given for future cases. The purpose is not to synthesize the results into a unified doctrine, which would be inconsistent with the Court's approach in these cases. *ONEOK,* the *Hughes* majority opinion, Justice Sotomayor's concurrence in *Hughes*, and Justice Kagan's "notable solicitude" for the states in *FERC v. EPSA*, all demonstrate the Court's reluctance to fashion a comprehensive new jurisdictional bright line. Part I concludes that the Court has not applied a single test for determining the limits of federal and state jurisdiction. Instead, it has articulated several different guiding principles, each of which may have application in specific situations.

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32. 16 U.S.C. § 824(b) (explaining that FERC authority does not extend to sales beyond those at wholesale); *see also* Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1789. FPA section 201(a) provides that FERC's authority "shall only extend to those matters which are not subject to regulation by the States," and appears to give broad leeway to the states, but has consistently been interpreted as "'prefatory' in nature, a mere 'policy declaration' that 'cannot nullify a clear and specific grant of jurisdiction, even if the particular grant seems inconsistent with the broadly expressed purpose.'" Rossi, *supra* note 6, at 15; *see* Brief for Energy Law Scholars Amici Curiae Supporting Petitioners, at 14, FERC v. Elec. Pwr. Supply Ass'n, 136 S. Ct. 760 (2016) (No. 14-840).
33. *See generally* Pub. Util. Comm'n of R.I. v. Attleboro Steam & Elec. Co., 273 U.S. 83 (1927).
34. Nordhaus, *supra* note 7, at 207 (noting that, during this time, "[i]t was clear which sales were at wholesale and which at retail, and the FERC was fairly readily able to distinguish transmission from distribution").
35. *See generally* Rossi, *supra* note 6.
36. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1789; Rossi, *supra* note 6, at 4.
37. Rossi & Wellinghoff, *supra* note 7, at 27 (observing that "the FPA's allocation of federal-state authority over practices affecting rates cannot always result in a strict separation of authority, as a jurisdictional bright line would dictate").
38. Felix Mormann, *Clean Energy Federalism*, 67 Fla. L. Rev. 1621, 1627 (2015) (noting that scholars are beginning to discuss an energy federalism model "that would treat federal and state jurisdiction not as independent or mere substitutes but, instead, as interdependent and complementary"); *see generally* Hari M. Osofsky & Hannah J. Wiseman, *Dynamic Energy Federalism*, 72 Md. L. Rev. 773 (2013); Rossi, *supra* note 6; *cf.* Heather Gerken, *Our Federalism(s)*, 53 Wm. & Mary L. Rev. 1549, 1551 (2012) ("It would be useful if scholars were more attentive to the fact that the questions federalism raises need not involve an either/or answer. Often they will involve a both/and.").
39. Young, *supra* note 6, at 139 (noting that "'dual federalism[ ]' died an ignominious death in 1937 or shortly thereafter").
40. U.S. Const. art. III, § 2.
41. Ryan J. Owens & David A. Simon, *Explaining the Supreme Court's Shrinking Docket*, 53 Wm. & Mary L. Rev. 1219 (2012) ("Since the 2005 Term, the Court has decided an average of 80 cases per Term[.]").
42. Sup. Ct. R. 10; Ryan Stephenson, *Federal Circuit Case Selection at the Supreme Court: An Empirical Analysis*, 102 Geo. L.J. 271, 272 (terming the circuit split the Court's "most potent case-selection tool").
43. *See Hughes*, 136 S. Ct at 1296–99 (2016).
44. *See FERC v. EPSA*, 136 S. Ct. at 760–89 (2016); *ONEOK*, 135 S. Ct. at 1591 (2015).
45. Sup. Ct. R. 10. In its petition for certiorari in *FERC v. EPSA*, for example, the Solicitor General stated that "[t]he question whether FERC has authority to regulate the participation of demand-response providers in wholesale-electricity [*sic*] markets has substantial national importance and thus warrants this Court's review." Petition for a Writ of Certiorari, FERC v. Elec. Power Supply Ass'n, 136 S. Ct. 760 (2016) (No. 14-840).
46. *See* discussion *infra* Sections I.A, I.B, I.C.

Parts II and III consider the impacts of the three decisions on FERC and the states. Part II discusses and applies the *FERC v. EPSA* test for FERC's authority under the FPA to regulate "practices" "directly affecting" wholesale rates. This new authority empowers FERC to take action to substantially overhaul the electric grid.[47] The analysis in Part II focuses on the intersection of FERC's new authority with ambitious state programs underway to transform the grid. The first is California's regional grid operator's proposal to integrate distributed energy resources ("DERs") into wholesale markets. The second is the component of the New York "Reforming the Energy Vision" ("REV") proposal that would create "distribution system platform providers" ("DSPPs") to coordinate activities involving aggregation of electricity resources and distribution to end users.

Examining the intersection of state and federal jurisdiction in the implementation of these programs allows for an assessment of FERC's role in reshaping the grid, and the potential for shared or concurrent jurisdiction. In both cases, Part II concludes that FERC can use its new authority to influence policy development. It identifies areas where the states and FERC share jurisdictional authority, and notes areas where FERC and the states could develop cooperative arrangements that promote the states' ambitious visions while minimizing jurisdictional disputes.

Part III discusses and applies the holding and dicta of *Hughes* in the context of two state initiatives. One is a hypothetical property tax exemption granted by a Virginia city to provide an incentive for a power plant to locate there. The other is a New York program proposed in early 2016 to provide support payments to keep three of the state's nuclear power plants in operation. Part III concludes that *Hughes* raises more questions than it answers about which state initiatives are permissible. This may be the new bottom line about both federal and state electricity regulators' authority after the three decisions studied here: more questions than answers.

I. The Three Decisions

A. ONEOK v. Learjet

The first of the three decisions was 2015's *ONEOK v. Learjet*. In 2003, trade publications were a benchmark for setting prices in the natural gas market, and these publications relied on voluntary price reports from natural gas traders.[48] FERC discovered that some traders had been reporting false price information that skewed natural gas prices.[49] A group of gas purchasers then brought state antitrust suits against the interstate natural gas pipelines, claiming they had overpaid for the natural gas they purchased, because the pipelines had allegedly manipulated the price indices.[50] They claimed they had been overcharged due to pipelines' manipulation that affected prices in both wholesale and retail natural gas markets.

The Court was therefore forced to choose whether FERC or state courts held sway. There was no suggestion that the NGA expressly foreclosed the state antitrust actions. Instead, the pipelines (and the federal government, supporting them) argued that the state actions were barred by implied preemption. There are two types of implied preemption: "field" and "conflict" preemption.[51] "Field preemption" occurs when the federal law is so comprehensive that Congress has intended for federal regulation to occupy the entire field and displace any state laws.[52] "Conflict preemption" consists of two different varieties: "impossibility" preemption ("compliance with both state and federal law is impossible")[53] and "purposes and objectives" (or "obstacle") preemption, under which "the state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.'"[54] In all of these situations, the statute is held to have implicitly preempted the state's action and federal law prevails.[55]

The litigants in *ONEOK* focused on the doctrine of field preemption, and made no attempt to argue that conflict preemption governed.[56] Under the field preemption doctrine, if federal supremacy is based on a statute (as here with the NGA), the court looks to Congressional purpose and decides whether Congress intended for federal regulators to comprehensively occupy a field.[57] In that case, federal law preempts all state laws on the subject. The relevant provision of the NGA was section 5(a),[58] which contains the same "practices affecting rates" authority as the FPA. With respect to a wholesale rate for natural gas transactions, this subsection gives FERC authority to determine whether "any rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory, or preferential,"[59] and to order a remedy.

Justice Breyer's majority opinion held that FERC did not have exclusive authority to protect pipeline customers under this statutory provision.[60] The Court found that the NGA did not foreclose actions taken under state antitrust laws to recover damages for manipulation of the natural gas mar-

47. *See* discussion *infra* Part II.
48. *ONEOK*, 135 S. Ct. at 1597; Emily Hammond, *Energy Law's Jurisdictional Boundaries: A Call for Course Correction*, Geo. Wash. L. Rev. Docket (Oct. Term 2014).
49. *ONEOK*, 135 S. Ct. at 1597 ("FERC found that false reporting had involved inflating the volume of trades, omitting trades, and adjusting the price of trades, . . . That is, sometimes those who reported information simply fabricated it.") (internal quotation marks and citations omitted).
50. *Id.* at 1598.
51. Caleb Nelson, *Preemption*, 86 Va. L. Rev. 225, 226 (2000).
52. *Id.* at 227; *see also ONEOK*, 135 S. Ct. at 1595; Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1845.
53. Nelson, *supra* note 51, at 227–28; *see also ONEOK*, 135 S. Ct. at 1595; Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1845–46.
54. Nelson, *supra* note 51, at 228 n.14 (citing a number of cases, including an energy law decision mentioned in *ONEOK*); *see also ONEOK*, 135 S. Ct. at 1595; Schneidewind v. ANR Pipeline Co., 485 U.S. 293, 300 (1988); Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1845.
55. Nelson, *supra* note 51, at 228–29; *see also ONEOK*, 135 S. Ct. at 1595.
56. *ONEOK,* 135 S. Ct. at 1595 ("Nor have the parties argued at any length that these state suits conflict with federal law.").
57. *ONEOK,* 135 S. Ct. at 1595; Jim Rossi & Thomas Hutton, *Federal Preemption and Clean Energy Floors*, 91 N.C. L. Rev. 1283, 1355 (2013).
58. 15 U.S.C. § 717d(a).
59. *Id.*
60. *ONEOK,* 135 S. Ct. at 1600–01.

ket.[61] It rejected a field preemption argument that would have barred state laws if "the matter on which the State asserts the right to act is in any way regulated by the [NGA]."[62] Instead, the Court stated, preemption of state laws must be determined with reference to "the target at which the state law aims in determining whether [the] law is pre-empted."[63]

The Court then drew a distinction between "'traditional' state regulation," such as antitrust and state blue sky laws, which "are not aimed at natural-gas companies in particular, but rather all businesses in the marketplace."[64] Because the antitrust laws govern a wide variety of industries, and not just natural gas pipelines, the state lawsuits would stand. If, however, the Court had been presented with a state law that "aimed directly at interstate purchasers and wholesales for resale,"[65] the NGA would have preempted it. There was no further guidance about the distinction between traditional regulation and that which "aim[s] directly" at the wholesale markets. That would come later in *Hughes*.

B. FERC v. EPSA

In *FERC v. EPSA*, Justice Elena Kagan, writing for a six-Justice majority, upheld Order 745,[66] a FERC rule requiring that regional grid operators compensate aggregated bids of "demand response" (reductions in electricity consumption in response to grid emergencies or price signals)[67] at the same wholesale market price paid to generators in the wholesale energy markets.[68] In its rule, FERC recognized that using demand-side measures to reduce peak stress on the grid can help balance supply and demand, improve reliability, and decrease peak electricity prices.[69] In the D.C. Circuit, the association representing power producers and its supporters had argued successfully that FERC did not have authority under the FPA to make this rule, and that demand response was wholly within state jurisdiction because it affected end users.[70]

The Court reversed this decision.[71] It confirmed FERC's authority over "practices" affecting wholesale rates for electricity, stated that demand response was such a practice, and upheld Order 745.[72] It rejected the argument that demand response was exclusively a state matter, finding that adding it to wholesale markets impacted prices in those markets.[73] Even if its policies would have impacts on the states and retail electricity rates, FERC was not foreclosed from acting.[74]

The Court articulated a standard for upholding FERC initiatives such as Order 745: FERC can regulate practices if wholesale rates are "directly" affected.[75] To the Court, the demand response rule was a prime example of this because injecting demand reductions into wholesale markets immediately impacts wholesale prices.[76] As it stated succinctly, "Wholesale demand response, in short, is all about reducing wholesale rates; so too, then, the rules and practices that determine how those programs operate."[77] The Court concluded, "it is hard to think of a practice" that has a more direct impact on wholesale rates.[78] It contrasted this to activities that have "indirect or tangential impacts" on wholesale markets, rejecting the D.C. Circuit's argument that FERC could regulate the steel or labor markets if it so chose.[79]

As opaque as the "directly affecting" test may appear, it has solid grounding in over 100 years of doctrine dating to federal regulation of railroads in the early twentieth century.[80] The *FERC v. EPSA* test was not fashioned from whole cloth. Instead, it was the natural evolution of decades of judicial decisions in a number of regulated industries whose governing statutes granted federal agencies authority to regulate "practices affecting rates," including, of course, the electricity industry.[81] Originally, "practices affecting rates" jurisdiction focused on discrimination by individual firms such as railroads.[82] As the era of modern regulatory statutes—including the FPA—began in the 1930s, "practices" were those required to be listed in rate-setting tariffs, providing notice to customers and obligating utilities to provide service under tariff terms and conditions.[83] Today, as the industry focus has shifted to markets—and FERC's oversight has shifted to ensuring that market structures lead to just and reasonable rates—"practices affecting rates" means details of market operations and the activities that directly influence them.[84]

The well-recognized limit of "directness"[85] has two essential components. The first requires the impact on wholesale

61. *See id.* at 1601.
62. *Id*. at 1600–01. The Court noted that FERC had not argued that field preemption applied, so it need not address whether such a finding might be entitled to deference under *City of Arlington*. *See id*. at 1602–03.
63. *Id*. at 1599.
64. *ONEOK*, 135 S. Ct. at 1600–01.
65. *Id*. at 1600.
66. *See Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, 134 FERC ¶ 61,187 (Mar. 15, 2011).
67. *FERC v. EPSA*, 136 S. Ct. at 767; *see* Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5, at 1–2. For analysis of demand response and Order 745, see Eisen, *Who Regulates the Smart Grid?*, *supra* note 13 (discussing and advocating judicial affirmance of Order 745), and Richard J. Pierce Jr., *A Primer on Demand Response and a Critique of FERC Order 745*, 102 Geo. Wash. J. Energy & Envtl. L. 102 (2011).
68. *See FERC v. EPSA*, 136 S. Ct. at 767.
69. *See id.* at 767; *see also* Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5, at 3–4.
70. *See* Elec. Power Supply Ass'n v. FERC, 753 F.3d 216, 223–24 (D.C. Cir. 2014), *rev'd and remanded*, FERC v. Elec. Power Supply Ass'n, 136 S. Ct. 760 (2016). Had this decision stood, it would have "threatened to disable [demand response], with serious implications for consumers as well as DR suppliers." Hoskins & Roberti, *supra* note 5, at 16.
71. *See FERC v. EPSA*, 136 S. Ct. at 767.
72. *See id.* at 773–75.
73. *See id.* at 776.
74. *See id*.
75. *See id*. at 774.
76. *FERC v. EPSA,* 136 S. Ct. at 774.
77. *Id*.
78. *Id*. at 775.
79. *Id*. at 774.
80. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1797.
81. *Id*. at 115; Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5, at 6.
82. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1797–1806.
83. *Id*. at 125–30.
84. *Id*. at 131–32. The tariff continues to be used as a regulatory device, even though other industries have discarded it. *Id*. at 131 n.145 (noting statutory reforms that discarded New Deal-era statutes). However, its nature has changed; it now is a document listing market features and operations, with FERC oversight and approval. *Id*.
85. Rossi, *supra* note 6, at 36 (terming this an "established test").

rates to be proximate in both time and causative effect.[86] The *FERC v. EPSA* majority discussed this aspect of the test's articulation in *California ISO*,[87] where the D.C. Circuit struck down FERC's action requiring that the California ISO choose its board of directors in a specific manner. There, the D.C. Circuit concluded that FERC had provided no evidence to show that a change in corporate governance could influence rates.[88] Contrast the situation of demand response: as the *FERC v. EPSA* court observed, injecting demand reductions into wholesale markets has an immediate impact on rates.

Under case law both preceding and following *California ISO*, it is not necessary that there be an immediate cause and effect relationship between the action evaluated and wholesale rates.[89] Reflecting this, the D.C. Circuit in *California ISO* empowered FERC to regulate practices "that directly affect the rate or are *closely related* to the rate[.]"[90] However, the presence of too many intermediate actions before any potential impact would be felt negates an action's directness. *California ISO* is a good example of this: it would take numerous actions after a change in a board of directors to influence market rates. The D.C. Circuit thought it "absurd" to call this a practice affecting rates, concluding that FERC could not regulate "those remote things beyond the rate structure that *might in some sense indirectly or ultimately*" affect wholesale rates.[91]

A D.C. Circuit decision that found a closer link between FERC's action and wholesale rates is *South Carolina Public Service Authority v. FERC* ("SCPSA").[92] *SCPSA* upheld FERC's Order 1000, which required that regional transmission organizations ("RTOs") engage in transmission planning processes and devise methods of allocating the costs of new transmission lines.[93] It would take numerous intermediate actions before a regional transmission plan would impact rates by reducing congestion, including all of the local and state approvals necessary to site and construct an individual transmission line. Still, the court found that regional transmission planning was a practice affecting rates, distinguishing FERC's attempt to influence corporate governance in *California ISO*.[94] Thus, the link to a change in wholesale rates need not be immediate, as long as there is a proximate relationship between FERC's action and market rates.[95]

A second component of "directness" is economic. The practice being regulated must have a quantifiable impact on wholesale rates.[96] Moreover, the *California ISO* court, drawing upon other cases interpreting the "practices affecting rates" language, used a threshold that rates must be impacted "significantly."[97] In *FERC v. EPSA*, a significant impact on rates is implied from the large amounts of demand response bids and their impacts on market rates.

Decisions upholding FERC authority over such matters as capacity market designs had discussed this modern understanding of FERC's jurisdiction over practices affecting wholesale market rates.[98] Before *FERC v. EPSA,* however, no one decision had cogently articulated both the test and directness limitation with its analytical depth and rigor. *FERC v. EPSA* crystallized the doctrine and distilled it into a test that can be applied in future judicial decisions. Coupled with the well-recognized limitation that FERC's initiatives have a "direct" impact on wholesale rates over which it has jurisdiction, *FERC v. EPSA*'s grant of authority to FERC yields a clearer picture of FERC's role in a system of concurrent jurisdiction.[99]

FERC v. EPSA also swept away the bright line that demarcated state and federal jurisdiction. By explaining both FERC's Order 745 and states' actions in the same decision, the Court demonstrated that FERC can and will act at the same time as the states.[100] Demand response is a prototypical example of concurrent action.[101] The Court mentioned FERC's "notable solicitude" for state demand response programs, and states can conduct a wide range of programs without involving FERC.[102] For example, a state could approve a utility's proposal to conduct a demand response program for its own retail customers.[103] This could have impacts in the wholesale markets, as the utility program might allow it to reduce its purchases from the wholesale markets. However, as long as the state-sanctioned program did not involve bidding into wholesale markets, FERC could not regulate it.[104]

Yet as the Court stated, FERC is not precluded from acting even if a state has taken steps to promote or regulate an activity, as long as it does not interfere with matters expressly reserved to the states under the FPA.[105] While this would

86. *Id*. at 57.
87. Cal. Indep. Sys. Operator Corp. v. FERC, 372 F.3d 395 (D.C. Cir. 2004); *see also* Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1830–33 (discussing the decision of the D.C. Circuit).
88. *Cal. Indep. Sys. Operator Corp.*, 372 F.3d at 403.
89. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1829 (discussing the origins of this interpretation in regulations and case law).
90. *Cal. Indep. Sys. Operator Corp.*, 372 F.3d at 403 (emphasis added).
91. *Id*. (emphasis added).
92. S.C. Pub. Serv. Auth. v. FERC, 762 F.3d 41 (D.C. Cir. 2014).
93. *Id.* (upholding *Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities*, Order No. 1000, 36 FERC ¶ 61,051 (2011)).
94. *Id*. For example, rates have to increase or decrease.
95. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1828–29.
96. *Id*.
97. *Cal. Indep. Sys. Operator Corp.*, 372 F.3d at 403.
98. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1824–33.
99. *See generally* Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5; Rossi, *supra* note 6; Rossi & Wellinghoff, *supra* note 7.
100. Nor is this foreclosed by the text of the FPA itself. Rossi, *supra* note 6, at 45; Rossi & Wellinghoff, *supra* note 7, at 27 ("[T]o the extent the FPA does not expressly foreclose it, the statute authorizes both federal and state regulators to regulate the same activities in energy markets.").
101. Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5, at 8.
102. *FERC v. EPSA*, 136 S. Ct. at 779; Hoskins & Roberti, *supra* note 5, at 18 ("Post-EPSA, states have a range of options to further DR's growth.").
103. Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5, at 8.
104. Rossi & Wellinghoff, *supra* note 7, at 28 ("If a retail customer forgoing energy consumption does not choose to bid into wholesale demand response markets, it simply is not subject to FERC's jurisdiction under the FPA.").
105. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 25, at 1828 ("FERC's authority extends to requiring power transmission planning and cost allocation methods, notwithstanding traditional state authority over transmission siting, because Order 1000 did not expressly intrude on states' authority to approve individual transmission lines.").

seem to wall off certain activities for exclusive state action, actions by FERC will narrow state choices. Upholding FERC's regional capacity models and transmission planning, for example, constrains the states' ability to plan for and build new infrastructure.[106] This contemplation of simultaneous action, and potential intersection between policies of the two levels of government, consigns dual federalism in electricity law to the dustbin of history.[107]

C. Hughes v. Talen Energy Marketing

FERC v. EPSA did not address how far the states could go in influencing the grid's future direction, when their actions might impact the wholesale markets. This issue arose in *Hughes* in the context of a Maryland law that provided incentives for a new power plant to locate in the state.[108] The state tied its incentive to prices in the capacity market that the PJM regional transmission organization, the grid operator in the region that includes Maryland, has operated since 2007.[109] Capacity markets came into existence when regional planners recognized that electricity market prices alone would not prompt construction of new power plants.[110] The PJM capacity market, known as the "Reliability Pricing Model,"[111] is designed to provide additional payments to generators that commit to sell power into PJM over the next three years. PJM requires[112] load-serving entities ("LSEs," the term for utilities and retail suppliers that serve customers)[113] to purchase capacity in its Base Residual Auctions, which are conducted three years in advance of a designated delivery year.[114]

Maryland officials believed the payments to generators from these auctions were insufficient to induce construction of new power plants in the state.[115] The resulting state law created a "contract for differences" between the winning bidder and LSEs.[116] If the contract price exceeded the capacity market price, LSEs would pay the difference to the plant owner.[117] Because PJM's capacity obligation requirement already obligates LSEs to purchase capacity for the demand they serve, paying the incremental difference under Maryland law as well would leave the LSEs paying a premium above the market price.[118]

A group of challengers claimed this interfered with pricing in the wholesale markets, and the Fourth Circuit Court of Appeals agreed.[119] It found that the doctrine of field preemption applied, concluding that FERC's regulation of wholesale markets under the FPA is so all-encompassing that it left no room for the Maryland state law.[120] As *Hughes* reached the Court, observers believed that the Court should find an alternative to the appellate court's field preemption approach.[121] If that approach were upheld, FERC could void all state initiatives that might impact the wholesale markets, no matter how substantial the impacts and how legitimate the states' goals.[122] That is too imbalanced and blunt an instrument to govern the federal-state relationship,[123] as *FERC v. EPSA* had made clear that states have significant authority over matters affecting the electric grid. Given the judicial presumption against preemption in these mixed jurisdictional settings,[124] applying field preemption in *Hughes* seemed unwise. Finally, FERC was not a party in *Hughes*, and therefore invoked the preemption issue only in an amicus brief. This could have led the Court to the same restraint it used in *ONEOK*. Or it could have used the primary jurisdiction doctrine,[125] and

106. Nordhaus, *supra* note 7, at 211 (noting that the Fourth and Third Circuits' decisions on the Maryland and New Jersey programs "go far beyond excluding 'subsidized' resources from capacity markets—they bar their construction and operation altogether"); *cf.* Conn. Dep't of Pub. Util. Control v. FERC, 569 F.3d 477 (D.C. Cir. 2009) (upholding FERC approval of the ISO-New England capacity market under FERC's "practice affecting rates" authority, notwithstanding its impacts on states, given that it did not directly call for construction of a specific power plant).
107. Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5, at 9.
108. *Hughes*, 136 S. Ct. at 1290.
109. Joseph Bowring, *Capacity Markets in PJM*, 2 Econ. Energy & Envtl. Pol'y 47, 50 (2013).
110. *Id.*
111. *Capacity Market (RPM)*, PJM Interconnection, LLC, http://www.pjm.com/markets-and-operations/rpm.aspx (last visited May 11, 2016).
112. The requirement to purchase capacity is known as the "capacity obligation." *RPM Base Residual Auction FAQs*, PJM Interconnection, LLC, http://www.pjm.com/~/media/markets-ops/rpm/rpm-auction-info/rpm-base-residual-auction-faqs.ashx (last visited May 11, 2016).
113. A "load-serving entity" is an entity that "[s]ecures energy and transmission service (and related interconnected operations services) to serve the electrical demand and energy requirements of its end-use customers." *Appendix 5B Statement of Compliance Registry Criteria*, N. Am. Elec. Reliability Corp. 6 (Mar. 19, 2015), http://www.nerc.com/FilingsOrders/us/RuleOfProcedureDL/Appendix_5B_RegistrationCriteria_20150319.pdf.
114. Supply can include "new generators, upgrades for existing generators, demand response (consumers reducing electricity use in exchange for payment) energy efficiency and transmission upgrades." Learning Center, *Capacity Market (RPM)*, PJM Interconnection, LLC, http://learn.pjm.com/three-priorities/buying-and-selling-energy/capacity-markets.aspx (last visited May 11, 2016).
115. *Hughes*, 136 S. Ct. at 1290.
116. *Id.* at 7.
117. *Id.*
118. *Id.* at 8 n.5 (providing hypothetical examples with sample calculations).
119. PPL EnergyPlus, LLC v. Nazarian, 753 F.3d 467 (4th Cir. 2014), *aff'd sub nom.* Hughes v. Talen Energy Mktg. LLC, 136 S. Ct. 1288 (2016). The Third Circuit struck down a similar New Jersey law in *PPL EnergyPlus, LLC v. Solomon*, 766 F.3d 241 (3d Cir. 2014).
120. *Nazarian*, 753 F.3d at 475 (citing N. Natural Gas Co. v. State Corp. Comm'n, 372 U.S. 84, 91 (1963) ("Congress has legislated comprehensively to occupy an entire field of regulation, leaving no room for the States to supplement federal law.")).
121. Robin Bravender, *Supreme Court to Hear Major Grid Case Without Scalia*, E&E Publishing, LLC: Greenwire, Feb. 22, 2016 (quoting the author and Matthew Christiansen of the NYU Guarini Center). As Jim Rossi has cogently observed, the difference might not have mattered. The ultimate analysis would be similar in any event because "any energy field preemption issues under these statutes ultimately depends on first assessing the issue as an obstacle or conflict preemption case." Rossi, *supra* note 6, at 54.
122. Bravender, *supra* note 121 (quoting the author for the proposition that, in *Hughes*, "say[ing] that the state program is broadly pre-empted 'would appear to give FERC complete authority over the wholesale markets, and that would be inconsistent' with the demand-response ruling"); *cf.* Rossi, *supra* note 6, at 54; Rossi & Hutton, *supra* note 57, at 1355 (recommending against field preemption generally for electricity law and noting that "judicial decisions seem to disfavor field preemption based on the mere possibility of federal regulation as an overbroad approach that is inconsistent with any recognition of state autonomy").
123. Rossi, *supra* note 6, at 54.
124. *ONEOK*, 135 S. Ct. at 1599 ("[W]here (as here) a state law can be applied to non-jurisdictional as well as jurisdictional sales, we must proceed cautiously, finding pre-emption only where detailed examination convinces us that a matter falls within the pre-empted field as defined by our precedents.").
125. The primary jurisdiction doctrine is a judge-made tool that applies "when a claim is cognizable in federal court but requires resolution of an issue of first impression, or of a particularly complicated issue that Congress has committed to a regulatory agency." Kathryn A. Watts, *Adapting to Administrative Law's Erie Doctrine*, 101 Nw. U.L. Rev. 997, 1026 (2007) (quoting Syntek Semi-

not decided the case at all until FERC weighed in through a regulation or other means.

Some believed the Court might adopt a conflict preemption approach.[126] While Congressional purpose would again have been the touchstone, a decision relying on conflict preemption might have allowed a range of state laws to stand. The Court could also have expounded on the *ONEOK* test, under which a state law is preempted if it is "aimed directly at interstate purchasers and wholesales for resale."[127] There, the Court focused on the state law's regulatory scope: did it regulate businesses generally, or only the natural gas (or, by implication) electricity industry? As noted above, the *ONEOK* Court distinguished examples of the former, such as antitrust laws and securities blue sky laws, as "traditional" regulation affecting "all businesses in the marketplace."[128] Under this analysis, the Maryland law would fall, for it aimed as directly as one can imagine at FERC-jurisdictional markets, affecting only the amount the power plant owner receives from them. But the use of other, more broad-based state laws to promote power plant development would presumably be permissible.

Instead of doing any of this, the Court recited the basics of preemption doctrine, but avoided crafting a sweeping preemption principle or elaborating on the *ONEOK* test. It issued a narrow decision that, like *FERC v. EPSA*, hewed closely to the statutory text.[129] The Court overturned the Maryland law because it interfered with the system of setting wholesale rates through the capacity auctions.[130] By conditioning payment under the contract on the amount the generator received in the wholesale market, the Maryland program took the market payment as an input and gave the power plant owner the ability to change it. It allowed the power plant owner to consider the subsidy and therefore bid differently into the market, which, the Court stated, would distort the market design and "disregard" the wholesale rate.[131] Notwithstanding the Court's rote enunciation of preemption principles, this decision was grounded solely in an interpretation of the FPA. This was evidenced in Justice Sotomayor's concurring opinion stating that she agreed with the majority decision on that basis.[132]

The Court also cautioned that it was only rejecting this particular subsidy program:

> Our holding is limited: We reject Maryland's program only because it disregards an interstate wholesale rate required by FERC. We therefore need not and 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.[133]

This shows the Justices' concern about inhibiting states from pursuing the wide variety of means they have at their disposal for pursuing legitimate state goals such as encouraging new clean energy development. At the same time, if the state were to "condition" the incentive on market payments, or the measure is otherwise "tethered" to wholesale rates, the initiative cannot stand.[134] As Part III will discuss,[135] this leaves considerable uncertainty going forward.

II. FERC Authority in a System of Concurrent Jurisdiction

FERC v. EPSA's grant of authority to FERC to regulate "practices" "directly affecting" wholesale rates signals a momentous shift in the arc of electricity law. As this Part will demonstrate, it has far-reaching implications going forward. This jurisdictional standard gives FERC considerable leeway to regulate innovative activities taking place on the electric grid, as long as it can demonstrate direct impacts on the wholesale markets.[136] Many situations, like demand response bid into wholesale markets, will involve activities that have impacts at both the wholesale and retail levels. This is no longer a bar to action by FERC. FERC's authority will turn on the character of the activity and its impacts on wholesale markets, not a formalistic assessment of whether the activity is "wholesale" or "retail" in nature.[137]

After *FERC v. EPSA*, the states and FERC have dual and concurrent roles to pursue electricity initiatives that might reinforce each other's actions.[138] As Professor Jim Rossi and former FERC Chairman Jon Wellinghoff, who led FERC's development of Order 745, have stated, "[s]tate-

conductor Co. v. Microchip Tech. Inc., 285 F.3d 857, 862 (9th Cir. 2002)). When a court employs this doctrine, it refers the matter to the agency and may choose to retain jurisdiction while the agency makes a decision. Reiter v. Cooper, 507 U.S. 258, 268 (1993).

126. *See, e.g.*, Bravender, *supra* note 121.
127. *ONEOK*, 135 S. Ct. at 1600.
128. *Id.* at 1600–01.
129. *Hughes*, 136 S. Ct. at 1294, 1299.
130. *Id.*
131. *Id.* at 1299.
132. *Id.* at 1299–1301 (Sotomayor, J., concurring).
133. *Id.* at 1299.
134. *Hughes*, 136 S. Ct. at 1299.
135. *See* discussion *infra* Part III.
136. Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector*, *supra* note 5, at 8; Eisen, *FERC's Expansive Authority to Transform the Electric Grid, supra* note 25, at 1834 (demonstrating that FERC could justify a carbon price in the wholesale markets under this authority); *see also* Christopher J. Bateman & James T.B. Tripp, *Toward Greener FERC Regulation of the Power Industry*, 38 Harv. Envtl. L. Rev. 276, 329–32 (2014) (claiming that the FPA authorizes FERC to set "social-cost wholesale rates" that incorporate environmental costs).
137. Christiansen, *supra* note 5, at 102 (terming this a "deeply functionalist and pragmatic approach to the FPA").
138. With respect to this contemplation of concurrent actions in demand response, see Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector*, *supra* note 5, at 8; Rossi & Wellinghoff, *supra* note 7, at 28 ("This 'opt out' option allows FERC to set basic expectations for demand response resources in wholesale markets without discouraging state regulators from experimenting with a wide range of complementary approaches to promote energy conservation."); *see also* Hoskins & Roberti, *supra* note 5, at 16 ("[T]here is no longer any lingering uncertainty about the dual rights of FERC and the states to continue to develop policies that encourage DR.").

led policy experimentation with customer energy resources is consistent with the basic jurisdictional principles FERC endorsed in its regulation of demand response."[139] Much post-*EPSA* commentary uses language like "adjacent," "complementary" and "experimentation" to describe this new policy environment.[140]

Let a thousand flowers bloom, this suggests. And optimism can be the watchword of the moment, because *FERC v. EPSA* did not require FERC to override specific state laws. In *FERC v. EPSA*, FERC's primary opponents were power generators, who objected to competition in the wholesale markets from demand-side participation. States split on Order 745; while some objected, some supported it.[141] As a result, the Court upheld FERC's authority against EPSA's arguments, while simultaneously supporting state demand response programs. Even *Hughes*, where the Court rejected the Maryland law, nodded to states' flexibility by listing actions the Court believed states could take.[142]

However, the potential for conflict will not remain in the shadows for long. One of *FERC v. EPSA*'s most significant contributions to electricity law is its endorsement of a dual role for end users of electricity. They can act simultaneously both as consumers and providers of resources to the electric grid.[143] As two state public utility Commissioners recently noted, this empowers FERC to expand consumer participation in the wholesale markets.[144] That is wholly within FERC's authority, even if it brings FERC into areas where the states have previously acted alone. As Rossi and Wellinghoff put it, "it is inevitable that FERC's jurisdiction will expand into some arenas state regulators once considered exclusively their own."[145]

And once that happens, solicitude for the states will only extend so far. Under *FERC v. EPSA*, FERC has plenary authority over the wholesale markets' structure and operation,[146] so a state cannot dictate the mechanics of market operations. Thus, deciding who may be a market participant is exclusively within FERC's purview.[147] Suppose a state were to prohibit all generators making electricity from wind from selling into the wholesale markets. That prohibition would fall.[148] Order 745 included a similar provision: a state could bar demand response firms from taking part in wholesale markets. While the Court noted this provision, it did not take the additional step of requiring it in Order 745 or any other initiative expanding wholesale market participation.[149] Suppose, for example, that states chose to block firms from selling demand response into wholesale markets, which Order 745 allows. And further suppose that FERC decided to promulgate a new rule that eliminated the veto. If, as a result of these barriers, it found undue discrimination remained to market participation of demand response, FERC's rule would survive scrutiny.[150]

What could FERC do next? This Part will discuss two examples of how boldly FERC could use the "directly affecting" authority to craft policies for integrating clean and renewable energy into the electric grid, with environmental benefits such as reducing greenhouse gas emissions. The first involves a hypothetical nationwide extension of the proposal by California's regional grid operator to integrate DERs into wholesale markets. DERs are the small-scale resources on the customer side of the electric system, such as rooftop solar, energy storage, plug-in electric vehicles, and demand response.[151] The second involves the New York proposal under its "Reforming the Energy Vision" (REV proceeding[152] to create DSPPs) to coordinate activities involving aggregation of DERs and administration of markets for matching buyers and sellers of DERs.

Both proposals involve the intersection of state and federal jurisdiction, even under pre-2015 jurisprudence. For example, California contemplates that aggregators of DERs will sell these resources into the wholesale markets, which would be within FERC's jurisdiction. New York DSPPs will continue to purchase and sell electricity in the New York Independent System Operator ("NYISO") wholesale markets. But, as this Part will demonstrate, FERC's "directly affecting" authority extends its reach beyond jurisdiction over wholesale transactions, to shaping or even requiring specific policy designs. FERC has considerable latitude to use the "directly affect-

139. Rossi & Wellinghoff, *supra* note 7, at 28.
140. *See generally* Hoskins & Roberti, *supra* note 5; Rossi & Wellinghoff, *supra* note 7; *cf.* William Boyd & Ann E. Carlson, *Accidents of Federalism: Rate Design and Policy Innovation in Public Utility Law*, 63 UCLA L. Rev. 810, 841–76 (2016) (discussing numerous state experiments in the electric grid).
141. Nine states filed an amicus brief jointly in opposition to Order 745. Brief Amici Curiae of North Carolina Utilities Commission et al., FERC v. Elec. Pwr. Supply Ass'n, 136 S. Ct. 760 (2016) (No. 14-840). Twelve more joined another brief in opposition. Brief of Indiana, Oklahoma, and Ten States as Amici Curiae in Support of the Respondents, FERC v. Elec. Pwr. Supply Ass'n, 136 S. Ct. 760 (2016) (No. 14-840). Illinois, Maryland, Pennsylvania, and several other states supported FERC, as did various state administrative agencies. Brief for the State of Illinois et al. as Amici Curiae, FERC v. Elec. Pwr. Supply Ass'n, 136 S. Ct. 760 (2016) (No. 14-840); Joint States' Reply Brief on the Merits, FERC v. Elec. Pwr. Supply Ass'n, 136 S. Ct. 760 (2016) (No. 14-840).
142. *Hughes*, 136 S. Ct. at 1298–99.
143. Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector*, *supra* note 5, at 7.
144. Hoskins & Roberti, *supra* note 5, at 14 (noting that *FERC v. EPSA* "reinforces FERC's authority to ensure that any reliance on markets as a substitute for traditional cost-of-service regulation should employ market designs that promote greater participation in the wholesale marketplace").
145. Rossi & Wellinghoff, *supra* note 7, at 27.
146. Eisen, *FERC's Expansive Authority to Transform the Electric Grid, supra* note 25, at 1832; *see also FERC v. EPSA*, 136 S. Ct. at 774.
147. Eisen, *FERC's Expansive Authority to Transform the Electric Grid, supra* note 25, at 1834.
148. Rossi & Wellinghoff, *supra* note 7, at 29.
149. *Id.* at 30 ("[T]he Court did not conclude that state veto option is required by the FPA or necessary to support any federal regulation of state barriers to demand response as a practice affecting wholesale markets.").
150. *Id.*; Alfred Kahn, *The Supreme Court Saves Demand Response: Now What?*, Scott Hempling, Attorney at Law (Feb. 2016), http://www.scotthemplinglaw.com/essays/the-supreme-court-saves-demand-response (concluding that "FERC . . . is free to remove the state veto.").
151. Cal. Indep. Sys. Operator Corp., Distributed Energy Resource Provider Initiative, No. ER16-1085-000 app. C at 2 (Mar. 4, 2016) [hereinafter *CAISO Distributed Energy Resource Provider Initiative*], https://www.caiso.com/Documents/Mar4_2016_TariffAmendment_DistributedEnergyResourceProvider_ER16-1085.pdf. For a general discussion of DERs, see *Distributed Energy Resources*, Electric Power Res. Inst., http://www.epri.com/Our-Work/Pages/Distributed-Electricity-Resources.aspx (last visited May 12, 2016).
152. *Reforming the Energy Vision*, N.Y. Dep't of Pub. Serv. (Jan. 28, 2016, 3:52 PM), http://www3.dps.ny.gov/W/PSCWeb.nsf/All/CC4F2EFA3A23551585257DEA007DCFE2?OpenDocument.

ing" authority to influence policy development, particularly if it perceives that state laws stand in the way of just and reasonable wholesale rates. The challenge is to balance its authority over the wholesale markets with the states' spirit of innovation.

A. Promoting Renewables in Wholesale Markets: The Example of the California ISO "Distributed Energy Resources Provider" Proposal

As an example of how a jurisdictional dialogue might arise, suppose that FERC used the "directly affecting" standard to allow consumers to sell other resources into wholesale markets, including electricity generated from small-scale facilities such as rooftop solar arrays. At present, wholesale market structures create barriers to doing so.[153] For example, a rooftop solar owner could not bid his excess electricity into any wholesale market, due to size limits on market participants and other restrictions.[154]

To remedy this situation, FERC need not invent a model. Instead, it could rely on a system that the California regional grid operator is already developing. The California ISO ("CAISO") submitted a "Distributed Energy Resource Provider Initiative" proposal to FERC in March 2016.[155] This proposal aims to reduce or eliminate barriers to DER integration in the regional grid. CAISO proposes the creation of a "distributed energy resource provider" ("DERP"), which would be an entire "new type of market resource similar to a generating facility."[156] A DERP would aggregate mixtures of DERs and sell them into the wholesale markets in amounts sufficient to meet CAISO's minimum size requirement.[157] Either acting alone or through a contractor, a DERP would handle details such as scheduling and bidding, and metering and communication with DERs.[158]

DER aggregation could take a wide variety of forms, including microgrids, small-scale facilities aggregated by new market entrants, or even resources controlled by incumbent utilities.[159] The broad definition of DERs could dramatically expand the types and amounts of distributed resources in CAISO's wholesale markets, create new classes of grid participants, and stimulate market competition.[160] A wide variety of firms—electric vehicle charging stations, demand response companies, home automation firms, and partnerships between battery storage and solar leasing companies—have expressed interest in the California proposal.[161]

Because DERPs would sell DERs into CAISO's wholesale markets, the California proposal required FERC's approval. In spring 2016, it submitted a tariff amendment to FERC describing numerous program features, which FERC approved in June 2016.[162] Now suppose that California has administered the program and gained experience with it. Then, further suppose that FERC believed the California program was successful and issued a rule that required other regions to adopt DER aggregation. The potential implications are staggering: in a multi-state region, DER aggregation would allow a consumer with excess solar power to sell it to consumers many miles away in a different state.

To the extent it would be implemented by third party aggregators, the DERP structure is functionally similar to the aggregation mechanism *FERC v. EPSA* approved for bidding demand response into wholesale markets. And bids of electricity from distributed generation facilities would have impacts on wholesale market rates as direct as bidding in demand response. Adding new resources to a regional electricity mix would change wholesale prices, much as demand response lowered prices directly at times of peak demand.[163] Thus, adding more DERs to wholesale markets would directly affect wholesale rates and FERC would be acting well within its authority under the "directly affecting" standard if it required expanded DER aggregation.

As a predicate to this action, FERC would need to find that there had been undue discrimination against participation of these resources in wholesale markets.[164] This requirement could be satisfied in a number of ways. These could include reference to the size restrictions on wholesale market participation mentioned above. FERC could also take

153. *CAISO Distributed Energy Resource Provider Initiative, supra* note 151, at 1 (noting that "[c]urrently, the CAISO tariff does not offer a clear platform or guidance for smaller distributed energy resources to participate effectively in CAISO markets"). Each RTO imposes its own minimum sizes for participation. For example, ISO-New England has a minimum generator size of 5 megawatts ("MW"). ISO New England, Manual for Market Rule 1, III.3.2.6, http://www.iso-ne.com/static-assets/documents/2014/12/mr1_sec_1_12.pdf. For discussions of minimum bids for specific resources and markets, see James F. Ellison et al., Project Report: A Survey of Operating Reserve Markets in U.S. ISO/RTO-Managed Electric Energy Regions, Sandia Nat'l Lab. 18 (2012), http://www.sandia.gov/ess/publications/SAND2012_1000.pdf (discussing requirement of continuous output for some specified duration of time to be a provider), and Chris Neme & Richard Cowart, Energy Efficiency Participation in Electricity Capacity Markets—The US Experience 5 (2014) (ISO-New England and PJM minimum bid sizes for energy efficiency project bids into capacity markets).

154. *CAISO Distributed Energy Resource Provider Initiative, supra* note 151, at 2 ("For instance, in order for traditional supply resources to participate in the CAISO markets, they must meet the CAISO's minimum size requirement of 0.5 MW. This same requirement applies to distributed energy resources that wish to participate in the CAISO's markets.").

155. *Id.*

156. *Id.* at 3; Jeff St. John, *California's Plan to Turn Distributed Energy Resources Into Grid Market Players*, Greentech Media (June 12, 2015), http://www.greentechmedia.com/articles/read/californias-plan-to-turn-distributed-energy-resources-into-grid-market-play.

157. *CAISO Distributed Energy Resource Provider Initiative, supra* note 151, at 2.

158. *Id.* at 8. The term for this function in CAISO is "scheduling coordinator."

159. *Id.* at 5; *cf.* Jeff St. John, *Texas Moving Into Real-World Proposal Stage for Distributed Energy-Grid Integration*, Greentech Media (May 6, 2016), http://www.greentechmedia.com/articles/read/Texas-Moving-Into-Real-World-Proposal-Stage-For-Distributed-Energy-Grid-Int (describing the proposal of the ERCOT system operator in Texas to allow DER bidding into wholesale markets, with contemplation of an aggregation structure left to future proceedings). ERCOT is not subject to FERC's authority, as it is located wholly within Texas and not connected to the rest of the nation's grid. *See ERCOT*, Fed. Energy Reg. Comm'n (Nov. 17, 2015), http://www.ferc.gov/industries/electric/indus-act/rto/ercot.asp.

160. *Order Accepting Proposed Tariff Revisions Subject to Condition*, June 2, 2016, https://www.ferc.gov/CalendarFiles/20160602164336-ER16-1085-000.pdf.

161. St. John, *supra* note 156.

162. *CAISO Distributed Energy Resource Provider Initiative, supra* note 151.

163. *Id.* at 24–25 (noting that DERs on the CAISO system will impact prices through reducing transmission congestion, among other benefits).

164. 16 U.S.C. § 824e (2012) (requiring FERC to find the "rule, regulation, practice, or contract affecting such rate, charge, or classification is unjust, unreasonable, unduly discriminatory or preferential"); Rossi, *supra* note 6, at 57.

note of the actions currently underway in many states to limit consumers' ability to provide energy back to the grid through net metering or other means,[165] or to choose innovative financing models for rooftop solar power such as power purchase agreements.[166]

If FERC found that state laws limiting renewable energy development posed barriers to the participation of small-scale resources, and thus to the ability of the wholesale markets to provide just and reasonable rates, FERC could act under its "practices affecting rates" authority. It would be asserting that these laws directly affected wholesale rates by limiting market participation of DERs. And it could take action, even without incorporating a state veto into its rule. To avoid jurisdictional friction and potential political resistance, it could develop a nationwide program in consultation with the states. Perhaps that would be the wisest course of action, but after *FERC v. EPSA*, it is no longer strictly necessary.

B. *Impacting End Users: Influencing Development of the Distribution System Operator Concept*

FERC could also influence a dramatic transformation contemplated by the New York Public Service Commission ("PSC") in its REV proceeding, which proposes significant regulatory changes to make the state's electric system cleaner, more resilient, and more affordable.[167] One of REV's central features is a comprehensive transformation of distribution level utilities into distribution system operators ("DSOs"). This concept has been widely promoted in recent years in Europe[168] and the United States.[169] Broadly speaking, the DSO concept involves utilities moving away from simply serving customers via their existing distribution infrastructure, to becoming system operators responsible for planning and operations of the distribution network. The New York REV would implement the DSO concept by turning utilities in the state into DSPPs.[170]

A central goal of most DSO discussions is to facilitate more widespread integration of DERs into the grid, particularly from new grid participants.[171] The New York DSPP proposal, for example, is intended "to reform the utility business model and practices so that planning for and integrating DERs from third party providers is a central focus."[172] This recognizes that DERs are proliferating, but are primarily owned by customers (as in rooftop solar) or third parties, so distribution utilities often do not take them into account in system planning efforts.[173] A DSO would enhance integration of DERs through promoting revised business models and conducting markets for distribution-level electricity resources in which DERs would participate.[174] A DSO could be an existing distribution utility or, as some propose, a new independent entity.[175]

1. Key Attributes of the DSO

Discussions of the concept envision that a DSO would conduct some or all of a wide variety of activities. One recent

165. *See generally* NC Clean Energy Tech. Ctr., 50 States of Solar: Q1 2016 Quarterly Report (2016), https://nccleantech.ncsu.edu/wp-content/uploads/50-SoS-Q1-2016_Final.pdf (identifying how states are limiting policies promoting solar energy). An example is Nevada's law rolling back its net metering incentive. Julia Pyper, *Does Nevada's Controversial Net Metering Decision Set a Precedent for the Nation?*, Greentech Media (Feb. 4, 2016), http://www.greentechmedia.com/articles/read/nevada-net-metering-decision. For discussions of impediments to renewable energy development generally, see Joel B. Eisen, *Residential Renewable Energy: By Whom?*, 31 Utah Envtl. L. Rev. 339 (2011), and Felix Mormann, *Requirements for a Renewables Revolution*, 38 Ecology L.Q. 903 (2011).

166. Rossi & Wellinghoff, *supra* note 7, at 30, 31 ("Under current FERC policies, some states similarly limit retail customers from providing excess energy from rooftop solar or energy storage to the grid, and some of these state barriers could similarly go too far . . . . FERC can act when 'a state's regulatory prohibition on new entrants serves no purpose but benefitting incumbents while threatening competitive wholesale markets (as some state limits on third-party solar providers may).'").

167. *Reforming the Energy Vision*, *supra* note 152.

168. *Development of Methodologies and Tools for New and Evolving DSO Roles for Efficient DRES Integration in Distribution Networks*, European Commission: Cmty. Res. & Dev. Info. Serv., http://cordis.europa.eu/project/rcn/109548_en.html (last updated Mar. 31, 2016) (containing research and reports of the "evolvDSO" consortium).

169. Lorenzo Kristov & Paul De Martini, *21st Century Electric Distribution System Operations* (May, 2014), http://resnick.caltech.edu/docs/21st.pdf (discussing an "integrated distributed electricity system" that would perform this function, featuring DSOs) [hereinafter *Comparative Analysis of Flexible Distribution System Operation*]; Jeremy Lin & Katarina Knezović, 2016 13th Int'l Conf. on the European Energy Mkt. (EEM) (June 6–9, 2016); James Tong & Jon Wellinghoff, *Rooftop Parity*, Fort., Aug. 2014, https://www.fortnightly.com/fortnightly/2014/08/rooftop-parity (proposing DSOs).

170. New York's Public Service Commission split the REV proceeding into two tracks, with Track One focusing on DERs, distribution level markets, and the DSPP concept. Track 2 focuses on reforming utility ratemaking practices to reflect the DSPP model. The PSC's Track One order of February 2015 elaborated on the DSPP concept. N.Y. Pub. Serv. Comm'n, Order Adopting Regulatory Policy Framework and Implementation Plan, 14-M-0101, at 12 (Feb. 26, 2015) [hereinafter N.Y. PSC REV Track One Order].

171. Herman K. Trabish, *Jon Wellinghoff: Utilities Should Not Operate the Distribution Grid*, Utility Dive, Aug. 15, 2014, http://www.utilitydive.com/news/jon-wellinghoff-utilities-should-not-operate-the-distribution-grid/298286/; *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 1; *see also* Kristov & De Martini, *supra* note 169, at 1 (discussing an "integrated distributed electricity system" that would perform this function, featuring DSOs).

172. Gavin Bade, *REV in 2016: The Year That Could Transform Utility Business Models in New York*, Utility Dive, Jan. 20, 2016, http://www.utilitydive.com/news/rev-in-2016-the-year-that-could-transform-utility-business-models-in-new-y/412410/.

173. *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 1 ("Up until now, there has been limited incorporation of distributed energy resources (DER), demand response (DR), energy storage (DESS) and energy efficiency (EE) into the distribution system planning efforts."); Tong & Wellinghoff, *supra* note 169 (stating that for this reason DERs "are not incorporated into the utility's resource planning mix"). Some utilities have begun programs to develop (or procure) and own DERs. *See, e.g.*, Ian Clover, *SDG&E Signs 20 MW Storage Contract*, PV Mag., Apr. 1, 2016 (describing procurement by San Diego Gas & Electric of storage).

174. *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 1; Tong & Wellinghoff, *supra* note 169. *But see* Kristov & De Martini, *supra* note 169, at 6 (noting that the DSO should not administer economic markets but should instead act as an interface with the wholesale markets).

175. *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 3 (calling for independence as a DSO core attribute); Tong & Wellinghoff, *supra* note 169 ("[W]e contend that the best way for a utility to embrace new innovations without disruption to the grid is to have the distribution utilities transfer their operations to an independent distribution system operator (IDSO)"). The New York PSC considered a REV design with independent DSPPs, but concluded that, "because the DSP core functions would be highly integrated with utility planning and system operations, assigning them to an independent party would be redundant, inefficient and unnecessarily costly." N.Y. PSC REV Track One Order, *supra* note 170, at 45–46.

report identifies numerous key attributes of a DSO.[176] Among others, these include the following:

(a) Operational Flexibility

Regional grid operators dispatch power plants to utilities and load-serving entities that serve end users.[177] In similar fashion, a DSO could serve as a retail-level dispatcher. In this capacity, much as an RTO does at the regional level, it would be "akin to an air traffic controller."[178] It would balance supply and demand at the distribution level with a wide variety of electricity resources, including traditional power plants and an expanded fleet of DERs. Once a significant amount of DERs are connected directly to the DSO, this would require a system with the flexibility to manage all of these resources and simultaneously balance real-time supply and demand. For example, the DSO would need physical tools intelligently designed to allow for two-way power flow among multiple nodes on the system.[179]

(b) Market Administration

The DSO would be responsible for creating and administering markets, similar to the regional wholesale markets, which would trade DERs provided by third parties.[180] The market structures would need to be designed to properly value DERs and provide incentives for them to participate and provide electricity in sufficient quantities. This would also be an added means of contributing to system flexibility, by diversifying the portfolio of resources used to meet demand.[181] The DSO markets would be interconnected with wholesale markets, and, under certain structural designs, the DSO might be a wholesale market participant. For instance, if it was "netting out the aggregates of resources and loads at the distribution level," it might purchase electricity from the wholesale market.[182]

(c) Operational and Planning Authority

The DSO would assume responsibility for operating the distribution system, matching supply and demand instantaneously, and maintaining this balance under a variety of contingencies, including variable output from intermittent DERs.[183] The state's design for the DSO might give responsibility for operating the system and the markets to two different entities, but it is more likely (as is the case with RTOs) that a single entity would operate the distribution system and the resource markets. And, like the RTOs' responsibility for planning for transmission adequacy, the DSO would plan for expansions of the distribution network and of the network of electricity resources available to serve end users.

(d) Open Non-Discriminatory Access

As at the regional level, the DSO design should incorporate "provisions or rules that require open, fair and non-discriminatory access . . . by legitimate users of the system."[184] In this respect, the DSO should allow utilities, DER owners, customers, independent energy and service providers and other third parties the equal opportunity to meet the needs of end users.[185] This would require rules akin to FERC's Order 888 that required open non-discriminatory access to the transmission grid.[186]

(e) Interface With the Regional Grid Operator

Finally, besides balancing supply and demand variations at the distribution level, the DSO would link with the regional grid operator. As noted more fully below, this intersection is complex, with many points of interaction.

2. Jurisdictional Intersections in DSPP Implementation in New York

Through the REV proceeding, New York is moving rapidly to adopt the DSPP architecture, its variant of the DSO concept.[187] In this proceeding, the state's PSC is filling the role that FERC does with respect to the wholesale markets. It has taken on responsibility for design and implementation, acting as a "market overseer, enforcer of market rules, and creator of market structures[.]"[188] Whatever form the final DSPP structure will take, it will involve many avenues for

176. *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 1–3; *cf.* Trabish, *supra* note 171 (identifying Jon Wellinghoff's functions for an IDSO). In former FERC Chairman Jon Wellinghoff's view, the IDSO would maintain system safety and reliability; provide open and transparent system access; implement market mechanisms; oversee optimal DER deployment and dispatch; guard consumers' access to all transactive energy services; and allow regulated utilities, unregulated energy sellers, independent energy and service providers, and electricity customers equal opportunity to meet new electricity consumer needs.

177. Hammond & Spence, *supra* note 25, at 150.

178. Bade, *supra* note 172.

179. *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 2.

180. *Id.* The New York Track One order calls for distribution-level markets. N.Y. PSC REV Track One Order, *supra* note 170, at 33. New York aims to promote fairness in these markets by generally prohibiting utilities from owning distributed energy resources. *Id.* at 41 ("[T]he DSP market structure must monetize and exchange enhanced DER services in fair and open transactive markets[.]"); *id.* at 68 ("As a general rule, utility ownership of DER will not be allowed unless markets have had an opportunity to provide a service and have failed to do so in a cost-effective manner.").

181. N.Y. PSC REV Track One Order, *supra* note 170, at 104 ("Utilities are responsible for reliability, and the functions needed to enable distributed markets are integrally bound to the functions needed to ensure reliability.").

182. *Comparative Analysis of Flexible Distribution System Operation*, *supra* note 169, at 2.

183. *Id.*

184. *Id.*

185. Tong & Wellinghoff, *supra* note 169.

186. *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 18 C.F.R. pts. 35, 385 (1996); *Regional Transmission Organizations*, Order No. 2000, 18 C.F.R. pt. 35 (2000). For a discussion of these developments, see Joel B. Eisen, *Regulatory Linearity, Commerce Clause Brinksmanship, and Retrenchment in Electric Utility Deregulation*, 40 Wake Forest L. Rev. 545, 550–51 (2005).

187. N.Y. PSC REV Track One Order, *supra* note 170, at 3.

188. Trabish, *supra* note 171 (quoting Jon Wellinghoff's explanation of role changes of independent distribution system operators).

state and federal jurisdiction to intersect.[189] This section analyzes three different areas of FERC's potential authority: jurisdiction over wholesale sales of electricity that would take place in the new system; "directly affecting" jurisdiction over DSPP market rules that the PSC will adopt by virtue of the impacts on wholesale rates; and "directly affecting" jurisdiction over coordination activities between the wholesale and distribution level markets required as a result of interposing a distribution-level market structure between the wholesale markets and end users.

In its "Track One" order in 2015, the PSC made a number of key early decisions to guide design and implementation. For example, it stated that incumbent distribution utilities (Consolidated Edison and National Grid, for example) would serve as DSPPs in New York.[190] Other issues, such as the final design of distribution-level markets, are continuing to receive regulatory attention in the REV proceeding. For example, the PSC contemplates that a DSPP would be "a seamless interface between aggregated customers and the NYISO."[191] Thus, the DSPP would fit between the regional grid operator and end users. This creates many linkages and requirements for coordination between the NYISO and the DSPPs. Markets administered by DSPPs would have numerous overlaps with the wholesale markets.[192] Any exchange of electricity between the New York ISO (the state's grid operator) and a DSPP would be a FERC-jurisdictional wholesale transaction; it fits the FPA's definition of a wholesale sale of electricity as a sale for resale to an end user.[193]

So too might any sale by a DER owner in a DSPP-administered market. The analysis of this aspect of FERC's potential jurisdiction is much more complex, and, as no such market yet exists, the exact nature of FERC's authority will depend on the precise market structure that the PSC selects. However, there is some basis for drawing preliminary conclusions, as the process of developing New York's distribution level markets is already underway. The Track One order describes a multi-stage process of evolution toward open DER markets,[194] beginning with a near-term effort focused on incorporating DERs through requests for proposals, and "potentially" leading to an auction structure.[195] Building on that regulatory outline, an independent consultant jointly retained by the DPS and New York State Energy Research and Development Authority has recently produced a report to be used as an input to the REV proceeding.[196] This report outlines the numerous parameters involved in the "design of a new, distribution level market for energy and related electric products from [DERs] and of a statewide digital Platform to animate and facilitate the financial transactions in that market."[197] The DSPPs would co-own the platform, which would be a "business ecosystem" that would incorporate a forward market and a separate clearing market.[198] The paper concludes that a "Platform Market" "will best fulfill the objectives of the Commission as articulated in its Framework Order,"[199] but the analysis in this section includes the important caveat that the platform structure may not be the ultimate design chosen for DSPP markets.[200]

This "platform" is designed to resemble the structure used by companies such as Uber and Airbnb that match buyers and sellers and take a percentage fee.[201] Thus, it defines a "core interaction" that, like Uber's pairings of drivers and prospective passengers, matches market participants with each other:

> Parties can schedule delivery once parties complete the exchange of information and reach an agreement. The core interaction is completed, the parties have created and exchanged value, and there is a settlement.[202]

The platform would have a wide variety of participants.[203] These could include DER owners, DSPPs, energy service companies ("ESCOs," competitive electricity suppliers in New York's restructured electricity system[204]), third party aggregators and brokers trading DERs, system developers and installers, other energy companies offering services such as forecasting and analytics to consumers,[205] and even individual consumers participating directly. The platform's

189. Christiansen, *supra* note 5, at 109 (noting that, because "REV contemplates, among other things, developing a state-level analog to the RTOs that operate federal electricity markets," it has "the potential to create exactly the sort of "complex matter[s] that lie[ ] at the confluence of State and Federal jurisdiction" that FERC addressed with respect to demand response in Order 745.").

190. N.Y. PSC REV Track One Order, *supra* note 170, at 46–53.

191. *Id.* at 12.

192. *Id*. at 12.

193. 16 U.S.C. § 824(d) (defining the "sale of electric energy at wholesale" as "a sale of electric energy to any person for resale"); *see also* N.Y. PSC REV Track One Order, *supra* note 170, at 27–28 (comments of NYISO that DSPPs "should be subject to FERC regulation to the extent that [they] participate in wholesale markets"); Frank J. Guarini Ctr. on Envtl., Energy & Land Use Law, N.Y.U., Building New York's Future Electricity Markets: Identifying Policy Prerequisites & Market Relationships 10 (2015), http://guarini-center.org/building-new-yorks-future-electricity-markets/.

194. N.Y. PSC REV Track One Order, *supra* note 170, at 33 ("Products, rules, and entrants will develop in the market over time, and markets will value the attributes and capabilities of all types of technologies. As DSP capabilities evolve, procurement of DER attributes will develop as well, from a near-term approach based on RFPs and load modifying tariffs, towards a potentially more sophisticated auction approach. . . ."). The structure of the market will be a function of the needs defined by the DSP and customers, the products available in the market and procurement mechanisms for those products, the identity and capabilities of market participants and their interactions among each other and with the DSP, and policy guidance of the Commission. Customers will realize the greatest benefits from open, animated markets that provide clear signals—both long and short term—for benefits and costs of participants' market activity.

195. *Id*.

196. *See generally* Richard Tabors et al., *White Paper on Developing Competitive Electricity Markets and Pricing Structures*, Tabors Caramanis Rudkevich (Apr. 2016), http://tcr-us.com/uploads/3/9/7/2/3972068/tcr_developing_competitive_electricity_markets_paper__appendices_2016.pdf.

197. *Id*. at ES-1.

198. *Id*. at ES-4.

199. *Id*. at 57.

200. The report states this explicitly. *Id.* at 50 ("The Commission will ultimately decide whether to approve or reject the implementation of a platform and a platform market.").

201. Tabors et al., *supra* note 196, at 45 ("[P]latforms that facilitate a monetary transaction between buyers and sellers often try to monetize by charging a transaction cut, i.e., a percentage of the actual transaction value.").

202. *Id*. at 40.

203. *Id*. at 39.

204. *What You Should Know Before Choosing an Energy Supplier*, N.Y. Dep't of Pub. Serv., http://www3.dps.ny.gov/W/PSCWeb.nsf/All/DAA1CF3080DA35F685257FCB004EBB59?OpenDocument.

205. Tabors et al., *supra* note 196, at 13 (using the example of "suppliers of small-scale energy management systems, such as the NEST thermostat and the Tesla Storage Wall, to develop consumer-based Platform applications for those individual DER technologies").

multi-faceted structure would facilitate exchanges between "producers," who would be "typically the owners and aggregators of the DER who can use their assets to deliver part or all of a core electric product," and "consumers," typically DSPPs and ESCOs.[206] There would also be a wide variety of products exchanged, including "core products" like "energy and operating reserves" and other products and services.[207]

Distribution Utility <==> DER Owner: Buy and sell Core Products to one another
ESCO <==> DER Owner: Buy and sell Core Products to one another (An intermediary could also transact on behalf of DER owners)
Distribution Utility ==> Sells prequalified leads to ESCOs
Distribution Utility ==> Sells prequalified leads to DER system installers
DER system installers ==> Sell systems to DER owners
ESCOs ==> Sell full service supplier service to DER owners/households
Value added service providers ==> Sell analytics support to ESCOs
Value added service providers ==> Sell analytics support to Distribution Utilities

In this platform, there would be many different types of exchanges among buyers and sellers. Here, for example, is a matrix detailing the "range of transactions one could design a platform to support"[208]:

How much of this activity invokes FERC's jurisdiction over wholesale sales of electricity? The state believes "none at all." The Track One order spells out New York's intent to bypass FERC's sale jurisdiction by providing that "utilities will not purchase power that would constitute a sale for resale."[209] However, suppose the PSC adopted a market structure (as its report contemplates) in which DSPPs purchased electricity from DERs and then sold it to their customers. In that case, as New York City and other commenters pointed this out to the PSC in comments in the REV proceeding, the sales in the market would be at wholesale.[210] By comparison, the platform's designers take the view that its structure does not involve purchases and sales because the platform merely facilitates exchanges between buyers and sellers. Accordingly, the report's "understanding [is] that FERC may not interpret transactions in which the buyer acts as an agent of the seller, rather than holding title as a sale for resale."[211]

Yet the broad FPA definition of "sale of electric energy at wholesale" contains no such limitation: it encompasses "a sale of electric energy to any person for resale." Consider the first two categories in the table above: the sale of energy or reserves (the "core products" defined above) from a DER owner to a distribution utility or ESCO. If, after a transaction like this took place, the distribution utility or ESCO then sold the electricity it purchased to end users, this makes the original sales wholesale transactions. It would not matter that the platform simply acts as the "agent" for the seller and buyer. The first sales of DERs would be subject to FERC jurisdiction.

Even if for some reason it could not assert its sale jurisdiction over transactions in the DSPP markets, FERC would also have jurisdiction over the linkages between the DSPPs and NYISO under its "directly affecting" authority. As one of many examples, consider the close coordination between the two levels of markets required under the REV proposal for demand response participation. New York contemplates that if demand response is to participate more fully in wholesale markets via the DSPP, "[T]here will be a *need for alignment of wholesale and retail market rules* relating to demand response aggregation, program eligibility, product valuation, payment protocols, communications technology and procedures, and measurement and verification methodologies."[212]

Such coordination will be necessary to fully realize the values of distribution-level markets as well as to protect against risks of double payments. In some cases, this could require changes to wholesale market structures "to reflect [the] full value of services."[213] The consultant's report describes an example. At present, DER participation in NYISO markets is limited. DERs do not take part in the energy market, and only demand response can bid into the NYISO capacity market.[214] Demand response is further limited by restrictions that effectively preclude entities offering small-scale reductions from participation.[215]

The report identifies the potential for the platform market to circumvent these restrictions by allowing multiple demand response sellers to "pool" their resources and act as a single, larger source of reductions sufficient to bid into the ICAP market.[216] It states that the jurisdictional issues that this might raise are "outside the scope of this paper."[217] This is a tacit acknowledgement that this potential vehicle for increased demand response participation would raise FERC-jurisdictional issues if NYISO needed to revise its demand response bid rules to accommodate the changes at the distribution level. FERC's authority could also lead it to require

206. *Id.* at 39.
207. *Id.* at 40.
208. *Id.* at 59 tbl. 5 (Range of Possible Platform Transactions).
209. N.Y. PSC REV Track One Order, *supra* note 170, at 43 ("To avoid overlapping jurisdiction over DSP activities, utilities will not purchase power that would constitute a sale for resale under the Federal Power Act, except for purchases that are otherwise required by law (e.g., the Public Utilities Regulatory Policies Act and PSL Section 66-c).").
210. *Id.* ("New York City and others cautioned that products purchased by DSPs that are either repackaged for sale in ISO markets, or resold directly to utility customers, could trigger jurisdiction of the Federal Energy Regulatory Commission (FERC) over DSP activities.").
211. Tabors et al., *supra* note 196, at 8 n.16.
212. N.Y. Dep't of Pub. Serv., Developing the REV Market in New York: DPS Staff Straw Proposal on Track One Issues, 14-M-0101, at 34 (Aug. 22, 2014) (emphasis added); *cf. CAISO Distributed Energy Resource Provider Initiative*, *supra* note 151, at 2 (noting that the California DERP initiative was designed to "ensure that all aggregations are consistent with applicable rules and tariffs at both the retail and wholesale levels").
213. N.Y. PSC REV Track One Order, *supra* note 170, at 30.
214. Tabors et al., *supra* note 196, at 27; *ICAP Data and Information*, N.Y. Indep. Sys. Operator, http://www.nyiso.com/public/markets_operations/market_data/icap/index.jsp.
215. Tabors et al., *supra* note 196, at 27 ("[T]he maximum reduction a DER can bid into the NYISO ICAP market is limited to the average coincident load of its host facility; the DER cannot submit a bid in excess of its host's average coincident load.").
216. *Id.*
217. *Id.*

adjustments to DSPP market rules to align them with any necessary changes to wholesale market operations.

In addition, FERC could exert influence over DSPP market rules because increased DER penetration would directly impact wholesale market rates.[218] Increased DER resources trading in state markets could reduce the amount of electricity utilities purchased on the wholesale markets. As the PSC's consultant's report states, "it is assumed that Distribution Utilities will begin, sooner or later, procuring electric products from DER to . . . cost-effectively displace purchases of energy, ancillary services, and capacity from the relevant NYISO wholesale markets."[219] This would lead to "direct" impacts on those wholesale markets, and under *FERC v. EPSA* the potential for FERC to assert jurisdiction over certain DSPP market rules.

How this will all play out in the end is uncertain, as the REV proceeding is not yet completed and many of its features have yet to be finalized.[220] The REV involves the distribution system, jurisdiction over which the FPA traditionally reserves to the states. But this does not bar FERC's involvement.[221] One can anticipate a number of potential jurisdictional dialogues between FERC and New York.[222] The PSC consultant's report specified that New York might use open access tariffs at the distribution level to establish certain terms and conditions of DSPP operations.[223] If the state pursued this route, FERC could exercise oversight over these tariffs through engagement in dialogues with the PSC. Eventually, we might well see FERC adopt a generic "open access distribution tariff" ("OADT") specifying terms and conditions for many different aspects of this interaction, similar to the open access tariffs that govern access to the nation's transmission lines.[224] If it approved of New York's experiments, it could base the OADT on lessons learned from the REV proceeding.

III. State Jurisdiction After *Hughes*

Part II suggests that *FERC v. EPSA* could lead to jurisdictional challenges, and constraints on states' flexibility, if FERC uses the "directly affecting" authority to undertake a new initiative or coordinate with a state's program. But in *Hughes*, the spotlight shone on the states, and their flexibility to promote new power plants. What constrains the states in pursuing their goals in the electric grid, whether they are related to reliability, promoting clean energy, or other objectives?

The *Hughes* Court eschewed developing a precise standard, refraining from declaring *ab initio* which states' efforts would be precluded. Under the narrowest interpretation of *Hughes*, one type of state initiative is barred: an initiative or subsidy with a direct effect on wholesale prices in a FERC-approved wholesale capacity market.[225] Maryland's program operated by making a direct adjustment to the compensation paid to the generator in the PJM capacity market, so any other state incentive so closely tied to expected market revenues would be similarly suspect.[226] The Court itself recognized this shortly after deciding *Hughes* in refusing to hear an appeal of a Third Circuit decision voiding a comparable New Jersey law.[227]

What other state policies might survive judicial scrutiny? This Part uses two examples to consider possible answers. One is a hypothetical state property tax incentive, as recognized by the Court in *Hughes*. The other is New York's proposal to incorporate within its Clean Energy Standard program a "Zero Emissions Credit" ("ZEC") mechanism.[228] The ZEC program is designed to support nuclear power plants that are "struggling to stay in business because the market clearing prices do not cover long-run average costs."[229]

These examples demonstrate that the laundry list of state initiatives the Court appears to endorse at the end of the *Hughes* majority opinion probably raises more questions than it answers. As Professor Emily Hammond recently observed, "The difficulty is that *Hughes* doesn't really tell us which state initiatives will survive future Supremacy Clause challenges, and which will fail."[230]

A. *"Broad-Based" Policies: The Example of Tax Incentives*

Under *Hughes*, states have considerable latitude to subsidize new generation. As in *ONEOK*, the *Hughes* Court divided state and local policies into two categories: those explicitly

218. *See* Developing the REV Market in New York, *supra* note 212, at 33; *cf.* Varun Sivaram, *The Supreme Court Just Clarified Rules for Modern Power Regulation . . . Or Did It?*, Council on Foreign Rel., Energy, Sec'y & Climate (Jan. 26, 2016), http://blogs.cfr.org/levi/2016/01/26/the-supreme-court-just-clarified-rules-for-modern-power-regulationor-did-it/ ("[T]hese distribution-level markets may very well meet the Court's two part test in FERC of directly affecting wholesale rates and indirectly affecting retail rates, triggering federal jurisdiction over state initiatives.").

219. Tabors et al., *supra* note 196, at 8.

220. Christiansen, *supra* note 5, at 109 ("The REV proceeding is ongoing and it is impossible to say at this point what steps, if any, FERC might take to address the jurisdictional quandaries that it may present.").

221. Rossi & Wellinghoff, *supra* note 7, at 28 ("To the extent that customer energy resource programs address distribution or generation facilities, the plain language of section 201(b) of the FPA would appear to foreclose FERC from regulating them at all. Beyond this express prohibition on the regulation of certain facilities, *FERC v. EPSA* clarifies that FERC may still regulate wholesale rates and practices that directly affect them.").

222. *Id.* ("What is important for this Essay, however, is the fact that REV and other state reforms are likely to create more of the jurisdictional challenges on display in EPSA.").

223. *See* Tabors et al., *supra* note 196, at 26.

224. *See generally* Eisen, *An Open Access Distribution Tariff*, *supra* note 19.

225. An LSE can still find other ways to meet the capacity obligation, either through self-supply or bilateral contracts. *Hughes*, 136 S. Ct. at 1299; Brief for the Respondents, at 40, Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288 (2016) (No. 14-614) (explaining how the "fixed resource requirement" option in PJM allows LSEs these options); *cf.* Jeannine Anderson, *FERC Upholds Exemption for Self-Supply in PJM Capacity Market*, Pub. Pwr. Daily, Oct. 29, 2015 (describing the FERC order exempting entities that self-supply from the PJM minimum offer price rule).

226. Emily Hammond, Hughes v. Talen Energy Marketing, LLC: *Energy Law's Jurisdictional Boundaries—Take Three*, Geo. Wash. L. Rev. Docket (Oct. 2015), http://www.gwlr.org/hughes-v-talen-energy-marketing-llc-energy-laws-jurisdictional-boundaries-take-three/.

227. Jeannie O'Sullivan, *High Court Won't Hear NJ Power Plant Subsidy Appeals*, Law360, Apr. 25, 2016.

228. N.Y. Dep't of Pub. Serv., Staff White Paper on Clean Energy Standard, 15-E-0302, at 6 (Jan. 2016).

229. Hammond, *supra* note 226, at 3.

230. *Id.* at 4.

designed to influence the wholesale markets, and "various other measures.

States might employ to encourage development of new or clean generation."[231] The Court appeared to sanction the latter category, as it provided that states "may regulate within the domain Congress assigned to them even when their laws incidentally affect areas within FERC's domain."[232] Yet the Court's mention of "tax incentives, land grants, [and] direct subsidies"[233] (among others) as programs that would appear to pass muster leaves important questions unanswered, and much uncertainty for the future.

To begin with, the Court did not specifically approve this laundry list. It stated only that "we need not and do not address" whether these incentives would be allowed.[234] This leaves future courts to grapple with a number of vexing issues. Maryland's law was invalid for two separate reasons. It "aimed directly" at the wholesale markets with an initiative that regulated only electricity generators that participated in the wholesale markets, not industries at large. And it based the subsidy level explicitly on wholesale market price signals. Which of these (or both?) is the "tether" the Court had in mind? That is, could a state provide any economic incentive targeted to a would-be power plant developer, as long as it only incidentally affected the wholesale markets and was not calculated based on market prices?

The answer is complex, as the example of tax incentives demonstrates. States use a wide variety of tax policies to promote business development,[235] to varying effect.[236] Virginia, for example, has dozens of categories and individual programs, including property tax exemptions, enterprise zone programs, job tax credits, and many others.[237] Many target specific industries. For example, Virginia offers a tax exemption for certain manufacturers' generating and cogeneration equipment used to improve energy efficiency in specific ways,[238] and a "Green Job Creation Tax Credit" that promotes "employment in industries relating to the field of renewable, alternative energies, including the manufacture and operation of products used to generate electricity and other forms of energy from alternative sources."[239] This latter credit is set at "$500 for each annual salary that is $50,000 or more,"[240] so it is calculated without reference to the wholesale markets.

Hughes provided no specific guidance about whether this sort of targeted incentive is "tethered" to wholesale market participation. If "direct subsidies" are permissible, both of these incentives appear to be exactly what the Court had in mind. The mere fact that an incentive relates to the electricity industry and might prompt a power plant to locate in the state does not appear to be a sufficient "tether" to the wholesale markets. Indeed, the Court's support for the proposition that states have wide latitude to encourage new power plants suggests otherwise.

In this regard, the origins of the language "untethered to a generator's wholesale market participation" in the respondents' merits brief[241] may be revealing. The petitioners had argued that invalidating the Maryland program would preclude the state from taking any action that would "affect the price signals" of the wholesale markets.[242] The respondents claimed this generalization was overbroad,[243] as the state could "make those price signals *less relevant* by subsidizing new generation through tax incentives or similar financial support untethered to a generator's wholesale market participation."[244] What Maryland could not do was to "override the price signals" directly by adding its subsidy.[245] Perhaps, then, the Court believes state initiatives are permissible if they are calculated independently, without reference to the market prices. The impact on wholesale prices is incidental because it is only a byproduct of granting the incentive.

To illustrate the potential difficulties this might cause, consider the example of a property tax exemption. In Virginia, as in other states, real and personal property taxation is a local matter.[246] Suppose a Virginia city adopted an ordinance exempting a power plant developer from all local property taxes, to entice the developer to locate there. Local real property taxes have broad-based impacts and do not "aim directly" at the wholesale electricity market. Thus, exemptions from them, like the two tax incentives described above, would appear to be permissible. This assumption would collapse if the expected revenue from the wholesale markets were factored into the calculation process. Suppose the city were explicit about this, for example, by setting the tax reduction at the amount necessary to enable the owner to recover its expected costs based on projected market revenue. That would appear to be as problematic as the program invalidated in *Hughes*. However, it is by no means certain

231. *Hughes*, 136 S. Ct. at 1299.
232. *Id.* at 1290.
233. *Id.* at 1299.
234. *Id.*; *see* Jeannie O'Sullivan, *High Court Leaves NJ Power Plant Hopes Dimmed But Not Out*, Law360, Apr. 21, 2016 (quoting Day Pitney LLP partner David T. Doot).
235. Pew Ctr. on the States, *Evidence Counts: Evaluating State Tax Incentives for Jobs and Growth* (2012) (discussing numerous incentives, and evaluating the effectiveness of states' efforts to produce metrics for evaluating them).
236. There is extensive literature criticizing the use of state tax incentives as a business development mechanism. *See, e.g.*, Reuven S. Avi-Yonah, *Globalization, Tax Competition, and the Fiscal Crisis of the Welfare State*, 113 Harv. L. Rev. 1573, 1644 (2000) ("All the evidence points to a single conclusion: state tax incentives are a thoroughly unproven tool for promoting economic development."); Inst. on Taxation and Econ. Pol'y, *Tax Incentives: Costly for States, Drag on the Nation* (2013) (claiming that "tax incentives are of little benefit to the states and localities that offer them, and that they are actually a drag on national economic growth").
237. Va. Econ. Dev. P'ship, Va. Guide to Bus. Incentives 7 (2014–2015), http://www.yesvirginia.org/Content/pdf/Library/2014-2015%20Guide%20to%20Incentives.pdf.
238. Va. Code Ann. § 58.1-3506(A)(9) (West 2016). This statutory provision establishes a separate category of personal property for generating equipment, which localities may exempt from taxation, that is used "for the purpose of changing the energy source of a manufacturing plant from oil or natural gas to coal, wood, wood bark, wood residue, or any other alternative energy source for use in manufacturing and any cogeneration equipment purchased to achieve more efficient use of any energy source." *Id.*
239. *Id.* § 58.1-439.12:05.
240. *Id.*
241. Brief for the Respondents, *supra* note 225, at 39–40.
242. *Id.*
243. *Id.*
244. *Id.* (emphasis added).
245. *Id.*
246. Va. Econ. Dev. P'ship, *supra* note 237, at 5.

that a reviewing court would see it this way. The language in *Hughes* does not distinguish among "tax incentives" based on their method of calculation, so it might support allowing the incentive to stand. On the other hand, as noted above, *Hughes* does not give all incentives a free pass, so a reviewing court has latitude to closely scrutinize calculation methods.

If a court did strike a tax exemption because it was tied to market payments, this creates a perverse incentive for state and local taxing authorities to avoid rebuke by being less transparent about the reasons for granting exemptions. This introduces an additional element of concern about judicial interpretation of *Hughes*, as it might require case-by-case examination of the motive for granting the exemption. The extent to which an incentive would be suspect could turn on a matter wholly unrelated to the electricity markets: whether the city was required to maintain an administrative record that properly explains its reasons for providing the incentive.

But even if the city does not state the connection to the markets explicitly, it is still there nonetheless. All incentives provided to the would-be developer are intended to make the plant more economically viable. One would expect the developer as a matter of course to take all projected costs and expected revenues into account in deciding whether to build, but that is true of all incentives. Thus, if a "direct subsidy" is possible, as the Court suggests, the developer's expectations may not matter. The motive of only one party to the subsidy transaction—the state—would be pertinent; the developer's internal calculation would be irrelevant. All of this will be hashed out in future cases, which is a recipe for considerable uncertainty.

B. *Supporting Existing Power Plants in Wholesale Markets: The New York "Zero Emissions Credit" Proposal*

Several states have recently contemplated subsidizing aging nuclear power plants that, their operators claim, have become uneconomical to run without the subsidies. States have put forth a number of reasons to justify these initiatives. Some states rely on nuclear power for as much as 20% or more of total electricity generation (and much of this is baseload generation), so, it is argued, losing the plants might threaten overall system reliability.[247] Some states also justify incentives to nuclear plants on the basis that their generation of electricity produces no greenhouse gases, so these plants constitute a "bridge" to a zero-carbon future.[248] In this view, losing the zero-carbon capacity provided by nuclear power plants would make it even more difficult to reduce long-run greenhouse gas emissions, as it would be impossible in the short run to replace this capacity with anything other than fossil fuel-powered plants.

Hughes does not directly address this type of initiative. The Court discussed incentives for constructing new power plants, rather than keeping existing plants operating. It is hard to imagine, however, that the Court's logic should apply to new market entrants but not to existing participants. The core of a *Hughes* analysis is the extent to which a state's incentive for power plants is calculated with reference to market prices and, therefore, impinges on FERC's authority to set those prices. If existing plants receive subsidies that distort market prices as much or more as the incentives for new power plants, those subsidies are also suspect under *Hughes*. Yet this raises a set of difficult analytical issues for the states seeking to subsidize existing plants. Because the plants in question are already operating, it is impossible to ignore their participation in wholesale markets. Indeed, in the case of the struggling nuclear power plants, it is precisely their alleged failure to cover their costs in the wholesale markets that has prompted the call for subsidies.

By "untethered to wholesale market participation,"[249] the Court intended that lower courts focus on the closeness of the link between calculation of the incentive and current or expected market revenues. How close is close? Consider a range of ways in which the state might deal with the nuclear plants' expected revenue shortfall. On one end of the spectrum, it might attempt to make the plants whole, by giving them the difference between expected market revenues and their costs. On the other end of the spectrum, the state could base an incentive on factors having no relationship to the market.

The saga of the New York ZEC proposal shows the difficulties that courts will have in applying *Hughes* to subsidy programs for existing plants. In January 2016, the New York Department of Public Service ("DPS") released a staff report intended to design the state's Clean Energy Standard ("CES").[250] As subsequently announced in an order in August 2016, the CES will require all LSEs in the state to provide 50% of their electricity from renewable sources by 2030.[251] The order requires LSEs to procure renewable energy certificates ("RECs") to prompt renewable energy development.[252] In addition, as a "bridge" to the state's renewable energy future, the order establishes a ZEC system for the electricity produced by the state's nuclear power plants.[253] This is intended to prevent the premature retirement of three nuclear power plants in upstate New York that make significant contributions to baseload power and grid reliability without creating greenhouse gas emissions.[254] New York's Governor, Andrew Cuomo, announced in 2015 that to prevent the premature retirement of these plants, there would be

247. *See* discussion *infra* note 249 and accompanying text, and note 255.
248. *See* discussion *infra* notes 249–55 and accompanying text.

249. *Hughes*, 136 S. Ct. at 1299.
250. Staff White Paper on Clean Energy Standard, *supra* note 228, at 1.
251. N.Y. Pub. Serv. Comm'n, Order Adopting a Clean Energy Standard, Nos. 15-E-0302 & 16-E-0270, at 2 (Aug. 2016).
252. *Id.* at 14.
253. *Id.* at 19–20.
254. *Id.*; Hammond & Spence, *supra* note 25, at 209 (discussing a study by the New York ISO concluding that closing the Ginna plant, one of the three included in the ZEC program, would seriously hamper reliability in New York). In 2014, nuclear power made up 31.3% of all electricity generated in the state. *State Electricity Profiles: New York Electricity Profile*, U.S. Energy Info. Admin. tbl. 5, http://www.eia.gov/electricity/state/newyork/ (providing Electric power industry generation by primary energy source, 1990 through 2014). The three plants selected for the ZEC mechanism made up just over half of this total, supplying 16% of the state electricity total. Staff White Paper on Clean Energy Standard, *supra* note 228, at 29.

a financial mechanism to support them.[255] The result is the ZEC system.

As originally envisioned by the PSC staff, ZECs would provide three qualifying nuclear plants in upstate New York[256] with support payments, reflecting their costs of operation. As with RECs, all LSEs would be required to "procure ZECs from qualifying plants."[257] However, unlike RECs, whose value would be determined through trading activity, the DPS would set the price of ZECs, basing it on the amount necessary to ensure that the plants stayed in operation.[258]

Due to the limited number of nuclear power plant owners that would sell ZECs, and to protect ratepayers from the exercise of market power, the DPS would set the maximum price paid per ZEC in annual ratemaking proceedings.[259] In the January proposal, that price would have been based upon the difference between the "anticipated operating costs of the units and forecasted wholesale prices" in the New York ISO wholesale markets.[260] The staff report indicated this formula would set an appropriate and fair value for the environmental benefits (zero carbon emissions) provided by nuclear power plants.[261] Unlike RECs, ZECs could not be used to demonstrate compliance with the renewable energy mandate; they are a separate system. Moreover, ZECs may only come from plants that were online before 2015, so they are not intended to support new nuclear power plants—none of which are planned in New York in any event.[262]

Under the original proposal, the DPS would set the ZEC price by considering the utility's full cost structure, taking into account the revenue it would receive from the markets, and its other costs. Indeed, given the traditional obligation of PUCs to consider a utility's fixed and variable costs in setting rates, this calculation would be required. The ZEC cost would be passed along to New York ratepayers, as in the Maryland program invalidated in *Hughes*.[263]

This program, as proposed, could not have survived scrutiny under *Hughes*, as the ZEC price would have involved the exact sort of direct relationship to wholesale market prices that *Hughes* invalidated. The state's policy would have been "tethered" to the generator's participation in the wholesale market under any reading of *Hughes*. The ZEC program would have been designed to influence only the electricity industry, and it would have taken the wholesale rate as an input to its decision making process. Indeed, basing the ZEC value on the difference between market revenue and utility costs would have been the program's explicit purpose and the reason why it would be invalid.[264]

Perhaps recognizing this problem, the final PSC order employed a different mechanism for calculating the ZEC: basing it on a "social cost of carbon" intended to reflect the actual value of greenhouse gas emissions reductions.[265] There are, of course, numerous and widely varying estimates of this figure.[266] Federal agencies use a carbon price developed by the Interagency Working Group on Social Cost of Carbon ("USIWG") to incorporate the social costs associated with carbon dioxide emissions into cost-benefit analyses of major regulatory actions.[267] The order relies on this figure, subtracting from it an amount reflecting expected revenues that the nuclear power plants would receive in the Regional Greenhouse Gas Initiative ("RGGI") program.[268] This acknowledges that to a certain extent the plants are already compensated for their zero-carbon generation, albeit not in an amount sufficient to ensure their long-run survival.

The PSC order establishes six two-year "tranches" of credits for the nuclear plants. The formula for calculating the subsidy in the first two years is different from the formula that applies to the next ten years. For the first two years

255. *Governor Cuomo Directs Department of Public Service to Begin Process to Enact Clean Energy Standard*, N.Y. State (Dec. 2, 2015), https://www.governor.ny.gov/news/governor-cuomo-directs-department-public-service-begin-process-enact-clean-energy-standard ("[T]he Governor has directed the Department of Public Service to develop a process to prevent the premature retirement of safe, upstate nuclear power plants during this transition[.]").
256. Staff White Paper on Clean Energy Standard, *supra* note 228, at 30; William Opalka, *Plan Would Pay NY Nuclear Plants for Zero Emissions*, RTO Insider, Jan. 22, 2016 (observing that the state's fourth nuclear plant, the Indian Point power station, would close and would not be included in the ZEC program).
257. Staff White Paper on Clean Energy Standard, *supra* note 228, at 31.
258. *Id*. at 32.
259. *Id*.
260. *Id*.
261. *Id*. at 32–33.
262. U.S. Nuclear Reg. Comm'n, *Location of Projected New Nuclear Power Reactors*, http://www.nrc.gov/reactors/new-reactors/col/new-reactor-map.html (last visited May 10, 2016).
263. Compare the recent proposal by the utility FirstEnergy to the Ohio PUC for approval of a surcharge on customer rates to keep aging coal plants in operation. While FirstEnergy stated that the surcharge would be based solely on projections of its power plants' power production costs, those projections would include future estimates of successful bids in PJM capacity auctions. Gavin Bade & Robert Walton, *FirstEnergy, Critics File for Rehearing in Ohio Power Plant Subsidy Case*, Utility Dive, May 3, 2016.
264. Hammond, *Energy Law's Jurisdictional Boundaries—Take Three*, *supra* note 226 ("The reasoning of *Hughes* suggests that restructured states operating in organized wholesale markets may not build additional compensation into schemes that are expressly linked to a need for some amount of income over the wholesale clearing price."). The express link between costs and revenues to determine support payments also calls into question the FirstEnergy proposal described above, to the extent the analysis relies on future estimates of revenues from capacity auctions. Bade & Walton, *supra* note 263. Similarly, the proposed Illinois "Low Carbon Fuel Standard" bill that would require LSEs in that state to purchase "low carbon energy credits" from sources including nuclear power, modeled after the New York program, would have been in jeopardy after *Hughes*. The issue was skirted in the near term due to the state legislature's failure to adopt the proposed bill. H.B. 3293, 99th Gen. Assemb., Reg. Sess. (Ill. 2016); Robert Walton, *As Nuclear Plants Shutter, State Efforts to Save Them Are Coming Too Late*, Utility Dive, June 6, 2016.
265. Order Adopting a Clean Energy Standard, *supra* note 251, at 50–51.
266. Ctr. for Climate and Energy Solutions, Options and Considerations for a Federal Carbon Tax 6 (2013), http://www.c2es.org/publications/options-considerations-federal-carbon-tax ("There are many estimates of the social cost of carbon and they vary widely"); John Wihbey, *Understanding the Social Cost of Carbon—and Connecting It to Our Lives*, Yale Climate Connections (Feb. 12, 2015), http://www.yaleclimateconnections.org/2015/02/understanding-the-social-cost-of-carbon-and-connecting-it-to-our-lives/ (discussing different approaches). For some of the many discussions of the merits of a carbon tax and design considerations, see Shi-Ling Hsu, The Case for a Carbon Tax (2011), Ann E. Carlson, *Designing Effective Climate Policy: Cap-and-Trade and Complementary Policies*, 49 Harv. J. on Legis. 207 (2012), and Gilbert E. Metcalf & David Weisbach, *The Design of a Carbon Tax*, 33 Harv. Envtl. L. Rev. 499 (2009).
267. U.S. Interagency Working Grp. on Soc. Cost Carbon, Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866, 2 (2013) [hereinafter U.S. Interagency Working Grp. on Soc. Cost Carbon, Technical Support Document] (discussing the cost calculations performed by the Interagency Working Group on Social Cost of Carbon).
268. Order Adopting a Clean Energy Standard, *supra* note 251, at 51; *see* Regional Greenhouse Gas Initiative, Auction Prices, https://www.rggi.org/market/co2_auctions/results (last visited Oct. 14, 2016).

(Tranche 1), the subsidy is the USIWG cost of carbon less the expected RGGI revenues, converted to a cost per MWh and resulting in a subsidy of $17.48/MWh.[269] Thereafter, the subsidy is calculated similarly, but subtracts the amount by which a combination of specified NYISO wholesale energy and capacity prices exceeds $39 per MWh.[270] The order provides explicitly that this formula is not based on actual market revenues, stating that, "These components measure only the change in forecasts over time; they do not establish energy or capacity prices."[271]

The formula for Tranche 1 should pass muster under *Hughes* as untethered to wholesale market prices.[272] Neither the USIWG carbon price nor RGGI prices are calculated with reference to wholesale electricity markets.[273] This distinction may seem arbitrary if it results in the power plant owner recovering the same amount as it would have received under the original ZEC proposal. However, an incentive program structured in this fashion should be permissible after *Hughes*, unless it was structured to account for market conditions (if, for example, the PSC indicated how basing the Tranche 1 amount on the social cost of carbon would make up a specific level of expected market revenue shortfall).

New York's subsidy for Tranches 2 through 5 presents a more difficult situation. If the test for whether a subsidy survives scrutiny after *Hughes* involves whether it directly takes wholesale prices as an input, the state's formula may be infirm. The PSC order implicitly acknowledges this by attempting to distinguish its formula from one subtracting prevailing energy and capacity prices directly from costs. Whether this distinction is enough to sway a reviewing court is completely unknown. Some have argued that *Hughes* should be read extremely narrowly in this context.[274] In the narrow view, the only type of incentive that is impermissible is one that directly changes market prices, and New York's formula does not do this.[275] They base this conclusion on the final sentence in the *Hughes* majority opinion: "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."[276] Yet a reviewing court might find that the relationship between New York's subsidy program and the wholesale markets is too interwoven to survive scrutiny. While the PSC did not base the amount of the subsidy on expected market revenue, it did use a specific level of revenue as a subsidy floor. Payment of subsidies under these circumstances could be considered as tethered to market participation by virtue of using the floor as an input to the subsidy calculation process. Litigation to clear up this situation is virtually guaranteed.[277]

Given all these uncertainties, and more, it is unlikely that the Court had any of this in mind when it drew up the laundry list of measures like tax incentives that it thought would be permissible. "Aiming at the wholesale market," "untethered to a generator's wholesale market participation," and "condition on participation in the wholesale market" are words likely to bedevil federal courts for years to come. In the absence of yet another Supreme Court decision clarifying its new positions on electricity federalism,[278] more guidance is not likely to be forthcoming. This language offers little predictability. The state can always request that FERC approve its program as leading to just and reasonable wholesale rates, but that approval may not be likely if the market impacts are substantial. States will have to either vet their statutory and regulatory initiatives with FERC, or run the risk of expensive litigation.

IV. Conclusion

Prior to *ONEOK*, *FERC v. EPSA* and *Hughes*, several years had elapsed since the Court had issued *any* decision involving the electric grid, much less three in one year. These three cases taken together are likely to be the Supreme Court's last word on electricity law and policy for years to come, and signal a new era of allocating jurisdictional responsibility over the electric grid.[279]

Taken as a whole, several conclusions may be drawn from these cases. First, FERC has sweeping authority to transform the electric grid under the "directly affecting" test,[280] subject to certain limitations. When new technologies for generating, storing, and transmitting electricity reach their full potential, FERC can step in and redesign the wholesale markets to accommodate them. It should cooperate with the

269. Order Adopting a Clean Energy Standard, *supra* note 251, at 51. Both the USIWG carbon price and RGGI allowance figures are quoted in dollars per short ton of emissions. To convert this to dollars per MWh, the PSC employed a "conversion factor" of 0.53846, reflecting the average emissions per kWh of electricity across the New York power plant fleet.

270. Order Adopting a Clean Energy Standard, *supra* note 251, at 6 appx. E (explaining this formula).

271. *Id.* at 138.

272. However, if this resulted in the plant receiving considerably more than its conventionally calculated revenue requirement, it would leave the DPS open to a charge that the result was not just and reasonable under New York's Public Service Law. N.Y. Pub. Svc. L. § 65 (Consol. 2016).

273. The federal SCC is based on a "comprehensive estimate of climate change damages and includes, among other things, changes in net agricultural productivity, human health, property damages from increased flood risk and changes in energy system costs, such as reduced costs for heating and increased costs for air conditioning." U.S. Envtl. Prot. Agency, EPA Fact Sheet: Social Cost Carbon 1 (2015); U.S. Interagency Working Grp. on Soc. Cost Carbon, Technical Support Document, *supra* note 267, at 2; *see also* Shi-Ling Hsu, *A Prediction Market for Climate Outcomes*, 83 U. Colo. L. Rev. 179 (2011) (proposing a carbon tax calculated with respect to global temperature changes); Frances C. Moore & Delavane B. Diaz, *Temperature Impacts on Economic Growth Warrant Stringent Mitigation Policy*, 5 Nature Climate Change 127, 127 (2015) (basing the costs of greenhouse gas mitigation on total factor productivity growth and capital depreciation). None of this, of course, links carbon mitigation costs to wholesale electricity market prices.

274. Keith Goldberg, *NY Nuke Plant Subsidies Will Likely Face Legal Battle*, Law360, Aug. 2, 2016 (quoting attorneys Daniel Riesel, Joe Fagan, and Harvey Reiter).

275. *Id.*

276. *Hughes*, 136 S. Ct. at 1299.

277. *See generally* Goldberg, *supra* note 274.

278. Hammond, *Energy Law's Jurisdictional Boundaries—Take Three*, *supra* note 226 (noting that after *Hughes*, "[w]e are likely now in the position of awaiting 'Take Four.'").

279. *See* Bravender, *supra* note 121 (quoting the author, stating, "I think we will look back on these series of decisions decades from now as foundational and landmark decisions that allocate responsibility for governing the grid in a very different way than the bright line split of the Federal Power Act would seem to imply.").

280. Rossi & Wellinghoff, *supra* note 7, at 31 ("FERC cannot shy away from exercising its statutory responsibility to set basic ground rules for interstate energy markets—including the elimination of significant state barriers, where warranted.").

states,[281] but has substantial latitude to affect their initiatives. At the same time, the states can take actions under broad-based statutes such as antitrust and tax laws. They can pursue their own energy goals as long as their subsidies do not directly target FERC-jurisdictional wholesale rates. After *Hughes*, many questions about the scope of this authority are put off to the future.

Second, these decisions mark the end of dual federalism in electricity law because it can no longer be said that federal and state actions are disconnected. As the Court has now noted, the bright line between federal and state jurisdiction is unworkable in the modern, interconnected electric grid. Instead, the Court has recognized in all three cases, the two levels of government are now interconnected for the foreseeable future. *FERC v. EPSA*'s "directly affecting" standard and *Hughes*' invalidation of the Maryland contract for differences give FERC authority while preserving latitude for states to act. Thus, both may act simultaneously even if it impacts the other: FERC may act even if it impacts retail rates, and the states can act if they do not "disregard" wholesale rates. This new electricity federalism is not ideologically driven, but instead is a pragmatic approach to the modern realities.[282] Nor is it an unwelcome development in light of the modern movement from dual federalism to concurrent jurisdictional approaches generally.[283]

Finally, the jurisdictional division of responsibility between FERC and the states is now a matter of experimentation rather than a system governed by hard and fast rules. *FERC v. EPSA* is no pure jurisdictional grab at the states' expense, as Justice Kagan's "notable solicitude" for states' efforts is an indication that states will be active participants in shaping the grid's future.[284] But it may result in FERC actions that bring new participants into the wholesale markets, which would inevitably prompt jurisdictional clashes with the states.[285]

The challenge of striking the jurisdictional balance accurately after these decisions shows that while the Court has given FERC the green light to act boldly, it was demonstrably uncomfortable with sorting out all of the potential consequences for the states. *Hughes* and *ONEOK* set overarching principles and allow for case-by-case determination of state interference with the federal scheme, rather than aspiring to doctrinal precision. In states whose utilities do not participate in organized wholesale markets, of course, the principles of traditional electricity regulation will continue to apply as before.

One conclusion implicit in all three of these decisions is that there is no need for a new or revamped FPA. While modern challenges seemed to have stressed this venerable statute near its conceptual breaking point, it has demonstrated its remarkable flexibility to handle today's challenges. Wisely, the Court appears to recognize that the FPA governs a complex, highly technical and rapidly evolving industry, that the Court lacks the expertise of federal and state regulators, and that it might make a serious misstep if it did more to precisely define how the FPA should govern the federal-state relationship going forward. But there has been no suggestion that statutory overhaul is necessary. On the contrary, the Court has relied explicitly on the statutory text to address matters never foreseen in 1935. For that reason, the FPA remains a solid foundation on which to build a robust, modern electric grid.

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281. *Id*. (deeming it "particularly important for FERC to consider using a cooperative federalism approach" because many technologies for the grid's future are only now under development).
282. *Hughes*, 136 S. Ct. 1288, was unanimous, and the two earlier decisions crossed ideological lines: Justices Alito and Kennedy joined Justice Breyer's majority opinion in *ONEOK*, *supra* note 3, and Chief Justice Roberts and Justice Kennedy joined Justice Kagan's majority opinion in *FERC v. EPSA*, *supra* note 1.
283. Young, *supra* note 6, at 145 (noting that, "just as concurrent regulatory jurisdiction can coexist with federal supremacy, it is also not inconsistent with the idea that certain powers may be exclusively vested in one government or the other.").
284. Hoskins & Roberti, *supra* note 5, at 21 ("Some may read Justice Kagan's opinion as an expansion of federal jurisdiction at the expense of state power, but we see it otherwise.").
285. *See generally* Eisen, FERC v. EPSA *and the Path to a Cleaner Electricity Sector, supra* note 5.