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The New(Clear?) Electricity Federalism: Federal Preemption of States’ “Zero Emissions Credit” Programs

Joel B. Eisen*

Two pending federal appellate cases involving Illinois and New York laws, *Old Mill Creek v. Star* and *Coalition For Competitive Electricity v. Zibelman* respectively,¹ involve the conflict between federal authority over the electric grid and state laws supporting nuclear power plants. The issues are nearly identical in both cases.² In Illinois, New York, and other states,³ aging nuclear plants are struggling to stay in business. These plants generate electricity and sell it in

* Professor of Law, University of Richmond School of Law. The author thanks Ari Peskoe, Emily Hammond, Dick Pierce, and Shelley Welton for their insights, as well as the participants in the Harvard Environmental Law Program’s October 2017 workshop on “Regulatory Paths Forward for a Cleaner Grid,” and the panelists and attendees at the Vermont Law School’s October 2017 symposium on “The Energy Transition,” at which the author presented on this topic.

1. *Village of Old Mill Creek v. Star*, 2017 WL 3008289 (N.D. Ill.), *appeal docketed*, No. 17-2445 (7th Cir. July 18, 2017); *Coal. For Competitive Elec. v. Zibelman*, 272 F. Supp. 3d 554 (S.D.N.Y.), *appeal docketed*, No. 17-2654 (2d Cir. Aug. 25, 2017).

2. Besides preemption issues, the cases raise Dormant Commerce Clause challenges, which are addressed separately in Sam Kalen & Steven Weissman, *The Electric Grid Confronts the Dormant Commerce Clause*, 44 *ECOLOGY L.Q. CURRENTS* (2018); *see generally* Felix Mormann, *Constitutional Challenges and Opportunities for State Climate Policy Innovation*, 41 *HARV. ENVTL. L. REV.* 189 (2017) (discussing Constitutional challenges to state clean energy policies).

The District Court decisions also hold that the Supremacy Clause bars private causes of action for preemption under *Armstrong v. Exceptional Child Ctr., Inc.*, 135 S. Ct. 1378 (2015) and the courts’ reading of the FPA, which creates no rights for individual citizens to assert preemption claims. *See* Jim Rossi, *The Brave New Path Of Energy Federalism*, 95 *TEX. L. REV.* 399, 462 (2016) (discussing this issue and finding that its resolution is “not at all clear”). This Article proceeds under the assumption that the preemption issues require resolution regardless of the disposition of the *Armstrong* issue.

3. *See* Peter Maloney, *Feud of the Year: Nuclear and coal vs. competitive markets*, *UTILITY DIVE* (Dec. 4, 2017), <https://www.utilitydive.com/news/feud-of-the-year-nuclear-and-coal-vs-competitive-markets/508266/> (describing support efforts underway in Connecticut, Pennsylvania, and Ohio in addition to those in New York and Illinois). Connecticut’s General Assembly recently passed a bill that on its face would establish a system of zero-carbon procurement for the state, but which in reality would support the state’s only nuclear power plant. Mark Pazniokas, *Millstone bill passes House, goes to governor*, *THE CT. MIRROR* (Oct. 26, 2017), <https://ctmirror.org/2017/10/26/millstone-bill-passes-house-goes-to-governor/> (discussing SB-1501, Conn. Gen. Assembly, Sess. Year 2017). The CEO of New Jersey’s utility, PSEG, recently claimed its nuclear plants would not survive without subsidies. Peter Maloney, *PSEG CEO: Salem, Hope Creek nukes will close absent subsidies*, *UTILITY DIVE* (Dec. 6, 2017), <https://www.utilitydive.com/news/pseg-ceo-salem-hope-creek-nukes-will-close-absent-subsidies/512345/>.

regional wholesale electricity markets that grid operators known as “independent system operators” (ISOs) and “regional transmission organizations” (RTOs) administer.⁴ Competition in these markets, primarily with low-priced natural gas but also with renewables, has lowered prices and left the nuclear plants short of recovering their high operating and capital costs.⁵

Concerned about this, the states are subsidizing these plants. The plaintiff-appellants in *Star* and *Zibelman* argue that the authority of the Federal Energy Regulatory Commission (FERC) over the wholesale electricity markets under the Federal Power Act (FPA) preempts these state subsidies.⁶ This Article proposes and explains a test for resolving the upcoming appeals that turns on the state’s conscious disregard of FERC’s authority. If a state law explicitly and consciously aims to directly affect wholesale market prices, terms, or conditions, its subsidy program is impermissible as an intrusion on FERC’s regulatory turf. It further contends that *only* this test can harmonize three recent Supreme Court decisions on the intersection of state and federal jurisdiction over the electric grid, preserve valuable state policy experimentation, and set a narrowly defined preemption standard that avoids unintended consequences in future litigation. Applying the test to the state nuclear subsidies, this Article concludes that federal law preempts them and that the District Courts’ decisions to the contrary were in error.

The subsidy programs are similar in both states. New York and Illinois require utilities and other companies that deliver electricity to customers to purchase “zero emissions credits” (ZECs) from the affected plants, giving them an additional revenue stream.⁷ “Zero emissions” recognizes that these plants are a large source of carbon-free electricity generation.⁸ In both states, nuclear power makes up a significant percentage of both total and clean electricity generation,⁹

4. Today, seven regional grid operators (ISOs and RTOs) operate wholesale markets and serve almost two-thirds of the nation. Joel B. Eisen & Felix Mormann, *Free Trade In Electric Power*, 2018 UTAH L. REV. 49 (2018); Joel B. Eisen, *FERC’s Expansive Authority to Transform the Electric Grid*, 49 U.C. DAVIS L. REV. 1783, 1792–93 (2016) [hereinafter Eisen, *FERC’s Expansive Authority to Transform the Electric Grid*]; *Regional Transmission Organizations (RTO)/Independent System Operators (ISO)*, FED. ENERGY REG. COMM’N (last updated Feb. 15, 2018), <https://www.ferc.gov/industries/electric/industryact/rto.asp>. For convenience, this Article will refer to the grid operators as “RTOs.” For a discussion of these markets and their operations, see Emily Hammond & David B. Spence, *The Regulatory Contract in the Marketplace*, 69 VAND. L. REV. 141 (2016).

5. Joel B. Eisen, *Dual Electricity Federalism Is Dead, But How Dead, and What Replaces It?*, 8 GEO. WASH. J. OF ENERGY AND ENV’T L. 3, 17 (Winter 2017) [hereinafter Eisen, *Dual Electricity Federalism Is Dead*]; Emily Hammond, *The Energy In-Betweens* 14–15 (forthcoming 2018) (on file with author).

6. *Village of Old Mill Creek*, 2017 WL 3008289, at *5; *Zibelman*, 272 F. Supp. 3d at 563.

7. New York accomplished this through an administrative order of the state’s Public Service Commission. See N.Y. PUB. SERV. COMM’N, ORDER ADOPTING A CLEAN ENERGY STANDARD, Cases 15-E-0302 & 16-E-0270 (Aug. 2016). The Illinois program was embodied in the Future Energy Jobs Act, 20 ILCS 3855/1-75(d-5).

8. *Nuclear Power and the Environment*, U.S. ENERGY INFO. ADMIN. https://www.eia.gov/energyexplained/index.cfm?page=nuclear_environment.

9. In 2014, for example, the three New York plants eligible for ZECs supplied 16% of electricity generated and delivered in the state. N.Y. DEP’T OF PUB. SERV., STAFF WHITE PAPER ON CLEAN ENERGY STANDARD 29 (2016); cf. Hammond, *supra* note **Error! Reference source not found.**, at 14 (“In New

and as a result, the states believe that nuclear plants are an important “bridge” to a clean energy future.¹⁰

At first, New York and Illinois attempted to fix the value of ZECs at the difference between the affected plants’ costs and revenues.¹¹ New York then recognized that the Supreme Court’s *Hughes* decision effectively foreclosed that approach, for reasons discussed below;¹² and the Illinois legislative proposal aiming to make up revenue gaps failed to become law.¹³ So both states revised their pricing formulas to set the ZEC price initially at the “social cost of carbon” (SCC), a measure of the amount of damage a ton of carbon dioxide emissions causes.¹⁴ New York, which belongs to the Regional Greenhouse Gas Initiative (RGGI), subtracts RGGI revenues in the first two-year period.¹⁵ Under both new formulas, “the math itself includes the wholesale markets.”¹⁶ Prices may be adjusted under formulas tied to indices of wholesale electricity prices, although the two states do this slightly differently. New York’s ZEC price adjusts after the first two years by accounting for projected wholesale energy and capacity market revenues.¹⁷ Illinois uses a “price adjustment” derived from two different indices that account for prices in the PJM and MISO energy and capacity wholesale markets.¹⁸

York, nuclear power represents 59% of non-emitting generation; in Illinois, nuclear power provides over 90% of non-emitting generation”).

10. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 19; Hammond, *supra* note 5 **Error! Reference source not found.**, at 14.

11. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 20.

12. *Id.* (noting that the original New York formula “could not have survived scrutiny under *Hughes*”).

13. In 2015, the state’s utility commission issued a report that nuclear plants’ falling revenues justified action. ILL. COMM. COMM’N ET AL., POTENTIAL NUCLEAR POWER PLANT CLOSINGS IN ILLINOIS 33–34 (Jan. 5, 2015). Then, Exelon (the power plants’ owner) and the utility, Commonwealth Edison, promoted a “Next Generation Energy Plan” (NGEP) that was introduced in the Illinois Legislature. The NGEP bill included a “Zero Emission Standard,” that, like the original design of the New York program, would have covered the nuclear plants’ revenue shortfalls.

14. ORDER ADOPTING A CLEAN ENERGY STANDARD, *supra* note 7, at 50–51; Future Energy Jobs Act, 20 ILCS 3855/1-75(d-5)(B). See INTERAGENCY WORKING GRP. ON SOCIAL COST OF GREENHOUSE GASES, TECHNICAL UPDATE OF THE SOCIAL COST OF CARBON FOR REGULATORY IMPACT ANALYSIS UNDER EXECUTIVE ORDER 12,866 (May 2013, revised July 2015)(establishing the SCC); *Hearing on S. 1857, S. 203, S. 839, and S. 1934 Before the S. Comm. on Env’t. and Pub. Wks., Subcomm. On Clean Air and Nuclear Safety*, 115th Cong. (2017) (statement of Emily Hammond, Glen Earl Weston Research Professor of Law, The George Washington Univ. Law School at 5) (noting that, “The SCC was developed by an interagency working group, subjected to peer review, and upheld in federal court.”).

15. ORDER ADOPTING A CLEAN ENERGY STANDARD, *supra* note 7, at 51; see *Auction Prices*, REGIONAL GREENHOUSE GAS INITIATIVE, https://www.rggi.org/market/co2_auctions/results (last visited Dec. 5, 2017).

16. Hammond, *supra* note 5, at 15.

17. ORDER ADOPTING A CLEAN ENERGY STANDARD, *supra* note 7, at 51.

18. Future Energy Jobs Act, 20 ILCS 3855/1-75(d-5)(B)(i)-(iii). See Brief of Independent Market Monitor for PJM as Amici Curiae Supporting Plaintiffs-Appellants at 4, *Electric Power Supply Association, et al. v. Star*, No. 17-2445 (7th Cir. Sept. 5, 2017) (noting that, “[t]he amount of the subsidy is tied directly to market prices, termed the ‘baseline market price index’ which equals \$31.40 per MWh. The baseline market price index is equal to the PJM energy price in Illinois plus the average of the MISO and PJM locational capacity market prices.”); Shelley Welton, *Electricity Markets and the Social Project*

The states cleverly designed ZECs to resemble existing state clean energy programs, even mimicking “credit” terminology. For this reason, ZECs are easily confused with renewable energy credits (RECs), but the two are quite different, as discussed below in Part III. Regardless of the environmental justifications, the ultimate purpose of ZECs is unmistakable: to keep affected plants from failing by making up their revenue shortfalls.¹⁹ Unlike REC programs, ZECs explicitly aim to cure perceived market shortcomings by giving plants more compensation.²⁰ This “self-conscious purpose of preserving baseload generation that is struggling on the markets”²¹ distinguishes ZECs from other state green energy programs, which do not take market prices into account, and makes them perhaps the “most controversial” state energy programs.²²

And ZECs are just the start. States are increasingly contemplating “around-market” policies that subsidize specific power plants and “interfere with, or operate in spite of, the wholesale markets.”²³ States justify these policies with concerns about jobs and grid reliability, in addition to emissions.²⁴ These initiatives can influence wholesale market outcomes because “any state policy that adds or subtracts from a generator’s costs can affect the outcomes in the regional market.”²⁵

There is considerable unease about this interaction between state policies and the markets. Many have called into question how – or even whether – the

of Decarbonization, 118 COLUM. L. REV. (forthcoming 2018) (on file with author) (describing the payment structure).

19. Brief of Independent Market Monitor for PJM, *supra* note 18, at 2 (“Regardless of the specific rationales offered for the subsidies, the proposed solution for the selected generating units is to provide out of market subsidies in order to keep uneconomic units in the market.”); Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 20; (“it is precisely [the plants’] alleged failure to cover their costs in the wholesale markets that has prompted the call for subsidies.”).

20. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 20; Hammond, *supra* note 5, at 18. The development of the Illinois ZEC program illustrates this vividly. When the NGEF legislation failed, Exelon announced that its power plants would be closed. RAYMOND L. GIFFORD & MATTHEW S. LARSON, STATE ACTIONS IN ORGANIZED MARKETS: STATES STRIVE TO “FIX” MARKETS AND RETAIN BASE LOAD GENERATION 3 (2016). Subsequently, stakeholders in Illinois developed the Future Energy Jobs Act, with a myriad of provisions, including the new ZEC design.

In New York, the state had also made it clear that nuclear plants’ financial struggles on wholesale markets warranted action. *See, e.g.*, N.Y. PUB. SERV. COMM’N, ORDER FURTHER EXPANDING SCOPE OF PROCEEDING AND SEEKING COMMENTS, Case 15-E-0302, at 4 (Feb. 24, 2016) (clean energy standard proceedings expanded for this reason).

21. Hammond, *supra* note 5, at 12.

22. Welton, *supra* note 18, at 18.

23. Hammond, *supra* note 5, at 12; *see also* GIFFORD & LARSON, *supra* note 20, at 2 (referring to state initiatives as “around market” proposals); PJM Interconnection, *Context for PJM Market Design Proposals Responding to State Public Policy Initiatives 2* (June 12, 2017) <https://www.pjm.com/~media/library/reports-notice/special-reports/20170612-context-for-pjm-market-design-proposals-responding-to-state-public-policy-initiatives.ashx> (noting that this new variety of state policies differs from other initiatives of recent years because it “has involved explicit, legislatively-driven subsidies for specific generating units.”).

24. SARAH K. ADAIR & FRANZ T. LITZ, UNDERSTANDING THE INTERACTION BETWEEN REGIONAL ELECTRICITY MARKETS AND STATE POLICIES 2 (Nov. 2017).

25. *Id.* at 7.

two can coexist going forward.²⁶ And FERC recently convened a technical conference to brainstorm solutions, with no clear outcome.²⁷ As a result, *Star* and *Zibelman* are not simply about whether Illinois and New York can support a handful of failing nuclear power plants. They are some of the first encounters in what will shape up to be a lengthy dialogue over the boundaries between state energy programs and the federally regulated wholesale markets. They will not be the last, as challenges to the former will be more frequent.²⁸

We do not operate on a blank slate, as the Supreme Court has issued three decisions in the past two years that define the dividing line between state and federal electricity jurisdiction.²⁹ As several commentators have noted,³⁰ this makes conflict preemption the most appropriate lens through which to resolve these cases. This is implied preemption that occurs either when it is impossible for someone to comply with both state and federal laws, or when state law thwarts the purposes and objectives of federal law.³¹ Rather than simply apply general preemption principles, this Article conforms its analysis to the Supreme Court decisions with a test that harmonizes all three.³² It calls for precluding the

26. See, e.g., Welton, *supra* note 19, at 1 (noting that, “variegated state policies present a challenge to the smooth functioning of U.S. electricity markets”); ADAIR & LITZ, *supra* note 24, at 7; Miles Farmer, *State Policies and Electricity Markets: Harmony or Conflict?*, NRDC BLOG (May 8, 2017), <https://www.nrdc.org/experts/miles-farmer/state-policies-and-electricity-markets-harmony-or-conflict>.

Former FERC Commissioner Tony Clark recently stated that, From Illinois and New York, where nuclear generators stand to receive millions of dollars in state sponsored subsidies, to states in New England and the Mid-Atlantic, where massive out of market contracts and payments threaten the underpinnings of price formation in both the energy and capacity markets, there is a very real concern and possibility that certain wholesale electricity markets will become so dysfunctional as to undermine the just and reasonable standard that FERC is duty-bound to uphold. TONY CLARK, REGULATION AND MARKETS: IDEAS FOR SOLVING THE IDENTITY CRISIS 6 (2017).

27. FERC held the two-day technical conference on May 1-2, 2017. Fed. Energy Reg. Comm’n, State Policies and Wholesale Markets Operated by ISO New England Inc., New York Independent System Operator, Inc., and PJM Interconnection, L.L.C., Docket No. AD17-11-000; see Gavin Bade, *Anxiety common, consensus elusive over power market reforms at first day of FERC conference*, UTILITY DIVE (May 2, 2017), <https://www.utilitydive.com/news/anxiety-common-consensus-elusive-over-power-market-reforms-at-first-day-of/441753/> (summarizing the discussion).

The difficulty of harmonizing state policies and the markets is shown in FERC’s action following the technical conference, in which it invited comments on *five* different potential policy paths going forward. Fed. Energy Reg. Comm’n, *Notice Inviting Post-Technical Conference Comments* (May 23, 2017), <https://www.ferc.gov/CalendarFiles/20170523170542-AD17-11-000PostTC.pdf>

28. Hammond, *supra* note 5, at 12 (noting that these policies “invite scrutiny”); Welton, *supra* note 19, at 45 (noting that, “There is now a profusion of litigation challenging state clean energy policies under *Hughes*’ logic.”).

29. *Hughes v. Talen Energy Mktg.*, 136 S. Ct. 1288 (2016); *FERC v. Elec. Pwr. Supply Ass’n*, 136 S. Ct. 760 (2016); *ONEOK, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591 (2015).

30. See generally Rossi, *supra* note 2; Brief of Electricity Regulation Scholars as Amici Curiae Supporting Defendants-Appellees, *Electric Power Supply Association, et al. v. Star*, No. 17-2445 (7th Cir. Nov. 3, 2017).

31. *ONEOK, Inc.*, 135 S. Ct. at 1595.

32. Welton, *supra* note 19, at 45 (noting that the three must be integrated). The process of harmonizing all three decisions is essential, given their short timeframe and interlocking references. *Hughes*, for example, reiterates the *ONEOK* emphasis on “the importance of considering the *target* at which the state law aims in determining whether that law is pre-empted.” [emphasis in original]. *Hughes*, 136 S. Ct. at 1298 (quoting *ONEOK, Inc.*, 134 S. Ct. at 1599).

states from taking actions that intrude the most on FERC's authority—in one commentator's words, those actions that “aim[] directly at ‘fixing’” a perceived shortcoming of the wholesale markets.³³ The Article demonstrates that this is precisely what ZEC programs do.

The states made no secret that they believed ZECs were necessary because the plants are uneconomic in the wholesale markets. From the start, they proposed to make up the difference between costs and market revenues. The revised formulas for calculating ZECs that incorporate indices, estimates, and forecasts of market prices are just a less obvious way of achieving the same goal. Because this consciously disregards wholesale market results,³⁴ this Article argues that federal law preempts the ZEC laws and other around-market policies that attempt to achieve similar results.

Part I of this Article discusses the three recent Supreme Court decisions involving electricity law. In Part II, and continuing into Part III, the Article discusses the test proposed above, and argues that it can meet three different goals. First, it harmonizes the Supreme Court decisions, which express solicitude for both the wholesale markets and state policies, but aim to protect the markets from interference. Second, it is limited in its scope of preemption, reflecting a reluctance to establish new bright lines that is especially critical in the new era of concurrent jurisdiction, under which the states and FERC act simultaneously and each can influence the other. Finally, Part III addresses ZEC defenders' background concern that if this credit program is disallowed, the states will be unable to promote and value carbon-free generation. Under the test articulated here, the states retain considerable latitude to promote clean energy, as long as they do not directly reference the wholesale market in their design. Indeed, under the test proposed in this Article, RECs continue to be permissible and ZECs would be, too, if they did not reference the markets.

I. JUDGING ZECs AGAINST A BACKDROP OF CONCURRENT JURISDICTION AND POLICY INNOVATION

The three recent Supreme Court decisions in electricity law signal a new era of electricity jurisprudence. Far from confirming the status quo, the Court announced that the split between state and federal jurisdiction over the electric grid is no longer clear.³⁵ All three decisions recognize that the states and FERC have significant responsibilities in the electric grid, but the Court has scrapped the jurisdictional bright line. This new electricity federalism is best described as “concurrent.”³⁶ In this new interdependent system, state and federal actors may take actions simultaneously and have impacts on the other. We have decades to

33. Hammond, *supra* note 5, at 12.

34. Brief of Independent Market Monitor for PJM, *supra* note 18, at 9 (noting that, “Illinois is setting what it considers the just and reasonable price for wholesale power for these units. That is a FERC decision.”). See *infra* Part II.

35. See Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5; Rossi, *supra* note 2 at 405–07.

36. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 20.

work out such matters as overhauling the portfolio of power plants to reduce carbon emissions, and it will take considerable experimentation through an iterative process involving both sovereigns.³⁷ This dynamic environment of policy innovation in the electric grid is an essential backdrop to decision making in the ZEC cases.

FERC v. EPSA, the Court's 2016 opinion on demand response, describes this brilliantly.³⁸ The Court recognized that it is often impossible to characterize an activity as purely "retail" (subject to state regulation) or "wholesale" (subject to FERC authority).³⁹ It stated that "wholesale and retail markets in electricity, as in every other known product, are not hermetically sealed from each other."⁴⁰ As the Court had previously stated in *ONEOK v. Learjet*, states may regulate some matters affecting both retail and wholesale markets, but FERC may as well.⁴¹ The Court has chosen to address conflicts as they arise, rather than set a new bright line.

The conflicts stem from the FPA's language that purports to assign exclusive jurisdiction to the states and FERC. When power plants bid in wholesale markets, they are subject to FERC's authority to approve market structures designed to ensure "just and reasonable" wholesale rates.⁴² FERC approves RTOs' tariffs that set terms and conditions for wholesale energy markets and capacity markets, which provide added compensation for plants that commit to be available for years at a time. These markets are recognized for the significant benefits they bring to the electricity grid.⁴³ The FPA also makes "facilities used for the generation of electric energy," or, simply, "generation," subject to exclusive state authority.⁴⁴ States retain jurisdiction over such matters as determination of need for, and siting of power plants. And if a state can decide whether a plant is needed or where it goes, it can use a credit program to support it.⁴⁵

State around-market policies therefore involve overlaps between state and federal laws, against this backdrop of concurrent policy innovation. ZECs resemble credits for new or existing plants that fall within state authority, but also impact the federally-regulated wholesale markets. As the remainder of this Part demonstrates, the Court has been clear about *how* conflicts of this sort

37. Welton, *supra* note 18, at 9 (observing that, "the question of how to manage the intersection of state policies and regional electricity markets is likely to be a dynamic and region-specific one").

38. For a full description of the decision and its importance, see Joel B. Eisen, *FERC v. EPSA and the Path to a Cleaner Electricity Sector*, 40 HARV. ENVTL. L. REV. F. 1 (2016) [hereinafter Eisen, *FERC v. EPSA*].

39. *FERC v. Elec. Pwr. Supply Ass'n*, 136 S. Ct. 760, 775–76 (2016).

40. *Id.* at 776.

41. *Id.* at 776; *ONEOK, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591 (2015).

42. Federal Power Act § 205, 16 U.S.C. § 824(d) (2012).

43. ADAIR & LITZ, *supra* note 23, at 7.

44. Federal Power Act § 201(b), 16 U.S.C. § 824(b) (2012).

45. See generally Brief of Electricity Regulation Scholars, *supra* note 3030 (making and defending this argument).

should be resolved and unclear (but, this Article contends, deliberately so) about the resolution of any specific case.

A. Applying Conflict Preemption to ZECs

State subsidy laws and the FPA do not expressly contradict one another, so if the former are preempted, it is by applying the doctrine of implied preemption. Preemption analysis ordinarily begins with Congress' purpose in enacting the law, and the language and framework of the statutory and regulatory scheme. The first form of implied preemption is "field preemption," under which courts hold that Congress has delegated to the federal actor the exclusive right to occupy the entire field,⁴⁶ and conflicting state law must yield. The second form is conflict preemption. As the Court stated in *ONEOK*, "conflict pre-emption" requires federal law to prevail over state law where "compliance with both state and federal law is impossible," or where "the state law 'stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.'"⁴⁷ This type of inquiry is frequently criticized for its indeterminacy.⁴⁸

Ari Peskoe demonstrates that applying field preemption to the ZEC cases would be unwarranted and inconsistent with the reality of concurrent jurisdiction.⁴⁹ Given the interdependence between actors in the electric grid and the FPA's allocation of authority to states, there is no reason to believe that Congress intended FERC to be the sole arbiter in these situations.⁵⁰ And parsing the FPA for indications of a clear Congressional purpose to preempt all state activity would complicate this further. The statute has not changed much since its enactment in 1935, and hardly could have foreseen the advent of the modern electricity markets.⁵¹

As for conflict preemption, the Court decisions do not explicitly mention it; in *ONEOK*, for example, the parties did not argue it.⁵² However, courts should consider the principles that the Court enunciates in the three cases to be the functional equivalent of conflict preemption analysis and use them as

46. As the Court stated in *ONEOK*, this means that Congress has "'foreclose[d] any state regulation in the *area*,' irrespective of whether state law is consistent or inconsistent with 'federal standards.'" and "has forbidden the State to take action in the *field* that the federal statute pre-empts." *ONEOK, Inc.*, 135 S. Ct. at 1595 (citing *Arizona v. United States*, 567 U. S. 387, 401 (2012)).

47. *ONEOK, Inc.*, 135 S. Ct. at 1595 (citing *California v. ARC America Corp.*, 490 U. S. 93, 100, 101 (1989)).

48. Scholars have criticized conflict preemption for reaching inconsistent results in many cases because (among other reasons) it relies upon an interpretation of the underlying statutes. See generally Caleb Nelson, *Preemption*, 86 VA. L. REV. 225, 226 (2000).

49. Ari Peskoe, *State Clean Energy Policies at Risk: Courts Should Not Preempt Zero Emission Credits for Nuclear Plants*, 44 ECOLOGY L.Q. CURRENTS (2018).

50. Rossi, *supra* note 2, at 454 (stating that, "It is time for the Court to recognize that field preemption, long celebrated in energy regulation, is an anachronism that should no longer have a role in modern preemption analysis under these statutes").

51. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 4.

52. *ONEOK, Inc.*, 135 S. Ct. at 1602; Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 6.

cornerstones of a preemption inquiry. As a practical matter, the Court seems to be moving toward establishing conflict preemption as the norm.⁵³ The Court has created a roadmap for resolving conflicts between state and federal electricity laws, with much to say about which state activities interfere impermissibly with federal authority over wholesale markets. One small caveat is necessary. The Court has redefined the jurisdictional line so comprehensively that courts should be reluctant to rely on doctrine from the past. In particular, pre-1990 decisions that precede the advent of the wholesale markets are questionable sources of principles to govern the jurisdictional split in the modern market setting. Simply repeating principles from those cases as controlling here has serious potential to create unwanted dissonance, as older cases often cannot easily be analogized to the current setting without understanding critical underlying factual differences.

B. Paradigmatic Situations of Preemption Under the Supreme Court's New Doctrine

Courts may resolve some tension between state and federal law within the contours of the Supreme Court's guidance in the three decisions. Beginning with *ONEOK*, states may not enact laws that are "aimed directly" or "have their target" at the wholesale markets.⁵⁴ Courts must consider "the *target* at which the state law aims in determining whether [the] law is pre-empted."⁵⁵ Under *FERC v. EPSA*, FERC, and not the states, has jurisdiction over "practices" that "directly affect" wholesale rates.⁵⁶ Under *Hughes*, a state law is preempted as an impermissible invasion of FERC's regulatory turf if it is "adjusting an interstate wholesale rate."⁵⁷ And, also under *Hughes*, once FERC has approved a market structure as just and reasonable, states may not conclude otherwise.⁵⁸ For example, a state cannot "condition payment [of funds] on capacity clearing the [wholesale] auction."⁵⁹ State laws that are "untethered to wholesale market participation," however, are not preempted.⁶⁰

53. Two prominent energy law scholars have recently concluded that the new decisions represent a movement toward a conflict preemption approach. Emily Hammond, Response, *Hughes v. Talen Energy Marketing, LLC: Energy Law's Jurisdictional Boundaries – Take Three*, GEO. WASH. L. REV. DOCKET (Apr. 22, 2016), <http://www.gwlr.org/hughes-v-talen-energy-marketing-llc-energy-laws-jurisdictional-boundaries-take-three/> (noting that, "Arguably, the Court engaged in a conflict analysis as a functional matter, notwithstanding its disavowal of such an approach."); Rossi, *supra* note 2, at 456. In that light, Jim Rossi reconceptualizes two significant pre-1990 cases as conflict preemption decisions, and not field preemption as they are commonly understood. Rossi, *supra* note 2, at 456.

54. *ONEOK, Inc.*, 135 S. Ct. at 1600.

55. *Id.* at 1599.

56. *FERC v. Elec. Pwr. Supply Ass'n*, 136 S. Ct. 760, 774 (2016). For a discussion of the decades-long origin of this standard, see Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 4.

57. *Hughes v. Talen Energy Mktg.*, 136 S. Ct. 1288, 1297 (2016).

58. *Id.* at 1298–99.

59. *Id.* at 1299.

60. *Id.* at 1299. See Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 20, for a discussion of this language.

This imprecise language only begins the inquiry. *ONEOK*'s "aimed at" and "target" language is inartfully phrased, but it reflects the Court's paramount concern that states may not interfere with the wholesale markets. The Court distinguished "'traditional' state regulation, such as state blue sky laws" from laws "aimed at natural-gas companies in particular."⁶¹ Laws that regulate businesses generally should be permissible, but laws "aimed" at the wholesale markets should not. Applying this test to states' ZEC programs is straightforward. Unlike antitrust law, which is broadly applicable, ZECs only impact electricity generators. And the states reference and aim to affect what happens on wholesale markets, so their aim is clear.

Second, a state cannot interfere with FERC's "practices affecting rates" jurisdiction, as defined in *FERC v. EPSA*. This statutory language gives FERC authority over practices that "directly" affect wholesale rates.⁶² Under this FPA provision, as courts interpret it, FERC has authority over much more than the rates in wholesale markets. FERC governs the terms and conditions that determine how electricity, the capacity to generate it, and related ancillary services are exchanged there. The direct impact can be on market parameters and not just on the actual monetary amounts exchanged for electricity. FERC has authority over matters closely related to wholesale rates, but not over actions with trivial impacts on the markets.⁶³

A direct action need not have an immediate impact on markets, as there can be intermediate steps.⁶⁴ *FERC v. EPSA*'s discussion of demand response provides the quintessential example. As the Electric Power Supply Association notes, "[d]emand-response transactions do not even involve the sale of wholesale electricity, yet the Court held that FERC had jurisdiction because demand response 'directly affects' wholesale rates."⁶⁵ The D.C. Circuit characterized demand response as a retail customer's decision to cut back demand, which it believed was within exclusive state jurisdiction over retail sales. The Court disagreed. If a customer agreed with an intermediary to cut demand, and that demand reduction was subsequently offered in the wholesale energy market, it would affect the price. Indeed, the Court could not "think of a practice that" affected wholesale rates "more."⁶⁶ *FERC v. EPSA* made no new law on this

61. *ONEOK, Inc.*, 135 S. Ct. at 1600.

62. Federal Power Act § 206, 16 U.S.C. § 824(e) (2012); see Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 4, at 1814.

63. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 4, at 1830–33 (discussing *Cal. Indep. Sys. Operator Corp. v. FERC*, 372 F.3d 395, 398 (D.C. Cir. 2004)); Rossi, *supra* note 2, at 460.

64. Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 4, at 1829.

65. Plaintiffs' Memorandum In Opposition To Motion To Dismiss at 18, *FERC v. Elec. Pwr. Supply Ass'n*, 136 S. Ct. 760 (2016) (No. 17-CV-1164).

66. *Elec. Pwr. Supply Ass'n*, 136 S. Ct. at 775; see Eisen, *FERC v. EPSA*, *supra* note 38.

point, as there is a decades-long history of interpreting “directness” in this fashion.⁶⁷

And “directness” can be present even if an entity over which FERC does not have jurisdiction – a state, for example – takes an underlying action. The Court’s rejection of the D.C. Circuit’s decision in *EPSA* is telling on this point. A state cannot segment off only those aspects of its actions that fall exclusively within its jurisdiction, if a causal chain leads to direct impacts on wholesale rates.⁶⁸ Actions with direct impacts may be precluded if there is a close relationship to wholesale rates, even if intermediate steps are uncertain to happen or require actions by other entities.⁶⁹ Besides demand response, other examples include the transmission planning requirements and elimination of the federal right of first refusal embodied in FERC’s landmark rule, Order 1000. Neither of these immediately change wholesale rates, but both were upheld as proper exercises of FERC’s jurisdiction.⁷⁰ FERC recently reiterated this concept of directness in an Order explaining its authority over state energy efficiency resources bid into the wholesale markets.⁷¹

Finally, *Hughes* invalidated a Maryland program involving a “contract for differences.” Maryland solicited proposals for a new power plant in a specific location, because it was unhappy with the wholesale markets’ perceived failure to provide incentives for new plants. It guaranteed the winning bidder in an auction that utilities and other load-serving entities would make up the difference between the contract price and the wholesale capacity market price.⁷² This was a two-way ratchet: “[i]f the natural gas-fired power were compensated by the market less than the guaranteed amount, purchasers in-state had to pay the difference. By contrast, if the power cleared the market for more than the guaranteed amount, the generators would refund that difference to ratepayers.”⁷³ The Court found that Maryland had interfered with FERC’s authority by tying the compensation to an amount above wholesale market prices.⁷⁴

As Professor Emily Hammond notes, the Court was not limiting its holding to the specific Maryland program, as it found a number of problems with it:

67. Rossi, *supra* note 2, at 459 (calling this principle “well established as a limit on FERC’s jurisdiction”); see generally Eisen, *FERC’s Expansive Authority to Transform the Electric Grid*, *supra* note 4.

68. The Court held that FERC could properly make Order 745 within its statutory authority over practices affecting rates. Rossi, *supra* note 2, at 459. The reverse holds as well: if a state takes an action that falls within FERC’s direct authority over the markets, it can preempt it. *Id.* Jim Rossi correctly notes that causation is “best understood as a pragmatic requirement for FERC to make factual and policy findings, not as a fixed judicial or common law threshold a court can articulate in the abstract.” *Id.*

69. Eisen, *FERC’s Expansive Authority to Transform the Electric Grid*, *supra* note 4, at 1829.

70. *S.C. Pub. Serv. Auth. v. FERC*, 762 F.3d 41 (D.C. Cir. 2014) (upholding provisions of Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, Order 1000, 18 C.F.R. pt 35 (2011)).

71. Order on Petition For Declaratory Order, *Advanced Energy Economy*, 161 FERC ¶ 61,245 (2017).

72. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 10.

73. Hammond, *supra* note 5, at 12.

74. *Hughes v. Talen Energy Mktg.*, 136 S. Ct. 1288, 1299 (2016)..

The reasoning is not altogether clear because the Court noted a variety of flaws at various points in the opinion, among them: (1) the statute is preempted because “by adjusting an interstate wholesale rate, Maryland’s program invades FERC’s regulatory turf,” (2) states may not enact measures “aimed directly” at FERC-jurisdictional markets, (3) once FERC has approved a market as just and reasonable, states may not conclude otherwise, and/or (4) Maryland could not condition payment on capacity clearing the wholesale auction.⁷⁵

The Court distinguished the Maryland program from “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 facilities, or re-regulation of the energy sector.”⁷⁶ These are “untethered to a generator’s wholesale market participation,” although it is unclear what the Court meant by this language. The Court expressly declined to rule on preemption of such incentives.⁷⁷ As discussed more fully below, that may be a deliberate signal of an overall judicial inclination: if a state law disregards wholesale rates by creating a link or “tether” to the wholesale markets, the program will fall.

II. A TEST FOR ZEC PREEMPTION: CONSCIOUS DISREGARD OF WHOLESALE RATES

Interpreting the Supreme Court’s recent decisions is likely to be a decades-long project, and there are monumental stakes involved in shaping the electric grid’s future, particularly to meet the states’ asserted objective of decarbonization.⁷⁸ Before delving into this Article’s test and its application to the ZEC programs, some observations are in order about the current decision-making landscape.

A. A Call For Judicial Modesty

Concurrent electricity federalism has just become a recognized thing, and its meaning is already the subject of considerable disagreement. Going forward, there is much promise and much risk. Contemporaneous action in the absence of

75. Hammond, *supra* note 5, at 12–13; see Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 10.

76. Hughes, 136 S. Ct. at 1299.

77. Hughes, 136 S. Ct. at 1299; Hammond, *supra* note 5, at 13. For a discussion of how this leaves space for state policy experiments, see Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 17–19.

78. Emily Hammond & Jim Rossi, *Stranded Costs and Grid Decarbonization*, 82 BROOK. L. REV. 645, 663–64 (2017) (noting that decarbonization “stands to be one of the most significant economic transformations the economy has experienced in the last century”); William Boyd & Ann E. Carlson, *Accidents of Federalism: Ratemaking and Policy Innovation in Public Utility Law*, 63 UCLA L. REV. 810, 812 (2016) (“[D]ecarbonizing the electric power sector is far and away the most important component of any effort to meet ambitious U.S. [greenhouse gas] reduction targets by 2050 and beyond.”). See generally Felix Mormann, *Clean Energy Federalism*, 67 FLA. L. REV. 1621 (2015).

clear standards can yield synergistic results,⁷⁹ but it will also inevitably produce misunderstandings or discord. Two sovereigns acting independently and simultaneously can create friction in many different ways. They could misinterpret the Court's language. Their governance processes, designed with insufficient attention to regulating jurisdictional boundaries,⁸⁰ could lead them to conflicting results. They could rely on different goals and reach incompatible policy results. They could know the other sovereign's goals and deliberately disregard them. Or the conflict could arise from a combination of any of these and more.

The Court's flexible guidance skillfully recognizes the multiplicity of possibilities: it highlights the interdependent nature of state and federal actors and neither sets bright lines nor overlooks consideration of either sovereign's interests. Yet that does not tell us what a reviewing court should do in specific situations. To begin with, this exceedingly complex landscape calls for judicial modesty. Courts should avoid definitive conclusions about what the Supreme Court's language does or does not mean.⁸¹ *Star* and *Zibelman* repeatedly assert that one or more decisions (particularly *Hughes*) is clearly and unequivocally limited to its specific facts.⁸² In light of the Court's imprecision, that can hardly be the case. And sweeping pronouncements walling off large classes of activities to one actor's exclusive jurisdiction are incompatible with the Court's intention to resolve conflicts as they arise.

Yet the lack of an obvious bright line makes the ZEC cases exquisitely difficult to decide. It would be unwise to crudely override either actor's policy goals, if that is not necessary. On the other hand, an actor's reliance on its stated goals cannot be the sole touchstone for decision making, particularly when policy objectives diverge, as they often will. For that matter, preemption analysis rests on a judgment about Congressional intent, and does not allow states to rest solely on their policy justifications.⁸³

79. Rossi, *supra* note 2, at 453 (observing that, "[r]ecognition of concurrent jurisdiction would allow for federal regulation of energy markets without automatically preempting state experimentation and, especially, state approaches that advance the same goals federal regulators have endorsed").

80. Welton, *supra* note 1818, at 41 (discussing the inadequacy of RTO governance systems in this regard and noting that, "There is, in sum, a byzantine set of dynamics facing RTO efforts to integrate state decarbonization aims.").

81. Hammond, *supra* note 5, at 15; Welton, *supra* note 18, at 7 (noting that, "*Hughes* left open significant questions regarding how much overlap there can be between regional market functions and state policy aims").

82. As an example, *Zibelman* stated the following: "*Hughes* clearly stated that the impermissible tether was 'to a generator's wholesale market participation,' *id.* at 1299 (emphasis added), and nowhere stated, implied or even considered that a State program's incorporation of the wholesale market price would provide a basis for preemption." *Coal. For Competitive Elec. v. Zibelman*, 272 F. Supp. 3d 554, 569 (S.D.N.Y.), *appeal docketed*, No. 17-2654 (2d Cir. Aug. 25, 2017). In a subsequent footnote, the court stated, "The Court finds no basis to conclude that consideration of wholesale prices (whether forecast or actual) in pricing a subsidy is material to the preemption analysis." *Id.* n.15.

83. While there is considerable discussion about the nature of preemption and how it operates, the nature of the inquiry is grounded in the meaning of the statutory text. *See, e.g.*, Ernest A. Young, "The Ordinary Diet of the Law": *The Presumption Against Preemption in the Roberts Court*, 7 SUP. CT. REV. 253, 270–71 (2012).

B. A Proposed Decision Rule: Allow the Sovereigns To Proceed Independently As Long As Neither Targets the Other

A useful decision rule would allow the states and FERC to proceed independently as long as neither attempts to consciously disregard the other. This rule addresses the most troubling situations in a system of concurrent jurisdiction: when one actor values independence to the exclusion of interdependence. The states and FERC will be intertwined for years to come in decision making about clean energy policies. Encouraging one to force the other to change, or to claim the impact is minimal because that actor can do whatever is necessary to adjust to the other's program,⁸⁴ is a recipe for constant litigation. Preserving the ability to adjust to changed circumstances is especially critical in working toward a clean energy future, because we must expect an iterative process of policy development, with continuing dialogues as necessary.

It is especially unwise to allow one actor to insist upon correcting what it sees as flaws of the other's approach, as it ignores any opportunity to make adjustments without coercion. Allowing states to operate unilaterally in spite of the markets, for example, overlooks potential fixes.⁸⁵ Some RTOs are currently addressing the markets' failure to internalize environmental externalities, the precise issue that ZEC proponents target.⁸⁶ And a growing number of commentators believe that FERC can approve market rule revisions to price carbon.⁸⁷

The focus on conscious disregard has many advantages. Given the extraordinary variety of states' clean energy policies, it is nearly impossible to define any other boundary between permissible and impermissible actions. Indeed, several commentators have stated that working with the Court's

84. Brief of Plaintiffs-Appellants at 16–17, *Village of Old Mill Creek, et al. v. Star*, No. 17-2445 (2017) (demonstrating that this proposition is contradicted in the case of ZECs by FERC's statement in its notice of the technical conference on state and federal policies that the ability to harmonize them is an "open question"). See Farmer, *supra* note 26 and accompanying text (discussing the technical conference).

85. For an interesting proposal in this regard, see generally Hannah J. Wiseman, *Disaggregating Preemption In Energy Law*, 40 HARV. ENVTL. L. REV. 293 (2016) (criticizing the all or nothing approach of current preemption and recommending disaggregation of energy decisions into subunits for preemption analysis).

86. The ISO-New England, New York ISO, California ISO, and PJM RTOs are at various steps of considering the integration of state policies generally, and carbon pricing in particular. JUSTIN GUNDLACH AND ROMANY WEBB, CARBON PRICING IN NEW YORK ISO MARKETS: FEDERAL AND STATE ISSUES iii n.1 (2017); Hammond, *supra* note 5, at 7–8 (detailing the efforts in PJM and ISO-New England); Power Shift, *Webinar on Carbon Pricing in RTO Markets* (Oct. 31, 2016), <http://environment.law.harvard.edu/webinar-carbon-pricing-rto-markets/>; but see generally Welton, *supra* note 18 (arguing against proceeding in this fashion).

87. See, e.g., Ari Peskoe, *Easing Jurisdictional Tensions by Integrating Public Policy in Wholesale Electricity Markets*, 38 ENERGY L.J. 1, 11–12 (2017); Christopher J. Bateman & James T.B. Tripp, *Toward Greener FERC Regulation of the Power Industry*, 38 HARV. ENVTL. L. REV. 276 (2014); Eisen, *FERC's Expansive Authority to Transform the Electric Grid*, *supra* note 44, at 1829; Steve Weissman & Romany Webb, *Addressing Climate Change Without Legislation: How the Federal Energy Regulatory Commission Can Use Its Existing Legal Authority to Reduce Greenhouse Gas Emissions and Increase Clean Energy Use*, 2 BERKELEY ENERGY & CLIMATE INITIATIVE 2–5 (2013).

language may become a “never-ending exercise.”⁸⁸ By contrast, the rule articulated here would limit preemption to the most obvious situations on which the Court focused its attention. It eschews setting a new jurisdictional bright line, and preserves the traditional authorities of each sovereign to engage in experimentation with clean energy policies as long as it does not target the other.

Another advantage is relative ease of administrability. The factual determinations required to establish disregard will be found in declarations of the state’s intent. A reviewing court would need to look beyond proffered justifications for a program and examine legislative history or the record of an administrative proceeding,⁸⁹ but courts are often better equipped to do this than to parse through complex nuances of market interactions. Evidence of impermissible targeting, as discussed more fully below, may be found in a reference to wholesale market prices in the support formula.⁹⁰ It may also be found in a state legislative or administrative record that justifies the support on the basis of making up a revenue shortfall. This analysis is likely to lead to fewer judicial errors, although it still would involve line-drawing challenges in close cases.

The Court’s decisions lead almost inexorably to delineating preemption in this fashion. Consider *how* the Court dwells on protecting the wholesale markets from interference. *ONEOK* distinguished between a “challenge [to] the reasonableness of . . . rates expressly approved by FERC” and a state law that regulates “background marketplace conditions that affected both jurisdictional and nonjurisdictional rates.”⁹¹ If the state “challenges” the work that FERC and the RTOs have done, it finds it unsound – or, in other words, disregards it. Similarly, *Hughes* precluded more than adding a sweetener on top of the wholesale rate or conditioning a credit on clearing a market.⁹² It spoke to “adjusting” wholesale rates – no state can tinker with, tweak, alter, or disregard them. This comports with *ONEOK*, *FERC v. EPSA*, and previous decisions holding that states may not independently “substitut[e] their own determinations of what would be just and fair” wholesale rates.⁹³ No one state policy can be said to do that exclusively, although allowing states to substitute administrative processes for markets to establish plants’ revenue is the epitome of this.

Hughes’s final paragraphs about state subsidies “untethered” to the markets are a useful proxy for distinguishing permissible actions from impermissible ones. Property tax subsidies are not designed to consciously disregard the wholesale markets, because they do not target or reference them. Some broad-

88. Hammond, *supra* note 5, at 15.

89. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 17–20 (illustrating a hypothetical inquiry into a state tax exemption, and the inquiry into ZECs).

90. *Id.* at 21.

91. *ONEOK, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1602 (2015).

92. *Supra* note 75 75 and accompanying text.

93. *Miss. Power & Light Co. v. Mississippi*, 487 U.S. 354, 371 (1988); Plaintiffs’ Memorandum In Opposition To Motion To Dismiss, *supra* note 65, at 20 (quoting this language).

based subsidies might have substantial impacts on wholesale markets,⁹⁴ but financial impact alone is not the touchstone for analysis. The *Zibelman* court got this completely wrong,⁹⁵ and also erred by reading the word “participation” in *Hughes*’ “untethered to wholesale market participation” language literally. Under its logic, state laws that explicitly require that subsidy recipients participate in wholesale markets are the *only* ones preempted.⁹⁶ This is not at all consistent with *Hughes*, or with *FERC v. EPSA*’s directness test.

Taking all of this together, none of it empowers a state to attempt to correct perceived flaws of the wholesale markets. On the contrary, courts disfavor state programs that aim to interfere with the structure and operation of the markets, notwithstanding any laudable purposes. Courts have consistently held that FERC and the RTOs have the sole authority to decide whether the wholesale markets must change to achieve competitive outcomes.⁹⁷ And courts should decline to uphold ZECs simply because states wish to value attributes not recognized in the wholesale markets. This would elevate conscious disregard to a governing principle and encourage other states to pursue around-market policies. Taken to its limits, this could completely undermine the markets. As the PJM RTO Market Monitor pithily put it, “subsidies are contagious.”⁹⁸

C. Under the Proposed Test, ZECs Are Preempted

This section builds on the previous two, outlining a test that calls for preemption of a state’s electricity law when a state acts in disregard of the wholesale markets. If a state law explicitly aims to directly change wholesale market prices, terms or conditions, its subsidy program should be impermissible as an intrusion on FERC’s regulatory turf. If it does not, its program should pass muster, even if it might impact the markets. This test brings together three distinct concepts. First, a state cannot “aim” its subsidy law at the wholesale markets, as in *ONEOK*. Second, FERC, not the states, has authority over the terms, conditions, and results on wholesale markets, under *FERC v. EPSA*’s directness standard. And finally, targeting wholesale rates is what the Supreme Court found problematic in *Hughes*, among other defects of the Maryland

94. *Coal. For Competitive Elec. v. Zibelman*, 272 F. Supp. 3d 554, 572 (S.D.N.Y.), *appeal docketed*, No. 17-2654 (2d Cir. Aug. 25, 2017) (noting that, “Plaintiffs even concede that such measures ‘would have some of the same effects’ on the market.”); Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 18 (discussing the potential for a hypothetical tax subsidy to have a substantial or even equivalent effect on wholesale prices).

95. *Zibelman*, 272 F. Supp. 3d at 568 (misinterpreting the *Hughes* standard by focusing on the magnitude of the subsidies).

96. *Zibelman*, 272 F. Supp. 3d at 568.

97. An example of this is the line of cases upholding designs – and redesigns – of regional capacity markets. *See, e.g.*, *Advanced Energy Mgmt. All. v. FERC*, No. 16-1234 (D.C. Cir. June 20, 2017); Eisen, *FERC’s Expansive Authority to Transform the Electric Grid*, *supra* note 4, at 1825–27 (discussing FERC’s authority over capacity markets). *Cf.* Rossi, *supra* note 2, at 454 (noting that the transmission planning decisions “are pragmatic choices about the best institutional balance for regulating modern energy markets—decisions that Congress has delegated to FERC in recognition of its expertise”).

98. MONITORING ANALYTICS, LLC, STATE OF THE MARKET REPORT FOR PJM v. 2, at 2 (2016).

program. Applying this test to state ZEC programs, this Article finds ZECs violate all three principles and should be preempted.

Under *ONEOK*'s "aim" test, the states' inquiry into the reasonableness of wholesale rates is impermissible.⁹⁹ A formula that changes credit prices in line with wholesale market prices aims at those rates. It is immaterial that the targeting is not exactly the same as in the Maryland program, where the state contract made up the entire revenue shortfall. The key concept is attempting to target the result that prevails in the wholesale markets, which "regulate[s] in areas where FERC has properly exercised its jurisdiction to determine just and reasonable wholesale rates."¹⁰⁰

ZECs have a direct impact on wholesale prices.¹⁰¹ For the nuclear plants to receive them, they "must operate and sell their output in the market and displace the output and the emissions associated with the output of other units."¹⁰² The Illinois price adjustment formula "ensur[es] that the ZEC price decreases if wholesale market prices increase and increases (up to a cap) if wholesale market prices decrease."¹⁰³ That is a direct effect on the markets, even if it does not effectuate a dollar for dollar change in wholesale prices. Nothing in *FERC v. EPSA* requires that. New York and its supporters argue that it is only forecasting future wholesale rates,¹⁰⁴ which would limit interference with FERC's authority to situations where today's wholesale rates were actually changed. *FERC v. EPSA* does not hold this, either.

Star and *Zibelman* assert the flawed premise that a state program can directly affect wholesale markets only if it immediately changes market prices. *Star* states that, "the 'tether' in this case is not to wholesale participation or transactional pricing; the tether is to broader, indirect wholesale market forces."¹⁰⁵ *Zibelman* distinguishes "state actions that affect the wholesale price in some way" from "state actions that set the wholesale rate," with the former being permissible.¹⁰⁶ To both courts, any action at least one step removed from

99. *ONEOK, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1602 (2015) (citing *Miss. Power & Light*, 487 U.S. at 374).

100. *Id.*

101. Brief of Plaintiffs-Appellants at 57, *Electric Power Supply Association, et al. v. Star*, No. 17-2445 (7th Cir. Aug. 28, 2017) (noting that under the Illinois ZEC program, "Because the favored plants are guaranteed a rate of \$47.90 per MWh across a wide range of market-clearing prices, Clinton and Quad Cities will bid all of their output into the MISO and PJM energy auctions for the next decade.").

102. Brief of Independent Market Monitor for PJM, *supra* note 18, at 2.

103. Plaintiffs' Memorandum In Opposition To Motion To Dismiss, *supra* note 64, at 17; Brief of Plaintiffs-Appellants, *supra* note 101, at 7 ("As auction prices decrease, the ZEC subsidy increases, and vice versa, thereby guaranteeing that the plants will be paid for wholesale electricity sales at the rate Illinois prefers, despite the prices resulting from the PJM and MISO auctions.").

104. See, e.g., Brief of the Institute For Policy Integrity as Amicus Curiae Supporting Defendants-Appellees at 23, *Coal. For Competitive Elec. v. Zibelman*, No. 17-2654-cv (2nd Cir. Nov. 27, 2017).

105. *Village of Old Mill Creek v. Star*, 2017 WL 3008289, at *13 (N.D. Ill.), *appeal docketed*, No. 17-2445 (7th Cir. July 18, 2017).

106. *Coal. For Competitive Elec. v. Zibelman*, 272 F. Supp. 3d 554, 571-72 (S.D.N.Y.), *appeal docketed*, No. 17-2654 (2d Cir. Aug. 25, 2017)

actually adding an amount to wholesale prices is not direct.¹⁰⁷ *FERC v. EPSA* rejected this argument; as the PJM Market Monitor's brief in the *Star* appeal notes, "[t]he concept of 'indirect wholesale market forces' is not defined. There is no such thing in this case."¹⁰⁸

Similarly, proponents claim that ZECs are traded in a separate transaction and are therefore independent of the markets and beyond FERC's reach.¹⁰⁹ This is not correct. FERC's "directness" authority extends beyond market transactions, and ZECs impact prices through a causal chain no less direct than a demand response bid through an intermediary. A state is not allowed to saw off one link in the causal chain, claim its law has only that effect, and then argue its action is permissible. And, as also noted above, the directness is most apparent when the state's purpose is precisely to change what transpires on the markets.

As in *Hughes*, the state pricing formulas expressly tether ZECs to the wholesale markets. One recent analysis puts it succinctly, stating that, "it is hard to see how [ZECs] can survive *Hughes*. Essentially, these states have tethered compensation for merchant plants to the wholesale markets, and have done so for the purpose of making up for flaws in those markets."¹¹⁰ The states argue that ZECs are not tethered to the markets because no plant that receives the credits is forced to bid into wholesale markets. It would be a stretch to limit *Hughes* to situations of this sort. It also ignores reality to say that bidding is a "business decision," as the *Zibelman* court put it.¹¹¹ The states' aim to make up for revenue shortfalls contradicts this. These plants offer some or all of their electricity in the markets—they would have no revenues and would fail if they did not bid their electricity there. The states cannot simultaneously attempt to make up for the plants' revenue shortfall, and pretend that the shortfall does not exist because the plants are not obligated to bid. The states' own mathematical formulas that show they are expressly contemplating that plants will bid in the markets also undercut their argument. They take wholesale prices into account, and there would be no reason to do so if that was irrelevant to the plants' owners.

The *Star* court's observation that the wholesale markets can – and must – adjust to the impacts on markets resulting from the states' credit programs completely inverts the relevant analysis under *FERC v. EPSA*. If a state program thwarts the purposes and objectives of the wholesale market design, it is not relevant that the grid operators could adjust their market structures to yield satisfactory results. Once FERC has approved a market structure as just and reasonable, it is not for the states to conclude otherwise.¹¹² It is the point of being forced to revise the structure, due to a state program that has this as its aim, that is relevant.

107. *Village of Old Mill Creek*, 2017 WL 3008289, at *13; *Zibelman*, 272 F. Supp. 3d at 571–72.

108. Brief of Independent Market Monitor for PJM, *supra* note 18, at 5–6.

109. See, e.g., Brief of the Institute For Policy Integrity, *supra* note 104, at 22 (calling it a "wholly separate" payment).

110. Hammond, *supra* note 5, at 15.

111. *Zibelman*, 272 F. Supp. 3d at 570.

112. *Miss. Power & Light Co.*, 487 U.S. 354 (1988).

Finally, *Zibelman* cites the Second Circuit's 1985 *Rochester Gas* decision¹¹³ in contrast to *Hughes*, but that decision does not refute *Hughes* and is actually consistent with this Article's test. In that case, the utility wished to set retail rates while acknowledging the revenues that it would receive from certain "incidental sales" (bilateral wholesale transactions).¹¹⁴ There was no suggestion that the utility aimed to change any terms or conditions of those sales.¹¹⁵ The utility was not attempting to "adjust" a wholesale rate, but was merely acknowledging the end product of the wholesale rate making process. It was not creating a feedback mechanism, as the incidental sales would not be affected in any way by retail rate setting.¹¹⁶ This, the court properly stated, was permissible. This result is consistent with the test expressed in this Article, as the state action involved no disregard. It also squares with Supreme Court's "trapping" cases such as *Mississippi Power and Light*¹¹⁷ that were decided contemporaneously to *Rochester Gas*. In these cases, the Court held that utilities could not disregard wholesale rates, but instead were required to pass them through as inputs to the retail level.

III. PREEMPTING ZECs WHILE PRESERVING THE STATES' ABILITY TO PROMOTE CLEAN ENERGY

Ari Peskoe (in his companion article), law professor amici, and some environmental groups and clean energy advocates, whom one might not normally expect to support subsidies to aging nuclear power plants, have lined up in favor of the ZECs. Their primary concern is that preserving ZECs is essential for the survival of other state green energy programs.¹¹⁸ Accordingly, they argue that states have exclusive authority over design and implementation of clean energy credit programs.¹¹⁹ This misses the mark.

113. *Zibelman*, 272 F. Supp. 3d at 569 (citing *Rochester Gas and Electric Corp. v. Pub. Serv. Comm'n of New York*, 754 F.2d 99 (2d Cir. 1985)).

114. *Rochester Gas and Electric Corp.*, 754 F.2d at 102.

115. *Id.*

116. Plaintiffs' Memorandum In Opposition To Motion To Dismiss, *supra* note 65, at 18 (noting that, "Central to the Second Circuit's holding was its finding that the policy of the New York Public Service Commission ('PSC') to consider federally-regulated wholesale sales when it set state-jurisdictional retail rates would not affect the wholesale-market decisions of the utility at issue."); *Rochester Gas and Electric Corp.*, 754 F.2d at 102 ("[W]e do not believe that PSC's [policies] materially affect [the utility's] incidental sales decisions.").

117. *Miss. Power & Light Co.*, 487 U.S. 354 (1988).

118. Briefs filed by environmental groups in the Seventh Circuit in support of the District Court's position include Amici Curiae Brief of Natural Resources Defense Council, Environmental Defense Fund, Citizens Utility Board, Elevate Energy and Respiratory Health Association in Support of Defendants-Appellees and Affirmance, Nos. 17- 2433, 17- 2445 (cons.); and Brief of Electricity Regulation Scholars, *supra* note 30. In the *Zibelman* appeal, these parties were joined by the NYU Law Institute For Policy Integrity. See Brief of the Institute For Policy Integrity, *supra* note 104.

See also Welton, *supra* note 18, at 30 (noting that "the ZEC program divided the environmental community, with many groups coming out in support of it.").

119. Brief of Electricity Regulation Scholars, *supra* note 45.

A. *State Clean Energy Programs; Distinguishing ZECs*

States have numerous and diverse efforts underway to promote sources of clean and renewable power.¹²⁰ They have had exclusive authority to design programs to subsidize clean energy by mechanisms such as renewable portfolio standards (RPS) and renewable energy certificate (REC) programs tied to them.¹²¹ A RPS “requires electric utility companies to source a certain share of the electricity they sell to end-users from renewable sources of energy.”¹²² Utilities prove their compliance with these requirements through RECs.¹²³ A REC is a tradeable, market-based instrument that represents a megawatt-hour of electricity generated and delivered to the electric grid from a renewable energy resource.¹²⁴

ZECs and RECs are both credit programs that support carbon-free generation. The similarity ends there, as there is a critical distinction between them. ZECs aim directly at remedying the revenue shortfall on the wholesale markets. RECs do not, because they are designed with reference to environmental attributes, not wholesale market prices.¹²⁵ RPSs promote new sources of carbon-free generation, and “generally do not condition eligibility for the standards (or the accompanying renewable energy credits) on participation in the wholesale markets, nor were they motivated by correcting perceived wholesale market failures.”¹²⁶ RECs are neither traded on the wholesale markets nor valued there.¹²⁷ As the Second Circuit recently noted in its *Allco* decision that upheld Connecticut’s RPS, “RECs are inventions of state property law whereby the renewable energy attributes are ‘unbundled’ from the energy itself

120. Welton, *supra* note 1818, at 4 (describing the “rich set of state climate policies”). The wide variety of policies is collected at DATABASE OF STATE INCENTIVES FOR RENEWABLES AND EFFICIENCY, <http://dsireusa.org>.

121. Twenty-nine states and the District of Columbia now have RPSs. Mormann, *supra* note 2, at 190; DATABASE OF STATE INCENTIVES FOR RENEWABLES AND EFFICIENCY, SUMMARY MAP: RPS POLICIES, <http://dsireusa.org>.

122. Mormann, *supra* note 2, at 198; cf. Joel B. Eisen, *Residential Renewable Energy: By Whom?*, 31 UTAH ENVTL. L. REV. 339, 345 (2011).

123. Mormann, *supra* note 2, at 198.

124. *Id.*

125. Brief of Plaintiffs-Appellants, *supra* note 101, at 52; Plaintiffs’ Memorandum In Opposition To Motion To Dismiss, *supra* note 64, at 21 (noting that, “RECs are not dependent upon or priced with respect to the wholesale price of electricity”). This also distinguishes the Second Circuit’s recent decision upholding Connecticut’s RPS, which, unlike ZECs, operates completely independently of the wholesale markets. *Allco Finance Ltd. v. Klee*, 861 F.3d 82, 108 (2d Cir.), *cert. denied*, 138 S. Ct. 926 (2018).

126. Hammond, *supra* note 5, at 13.

127. The *Zibelman* court correctly notes this. *Coal. For Competitive Elec. v. Zibelman*, 272 F. Supp. 3d 554, 571–72 (S.D.N.Y.), *appeal docketed*, No. 17-2654 (2d Cir. Aug. 25, 2017). It then concludes that because this is a separate transaction it cannot be said to set the wholesale rate. That does not square with *FERC v. EPSA*. See *supra* note 38 and accompanying text.

and sold separately.”¹²⁸ The value of RECs depends on supply and demand for them, and is completely unrelated to wholesale market prices.¹²⁹

RPS programs subsidize renewable power generators.¹³⁰ That by itself does not make them impermissible. Like a property tax subsidy, a direct subsidy, or the other means of supporting generation that *Hughes* found permissible, their value is not linked to the wholesale markets. A REC recipient could impact the wholesale markets by taking REC revenue into account in its bid, but the lack of conscious aim at the markets makes this permissible. Indeed, a number of state RPSs predate the wholesale markets, so they could not have been designed with reference to them.

B. Retaining Authority For Other State Clean Energy Programs

The distinction articulated in the previous section may seem like splitting hairs, but under a test for preemption that rests on conscious disregard for the wholesale markets, it makes all the difference. In designing an RPS, the state proceeds with no eye on the markets. It can and should be able to do this. Thus, courts could invalidate the ZECs while avoiding interference with state experiments to promote clean and renewable energy. Under this test, states would retain considerable latitude to design environmental credit programs. Arguments that ZECs are essential for states to address climate change confuse the ultimate issue, because New York and Illinois could easily redesign their ZEC programs to pass muster. If they valued the emissions exclusively at the social cost of carbon, that would be permissible under this Article’s test.¹³¹

Finally, the environmentalists supporting ZECs should prefer the conscious disregard standard to an argument resting on states’ authority over credit programs. Parochial programs subsidizing individual plants may not always have environmentally friendly results. One state could tout carbon-free generation, but another may well decide to protect coal fired power plants because the state believes they can operate in emergency conditions and that wholesale markets do not value “resilience” of this sort. In fact, in the last year, two states have introduced legislation to support coal-fired power plants in their state by valuing

128. *Allco Finance Ltd. v. Klee*, 861 F.3d at 93 (citing *Wheelabrator Lisbon, Inc. v. Conn. Dep’t of Pub. Util. Control*, 531 F.3d 183, 186 15 (2d Cir. 2008) (per curiam)). As such, different states define RECs differently, focusing on various attributes which they deem to be especially relevant. *Id.*

129. Plaintiffs’ Memorandum In Opposition To Motion To Dismiss, *supra* note 65, at 22 (noting that, “the REC price is typically determined by a competitive market for renewable energy credits, not by a state dictate based on how much the favored plant will receive from wholesale electric market sales.”).

130. *Hammond & Spence*, *supra* note 4, at 206 (noting that, “RPSs increase the price electricity retailers are willing to pay for clean power”). The precise extent of this subsidy is unknown. Brief of Electricity Regulation Scholars, *supra* note 45, at 219 (noting that, “teasing out the precise effect that state policy and FERC-regulated wholesale rates have on REC prices involves complex calculations, and we are not aware of any definitive conclusions. Suffice it to say, REC prices and wholesale power prices are interrelated to varying degrees in different markets.”).

131. Eisen, *Dual Electricity Federalism Is Dead*, *supra* note 5, at 21.

their purported resilience attributes.¹³² And the Department of Energy directed FERC to consider the value of resiliency to the grid, to which FERC responded by opening a broader proceeding on the matter.¹³³ If states have broad authority to craft credit programs, a “resilience” credit would be permissible. Under a standard that focuses on disregard for the markets, a “resilience” standard might fall, depending on its design.

CONCLUSION

The test outlined in this Article requires states to be forthright about their incentives to promote clean energy. If nuclear power plants are unprofitable due to low wholesale market clearing prices, a state may support them with initiatives that fall within its traditional authorities. This Article concludes, however, that the state may not explicitly target its program to compensate for what it believes are dissatisfactory wholesale market outcomes. States that joined the wholesale markets need to adhere to their results. As Shelley Welton notes, no one forced states to participate: they “decided to join regional electricity markets in order to have these markets competitively select least-cost electricity and generating capacity.”¹³⁴ And if a state can set the terms of the debate by attempting to make up for market shortcomings, the overall design of the markets is threatened.

There is no “preoccupation with market sanctity” here, either.¹³⁵ A test that focuses on conscious disregard is a narrow one that would address some around-market situations, but would leave considerable room for state policy experimentation. And, as states consider how to promote clean energy, the wholesale markets, which were designed to provide least-cost electricity, will have to change to accommodate these policies. That would continue to leave much uncertainty about the boundary between the two, but that is a desirable

132. Two bills (HB 239 and SB 155) were introduced in the Ohio legislature in 2017 to provide “perpetual subsidies for two coal-fired plants.” Maloney, *Feud of the Year*, *supra* note 3; Kathiann M. Kowalski, *As Ohio legislature regroups, power plant subsidy debate to continue*, ENERGY NEWS NETWORK (Aug. 16, 2017), <https://energynews.us/midwest/as-ohio-legislature-regroups-power-plant-subsidy-debate-continues/>. Illinois also moved forward with legislation to support coal-fired power plants in the state, but it failed in the 2017 legislative session. Amanda Durish Cook, *Dynegy Auction Proposal Fails to Gain Ill. Lawmaker Support*, RTO INSIDER (Nov. 27, 2017), <https://www.rtoinsider.com/dynegy-capacity-market-80654/>.

133. Using its rarely-invoked authority under Section 403 of the Department of Energy Organization Act (42 U.S.C. § 7173(a) (2012)), the Department of Energy directed FERC to begin a rulemaking to recognize the “resiliency” of coal and nuclear power plants and provide them with cost-of-service recovery. Notice of Proposed Rulemaking, Grid Resiliency Pricing Rule, 82 Fed. Reg. 60134 (proposed Oct. 10, 2017) (to be codified at 18 CFR pt. 35), <https://energy.gov/sites/prod/files/2017/09/f37/Notice%20of%20Proposed%20Rulemaking%20.pdf>; see also Gavin Bade, *Chatterjee: coal plants should be ‘properly compensated’ for grid value*, UTILITYDIVE.COM (Aug. 15, 2017), <https://www.utilitydive.com/news/chatterjee-coal-plants-should-be-properly-compensated-for-grid-value/449367/>. A FERC order in January 2018 rejected the rulemaking proposal but began a new proceeding to investigate the nature of resilience and make appropriate changes to wholesale markets. Order Terminating Rulemaking Proceeding, Instituting New Proceeding, And Establishing Additional Procedures, 162 FERC ¶ 61,012 (Jan. 8, 2018).

134. Welton, *supra* note 18, at 20.

135. Hammond, *supra* note 5, at 15.

outcome. That hardly spells the end of the markets,¹³⁶ and for now seems preferable to sweeping rules that establish new bright lines of their own.

136. *Id.*