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# Market Segmentation vs. Subsidization: Clean Energy Credits and the Commerce Clause's Economic Wisdom

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# MARKET SEGMENTATION VS. SUBSIDIZATION: CLEAN ENERGY CREDITS AND THE COMMERCE CLAUSE'S ECONOMIC WISDOM

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*Abstract:* The dormant Commerce Clause has long been a thorn in the side of state policymakers. The latest battleground for the clash between federal courts and state legislatures is energy policy. In the absence of a decisive federal policy response to climate change, nearly thirty states have created a new type of securities—clean energy credits—to promote low-carbon renewable and nuclear power. As more and more of these programs come under attack for alleged violations of the dormant Commerce Clause, this Article explores the constitutional constraints on clean energy credit policies. Careful analysis of recent and ongoing litigation reveals the need for better differentiation between constitutionally questionable market segmentation and constitutionally sound subsidization policies—in clean energy policy and beyond.

Many observers view the dormant Commerce Clause doctrine as a major threat to state-led efforts to combat climate change. Pushing back against widespread scholarly skepticism and recent precedent, this Article makes the case that state policymakers can use clean energy credits to simultaneously promote global environmental and local economic causes without running afoul of the dormant Commerce Clause. Critics and courts alike fail to recognize that not all energy credit programs are created equal.

When states use energy credits as compliance instruments for their renewable portfolio standards—requirements that electric utilities source a percentage of their electricity sales from solar, wind, and other renewables—they partition power markets into renewable and non-renewable segments. Such segmentation policies cannot follow state boundaries or other geographically defined lines without violating the dormant Commerce Clause. A few pioneering states have begun to use energy credits as a vehicle for subsidies that operate independently of sourcing requirements. Unlike their market segmentation counterparts, these subsidization policies raise no concerns under the dormant Commerce Clause even when subsidies are available only to in-state firms.

The Commerce Clause's "preference" for subsidization over segmentation policies may seem counterintuitive. Both have, after all, the potential to disrupt interstate commerce and competition. Yet, two centuries of dormant Commerce Clause jurisprudence reflect a simple economic truth: segmentation prevents competition altogether, while subsidization can have a pro-competitive effect, such as when used to correct for carbon externalities and other market failures.

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## INTRODUCTION

State policymakers have a natural incentive to advantage local firms over out-of-state competitors. Public policy support for in-state businesses helps create local jobs, generates tax revenue to fill state coffers, and endears politicians to their electorate. These "patriotic" policies frequently erect barriers to entry for out-of-state competitors or altogether reserve access to local markets for in-state firms. Such segmentation policies, however, conflict with the dormant Commerce Clause doctrine's general prohibition of state measures that discriminate against out-of-state firms or (otherwise) excessively burden interstate commerce. Clean energy policy is but the latest battleground for the clash between federal courts and state legislatures.

As energy markets continue to gain in importance and sophistication so, too, do the policy tools that shape them become ever more complex.[1] The jurisdictional mismatch between state clean energy policies and regionalized electricity markets, meanwhile, puts pressure on the dormant

1. A series of recent U.S. Supreme Court cases have sought to clarify the complicated relationship between energy markets and public policy incentives. *See* Hughes v. Talen Energy Mktg., 578 U.S. __, 136 S. Ct. 1288 (2016); Fed. Energy Regulatory Comm'n v. Elec. Power Supply Ass'n, 577 U.S. __, 136 S. Ct. 760 (2016); ONEOK, Inc. v. Learjet, Inc., 575 U.S. __, 135 S. Ct. 1591 (2015).

Commerce Clause doctrine.[2] The clean energy credit cases currently before the courts bear witness to these complexities and caution judges, scholars, and policymakers alike to carefully consider the precise market impacts of public policy incentives. Contrary to the prevailing scholarly view, the dormant Commerce Clause does not altogether preclude state policymakers from advantaging in-state firms over out-of-state competitors. To be sure, state policies that reserve one or more segments of the national marketplace to in-state firms are all but certain to be struck down for violating the dormant Commerce Clause's ban on interstate discrimination. Long-standing U.S. Supreme Court precedent suggests, however, that state policymakers can use subsidies reserved for in-state businesses to tilt the competitive playing field without running afoul of the Commerce Clause. Drawing on the latest wave of clean energy litigation as an illustrative case study, this Article argues for more careful differentiation between constitutionally permissive state subsidies and constitutionally questionable state segmentation policies.

In the absence of a comprehensive federal policy strategy to mitigate climate change and promote clean energy, state legislatures are stepping in to fill the policy void.[3] Renewable portfolio standards (RPS) that create markets for low-carbon, renewable energy by requiring electric utilities to source a portion of their retail sales from solar, wind, and other renewables have been particularly popular among state policymakers. To date, twenty-nine states, the District of Columbia, and three U.S. territories have implemented RPS policies.[4] But these policies have increasingly come under attack for alleged violations of the Commerce Clause[5] as

2. *See generally* Shelley Welton, *Electricity Markets and the Social Project of Decarbonization*, 118 COLUM. L. REV. 1067 (2018) (discussing the challenges that variegated state policies pose to the smooth functioning of regional electricity markets).

3. For an overview of state climate policy action, see William Boyd & Ann E. Carlson, *Accidents in Federalism: Ratemaking and Policy Innovation in Public Utility Law*, 63 UCLA L. REV. 810 (2016) (describing state climate policy innovation efforts through public utility regulation); Kirsten H. Engel & Barak Y. Orbach, *Micro-Motives and State and Local Climate Change Initiatives*, 2 HARV. L. & POL'Y REV. 119, 123 (2008); Daniel A. Farber, *Climate Change, Federalism, and the Constitution*, 50 ARIZ. L. REV. 879, 883 (2008); Felix Mormann, *Clean Energy Federalism*, 67 FLA. L. REV. 1621 (2015) (exploring the ideal institutional level of implementation for climate and clean energy policies); Richard B. Stewart, *States and Cities as Actors in Global Climate Regulation: Unitary vs. Plural Architectures*, 50 ARIZ. L. REV. 681, 683 (2008).

4. *See* N.C. CLEAN ENERGY TECH. CTR., RENEWABLE PORTFOLIO STANDARD POLICIES (2017), http://ncsolarcen-prod.s3.amazonaws.com/wp-content/uploads/2017/03/Renewable-Portfolio-Standards.pdf [http://perma.cc/GBY6-3NFR]. Eight more states and one U.S. territory have adopted nonbinding goals for the deployment of renewables. *See id.*

5. U.S. CONST. art. I, § 8, cl. 3.

states seek to internalize the economic benefits generated by their commitment to a cleaner energy future.

State policymakers have been remarkably willing to share the environmental benefits flowing from their RPS policies with neighboring states, countries, and the world at large. As the growing share of low-carbon renewable electricity displaces carbon-intensive fossil-fueled power, the attendant reductions in heat-trapping greenhouse gas emissions help mitigate climate change and global warming—for the benefit of the entire planet.[6] Many policymakers feel less generous, however, when it comes to the economic benefits derived from their RPS policies. A number of states have limited participation in their RPS programs to in-state generators or taken similar measures to keep the tax revenue and jobs generated by their commitment to renewables within state boundaries. While such measures are likely to be popular with local constituents and may well help garner political support for critical climate policies,[7] they raise constitutional concerns as evidenced by the wave of Commerce Clause challenges filed against locationally sensitive RPS regimes between 2010 and 2012.[8]

At the time, policymakers and scholars widely agreed that RPS policies favoring in-state deployment of renewable generation would not pass

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6. *See* Massachusetts v. EPA, 549 U.S. 497, 523–24 (2007) (acknowledging that the warming effect of greenhouse gas emissions manifests itself globally regardless of their point of origin but rejecting the EPA's argument that, therefore, regulation of domestic greenhouse gas emissions would be ineffective due to projected increases in greenhouse gas emissions from China, India, and other developing nations). Just as the heat-trapping effect of greenhouse gases in the atmosphere manifests itself across the globe regardless of where these gases are emitted so do emission reductions deliver mitigation benefits worldwide.

7. *See* Timothy Meyer, *How Local Discrimination Can Promote Global Public Goods*, 95 B.U. L. REV. 1937 (2015) (arguing that discriminatory local renewable energy programs can increase global welfare in the aggregate); Alexandra B. Klass & Jim Rossi, *Revitalizing Dormant Commerce Clause Review for Interstate Coordination*, 100 MINN. L. REV. 129 (2015) (offering evidence of state parochialism in the context of interstate transmission planning and development).

8. *See* Nichols v. Markell, No. CV 12-777-CJB, 2014 WL 1509780, at *22–25 (D. Del. Apr. 17, 2014) (challenging Delaware's RPS); Am. Tradition Inst. v. Colorado, 876 F. Supp. 2d 1222, 1227–28 (D. Colo. 2012) (challenging Colorado's RPS); North Dakota v. Swanson, No. 11-3232 SRN/SER, 2012 WL 4479246 (D. Minn. Sept. 20, 2012) (challenging Minnesota's Next Generation Energy Act); Application of Pub. Util. Dist. No. 1 of Cowlitz Cty. for Rehearing of Decision 11-12-052, (Jan. 20, 2012), [https://perma.cc/3G7V-VGVC] (challenging California's RPS); Complaint at 3–17, TransCanada Power Mktg. LTD. v. Bowles, No. 4:10cv-40070-FDS (D. Mass. Apr. 16, 2010) (challenging Massachusetts' RPS); Missouri *ex rel.* Missouri Energy Dev. Ass'n v. Pub. Serv. Comm'n, Nos. 10AC-CC00511, 10AC-CC00512, 10AC-CC00513, 10AC-CC00528, 10AC-CC536, Doc. No. SL01DOCS\3510904.2 (Mo. Ct. App. June 29, 2011) (challenging Missouri's RPS). For a detailed survey of these dormant Commerce Clause challenges against state RPS policies, see Felix Mormann, *Constitutional Challenges and Regulatory Opportunities for State Climate Policy Innovation*, 41 HARV. ENVTL. L. REV. 189, 203 (2017).

constitutional muster. Scholars responded with calls for reform of the dormant Commerce Clause doctrine,[9] while state policymakers did not even try to defend their portfolio standards but, rather, chose to take out controversial provisions and/or settle the case in question.[10]

Now, a second wave of litigation over RPS and other clean energy policies calls into question the conventional wisdom that state policymakers cannot favor in-state generators over out-of-state competitors without running afoul of the dormant Commerce Clause. In its June 2017 *Allco Finance Ltd. v. Klee*[11] decision, the Second Circuit upheld Connecticut's RPS against a challenge that the program's geographic and other restrictions for renewable energy credits (RECs) suitable to prove compliance violated the dormant Commerce Clause.[12] Two other Commerce Clause challenges directed against state zero-emission-credit (ZEC) programs in Illinois[13] and New York,[14] both with similar geographic restrictions, are currently working their way through

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9. *See* Michael Barsa & David A. Dana, *A Climate Change Lens on the Dormant Commerce Clause, Lifecycle GHG Taxes, and In-State RPSS Requirements*, 5 SAN DIEGO J. CLIMATE & ENERGY L. 69, 71–72 (2014); Danny Englese, *Tilting at Windmills: Finding an Alternative Dormant Commerce Clause Framework to Preserve Renewable Portfolio Standard Generator Location Requirements*, 47 ARIZ. ST. L.J. 983, 1002 (2015); Sam Kalen, *Dormancy Versus Innovation: A Next Generation Dormant Commerce Clause*, 65 OKLA. L. REV. 381, 424–25 (2013); Daniel K. Lee & Timothy P. Duane, *Putting the Dormant Commerce Clause Back to Sleep: Adapting the Doctrine to Support State Renewable Portfolio Standards*, 43 ENVTL. L. 295, 355–60 (2013). *But see* William Griffin, *Renewable Portfolio Standards and the Dormant Commerce Clause: The Case for In-Region Location Requirements*, 47 ARIZ. ST. L.J. 983, 997 (2014) (arguing that in-region requirements in Massachusetts' state RPS could be deemed constitutional under existing dormant Commerce Clause doctrine). *See also* Kirsten H. Engel, *The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation*, 26 ECOLOGY L.Q. 243, 324 (1999) (showing true prescience in calling for reform of dormant Commerce Clause doctrine to legitimize state favoritism more than a decade before the first challenges to state RPS policies).

10. *See, e.g.*, Nichols v. Markell, No. CV 12-777-CJB, slip op. at *2–3 (D. Del. Oct. 20, 2015) (Delaware's settlement with FuelCell Energy); State, *ex rel.* Mo. Energy Dev. Ass'n v. Pub. Serv. Comm'n, 386 S.W.3d 165, 176 (Mo. Ct. App. 2012); 2013 Colo. Legis. Serv. ch. 414 (S.B. 13-252) (2013) (eliminating Colorado's in-state generator requirements); Order Adopting Emergency Regulations, Decision No. 10-58 (Mass. Dep't of Publ. Utils. June 9, 2010), [https://perma.cc/U3T8-NLE2] (suspending Massachusetts's in-state generator requirements and striking the words "within the Commonwealth of Massachusetts, its waters, or adjacent federal waters" from its regulations at 220 MASS. CODE REGS. 17.01(1) (2009) and "in the Commonwealth of Massachusetts" from 220 MASS. CODE REGS. 17.05(1)(c)(4) (2009)); *TransCanada Renewable Lawsuit Scores a Win in MA*, CLIMATE LAWYERS BLOG (June 11, 2010, 9:33 AM), http://climatelawyers.com/post/2010/06/11/TransCanada-renewable-lawsuit-scores-a-win-in-MA.aspx [https://perma.cc/F2LV-EJ7Q] (Massachusetts' settlement with TransCanada).

11. *See* 861 F.3d 82 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 926 (2018).

12. *See* Allco Fin. Ltd. v. Klee, 861 F.3d 82 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 926 (2018).

13. *See infra* section IV.A.

14. *See infra* section IV.B.

the courts, with state policies surviving judicial scrutiny in the district courts and, most recently, at the appellate level.[15] Already, some scholars are ready to declare victory claiming that "[i]n the modern era imbued with energy federalism, consisting of an electric grid sharing overlapping regulatory space among federal, regional, and state entities, the dormant Commerce Clause retains little currency."[16]

Closer scrutiny of these lawsuits, however, suggests that the tide has not yet turned altogether in favor of locationally sensitive RPS and other geographically defined market segmentation policies. The dormant Commerce Clause is still very much alive and continues to serve a valuable function prohibiting economic protectionism and, in the process, promoting economic efficiency—in energy policy and beyond.

The Second Circuit may have reached the right conclusion in dismissing the dormant Commerce Clause challenge against Connecticut's RPS, but the court's reasoning reflects a woefully limited understanding of the mechanics and market effects of RPS policies. With its overwhelming focus on RECs as products of state law, the Second Circuit fails to recognize that these credits are merely compliance instruments for the underlying RPS program's sourcing requirement. Whatever the state's discretion in defining the property rights surrounding these compliance tools, the RPS itself remains subject to the same constitutional constraints as any other procurement mandate, chief among them the dormant Commerce Clause. A sound body of case law warns state policymakers against limiting access to in-state markets for out-of-state resources.[17] The saving grace for Connecticut's RPS is that the program grants any out-of-state generator access to the in-state renewable electricity market so long as they deliver their power into the regional power grid.[18] With its equal application to in-state and out-of-state

15. *See* Coal. for Competitive Elec., Dynegy Inc. v. Zibelman, 272 F. Supp. 3d 554, 586 (S.D.N.Y. 2017), *aff'd sub nom.* Coal. for Competitive Elec., Dynergy Inc. v. Zibelman, 906 F.3d 41 (2d Cir. 2018); Vill. of Old Mill Creek v. Star, No. 17 CV 1163, 2017 WL 3008289, at *18 (N.D. Ill. July 14, 2017), *aff'd sub nom.* Elec. Power Supply Ass'n v. Star, 904 F.3d 518 (7th Cir. 2018), *reh'g denied* (Oct. 9, 2018).

16. Sam Kalen & Steven Weissman, *The Electric Grid Confronts the Dormant Commerce Clause*, 45 ECOLOGY L. CURRENTS 132, 144 (2018).

17. *See, e.g.*, Wyoming v. Oklahoma, 502 U.S. 437, 438 (1992) (holding that Oklahoma legislation requiring in-state coal-fired power plants serving local demand to burn a mix of coal containing at least 10% Oklahoma coal violated the dormant Commerce Clause); All. for Clean Coal v. Bayh, 888 F. Supp. 924 (S.D. Ind. 1995), *aff'd*, 72 F.3d 556 (7th Cir. 1995) (striking down statute with a similar preference for Indiana coal); All. for Clean Coal v. Miller, 44 F.3d 591 (7th Cir. 1995) (striking down statutory preference for Illinois coal).

18. *See infra* section III.A.

generators, such evenhanded regulation should be upheld under the *Pike* balancing test.[19]

The ZEC cases, on the other hand, engender fundamentally different issues and should not be lumped in with RPS cases. To be sure, both feature a similar type of state-created securities—energy credits—designed to provide additional revenue for eligible generators. Unlike RECs that serve as compliance instruments for an RPS program's market segmentation and sourcing mandate, however, ZECs are standalone policy incentives that operate independently of a broader procurement requirement. As such, they are best understood as tokens whose value varies depending on market conditions (Illinois) or administrative determinations (New York). Whatever the method of valuation, ZECs ultimately act as subsidies. The Supreme Court has long established that states are free to subsidize in-state firms without running afoul of the dormant Commerce Clause.[20] It should not come as a surprise, therefore, let alone be misunderstood as the demise of the dormant Commerce Clause, if challenges to ZECs and similar subsidy programs remain unsuccessful.

Proper differentiation between market segmentation and subsidization has important implications not only for constitutional law but also for a policy's economic impact. A state's ZEC subsidy program for local nuclear power or other clean energy technologies may tilt the playing field in favor of in-state generators who, without a similar subsidy of their own, find themselves at a competitive disadvantage. Depending on the level of subsidization, unsubsidized firms will likely need to identify new cost-saving opportunities to remain competitive. Failure to do so may lead some firms to leave the market. At the margin, subsidization policies may therefore have a similar effect on competition as segmentation policies that bar certain competitors from entering the market in the first place.

Unlike discriminatory RPS segmentation programs, however, ZECs and other subsidies do not a priori preclude competition among in-state and out-of-state firms. Subsidies used to correct for externalities and other market failures may, in fact, promote competition, rather than deter it. Nuclear power, for example, contributes more low-carbon energy to the

19. *See infra* section III.B.

20. *See, e.g.*, W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994) ("A pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business."); New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 278 (1988) ("The Commerce Clause does not prohibit all state action designed to give its residents an advantage in the marketplace, but only action of that description *in connection with the State's regulation of interstate commerce*. Direct subsidization of domestic industry does not ordinarily run afoul of that prohibition.").

nation's electricity mix than any other source.[21] Yet, nuclear generators across the United States are struggling to compete on interstate power markets because their inability to adjust output to demand fluctuations forces them to sell their power below cost for much of the day. Without a price on carbon, the market does not reward the low-carbon, climate-friendly attributes of nuclear power. Instead, coal, natural gas, and other fossil-fueled power plants enjoy a competitive advantage thanks to their ability to externalize most, if not all, of the social cost of their carbon emissions.[22] With the value of ZECs pegged at the social cost of carbon, these subsidies do no more than correct for a market failure that prevents a level playing field for all competitors and threatens overall market efficiency as well as social welfare.

Critics of the dormant Commerce Clause's constraints on state policymaking—in clean energy and beyond—would do well to remember that two centuries of U.S. Supreme Court jurisprudence reflect a simple economic truth: subsidization affects, distorts, and in some cases even fosters competition, while segmentation prevents it altogether.

This Article proceeds in five parts. Part I offers a brief primer on two centuries of dormant Commerce Clause jurisprudence with a focus on case law related to energy and environmental regulation.[23] Part II features an introduction to the panoply of state RPS policies, surveys the different ways in which they seek to favor in-state generators, and explores their constitutionality. Part III delves into the Second Circuit's recent dismissal of dormant Commerce challenges against Connecticut's RPS program and critiques the court's misunderstanding of the nature and market segmentation effects of RPS policies and the resulting misapplication of the dormant Commerce Clause. Part IV analyzes the litigation over ZEC programs in New York and Illinois, respectively, and delineates these subsidy programs from RPS and other segmentation policies. Part V pushes back against scholarly calls for constitutional reform to enable discriminatory RPS policies and makes the case that the U.S. Supreme Court's dormant Commerce Clause jurisprudence not only safeguards the

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21. *See* OFFICE OF ENERGY ANALYSIS, U.S. DEP'T OF ENERGY, ANNUAL ENERGY OUTLOOK 2018, at 83 (2018).

22. Existing state and regional efforts to price carbon emissions capture but a fraction of even the most conservatively calculated estimates for the social cost of carbon. *See Supply and Bid Statistics*, REG'L GREENHOUSE GAS INITIATIVE (2018), https://rggi.org/auctions/auction-results/supply-bid [https://perma.cc/DH2X-FGQE]. The Regional Greenhouse Gas Initiative's auctions for carbon emission allowances are trading for well under five dollars per ton of carbon emissions at the time of writing. *Id.*

23. Part I borrows from Mormann, *supra* note 8, at 201–03.

union's federalist fabric but also promotes greater policy efficacy and efficiency.

## I. THE DORMANT COMMERCE CLAUSE – A PRIMER

The U.S. Constitution's Commerce Clause has long played a crucial role in determining the proper allocation and exercise of state and federal authority related to environmental[24] and energy[25] policy and regulation. The Commerce Clause constrains the ability of states to serve as laboratories of democracy[26] and sustainability through innovative climate and clean energy policies. In pertinent part, the Commerce Clause states that "Congress shall have Power . . . [t]o regulate Commerce . . . among the several States."[27] This affirmative grant of authority to Congress imposes no express limitation on state authority.[28] Yet the Commerce

24. *See, e.g.*, Or. Waste Sys., Inc. v. Dep't of Envtl. Quality, 511 U.S. 93, 108 (1994) (invalidating Oregon statute imposing extra fee on import of out-of-state waste for disposal); C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 385–86 (1994) (invalidating municipal flow control ordinance mandating solid waste to be processed at designated transfer station before leaving municipality); Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334, 346–48 (1992) (invalidating Alabama statute imposing extra fee on import of out-of-state hazardous waste for disposal); Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Natural Res., 504 U.S. 353, 367–68 (1992) (invalidating Michigan statute prohibiting landfill operators from accepting waste from other counties); Maine v. Taylor, 477 U.S. 131, 151–52 (1986) (upholding Maine statute banning import of live baitfish from out-of-state); Sporhase v. Nebraska, 458 U.S. 941, 960 (1982) (invalidating Nebraska statute's reciprocity requirement for out-of-state use of Nebraska groundwater); Hughes v. Oklahoma, 441 U.S. 322, 338 (1979) (invalidating Oklahoma statute prohibiting out-of-state export of minnows taken from in-state waters); City of Philadelphia v. New Jersey, 437 U.S. 617, 629 (1978) (invalidating New Jersey statute banning the import of solid waste); *see also* Christine A. Klein, *The Environmental Commerce Clause*, 27 HARV. ENVTL. L. REV. 1, 44 (2003) ("With only one exception, the Court has invalidated every state law protecting water or land resources that it has considered [under the dormant Commerce Clause] between 1978 and the end of the twentieth century.").

25. *See, e.g.*, All. for Clean Coal v. Miller, 50 F.3d 591, 596–97 (7th Cir. 1995) (invalidating Illinois statute requiring in-state utilities to consider local coal industry in developing Clean Air Act compliance plans while granting full rate recovery for scrubbers in plants burning Illinois coal); All. for Clean Coal v. Bayh, 72 F.3d 556, 560–61 (7th Cir. 1995) (invalidating Indiana statute on commerce clause grounds); Wyoming v. Oklahoma, 502 U.S. 437, 458 (1992) (invalidating Oklahoma statute requiring in-state utilities to burn a minimum share of local coal); New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 280 (1988) (invalidating Ohio statute reserving state-issued tax credits for ethanol to ethanol produced in-state or in states offering tax credits for Ohio-produced tax credits); New England Power Co. v. New Hampshire, 455 U.S. 331, 344 (1982) (invalidating New Hampshire statute restricting out-of-state exports of hydropower).

26. *See* New State Ice Co. v. Liebmann, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting).

27. U.S. CONST. art. I, § 8, cl. 3.

28. Over the years, different courts have interpreted the scope of the Commerce Clause's affirmative grant of authority differently. *See, e.g.*, Heart of Atlanta Motel, Inc. v. United States, 379 U.S. 241, 258 (1964) (recognizing Congress's authority under the Commerce Clause to enact the public accommodations provisions of the Civil Rights Act of 1964 that prohibit racial discrimination by motels serving interstate travelers); Wickard v. Filburn, 317 U.S. 111, 128–29 (1942)

Clause "has long been understood to have a 'negative' aspect that denies the States the power unjustifiably to discriminate against or burden the interstate flow of articles of commerce."[29] This "negative" or "dormant" corollary dominated the first century of Commerce Clause cases before the Supreme Court.[30] The Court continues to interpret the dormant Commerce Clause to prohibit "economic protectionism" in the form of "regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors."[31]

Just as "the Framers' distrust of economic Balkanization was limited by their federalism favoring a degree of local autonomy,"[32] so, too, is the dormant Commerce Clause's denial of state authority limited, as evidenced by the differing tests and levels of scrutiny applied to state measures. Where state regulation discriminates against interstate commerce on its face, in its purpose, or in its practical effect, it is subject to strict scrutiny and will be held virtually per se unconstitutional unless the state can demonstrate that its regulation serves a legitimate local purpose that cannot be served as well by available nondiscriminatory means.[33]

One important exception to dormant Commerce Clause jurisprudence's general ban on interstate discrimination is the market participant doctrine. Under this doctrine, where a state or local government enters and participates in the relevant market, say by owning or funding the

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(acknowledging Congress' Commerce Clause authority to regulate, through the Agricultural Act of 1938, wheat grown and consumed on the same farm based on the substantial effect of such home-growing activities in defeating and obstructing the Act's purpose to stimulate interstate trade in wheat). For examples of more restrictive interpretation, see United States v. Morrison, 529 U.S. 598, 613 (2000) (holding that Congress did not have Commerce Clause authority to enact the Violence Against Women Act because gender-motivated crimes of violence do not constitute economic activity); United States v. Lopez, 514 U.S. 549, 561–62 (1995) (holding that the Gun-Free School Zones Act exceeded Congress' Commerce Clause authority because possession of a gun in a local school zone does not constitute economic activity substantially affecting interstate commerce).

29. *Or. Waste Sys., Inc.*, 511 U.S. at 98 (citing *Wyoming v. Oklahoma*, 502 U.S. at 454; Welton v. Missouri, 91 U.S. 275 (1876)).

30. *See, e.g.*, Willson v. Black-Bird Creek Marsh Co., 27 U.S. 245, 252 (1829) (holding that a Delaware act authorizing construction of a dam on the Delaware river was not "repugnant to the power to regulate commerce in its dormant state"); *see also* Kalen, *supra* note 16, at 387; Klein, *supra* note 24, at 23, 44.

31. W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 192–93 (1994) (citing New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273–74 (1988)).

32. Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 338 (2008) (citing THE FEDERALIST NOS. 7, 11 (Alexander Hamilton), NOS. 42, 51 (James Madison)); Garcia v. San Antonio Metro. Transit Auth., 469 U.S. 528, 546 (1985)).

33. *See* Maine v. Taylor, 477 U.S. 131, 138 (1986) (citing Hughes v. Oklahoma, 441 U.S. 322 (1979)).

enterprise receiving preferential treatment through state regulation, such regulation does not run afoul of the dormant Commerce Clause.[34]

If a state regulates even-handedly in pursuit of a legitimate local public interest, and the effects of its regulatory action on interstate commerce are only incidental, courts apply the more lenient *Pike* balancing test.[35] Under this test, the regulation in question will be upheld unless courts find the burden imposed on such commerce to be clearly excessive in relation to the putative local benefits.[36] A state law that does not discriminate against out-of-state entities may nevertheless violate the dormant Commerce Clause if it effectively controls conduct beyond that state's boundaries.[37] Under the Commerce Clause's extraterritoriality doctrine, courts generally apply strict scrutiny and strike down state laws if they have the practical effect of regulating commerce occurring wholly outside the regulating state's borders.[38]

## II. STATE RPS POLICIES AND THE DORMANT COMMERCE CLAUSE

Today, twenty-nine states, the District of Columbia, and three U.S. territories have implemented RPS programs to promote renewable energy technologies.[39] RPS policies generally require electric utility companies to source a certain share of the electricity they sell to end-users from

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34. *See Davis*, 553 U.S. at 339; United Haulers Ass'n, Inc. v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 362 (2007); White v. Mass. Council of Constr. Emp'rs, Inc., 460 U.S. 204, 207 (1983); Reeves, Inc. v. Stake, 447 U.S. 429, 436 (1980); Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 807–08 (1976).

35. *See* Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970) (citing Huron Portland Cement Co. v. City of Detroit, 362 U.S. 440, 443 (1960)). For an instructive sample application of the *Pike* balancing test, see Kassel v. Consol. Freightways Corp. of Del., 450 U.S. 662, 678–79 (1981) (invalidating Iowa law banning the use of sixty-five-foot double-trailer trucks within the state due to safety benefits found insufficient to overcome the imposed burden on interstate commerce).

36. *Pike*, 397 U.S. at 142.

37. *See* Healy v. Beer Inst., Inc., 491 U.S. 324, 336 (1989) (citing Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 579 (1986) ("The critical inquiry is whether the practical effect of the regulation is to control conduct beyond the boundaries of the State.").

38. *See Healy*, 491 U.S. at 337; *see also* Alexandra B. Klass & Elizabeth Henley, *Energy Policy, Extraterritoriality, and the Dormant Commerce Clause*, 5 SAN DIEGO J. CLIMATE & ENERGY L. 127, 142–48 (2014) (distinguishing between the Supreme Court's line of price-affirmation and business cases and its line of transportation cases related to the extraterritoriality doctrine).

39. *See* N.C. CLEAN ENERGY TECH. CTR., *supra* note 4. Eight more states and one U.S. territory have adopted nonbinding goals for the deployment of renewables. *See id.* For a discussion of the history and political background of state renewable portfolio standards, see Barry Rabe, *Race to the Top: The Expanding Role of U.S. State Renewable Portfolio Standards*, 7 SUSTAINABLE DEV. L. & POL'Y 10 (2007).

renewable sources of energy.[40] Utilities prove their compliance with these requirements by submitting to their regulator RECs in the amount of the utility's share of sales that the RPS requires to come from renewables.[41] Eligible power plant operators normally receive one such credit for every megawatt hour of electricity generated from renewable resources.[42] Non-utility power generators can sell their RECs to utilities in order to receive a premium on top of their income from power sales in the wholesale electricity market. In most cases, RECs can, but need not, be bought and sold jointly with the electricity for which they were originally awarded. Thanks to this "unbundling" of electricity and credits, a California wind generator could, in theory, bid her electricity into the California Independent System Operator's local wholesale power market while selling the associated RECs to a utility in Maine. A utility subject to an RPS can either build its own renewable power generation facilities to earn RECs for the electricity they produce or purchase credits from other generators.

By default, state RPS programs are agnostic as to whether the renewable energy generation they promote occurs within or outside their jurisdiction so long as local utilities can prove their compliance through the requisite number of RECs. Unless a state requires that RECs be traded in a bundle with the electricity for which they were awarded, only market forces could prevent a utility in one state from purchasing RECs from a wind generator in another state, possibly at the other end of the country. Such locationally agnostic RPS programs raise no concerns in a dormant Commerce Clause inquiry.[43]

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40. For details, see Reinhard Haas et al., *A Historical Review of Promotion Strategies for Electricity from Renewable Energy Sources in EU Countries*, 15 RENEWABLE & SUSTAINABLE ENERGY REVIEWS 1003, 1011–12 (2011); MIGUEL MENDONÇA ET AL., POWERING THE GREEN ECONOMY – THE FEED-IN TARIFF HANDBOOK 161 (Earthscan 2009).

41. Haas et al., *supra* note 40, at 1014; MENDONÇA ET AL., *supra* note 40, at 161. Internationally, renewable energy credits are also referred to as Tradable Green Certificates or Renewable Energy Guarantees of Origin.

42. *See* Lincoln L. Davies, *Power Forward: The Argument for a National RPS*, 42 CONN. L. REV. 1339, 1359, 1378 (2010) (reporting that some states award RECs for every kilowatt hour (kWh) of renewable electricity generation). More and more jurisdictions, however, implement technology-specific renewable portfolio standards that offer carve-outs or credit multipliers for select renewable energy technologies as well as project size and location.

43. *See* Englese, *supra* note 9, at 986 ("[S]tate renewable quotas are constitutional."); Steven Ferrey, *Solving the Multimillion Dollar Constitutional Puzzle Surrounding State "Sustainable" Energy Policy*, 49 WAKE FOREST L. REV. 121, 182 (2014) (noting that only certain design characteristics of state RPS programs "raise dormant Commerce Clause issues"); Mormann, *supra* note 8, at 210 (explaining the non-discriminatory nature of locationally agnostic RPS programs); Harvey Reiter, *Removing Unconstitutional Barriers to Out-of-State and Foreign Competition from State Renewable Portfolio Standards: Why the Dormant Commerce Clause Provides Important*

Sure enough, it matters little for climate change mitigation through greenhouse gas emission reductions whether the solar and wind electricity that displaces carbon-intensive fossil-fueled electricity is generated in-state, out-of-state or even on another continent.[44] Climate science indicates that the heat-trapping effect of greenhouse gases in the atmosphere manifests itself across the globe regardless of whether these gases are emitted in New York or New Delhi.[45] Location matters greatly, however, for the job creation, tax revenue, and other economic benefits associated with renewable energy deployment.[46] State policymakers and their constituents may feel altruistic enough to give their neighbors and, ultimately, the rest of the world a free ride on the climate benefits created through their state's commitment to low-carbon renewables. But not all feel equally generous about related opportunities for economic development.[47]

A series of Commerce Clause challenges filed against state RPS policies shed light on the widespread practice of state policymakers seeking to internalize the economic benefits created by their commitment to clean energy. Between 2010 and 2012, six states were forced to defend their portfolio standards against allegations that they violated the Constitution's dormant Commerce Clause.[48] At the time, policymakers and scholars appeared to be in widespread agreement that RPS policies favoring in-state deployment of renewable generation would not pass

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*Protection for Consumers and Environmentalists*, 36 ENERGY L.J. 45, 65 (2015) ("Favoring renewable generation over fossil-fueled energy sources poses no dormant Commerce Clause issue.").

44. Other environmental benefits associated with substituting renewable energy generation for fossil-fueled power generation, such as air quality improvements and water conservation, accrue at a more local scale. *See* Mormann, *supra* note 3, at 1638 (describing the local environmental benefits associated with renewable energy).

45. *See* Massachusetts v. EPA, 549 U.S. 497, 523–24 (2007) (acknowledging that the warming effect of greenhouse gas emissions manifests itself globally regardless of their point of origin but rejecting the EPA's argument that, therefore, regulation of domestic greenhouse gas emissions would be ineffective due to projected increases in greenhouse gas emissions from China, India, and other developing nations).

46. *See, e.g.*, Engel, *supra* note 9, at 268, 274 (mourning the "hemorrhage" of economic benefits as a downside of state RPS programs).

47. The 2011 amendments to Delaware's RPS offer an illustrative but by no means singular example of how state policymakers use clean energy deployment as a vehicle for promoting in-state economic interests. Prior to the amendments, Delaware officials had negotiated with a fuel-cell manufacturer to open a factory in Delaware. The amendments eventually added fuel cells to the suite of technologies eligible for compliance with the RPS sourcing mandate, along with in-state manufacture and location requirements—all in consideration of the "associated employment and other economic benefits" expected to accrue to the state and its residents. *See* Nichols v. Markell, No. CV 12-777-CJB, 2014 WL 1509780, at *1–2 (D. Del. Apr. 17, 2014).

48. *See supra* note 8.

constitutional muster. Concerned scholars issued calls for sweeping reform of dormant Commerce Clause jurisprudence to enable discriminatory state RPS programs.[49] State policymakers, meanwhile, did not even try to defend their portfolio standards. Instead, some responded with midnight-hour amendments to eliminate controversial provisions of in-state favoritism, while others settled the case in question to avoid the stigma of a judgment against their RPS policies.[50] As a result, the first wave of dormant Commerce Clause challenges against state portfolio standards ebbed away without a single decision on the merits.[51] The closest to a judgment on the merits comes in the form of a dictum from Judge Posner who, writing for the Seventh Circuit, quipped:

> Michigan's first argument—that its [RPS] law forbids it to credit wind power from out of state against the state's required use of renewable energy by its utilities—trips over an insurmountable constitutional objection. Michigan cannot, without violating the commerce clause of Article I of the Constitution, discriminate against out-of-state renewable energy.[52]

The latest wave of litigation over the constitutionality of RPS and other clean energy policies calls into question the conventional wisdom, reflected in Judge Posner's dictum, that state policymakers cannot close their clean energy markets to out-of-state generators without violating the Commerce Clause. Some scholars are already writing the dormant Commerce Clause doctrine's obituary, at least in the context of energy policy.[53] This Article contends that rumors of the dormant Commerce Clause's demise are greatly exaggerated and argues that the Clause is, in fact, alive and well. Any other interpretation replicates the mistakes of recent court decisions[54] and fails to recognize the critical distinction between unconstitutional market segmentation and constitutional subsidies.[55] Before developing this argument in greater detail, the

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49. *See supra* note 9.

50. *See supra* note 10.

51. This tally does not include the outcome of litigation over Minnesota's Next Generation Energy Act. The Act sets not only the state's locationally agnostic positive RPS sourcing requirement but also a negative requirement not to import coal-fired power from other states. The extraterritoriality challenge against the Act's negative sourcing requirement was adjudicated on the merits. *See* North Dakota v. Heydinger, 15 F. Supp. 3d 891, 916, 919 (D. Minn. 2014) (holding Minnesota's New Energy Act in violation of the Constitution's dormant Commerce Clause insofar as it sought to control the conduct of out-of-state entities), *aff'd*, 825 F.3d 912, 923 (8th Cir. 2016).

52. Ill. Commerce Comm'n v. FERC, 721 F.3d 764, 776 (7th Cir. 2013).

53. *See* Kalen & Weissman, *supra* note 16.

54. *See infra* Parts III and IV.

55. *See infra* Part V.

remainder of this section offers an overview of the means by which RPS policies can be tweaked to concentrate economic development within the adopting state's territory.

Policymakers looking to retain the economic benefits of their RPS programs within their state can choose from two types of design features to refine their policies. RPS policies with location-based requirements offer the greatest chance of capturing economic benefits in-state but incur the highest risk of being struck down for violation of the dormant Commerce Clause.[56] Delivery-based and other functional requirements allow for greater spillover of economic benefits but are more likely to pass constitutional muster.[57]

### *A. Location-Based RPS Requirements*

Location-based requirements for in-state generators offer the highest chance of ensuring that the renewable energy deployment and associated economic development promoted by a state RPS will occur within that state's boundaries. In their most common form, such location-sensitive RPS policies expressly mandate that only electricity from renewable power generation facilities located within state borders will count toward the state's RPS sourcing requirement.[58]

It is hard to imagine a scenario in which a court asked to judge the constitutionality of a state RPS program would not find location-based in-state requirements to violate the dormant Commerce Clause.[59] Due to their

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56. *See infra* section II.A.

57. *See infra* section II.B.

58. *See, e.g.*, D.C. CODE § 34-1432(e)(1) (2015); 20 ILL. COMP. STAT. 3855/1-75(c)(3) (2016); IND. CODE 8-1-37-12(b) (2016); 225 MASS. CODE REGS. 14.05(4)(a) (2016).

59. *See, e.g.*, Nathan Endrud, *State Renewable Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation*, 45 HARV. J. ON LEGIS. 259, 270 (2008) ("[A] requirement that the renewable energy used to meet a state's RPS obligation be generated within the state itself . . . would almost certainly be struck down"); Englese, *supra* note 9, at 1009–10 ("[A] pure location requirement, requiring energy providers to obtain a certain amount of renewable energy from in-state resources, would fail under the per se test."); Stephen Ferrey, *Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power*, 7 TEX. J. OIL GAS & ENERGY L. 59, 106 (2012) ("The state can regulate RECs, but it must not discriminate based solely on geography."); Patrick R. Jacobi, *Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause*, 30 VT. L. REV. 1079, 1111 (2006) ("In-state, location-based requirements in a purely REC-based RPS are per se invalid."); Trevor D. Stiles, *Renewable Resources and the Dormant Commerce Clause*, 4 ENVTL. & ENERGY L. & POL'Y J. 34, 64 (2009) ("Any requirement that the energy used to meet the RPS threshold must be generated within the state itself would almost certainly be found to violate the Dormant Commerce Clause.").

facially discriminatory nature, such provisions would be subject to strict scrutiny and struck down unless the state can demonstrate that its regulation serves a compelling state interest that cannot be served equally well by available nondiscriminatory means.[60] In its restrictive interpretation of what constitutes a compelling state interest, the U.S. Supreme Court has clarified that "[s]hielding in-state industries from out-of-state competition is almost never a legitimate local purpose, and state laws that amount to 'simple economic protectionism' consequently have been subject to a 'virtually per se rule of invalidity.'"[61] Hence, when in-state requirements set by a state's RPS program are driven primarily by economic concerns, they would not pass muster under the "legitimate purpose" test.[62]

One commentator has suggested that state policymakers may find themselves on constitutionally safer ground when geographic requirements in their RPS policies are defined along in-*region* rather than in-*state* parameters.[63] The overwhelming majority of scholars, however, agree that such provisions, while not discriminating against all other forty-nine states in the union, would still be considered facially discriminatory by the courts regarding all out-of-region states and, hence, be struck down for violating the dormant Commerce Clause.[64] Indeed, the Court has made it clear, albeit in a different context, that scaling discriminatory in-state requirements up to in-region requirements makes them no less facially

60. *See* Maine v. Taylor, 477 U.S. 131, 138 (1986) (citing Hughes v. Oklahoma, 441 U.S. 322, 336 (1979)) (accepting Maine's regulation banning out-of-state imports of live baitfish as the least discriminatory means to protect the state's fragile fisheries from parasites and invasive species). The U.S. Supreme Court has, however, interpreted this "excuse" for a state's facial discrimination against interstate commerce very restrictively. *See, e.g.*, Lee & Duane, *supra* note 9, at 308 ("States rarely meet this level of scrutiny.").

61. *Taylor*, 477 U.S. at 148 (citing Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978)).

62. *But see* Lee & Duane, *supra* note 9, at 322–23 (arguing that credit multipliers for in-state generation could be upheld under *West Lynn Creamery*).

63. *See* Griffin, *supra* note 9, at 160–65 (arguing that Massachusetts' facially discriminatory in-region location requirement for RPS-eligible generators might be upheld by a court for serving a legitimate local purpose that could not be adequately served by non-discriminatory means). For examples of regional location requirements and preferences, see CONN. GEN. STAT. § 16-245a(b) (2018); D.C. CODE § 34-1432(e) (2018); 26 DEL. CODE § 352(6) (2018); MD. PUB. UTIL. § 7-701(n)(2) (2018).

64. *See, e.g.*, Endrud, *supra* note 59, at 271 ("[I]n-region location requirements, while not discriminatory towards certain neighboring states, would still be facially discriminatory against the remainder of states and would therefore also be invalidated."); Jacobi, *supra* note 59, at 1132 ("[I]n-region limits and adjacency limits still exclude the majority of states in the United States based purely on location."); Nancy Rader & Scott Hempling, *The Renewables Portfolio Standard: A Practical Guide* A-1 (NARUC 2001) ("The state law would still discriminate, facially, against other states."); Reiter, *supra* note 43, at 51 ("Regional, rather than explicit in-state preferences, likewise will not escape condemnation under the Commerce Clause.").

discriminatory and, hence, no less troublesome for the purposes of dormant Commerce Clause review.[65]

### *B. Delivery-Based RPS Requirements*

A number of state RPS programs include provisions that require renewable electricity to be delivered into that state or regional power grid to count toward the state's renewable quota.[66] These delivery requirements apply to in-state and out-of-state generators alike and, hence, are not facially discriminatory. Unless a court found evidence of a discriminatory effect or purpose underlying the delivery requirement, the pertinent provision would not be subject to strict scrutiny but, rather, the more lenient *Pike* balancing test.[67] Under this test, evenhanded regulation for a legitimate local purpose with merely incidental effects on interstate commerce will be upheld "unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits."[68] The presumably higher costs for out-of-state or out-of-region generators to connect to the grid in question represent an incidental burden on interstate commerce.[69] The prevailing view among scholars[70] and regulators,[71]

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65. *See* Ne. Bancorp, Inc. v. Bd. of Governors of Fed. Reserve Sys., 472 U.S. 159, 174 (1985) ("There can be little dispute that the dormant Commerce Clause would prohibit a group of States from establishing a system of regional banking by excluding bank holding companies from outside the region if Congress had remained completely silent on the subject.").

66. *See* CAL. PUB. UTIL. CODE § 399.11(e)(2) (2016); CONN. GEN. STAT. § 16-245a(b) (2014); MD. PUB. UTIL. § 7-701(k)(2) (2013). These delivery requirements are often defined in terms of the Independent System Operator (ISO) or Regional Transmission Operator (RTO) to which the state in question belongs. For more background on ISOs and RTOs, see Hannah J. Wiseman & Hari M. Osofsky, *Dynamic Energy Federalism*, 72 MD. L. REV. 773, 804, 817 (2013).

67. *See* Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970); *supra* note 35 and accompanying text.

68. *Pike*, 397 U.S. at 142 (citing Huron Portland Cement Co. v. City of Detroit, 362 U.S. 440, 443 (1960)).

69. *See* CAROLYN ELEFANT & EDWARD A. HOLT, CLEAN ENERGY STATES ALL., THE COMMERCE CLAUSE AND IMPLICATIONS FOR STATE RENEWABLE PORTFOLIO STANDARD PROGRAMS 12 (2011) ("[A]n out-of-state developer may face added cost to connect . . . .").

70. *See id.* ("[C]ommentators generally agree that in-state and regional delivery requirements will survive commerce clause review."); Anne Havemann, *Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution*, 71 MD. L. REV. 848, 885 (2012) ("[T]he state should keep its REC-based system but emphasize the delivery of benefits over the location of the energy source."); Endrud, *supra* note 59, at 273; Jacobi, *supra* note 59, at 1129 ("Since eligibility is based on benefit delivery and not location, these statutes do not discriminate and should survive a dormant Commerce Clause challenge."); NANCY RADER & SCOTT HEMPLING, NAT'L ASS'N REGULATORY UTIL. COMM'RS, THE RENEWABLES PORTFOLIO STANDARDARD, at A-4 (2001).

71. In its order denying rehearing of Cowlitz County's complaint over the California RPS's requirement that eligible energy be delivered into the California ISO, the California Public Utilities Commission noted, in passing, that the delivery requirement would pass muster under the *Pike*

however, appears to be that such delivery costs would not be considered clearly excessive relative to a state RPS program's putative benefits, hence, passing muster under the dormant Commerce Clause.

The Ninth Circuit's recent rejection of dormant Commerce Clause challenges against California's low-carbon fuel standard supports this view.[72] Plaintiffs attacked the program, arguing that its life-cycle assessment of the carbon intensity of ethanol-based fuels disadvantaged mid-Western producers compared to producers located in California.[73] The Ninth Circuit noted that the program's life-cycle analysis was not framed in geographic terms but, rather, along functional parameters, such as land use practices, the type of energy used for refining, and the method of transporting fuels to California.[74] While the carbon score resulting from this life-cycle analysis may, in some cases, advantage California-produced fuels over out-of-state fuels, such as mid-Western ethanol processed using predominantly coal-fired electricity, that alone is not enough to constitute a per se violation of the dormant Commerce Clause.[75] There must, however, be "some reason, apart from their origin, to treat them differently."[76] In the case of California's low-carbon fuel standard, the court found that the nondiscriminatory rationale for differential treatment—based not on the origin but the carbon intensity of fuels—lay in the environmental and other social costs imposed on Californians by virtue of the greater greenhouse gas emissions caused by fuels with a higher carbon footprint over the entirety of their life.[77]

Applying the Ninth Circuit's logic to state RPS programs, delivery requirements could be justified based on a state's nondiscriminatory interest in ensuring that its citizens have access to electricity generated from a diversified portfolio of resources offering greater reliability and a

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balancing test. *See* Order Denying Applications for Rehearing of Decision, No. 11-12-052 (Cal. Pub. Util. Comm'n Nov. 1, 2013), https://www.energyenvironmentallaw.com/files/2013/12/Order-Denying-App-for-Rehearing-of-D-11-12-052.pdf [https://perma.cc/J928-BC5T].

72. *See* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1101 (9th Cir. 2013) (rejecting dormant Commerce Clause challenges against California's Low Carbon Fuel Standard on the basis that life-cycle analysis employed to assess carbon intensity of fuels applied evenhandedly to in-state and out-of-state producers without excessive burden on interstate commerce), *cert. denied*, 134 S. Ct. 2875 (2014).

73. *Id.* at 1086.

74. *Id.* at 1083.

75. *Id.* at 1089 ("[A] regulation is not facially discriminatory simply because it affects in-state and out-of-state interests unequally.").

76. *Id.* (citing Philadelphia v. New Jersey, 437 U.S. 617, 627 (1978)).

77. *Id.* at 1090 (noting that the life-cycle assessment actually assigned some of the lowest carbon scores to certain fuels from the Midwest and, curiously, Brazil).

hedge against fuel-price volatility, among other benefits. After all, states have long exercised jurisdiction over fuel choice, power generation portfolios, and resource development within their respective energy economies.[78] The Energy Policy Act of 2005[79] expressly acknowledges state sovereignty over fuel choice and generation portfolios insofar as it requires state regulators to consider, but not to adopt, fuel diversity standards with a diverse range of fuels and technologies, including renewables.[80] There is good reason to assume, therefore, that a state RPS program with delivery requirements based on fuel portfolio diversification and other nondiscriminatory reasons would pass constitutional muster.

## III. *ALLCO v. KLEE*: THE RIGHT OUTCOME FOR THE WRONG REASON

In its June 2017 *Allco v. Klee* decision, the Second Circuit rejected a dormant Commerce Clause challenge to Connecticut's RPS program.[81] The case is noteworthy for two reasons. First, it marks the first time that a court has reached a decision on the merits as to whether a locationally sensitive RPS can pass muster under the dormant Commerce Clause. Second, while the court, in rejecting Allco's challenge, reached the right result (*infra* section III.A), it did so for the wrong reasons (*infra* section III.B). As a result, *Allco v. Klee* sets a dangerous precedent that might encourage state policymakers to adopt ever more economically parochial RPS policies[82]—only to see them struck down by another court based on

78. *See* Mormann, *supra* note 3, at 1651; Mary Ann Ralls, *Congress Got It Right: There's No Need to Mandate Renewable Portfolio Standards*, 27 ENERGY L.J. 451, 454 (2008); Jim Rossi, *The Limits of a National Renewable Portfolio Standard*, 42 CONN. L. REV. 1425, 1447–48 (2010); S. Cal. Edison Co. & San Diego Gas & Elec. Co., 71 FERC ¶ 61269, 62080 (June 2, 1995) ("As a general matter, states have broad powers under state law to direct the planning and resource decisions of utilities under their jurisdiction. States may, for example, order utilities to build renewable generators themselves, or deny certification of other types of facilities if state law so permits. They also, assuming state law permits, may order utilities to purchase renewable generation.").

79. Energy Policy Act of 2005, Pub. L. No. 109-58, 119 Stat. 594.

80. *See* 16 U.S.C. § 2621(d)(12) (2012).

81. *See* Allco Fin. Ltd. v. Klee, 861 F.3d 82 (2d Cir. 2017). Aside from its dormant Commerce Clause RPS challenges, Allco also attacked Connecticut's solicitation process on preemption grounds. *Id.* at 90.

82. Already, the *Allco* case has garnered the attention of other states as evidenced by the amici curiae brief filed in support of Connecticut by the Attorneys General of California, Massachusetts, New York, Oregon, Vermont, and Washington. *See* Brief of Massachusetts et al. as Amici Curiae in Support of Defendants-Appellees and Affirmance, Allco Fin. Ltd. v. Klee, Nos. 16-2946, 16-2949 (2d Cir. Nov. 29, 2016) 2016 WL 7011690.

a more diligent application of Commerce Clause jurisprudence (*infra* section III.C).[83]

### *A. The Connecticut RPS and the Second Circuit's Decision*

Connecticut's RPS statute provides that electric utilities shall prove compliance with the state's renewable energy sourcing requirement through two classes of RECs.[84] Class A comprises credits for energy produced by a generation facility located within the territory of the New England Independent System Operator (ISO-NE).[85] Class B incorporates credits for energy imported into the ISO-NE from adjacent control areas pursuant to Rule 2.7(c) of the New England Power Pool Generation Information System.[86] Through the regional focus of these REC definitions, Connecticut seeks to, among others, improve air quality for its citizens and protect them from fuel price and supply shocks.[87] Allco, an owner, operator, and developer of various solar projects throughout the United States, owns solar generation facilities in Georgia and New York.

In its complaint, Allco argued that the Connecticut RPS program's restrictions for compliance-eligible RECs amount to discriminatory "regional protectionism" in violation of the dormant Commerce Clause.[88] Allco alleged that the program's credit categories discriminated against its Georgia solar facility insofar as Connecticut utilities could not use RECs from that facility to prove compliance with the RPS sourcing mandate.[89] Allco further argued that its solar facility in New York, although able to export its energy into the ISO-NE grid pursuant to Rule 2.7(c), was disadvantaged due to the fees charged for transmitting its energy into the ISO-NE. Allco asserted that Connecticut's RPS program

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83. Whatever the outcome of Allco's petition for certiorari, the U.S. Supreme Court will not have the opportunity to revisit (and correct) the Second Circuit's dormant Commerce Clause analysis as Allco's petition only presents questions related to its separate preemption challenges. *See* Petition for Certiorari, Allco Fin. Ltd. v. Klee, No. 17-737 (Nov. 15, 2017).

84. *See* CONN. GEN. STAT. § 16-245a(b) (2014). Two other types of REC categories mentioned in the statute—one for grandfathered RECs, the other for residential producers—are immaterial for purposes of Allco's challenge.

85. The ISO-NE covers Connecticut, Massachusetts, Vermont, New Hampshire, Rhode Island, and most of Maine.

86. Adjacent control areas include the New York Independent System Operator, the Northern Maine Independent System Administrator as well as Quebec and New Brunswick in Canada.

87. *See* CONN. DEP'T OF ENERGY & ENVTL. PROT., RESTRUCTURING CONNECTICUT'S RENEWABLE PORTFOLIO STANDARD i (Apr. 26, 2013), http://www.ct.gov/deep/lib/deep/energy/rps/rps_final.pdf [https://perma.cc/SKD2-3EL3].

88. *See* Allco Fin. Ltd. v. Klee, 861 F.3d 82, 93 (2d Cir. 2017).

89. *Id.* at 94.

violates the "dormant" aspect of the Commerce Clause because it "facially discriminates . . . [and] has the purpose or the effect of discriminating" against Allco's facility in Georgia and its facility in New York.[90]

The Connecticut District Court dismissed Allco's challenge, holding that "the dormant Commerce Clause does not apply to Connecticut because the RPS creates a market for RECs, rather than impeding on a previously existing national market. Furthermore, Connecticut is not obligated to pass the benefits of its subsidy program without restriction to those producing clean energy in Georgia."[91]

The Second Circuit affirmed the district court's judgment in June of 2017. Writing for the court, Judge Calabresi made short work of dismissing Allco's claim that its New York facility suffered discrimination because of the need to pay transmission fees under Rule 2.7(c) for its RECs to qualify for compliance under the Connecticut RPS statute. In the court's view, Allco had "failed sufficiently to plead that such charges are anything more than use fees, analogous to road tolls, which regularly pass constitutional muster."[92]

Calabresi expended significantly more effort on Allco's claim of discrimination against its Georgia solar facility. Adopting Connecticut's line of reasoning,[93] the court first asked whether Georgia RECs and Connecticut RECs are, in fact, different products. If so, the differential treatment of different products under Connecticut's RPS program would not constitute discrimination in violation of the dormant Commerce Clause. Citing *Wheelabrator Lisbon*, the court found that "RECs are inventions of state property law" with Connecticut's RPS statute creating a class of RECs that differs from those issued to Allco's Georgia solar facility.[94] While both share some underlying similarities, the court concluded, the two products can be treated differently without any discrimination.[95]

In a side note, Calabresi pointed out that the geographic lines drawn by Connecticut's delivery requirements follow the footprint of the ISO-NE and, hence, are the product of a "regionalization of the national electricity market" instituted by the Federal Energy Regulatory Commission

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90. *Id.* at 102.

91. Allco Fin. Ltd. v. Klee, No. 3:15-CV-608, 2016 WL 4414774, at *25 (D. Conn. Aug. 18, 2016).

92. *Allco Fin. Ltd.*, 861 F.3d at 108 (citing Nw. Airlines, Inc. v. Cty. of Kent, 510 U.S. 355, 362–63 (1994); Selevan v. N.Y. Thruway Auth., 711 F.3d 253, 261 (2d Cir. 2013)).

93. *See id.* at 103.

94. *See id.* (citing Wheelabrator Lisbon, Inc. v. Conn. Dep't of Pub. Util. Control, 531 F.3d 183, 186 (2d Cir. 2008)).

95. *Id.* (citing Gen. Motors Corp. v. Tracy, 519 U.S. 278, 298–99 (1997)).

(FERC). "And neither FERC nor Congress has given any indication that this structure is unduly harmful to interstate commerce."[96]

Having convinced himself that there is sufficient product differentiation between Georgia RECs and Connecticut RECs to rule out discrimination and a per se violation of the dormant Commerce Clause, Calabresi moved on to the more lenient *Pike* balancing test. Here, the court found it "clear that the burden imposed by Connecticut's RPS program is also not 'clearly excessive in relation to the putative local benefits' and therefore passes the more permissive *Pike* test."[97]

### *B. Where the Second Circuit Erred*

The Second Circuit is to be applauded for upholding Connecticut's RPS program—a key component of the state's efforts to combat global climate change and improve local air quality. The reasoning behind its decision, however, is fundamentally flawed. In its overwhelming focus on the differences between Connecticut and Georgia RECs, the court ignores that these credits are merely compliance instruments for the sourcing requirements imposed by their underlying RPS programs. Perhaps it was the district court's characterization of Connecticut's RPS as a "subsidy program"[98] that got the Second Circuit started down the wrong track. Perhaps it was an inappropriate analogy to the ZEC cases currently pending over clean energy credit programs in New York and Illinois.[99] Whatever the reason, Judge Calabresi's opinion confuses market subsidization and segmentation.

The Second Circuit's decision presumes that states are free to define RECs—"inventions of state property law"[100]—as they please. Since Connecticut defines RECs that comply with its RPS program in a way that excludes credits awarded for renewable electricity generated in Georgia, Calabresi concludes that both types of RECs are sufficiently different to justify their differential treatment.[101] That line of reasoning, however, presumes that states have considerable discretion in defining RECs. In reality, state REC definitions are subject to the same constitutional

96. *Id.* at 107.

97. *Id.* (citing Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970); United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 346 (2007)).

98. *See* Allco Fin. Ltd. v. Klee, No. 3:15-CV-608, 2016 WL 4414774, at *25 (D. Conn. Aug. 18, 2016).

99. *See infra* Part IV.

100. Wheelabrator Lisbon, Inc. v. Conn. Dep't of Pub. Util. Control, 531 F.3d 183, 186 (2d Cir. 2008).

101. *See Allco Fin. Ltd.*, 861 F. 3d at 105.

constraints as any other state policy and regulation, including the dormant Commerce Clause's ban on interstate discrimination.[102]

The *Wheelabrator* decision referenced by both Connecticut's Department of Public Utility Control and Calabresi was never intended to give states constitutional carte blanche in defining RECs. Rather, *Wheelabrator* must be read in the context of the *American Ref-Fuel*[103] decision issued by FERC a few years prior.[104] In *American Ref-Fuel*, FERC clarified that contracts for the sale of energy and capacity from a renewable power generator or any other Qualifying Facility[105] under the Public Utilities Regulatory Policies Act (PURPA)[106] do not convey RECs to the purchasing utility—absent express contractual provisions to the contrary.[107] The Commission went on to note that "RECs are . . . creations of the States" but did so only to explain that these credits exist outside of PURPA and its purchase mandate: "PURPA thus does not address the ownership of RECs."[108] On the subject of states' discretion in fashioning REC definitions, *American Ref-Fuel* merely holds that "[s]tates, in creating RECs, have the power to determine who owns the REC in the initial instance, and how they may be sold or traded."[109] Nothing in *American Ref-Fuel*, therefore, should be construed as exempting state RPS and REC policies from the dormant Commerce Clause and other constitutional constraints.[110] In *Wheelabrator*, the Second Circuit itself only found that FERC "explicitly acknowledges that state law governs the conveyance of RECs."[111] It is anyone's guess why, less than a decade later, Calabresi's *Allco* opinion treats *Wheelabrator* as an apparent excuse to presume the constitutionality of the geographic delineations and

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102. *See supra* Part I.

103. *See* Am. Ref-Fuel Co., Covanta Energy Grp., Montenay Power Corp., & Wheelabrator Techs. Inc., 105 FERC ¶ 61004 (Oct. 1, 2003).

104. *See Id.*

105. PURPA exempts eligible cogeneration and renewable power generators, defined as Qualifying Facilities (QFs), from certain federal and state public utility regulation and requires local utilities to purchase their power output at "avoided cost." *See* 18 C.F.R. § 292.601 (2016). For the eligibility criteria of Qualifying Facilities, see 18 C.F.R. §§ 292.204–05 (2016).

106. Public Utilities Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3119. For a detailed discussion of PURPA and its relevance to energy entrepreneurs pioneering in renewables and cogeneration, see Robert N. Danziger, *Renewable Energy Resources and Cogeneration: Community Systems and Grid Interaction as a Public Utility Enterprise*, 2 WHITTIER L. REV. 81, 94 (1979).

107. *See Am. Ref-Fuel Co.*, 105 FERC ¶ 61005.

108. *Id.* ¶ 61007.

109. *Id.*

110. Nor would a federal agency like FERC have authority to grant such an exemption.

111. Wheelabrator Lisbon, Inc. v. Conn. Dep't of Pub. Util. Control, 531 F.3d 183, 190 (2d Cir. 2008) (citing *Am. Ref-Fuel Co.*, 105 FERC ¶ 61007).

delivery requirements reflected in Connecticut's REC definitions and move right on to the question of how they differ from Georgia RECs.

More fundamentally, the Second Circuit erred in focusing its inquiry primarily on Connecticut's RECs rather than the state's underlying RPS program. The primary purpose of any RPS policy is to create demand for low-carbon renewable energy by reserving a segment of the overall electricity market for electricity from solar, wind, and other renewables. As FERC has put it: "[I]f a state required a utility to purchase 10 percent of its energy needs from renewable sources, then a natural gas-fired unit, for example, would not be a source 'able to sell' to that utility for the specified renewable resources segment of the utility's energy needs."[112] Given that it is impossible to distinguish RPS-compliant low-carbon electricity from coal-fired and other high-carbon electricity once it enters the grid, RECs serve an important function, allowing utilities to prove their compliance with this segmentation.[113] But that compliance function is ancillary to, and dependent on, the market segmentation provided by the underlying RPS policy. Without an RPS, utilities would have no need for RECs, however defined.[114] Put differently, in the absence of an RPS sourcing requirement, RECs have no independent subsidy value.

The District Court's express[115] and the Second Circuit's apparent focus on the subsidy value of RECs taints both courts' inquiry into the constitutionality of Connecticut's RPS program. In light of the strong precedent upholding state subsidies that privilege in-state firms over out-of-state enterprises,[116] the subsidy lens casts a strong pro-constitutional light on Connecticut's RPS. In the process, however, both courts ignore that RPS programs are first and foremost market segmentation policies

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112. Cal. Pub. Utils. Comm'n, 133 FERC ¶ 61,059, 61,267 (2010).

113. *See* Wheelabrator Lisbon, Inc. v. Conn. Dep't of Pub. Util. Control, 531 F.3d 183, 186 (2d Cir. 2008) ("RECs are inventions of state property law whereby the renewable energy attributes are "unbundled" from the energy itself and sold separately."); Felix Mormann, *Requirements for a Renewables Revolution*, 38 ECOLOGY L.Q. 901, 920 (2011) (describing the difficulty in distinguishing an "electron from one dressed in charcoal grey").

114. This statement, of course, omits the possibility that a utility might want to prove its commitment to clean energy on a voluntary basis. *See* Mormann, *supra* note 113, at 954 (discussing voluntary green power programs).

115. *See* Allco Fin. Ltd. v. Klee, No. 3:15-CV-608, 2016 WL 4414774, at *25 (D. Conn. Aug. 18, 2016) (describing Connecticut's RPS as a "subsidy program").

116. *See, e.g.*, W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994) ("A pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business."); New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 278 (1988) ("The Commerce Clause does not prohibit all state action designed to give its residents an advantage in the marketplace, but only action of that description *in connection with the State's regulation of interstate commerce*. Direct subsidization of domestic industry does not ordinarily run afoul of that prohibition.").

with subsidization a mere derivative. Ample precedent cautions that states run a high risk of violating the dormant Commerce Clause when they seek to close off all or part of their in-state market to out-of-state products and natural resources.[117]

Consider the following illustrative analogy. If Connecticut decided that only organic produce grown within the state or region could be sold in the state's grocery stores, courts would be quick to strike down the underlying regulation for facial discrimination. To be sure, the state's RPS is not quite so blunt as to prohibit any and all out-of-region renewable electricity or RECs from being sold into the state. Instead, Connecticut's RPS prescribes that only RECs awarded for renewable electricity generated in state or delivered into the region will be recognized as compliance instruments under the program's sourcing requirement.[118] Other RECs may still be sold into the state, albeit with no compliance value under the RPS and trading at much lower prices in voluntary compliance markets. The latter is akin to allowing out-of-state organic produce to be sold in Connecticut but only as conventional produce that commands a considerably lower price. To not recognize the certified organic properties of produce because of its origin represents a clear case of facial discrimination, and the Second Circuit would likely have no trouble striking down such regulation for violation of the dormant Commerce Clause. Yet the court upholds Connecticut's RPS program even though it has the exact same effect.

As the Second Circuit has previously acknowledged, RECs embody the renewable energy attributes of the underlying electricity.[119] Sure enough, the RECs themselves do not state under what circumstances they may be counted toward an RPS program's sourcing mandate. That crucial decision is left to the RPS statute and its compliance requirements.[120] By allowing out-of-state electricity into the state but not awarding full compliance recognition to its RECs, Connecticut's RPS program essentially negates that electricity's renewable energy properties based solely on its origin and, hence, in a clear act of interstate discrimination.

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117. *See, e.g.*, Wyoming v. Oklahoma, 502 U.S. 437, 438 (1992) (holding that Oklahoma legislation requiring in-state coal-fired power plants serving local demand to burn a mix of coal containing at least 10% of Oklahoma coal violated the dormant Commerce Clause); All. For Clean Coal v. Bayh, 888 F. Supp. 924, 936–37 (S.D. Ind. 1995), *aff'd*, 72 F.3d 556 (7th Cir. 1995); All. for Clean Coal v. Miller, 44 F.3d 591, 596–97 (7th Cir. 1995).

118. *See* CONN. GEN. STAT. § 16-245a(b) (2014).

119. *See* Wheelabrator Lisbon, Inc. v. Conn. Dep't of Pub. Util. Control, 531 F.3d 183, 186 (2d Cir. 2008) ("RECs are inventions of state property law whereby the renewable energy attributes are 'unbundled' from the energy itself and sold separately.").

120. *See* CONN. GEN. STAT. § 16-245a(b).

Any attempt to assess the constitutionality of a state RPS program should, therefore, begin with a detailed analysis of the type and scope of its market segmentation. Is the market segment defined in geographic terms, for instance requiring that renewable electricity must be generated in-state to count toward the state's RPS sourcing requirement? If so, the RPS program discriminates against all out-of-state generators and violates the dormant Commerce Clause.[121] Or is the market segment defined in functional terms, for example requiring that renewable electricity be delivered into the state or regional electricity grid? Since such functional requirements apply to all generators equally, they do not run afoul of the dormant Commerce Clause's ban on interstate discrimination and would be judged under the more lenient *Pike* balancing test.

The closest that Calabresi comes to such an analysis is in his side note that the Connecticut RPS "piggybacks on top of geographic lines drawn by ISO-NE."[122] Instead of using this insight as the starting point for an inquiry into the constitutionality of the resulting market segmentation, he goes on, however, to emphasize how these lines were originally drawn by FERC, not Connecticut: "[I]t is FERC itself that has instituted a sort of regionalization of the national electricity market. And neither FERC nor Congress has given any indication that this structure is unduly harmful to interstate commerce."[123] The second part of this statement is especially troublesome for three reasons. First, it implies the need for an affirmative act or statement by FERC or Congress to establish a violation of the dormant Commerce Clause. More than two centuries of U.S. Supreme Court jurisprudence have required neither.[124] To do so would impose serious limitations on the courts' ability to review state policy and regulation under the dormant Commerce Clause. Second, the FERC rule governing the process and requirements for formation and operation of regional transmission organizations like ISO-NE neither requires nor endorses that members of such organizations have RPS policies.[125] Finally, the Second Circuit once again misidentifies the proper point of reference for its Commerce Clause inquiry, wondering whether the

121. *See supra* section II.A.

122. Allco Fin. Ltd. v. Klee, 861 F.3d 82, 107 (2d Cir. 2017).

123. *Id.*

124. Moreover, it is beyond doubtful that FERC's jurisdictional grant would even cover such a finding. While FERC's tasks under the Federal Power Act include measures to remedy "discriminatory practices," this jurisdictional mandate has been applied to discrimination among ratepayers, utilities, and/or generators, but not to the case of one state discriminating against another. *See* 16 U.S.C. §§ 824d, 824e (2012 & Supp. IV 2016).

125. *See* F.E.R.C. ORDER NO. 2000, Regional Transmission Organizations, 89 FERC 1 61,285 (1999).

"structure" of the ISO-NE is harmful to interstate commerce rather than the market segmentation provided by Connecticut's RPS.

The language in Connecticut's definition of Class A RECs, ("certificates . . . for energy produced by a generating unit . . . located in the jurisdiction of the regional independent system operator"), imposes a geographic requirement on eligible generators.[126] Such a locational requirement, even if defined along regional as opposed to state lines, facially discriminates against all out-of-region generators[127] and would, therefore, be subject to strict scrutiny and most likely struck down for violating the dormant Commerce Clause.[128] The saving grace for Connecticut's RPS lies in the fact that the program's definition of Class B RECs allows any renewable electricity delivered into the ISO-NE grid to count toward a utility's renewable quota.[129] This delivery requirement applies equally to in-state and out-of-state generators. Absent evidence of a discriminatory effect or purpose, such evenhanded regulation would be judged under the more lenient *Pike* balancing test.[130] To be sure, transmission fees and other transaction costs for generators outside of the ISO-NE territory represent an incidental burden on interstate commerce. But this burden is unlikely to be considered excessive compared to the RPS program's putative benefits of improving air quality for its citizens and reducing their exposure to price and fuel supply shocks.[131] As a result, Class B RECs, or, rather, the underlying market segmentation imposed by Connecticut's RPS should pass constitutional muster under the dormant Commerce Clause.[132] Since utilities are free to choose between Class A and B RECs and both types of credits have the same compliance value, the constitutionality of Class B RECs and the underlying, delivery-based

126. *See* CONN. GEN. STAT. § 16-245a(b) (2014).

127. With only Connecticut, Massachusetts, Vermont, New Hampshire, Rhode Island, and parts of Maine included in the ISO-NE territory, the language in Connecticut's definition of Class A RECs facially discriminates against all remaining forty-four states.

128. *See supra* section II.A.

129. *See* CONN. GEN. STAT. § 16-245a(b). It should be noted that the statute's reference to Rule 2.7(c) appears to limit eligibility to generators located in control areas adjacent to the ISO-NE territory. This limitation is, however, not the result of interstate discrimination on the part of Connecticut but, rather, a tribute to the realities and limitations of transmission networks and interconnection.

130. *See supra* Part I.

131. *See* CONN. DEP'T OF ENERGY & ENVTL. PROT., RESTRUCTURING CONNECTICUT'S RENEWABLE PORTFOLIO STANDARD, at i (2013), http://www.ct.gov/deep/lib/deep/energy/rps/rps_final.pdf. (last visited Oct. 16, 2018).

132. *See supra* section II.B.

market segmentation renders Connecticut's RPS program as a whole constitutional.

### *C. The Dangerous Implications of the Second Circuit's Reasoning*

"All's well that ends well."[133] William Shakespeare's famous quote suggests that the Second Circuit's errors should soon be forgotten and forgiven. After all, the court did uphold Connecticut's RPS—the same outcome propagated by this Article's analysis. Perhaps, then, the above critique is no more than an academic exercise in dormant Commerce Clause analysis with little practical relevance for the U.S. energy policy landscape? The answer, sadly, is no.

Due to its overwhelming focus on state RECs and flawed reasoning, the Second Circuit's *Allco* decision gives the false impression that a state can craft its RPS to exclude out-of-state or out-of-region generators from selling into its market without running afoul of the dormant Commerce Clause. The court's emphasis on the characterization of RECs as inventions of state law suggests that states are free to fashion them however they like. So long as the work product of this inventive effort is sufficiently different from out-of-state RECs, the latter may, according to the Second Circuit's reasoning, be treated differently and, hence, excluded without such exclusions being considered discriminatory in violation of the dormant Commerce Clause. As a result, *Allco* sets a precedent that is likely to encourage more and more states to incorporate or, in some cases,[134] re-insert economically protectionist provisions into their RPS programs—with dangerous implications for state policymakers, clean energy deployment, and economic efficiency.

Confusing constitutionally kosher market subsidization[135] with unconstitutional market segmentation,[136] *Allco* invites state policymakers to adopt economically protectionist policy measures that deny out-of-

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133. WILLIAM SHAKESPEARE, ALL'S WELL THAT ENDS WELL act 4, sc. 4, ln. 39 (William George Clark, John Glover & William Aldis Wright eds., Cambridge 2006) (1863).

134. *See supra* note 10 and accompanying text.

135. *See, e.g.*, W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994) ("A pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business."); New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 278 (1988) ("The Commerce Clause does not prohibit all state action designed to give its residents an advantage in the marketplace, but only action of that description *in connection with the State's regulation of interstate commerce.* Direct subsidization of domestic industry does not ordinarily run afoul of that prohibition.").

136. *See* Wyoming v. Oklahoma, 502 U.S. 437 (1992) (holding that Oklahoma legislation requiring in-state coal-fired power plants serving local demand to burn a mix of coal containing at least 10% of Oklahoma coal was constitutional); All. for Clean Coal v. Bayh, 888 F. Supp. 924 (S.D. Ind. 1995), *aff'd*, 72 F.3d 556 (7th Cir. 1995); All. for Clean Coal v. Miller, 44 F.3d 591 (7th Cir. 1995).

state, or out-of-region, generators access to that state's renewables market. In contrast to the Second Circuit, the vast majority of energy law scholars consider this kind of market segmentation discriminatory and a clear violation of the dormant Commerce Clause.[137] Judge Posner's dictum on the unconstitutionality of Michigan's RPS program suggests that the Seventh Circuit and other courts likely share the widespread scholarly skepticism.[138] *Allco* thus gives state policymakers a false sense of security as they look for ways to internalize the economic benefits flowing from their commitment to clean energy. To follow the Second Circuit's guidance is to set state RPS programs up for costly litigation and, ultimately, failure, as courts with a proper understanding of the market impact of RPS policies strike down programs that discriminate against out-of-state generators based on location.

To be sure, it is unlikely that every economically protectionist state RPS will be challenged in court. In fact, only one in every five states with an RPS saw their program attacked on dormant Commerce Clause grounds during the first wave of RPS litigation.[139] Moreover, it usually takes years for a lawsuit to culminate in a definitive judicial decision. In the meantime, however, the Damocles sword of invalidation looms large over any locationally sensitive state RPS program.[140] The resulting policy uncertainty is likely to stifle the deployment of solar, wind, and other low-carbon renewables. With average lead times of two years and more for larger-scale facilities, developers require certainty that the RPS incentives that led them to launch their project in the first place will still be around by the time their new facility goes operational.[141] When a policy's constitutionality and, hence, its continued existence is in doubt, developers either abandon a project altogether or move it to a jurisdiction with a more stable policy environment.[142] Either way, the overall pace of deployment is likely to slow down and constitutionally dubious,

137. *See supra* section II.A.

138. *See supra* note 52 and accompanying text.

139. *See supra* note 8 and accompanying text.

140. *See* Kalen & Weissman, *supra* note 16, at 137 ("[T]he dormant Commerce Clause operates as the proverbial sword of Damocles hanging over these [state RPS] programs.").

141. *See* WAYNE WALKER, WAYNE WALKER CONSERVATION CONSULTING LLC, AN OVERVIEW OF THE WIND POWER PROJECT DEVELOPMENT PROCESS AND FINANCIAL PERFORMANCE OF WIND ENERGY PROJECTS 21 (2008), http://www.fws.gov/habitatconservation/windpower/past_meeting_presentations/walker.pdf [https://perma.cc/7VLD-F58D].

142. The wind energy industry's series of boom-and-bust cycles in the wake of periodic expirations and eventual renewals of its bread-and-butter subsidy, the production tax credit, offers an illustrative example of developers' sensitivity to policy uncertainty. *See* Felix Mormann, *Beyond Tax Credits: Smarter Tax Policy for a Cleaner, More Democratic Energy Future*, 31 YALE J. ON REG. 303, 318 (2014).

economically protectionist state policies are unlikely to have the desired effect of promoting in-state economic development.

Even where locationally sensitive RPS programs survive—either for lack of a challenge or thanks to a court following the Second Circuit's flawed reasoning—they will have a negative impact on the overall deployment rate of low-carbon renewable technologies. One of the defining characteristics of RPS policies is their reliance on markets to determine the appropriate level of monetary incentives for emerging clean energy technologies. Following the basic rules of supply and demand, competitive pressure among generators is expected to drive prices down in the long run while ensuring that only the best projects actually come to fruition. The quality of a project and, hence, its prospects for success depend on a variety of factors, from procurement costs to capital costs to proper siting. The latter is a particularly critical factor for solar, wind, and other weather-dependent renewables. The solar resource quality, for example, varies considerably across the United States with the most favorable conditions prevailing in the desert southwest.[143] Assuming appropriate transmission infrastructure,[144] a solar facility sited in sunny Nevada would therefore operate far more efficiently than a facility located in less-sunny Massachusetts. Yet locationally sensitive RPS programs such as that of Massachusetts[145] effectively force developers to site their projects in locations with suboptimal resource conditions.[146] In the process, these geographic market segmentations raise the overall cost of the transition to a low-carbon, renewably fueled energy economy and threaten to erode popular support for a key component of global efforts to successfully mitigate anthropogenic climate change.[147]

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143. *See* KRISTEN ARDANI & ROBERT MARGOLIS, U.S. DEP'T OF ENERGY, 2010 SOLAR TECHNOLOGIES MARKET REPORT 53 (2011), https://www.nrel.gov/docs/fy12osti/51847.pdf [https://perma.cc/EG3J-TD7V].

144. *See* Alexandra B. Klass & Elizabeth J. Wilson, *Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch*, 65 VAND. L. REV. 1801, 1803 (2012) (noting the critical importance of transmission infrastructure for siting renewable power projects in locations with favorable resource conditions).

145. *See* 225 MASS. CODE REGS. 14.05(4)(a) (2016) (requiring solar facilities to be sited within the Commonwealth in order for their output to count toward the state's RPS sourcing requirement).

146. To be sure, siting distributed energy resources so that electricity is generated near the point of consumption offers its own benefits, such as reduced transmission losses and improved resiliency, especially in the context of microgrid applications. It is doubtful, however, whether these and other benefits will generally outweigh the efficiency losses from siting renewable energy projects in areas with relatively poor resource quality. For an overview of the numerous benefits of distributed energy resources, see Joel B. Eisen & Felix Mormann, *Free Trade in Electric Power*, 2018 Utah L. Rev. 49, 59–60 (2018).

147. *See* Adoption of the Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, U.N. DOC. FCC/CP/2015/L.9. The Paris agreement entered into force

## IV. THE ZEC CASES: MUCH ADO ABOUT NOTHING?

At a glance, the ZEC cases[148] appear to be closely related to *Allco v. Klee* and the litigation over Connecticut's RPS. At the heart of each case lies a state policy seeking to promote a specific type of electricity generator with a strong in-state or in-region focus. All three cases revolve around state-created securities—energy credits—designed to provide monetary incentives to eligible generators of electricity. It would be tempting, therefore, to lump all three cases together. To do so, however, would ignore that RECs and ZECs are the products of two distinct types of policies with fundamentally different design and implementation characteristics.

RECs are compliance tools for the market segmentation introduced by the underlying RPS policy, with their subsidy value a direct function of the size, technological scope, and other traits of that market segment.[149] ZECs, on the other hand, are standalone subsidies that operate independently of a broader procurement requirement or market segmentation. Properly understood as tokens whose subsidy value varies based on market conditions (*infra* section IV.A) or administrative determinations (*infra* section IV.B), neither Illinois's nor New York's ZEC program creates a market segment reserved for a select few and inaccessible to all other types of electricity generation. Whatever the method of valuation, ZECs ultimately act as subsidies, and the U.S. Supreme Court has long established that states are generally free to subsidize in-state firms without running afoul of the dormant Commerce Clause.[150] Closer scrutiny, therefore, reveals that the widespread clamor

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on November 4, 2016, less than a year after its adoption, following ratification by fifty-five states accounting for at least 55% of global greenhouse gas emissions, including the United States. *See* Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64662 (Oct. 23, 2015) (to be codified at 40 C.F.R. pt. 60) [hereinafter Clean Power Plan] (calling on, among others, states to replace affected fossil fuel-fired power plants with new, zero-emitting solar, wind, and other renewable energy generating capacity); *Paris Accord – Status of Ratification*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (2018), https://unfccc.int/procss/the-paris-agreement/status/of/radification [https://perma.cc/5VEF-A8W9].

148. *See* Coal. for Competitive Elec., Dynegy Inc. v. Zibelman, 272 F. Supp. 3d 554, 586 (S.D.N.Y. 2017), *aff'd sub nom.* Coal. for Competitive Elec., Dynergy Inc. v. Zibelman, 906 F.3d 41 (2d Cir. 2018); Vill. of Old Mill Creek v. Star, No. 17 CV 1163, 2017 WL 3008289, at *18 (N.D. Ill. July 14, 2017), *aff'd sub nom.* Elec. Power Supply Ass'n v. Star, 904 F.3d 518 (7th Cir. 2018), *reh'g denied* (Oct. 9, 2018).

149. *See supra* Part II.

150. *See, e.g.*, W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994) ("A pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business."); New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 278 (1988) ("The Commerce Clause does not prohibit all state action designed to give its residents an advantage in the marketplace, but

over the constitutionality of ZEC programs is, from a Commerce Clause perspective,[151] much ado about nothing.[152]

### *A. The Illinois ZEC Program*

In 2016, the Future Energy Jobs Act[153] amended the Illinois Power Agency Act to create a new type of security, the ZEC, defined as "a tradable credit that represents the environmental attributes of one megawatt hour of energy produced from a zero emission facility."[154] The statute defines a zero emission facility as a nuclear facility interconnected with one of the two Independent Service Operators (ISOs) serving the Illinois electricity market—the PJM Interconnect or the Midcontinent Independent System Operator (MISO), or their successors.[155] ZEC-earning facilities are selected through a competitive procurement process based on a variety of "public interest criteria," such as reducing the overall carbon footprint of the Illinois energy economy and improving air quality for the citizens of Illinois.[156] The winning bidders receive ZECs in an amount equal to about 16% of retail electricity sales by Illinois utilities for the 2014 reference year.[157] For a ten-year period, each of the state's electric utilities are required to purchase all ZECs from winning facilities in proportion to its annual share in the state's overall retail electricity sales. The ZEC price is initially set at $16.50[158] with the potential for future reductions based on a market adjustment mechanism.[159] Two sets of plaintiffs, electricity customers and power generators, filed suit to

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only action of that description *in connection with the State's regulation of interstate commerce.* Direct subsidization of domestic industry does not ordinarily run afoul of that prohibition.").

151. The ZEC cases raise other constitutional challenges, most notably whether the Illinois and New York ZEC programs may be preempted under the Federal Power Act. *See, e.g.*, Hughes v. Talen Energy Mktg., LLC, 578 U.S. __, 136 S. Ct. 1288 (2016) (striking down a Maryland subsidy for affecting with wholesale power market prices subject to federal jurisdiction). For an illustrative exchange on the possibility of federal preemption of ZEC programs, arguing both sides, see Joel B. Eisen, *The New (Clear) Electricity Federalism: Federal Preemption of States' "Zero Emissions Credit" Programs*, 45 ECOLOGY L. CURRENTS 149 (2018) (arguing for preemption); Ari Peskoe, *State Clean Energy Policies at Risk: Courts Should Not Preempt Zero Emission Credits for Nuclear Plants*, 45 ECOLOGY L. CURRENTS 172 (2018) (arguing against preemption).

152. WILLIAM SHAKESPEARE, MUCH ADO ABOUT NOTHING (1599).

153. *See* S.B. 2814, 99th Gen. Assemb., Reg. Sess. (Ill. 2016).

154. 20 ILL. COMP. STAT. 3855/1-10 (2018).

155. *Id.*

156. *See id.* 3855/1-75(d-5)(1)(C).

157. *See id.* 3855/1-75(d-5)(1).

158. The statute defines this number as "the Social Cost of Carbon." *See id.* 3855/1-75(d-5)(1)(B)(i).

159. *See id.* 3855/1-75(d-5)(1)(B)(ii)–(iii).

challenge the Illinois ZEC program on dormant Commerce Clause grounds, among others.[160]

Plaintiffs argued that the legislature's stated goals of reducing greenhouse gas emissions and improving air quality were a mere pretext for a bailout of Exelon Energy's nuclear power plants in Clinton and Quad Cities.[161] They claimed that the true purpose of the program—to save jobs and local tax revenues—was clear from the bill's title, "Future Energy Jobs Act" and saw further proof of their theory in the governor's commentary while signing the bill into law: "The Future Energy Jobs bill protects taxpayers, ratepayers, and the good-paying jobs at the Clinton and Quad Cities' plants."[162]

The adoption of Illinois's ZEC program had, indeed, been preceded by Exelon's announcement that it would have to shut down its nuclear plants in Clinton and Quad Cities following losses of more than $800 million over the previous six years if the Illinois General Assembly did not pass "adequate legislation."[163] After the governor signed the Future Energy Jobs Act into law, Exelon announced that both plants would operate for another ten years thanks to the legislation.[164]

Diligently working through the playbook of dormant Commerce Clause challenges, plaintiffs claimed that Illinois's ZEC program is discriminatory on its face, in effect, and purpose, while also imposing an excessive burden on interstate commerce.[165] In granting defendants' motion to dismiss plaintiffs' Commerce Clause challenge for failure to state a cause of action,[166] the district court addressed each of these claims.

On the count of facial discrimination, the court disagreed with plaintiffs' characterization of the procurement process as a "sham" and noted the state gave neutral, non-discriminatory standards for the ZEC-bid selection process—a process open also to out-of-state generators.[167] The court rejected plaintiffs' allegations of discriminatory effect by highlighting that, even if only Exelon's Illinois plants were to receive

160. *See* Vill. of Old Mill Creek v. Star, No. 17 CV 1163, 2017 WL 3008289, at *18 (N.D. Ill. July 14, 2017), *aff'd sub nom.* Elec. Power Supply Ass'n v. Star, 904 F.3d 518 (7th Cir. 2018), *reh'g denied* (Oct. 9, 2018).

161. *Id.* at *3.

162. *Id.*

163. *Id.*

164. *Id.*

165. *Id.* at *15–16.

166. *See* FED. R. CIV. P. 12(b)(6).

167. The court further noted that plaintiffs failed to allege that the agencies in charge would deliberately flout the selection process. *See Vill. of Old Mill Creek*, 2017 WL 3008289, at *15 (citing Pac. States Box & Basket Co. v. White, 296 U.S. 176, 186 (1935)).

ZECs, such an outcome by itself would not warrant a finding of discriminatory effect as a nondiscriminatory program could reach the same outcome.[168] As to discrimination in purpose, the court found that the statute was "both environmental legislation and job-saving legislation" and celebratory remarks over job-saving effects did not negate the ZEC program's environmental and public health objectives.[169] Moving on to the *Pike* balancing test, the court found that the ZEC program's incidental burden on interstate commerce was, as a matter of law, not clearly excessive when balanced against the state's environmental concerns and its "right to participate in or create a market."[170]

Like the Second Circuit in *Allco*, the District Court for the Northern District of Illinois reached the right conclusion in dismissing plaintiffs' dormant Commerce Clause challenges against Illinois's ZEC program, albeit for the wrong reasons. While Calabresi and his fellow judges on the Second Circuit can be faulted for mistaking the Connecticut RPS and its RECs for a subsidy rather than a market segmentation program, the District Court erred in the opposite direction, treating a relatively straightforward subsidy as if it were a segmentation effort.[171] Unlike RPS programs that require electric utilities to source a certain percentage of the electricity they sell from renewables,[172] the ZEC program imposes no sourcing requirement on Illinois's utilities. The statute's reference to 16% of 2014 electricity retail sales determines the overall number of ZECs to be awarded to the winning nuclear plants but sets no quota for the share of nuclear power in a utility's or the state's electricity mix.[173] The actual share of nuclear power in a utility's electricity mix is, in fact, irrelevant for its obligation to purchase ZECs.[174] Instead, the amount of ZECs to be purchased is simply a function of the 16% benchmark and the utility's

168. *See id.*

169. *Id.* at *16.

170. *Id.* (citing Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 471 (1981)); Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 810 (1976)).

171. District Court Judge Shah might have been distracted by the Illinois ZEC program's regulation in the same section of the Illinois Power Agency Act as the state's RPS program. *Compare* ILL. COMP. STAT. 3855/1-75(c) (2018) (RPS), *with* 20 ILL. COMP. STAT. 3855/1-75(d-5) (2018) (ZEC program). *See also id.* 3855/1-75(i) (jointly regulating double-counting and retirement of ZECs and RECs).

172. *See supra* Part II.

173. *See supra* note 157 and accompanying text. Plaintiffs voice suspicion over the 16% benchmark as it provides a perfect match with the electricity output of Exelon's Clinton and Quad Cities nuclear power plants. *See Vill. of Old Mill Creek*, 2017 WL 3008289, at *3 fn. 9.

174. Under Illinois's ZEC program, even a utility that purchased zero nuclear power would still be required to purchase ZECs.

share in statewide electricity sales.[175] ZECs, therefore, are no more than subsidy tokens the state of Illinois awards to nuclear plants to be cashed in by the state's utilities and their ratepayers.

The district court could have saved itself a good bit of work had it properly identified the ZEC program as a subsidy rather than a segmentation mechanism. More than two decades ago, the U.S. Supreme Court's decision in *West Lynn Creamery Inc. v. Healy*,[176] clarified that "[a] pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business."[177] The only minor difference between *West Lynn* and this case is that the Illinois ZEC program seeks to subsidize local nuclear facilities through ratepayer dollars rather than "general revenue" from tax dollars. The U.S. Supreme Court's emphasis of the origin of subsidy funds, however, was a tribute to the fact pattern in *West Lynn* where Massachusetts funded a subsidy for in-state dairy farmers through a tax imposed on all milk sold to in-state retailers.[178] It was because the in-state subsidy was "funded principally from taxes on the sale of milk produced in other States" that the Massachusetts subsidy not only assisted local farmers but also burdened interstate commerce.[179] Funded by Illinois' utilities and their in-state ratepayers, the Illinois ZEC program raises no such red flags.

With their ability to target specific low-carbon technologies and automatically adjusting price levels, ZECs offer state policymakers an elegant, effective, and efficient way to promote the transition to a low-carbon energy economy. When courts falsely subject ZECs to the same strict Commerce Clause scrutiny as RPS-created RECs, they jeopardize the credibility of a key instrument in the state policy toolbox. Even when a court, like here, ultimately upholds the ZEC program in question, the unnecessarily intense judicial scrutiny stigmatizes an otherwise constitutionally kosher policy.

Along the way, a court's overly strict scrutiny may invite unnecessarily complex and protracted litigation. In the Illinois case, for example,

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175. *See* 20 ILL. COMP. STAT. 3855/1-75(d-5)(1).

176. 512 U.S. 186 (1994).

177. *Id.* at 199; *see also* C & A Carbone, Inc. v. Clarkstown, 511 U.S. 383, 394 (1994) (noting that instead of instituting an unconstitutional flow control ordinance to make a waste disposal facility commercially viable, the town could have subsidized the facility through general taxes or municipal bonds); Reeves, Inc. v. Stake, 447 U.S. 429, 436–37 (1980) (noting that the dormant Commerce Clause does not restrict which in-state businesses a state may subsidize when it is expending its own funds to do so, so long as the state does not also impose taxes and regulatory measures that impede free private trade in the national marketplace).

178. *W. Lynn Creamery, Inc.*, 512 U.S. at 188.

179. *Id.* at 199 (citing New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 273–74 (1988)).

plaintiffs might succeed with a challenge directed against the district court's application of the market participant doctrine.[180] After all, Illinois does not actually purchase credits or otherwise participate in the ZEC market like a private enterprise.[181] Instead, the state's agencies merely "procure contracts" for utilities to buy ZECs from eligible nuclear facilities.[182] With no state funds involved, another court might not find Illinois's involvement sufficient to constitute the type of active participation required to benefit from the market participant doctrine.[183]

On appeal, the Seventh Circuit affirmed the district court judgment, rejecting both the preemption and dormant Commerce Clause challenges leveled against Illinois's ZEC program.[184] In a remarkably succinct opinion, Judge Easterbrook makes short work of the Commerce Clause.[185] Unlike the district court, the Seventh Circuit recognizes the ZEC program as a "cross-subsidy" flowing from carbon-emitting generators to carbon-free competitors.[186] Yet, the court's inquiry does not end here with a reference to *West Lynn* and its progeny. Instead, Easterbrook proceeds to interpret the Federal Power Act's grant of authority to states over in-state electricity generation[187] as a blanket exemption of related regulation from *Pike* balancing.[188] With recipients and payors of Illinois's ZEC subsidies both located within the state's boundaries, the Seventh Circuit concludes that the Federal Power Act's implied *Pike* exemption and the lack of overt discrimination defeat any Commerce Clause challenge to the Future Energy Jobs Act.[189]

In dismissing plaintiffs' dormant Commerce Clause challenge, the Seventh Circuit reaches the same conclusion favored by this Article's

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180. *See* Vill. of Old Mill Creek v. Star, No. 17 CV 1163, 2017, WL 3008289, at *16 (N.D. Ill. July 14, 2017) (citing Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 471 (1981); Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 810 (1976)).

181. *See, e.g.*, United Haulers Ass'n, v. Oneida-Herkimer Solid Waste Mgmt. Auth., 261 F.3d 245, 255 (2d Cir. 2001) (noting that the dormant Commerce Clause "does not prohibit a state from participating in the free market if it acts like a private enterprise").

182. *See* ILL. COMP. STAT. 3855/1-75(d-5)(1) (2018).

183. *See* Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 339 (2008); *United Haulers Ass'n,* 550 U.S. at 362 (2007); White v. Mass. Council of Constr. Emp'rs, Inc., 460 U.S. 204, 207 (1983); Reeves, Inc. v. Stake, 447 U.S. 429, 436 (1980); Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 807–08 (1976).

184. *See* Elec. Power Supply Ass'n v. Star, 904 F.3d 518 (7th Cir. 2018), *reh'g denied* (Oct. 9, 2018).

185. Easterbrook, fittingly, prefaces his three-paragraph long dismissal of plaintiffs' dormant Commerce Clause challenge with "[a] few words on the Constitution and we are done." *Id.* at 524.

186. *Id.*

187. *See* 16 U.S.C. §824(b)(1) (2012).

188. *See Elec. Power Supply Ass'n*, 904 F.3d at 524.

189. *Id.*

analysis, albeit through a detour over uncharted, and possibly dangerous territory. Judge Easterbrook's reading of the Federal Power Act as exempting state regulation of local power generation from *Pike* balancing unnecessarily stretches the statute's relevance for Commerce Clause jurisprudence beyond existing precedent. Easterbrook tees up his interpretation of the Federal Power Act with a reference to the U.S. Supreme Court's 1946 decision in *Prudential Insurance Co. v. Benjamin*.[190] There, the Court rejected a dormant Commerce Clause challenge to South Carolina's license tax imposed on premiums collected by out-of-state insurance companies based on the tax's legitimization by federal statute.[191]

But the pertinent provisions of the McCarran Act[192] driving the outcome in *Prudential Insurance* and the Federal Power Act differ considerably in the level of directness and detail with which they address the intricate relationship between state regulation and interstate commerce. Passed at a time when state license taxes imposed on out-of-state insurance companies were commonplace,[193] the McCarran Act expressly declared that "the continued regulation and taxation of by the several states of the business of insurance is in the public interest."[194] The Act goes on to clarify that "[n]o Act of Congress shall be construed to invalidate, impair, or supersede any law enacted by any State for the purpose of regulating the business of insurance, or which imposes a fee or tax upon such business, unless such Act specifically relates to the business of insurance."[195] Historic context led the U.S. Supreme Court to conclude that Congress passed the McCarran Act well aware of and with intent to legitimize the then widespread practice among states of imposing license taxes on out-of-state insurers, which, as the Court acknowledged, "in its silence might be held invalid as discriminatory."[196]

The Federal Power Act, in contrast, includes no—direct or indirect—expression of Congress' views on the scope of state-level regulation of energy generation permissible under the Commerce Clause. In pertinent part, the statute merely clarifies that the Federal Power Commission, FERC's predecessor, "shall not have jurisdiction . . . over facilities used

190. 328 U.S. 408 (1946); *see id.*

191. *Id.* at 436.

192. 15 U.S.C. §§1011–1015 (2012).

193. *See Prudential Ins.*, 328 U.S. at 431 (noting that, at the McCarran Act's passage, sixteen states imposed license taxes on foreign insurance companies).

194. 15 U.S.C. § 1011.

195. *Id.* § 1012.

196. *Prudential Ins.*, 328 U.S. at 431.

for the generation of electric energy."[197] The Act here makes no reference to the public interest, let alone the constitutionality of any existing, or future, state regulations that discriminate against out-of-state generators or otherwise burden interstate commerce. And why would it? The Federal Power Act was, after all, passed for the express purpose to authorize not *state*, but *federal* regulation of certain energy transactions so as to close the regulatory vacuum created by the Court's *Attleboro* decision[198] eight years earlier.[199]

To be sure, Judge Easterbrook acknowledges that the Federal Power Act does not go as far as the McCarran Act and includes no authorization of express discrimination.[200] Nevertheless, the Seventh Circuit reads the Federal Power Act as exempting non-discriminatory state regulation from *Pike* balancing. A comparison of the language used across both statutes and their historical context, however, place even this more modest reading in serious doubt. From a teleological perspective, the court's reading would exempt not only ZEC programs but also RPS policies and other segmentation programs from *Pike* balancing, raising serious concerns over policy efficacy, efficiency, and stability. The *West Lynn* line of reasoning outlined above would have reached the same result without opening the floodgates for state energy policies that, while not discriminatory, impose a significant, and potentially excessive, burden on interstate commerce. With a petition for *certiorari* likely, it remains to be seen whether the U.S. Supreme Court will follow Judge Easterbrook's eccentric interpretation of the Federal Power Act.

### *B. The New York ZEC Program*

In 2016, New York's Public Service Commission issued an order establishing a clean energy standard (CES) as part of the Empire State's larger efforts to mitigate global climate change and modernize its electric system.[201] The CES consists of two key components—a REC program to

197. 16 U.S.C. §824(b)(1).

198. In *Attleboro*, the Court held that the sale of electricity to an out-of-state buyer constituted interstate commerce within the purview of the Commerce Clause and invalidated a state public utility commission's rate order for such a power sale for violating the dormant Commerce Clause. *See* Pub. Utils. Comm'n of R.I. v. Attleboro Steam & Elec. Co., 273 U.S. 83, 89 (1927).

199. The regulatory void created by the Court is commonly referred to as the *Attleboro* gap. *See* New York v. F.E.R.C., 535 U.S. 1, 20 (2002).

200. *See* Elec. Power Supply Ass'n v. Star, 904 F.3d 518, 525 (7th Cir. 2018), *reh'g denied* (Oct. 9, 2018).

201. *See* Order Establishing a Clean Energy Standard, Case 15-E-0302, Case 16-E-0270, at 3 (N.Y. Pub. Serv. Comm'n Aug. 1 2016), http://documents.dps.ny.gov/public/MatterManagement/

help achieve New York's goal of meeting fifty percent of the state's electricity demand with renewables by 2030[202] and a ZEC program intended to preserve the low-carbon and other environmental attributes of the nuclear power plants that contribute thirty-one percent of the state's electricity mix.[203] The Order defines a ZEC as a "credit for the zero-emission attributes of one megawatt-hour of electricity"[204] from a nuclear generator that has made a successful showing of "public necessity."[205] The New York Public Service Commission determines a generator's public necessity based on a set of five criteria, including the nuclear plant's historic contribution to the mix of clean energy consumed by New York's electricity retail customers[206] and insufficient revenue from wholesale energy markets to preserve the plant's zero-emission values.[207] The New York State Energy Research and Development Authority (NYSERDA) purchases ZECs from qualifying nuclear facilities under long-term contracts to subsidize their production costs.[208] New York's electric utilities are required to buy these ZECs from NYSERDA in an amount proportional to their retail sales' share of the state's overall electricity consumption.[209] The ZEC price is initially set at $17.48 based on the social cost of carbon with potential adjustment in the future.[210]

Various electricity generators and their trade groups challenged New York's ZEC program on dormant Commerce Clause grounds, among others.[211] Plaintiffs argued that the ZEC program facially discriminates against out-of-state energy producers by selecting only New York nuclear power plants to receive ZECs and that the program imposes an undue burden on interstate commerce by distorting wholesale market pricing and incentives.[212] The District Court for the Southern District of New York

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CaseMaster.aspx?MatterCaseNo=15-e-0302&submit=Search [https://perma.cc/AW9G-YRHN] [hereinafter N.Y. Pub. Serv. Comm'n Order].

202. *Id.* at 2, 12.

203. *Id.* at 19, 20.

204. *Id.* at app. E, 1.

205. *Id.* at 124.

206. New York's ZEC program expressly states that a plant's past contribution to the state's electricity mix will be assessed "regardless of the location of the facility." *Id.*

207. The three other criteria are the costs and benefits of ZECs relative to other clean energy options, the impact of ZECs on electricity rates, and the public interest. *Id.*

208. *Id.* at 19–20.

209. *Id.* at 20.

210. *Id*.

211. *See* Coal. for Competitive Elec., Dynegy Inc. v. Zibelman, 272 F. Supp. 3d 554, 586 (S.D.N.Y. 2017), *aff'd sub nom.* Coal. for Competitive Elec., Dynergy Inc. v. Zibelman, 906 F.3d 41 (2d Cir. 2018).

212. *Id.* at 579.

dismissed plaintiffs' challenge for failure to state a cause of action.[213] The court rested its rejection of plaintiffs' Commerce Clause challenge on three grounds. First, the court found that plaintiffs fail to allege an injury that falls within the zone of interest protected by the dormant Commerce Clause.[214] "Even if plaintiffs had a cause of action," the district court continued, "their dormant Commerce Clause claim would fail because New York was acting as a market participant, not as a regulator, when it created ZECs."[215] Finally, the court found that, regardless of the market participant exception, the ZEC program is a pure and, hence, permissible subsidy for the environmental attributes of nuclear energy funded by New York ratepayers.[216]

Like its sister court in the Illinois ZEC case, the district court made its life more difficult than necessary by taking the market participant detour on the way to its subsidy reasoning.[217] Moreover, the court's finding that New York acted as a market participant, not a regulator, is not altogether convincing. To be sure, New York takes a more active role than Illinois, using state funds to buy ZECs from eligible nuclear plants instead of merely brokering procurement contracts between generators and utilities, as Illinois does. What follows, however, is a requirement that New York utilities purchase these ZECs from the state agency.[218] This kind of mandate is a prime example of the exercise of government powers and, therefore, constitutes regulatory action rather than market participation in the same capacity as a private enterprise.[219] Furthermore, there is reason to question whether these transactions qualify as evidence of a market environment. After all, New York's CES Order expressly prohibits ZEC trading between any parties other than NYSERDA and the state's utilities.[220] With both the "market" and "participation" elements of the market participant doctrine in doubt, the court did well to rely on its

213. *See* FED. R. CIV. P. 12(b)(6).

214. *See Coal. for Competitive Elec.*, 272 F. Supp. 3d at 582 ("Plaintiffs entirely fail to allege any injury arising from discrimination against or an undue burden on out-of-state economic interests.").

215. *Id.* at 583.

216. *Id.* at 586.

217. *See id.*; Vill. of Old Mill Creek v. Star, No. 17 CV 1163, 2017 WL 3008289, at *16 (N.D. Ill. July 14, 2017).

218. *See* N.Y. Pub. Serv. Comm'n Order, *supra* note 201, at 20, 149–50.

219. *See, e.g.*, United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 261 F.3d 245, 255 (2d Cir. 2001) ("In general, a state regulates when it exercises governmental powers that are unavailable to private parties . . . . Classic hallmarks of government regulation include the threatened imposition of fines and/or jail terms to compel behavior.").

220. *See* N.Y. Pub. Serv. Comm'n Order, *supra* note 201, at 151 ("ZECs will not be tradable except between NYSERDA and the Load Serving Entities. . . .").

classification of New York's ZEC program as a straightforward subsidy for additional support of its dismissal of plaintiffs' dormant Commerce Clause challenge.

On appeal, the Second Circuit affirmed the district court's judgment, rejecting plaintiffs' preemption challenge on the merits and dismissing their Commerce Clause challenge for lack of standing.[221] Unlike the trial court, the appellate court does not engage with the merits of plaintiffs' contention that New York's ZEC program violates the Commerce Clause by discriminating against or imposing an excessive burden on interstate commerce. Instead, Judge Jacobs' opinion focuses on plaintiffs' failure to represent that they own any nuclear power plants. In the absence of such a representation, the alleged injury—that the ZEC program allows favored New Yorker power plants to prevail against out-of-state competitors by underbidding them in wholesale power market auctions—cannot be traced to the ZEC program's alleged discrimination against out-of-state nuclear generators.[222] Even if New York awarded ZECs to out-of-state generators, the program's net effect of depressing wholesale market prices would remain the same. Plaintiffs' alleged injuries, the Second Circuit concludes, are not the result of interstate discrimination but, rather, the product of their use of fuels for electricity generation that New York disfavors, leaving plaintiffs without a traceable injury and, hence, lacking Article III standing to challenge the ZEC program.[223]

The Second Circuit's Article III standing analysis is sound as it pertains to plaintiffs' failure to state an injury in fact that is traceable to or the consequence of discrimination against interstate commerce. Judge Jacobs' opinion fails to engage, however, with plaintiffs' standing insofar as, in the absence of a finding of interstate discrimination, they also attack New York's ZEC program for imposing an excessive burden on interstate commerce.[224] Plaintiffs claim that the ZEC subsidy will depress clearing prices in affected wholesale power markets causing generators such as themselves to receive lower prices for their products than in a ZEC-free world.[225] At the margins, plaintiffs contend, this depressive effect may cause their bids into the market to not clear auctions they would have cleared but for participation of nuclear power plants kept in operation (and competition) as a result of the ZEC subsidies.[226] Such a particularized injury can be traced to the ZEC program and could be remedied if a court

221. *See* Coal. for Competitive Elec., Dynergy Inc. v. Zibelman, 906 F.3d 41, 46 (2d Cir. 2018).

222. *Id.* at 58.

223. *Id.*

224. *See id.* at 57.

225. *Id.* at 48.

226. *Id.*

struck down New York's ZEC statute for imposing an excessive burden on interstate commerce.

To be clear, proper classification of the ZEC program as a subsidy makes it unlikely that any court would find this cornerstone of New York's clean energy policy to fail the *Pike* balancing test. Still, the Second Circuit's opinion fails to do the plaintiffs' pleadings justice insofar as it dismisses their Commerce Clause challenge, in its entirety, for lack of Article III standing.

## V. THE DORMANT COMMERCE CLAUSE'S ECONOMIC WISDOM

Observers frequently characterize the dormant Commerce Clause as a major obstacle for state-level RPS policies. In a rare moment of near-unity, the scholarly community widely agrees that RPS programs with in-state location requirements should not pass constitutional muster under current Supreme Court jurisprudence.[227] Some worry that RPS and other incentive-based market approaches threaten to subject state environmental policy to the dictates of the national market.[228] Others consider the dormant Commerce Clause a threat to state and local clean energy policies in general.[229] One commentator, finally, describes it as an obsolete artifact of a long-gone era when competition among the states threatened the survival of the union, arguing that the United States of today need no such protection.[230]

The widespread skepticism has prompted proponents of locationally sensitive state RPS and other market-based policies to issue a series of calls for reform of dormant Commerce Clause jurisprudence. One commentator urges revision of the facial discrimination test to acknowledge "second-best reasoning" where states seek to correct market

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227. *See supra* note 59 and accompanying text.

228. *See* Engel, *supra* note 9, at 249–50.

229. *See, e.g.*, Kalen, supra note 9, at 383 ("[C]reative state and local solutions for addressing modern challenges are becoming increasingly suspect under the DCC. And as state and local programs outpace federal efforts to respond to such wide-ranging challenges as climate change and reduced fossil fuel consumption, the DCC operates as the proverbial sword of Damocles hanging over these programs."); Kalen & Weissman, *supra* note 16, at 4 ("[I]t now appears almost obligatory for scholars to include a dormant Commerce Clause cautionary discussion in articles promoting renewable energy and climate change programs").

230. Englese, *supra* note 9, at 1015 ("The dormant Commerce Clause is an artifact from a time in our nation's history when competition between the states threatened the fabric of the union. Today, however, the national economy needs no such protection. State efforts to encourage renewable energy development within their own borders should not be impeded merely because out-of-state energy generators feel they are being treated unfairly.").

failures related to natural resources and to expand the market participant exception[231] for states seeking to prevent the loss of environmental public goods funded by state consumer investments.[232] Another commentator calls for a departure from the strict scrutiny standard in favor of a more lenient standard of scrutiny to permit state experimentation for non-protectionist motives.[233] Others argue that courts should expand the intermediate scrutiny standard applied in First Amendment and Equal Protection cases to dormant Commerce Clause inquiries of state RPS policies.[234] The same commentators also suggest expanding the market participant exception to include states that regulate renewable energy due to their heavy involvement with electric utilities.[235] Others call for viewing dormant Commerce Clause cases through a climate-specific lens to reveal that some seemingly discriminatory state treatment of like products, in fact, constitutes constitutionally permissible differential treatment of different products, including renewable energy.[236] Perhaps in anticipation of judicial reluctance to modify existing dormant Commerce Clause jurisprudence solely for the benefit of state RPS policies, one commentator calls on Congress to pass legislation that expressly authorizes state renewable energy sourcing mandates that include preferential treatment for in-state generation.[237]

Calls for reform of the courts' dormant Commerce Clause doctrine are not new.[238] Rarely, however, has a single policy prompted such a powerful chorus calling for reform. Sure enough, climate change has made the transition to a cleaner, low-carbon energy economy a top priority for policymakers across the globe.[239] In their eagerness to abandon two

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231. For precedent related to the market participant exception, see *supra* note 34 and accompanying text.

232. *See* Engel, *supra* note 9, at 324, 334.

233. *See* Kalen, *supra* note 9, at 424–25.

234. *See* Lee & Duane, *supra* note 9, at 355–58.

235. *See id.* at 359–60 (expanding the Fourteenth Amendment's entanglement rationale to dormant Commerce Clause inquiries).

236. *See* Barsa & Dana, *supra* note 9, at 70–71.

237. *See* Endrud, *supra* note 59, at 281.

238. *See, e.g.*, Julian N. Eule, *Laying the Dormant Commerce Clause to Rest*, 91 YALE L.J. 425, 427 (1982) (arguing that the dormant Commerce Clause should be abandoned in favor of using the Privileges and Immunities Clause as the principal safeguard against state protectionist measures); Catherine Gage O'Grady, *Targeting State Protectionism Instead of Interstate Discrimination Under the Dormant Commerce Clause*, 34 SAN DIEGO L. REV. 571, 576 (1997) (arguing that dormant Commerce Clause doctrine should focus on state protectionism and consider interstate discrimination as a secondary concern only, abandoning the current practice of virtual per se invalidity of discriminatory measures).

239. *See* REN 21, RENEWABLES 2018: GLOBAL STATUS REPORT 51 (2018) (reporting that, as of 2017, 128 countries had adopted renewable power policies, while seventy countries had implemented

centuries of U.S. Supreme Court jurisprudence,[240] however, few scholars even consider whether the Commerce Clause's constraints on state RPS policies might actually be beneficial to the overarching goal of mitigating climate change by displacing high-carbon fossil-fueled electricity with low-carbon renewables.[241]

In the context of RPS policies, the dormant Commerce Clause's ban on interstate discrimination does more than just protect one state from placing itself in economic isolation of the others.[242] It doubles as a powerful safeguard for the efficacy and efficiency of RPS-driven renewable energy deployment. Markets for unbundled REC trading give utilities access to the lowest-cost renewable resources even if the generator in question cannot deliver its electricity into the utility's grid.[243] When a utility in Maine purchases cheap RECs from Texas wind power to comply with its RPS mandate, the Lone Star State's favorable deployment conditions help reduce that utility's compliance costs and its customers' electricity bills. The daunting magnitude of the trillion-dollar challenge[244] to decarbonize the United States and global energy economies leaves little room for economic inefficiencies. Nationwide validity of unbundled RECs, regardless of their state of origin, helps insulate the most resource-rich areas of the country from policy shocks that could stall sustained deployment of climate-friendly renewables. When wind-rich Texas surpassed its relatively modest RPS targets several years ahead of schedule,[245] the ability to sell RECs to other states, along with other policy incentives, ensured continued development of highly efficient wind power infrastructure despite saturation of the local REC market.[246]

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bio-fuel mandates and other transport policies, with twenty-four countries featuring renewable heating and cooling policies).

240. *See supra* Part I.

241. For a notable exception, see Engel, *supra* note 9, at 250–51 (engaging with the macroeconomic impacts of the dormant Commerce Clause's prohibition of discriminatory market-based state policies).

242. *See* Baldwin v. G. A. F. Seelig, Inc., 294 U.S. 511, 527 (1935).

243. *See* RADER & HEMPLING, *supra* note 64, at 57 (listing a number of efficiency benefits from RPS policies and REC trading).

244. *See, e.g.*, INT'L ENERGY AGENCY, WORLD ENERGY OUTLOOK 1 (2016) (describing the trillions of investment dollars flowing toward clean energy deployment).

245. *See* Mormann et al., *A Tale of Three Markets*: *Comparing the Renewable Energy Experiences of California, Texas, and Germany*, 35 STAN. ENVTL. L.J. 55, 80 (2016).

246. It should be noted that even a nationwide REC market will eventually reach saturation levels, with the potential to drive REC prices down to levels where their ability to incentivize additional deployment, i.e., deployment that would not occur otherwise, is in doubt. In light of the relatively modest share of low-carbon renewables in the U.S. electricity market, climate advocates might consider this

The geographic scope and liquidity of REC markets have a direct bearing on their efficiency. Even advocates of greater state discretion to craft discriminatory RPS policies acknowledge that REC trading enhances policy efficiency.[247] Yet, a state RPS with an in-state location requirement prevents out-of-state generators that harness better resource conditions and favorable regulatory regimes to produce electricity more efficiently from bidding their RECs into that state's market. If Connecticut, with a population of less than four million,[248] accepted only Class A RECs from in-state generators for compliance, REC prices would likely soar due to market illiquidity, poor resource quality, and other generator inefficiencies—to the detriment of local utilities and their customers. When a state's RPS program sidelines more efficient out-of-state generators, overall policy efficiency suffers. In the words of two industry experts: "If, in the process of designing an RPS, it becomes clear that the renewables market is being partitioned or reduced in size to the point where those provisions will substantially compromise competition and market efficiencies, other approaches should be considered."[249]

This efficiency-based argument applies most forcefully to the climate-related impacts of low-carbon renewables that benefit the world at large, regardless of a generator's precise location.[250] Other benefits, such as air quality improvements and water conservation[251] accrue at a more localized level and may call for a policy approach that encourages deployment within or near the policymaker's jurisdiction. Contrary to the widespread scholarly criticism, the dormant Commerce Clause does not altogether preclude locationally sensitive renewable energy policies. RPS programs are, in fact, amenable to functional requirements that can offer powerful incentives for local deployment without running afoul of the Commerce Clause.[252] The delivery requirement included in Connecticut's

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scenario a welcome problem. Still, efficiency-oriented policymakers will want to phase out policy tools that no longer meet the *additionality* requirement. For an insightful treatise of additionality in the context of the United Nations Clean Development Mechanism, see Michael Wara, *Measuring the Clean Development Mechanism's Performance and Potential*, 55 UCLA L. REV. 1759 (2008).

247. *See* Engel, *supra* note 9, at 246.

248. *See* U.S. CENSUS BUREAU, ANNUAL ESTIMATES OF THE RESIDENT POPULATION APRIL 1, 2010 TO JULY 1, 2017 (2017), https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk (last visited Oct. 17, 2018).

249. RADER & HEMPLING, *supra* note 64, at 37.

250. *See supra* note 6 and accompanying text.

251. *See* Mormann, *supra* note 3, at 1638 (describing the local environmental benefits associated with renewable energy).

252. For a non-exhaustive list of such functionally framed requirements and their prevalence among state RPS programs, see Mormann, *supra* note 8, at 214–16.

RPS program offers an illustrative example of a functionally framed and, hence, evenhanded regulation that promotes renewable energy deployment in the surrounding region without imposing an excessive burden on interstate commerce.[253]

Moreover, the dormant Commerce Clause does not prevent states from narrowing the promotional effect of their commitment to renewables even further. Policymakers wishing to replace the regional impact of their clean energy policies with a state-focused effort can do so. To be sure, an RPS program that requires eligible renewable power facilities to be sited within the state would not pass constitutional muster.[254] States are free, however, to incentivize in-state development through direct subsidies so long as the latter are not funded by a tax or other discriminatory charge imposed on out-of-state firms.[255] The ZEC programs adopted by Illinois and New York are prime examples of such narrowly tailored subsidy programs. All the dormant Commerce Clause requires, therefore, is for policymakers to shift from market segmentation to subsidization schemes if they wish to concentrate their promotional efforts on in-state power generators.

However unpopular among scholars and policymakers, this constitutionally mandated shift actually guides policymakers toward a more efficient policy tool. After all, a successful RPS regime requires a large enough market with widespread participation and liquidity in order to deliver on the promise of efficiency inherent in market-based policies.[256] For emerging technologies like solar, wind, and other renewables, a market tailored to match an individual state's territory is likely too small to deliver these efficiency benefits. Illinois and New York, both among the top five most populous states in the United States,[257] appear to have recognized these dynamics, with both states structuring their support schemes for low-carbon nuclear power as subsidy, rather than segmentation programs.[258]

It may seem counterintuitive that the dormant Commerce Clause prohibits state policymakers from using market-based incentive programs to promote in-state renewables but allows direct subsidies for in-state deployment. Presumably, a high-value subsidy for in-state firms makes it

253. *See supra* section III.B.

254. *See supra* section II.A.

255. *See* W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994) ("A pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business.").

256. *See* Mormann, *supra* note 3 at 1644 (discussing the economies of scale of a national REC trading market); RADER & HEMPLING, *supra* note 64, at 37.

257. *See* U.S. CENSUS BUREAU, *supra* note 248.

258. *See supra* sections IV.A, IV.B.

easier for policymakers to influence interstate competition and commerce than a market-based incentive whose value is determined by the market's invisible hand. Indeed, Illinois's and New York's ZECs are traded at a price significantly higher than that of most RECs. The answer to this conundrum becomes apparent when one looks beyond the value of incentives to the structural differences between segmentation and subsidization programs.

An RPS or other segmentation policy effectively reserves a segment of the market to a subset of participants, such as in-state renewable generators, excluding all others. ZEC programs and other subsidy schemes may tilt the playing field in favor of in-state generators who, but for the subsidy, might find themselves at a competitive disadvantage. Depending on the level of subsidization, unsubsidized firms will likely need to identify new cost-saving opportunities to remain competitive. Failure to do so may lead some firms to leave the market. At the margin, subsidization policies can, therefore, have a similar effect on competition as segmentation policies that bar certain competitors from entering the market in the first place.

Unlike discriminatory RPS segmentation policies, however, ZEC schemes and other subsidy programs do not altogether preclude competition among in-state and out-of-state firms. A New Mexico solar generator, for example, might be able to compete with Washington solar facilities despite their state subsidies thanks to better solar resources in the American southwest.[259] In this case, Washington's subsidies might do no more than level the playing field, allowing the state's generators to compete on regional wholesale power markets. An in-state location requirement in Washington's RPS program, on the other hand, would make it impossible for New Mexico solar generators to even try to sell into Washington's electricity market.

The pro-competitive case for clean energy subsidies is even stronger for the nuclear power plants targeted by the Illinois and New York ZEC programs. The recent proliferation of solar, wind, and other low-carbon renewables notwithstanding, nuclear power still contributes more low-carbon energy to the nation's electricity mix than any other source.[260] Yet, nuclear generators across the United States are struggling to compete on wholesale power markets because their inability to adjust output to demand fluctuations forces them to sell their power below cost throughout

259. *See supra* note 143 and accompanying text discussing variations in solar resource quality across the United States.

260. *See* ANNUAL ENERGY OUTLOOK 2018, *supra* note 21, at 83.

much of the day. Without a price on carbon, the market does not reward the low-carbon, climate-friendly attributes of nuclear power. Instead, coal, natural gas, and other fossil-fueled power plants enjoy a competitive advantage thanks to their ability to externalize most, if not all, of the social cost of their carbon emissions.[261] Illinois and New York both pegged the value of ZECs at the social cost of carbon as these subsidization policies seek to correct for a market failure that tilts the playing field in favor of carbon-intensive electricity—a threat to market efficiency and social welfare.

Two centuries of dormant Commerce Clause jurisprudence reflect a simple economic truth: subsidization affects, and possibly even fosters, competition, while segmentation prevents it altogether.

## CONCLUSION

The dormant Commerce Clause has long been a thorn in the side of state policymakers seeking to promote in-state economic interests at the expense of out-of-state competitors. Energy policy is only the latest battleground for the clash between federal courts and state legislatures. Without a comprehensive federal policy strategy, the state forum has emerged as the principal locus of climate and clean energy policy innovation. To date, nearly thirty states have adopted RPS policies that create markets for low-carbon renewable electricity by requiring electric utilities to source a percentage of their sales from renewables. A couple of states, meanwhile, have begun to experiment with ZEC programs to promote low-carbon nuclear power.

RPS and ZEC policies both seek to promote clean, low-carbon electricity. Both policies rely on state-created securities—energy credits—to deliver additional revenue to eligible generators. These and other similarities notwithstanding, each policy fares very differently in a Commerce Clause inquiry. An RPS program with a location requirement to promote in-state deployment is all but certain to be struck down for violating the dormant Commerce Clause. A ZEC program with the same requirement, on the other hand, should hardly raise a judge's eyebrow.

The key to understanding these radically different outcomes for two seemingly similar policies lies in the critical distinction between market segmentation and subsidization. In creating a market specifically for solar, wind, and other renewables, RPS policies introduce a new market segment that is off-limits to all non-renewable sources of energy. This segmentation raises little, if any, constitutional concerns when drawn

261. *See* REG'L GREENHOUSE GAS INITIATIVE, *supra* note 22.

along functional lines, such as the renewability of resources used. When, however, state policymakers draw the RPS line in geographic terms to capture economic benefits in-state, they facially discriminate against out-of-state actors in violation of the dormant Commerce Clause. ZEC policies, in contrast, do not change the structure or accessibility of electricity markets but merely provide eligible generators with financial incentives in order to correct for the market failure of carbon externalities. Under the Commerce Clause, states are free to treat only in-state firms to such subsidies in order to promote local industry so long as these subsidies are not funded through taxes on out-of-state firms or other discriminatory charges.

The constitutionally mandated switch from market segmentation to subsidization policies in order to simultaneously promote global environmental and local economic causes should not come as a huge blow to state policymakers. RPS and other market-based policies require sufficiently large and liquid markets to deliver on their promise of market efficiencies. For the time being, solar, wind, and other renewables are still niche players compared to fossil fuel incumbents. Confined to state lines, most RPS programs will not reach critical mass resulting in illiquid, volatile and, ultimately, inefficient REC trading markets. A direct subsidy reserved for in-state generators, therefore, not only raises fewer constitutional concerns but also promises greater policy efficiency than locationally sensitive RPS programs.

The public policy toolkit continues to evolve and expand. Properly applied, the dormant Commerce Clause doctrine is well up to the task of ensuring that policy innovation does not come at the expense of interstate commerce. More than that, originally conceived to preserve the once-fragile union of a fledgling nation, the dormant Commerce Clause today helps guide policymakers toward more efficient policy choices—in clean energy and beyond.