ZEC OSCILLATIONS IN THE COMMERCE CLAUSE

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INTRODUCTION

In the United States, two clauses of the Constitution, the Supremacy Clause and the Commerce Clause, surround the way we utilize and exploit energy and sources of power. Professor Joel Eisen discussed the application of the Supremacy Clause to energy law at the *Vermont Journal of Environmental Law* Symposium. ¹ The Supremacy Clause constructs a "bright line" segregating which energy transactions are subject exclusively to federal jurisdiction and which are subject exclusively to state authority. ² This article brings us current on the other key article of the Constitution, the Commerce Clause, which limits state authority over energy. ³

There are recent oscillations in how the Commerce Clause affects energy regulation in different states. The Commerce Clause distinguishes federal, as opposed to state, jurisdiction over electric power with what the Supreme Court has designated as a legal "bright line." The Dormant Commerce Clause is the jurisprudential-legal shadow cast by the Commerce Clause; a century of Supreme Court decisions in the penumbra of Article I of the Constitution expose the limits of the Dormant Commerce Clause. The Dormant Commerce Clause restricts state regulation of energy that, directly or indirectly, create any geographic discrimination in interstate commerce. The Dormant Commerce Clause demands that states regulate articles in commerce, including electricity, equally and impartially.

^{1.} Joel Eisen, Professor, Univ. of Richmond Sch. of Law, Panel Address at the Vermont Journal of Environmental Law Symposium: Energy and the Constitution (Oct. 20, 2017) (transcript available in the Vermont Law School Library).

^{2.} Steven Ferrey, Supreme Court Shifts Supremacy Doctrine – Preempting State Sustainability?, 50 Ariz. State L.J. (forthcoming 2018).

^{3.} U.S. CONST. art. I, § 8.

^{4.} See Steven Ferrey, Supreme Court Stripes States of Their Power Over the World's Second Most Important Technology, 69 BAYLOR L. REV. 315, 324 (2017) (citing Fed. Power Comm'n v. S. Cal. Edison Co., 376 U.S. 205, 215–16 (1964)).

^{5.} U.S. CONST. art. I, § 8.

^{6.} See generally STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES & EXPLANATIONS 157–63 (Erwin Chemerinsky et al. eds., 7th ed. 2016) (describing the Supreme Court's interpretation of the Dormant Commerce Clause and the limitations on geographically discriminating legislation).

^{7.} See, e.g., City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) (noting that if a statute is facially discriminatory, it is virtually per se invalid); Gen. Motors Corp. v. Tracy, 519 U.S. 278, 287 (1997) ("The negative or dormant implication of the Commerce Clause prohibits state taxation . . . or regulation . . . that discriminates against or unduly burdens interstate commerce."); Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 338 (2008) (affirming City of Philadelphia v. New Jersey,

While seeming straightforward, the Dormant Commerce Clause creates repeated legal tensions recently presented to the Supreme Court.⁸ Because of an ongoing transition to more distributed renewable energy as part of the U.S. energy mix, the Dormant Commerce Clause is in even sharper focus.⁹ Regulating an intangible electromagnetic power field of electricity moving near the speed of light, alone, is an intriguing challenge. In the United States, both the Commerce Clause and the Supremacy Clause control power regulation, separate state and federal jurisdiction, and limit constitutionally-permissible discriminatory regulations.¹⁰

This Article examines recent interpretations of the Dormant Commerce Clause applied to state energy regulations. Since electricity is unique in American law, Section II examines how electricity's legal structure and regulation have evolved. It analyzes deregulation of retail power in one-quarter of the states, and the ongoing rapid change to renewable energy generation technologies. Section III dissects the operation of the Dormant Commerce Clause applied to energy and power. It examines the three most recent Circuit Court of Appeals decisions on energy under the Commerce Clause, all finding the state regulation, in different states, unconstitutional.

Section IV highlights recent contrary federal court decisions on the Dormant Commerce Clause. None are as persuasively reasoned as those appellate court decisions analyzed in Section III. Section IV subparts A and B examine in detail two controversial decisions of the Ninth Circuit. Among the thirteen circuit courts, the Ninth Circuit is the one federal circuit court that has not found a Commerce Clause violation. However, these two Ninth Circuit decisions contemplate liquid fuels rather than electricity. Section IV subpart C examines two recent federal trial court decisions. Those decisions take a new step to excuse state geographically discriminatory regulation of electricity as an exception to the Dormant Commerce Clause.

Section V places the recent case law in larger perspective, distinguishing *de jure* and *de facto* geographic discrimination. The Dormant Commerce Clause will continue to strictly govern state regulation of power.

⁴³⁷ U.S. at 624; C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 401 (1994) (O'Connor, J., concurring) (quoting H.P. Hood & Sons Inc. v. Du Mond, 336 U.S.525, 537-538 (1949)).

^{8.} See, e.g., United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330 (2007) (considering waste management ordinances and whether the dormant Commerce Clause allows a distinction between public and private facilities).

^{9.} See infra Section II.A (discussing the Dormant Commerce Clause application to renewable energy policies).

^{10.} See infra text accompanying note 25 (listing several federal cases that considered state violations of the Supremacy Clause or the Commerce Clause).

I. DIVIDING THE TERRITORY

Many countries have their own electric grids.¹¹ The National Academy of Engineering lists electrification as the most significant engineering achievement of the 20th century.¹² The World Bank concludes that access to electricity is one of the most powerful economic development enablers and multipliers.¹³

Without access to reliable power, all critical infrastructure and significant economic value is at risk. ¹⁴ The U.S. identified sixteen critical infrastructures in the United States, including: communications, emergency services, energy, food and agriculture, health care and public health, transportation, and water and wastewater sectors. ¹⁵ All sixteen of the critical infrastructure sectors have some dependence on the energy sector, specifically electric power. These aspects of infrastructure cannot function without a stable power supply. ¹⁶

Unlike other commodities, electricity is an intangible asset distributed for use through a vast, physically interconnected grid.¹⁷ Today, every state has a regulatory authority for setting retail rates and reliability standards for electricity.¹⁸ Movement and delivery of electricity in the United States happens in five separate grids: 1) the Eastern Interconnection; 2) the Western Interconnection; 3) the Texas Interconnection—which by its own choice has elected not to interconnect to either the Eastern or Western interconnections; 4) the Hawaiian grid; and 5) the Alaskan grid—which is also disconnected from the contiguous 48 states.¹⁹ Figure 1 illustrates the separated grids in the

^{11.} Gail Reitenbach, *Which Country's Grid Is the Smartest?*, POWER (Jan. 1, 2010), https://www.powermag.com/which-countrys-grid-is-the-smartest/ [https://perma.cc/X8L4-DJHH] (comparing various countries' electric grids).

^{12.} Wm. A. Wulf, *Great Achievements and Grand Challenges*, BRIDGE, Fall/Winter 2000, at 5, 6.

^{13.} See generally World Bank Indep. Evaluation Grp., The Welfare Impact of Rural Electrification: A Reassessment of the Costs and Benefits (2008) (discussing how rural electrification improves the quality of life).

^{14.} U.S. DEP'T OF ENERGY, QUADRENNIAL ENERGY REVIEW, TRANSFORMING THE NATION'S ELECTRICITY SYSTEM: THE SECOND INSTALLMENT OF THE QER S-4 (2017) [hereinafter QER].

^{15.} Critical Infrastructure Sectors, U.S. DEP'T OF HOMELAND SEC. (July 11, 2017), https://www.dhs.gov/critical-infrastructure-sectors [https://perma.cc/92RQ-HV86].

^{16.} Energy Sector, U.S. DEP'T. OF HOMELAND SEC. (July 11, 2017), https://www.dhs.gov/energy-sector [https://perma.cc/BL75-RW8R].

^{17.} QER, *supra* note 14, at S-16, S-8, 1-2 (describing energy policy as an asset to be protected in such an interconnected system).

^{18.} Regulatory Commissions, NAT'L ASS'N OF REG. UTIL. COMM'R, https://www.naruc.org/about-naruc/regulatory-commissions/ [https://perma.cc/YN9R-R39F] (last visited Apr. 7, 2018).

^{19.} See Learn More About Interconnections, U.S. DEP'T OF ENERGY, https://energy.gov/oe/services/electricity-policy-coordination-and-implementation/transmission-

continental U.S. The U.S. transmission grid system operates at fifteen different voltage levels, with limited power transactions between three major interconnections.²⁰

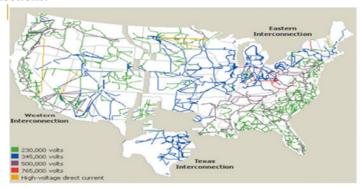


Figure 1: United States Transmission Grids²¹

Before diving into legal disputes around the Commerce Clause of the Constitution, which grants Congress the plenary power to regulate commerce throughout the nation and between the states, this article will first springboard from the Supremacy Clause. ²² The Supremacy Clause has affected electric power for the past 80 years through the Federal Power Act. ²³ These create and delineate the "bright line" for energy that states legally cannot cross but nonetheless seem to continually do, as the recent 2016 Supreme Court *Hughes v. Talen Energy Marketing* case illustrates. ²⁴

Federal courts in 2013, including the Supreme Court, the federal circuit courts of appeals, federal trial courts, plus the Federal Energy Regulatory Commission (FERC), confronted several cases alleging state violation of the Supremacy Clause and/or the Commerce Clause of the Constitution.²⁵ At

planning/recovery-act-0 [https://perma.cc/UQV2-LM8M] (last visited Apr. 8, 2018) (distinguishing among the different grid interconnections in the United States).

^{20.} Craig Cano, "Efficiency Should be Viewed as Key Part of Entire Delivery System," Wellinghoff Says, Electric Utility Week, December 13, 2010, at 18–19.

^{21.} *United States Energy Dashboard*, GLOBAL ENERGY NETWORK INST., http://www.geni.org/globalenergy/library/energy-issues/united%20states/index.shtml [https://perma.cc/YRC5-2R73] (last visited Apr. 7, 2018).

^{22.} U.S. CONST. art. I, § 8.

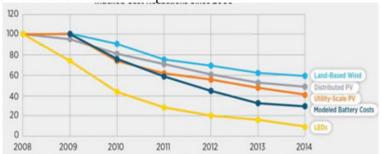
^{23.} David Spence, Opinion, *A Shift in the Energy Regulatory Regime*, THE REGULATORY REVIEW (July 18, 2016), https://www.theregreview.org/2016/07/18/spence-a-shift-in-the-energy-regulatory-regime/ [https://perma.cc/TDD8-5JRR].

^{24.} Ferrey, *supra* note 4, at 319.

^{25.} Am. Trucking Ass'n v. Los Angeles, 569 U.S. 641, 648 (2013) (holding how the Supremacy Clause and/or the Commerce Clause were expressly preempted as a "provision having the force and effect of law"); PPL Energyplus v. Nazarian, 753 F.3d 467, 468 (4th Cir. 2014), aff'd sub. nom. Hughes v. Talen Energy Marketing, 136 S. Ct. 1288 (2016) (challenging a Maryland Public

either the trial or appellate court levels, the states lost each of these cases due to a significant aspect of the challenge.²⁶ In 2016 there were two Supreme Court opinions, a Circuit Court decision, and two FERC adjudicatory decisions that each applied one, the other, or both of these clauses of the Constitution to the regulation of electric power.²⁷

The constitutional limits on the exercise of state power over energy are now altered by the accelerating change in both the technologies of electric power generation and ways in which some state governments have restructured state energy laws, causing them to surrender power. First, in 2016, for the third consecutive year, most of new electric generating capacity added to the U.S. grid was from solar, wind and other renewable technologies. According to the U.S. Energy Information Administration, renewable energy has reached grid price parity in nearly the entire country. Figure 2 shows recent dramatic price declines.



Service Commission order affecting where utilities may purchase power); PPL Energyplus v. Hanna, 977 F. Supp. 2d 372, 404 (D.N.J. 2013), *aff'd sub nom.*, PPL Energyplus v. Solomon 766 F. 3d 241 (2014) (regarding field preemption on wholesale power prices and rates); Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013) (introducing the federal courts that confronted the several federal cases alleging state violation of the Supremacy Clause and the Commerce Clause); Entergy Nuclear Vt. Yankee v. Shumlin, 838 F. Supp. 2d 183, 189 (D.Vt. 2012); Entergy Nuclear Vt. Yankee v. Shumlin, 733 F.3d 393, 406 (2d Cir. 2013) (noting Dormant Commerce Clause and Supremacy Clause issues); Ill. Commerce Comm'n v. Fed. Energy Reg. Comm'n, 721 F.3d 764 (7th Cir. 2013). *See also* Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1078 (E.D. Cal. 2011); Cal. Pub. Util's. Comm'n., 132 FERC ¶ 61,047, No: EL10-64-000 (2010).

26. See cases cited *supra* note 25 (listing cases where states lost after plaintiffs raised Supremacy Clause or Commerce Clause claims).

27. North Dakota v. Heydinger, 825 F.3d 912, 914 (8th Cir. 2016). *See also* Elec. Power Supply Ass'n, Retail v. FirstEnergy Solutions Corp., 155 FERC ¶61,101, No. EL16-34-000, 18, 22 (2016) (order granting complaint) (showing how the Ohio's energy charges could undermine the federal regulatory scheme regarding the Commerce Clause and Supremacy Clause claim); Elec. Power Supply Ass'n v. AEP Generation Res., Inc, 155 FERC ¶61,102 No. EL16-33-000 (2016) (order granting complaint); Hughes v. Talen Energy Mktg., 136 S. Ct. 1288, 1297 n.7 (2016) (assessing where respondents raised arguments under the Dormant Commerce Clause and 42 U.S.C. § 1983).

28. John Bryne & John Dernbach, Opinion, *Consumers Prefer Clean Energy*, BALTIMORE SUN, (May 9, 2017), http://www.baltimoresun.com/news/opinion/oped/bs-ed-efficient-energy-20170509-story.html [https://perma.cc/24BA-E53H?type=image].

29. Id.

Figure 2: Indexed Cost Reductions for Renewable Energies³⁰

Second, restructuring and deregulation of the retail electric power sector dramatically changed the operative regulatory paradigm for electric energy in one-quarter of the states.³¹ In 1997, approximately one-quarter of the states—beginning first, in Massachusetts and Rhode Island, and then spreading to a total of 17 states (see Figure 4)—adopted competition and partial deregulation of retail power.³² Prior to the electric sector deregulation debacle in California, nineteen of the states restructured in 2000–2001; thereafter, a half dozen states reversed course and returned to a regulated retail electric system, as illustrated in Figure 3.³³ About 40% of the states restructured; thereafter, the other 60% of the states retained traditionally structured retail electric sectors.³⁴

Today, three-quarters of the states are conventionally regulated and retain traditionally structured retail electric sectors.³⁵ In a significant number of the 17 totally or partially deregulated states, this resulted—by order of the state regulator—in the regulated monopoly utilities selling their generation units to independent power companies to spur more competition in power generation. ³⁶ This was a major transition, which recent legal battles demonstrate, that some states did not appreciate at the time. ³⁷ For more than a decade, independent power ("merchant") companies construct more new power generation each year than do regulated utilities. ³⁸ With several states having deregulated retail power sales and requiring their utilities to divest all of their power generation capacity, regulatory authority has shifted with these

^{30.} U.S. DEP'T OF ENERGY, REVOLUTION...NOW: THE FUTURE ARRIVES FOR FIVE CLEAN ENERGY TECHNOLOGIES – 2015 UPDATE 1 (2015).

^{31.} Electric Energy Market Competition Task Force; Notice Requesting Comments on Draft Report to Congress on Competition in the Wholesale and Retail Markets for Electric Energy, 71 Fed. Reg. 113 (June 13, 2006).

^{32.} STEVEN FERREY, LAW OF INDEPENDENT POWER: DEVELOPMENT, COGENERATION, UTILITY REGULATION §§ 10:12–13 (44th ed. 2018); FERREY, *supra* note 6, at 616; STEVEN FERREY, THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION 140, 277 (Pennwell Publishers, 2000).

^{33.} See generally FERREY, LAW OF INDEPENDENT POWER: DEVELOPMENT, COGENERATION, UTILITY REGULATION, supra note 32, at § 10:23 (indicating the other states were affected by the market after the fail in California).

^{34.} See Steven Ferrey, Sale of Electricity, in The Law of Clean Energy: Efficiency & Renewables 218–19 (Michael B. Gerrard ed., Am. Bar Ass'n Press, 2011) (highlighting that, currently, only one-third of states now use the restructured model).

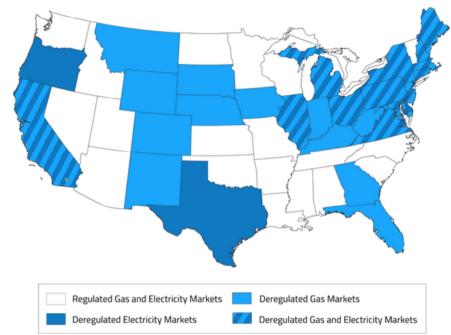
^{35.} *Id.* at 219: FERREY. *supra* note 6, at 616.

^{36.} See U.S. DEP'T OF ENERGY, DOE/EIA-0562(00), THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY 2000: AN UPDATE 106 (2000) (illustrating the different requirements that States have passed for electricity industry restructuring legislations).

^{37.} See infra notes 100–24 and accompanying text.

^{38.} Electric Energy Market Competition Task Force; Notice Requesting Comments on Draft Report to Congress on Competition in the Wholesale and Retail Markets for Electric Energy, 71 Fed. Reg. at 34088–89; Ferrey, *supra* note 34, at 217–19.

utilities having to engage in wholesale acquisition of their power from the wholesale market, as illustrated in Figure 3.³⁹ The Federal Power Act shifts



exclusive jurisdiction over wholesale power to federal authority and preempts state authority. 40

Figure 3: Deregulation of Retail Power 41

Third, electric-power trading has changed. An increasingly larger share of U.S. power now proceeds through wholesale power sale prior to its ultimate retail sale and consumption.⁴² This extra transaction renders this sale

^{39.} Ferrey, Law of Independent Power: Development, Cogeneration, Utility Regulation, *supra* note 32, at § 8:3; Ferrey, The New Rules: A Guide to Electric Market Regulation, *supra* note 32, at 280–82, 298–301.

^{40.} See infra Section II.C.1.

^{41.} *Map of Deregulated Energy States and Markets*, ELECTRIC CHOICE, https://www.electricchoice.com/map-deregulated-energy-markets/ [https://perma.cc/BTX9-FGEZ] (last visited Apr. 18, 2018).

^{42.} Electric Energy Market Competition Task Force; Notice Requesting Comments on Draft Report to Congress on Competition in the Wholesale and Retail Markets for Electric Energy, 71 Fed. Reg. at 34088.

off-limits to state regulation.⁴³ In a traditional energy regulatory structure, such state regulation would have been within state authority, as there would be no interstate wholesale sale of power when utilities, on their own, constructed the in-state power generation capacity they required.⁴⁴ The amount of power sold at wholesale before it is sold at retail shifted from 8% in the 1960s to nearly a majority today.⁴⁵

Since the changes in the ownership of power generation, which have been fostered by state regulatory changes, states fundamentally forfeited their regulatory authority over key transactions in the power market. My prior articles forecast the change of state authority that states did not fully appreciate at the beginning of the current millennium when state deregulation began, ⁴⁶ at the beginning of the current decade when thirteen states had deregulated retail power transactions, ⁴⁷ and in current time. ⁴⁸ A prior article also mapped how states could reduce their authority loss if they were more reflective in how they changed their regulatory structures. ⁴⁹

Fourth, independent system operators (ISOs) exercise more federal authority over power-trading. There are seven different Regional Transmission Organizations (RTOs)/ISOs across the United States; each is responsible for the reliability of the electric grid as well as the non-discriminatory operation of wholesale electricity markets.⁵⁰ For example, the PJM ISO, comprised of the District of Columbia and all or part of thirteen

^{43.} FERREY, LAW OF INDEPENDENT POWER: DEVELOPMENT, COGENERATION, UTILITY REGULATION, *supra* note 32, at § 5:28. *See also* FERREY, *supra* note 6, at 607 (describing energy sales as being interstate commerce and thus under federal regulation through the Commerce Clause).

^{44.} STEVEN FERREY, THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION, *supra* note 32, App. A at 260–263.

^{45.} *See id.* at 10-11; FERREY, *supra* note 6, at 608.

^{46.} See Steven Ferrey, Renewable Subsidies in the Age of Deregulation, PUB. UTILITIES FORTNIGHTLY, Dec. 1997, at 22 (applying the Commerce Clause to in-state control of renewable resources); Steven Ferrey, Exit Strategy: State Legal Discretion to Environmentally Sculpt the Deregulating Electric Environment, 26 HARV. ENVIL. L. REV. 109, 109 (2002); Steven Ferrey, Sustainable Energy, Environmental Policy, and States' Rights: Discerning the Energy Future Through the Eye of the Dormant Commerce Clause, 12 N.Y.U. ENVIL. L.J. 507, 605–06 (2004).

^{47.} FERREY, supra note 6, at 616. See also Steven Ferry et al., Fire and Ice: World Renewables Energy and Carbon Control Mechanisms Confront Constitutional Barriers, 20 DUKE ENVIL. L. & POL'Y F. 125, 145 (2010) (stating that many deregulated states adopted RPS programs); Steven Ferrey, Goblets of Fire: Potential Constitutional Impediments to the Regulation of Global Warming, 35 ECOLOGY L.Q. 835, 909-10 (2008) (arguing that federal intervention would avoid constitutional challenges to state-formulated carbon regulations).

^{48.} Steven Ferrey, *Pentagon Preemption: The 5-Sided Loss of State Energy and Power*, 2014 ILL. J. L. TECH. & POL'Y 393, 443 (2014).

^{49.} See generally Steven Ferrey, Solving the Multimillion Dollar Constitutional Puzzle Surronding State "Sustainable" Energy Policy, 49 WAKE FOREST L. REV. 121, 124 (2014) (discussing how states can enact energy policy and regulations to improve their authority over the energy supply).

^{50.} Regional Transmission Organizations (RTO)/Independent System Operators (ISO), FED. ENERGY REG. COMM'N, https://www.ferc.gov/industries/electric/indus-act/rto.asp [https://perma.cc/AF4M-Q3BV] (last updated Feb. 15, 2018) (mapping the RTOs).

states, operates the "largest centrally dispatched power market . . . in the world' covering 60 million customers and 185,000 megawatts" (Mw) of power generation.



Figure 4: FERC-Regulated Market Map

The ISOs regulate and control all wholesale sale of power through their regional interstate, federally regulated, power markets.⁵²

With these changes in technology, utility divestiture of ownership of power generation, dramatically increased wholesale power transactions, and certain state restructuring, there has been a commensurate legal reverberation in the Supremacy Clause and the Commerce Clause. ⁵³ Power is technologically unique—it is an intangible object in commerce that cannot easily be stored as electricity. ⁵⁴ Utility-scale chemical storage of converted electricity is about one and a half times the cost of gas generation while residential or distributed battery storage is about eight times the cost of natural gas generation. ⁵⁵ Electricity can be converted into chemical energy

^{51.} PJM, *PJM 2012: RTEP in Review* 1 (2013); PPL Energyplus, L.L.C, v. Hanna, 977 F. Supp. 2d 372, 378 (D.N.J. 2013), *aff'd sub nom.*, PPLenergyplus L.L.C. v. Solomon 766 F. 3d 241 (2014).

^{52.} Hughes v. Talen Energy Mktg., 136 S. Ct. 1288, 1292 (2016).

^{53.} See generally Michael J Gergen et al., United States, in THE ENERGY REGULATION AND MARKETS REVIEW 468, 469, 483(5th ed. David L. Schwartz ed., 2016) (highlighting changes in energy regulation that result from changing technology).

^{54.} Bill Gates, *It is Surprisingly Hard to Store Energy*, GATESNOTES (Feb. 22, 2016), https://www.gatesnotes.com/Energy/It-Is-Surprisingly-Hard-to-Store-Energy [https://perma.cc/4J9U-5A9F].

^{55.} William H. Carlile, *Utility-Scale Electricity Storage, Distribution Seen Likely to Benefit From Solar Technology*, Env't & Energy Rep. (BNA) (June 29, 2015); FERREY, LAW OF INDEP. POWER:

stored in batteries; physical energy potential stored as compressed air; stored weight in greater elevated reservoir capacity in hydroelectric pumped storage facilities; active physical energy stored in flywheel revolution; or thermal energy as heat storage.⁵⁶

Pumped storage of water has been the only significant storage method deployed for the past half-century; however, pumped storage cannot fill the entire need, and the contribution of other storage media to date is minimal.⁵⁶ Battery storage has emerged as the key future storage link for more deployment of intermittent distributed sources of renewable energy. 57 Lithium-ion and lead-acid batteries could change electric technology in the near future by providing economic storage of intermittent power; though, the storage costs are still high.⁵⁸ While battery storage costs are decreasing, storage is still expensive and not vet cost-effective.⁵⁹ Industry expected a battery breakthrough in May 2015 when Tesla Motors announced the availability of a new advanced battery for purposes of storage for rooftop solar PV systems, but when subsequent observers assessed the technology, despite overwhelming initial popularity, they found it both unamenable for current technical operation, as it could not handle regular charging, and not yet cost-effective. 60 FERC is currently investigating the ability to allow storage assets to participate in both state and federal markets.⁶¹

Legally, power is treated differently than all other commodities in the U.S. due to the Federal Power Act, the Commerce Clause, and the Supremacy Clause of the Constitution.⁶² The Supreme Court has declared that electricity,

DEVELOPMENT, COGENERATION, UTILITY REGULATION, *supra* note 32, at § 2:21; U.S. DEP'T OF ENERGY, GRID ENERGY STORAGE 11 (2013).

^{56.} U.S. DEP'T OF ENERGY, PUMPED STORAGE AND POTENTIAL HYDROPOWER FROM CONDUITS ii, 3 (2015); U.S. DEP'T OF ENERGY, *supra* note 55, at 11.

^{57.} KURT BAES ET AL., ARTHUR D. LITTLE, BATTERY STORAGE: STILL TOO EARLY? 5 (2017), http://www.adlittle.com/sites/default/files/viewpoints/ADL_Battery%20Storage.pdf [https://perma.cc/Z98Z-WPZ9].

^{58.} INTERNATIONAL ENERGY AGENCY, RESIDENTIAL PROSUMERS – DRIVERS AND POLICY OPTIONS (RE-PROSUMERS), IEA-RETD, June 2014, at 33–34 ("Prices for lithium-ion batteries are projected to fall from \$700/kWh in 2013 to \$300/kWh in 2020–2025.") (citing Rocky Mountain Institute et. al., The Economics of Grid Defection: When and Where Distributed Solar Generation Plus Storage Competes with Traditional Utility Service 24 (2014)).

^{59.} GARTH COREY & JIM EYER, SANDIA NAT'L LAB., ENERGY STORAGE FOR THE ELECTRICITY GRID: BENEFITS AND MARKET POTENTIAL ASSESSMENT GRID, xvi-xvii((2010).

^{60.} Tom Randall, *Tesla's New Battery Doesn't Work That Well With Solar*, BLOOMBERG (May 6, 2015, 11:55 AM), https://www.bloomberg.com/news/articles/2015-05-06/tesla-s-new-battery-doesn-t-work-that-well-with-solar [https://perma.cc/7F2M-PGBZ].

^{61.} FED. ENERGY REGULATORY COMM'N, ELECTRIC STORAGE PARTICIPATION IN MARKETS OPERATED BY REGIONAL TRANSMISSION ORGANIZATIONS AND INDEPENDENT SYSTEM OPERATORS 4 (2018), https://www.ferc.gov/whats-new/comm-meet/2018/021518/E-1.pdf [https://perma.cc/4ZPZ-S7ZX].

^{62.} U.S. CONST. art. VI, cl. 2. See 16 U.S.C. § 824(a) (2012) (declaring the policy surrounding the regulation of energy within the United States).

to a degree not affecting other items in commerce, is in interstate commerce, ⁶³ and the Court has noted that: "it is difficult to conceive of a more basic element of interstate commerce than electric energy, a product used in virtually every home and every commercial or manufacturing facility. No State relies solely on its own resources in this respect."⁶⁴ The following section places this unique Supreme Court distinction regarding electric power in interstate commerce in context of the Constitution.

II. THE DORMANT COMMERCE CLAUSE LIMITS STATE ENERGY REGULATION

Recently, federal courts have found leading states to have regulated energy in a manner violating the Dormant Commerce Clause of the Constitution. Two district courts have taken contrary positions in the last two months supporting discriminatory state regulation of energy to financially favor their in-state power generators. This section examines and attempts to reconcile these Commerce Clause legal frictions.

A. Dormant Commerce Clause Jurisprudence—Energy

Starting with what physically occurs with power: Electric energy can move instantaneously in interstate commerce within the lower 48 states, excluding parts of Texas.⁶⁷ The Dormant Commerce Clause prohibits state regulations that are either facially discriminatory regarding or unduly burden interstate commerce. ⁶⁸ Geographically based restrictions on interstate commerce, whether discriminating *for or against* local commerce, raise Dormant Commerce Clause issues.⁶⁹

Courts use judicial "strict scrutiny" to review geographically discriminatory statutes under the Dormant Commerce Clause, and a state must establish that the statute serves a compelling state interest through the

^{63.} New York v. Fed. Energy Regulatory Comm'n, 535 U.S. 1, 14–15 (2002).

^{64.} Fed. Energy Regulatory Comm'n v. Mississippi, 456 U.S. 742, 757 (1982).

^{65.} Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1079 (E.D. Cal. 2011); North Dakota v. Heydinger,825 F.3d 912, 919-922 (8th Cir. 2016).; Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin, 838 F. Supp. 2d 183, 243 (D. Vt. 2012); Ill. Commerce Comm'n v. Fed. Energy Regulatory Comm'n, 721 F.3d 764, 776 (7th Cir. 2013).

^{66.} See infra Section V.A (comparing rulings from U.S. District Court in Illinois and the U.S. District Court for the Southern District of New York that allow zero emission credits (ZECs) for instate programs).

^{67.} New York v. Fed. Energy Regulatory Comm'n, 535 U.S. 1, 31 (2002).

^{68.} Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 338 (2008).

^{69.} *Id.* at 338-339.

least restrictive means affecting commerce to achieve that interest.⁷⁰ There is a general assumption among many state counsels that if they cloak a discriminatory regulation regarding energy in an environmental rationale the cloak protects the regulation.⁷¹ However, according to the Supreme Court, "even if environmental preservation were the central purpose of the pricing order, that would not be sufficient to uphold a discriminatory regulation."⁷² In sum, the cloak does not conceal or protect state discrimination based on geographic location of the commerce.

The scope of commerce among the states for purposes of a Dormant Commerce Clause analysis is broadly defined.⁷³ States cannot regulate in ways where the practical effect is to control conduct in other states.⁷⁴ States also may not "provid[e] a direct commercial advantage to local business."⁷⁵ States are prohibited from attaching restrictions to any goods that they import from other states.⁷⁶

As such, "[s]tatutes that discriminate by 'practical effect and design,' rather than explicitly on the face of the regulation, are similarly subjected to heightened scrutiny." A state cannot regulate to favor or require use of its own in-state energy resources, nor can it, by regulation, harbor energy-related resources originating in the state. For example, an Oklahoma energy

^{70.} See generally Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin, 733 F.3d 393, 429-432 (2d Cir. 2013) (requiring Vermont Yankee to allot a certain percentage of it output to satisfy local demand would likely violate the dormant Commerce Clause under a strict scrutinty analysis.); Gade v.Nat'l Solid Wastes Mgmt. Ass'n, 505 U.S. 88, 105-106 (1992) ("In assessing the impact of a state law on the federal scheme, we have refused to rely solely on the legislature's professed purpose and have looked as well to the effects of the law.")

^{71.} See, e.g., Gade v.Nat'l Solid Wastes Mgmt. Ass'n, 505 U.S. 88, 105-106 (1992) (noting that courts must look beyond the legislature's professed purpose to determine if the rationale is related to the effects on the law).

^{72.} West Lynn Creamery v. Healy, 512 U.S. 186, 204 n. 20 (1994).

^{73.} See generally City of Philadelphia v. New Jersey, 437 U.S. 617, 627 (1978) (requiring that a state cannot discriminate against articles of commerce originating in other states unless there is a "reason, apart from their origin, to treat them differently."); Chemical Waste Mgmt. v. Hunt, 504 U.S. 334, 339-340 (1992) (invalidating Alabama's imposition of an additional disposal fee on hazardous waste generated outside the state but disposed of within Alabama); Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Nat. Res., 504 U.S. 353, 367-368 (1992) (invalidating the provisions of Michigan's Solid Waste Management Act that restricted landfill's ability to accept out-of-state waste); Or. Waste Sys, Inc. v. Dept. Of Envtl. Quality, 511 U.S. 93, 99 (1994) (invalidating Oregon's increased per-ton surcharge on waste generated).

^{74.} See, e.g., Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 582–83 (1986) (striking down a law with the "practical effect" of controlling liquor prices in other States).

^{75.} Northwestern States Portland Cement Co. v. Minnesota, 358 U.S. 450, 458 (1959).

^{76.} C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 393 (1994).

^{77.} Tri-M Grp., L.L.C. v. Sharp, 638 F.3d 406, 427 n.28 (3d Cir. 2011).

^{78.} See Wyoming v. Oklahoma, 502 U.S. 437, 455 (1992) (finding that "such a preference for coal from domestic sources cannot be characterized as anything other than protectionist and discriminatory, for the Act proports to exclude coal mined in other States based solely on its origin); All. for Clean Coal v. Craig, 840 F. Supp. 554, 560–562 (N.D. Ill. 1993) (explaining that legislation that favors in-state industry violates the dormant commerce clasue and that "the protection of Illinois' coal industry

statute overturned by the Supreme Court involved only a 10% allocation of the market to in-state producers, which is similar to what occurs in some of the now challenged preferences for in-state carbon control and renewable energy statutes. As a result of the statute, Oklahoma utilities "purchased Oklahoma coal in amounts ranging from 3.4% to 7.4% of their annual needs, with a necessarily corresponding reduction in purchases of Wyoming coal." The court held that even a small or *de minimis* degree of impact or effect of geographic discrimination is still unconstitutional.

In-state fuels cannot be required to be used by a state, even to satisfy federal Clean Air Act environmental requirements. Similarly, states cannot give income tax credits solely to in-state producers. Accordingly, a discriminatory law is "virtually *per se* invalid." However, if the statute is geographically even-handed, the courts apply the *Pike* balancing test to determine whether the state's interest justifies the incidental discriminatory effect of the regulatory mechanism as applied. The choice of which test a court employs often pre-ordains the legal result.

Geographically-based state restrictions on interstate commerce, either discriminating *for or against* local commerce, raise identical Dormant Commerce Clause concerns. ⁸⁶ Courts can invalidate a statute with even a minor discriminatory impact under strict scrutiny review. ⁸⁷ The Supreme Court held that statutes that establish regional barriers and discriminate only against some states, rather than all states, violate the Commerce

and economy is not a legitimate local purpose"); New England Power Co. v. New Hampshire, 455 U.S. 331, 344 (1982) (concluding that the Federal Power Act does not allow states "to restrict the flow of privately owned and produced electricity, in a manner inconsistent with the Commerce Clause").

^{79.} Wyoming, 503 U.S. at 437.

^{80.} *Id.* at 455; *Accord* All. for Clean Coal v. Miller, 44 F.3d 591, 596 (holding that even though an Illinois law did not compel use of Illinois coal or forbid use of out-of-state coal it "discriminates against western coal by making it a less viable compliance option for Illinois generating plants").

^{81.} Wyoming, 503 U.S. at 453 n.11.

^{82.} *Miller*, 44 F.3d at 596 ("The intended effect of these provisions is to foreclose the use of low-sulfer western coal by Illinois utilities as a means of complying with the Clean Air Act. This of course amounts to discriminatory state action forbidden by the Commerce Clause.").

^{83.} New Energy Co. of Ind. v. Limbach, 486 U.S. 269, 279–80 (1988). *See also* Or. Waste Sys, Inc. v. Dept. Of Envtl. Quality, 511 U.S. 93, 106 (1994) (comparing taxes on earning income and utilizing landfills thus determining they are "entirely different kinds of taxes" and do not equally burdern interstate commerce on "substaitally equivalent" events).

^{84.} Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 338 (2008) (quoting Or. Waste Sys., Inc. v. Dep't of Envtl. Quality of Or., 511 U.S. 93, 99 (1994)).

^{85.} See Pike v. Bruce Church, 397 U.S. 137, 142 (1970) (explaining the balancing test for when a statute "regulates even-handedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental").

^{86.} Id

^{87.} *See* Bacchus Imports, Ltd. v. Dias, 468 U.S. 463, 269-70, 272-73 (1984) (finding that a tax exemption for certain locally produced alcoholic beverages violated the Dormant Commerce Clause even though the state's asserted purpose for the tax was not related to economic protection).

Clause. 88 Subsidy of in-state commerce or businesses, even if the burdens to achieve the subsidies are imposed on all commerce regardless of its origin, are impermissible under strict scrutiny review. 89

The Supreme Court has repeatedly held that a state regulation does not need to "be drafted explicitly along state lines in order to demonstrate its discriminatory design." Any geographic discrimination by a state, whether along state or other geographic lines, is always subject to strict scrutiny. The dissent in *Rocky Mountain Famers Union v. Corey*, a Ninth Circuit appeal, underscored this notion. A regulation need not expressly mention geography in order to be geographically discriminatory. It may appear neutral superficially, but courts evaluate the direct or indirect impact on commerce. Such a contrary view "would mean that the Commerce Clause of itself imposes no limitations on state action . . . save for the rare instance where a state artlessly discloses an avowed purpose to discriminate against interstate goods."

State statutes or regulations that discriminate against out-of-state interests based on geography or favoring local interests are *per se* invalid. Subsidy of in-state businesses, even if the taxes to raise the subsidies are

^{88.} See Chemical Waste Mgmt. v. Hunt, 432 U.S. 334, 339 (1992) (holding states may not create barriers that interfere with interstate trade).

^{89.} E.g., Miller, 44 F.3d at 595 ("[T]he Illinois Coal Act, like the . . . order in West Lynn, has the same effect as a 'tariff or customs duty—neutralizing the advantage possessed by lower cost out of state producers, 'it too is repugnant to the Commerce Clause and the principle of a unitary national economy which that clause was intended to establish." (quoting W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 194 (1994))).

^{90.} Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1097 (9th Cir. 2013) (quoting Amerada Hess Corp. v. N.J. Dept. of Treasury, 490 U.S. 66, 76 (1989)). See also C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 391 (1994) (striking local trash processing requirement as discriminatory for allowing only the favored operator to process waste that is within the limits of the town); Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Nat. Res., 504 U.S. 353, 355 (holding that the Michigan law preventing private landfill owners from receiving waste that came from outside the county to be unconstitutional); Dean Milk Co. v. Madison, 340 U.S. 349, 349 (1951) (striking an ordinance requiring milk to be processed within five miles of town).

^{91.} *Corey*, 730 F.3d at 1108 (Murguia, J., concurring in part and dissenting in part) ("In making [the] geographic distinction, the [regulation] patently discriminates against interstate commerce." (quoting Or. Waste Sys., Inc. v. Dep't of Envtl. Quality of State of Or., 511 U.S. 93, 100 (1994)).

^{92.} Id

^{93.} See Dean Milk Co. v. Madison, 340 U.S. at 354.

^{94.} *Id.*; Chemical Waste Mgmt. v. Hunt, 432 U.S. 334, 341-342 (1992) (showing how the court reviewed the case to determine that New Jersey's hazardous waste law decimates "on its face and in its plain effect").

^{95.} City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978); Gen. Motors Corp. v. Tracy, 519 U.S. 278, 287 (1997); Dep't of Revenue of Ky. v. Davis, 553 U.S. 328, 338 (2008). See also Trevor D. Stiles, Renewable Resources and the Dormant Commerce Clause, 4 ENVTL. & ENERGY L. & POL'Y J. 34, 60-61 (2009) (outlining the modern Dormant Commerce Clause analysis).

imposed on all commerce, can be stricken under strict scrutiny. ⁹⁶ Even where a statute is drafted in a fashion that is facially neutral rather than expressly discriminatory, for example by not mentioning or in any other way distinguishing the geographic location of the commerce, but otherwise employs terms that result in a geographic preference, a court may apply a 'strict scrutiny' standard if the purpose or effect of a state law is discriminatory. ⁹⁷ The trial court in *Rocky Mountain Famers Union v. Goldstene* noted that regulation need not facially mention discriminatory provisions against out-of-state entrants to be held in violation of the Dormant Commerce Clause. ⁹⁸ A regulation that "'evince[s]' its discriminatory purpose" against interstate commerce "or unambiguously discriminates in its effect, it almost always is 'invalid *per se*."⁹⁹

B. The Eighth Circuit—2016

There was a significant federal court of appeals decision on the Dormant Commerce Clause in 2016. The State of North Dakota challenged the constitutionality of a Minnesota statute restricting the import of coal-fired power to Minnesota from other states. ¹⁰⁰ The statutory provision stated, "no person shall: . . . import or commit to import from outside the state power from a new large energy facility that would contribute to statewide power sector carbon dioxide emissions." ¹⁰¹ North Dakota complained that

^{96.} E.g., Miller, 44 F.3d at 595 ("[T]he Illinois Coal Act, like the . . . order in West Lynn, has the same effect as a 'tariff or customs duty—neutralizing the advantage possessed by lower cost out of state producers." (citing West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 194 (1994))).

^{97.} See South-Central Timber Dev., Inc. v. Wunnicke, 467 U.S. 82, 100 (1984) ("[T]he Court has viewed with particular suspicion state statutes requiring business operations to be performed in the home State that could more efficiently be performed elsewhere. Even where the State is pursuing a clearly legitimate local interest, this particular burden on commerce has been declared to be virtually per se illegal. (citing Foster–Fountain Packing Co. v. Haydel, 278 U.S. 1; Johnson v. Haydel, 278 U.S. 16; Toomer v. Witsell, 334 U.S. 385)."); C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 391–92 (1994) ("The ordinance is no less discriminatory because in-state or in-town processors are also covered by the prohibition."); Hunt, 432 U.S. 334 (showing how the Court look to the practical financial effect of the law in making its decision); Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Nat. Res., 504 U.S. 353, 361 (1992) (holding a Michigan statute prohibiting the acceptance of out of county solid waste violated the Equal Protection Clause).

^{98.} See Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1089 (E.D. Cal. 2011) ("[L]egislation favoring in-state economic interests is facially invalid under the dormant Commerce Clause, even when such legislation also burdens some in-state interests or includes some out-of-state interests in the favored classification." (quoting Daghlian v. DeVry Univ., 582 F. Supp. 2d 1231, 1243 (C.D. Cal. 2007))).

^{99.} Brown & Williamson Tobacco Corp. v. Pataki, 320 F.3d 200, 209 (2d Cir. 2003) (quoting Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104, 108 (2d Cir. 2001)).

^{100.} North Dakota v. Heydinger, 15 F. Supp. 3d 891, 895 (D. Minn. 2014)., aff d, 825 F.3d 912 (8th Cir. 2016).

^{101.} MINN. STAT. § 216H.03 subdiv. 3(2) (2016) (amended 2017).

Minnesota's statute "interfere[d] with the interstate transmission and wholesale marketing of electric power in the integrated interstate region." ¹⁰²

The district court held that the statute violated the Dormant Commerce Clause because the goal of the provision is to control non-Minnesota entities. ¹⁰³ Thus, the statute violated the sparingly construed extraterritoriality doctrine incorporated as part of the Commerce Clause. ¹⁰⁴ The district court also upheld the plaintiffs' motion for summary judgment and agreed with the plaintiffs that parts of the statute regulated extraterritorially and were, therefore, invalid under the Dormant Commerce Clause. ¹⁰⁵ The court also concluded that Minnesota's regulation of out-of-state transactions violated the Dormant Commerce Clause. ¹⁰⁶

On appeal, the Eighth Circuit Court of Appeals unanimously found the state statute unconstitutional; however, each member of the three-judge panel relied on different clauses of the Constitution as their primary reason for invalidation. The opinion of the first judge on the Eighth Circuit panel affirmed the district court opinion, which held that controlling conduct beyond the boundaries of Minnesota violated the Dormant Commerce Clause. The other two judges found that the Minnesota statute violated the Supremacy Clause of the Constitution, and was the Federal Power Act or by the Clean Air Act preempted the statute. The After holding that the statute violated the Supremacy Clause, the two judges held that it was not necessary to address the Commerce Clause issue. The opinion of the Eighth Circuit, as well as the trial court's, distinguished the flow of electricity as unique and separate from other energy sources. The Eight Circuit expressly distinguished this holding from the Ninth Circuit's outcome in *Rocky Mountain Farmers Union v. Corey*, which involved liquid ethanol fuel.

The Minnesota law "regulate[s] activity and transactions taking place wholly outside of Minnesota." In his concurrence, Judge Murphy stated "the actual flows of power are unpredictable, uncontrollable, and

^{102.} State of North Dakota, et al. v. Beverly Heydinger et al., No. 14-2156, 2015 Crt. App. WL 416690, at $\ast i$ (8th Cir. Jan. 20, 2015).

^{103.} Id. at 917.

^{104.} *Id.* at 916–17.

^{105.} *Id.* at 910–911, 916, 919.

^{106.} Id. at 916.

^{107.} North Dakota v. Heydinger, 825 F.3d 912, 913 (8th Cir. 2016).

^{108.} Id. at 913.

^{109.} *Id.* at 927–29.

^{110.} Id. at 927-29.

^{111.} North Dakota v. Heydinger, 15 F. Supp. 3d 891, 918–19 (D. Minn. 2014), $\it{aff'd}$, 825 F.3d 912 (8th Cir. 2016).

^{112.} North Dakota v. Heydinger, 15 F. Supp. 3d 891, 915 (D. Minn. 2014).

^{113.} Heydinger, 825 F.3d at 921.

untraceable."¹¹⁴ Minnesota's law banning imports from out-of-state energy facilities was found to have an extraterritorial reach and was therefore unconstitutional under the Dormant Commerce Clause.¹¹⁵

C. Other Circuit Courts

1. Second Circuit

In 2013, Vermont Yankee, an independent nuclear power producer located in Vermont, challenged Vermont's attempt to regulate the wholesale of energy in interstate commerce. Vermont attempted to extract financial concessions from the private owners of Vermont Yankee as a condition for granting renewal of a state license to operate. Vermont added a new statutory amendment to state energy law, which required the state legislature to approve a state operating license renewal. The Vermont State Senate denied the Vermont Public Service Board the right to issue the license that would allow the plant to run beyond 2012, unless Vermont Yankee, which did not make retail sales of electricity in the state, agreed to sell its wholesale power to Vermont utilities at deeply discounted rates.

The district court found that federal law preempted Vermont from regulating such wholesale sales, and the regulation violated the Dormant Commerce Clause. ¹²⁰ On appeal, the Second Circuit agreed with the substantive decision of the district court that there was a state violation of the Dormant Commerce Clause. ¹²¹ Procedurally, though, the Second Circuit held that that issue was not yet ripe for review because the uneconomic power purchase agreement (PPA) to sell wholesale power otherwise in interstate commerce rates to in-state utilities at deeply discounted rates that the state demanded that the independent power generator enter as a condition of

^{114.} See id. at 924 (Murphy, J., concurring) ("[T]he actual flows of power are unpredictable, uncontrollable, and untraceable).

^{115.} See id. at 919.

^{116.} Entergy Nuclear Vt. Yankee, LLC v. Shumlin, 733 F.3d. 393, 406 (2d Cir. 2013).

^{117.} *Id.* at 406.

^{118.} Vt. Stat. Ann. tit. 30 § 248 (e)(2), (prohibiting nuclear generating plant from operating "beyond the date permitted in any certificate of public good . . . unless the General Assembly approves and determines that the operation will promote the general welfare, and until the Public Utility Commission issues a certificate of public good under this section.").

^{119.} See Matthew L. Wald, Vermont Senate Votes to Close Nuclear Plant, N.Y. TIMES (Feb. 24, 2010), https://www.nytimes.com/2010/02/25/us/25nuke.html [https://perma.cc/9LCY-8HSM] ("[S]enators defeated a resolution that would have authorized the state to issue a certificate of 'public good,' which would be necessary to keep Vermont Yankee operating.").

^{120.} Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin, 838 F. Supp. 2d 183, 243 (D. Vt. 2012).

^{121.} Energy Nuclear Vermont Yankee, L.L.C. v. Shumlin, 733 F.3d 393, 431 (2d Cir. 2013).

license extension, had not been executed by the company before it brought suit. 122 Thus, having declared the Commerce Clause issue not yet ripe for a final decision on the merits until a long-term enforceable PPA was signed by the aggrieved plaintiff, the circuit court concluded that if that Vermont PPA had been signed before the suit the energy regulation would not survive a Dormant Commerce Clause challenge. 123 The Vermont law restricted the movement of that power interstate in the New England wholesale ISO-NE market which is federally regulated. 124 The ISO-NE market moves wholesale power seamlessly through its six New England states to utilize the most cost-effective power on an hour-by-hour basis cost-comparative basis. 125

2. Seventh Circuit

Other U.S. Circuit Courts recently have addressed the Dormant Commerce Clause and electricity. The unanimous Seventh Circuit decision by Judge Posner declared unconstitutional state regulation limiting state renewable portfolio standards (RPS) when they are applied only to benefit in-state generation. ¹²⁶ The law in 29 states characterizes RPS programs as a form of "backdoor" renewable energy subsidies. ¹²⁷ A resource portfolio requirement requires certain electricity sellers to purchase an annual predetermined percentage of credits from low-carbon or renewable resources in their wholesale electric supply mixes. ¹²⁸ Michigan's law, one of the 29 states, provided RPS credit for renewable energy certificates (REC) multipliers for in-state generation, and provided preferences for use of instate materials for that power generation. ¹²⁹

Such state regulation favoring in-state power generation which otherwise was part of an interstate wholesale power market, as employed in Michigan as part of the MidAmerican Independent System Operator (MISO) multistate wholesale market, was found to be a violation of the Dormant

^{122.} *Id.* In making such an in-state money-losing condition on the state permission to keep operating the power generation facility a threat on which the power generator sued before signing such a long-term agreement, the Second Circuit held that the regulated energy generation company did not have a "real injury" or standing to raise the Dormant Commerce Clause issue until it actually signed the state-demanded power purchase agreement ("PPA") and bankrupted the company. *Id.*

^{123.} *Id.* at 431–32.

^{124.} Vt. Yankee, 838 F. Supp. at 192–93.

^{125.} ISO NEW ENGLAND, 2016 REGIONAL ELECTRICITY OUTLOOK 26 (2016).

 $^{126. \}hspace{0.5cm} \textbf{III. Commerce Comm'n v. Fed. Energy Reg. Comm'n, 721 F.3d 764, 776 (7th Cir. 2013)}.$

^{127.} Robert Glennon & Andrew M. Reeves, *Solar Energy's Cloudy Future*, 1 ARIZ. J. ENVTL. L. & POL'Y 91, 92–93 (2010).

^{128.} See U.S. Envil. Prot. Agency, Portfolio Standards & the Promotion of Combined Heat & Power 9, tbl. 1 (2016) (showing the minimum RPS requirements for electric suppliers and distribution companies).

^{129.} MICH. COMP. LAWS §460.1001 §1(1), (2)(a)-(d) (2008); §460,1039 §39(1)(2008).

Commerce Clause: "[Michigan's argument] 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." The opinion relied on one of my prior law review articles for authority on the respective jurisdiction of state and federal government to regulate electricity. ¹³¹

This discussion was technically *dicta* in the decision because the case involved not Michigan's unconstitutional regulation of renewable energy, but whether Michigan and other Midwest states—all members of MISO—were required to share MISO transmission upgrade costs to move renewable wind power through the region. Still, Michigan's attorney general chose to raise the defense that since Michigan law did not treat out-of-state renewable energy equally and non-discriminatorily compared to in-state renewable power, which received state renewable energy certificates (RECs), such discrimination against out-of-state renewable power should support the State's refusal to share costs to move renewable power over the regional transmission grid in which Michigan participated. 133

This unanimous decision caused the Seventh Circuit to tell Michigan that it was acting unconstitutionally pursuant to the Dormant Commerce Clause regarding renewable power. ¹³⁴ In addition, Michigan was acting unconstitutionally under the Supremacy Clause because the allocation of regional MISO transmission cost shares to Michigan were within FERC's regulatory power under the Federal Power Act. ¹³⁵ In September 2017, Michigan's state energy regulatory commission, the Michigan Public Service Commission, doubled down on this in-state preference by ruling that it would be mandatory for in-state utilities to purchase in-state energy capacity by 2022. ¹³⁶ This issue of new types of RECs for in-state nuclear power would emerge again in 2017 district court and 2018 circuit court challenges addressed below. ¹³⁷

^{130.} Ill. Commerce Comm'n, 721 F.3d at 776.

^{131.} *Id.* (citing Steven Ferrey, *Threading the Constitutional Needle with Care: The Commerce Clause Threat to the New Infrastructure of Renewable Power*, 7 Texas J. Oil, Gas & Energy L. 59, 69, 106–07 (2012)).

^{132.} See id. at 773 (noting that this case did not involve Michigan's unconstitutional regulation of renewable energy).

^{133.} Id.

^{134.} Id. at 776.

^{135.} Id. at 773.

^{136.} Alex Ebert, *Michigan Lawmakers Vow to Undo Ruling on In-State Electric Power*, Energy & Climate Rep. (BNA) 1 (Sept. 20, 2017) (discussing the legislative response to the administrative ruling).

^{137.} See infra Part V.

To date, the Seventh Circuit is the only circuit court of appeals to make a declaration on the merits of in-state discriminatory RECs and the Dormant Commerce Clause, and it is the first federal court of appeals to address this issue. ¹³⁸ The Supreme Court refused to review the Seventh Circuit decision. ¹³⁹ Twenty-two of the 29 states providing RECs for promotion of certain renewable power do so in a manner that may be geographically discriminatory in some greater or lesser extent. ¹⁴⁰ In *West Lynn Creamery*, Justice Scalia submitted that, "subsidies for in-state industry . . . would clearly be invalid under any formulation of the Court's guiding principle" for "dormant" Commerce Clause cases. ¹⁴¹

IV. NO STATE VIOLATION OF THE DORMANT COMMERCE CLAUSE

Not all federal circuit courts interpret the Constitution consistently. Even when the Supreme Court renders a decision to resolve circuit-court splits in interpretation of environmental or energy law, the circuit courts have found ways to circumvent the Supreme Court. For example, after a most watched 2007 unanimous decision of the Supreme Court, which reversed holdings of every circuit court in the country, some circuit courts have since interpreted the law differently than the Court's opinion indicated.¹⁴²

The Ninth Circuit Court of Appeals, with jurisdiction over the nine Western states, issued opinions for two different state energy programs that are contrary to every other circuit court in the country. The Ninth Circuit, even if alone in its legal determinations regarding energy and Dormant Commerce Clause, has responsibility for the largest single number of states and geographic territory of any of the thirteen federal circuit courts. 144

^{138.} Ill. Commerce Comm'n, 721 F.3d at 780.

^{139.} *See generally* Petition for a Writ of Certiorari, Schuette v. Fed. Energy Reg. Comm'n, 134 S. Ct. 1277 (2014) (No. 13-443) (holding the petition for writ of certiorari to the United States Court of Appeals for the Seventh Circuit is denied).

^{140.} Steven 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, 80 (2012).

^{141.} W. Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 208 (Scalia, J., concurring).

^{142.} Steven Ferrey, The Superfund Cost Allocation Liability Conflicts Among the Federal Courts, 11 Vt. J. Envtl. L. 249, 305 (2009); Steven Ferrey, Toxic "Plain Meaning" and "Moonshadow": Supreme Court Unanimity and Unexpected Consequences, 24 VILL. Envtl. L.J. 1, 1–2 (2013); Steven Ferrey, Superfund Chaos Theory: What Happens When the Lower Federal Courts Don't Follow the Supreme Court. 6 MICH. J. Envtl. & ADMIN. L. 151, 153 (2016).

^{143.} See discussion infra Section IV (discussing in detail Rocky Mountain Farmers Union, 730 F.3d at 1078 and Am. Fuel & Petrochemical Mfrs., 134 F.Supp.3d at 1276 n.6).

^{144.} Bringing Justice Closer to the People: Examining Ideas for Restructuring the Ninth Circuit: Hearing Before the H. S. Comm. on Courts, Intellectual Prop. & the Internet, 115th Cong. 1 (2017) (statement of the American Bar Association).

A. The Ninth Circuit Decision

1. California's Carbon Intensity

In California, regulations regarding greenhouse gas reduction include the low carbon fuel standard (LCFS). 145 The purpose of the LCFS is to "reduce greenhouse gas emissions by reducing the full fuel-cycle, carbon intensity of the transportation fuel pool used in California "146 The LCFS regulates transportation fuels that are "sold, supplied, or offered for sale in California" and focuses on the "carbon intensity" of fuels "147 The LCFS requires providers of gasoline and diesel fuels to calculate the carbon intensity of each fuel component, report such calculations to the California Air Resources Board (CARB), and make reductions to meet the carbon intensity standards measuring "the amount of lifecycle greenhouse gas emissions, per unit of energy of fuel delivered, expressed in grams of carbon dioxide per megajoule."148 Carbon intensity is not limited to how much carbon the fuel contains but also includes the amount of carbon released in the full fuel cycle. 149 Each pathway for producing ethanol and other low-carbon liquid fuels, under California's regulations, is given three carbon intensity scores: direct emissions, land use or other indirect effects, and a total score. ¹⁵⁰ Parties calculate their Carbon Intensity Rating and then receive a credit or deficit depending on that score.151

^{145.} CAL. CODE REGS. Tit. 17, § 95480 (2011).

^{146.} *Id*

^{147.} Id. § 95480.1(a).

^{148.} *Id.* § 95481(a)(11).

^{149.} *Id.* § 95481(a)(28) (defining lifecycle "greenhouse gas emissions as the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Executive Officer, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.").

^{150.} CAL. AIR RES. BD., LOW CARBON FUEL STANDARD QUESTION AND ANSWER GUIDANCE DOCUMENT (2011). Before a regulated party can generate credits for its fuel or blendstock, the regulated party must get approval from the Executive Officer of its physical pathway demonstration. *Id.* A "physical pathway" is a combination of actual fuel delivery methods (e.g. trucking routes, rail lines, pipelines, etc.) through which the regulated party reasonably expects the fuel to be transported to California. *Id.* Therefore, the requirement for a regulated party to demonstrate its physical pathway serves to document the physical route by which the product is expected to get to California, therefore providing an enforceable linkage from an out-of-state producer to the regulated party in California (e.g. fuel blender, producer, importer or provider in California). *Id.*

^{151.} CAL. CODE REGS. tit. 17, § 95486(a) (2011) (outlining methods for calculating carbon intensity values); *id.* § 94581(a)(13) (defining credits and deficits). "The total number of credits generated through the supply of fuels or blendstocks with carbon intensity values below that of the applicable standard will be deposited in a credit account of the applicable regulated party or credit generator. Once

Location and origin affect the energy provider's carbon intensity score. For instance, corn-derived ethanol produced in the Midwest receives a higher carbon-intensity score than chemically similar corn-derived ethanol produced anywhere in California, regardless of its transportation distance within California. The carbon intensity of ethanol in the Midwest was greater because it had to be transported to California; additionally, electricity in the Midwest is mostly generated by coal, which produces more carbon than other fossil fuels. Thus, a chemically identical ethanol imported from the Midwest can receive a higher carbon-intensity score than ethanol produced anywhere in California, ultimately rendering the Midwest product disadvantaged and more expensive for fuel providers seeking to meet California's fuel standard requirements. The standard requirements.

2. The District Court Strict Scrutiny

In *Rocky Mountain Farmers Union v. Goldstene*, which is distinct from a somewhat similar suit brought in California state court involving the LCFS rule, plaintiffs challenged the LCFS rule as being anti-competitive and violating the Dormant Commerce Clause. ¹⁵⁵ Specifically, the plaintiffs focused on the LCFS' extraterritorial regulations. ¹⁵⁶ Additionally, the complaint challenged the carbon intensity calculations that took into account the "so-called indirect 'land use or other indirect effect' from the production of corn itself, predominantly in the Midwest, ascribing a penalty to all corn

banked, credits may be retained indefinitely, retired to meet a compliance obligation, or transferred to other regulated parties or credit generators." *Id.* § 94581(a)(1).

CAL. CODE REGS. Tit. 17, § 95486(a), tbl. 6 (2011) (providing carbon intensity scores based on origin but only measuring pathways into California). The CI calculation does not account for intrastate shipping within the state, notwithstanding that California is the third largest U.S. state geographically. Id at tbl New World Encyclopedia, 6: http://www.newworldencyclopedia.org/entry/California [https://perma.cc/NEG7-C3V9] (last visited Apr. 17, 2018). "California's 770 miles in length is greater than the distance from points in ten other states to California. Thus, all fuel, wherever produced in California and wherever consumed, does not incur a higher carbon transportation factor for purposes of this regulation." Steven Ferrey, Can the Ninth Circuit Overrule the Supreme Court on the Constitution?, 93 NEB. L. REV. 807, 817 (2014).

^{153.} See Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1088 (E.D. Cal. 2011) (holding that the purpose of the LCFS was to penalize Midwestern fuels because of the difference in lifecycle analysis).

^{154.} See CAL. CODE REGS. Tit. 17, § 95486(a), tbl. 6 (2011) (displaying carbon intensity scores in the Midwest and in California); Goldstene, 843 F. Supp. 2d at 1086 (finding Midwestern ethanol fuels were scored 10% higher than the chemically identical California fuels).

^{155.} Rocky Mountain Farmers Union v. Goldstene, 843 F. Supp. 2d 1071, 1078 (E.D. Cal. 2011). See also Poet, L.L.C. v. Cal. Air Res. Bd., No. F064045, slip op. at 1 (Cal. Ct. App. June 3, 2013) (arguing that CARB failed to respond to numerous public comments, that it omitted documents from the rulemaking file and that the LCFS will lead to increased GHG emissions, not the reductions it promises; Poet alleged that CARB's LCFS rule exceeds the scope of authority delegated to it by the legislature).

^{156.} Goldstene, 843 F. Supp. 2d at 1090.

ethanol based on its assumed indirect contribution to worldwide GHG emissions."¹⁵⁷ In response, California argued that the LCFS used scientific principles to reduce emissions; therefore, it was not discriminating intentionally.¹⁵⁸

The federal district court invalidated certain parts of the LCFS rule and enjoined the rule's enforcement because it "discriminate[d] against out-of-state corn-derived ethanol while favoring in-state corn ethanol and impermissibly regulate[d] extraterritorial conduct." The court held that the LCFS differentiated based on the commerce's place of origin and concluded that it discriminated on its face against out-of-state corn-derived ethanol. The court held that the LCFS "may not impose a barrier to interstate commerce based on the distance that the product must travel in interstate commerce." In interstate commerce." In interstate commerce.

The court applied a strict scrutiny standard to the regulation's geographic discrimination affecting multi-state commerce to uphold plaintiffs' dormant Commerce Clause claim. The court concluded that "[r]egulating out-of-state conduct" is not the only test applied under the Dormant Commerce Clause; the broader definition of discrimination "simply means differential treatment of in-state and out of state economic interests that benefits the former and burdens the latter." The district court reached this conclusion by relying on two Supreme Court decisions, *Dean Milk Co. v. Madison and West Lynn Creamery v. Healy.* The court also explained that "legislation favoring in-state economic interests is facially invalid under the dormant Commerce Clause, even when such legislation also burdens some in-state interests or includes some out-of-state interests in the favored classification." The court also explained that "legislation in the favored classification." The favored classification." The favored classification." The favored classification." The favored classification.

The district court found that although the LCFS serves a legitimate local purpose, the defendants had not met their burden to show that there is not a

^{157.} Complaint for Declaratory and Injunctive Relief at 10, Rocky Mountain Farmers Untion v. Goldstene, 843 F. Supp. 2d 1071 (E.D. Cal. 2011) (No. 1:09-cv-02234-LJO-DLB).

^{158.} Brief for Appellants at 94–96, Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013) (No. 12-15131).

^{159.} *Goldstene*, 843 F. Supp. 2d at 1105.

^{160.} Id. at 1087.

^{161.} Id. at 1089.

^{162.} *Id.* at 1105. CARB attributed the difference in carbon intensity values to multiple scientific factors in addition to geographic location factors (emissions related to shipping or transportation of fuel). *Id.* The court relied upon a table of carbon intensity values generated by CARB. *Id.*

^{163.} *Id.* at 186 (quoting Or. Waste Sys. v. Dep't of Envtl. Quality, 511 U.S. 93, 99 (1994)).

^{164.} See *id.* at 1089 (noting that this court relied on both *Dean Milk Co* and *West Lynn Creamery* to extract a test to address the state's purpose without discriminating against out-of-state businesses).

^{165.} *Id.* (quoting Daghlian v. DeVry Univ., 582 F. Supp. 2d 1231, 1243 (C.D. Cal. 2007)).

less discriminatory means to adequately serve their objective. ¹⁶⁶ Pursuant to the requirements of *Dean Milk* and *West Lynn Creamery v. Healy*, the court found that CARB had several other means to address the state's purpose without discriminating against out-of-state fuel products. ¹⁶⁷ In *Dean Milk*, the Supreme Court concluded that alternative means to ensure proper pasteurization of milk sold within the city were available to the city of Madison. ¹⁶⁸ The Court noted that alternatives with less burdensome effects on interstate commerce existed. ¹⁶⁹ Since its issuance, the *Dean Milk* standard that a state must justify its regulation by taking the least burdensome alternative has endured and been elevated in federal court precedent for two-thirds of a century. ¹⁷⁰

3. Ninth Circuit—Abandoning Strict Scrutiny

In a split decision with a vigorous dissent, the Ninth Circuit reversed the district court's decision in *Rocky Mountain Farmers Union v. Goldstene* and held that the Dormant Commerce Clause was not violated.¹⁷¹ The Ninth Circuit refused to apply the district court's strict scrutiny standard in favor of a more state-deferential balancing test that interprets the Dormant Commerce Clause and extra-territorial effects of state law.¹⁷² The 2-1 Ninth Circuit majority instructed that, on remand, the balancing test be applied pursuant to *Pike v. Bruce Church, Inc.*¹⁷³

^{166.} *Id.* at 1093.

^{167.} Compare Dean Milk Co. v. Madison, 71 S. Ct. 295, 295 (1951) (holding that a limit on the sale of milk outside of a narrow geographical region unduly burdened interstate commerce) and West Lynn Creamery v. Healy, 512 U.S. 186, 202 (holding a differential burden placed at any point in the stream of commerce on out-of-state producers is constitutionally invalid), with Goldstene, 843 F. Supp. 2d at 1094 (finding that defendants failed to prove that no nondiscriminatory alternatives exist).

^{168.} Dean Milk Co., 71 S. Ct. 295, 298 ("If the City of Madison prefers to rely upon its own officials for inspection of distant milk sources, such inspection is readily open to it without hardship for it could charge the actual and reasonable cost of such inspection to the importing producers and processors.").

^{169.} *Id.* at 295 ("A city cannot discriminate against interstate commerce even in exercise of unquestioned power to protect health and safety of people, if reasonable and nondiscriminatory alternatives, adequate to conserve legitimate local interests, are available").

^{170.} See Fairmont Foods Co. v. City of Duluth, 110 N.W.2d 155, 158–59 (Minn. 1961) (invalidating a municipality ordinance restricting the free flow of milk by burdensome health standards above industry standard); Great Atlantic & Pac. Tea Co., Inc. v. Cottrell, 383 F. Supp. 569, 570 (S.D. Miss. 1976) (resting review of the dispositive issue on the principle of state police powers), rev'd, 424 U.S. 366, 374 (1976); White v. Mass. Council of Const. Emp'r, Inc., 460 U.S. 204, 224–25 (1983) (analyzing non-discriminatory alternatives to alleviate unemployment in Boston); Carpenter v. Commonwealth, 831 S.W.2d 188, 189 (Ky. App. 1992).

^{171.} Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1107 (9th Cir. 2013).

^{172.} *Id.* at 1087–88, 1107.

^{173.} *Id.* at 1107.

The majority determined that it is acceptable for a state to calculate transportation CO₂ impact as part of either the carbon emissions index or delivered fuel rating, which has a different score based on the geographical origin of the fuel.¹⁷⁴ The Ninth Circuit majority also concluded that factoring location as a variable (which has the consequence of imposing a penalty for greater distance from California) was not facially discriminatory based on the geography of commerce because there are many reasons why location is factored in besides simple discrimination.¹⁷⁵ According to two of the three judges on the Ninth Circuit panel, California had "valid scientific" reasons for why they took into account fuel origin, the fuels' geographic pathways, and the distance traveled; none of these reasons were facially discriminatory. ¹⁷⁶ However, the dissenting judge found blatant facial discrimination woven into the LCFS.¹⁷⁷

The majority opinion never carefully applied the Supreme Court's *Dean Milk* analysis and construed it only for an ancillary principle. Similarly, the majority referred to only an ancillary point in the key Supreme Court *C & A Carbone, Inc. v. Town of Clarkstown* decision, avoiding the declaration in the *Carbone* precedent that no environmental rationale excuses discrimination based on the geography of commerce. Instead, the Ninth Circuit majority applied *Maine v. Taylor*, which is not directly on point or relevant to the facts in the California LCFS matter because it interprets the "market participant" exception. Note, that this inapplicable *Maine v. Taylor* precedent is what district courts will inappropriately apply in new ongoing matters, discussed below. 181

^{174.} Id. at 1083.

^{175.} Id. at 1089.

^{176.} *Id*

^{177.} *Id.* at 1108 (Murguia, J., concurring in part and dissenting in part) ("additional fee [on imported commerce] facially discriminates." (quoting Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334, 342 (1992)).

^{178.} See Dean Milk Co. v. City of Madison, Wis., 340 US 349, 356 n. 4 (1951) ("It is immaterial that Wisconsin milk from outside the Madison area is subjected to the same proscription as that moving in interstate commerce.").

^{179.} Compare Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1102 (9th Cir. 2013) (discussing the C & A Carbone, Inc. v. Town of Clarkstown decision only in regard to facially discriminatory laws) with C & A Carbone, Inc. v. Town of Clarkstown, N.Y., 511 U.S. 383, 390–91 (1994) (finding that a variety of environmental rationales are not an excuse for discrimination based on the geography of commerce).

^{180.} See Maine v. Taylor, 477 U.S. 131, 138 (1986) (discussing how the Court determines if a statute burdens interstate commerce incidentally or facially and then determines if the burden is excessive in relation to local benefit); Corey, 730 F.3d at 1108–09. See also FERREY, supra note 6, at 167–69 (describing the Supreme Court's market-participant analysis).

^{181.} See infra Section V (discussing how the Ninth Circuit decision regarding the Dormant Commerce Clause was an anomaly in regard to the other courts throughout the country).

4. Rehearing En Banc?

The Ninth Circuit denied a petition for a rehearing en banc, but there were members of the Ninth Circuit who dissented. The dissent noted: "California could—under the majority's reasoning—penalize out-of-state wineries to account for the environmental effects of transporting their wines to California." In the dissent Judge Smith, joined by six other judges, stated that California's liquid fuel standard discriminates against interstate commerce; therefore, the Ninth Circuit majority is "squarely at odds with the Supreme Court precedent." The dissent states, "Because ethanol from Midwestern states faces a regulatory burden that chemically identical in-state ethanol does not, California's regime is facially discriminatory." 184

The dissent in the refusal for rehearing also made the distinction that no matter how good a state's reason is for creating a regulation, if the regulation is facially discriminatory, that reason is legally irrelevant under the Supreme Court's Dormant Commerce Clause precedent. 185 According to the dissent, since California's LCFS is facially discriminatory, any justification for it must pass the strictest scrutiny. 186 The dissent determined that the LCFS would fail to pass strict scrutiny because CARB had conceded that the LCFS would play a *de minimis* role in combatting climate change. ¹⁸⁷ Thus, the dissent declared, "California admits that its scheme will have little to no effect in averting the environmental catastrophe envisioned by the majority." 188 The dissent also noted that because the LCFS factors in the transportation emissions to deliver ethanol from its place of commerce to California, the regulation discriminates against out-of-state ethanol and "will assuredly promote California's energy industry at the expense of out-of-state competitors." ¹⁸⁹ In conclusion, the dissent found that the LCFS has an extraterritorial reach by affecting the production and land-use decisions of other states. 190

The U.S. Constitution's Dormant Commerce Clause embodies a special concern of maintaining an individual state's economic sovereignty, which is

^{182.} Rocky Mountain Farmers Union v. Corey, 740 F.3d 507, 518 (9th Cir. 2014) (Smith, J., dissenting).

^{183.} *Id.* at 512.

^{184.} Id. at 516.

^{185.} See id. (Smith, J., dissenting) ("[T]he purpose of, or justification for, a law has no bearing on whether it is facially discriminatory." (citing Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334, 340-1(1992)).).

^{186.} *Id*.

^{187.} *Id*.

^{188.} *Id.* at 517.

^{189.} *Id*.

^{190.} Id.

not to be infringed by other states' regulations.¹⁹¹ As noted in some *amici* briefs to the Ninth Circuit, there now appears to be no limit for states in the Ninth Circuit on regulating commercial imports based on their transportation distance and use of fossil-fuel-fired electricity during production.¹⁹²

5. The Supreme Court Strict Scrutiny

Neither the Supreme Court nor any other circuit court in the country has held the same way as the Ninth Circuit on the Dormant Commerce Clause. For decades prior to the *Rocky Mountain Farmers Union v. Corey* decision, in more than a dozen cases decided by the Supreme Court, states have unsuccessfully attempted to block imported waste. ¹⁹³ The Supreme Court has consistently applied strict scrutiny to cases concerning geographic discrimination, whether along state or geographic lines. The Ninth Circuit majority in *Corey* reversed the trial court's decision and used the more lenient and discriminatory *Pike* balancing test. ¹⁹⁴

Even when a state statute is drafted in a fashion that is facially neutral rather than expressly discriminatory, the Supreme Court applies a strict scrutiny standard when the state law has a discriminatory effect. ¹⁹⁵ The Supreme Court does not permit discrimination based on the origin of electricity in enforcing the Dormant Commerce Clause. ¹⁹⁶ The Court, when

^{191.} *Id.*at 518 ("Finally, the majority significantly underestimates the risk that California's ethanol scheme will spur other states to enact 'the kind of competing and interlocking local economic regulation that the Commerce Clause was meant to preclude.'").

^{192.} See Brief of Amici Curiae Michael Wang, Ph.D., in Support of Defendants-Appellants, Rocky Mountain Farmers Union v. Corey, 739 F. 3d 1070 (9th Cir. 2013) (Nos. 12-15131 and 12-15135), 2012 WL 2376703 (noting items whose production and use could attract lifecycle scrutiny and, by extension, regulation akin to LCFS, including: newspapers, refrigerators, light bulbs, camp stoves, and computers).

^{193.} *See*, *e.g.*, City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978) (invalidating a New Jersey law that prohibited the import of most solid and liquid wastes originating outside the state).

^{194.} See Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1078 (2013) (directing the district court to apply the *Pike* the balancing test). *id.* at 1108–09 (Murguia, J., dissenting) (noting that "in making [the] geographic distinction, the [regulation] patently discriminates against interstate commerce." The burden is on California to demonstrate that no less burdensome regulatory incentives were available to control GHGs, and at oral argument, California admitted that there were less burdensome alternatives on interstate commerce than "to use lifecycle analysis to reduce GHG emissions.") (internal citation omitted).

^{195.} Chemical Waste Mgmt. v. Hunt, 432 U.S. 334 (1992) (discussing discriminatory laws). See also Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Nat. Res., 504 U.S. 353, 361 (1992) (holding a Michigan statute prohibiting the acceptance of out of county solid waste violated the Equal Protection Clause); C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383, 391–92 (1994) ("[t]he ordinance is no less discriminatory because in-state or in-town processors are also covered by the prohibition.").

^{196.} New England Power Co. v. New Hampshire, 455 U.S. 331 (1982).

using strict scrutiny, almost always finds that the state action is unconstitutional. 197

The Ninth Circuit majority opinion on the California LCFS matter is not consistent with Supreme Court precedent on electricity. ¹⁹⁸ Thus, distance of transportation and the largely uncontrollable random fate of whether the electricity used to produce ethanol comes from high-carbon coal or zero-carbon nuclear energy, hydropower, or renewable energy are now critical variables in the Ninth Circuit's calculation of energy regulations from all geographic regions. Now, for the first time in a judicial decision, distance travelled from producer to consumer is elevated to a new valid factor on which states may discriminate against interstate commerce. ¹⁹⁹

Because transporting all physical goods uses fossil fuels, a state can regulate to disfavor goods originating and travelling a greater distance from out-of-state as a *per se* component of its regulatory effort to minimize CO₂ emissions. ²⁰⁰ This new metric permits regulatory discrimination on the distance goods travel in interstate commerce, which is geographic discrimination based on the point of origin. ²⁰¹ The Ninth Circuit majority stated, "The dormant Commerce Clause does not require California to ignore the real differences in carbon intensity among out-of-state [product] pathways" to California, including the types of emissions resulting from electricity generation where the goods are produced, and the distance the product travels to California. ²⁰² This creates, for the first time, a basis for routine state discrimination based on the distance of travel of any out-of-state articles in interstate commerce. ²⁰³

B. Ninth Circuit Oregon Energy Regulation

^{197.} See generally ERWIN CHEMERINKSY, CONSTITUTIONAL LAW 567 (Chemerinsky et al. eds., 5th ed. 2015) (describing the general use of strict scrutiny and how when courts use strict scrutiny laws are often ruled unconstitutional).

^{198.} *Compare* New England Power Co. v. New Hampshire, 455 U.S. 331 (1982) (creating precedent that states may not restrict the flow of privately owned and produced electricity in interstate commerce in a matter inconsistent with the Commerce Clause), *with* Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070 (9th Cir. 2013) (finding LCFS regulations did not exceed California's authority under dormant Commerce Clause by regulating extraterritorial conduct). *See also* Wyoming v. Oklahoma, 502 U.S. 437, 437 (1992) (illustrating how the Ninth Circuit was inconsistent with the Supreme Court precedent); All. for Clean Coal v. Miller, 44 F.3d 554, 596–97 (N.D. Ill. 1993) (holding that the Illinois Coal Act, which favored in-state coal, violated the Commerce Clause).

^{199.} *See Corey*, 730 F.3d 1070, 1083 (holding that California's Low Carbon Fuel Standards (LCFS) do not impermissibly regulate extraterritorial conduct by taking into account distance and is exempted from the Clean Air Act's preemption provision).

^{200.} Id.

^{201.} Id

^{202.} Rocky Mountain Farmers Union v. Corey, 730 F.3d 1070, 1093 (9th Cir. 2013).

^{203.} Id

In 2015, Oregon's Environmental Quality Commission (EQC) enacted a LCFS very similar to California's LCFS regulation.²⁰⁴ Starting in 2016, the regulated parties participate in a trading system similar to California's; they use credits and deficits "generated when clean fuel is produced, imported, dispensed or used in Oregon."²⁰⁵ Producers buy or sell their credits to offset any deficits they may have based on their carbon intensity scores.²⁰⁶ As in California, Oregon calculates carbon intensity scores based on the type of fuel, its means of production and distribution, and other factors.²⁰⁷ Opponents challenged that it "discriminates in favor of Oregon industry at the expense of out-of-state industry."²⁰⁸

The American Trucking Association and two petroleum industry trade groups asked a federal judge to enjoin the Oregon low-carbon fuel standard on the grounds that it violates the Dormant Commerce Clause and federal statutes preempt it.²⁰⁹ Plaintiffs challenged the Oregon Program pursuant to the Dormant Commerce Clause, arguing it:

(1) discriminates against out-of-state commerce in violation of the Commerce Clause; (2) regulates extraterritorial activity in violation of the Commerce Clause; (3) expressly is preempted by section 211(c) of the Clean Air Act and the Environmental Protection Agency's ("EPA") Reformulated Gasoline Rule ("RFGR"); and (4) is conflict preempted by the Act's Renewable Fuel Standard ("RFS") as amended by the Energy Independence and Security Act ("EISA").²¹⁰

Plaintiffs argued that the LCFS is as an incentive to in-state producers and impermissibly regulates out-of-state conduct.²¹¹

^{204.} See Am. Fuel & Petrochemical Mfrs. v. O'Keeffe, 134 F.Supp.3d 1270, 1276 n.6 (D. Or. 2015). The program began in 2009 when the Oregon EQC was directed by the State to adopt rules aimed at decreasing greenhouse gases produced by transportation fuels. *Id.* at 1271. Phase 1 began on January 1, 2013, when the state began requiring regulated parties, i.e. "[a]ll persons that produce in Oregon or import into Oregon any regulated fuel, "to register for the Oregon Program and record/report the volumes and carbon intensities of their transportation fuels. *Id.* at 1275. Then, in January of 2015, Phase 2 began, which "require[d] regulated parties to meet annual clean fuel standards." *Id.*

^{205.} *Id.* at 1275.

^{206.} Id. at 1275–76.

^{207.} *Id.* at 1280. Each entity that produces fuel in Oregon or imports fuel into the state must meet average carbon intensity limits across all of its products. *Id.* It can demonstrate compliance by producing or importing only fuels that meet the standard, by producing or importing fuels that meet the standard in aggregate, or by purchasing credits generated by fuels below the standard to reduce the average intensity of its products. *Id.* at 1275.

^{208.} *Id.* at 1277.

^{209.} Id. at 1284.

^{210.} Id. at 1276.

^{211.} Id. at 1277.

A federal judge in the state of Oregon dismissed the suit, finding that the regulation did not discriminate against out-of-state commerce in violation of the Commerce Clause. Relying on the prior Ninth Circuit decision in *Rocky Mountain Farmers Union v. Corey*, the judge said, "Whatever effects the Oregon Program may ultimately have on Oregon's biofuels market, there are no plausible allegations demonstrating that out-of-state producers will be commercially disadvantaged or considerably burdened." The trial court rejected this plaintiff's attempt at "selective comparison, which excludes relevant [competing] fuel pathways and held that discrimination claims, whether premised on ethanol or petroleum, must be viewed 'in context of the full market."

The Ninth Circuit found that there was not a Dormant Commerce Clause violation, consistent with the California LCFS case. ²¹⁵ No other federal circuits nor the Supreme Court have held similarly regarding the Dormant Commerce Clause. This places the Ninth Circuit, and the relatively large number of nine states within its jurisdiction, in a unique and juxtaposed position in constitutional jurisprudence.

V. THE DISTRICT COURTS AND ZECS

In 2017, two district court decisions involved nuclear electric generation plants that exceeded their initial federal Nuclear Regulatory Commission licenses and lapsed into extension periods—the states where these plants are located chose to subsidize the plants in the same manner that the states subsidize renewable energy.²¹⁶ Both of these trial court decisions proceeded to their respective circuit courts on appeal in 2018.²¹⁷

Twenty-nine states and the District of Colombia have subsidy programs for renewable energy portfolio standards, and several of these programs have encountered facial Dormant Commerce Clause challenges alleging the programs discriminate against renewable power generation based on its out-

^{212.} Id. at 1271.

^{213.} Id. at 1283.

^{214.} *Id.* at 1279 (internal citations and quotations omitted).

^{215.} Id

^{216.} Coal. for Competitive Elec. v. Zibelman, 272 F. Supp. 3d 583, 554, n.30 (S.D.N.Y. 2017); Vill. of Old Mill Creek v. Star, No.17-CV-1163 & No. 17-CV-1164, 2017 WL 3008289, at *7 (N.D. Ill. July 14, 2017).

^{217.} See Sabin Ctr. for Climate Change Law, U.S. Litigation Chart (2018), http://climatecasechart.com/case/electric-power-supply-association-v-star/ [https://perma.cc/54KP-L4SK] (last visited Apr. 16, 2018) (showing the district court's Star decision was appealed to the Seventh Circuit).

of-state geography of where the power is generated.²¹⁸ Challenged states typically only survived those legal challenges by either: (1) modifying the challenged aspect to remove geographic discrimination; or (2) precluding the court from the merits of the challenge by asserting the claimants lack standing and private rights of action defenses.²¹⁹ In both of these 2017 federal district court decisions, the states employed the latter strategy, arguing that the challengers lacked standing.²²⁰ The courts dismissed the suits procedurally; however, each judge opined that it would uphold the state subsidy even if it could reach the merits because the Dormant Commerce Clause's strict scrutiny standard for geographic discrimination would not apply. ²²¹

A. Illinois ZECs

In July 2017, the U.S. District Court in Illinois found that Illinois's Zero Emission Credit program (ZEC) survived allegations of violating the Dormant Commerce Clause. 222 The primary basis of the holding was a procedural bar the court implemented because the plaintiffs could not demonstrate personal injury from implementation of the Illinois ZEC law. 223 Traditionally, standing is shown if there is an injury in fact to plaintiffs. 224 The district court stated that if the harm is not traceable to the discrimination of the regulating state against the commerce of other states, then any out-of-state plaintiffs lack standing because, being out of state, they do not present a case or controversy. 225 This logic may appear somewhat circular; although, it resulted in dismissal of plaintiffs' claims.

Notwithstanding this procedural holding, opining on the merits, the court stated that the purpose of the Dormant Commerce Clause is to "guard against the evils of economic isolation and protectionism."²²⁶ Laws that facially discriminate against interstate commerce and favor in-state

^{218.} CAROLYN ELEFANT & EDWARD A. HOLT, THE COMMERCE CLAUSE AND IMPLICATION FOR STATE RENEWABLE PORTFOLIO STANDARD PROGRAMS 3, 7 (2011).

^{219.} See infra Section V (discussing the ways in which district courts have treated dormant commerce clause challenges to ZEC's).

^{220.} Zibelman, 272 F. Supp. 3d at 583 n.30; Vill. Of Old Mill Creek, 2017 WL 3008289, at 16.

^{221.} Zibelman, 272 F. Supp. 3d at 586, n.36; Vill. of Old Mill Creek, 2017 WL 3008289, at *53-54.

^{222.} Vill. of Old Mill Creek, 2017 WL 3008289, at *7.

^{223.} Id

^{224.} See generally FERREY, supra note 6, at 52 (using environmental case law to describe the requirements of a plaintiff to have an "injury-in-fact").

^{225.} Vill. of Old Mill Creek, 2017 WL 3008289, at *7.

^{226.} *Id.* at *15 (quoting City of Philadelphia v. New Jersey, 437 U.S. 617, 623–624 (1978)).

economic interests over out-of-state economic interests are invalid *per se*.²²⁷ Here, plaintiffs argued that the Illinois statute discriminated against interstate commerce on its face because the State had already determined that it would award ZECs to the existing in-state Clinton and Quad Cities nuclear energy facilities. ²²⁸ State regulations mandate that utilities purchase the Illinois ZEC certificates and pass the costs on to retail electricity ratepayers. ²²⁹

The district court undertook only a *de jure* examination of the law: it highlighted that the state statute did not explicitly bar out-of-state nuclear generators from submitting bids for Illinois ZECs. ²³⁰However, the reality was that the state only awarded Zero-emission Energy Certificates to in-state plants. ²³¹ *De jure*, the court found the statute facially non-descript as to which plants would be recipients of the state regulatory benefits; thus, the court found it geographically non-discriminatory, despite the *de facto* reality of that State awarded benefits only to in-state nuclear facilities. ²³² The court decided that it should and would trust the state regulatory agency, the Illinois Commerce Commission (ICC) to administer the statute without geographic discrimination. ²³³ Plaintiffs contended that, in practice, the ZEC program has the clear effect of favoring in-state economic interests for commerce in electric energy over out-of-state interests. ²³⁴ In response to this claim, the court articulated:

Assuming that only Illinois nuclear generators are selected, the ZEC program would not be invalid, necessarily, because there are many ways to explain how a valid program could produce that end. For example, it is possible that no out-of-state generator will submit a bid, thereby mooting plaintiffs' discriminatory effects claim. It is also possible that the ICC will decide that Illinois generators are in the best position to reduce air pollutants in Illinois, which would justify a decision to select only Illinois generators. In light of plaintiffs' facial challenge, and accepting the allegations of how the

^{227.} Id.

^{228.} *Id.* ("Specifically, the complaint alleges that the ZEC program distorts the market by driving out and deterring the entry of more cost-efficient, environmentally-friendly, out-of-state generators, and that the reduction of carbon emissions can be achieved through means that do not discriminate against interstate commerce") (internal citations omitted).

^{229.} *Id.* at 1.

^{230.} Id. at *15.

^{231.} See id. (explaining that Clinton and Quad Cities, both in Illinois, have been the only locations awarded with certificates).

^{232.} *Id*.

^{233.} Id.

^{234.} Id. at *16.

program will work in practice, I conclude that there is a substantial possibility that the statute will be non-discriminatory in effect.²³⁵

However, this ignores the argument that Illinois's similar RECs program favoring in-state electric commerce could be identified as geographically discriminatory in favor of in-state renewable energy and against out-of-state renewable energy. The Seventh Circuit Court of Appeals had previously declared in *dicta* that Midwest states could not award RECs only to in-state renewable energy without violating the Constitution. ²³⁷

The plaintiffs in the ZEC case argued that the law has a discriminatory purpose and noted that it was enacted for political reasons, specifically to save jobs and property tax revenues from the two nuclear power plants in Illinois. ²³⁸ The district court, however, stated that it must assume that objectives articulated by the legislature are true, unless circumstances force the court to conclude that it could not have been the goal of the legislature. ²³⁹ The court also found that the Illinois governor's political pro-discrimination statements did not negate the environmental goals of the ZEC program. ²⁴⁰ Of contrasting legal note, the federal district court in Vermont, the Second Circuit, and the Supreme Court, have each held the opposite and do not defer to government statements on supposed purpose of a law—instead those courts look at the law's true purpose, rather than the government-stated purpose. ²⁴¹

The district court concluded that the Illinois ZEC program created a new market. 242 Although the program may affect the wholesale power market, which states may not influence or regulate (even indirectly), the district court explained that burden is merely incidental on the channels of interstate commerce:

^{235.} Id.

^{236.} See 20 ILL. COMP. STAT. 3855/1-20 (2007) (providing that the power is to be supplied to facilities within the state of Illinois).

^{237.} Ill. Commerce Comm'n v. Fed. Energy Regulatory Comm'n, 721 F.3d 764, 776 (7th Cir. 2013) (citing Steven 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, 80 (2012)).

^{238.} Vill. of Old Mill Creek, 2017 WL 3008289, at *16 (Explaining that plaintiffs cited statements by the Illinois Governor to demonstrate a discriminatory purpose while defendants claimed that the law was intended to "advance public health and protect the environment by reducing the emissions of air pollutants created by energy generators.").

^{239.} *Id.* (quoting Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 463 (1981) (finding that the statute was environmental and job-saving legislation that did not demonstrate discrimination by the legislature).

^{240.} Id

^{241.} Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin, 838 F. Supp. 2d 183, 224 (D.Vt. 2012); Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin, 733 F.3d 393, 416 (2d Cir. 2013); Gade v. Nat'l Solid Wastes Mgmt. Ass'n, 505 U.S. 88, 105 (1992).

^{242.} Vill. of Old Mill Creek, 2017 WL 3008289, at *16.

As a matter of law, the state's legitimate interests include not only environmental concerns, but also the right to participate in or create a market and the right to encourage power generation of its choosing.²⁴³

However, following precedents, this is not the correct application of the market participation exception under the Dormant Commerce Clause. The market participant exception, as set forth in *Hughes v. Alexandria Scrap Corp.*, applies where the state or government entity elects to place its own income held in general state revenue accounts into commerce or owns the nuclear plant generating the affected power.²⁴⁴ It does not apply when the government agency compels a result by enacting a law or regulation of private industry and/or does not own the facility creating the electricity commerce.²⁴⁵

The facts here are transparent: Illinois acted through state regulation of its private utility companies, requiring them to purchase ZECs it bestowed only on privately owned in-state nuclear power plants.²⁴⁶ Illinois does not own the nuclear plants awarded REC certificates or the utilities that are required to purchase the ZECs.²⁴⁷ The district court's decision ignores prior Supreme Court application of the market participant exception by allowing geographic discrimination regarding interstate commerce.²⁴⁸

Instead, the district court found the discrimination against interstate commerce in electricity through the 13 PJM states, including Illinois, not excessively discriminatory.²⁴⁹ The district court violated Supreme Court

^{243.} *Id.* at *17 (internal citations omitted).

^{244.} FERREY, *supra* note 6, at 167–168.

^{245.} See generally id. (inferring that the market participant analysis refers to when a state is an actual economic participant, not when the state has chosen to regulate through statute or regulations).

^{246.} See Vill. of Old Mill Creek, 2017 WL 3008289, at *3–5 (explaining how the weighted factors of the ZEC procurement process tend to favor in-state nuclear generators).

^{247.} See id. at *1 (explaining that Exelon, not Illinois, owned the power plants in question).

^{248.} See FERREY, supra note 6, at 167–68 (explaining that a state cannot ordinarily discriminate on the basis of geography unless it controls the infrastructure in question and, therefore, is a market participant).

^{249.} See Vill. of Old Mill Creek, 2017 WL 3008289, at * 15 (discussing how the court views the statute to not discriminate against the interstate commerce clause); Who We Are, PJM, http://www.pjm.com/about-pjm/who-we-are.aspx [https://perma.cc/5HEP-2JHQ] (last visited Apr. 18, 2017) ("PJM Interconnection is a regional transmission organization (RTO) that coordinates the movement of wholesale electricity in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia.").

precedent that discrimination is not justified when a state pursues environmental goals.²⁵⁰

B. New York ZECs

In July 2017, the U.S. District Court for the Southern District Court of New York upheld a similar New York state ZEC program awarding incentives to in-state existing nuclear power plants.²⁵¹ Plaintiffs alleged that the ZEC program violates the Dormant Commerce Clause because it facially discriminates against out-of-state energy producers (including other nuclear and carbon-free energy producers).²⁵² Plaintiffs further alleged the program imposes an undue burden on interstate commerce "by distorting market pricing and incentives, which will cause energy generators, including out-of-state energy providers, to leave the market or discourage their entry into the market."²⁵³

Here, as is typical where states have been successful in deflecting legal challenges to state energy regulation under the Dormant Commerce Clause, the district court held that the plaintiffs lacked standing to bring any claims.²⁵⁴ The court first noted that the plaintiffs did not have a cause of action because they did not show a nexus between their injury and the ZEC program.²⁵⁵ The court found the plaintiffs' allegations to not be within the "zone of interests" provided by the Dormant Commerce Clause.²⁵⁶

Setting aside the justiciability issue, the court stated that a state law or regulation *only* "violates the dormant Commerce Clause only if it (1) it 'clearly discriminates against interstate commerce in favor of intrastate commerce,' (2)'imposes a burden on interstate commerce incommensurate with the local benefits secured,' or (3) 'has the practical effect of an 'extraterritorial' control of commerce occurring entirely outside of the boundaries of the state in question.' "257 This is the *Pike* balancing test, rather than, the strict scrutiny test that the Supreme Court applies to any type of

^{250.} See West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 188, 205 (1994) (holding that discrimination involving milk pricing, though might be seen as environmental preservation, would not be sufficient to uphold discriminatory state regulation).

^{251.} Coal. for Competitive Electricity v. Zibelman, 272 F. Supp. 3d 554, 586 (S.D.N.Y. 2017).

^{252.} Id. at 580.

^{253.} Id.

^{254.} See, e.g., Texas v. Envtl. Prot. Agency, 726 F.3d 180, 183 (D.C. Cir. 2013) (dismissing plaintiffs' claims after finding that plaintiffs lacked standing because they could not show an injury in fact).

^{255.} Zibelman, 272 F.Supp.3d at 580-81.

^{256.} Id. at 582.

^{257.} See id. at 580 (quoting Selevan v. N.Y. Thruway Auth., 584 F.3d 82, 90 (2d Cir. 2009)).

state geographic discrimination against commerce based on its geographic origin. The court stated that the Dormant Commerce Clause claim failed because New York is a market participant as opposed to a regulator when it created ZECs. Yet, New York neither owns these nuclear plants nor uses general revenues in the state treasury for the ZEC in-state only subsidies, facts that would make New York a market participant in these projects. In fact, New York acts through its regulation of private utilities, rather than as a market participant owning the nuclear plants or expending its state treasury to subsidize these plants. Ultimately, the costs from the ZEC contracts were paid through state regulation and by New York ratepayers— not taxpayers. Page 1975.

The district court stated that although the Supreme Court has not addressed the constitutionality of subsidies, it has struck down a subsidy that was attached to a discriminatory tax (the tax rate was lower for in-state producers). ²⁶³ The district court then declared that the New York ZEC program is not tied to a tax incentive/disincentive, and that was sufficient to distinguish ZECs from an unconstitutional subsidy. ²⁶⁴ In addition, the court applied a market participation exception to the Dormant Commerce Clause:

Indeed, regardless of the market participant exception, although the Supreme Court has "never squarely confronted the constitutionality of subsidies," *Camps Newfound/Owatonna, Inc. v. Town of Harrison*, 520 U.S. 564, 589, 117 S. Ct. 1590, 137 L. Ed. 2d 852 (1997) (quotation marks and citation omitted), "[a] pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business," *West Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 199, 114 S. Ct. 2205, 129 L. Ed. 2d 157 (1994); *see also New Energy Co. of Ind. v. Limbach*, 486 U.S. 269, 278, 108 S. Ct. 1803, 100 L. Ed. 2d 302 (1988) ("Direct subsidization of domestic industry does not ordinarily run afoul of [the Dormant Commerce Clause]"). 265

^{258.} *Compare Zibelman*, 272 F. Supp. 3d. at 580 (applying the *Pike* balancing test to ZEC program), *with* Maine v. Taylor 477 U.S. 131, 139 (1986) (applying the strict scrutiny test to Maine's import ban).

^{259.} Zibelman, 272 F. Supp. 3d at 583.

^{260.} *Id.* at 585.

^{261.} *Id*.

^{262.} Id

^{263.} *Id.* at 586 (quoting Camps Newfound/Owatonna, Inc. v. Town of Harrison, 520 U.S. 564, 589 (1997); West Lynn Creamery, Inc. v. Healy, 512 U.S. 186, 199 (1994)).

^{264.} *Id.* at 573.

^{265.} Zibelman, 272 F. Supp. 3d at 586.

However, the court is simply wrong that these ZECs are funded out of general revenue—it fundamentally misconstrues what state ZEC programs do. This is the same conclusion as the Illinois district court in its similar ZECs case, and the conclusion suffers from the same misapplied analysis. ²⁶⁶ Neither Illinois nor New York placed its own state treasury revenue into commerce, owned any of the nuclear power plants benefiting from ZECs, or owned the retail utilities (which were ordered by state regulation to purchase the ZECs and pass those costs on to their captive ratepayers). ²⁶⁷ In each case, the state acts through regulation of private industry, rather than owning the facility(ies) engaged in electricity commerce. ²⁶⁸ Each state acted by regulating private electric power industry participants regarding ZECs. ²⁶⁹ Neither state had any ownership of the nuclear plants or the utilities, which were required to purchase the ZECs. ²⁷⁰

Notwithstanding this, the district court concluded on the potential merits that "[e]ven if Plaintiffs had a cause of action, their dormant Commerce Clause claim would fail because New York was acting as a market participant, not as a regulator, when it created ZECs." The trial court went on to flip upside down the Supreme Court analysis in *Hughes v. Alexandria Scrap Corp.*, which allowed state use of tax subsidies, by declaring "neither is New York required to provide financial assistance in the form of ZECs to out-of-state power plants when the ZECs are ultimately paid for by New York rate-payers." The court further blurred the precedent construing the Dormant Commerce Clause when it stated:

New York is paying the nuclear power plants a set dollar amount for each MWh of electricity they produce in recognition of the zeroemission attributes of their electricity. This is no different than

Id. at 566-67 n.11-12 (citing Vill. of Old Mill Creek v. Star, No. 17 CV 1163, 2017
WL 3008289, at *9-14 (N.D. Ill. 2017)).

^{267.} Zibelman, 272 F. Supp. 3d at 586. See also Vill. of Old Mill Creek v. Star, No. 17-CV-1163 & No. 17-CV-1164, 2017 WL 3008289, at *1 (N.D. Ill. July 14, 2017) (explaining that the plant is privately owned); FERREY, *supra* note 6, at 168 (applying Hughes v. Alexandria Scrap Corp., 426 U.S. 794 (1976), and inferring that neither Illinois nor New York is a market participant).

^{268.} FERREY, supra note 6, at 168.

^{269.} Zibelman, 272 F. Supp. 3d at 585; Vill. of Old Mill Creek, 2017 WL 3008289, at *1.

^{270.} Zibelman, 272 F. Supp. 3d at 585. See also Vill. of Old Mill Creek, 2017 WL 3008289, at *1 (stating that only the true owner, Exelon, may receive the credit).

^{271.} Zibelman, 272 F. Supp. 3d at 583–84 (citing United Haulers Ass'n, Inc. v. Oneida-Herkimer Solid Waste Mgmt. Auth., 261 F.3d 245, 255 (2d Cir. 2001) and Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 810 (1976)); Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 810 (1976) (stating Maryland did not violate dormant Commerce Clause). Accord Allco Fin. Ltd. v. Klee, No. 3:16-CV-508, 2016 WL 4414774, at *25 (D. Conn. Aug. 18, 2016), aff'd, 861 F.3d 82 (2d Cir. 2017) (holding that Connecticut did not violate the dormant commerce clause by creating a market for RECs).

^{272.} Zibelman, 272 F. Supp. 3d at 585 (citing Hughes v. Alexandria Scrap Corp., 426 U.S. 794, 797 (1976)).

Maryland paying a set bounty to hulk processors. Whether the subsidy amount is at a government-set rate, as it is here and as it was in *Alexandria Scrap* or set by market forces, as it was in *Allco*, has no impact on the market participant analysis.²⁷³

The district court neglects to reconcile that in all the Commerce Clause market participant exceptions recognized by the Supreme Court, the states have expended tax revenues already in state coffers.²⁷⁴ In New York and Illinois, the states instead used regulations to compel private industry to spend their (and their customers') private funds, rather than employing state-owned revenues.²⁷⁵ Moreover, state utility commission regulations mandated that these private revenues subsidize designated in-state market participants at the expense of other out-of-state market participants who sell wholesale power in interstate commerce in the state.²⁷⁶

This can constitute in-state geographic discrimination of commerce embodied in state regulations. The New York trial court states, "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 . . ."²⁷⁷ However, New York and Illinois are not expending their state-owned funds; rather, they use regulations to order private industry to expend consumers' funds when the state does not own the industry.²⁷⁸ So, the quoted declaration above by the district court is incorrect, and this does not accurately describe what occurred in New York.

Moreover, if either of these district courts were right that using a regulation instead of a tax or creating a subsidy funded with regulated ratepayer and regulated utility funds ordered by state regulation was enough to exempt a geographically discriminatory regulation, then any state could justify almost any discriminatory regulation it wished. It is not that simple to successfully evade application of the Dormant Commerce Clause before the Supreme Court, to date.

VI. THE DORMANT COMMERCE CLAUSE

^{273.} Id. (internal citations omitted).

^{274.} See id. at 586 (acknowledging that the Supreme Court has never confronted the constitutionality of subsidies).

^{275.} See id. at 585 (discussing privately owned New York facilities); Vill. of Old Mill Creek, 2017 WL 3008289, at *3 (discussing privately owned Illinois facilities).

^{276.} Zibelman, 272 F. Supp. 3d at 585.

^{277.} Id

^{278.} See Zibelman, 272 F. Supp. 3d at 585 (discussing the state created program for ZECs); Vill. of Old Mill Creek, 2017 WL 3008289, at *3–5 (discussing a state statute that regulates the private energy industry in Illinois).

There are ZEC oscillations in the interpretation of the Commerce Clause. These two 2017 district court opinions do not appear to follow Supreme Court and Circuit Court precedent. Both are on appeal in 2018.²⁷⁹ States often tend to favor their own in-state interests at the expense of out-of-state interests, but states may not "provid[e] a direct commercial advantage to local business."²⁸⁰

However, a long and consistent line of Supreme Court and federal circuit court decisions applying the Dormant Commerce Clause forbid not only instate discrimination but also any geographic discrimination against interstate commerce.²⁸¹ The Supreme Court has held that statutes establishing regional barriers (not necessarily just one-state isolation) and discriminating only against some states (rather than all states) violate the Commerce Clause.²⁸²

Thirty-five years ago, the Supreme Court ruled that there is nothing in the U.S. more basically in interstate commerce than electricity. Moreover, both Illinois and New York participate in ISOs, which independently regulate and distribute federally regulated interstate wholesale power, as illustrated by Figure 7. State regulations that discriminate against out-of-state power, subsidize power using regulation of utility rates, or pass subsidies through to ratepayer rates rather than fund them by state treasury revenues represent geographic discrimination subject to the "strict scrutiny" under the Dormant Commerce Clause. Even if somehow justified as serving a compelling state interest, the state typically must establish that the statute or regulation employs the least restrictive means affecting commerce.

Applying only a *de jure* test to state statutes does not comport with the Dormant Commerce Clause. Even when a statute is drafted in a fashion that is facially neutral rather than expressly discriminatory, a court applies a "strict scrutiny" standard when the state law has a discriminatory effect.²⁸⁷

^{279.} Zibelman, 272 F. Supp. 3d. at 554.

^{280.} Northwestern States Portland Cement Co. v. Minnesota, 358 U.S. 450, 458 (1959).

^{281.} See generally Daniel Francis, The Decline of the Dormant Commerce Clause, 94 DENVER L. REV. 255, 258–272 (2017) (citing relevant cases when describing the analysis of the dormant commerce clause).

^{282.} *See* Hunt v. Wash. State Apple Advert. Comm'n, 432 U.S. 333, 351 (1977) (holding that a statute which prohibits the display of Washington apple grades violates the Commerce Clause).

^{283.} Fed. Energy Regulatory Comm'n v. Miss., 456 U.S. 742, 757 (1982).

^{284.} See Electric Power Markets: National Overview, FED. ENERGY REG. COMMISSION, https://www.ferc.gov/market-oversight/mkt-electric/overview.asp [https://perma.cc/YN53-SDJS] (last updated Apr. 13, 2017) (showing a map that depicts the different national energy markets such as MISO, which includes Illinois and NYISO, which includes New York).

^{285.} See generally FERREY, supra note 6 (discussing how the Commerce Clause and the level of scrutiny that courts apply to state laws discriminating against out-of-state distributors).

^{286.} See id. (describing that when using strict scrutiny the courts must apply the least restrictive means).

^{287.} Hunt, 432 U.S. at 352–53. See also C & A Carbone, Inc. v. Town of Clarkstown, 511 U.S. 381, 392 (1994) (refering to a the strict scrutiny standard as a rigorous standard that when applied

Even when there is no obvious facial discrimination in the language of a state statute against out-of-state or other geographically based commercial interests, where the effect or unstated purpose is to discriminate, the ultimate effect is enough to make the regulation unconstitutional. Statutes that discriminate by practical effect and design rather than explicitly on the face of the regulation, are similarly subjected to heightened scrutiny. A regulation which evinces discriminatory purpose against interstate commerce, or unambiguously discriminates in its effect . . . almost always is 'invalid per se.'"290

The only exception to this result is the "market participant" exception, which applies where the state injects its general funds from its state treasury to fund geographic discrimination, or if the state owns the subsidized plants that create the commerce in electricity.²⁹¹ The facts in the cases of New York and Illinois did not qualify the states for the market participant exception, despite the court's application of the exception.²⁹²

In similar exercises of a state energy commission's regulation of privately owned wholesale power generation facilities, the Second and Eighth Circuits recently recognized that "strict scrutiny" applies, there is no "market participant" exception, and such geographic discrimination based on the source of power violates the Dormant Commerce Clause. Similarly, the Supreme Court has also held electricity qualifies as interstate commerce. Unconstitutional state regulation, when challenged, can result in the challengers' attorneys' fees being picked up by state taxpayers— so there is much at risk.

acts as a per se standard against discrimination).

^{288.} Hunt, 432 U.S. at 352. See also C & A Carbone, Inc., 511 U.S. at 390 (describing how the statute on waste was not written to differentiate solid waste based on its geographic location).

^{289.} Tri-M Grp., L.L.C v. Sharp, 638 F.3d 406, 427 n.28 (3d Cir. 2011).

^{290.} Brown & Williamson Tobacco Corp. v. Pataki, 320 F.3d 200, 209 (2d Cir. 2003) (quoting Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104, 108 (2d Cir. 2001)).

^{291.} Hughes v. Alexandria Scrap Corp. 426 U.S. 794, 809–10 (1976).

^{292.} Compare South-Central Timber Dev., Inc. v. Wunnicke, 467 U.S. 82, 97 (stating that the market-participant doctrine allows states to influence "a discrete, identifiable class of economic activity in which [it] is a major participant") (quoting White v. Mass. Council of Const. Emp'r, Inc., 460 U.S. 204, 211 (1983)), with Vill. of Old Mill Creek, 2017 WL 3008289, at *16 (describing how although Illinois created a new market their participation is only "incidental" and does not qualify for the market participant exception).

^{293.} See North Dakota v. Heydinger, 825 F.3d 912, 919–21 (8th Cir. 2016) (discussing the unconstitutionality of Minnesota's power discrimination based on the dormant commerce clause by applying the *per se* standard, when used is equivalent to the strict scrutiny standard); Allco Fin. Ltd. v. Klee 861 F.3d 82, 103–08 (2d Cir. 2017) (applying strict scrutiny to a possible violation of the dormant commerce clause).

^{294.} Conn. Light & Power Co. v. Fed. Power Comm'n, 324 U.S. 515, 529–30 (1945).

^{295.} See PPL Energyplus, L.L.C, v. Hanna, 977 F. Supp. 2d 372, 412 (D.N.J. 2013), aff'd sub nom., PPLenergyplus L.L.C, v. Solomon 766 F. 3d. 241 (2014) (holding that the state regulatory scheme violated the supremacy clause); Clerk's Op. Granting in Part and Denying in Part Plaintiffs' Motion to

Even a small or indirect discriminatory impact can be stricken under strict scrutiny review. ²⁹⁶ A geographically discriminatory impact is not required to expressly mention geography and can appear neutral but have an unconstitutional geographically direct or indirect impact on commerce: "Such a [contrary] view, we have noted, 'would mean that the Commerce Clause of itself imposes no limitations on state action . . . save for the rare instance where a state artlessly discloses an avowed purpose to discriminate against interstate goods.""²⁹⁷

Tax at 42–43, PPL Energy Plus, L.L.C. v. Hanna 766 F. 3d. 241 (2014) (No. 325) (holding that the defendants have to pay plaintiff's fees).

^{296.} See Bacchus Imports, Ltd. v. Dias, 468 U.S. 463, 270 (1984) (stating "[a] finding that state legislation constitutes 'economic protectionism' may be made on the basis of either discriminatory purpose, or discriminatory effect" even though the economic measure was a small percentage of overall state commercial activity (citing Hunt, 432 U.S. 333, 352–53 (1977); Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978)); Cf. City of Philadelphia v. New Jersey, 437 U.S. 617, 622–23 (1978) (noting constitutional scrutiny applies when states restrict movement of waste).

^{297.} Hunt v. Wash. State Apple Advert. Comm'n, 432 U.S. 333, 350 (1977) (quoting Dean Milk Co. v. Madison, 340 U.S. 349, 354 (1951)).