

# SOLVING THE MULTIMILLION DOLLAR CONSTITUTIONAL PUZZLE SURROUNDING STATE “SUSTAINABLE” ENERGY POLICY

*Steven Ferrey* \*

## I. CHECK, CHECK, CHECKMATE: NO LEGAL ROOM TO MOVE

Energy, the core of the modern economy, confronts a constitutional impasse: state governments are now being legally constrained by court decisions regarding their abilities to enact sustainable energy legislation, regulation, and policy. Electric power generation is the most capital-intensive industry in the United States,<sup>1</sup> undergirding the modern economy,<sup>2</sup> and the key mechanism to address climate change and global warming.<sup>3</sup> U.S.

---

\* Steven Ferrey is Professor of Law at Suffolk University Law School and was a Visiting Professor of Law at Harvard Law School in 2003. Since 1993, Professor Ferrey has been the primary legal consultant to the World Bank and the U.N. Development Program on their renewable and carbon reduction policies in developing countries and has worked extensively in this capacity in Asia, Africa, and Latin America. He holds a Bachelor of Arts in Economics, a Juris Doctor, and a Master's degree in Regional Energy Planning and was a postdoctoral Fulbright fellow between his graduate degrees at the University of London on the energy implications of regional redevelopment. He is the author of seven books on energy and environmental law and policy, the most recent of which are UNLOCKING THE GLOBAL WARMING TOOLBOX (2010) and THE LAW OF INDEPENDENT POWER (Clark Boardman Envtl. Law Ser. No. 30, 2013). He also is the author of more than eighty articles on these topics. Professor Ferrey thanks Darius Pakrooh for his research assistance with this Article.

1. Scott DiSavino, *Interview—U.S. Power Industry to Invest \$85 Bln Annually in Electric Grid*, REUTERS (Feb. 6, 2013, 5:24 PM), <http://www.reuters.com/article/2013/02/06/utilities-eei-idUKL1N0B6I7C20130206>

(“Our industry is the most capital-intensive industry in the United States and projects to spend an average of about \$85 billion a year on capital expenditures through 2014,” said Tom Kuhn, president of the Edison Electric Institute.”); *see also Electric Utilities Remain Most Capital-Intensive Industry*, 15 ELECTRIC PERSP., Sept.–Oct. 1991, at 56, 56.

2. *See* STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES & EXPLANATIONS 563–64 (6th ed. 2013) (describing the role of electric power in modern high-rise cities—providing the elevators, air conditioning, and electric lights that are essential to the modern high-rise).

3. *See* Steven Ferrey, *Goblets of Fire: Potential Constitutional Impediments to the Regulation of Global Warming*, 35 ECOLOGY L.Q. 835, 837–38 (2008) (“Carbon reduction in the electric power sector is the urgent new policy focus for mitigation of the effects of global warming.”); *see also* discussion *infra* Part V (providing examples of state regulatory schemes offering incentives

sustainable energy policy is principally implemented through state statutes and regulations.<sup>4</sup> Table 1 sets forth the primary pillars of sustainable energy policy in the United States: five regulatory initiatives implemented by the states.

TABLE 1: STATE RENEWABLE ENERGY INCENTIVE REGULATORY MECHANISMS

Regulatory Mechanism	States Adopting
Net Metering	85% of states <sup>5</sup>
Renewable Portfolio Standards	65% of states <sup>6</sup>
Renewable System Benefit Charges	33% of states <sup>7</sup>
Carbon/GHG Regulation	20% of states <sup>8</sup>
Feed in Tariffs	<10% of states <sup>9</sup>

Recent legal challenges, relying on a long history of Supreme Court constitutional jurisprudence, foreshadow that several state programs have overstepped constitutional limits. State sustainable energy policy has endured a host of recent significant legal challenges based on the Supremacy Clause of the Constitution<sup>10</sup>:

- States either settled in favor of challengers or lost in a majority of these lawsuits.
- One was dismissed on procedural grounds without reaching the merits of the claim, with permission for the plaintiff/challenger to refile the complaint.
- One is still pending, with the four judges who have heard the case to date equally split on its basic constitutionality.

---

for decreased consumption, as decreasing consumption minimizes the amount of greenhouse gases that give rise to global warming).

4. See discussion *infra* Part III; see also FERREY, *supra* note 2, at 586 (noting that states regulate all intrastate distribution of power).

5. See *Net Metering Map*, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, [http://www.dsireusa.org/documents/summarymaps/net\\_metering\\_map.pdf](http://www.dsireusa.org/documents/summarymaps/net_metering_map.pdf) (last visited Dec. 3, 2013) (displaying a map that labels the states that have adopted a net metering policy).

6. See *Renewable Portfolio Standard Policies: March 2013*, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, [http://www.dsireusa.org/documents/summarymaps/RPS\\_map.pdf](http://www.dsireusa.org/documents/summarymaps/RPS_map.pdf) (last visited Dec. 10, 2013).

7. ELIZABETH DORIS ET AL., STATE OF THE STATES 2009: RENEWABLE ENERGY DEVELOPMENT AND THE ROLE OF POLICY 65 (2009), available at <http://www.nrel.gov/docs/fy10osti/46667.pdf>.

8. See *infra* note 166 and accompanying text.

9. See *infra* notes 34, 36–37, 39 and accompanying text.

10. See U.S. CONST. art. VI, cl. 2; see also *infra* notes 32–42, 70, 135.

Separately, state sustainable energy policy recently has undergone thirteen significant legal challenges pursuant to the dormant commerce clause of the Constitution<sup>11</sup>:

- States either settled in favor of challengers or lost at the trial or appellate level in a majority of these matters.
- Some of the lawsuits either were dismissed on procedural grounds without reaching the merits of the claim or are still pending a final decision.

Regardless of the obvious merits of the transition to sustainable energy policies,<sup>12</sup> this is not a sustainable constitutional record for state governments. There is a profound and absolute jurisdictional line between state and federal government power<sup>13</sup>—and nowhere is this line more sharply defined than for electric power in America and sustainable energy policy.<sup>14</sup> Electric power in the United States is moving increasingly in interstate commerce through wholesale power transactions; the former status bars state geographically-based statutory and regulatory discrimination against that interstate commerce, and the latter status bars any state regulation of wholesale transactions.

At Harvard Law School's 2012 conference addressing these state-federal energy issues, attendees were challenged to suggest some solution to the constitutional impasse.<sup>15</sup> This Article is the first to construct a solution, and this solution can operate seamlessly under the applicable law in any state. Part II examines each of the five primary mechanisms in Table 1 that are implemented through state renewable energy statutes and regulations, some of which are now the subject of the litigation summarized above and discussed in more detail herein. Part III constructs the proposed legally viable

---

11. See U.S. CONST. art. I, § 8, cl. 3 (reciting the Commerce Clause, which courts have interpreted to implicitly include a dormant commerce clause); see also *infra* notes 129–37, 145, 149, 162–65, 180–82.

12. See STEVEN FERREY, UNLOCKING THE GLOBAL WARMING TOOLBOX: KEY CHOICES FOR CARBON RESTRICTION AND SEQUESTRATION 13–14 (2010) (describing the imminent dangers of global warming should the nations of the world not limit greenhouse gas emissions).

13. See U.S. CONST. art. VI, cl. 2 (“[T]he Laws of the United States . . . shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”).

14. See 16 U.S.C. §§ 824d–824e (2012) (discussing public utilities’ rates and charges for the transmission of electric energy and the power of the federal government to fix those rates and charges); *FERC v. Mississippi*, 456 U.S. 742, 756–57 (1982) (finding that Congress’s broad Commerce Clause power reaches even purely intrastate electric utilities).

15. Harvard Law Sch., Conference on Clean Energy and the Constitution (Nov. 30, 2012).

alternative regulatory mechanism for states to successfully advance sustainable energy policy while avoiding the constitutional impasse.

Any viable solution will be tested against legal precedent: I do so in this Article in two different analyses in Parts IV and V. This solution is easy to implement, supported by direct precedent, and legally permissible in every one of the fifty states. This solution satisfies all constitutional requirements pursuant to the doctrines of equal protection, the dormant commerce clause, and the Supremacy Clause. This solution offers a legal breakthrough in the constitutional impasse, charting a critical new route to implement legally bulletproof sustainable energy policy.

## II. HOW WE GOT THERE: THE SUSTAINABLE ROAD TAKEN TO CONSTITUTIONAL IMPASSE

The constitutional limitations on state statutory and regulatory power over energy regulation have always been in plain sight. The Supremacy Clause<sup>16</sup> and the Commerce Clause<sup>17</sup> are two of the most litigated constitutional clauses in American jurisprudence and have been at the epicenter of energy law for more than three-quarters of a century.<sup>18</sup> In each of the five Subparts that follow, I address the constitutional issues surrounding each of the five primary techniques that states have employed to promote sustainable energy policy.

### A. *State Feed-In Tariffs*

A feed-in tariff (“FiT”) is a regulatory requirement imposed by some states on their regulated utilities to purchase on a wholesale basis certain designated types of independent power generation, typically from renewable resources or combined heat and power (“CHP”) units, at prices well in excess of the market value of wholesale power.<sup>19</sup> The regulated utilities are forced to “buy high” in terms of other electric power available in the market.<sup>20</sup> FiTs administratively torque the operating power market in favor of the sellers of certain state-designated renewable or CHP power, not adhering to accepted rate-making methodology to minimize prudent

---

16. U.S. CONST. art. VI, cl. 2.

17. *Id.* at art. I, § 8, cl. 3.

18. See discussion *infra* Part III.

19. 2 STEVEN FERREY, THE LAW OF INDEPENDENT POWER § 10:134 (Clark Boardman Envtl. Law Ser. No. 30, 2013).

20. Electric power in the Northeast has been available at an average price during the past years of \$0.05/kWh or less. See generally *Electricity*, U.S. ENERGY INFO. ADMIN. (Dec. 6, 2013), <http://www.eia.gov/electricity/annual/pdf/epa.pdf> (providing the annual statistics for each state’s average cost to the ultimate consumer for electric power). The Vermont FiTs for power of this value were set for wind of < 15 kW at \$0.20/kWh, for wind > 15 kW at \$0.125/kWh, and for solar generation at \$0.30/kWh. *Id.*

utility-incurred costs.<sup>21</sup> Costs of a FiT are passed on to captive consumers by the utilities.<sup>22</sup>

The Federal Power Act, sections 205 and 206,<sup>23</sup> empowers the Federal Energy Regulatory Commission ("FERC" or the "Commission") to exclusively regulate rates for the interstate and wholesale sale and transmission of electricity.<sup>24</sup> The U.S. Supreme Court held that Congress meant to draw a "bright line," easily ascertained and not requiring case-by-case analysis, between state and federal jurisdiction.<sup>25</sup> When a transaction is subject to exclusive FERC jurisdiction and regulation, state regulation is preempted as a matter of both federal law and the U.S. Constitution's Supremacy Clause, according to a long-standing and consistent line of rulings by the U.S. Supreme Court.<sup>26</sup>

The rates, terms, and provisions of any wholesale sale or transmission of electricity in interstate commerce are exclusively within federal jurisdiction and control, not state authority. Under the Federal Power Act, FERC has "exclusive authority to regulate the transmission and sale at wholesale of electric energy in interstate commerce, without regard to the source of production."<sup>27</sup> The filed-rate doctrine preempting state law applies with equal force to federal and state courts.<sup>28</sup> The filed-rate doctrine also applies to efforts by state regulators to modify the terms of a FERC-mandated

---

21. 1 FERREY, *supra* note 19, § 5:9.

22. 2 *id.* §10:134.

23. 16 U.S.C. §§ 824d–824e (2012).

24. Pub. Util. Dist. No. 1 v. FERC, 471 F.3d 1053, 1058 (9th Cir. 2006), *aff'd in part, rev'd in part sub nom.* Morgan Stanley Capital Grp., Inc. v. Pub. Util. Dist. No. 1, 554 U.S. 527 (2008).

25. Fed. Power Comm'n v. S. Cal. Edison Co., 376 U.S. 205, 215–16 (1964).

26. New Eng. Power Co. v. New Hampshire, 455 U.S. 331, 340–44 (1982) (overturning an order of the New Hampshire Public Utilities Commission that restrained within the state, for the financial advantage of in-state ratepayers, low-cost hydroelectric energy produced within the state). The Supreme Court held this to be an impermissible violation of the dormant commerce clause of the U.S. Constitution, Article I, Section 8, Clause 3, and the Federal Power Act: "Our cases consistently have held that the Commerce Clause of the Constitution, Art. I, § 8, cl. 3, precludes a state from mandating that its residents be given a preferred right of access, over out-of-state consumers, to natural resources located within its borders or to the products derived therefrom." *Id.* at 338; *see also* Entergy La., Inc. v. La. Pub. Serv. Comm'n, 539 U.S. 39, 49–50 (2003) (finding that the state public service commission's order, which mandated that public utilities make certain payments, impermissibly "trapped" costs that FERC had allocated in a tariff); Miss. Power & Light Co. v. Miss. *ex rel.* Moore, 487 U.S. 354, 371–72 (1988) (same); Nantahala Power & Light Co. v. Thornburg, 476 U.S. 953, 966 (1986) (same); Mont.-Dakota Utils. Co. v. Nw. Pub. Serv. Co., 341 U.S. 246, 251–52 (1951) (same).

27. *New Engl. Power Co.*, 455 U.S. at 340.

28. *See* Ark. La. Gas Co. v. Hall, 453 U.S. 571, 581–82 (1981) ("The court below . . . has consequently usurped a function that Congress has assigned to a federal regulatory body. This the Supremacy Clause will not permit.").

rate determination or cost allocation.<sup>29</sup> States, however, retain authority over retail electric sales because “FERC’s jurisdiction over the sale of power has been specifically confined to the wholesale market.”<sup>30</sup> If states impose a rate in excess of avoided cost (the wholesale value of power in the market) by either “law or policy,” the “contracts will be considered to be void *ab initio*.”<sup>31</sup>

The Supreme Court in 1986, and again in 1988, 2003, and 2008, reaffirmed and enforced exclusive federal jurisdiction pursuant to the filed-rate doctrine when states attempted to assert jurisdiction inconsistent with FERC’s exclusive authority over wholesale rate determinations.<sup>32</sup> The precedent applied to FiTs was set forth in articles discussing these issues.<sup>33</sup> California in 2011 lost its case attempting to defend its state FiTs for renewable power.<sup>34</sup> The PJM region is comprised of all or parts of thirteen states and Washington, D.C.,<sup>35</sup> and recently, two separate constitutional challenges—in separate federal courts by regional generators of power in the mid-Atlantic states against New Jersey’s<sup>36</sup> and Maryland’s<sup>37</sup> in-state

---

29. See *Entergy La., Inc.*, 539 U.S. at 47–49 (“FERC-mandated cost allocations could not be second-guessed by state regulators.”).

30. *New York v. FERC*, 535 U.S. 1, 20 (2002).

31. *Conn. Light & Power Co.*, 70 F.E.R.C. ¶ 61,012, ¶ 61,029–30 (1995); see also *Indep. Energy Producers Ass’n v. Cal. Pub. Utils. Comm’n*, 36 F.3d 848, 858–59 (9th Cir. 1994) (referring to the full amount of the avoided cost as the “statutory ceiling” for rate setting); *S. Cal. Edison Co.*, 70 F.E.R.C. ¶ 61,215, ¶ 61,675 (1995) (explaining that FERC intended to set a full avoided cost rate as the maximum permissible rate).

32. See *Morgan Stanley Capital Grp. Inc. v. Pub. Util. Dist. No. 1*, 554 U.S. 527, 531 (2008) (providing the statutory framework that stipulates FERC’s authority to review wholesale energy contracts); *Entergy La., Inc.*, 539 U.S. at 41, 49–50 (same); *Miss. Power & Light Co. v. Miss. ex rel. Moore*, 487 U.S. 354, 371–73 (1988) (“FERC has exclusive authority to determine the reasonableness of wholesale rates.”); *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 963 (1986) (stating that the filed-rate doctrine limitations also apply “to decisions of state courts”).

33. See, e.g., Steven Ferrey et al., *Fire and Ice: World Renewable Energy and Carbon Control Mechanisms Confront Constitutional Barriers*, 20 DUKE ENVTL. L. & POL’Y F. 125 (2010) [hereinafter Ferrey et al., *Fire and Ice*] (describing the jurisdictional barrier that limits states’ ability to regulate the energy market through FiTs); Steven Ferrey et al., *FIT in the USA: Constitutional Questions About State-Mandated Renewable Tariffs*, PUB. UTIL. FORT., June 2010, at 60 [hereinafter Ferrey et al., *FIT in the USA*] (same); Steven Ferrey, *Follow the Money! Article I and Article VI Constitutional Barriers to Renewable Energy in the U.S. Future*, 17 VA. J.L. & TECH. 89 (2012) [hereinafter Ferrey, *Follow the Money!*] (same); Steven Ferrey, *Shaping American Power: Federal Preemption and Technological Change*, 11 VA. ENVTL. L.J. 47 (1991) (same).

34. *Cal. Pub. Utils. Comm’n*, 132 F.E.R.C. ¶ 61,047, ¶ 61,339 (2010).

35. *About PJM*, PJM, <http://www.pjm.com/about-pjm.aspx> (last visited Dec. 3, 2013).

36. See *PPL Energyplus, L.L.C. v. Hanna*, No. 11-745, 2013 WL 5603896, at \*1 (D.N.J. Oct. 11, 2013) (deciding the issue of whether the New Jersey program violated the Supremacy Clause).

wholesale power subsidies—were lost by each state, which resulted in change in FERC-approved regional PJM Independent System Operator procedures.<sup>38</sup>

In 2012, a federal court ruled that Vermont regulation of its wholesale power preferences and sales violated the U.S. Constitution.<sup>39</sup> Preemption of state jurisdiction to regulate wholesale power transactions, as well as dormant commerce clause violations resulting from state attempts to discriminate in the preference for in-state regulation of power moving in interstate commerce,<sup>40</sup> resulted in the federal court's finding of unconstitutionality<sup>41</sup>:

Under the Federal Power Act: "Congress has drawn a bright line between state and federal authority in the setting of wholesale rates and in the regulation of agreements that affect wholesale rates. States may not regulate in areas where FERC has properly exercised its jurisdiction to determine just and reasonable wholesale rates or to insure that agreements affecting wholesale rates are reasonable." . . . [A] state "must [. . .] give effect to Congress' desire to give FERC plenary authority over interstate wholesale rates, and to ensure that the States do not interfere with this authority." Under the "filed-rate doctrine," state courts and regulatory agencies are preempted by federal law from requiring the payment of rates other than the federal filed rate.<sup>42</sup>

When the Vermont suit was initiated in 2011, the State argued that Entergy, the challenger, should pay the State's, as well as its own, legal expenses of the litigation.<sup>43</sup> The opposite result

37. See *PPL Energyplus, L.L.C. v. Nazarian*, No. MJG-12-1286, 2013 WL 5432346, at \*2 (D. Md. Sept. 30, 2013) (memorandum of decision) ("[T]he Court holds that Plaintiffs have established their claim that the [Maryland program] violates the Supremacy Clause of the United States Constitution by virtue of field preemption . . .").

38. *PJM Interconnection, L.L.C.*, 135 F.E.R.C. ¶ 61,022, ¶ 61,087 (2011) (order accepting proposed tariff revisions).

39. *Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin*, 838 F. Supp. 2d 183, 242–43 (D. Vt. 2012), *aff'd in part, rev'd in part*, 733 F.3d 393 (2d Cir. 2013).

40. For treatment of the dormant commerce clause issues, see *infra* Subpart III.C.

41. *Entergy Nuclear Vt. Yankee, L.L.C.*, 838 F. Supp. 2d at 242–43.

42. *Id.* at 233 (second alteration in original) (citations omitted) (quoting *Miss. Power & Light Co. v. Miss. ex rel. Moore*, 487 U.S. 354, 374 (1988); *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 966 (1986)) (citing 16 U.S.C. § 791a et seq.; *Entergy La., Inc. v. La. Pub. Serv. Comm'n*, 539 U.S. 39, 47 (2003) ("The filed rate doctrine requires 'that interstate power rates filed with FERC or fixed by FERC must be given binding effect by state utility commissions determining intrastate rates.'" (quoting *Nantahala*, 476 U.S. at 962))).

43. See Anne Galloway, *Shumlin Wants to "Bill Back" Legal Expenses in Entergy Suit to Entergy*, VTDIGGER (Apr. 30, 2011), <http://vtdigger.org/2011/04>

transpired, however: In implanting an unconstitutional action that the scholarship had cautioned against, and losing when challenged, the state was held responsible for reimbursing the challenger's legal fees, which were \$4.62 million at the trial court level and, with appeal, continued to mount.<sup>44</sup> FiTs and state jurisdiction over wholesale power pricing are under legal attack and are unconstitutional when undertaken pursuant to state law or regulation.

### B. State Net Metering

Net metering started from a modest experiment in a Midwest state and grew to be the state renewable incentive used by more states than any other nationwide, actively implemented in more than 85% of the fifty U.S. states.<sup>45</sup> Net metering is more an accounting convention applied to trading power than it is a legal commodity sale according to case decisions, and it typically is applicable by state law and order to renewable sources of distributed power on the customer's side of the retail utility meter.<sup>46</sup> Each of the forty-three state net metering programs is distinct. There are differences as to allowable sizes of units, vintage and longevity of credits, ability to cash out credits, eligible classes of customers, and eligible technologies.<sup>47</sup>

When the customer purchases and uses electricity from the distribution company, the meter runs forward; when more electricity is produced from the facility than is consumed by the customer, the excess is sent to the electricity grid, running the meter in reverse

---

/30/shumlin-wants-to-bill-back-legal-expenses-in-entergy-suit-to-entergy/ ("The Shumlin administration wants Entergy Corp. to pay for any legal expenses the state may incur as it defends itself against a lawsuit Entergy initiated against the state last week.").

44. See *Entergy Nuclear Vt. Yankee*, 838 F. Supp. 2d at 242–43 (ordering entry of judgment in favor of Entergy); Motion for Attorney's Fees, Expenses, and Costs, and for Leave to File Supplemental Evidence in Support of Motion at 4, *Entergy Nuclear Vt. Yankee*, 838 F. Supp. 2d 183 (No. 1:11-cv-99) (requesting \$4.62 million in attorney's fees).

45. See *Net Metering Map*, *supra* note 5 (displaying a map that labels the states that have adopted a net metering policy).

46. Steven Ferrey, *Virtual "Nets" and Law: Power Navigates the Supremacy Clause*, 24 GEO. INT'L ENVTL. L. REV. 267, 273 (2012); see also *Glossary, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY*, <http://www.dsireusa.org/glossary/> (last visited Dec. 3, 2013) (providing a definition of "net metering").

47. See *Rules, Regulations & Policies for Renewable Energy, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY*, <http://www.dsireusa.org/summarytables/rrpre.cfm> (last visited Dec. 3, 2013) (allowing users to click on each state's net metering policy to view the specific rules and regulations of that policy).

direction and reversing the net accounting of power flow.<sup>48</sup> By turning the meter backwards, and because only a single rate applies to a single meter, net metering effectively compensates the generator at the full retail rate (which includes that approximately two-thirds of the retail bill is attributable to transmission, distribution, and taxes) for transferring just the wholesale energy commodity—the power itself.<sup>49</sup> Accounting for net metered power at the retail rate multiplies by several fold the effective value or revenue earned from the wholesale power transaction of supplying wholesale power to the utility.<sup>50</sup> So, what should the utility pay for power that it neither voluntarily solicits nor always has resalable use for? The majority of the forty-three net metering states compensate the generator for its excess generation at the federal “avoided cost” or the wholesale power sale rate. A few states compensate the wholesale distributed energy net metering customer for the excess power at the much higher, retail rate.<sup>51</sup> And this latter option causes legal issues.

Some of the states that allow net metering put a limit on the percentage of total power that can be net metered, to avoid the problem of net metering power back to the utility when the utility does not need the power.<sup>52</sup> Massachusetts has “virtual net metering” that is more far-reaching than the programs of other states,<sup>53</sup> wherein net metering credits can be transferred to other

---

48. See *Glossary*, *supra* note 46 (“When a customer’s generation exceeds the customer’s use, electricity from the customer flows back to the grid, offsetting electricity consumed by the customer at a different time during the same billing cycle.”).

49. See *id.* (“In effect, the customer uses excess generation to offset electricity that the customer otherwise would have to purchase at the utility’s full retail rate.”). As to whether electricity is a “good” or a “service” and how it should be treated under the law, see STEVEN FERREY, *THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION* 211–31 (2000).

50. See *infra* Part VI & Table 4. The retail rate of NSTAR power was close to \$0.17/kWh in 2013 for retail residential customers, while the ISO-NE wholesale rate for that power was < \$0.05/kWh. See *generally* *Markets*, ISO—NEW ENG., <http://ISO-NE.com/markets/index.html> (last visited Dec. 3, 2013) (providing real-time market data on wholesale prices).

51. Ferrey, *supra* note 46.

52. See, e.g., Mary Powers, *Maryland Regulatory Staff Takes Side of Solar Producers on Net Metering Issues*, *ELECTRIC UTIL. WK.*, Aug. 16, 2010, at 24 (discussing Maryland Public Service Commission’s decision to limit the total power that is net metered, such that each customer may produce up to 125% of the amount of electricity that he or she uses).

53. See 220 MASS. CODE REGS. §§ 18.00–.09 (2013) (setting forth the Massachusetts net metering scheme); Ferrey, *supra* note 46, at 271 (labeling the Massachusetts scheme “virtual” net metering). Massachusetts net metering was originally created by order of the Massachusetts Department of Public Utilities in 1982. *Massachusetts Net-Metering Rules*, U.S. EPA, <http://www.epa.gov/chp/policies/policies/mamassachusettsnetmeteringrules.htm> (last visited Nov. 8, 2013).

unrelated customers in the utility service territory.<sup>54</sup> Net metering subsidizes designated renewable on-site generation by allowing it to utilize the utility distribution system to store electric energy without paying any pro rata per kilowatt-hour cost for this distribution and energy banking or storage service.<sup>55</sup> This power can be reclaimed at any time by the original producer through credits for the amount net metered, again without paying any share of the costs of the distribution system that redelivers the credited quantity of net metered power.<sup>56</sup> This loss of distribution revenue to the utility is recovered through increased rates to other customers to cover the fixed costs of utility system operation and two-way power flows and use.<sup>57</sup>

The literature addresses how to enact net metering without legal controversy.<sup>58</sup> In 2001, FERC held in the *MidAmerican Energy Co.*<sup>59</sup> case that state net metering decisions were not preempted by Federal law and no sale occurs when net metering accounts for less power export from the generator than the amount of power sold to the distributed generator.<sup>60</sup> In the 2009 *Sun Edison L.L.C.*<sup>61</sup> case, FERC determined that the Commission lacked jurisdiction over the generator if there was no net sale of power to the utility over the billing period.<sup>62</sup> There was no net sale unless the customer delivered back to the utility more electricity than the backup power he or she purchased from the utility within an extended billing

---

54. 220 MASS. CODE REGS. § 18.05(1); Ferrey, *supra* note 46, at 295.

55. Ferrey, *supra* note 46, at 271, 273.

56. *Id.* at 271 (“Basic net metering . . . [allows the original producer to] restock[] that same gross quantity of power later to the generator at no cost.”).

57. Tom Tiernan, *Attention to Good Standby Rates Seen Key as Distributed Generation Plays Bigger Role*, ELECTRIC UTIL. WK., Dec. 31, 2012, at 10, 10.

58. See, e.g., Steven Ferrey, *Efficiency in the Regulatory Crucible: Navigating 21st Century “Smart” Technology and Power*, 3 GEO. WASH. J. ENERGY & ENVTL. L. 1 (2012) [hereinafter Ferrey, *Efficiency in the Regulatory Crucible*] (discussing the development of renewable power and the appropriate measures to resolve the related policy challenges and legal barriers); Steven Ferrey, *Net Zero: Distributed Generation and FERC’s MidAmerican Decision*, ELECTRICITY J., Oct. 2004, at 33 (analyzing the policy implications of a FERC decision regarding net metering); Ferrey, *supra* note 46 (comparing state net metering policies against the parameters of constitutional law).

59. *MidAmerican Energy Co.*, 94 F.E.R.C. ¶ 61,340 (2001).

60. *Id.* ¶¶ 62,261, 62,263. In March 2001, MidAmerican Energy Company challenged before FERC the state of Iowa’s regulations directing MidAmerican to interconnect with three “[a]lternate [e]nergy facilities and to offer net billing arrangements to those facilities.” *Id.* ¶ 62,261. MidAmerican also requested a declaratory order that federal law preempted these regulations. *Id.* MidAmerican asked the commission to undertake enforcement action against the Iowa Board or to issue a declaratory order that the final orders of the Iowa Board are preempted by PURPA. *Id.*

61. *Sun Edison L.L.C.*, 129 F.E.R.C. ¶ 61,146 (2009).

62. *Id.* ¶ 61,620.

period.<sup>63</sup> While neither the *MidAmerican* nor the *Sun Edison* case presented such facts of a net power flow to the utility from the net metered generator, and FERC did not decide such issues, both decisions meticulously and exhaustively limited the legal finding only to fact situations where there was no net flow of power back to the power grid.

In Rhode Island, there was a challenge to net metering involving the wind generator at the Portsmouth High School, which is directly interconnected to the distribution grid rather than first serving a substantial host load at the high school—thus having virtually 100% of net power produced flow back to the grid.<sup>64</sup> The challenge alleged that as an independent wholesale project, the wholesale generator can be paid no more than the avoided cost afforded to qualifying facilities under the Public Utility Regulatory Policies Act ("PURPA")<sup>65</sup> rather than being paid under the net metered calculation, which is approximately 300% of avoided cost.<sup>66</sup> The Rhode Island Division of Public Utilities and Carriers Advocacy Unit supported this complaint against the utility's policy.<sup>67</sup> After the suit was initiated, the state changed the definitions in its state net metering law to allow the school to allocate its net metering credits to several municipal accounts.<sup>68</sup> This change did not end the legal challenge; relief was sought at FERC by plaintiff Riggs, and FERC declined on procedural grounds to render a decision.<sup>69</sup>

In an ongoing case not involving net metering per se but contesting whether a state can regulate wholesale power transactions from independent generators to utilities, Vermont recently lost its attempted defense of state power to regulate

---

63. *Id.*

64. *In re* Complaint by Benjamin Riggs Relating to Net Metering at the Town of Portsmouth Wind Generator Facility and National Grid—Electric, No. D-10-126 (R.I. Div. Pub. Util. & Carriers Oct. 13, 2011) [hereinafter Portsmouth Net Metering], available at [http://www.ripuc.org/eventsactions/docket/D-10-126-Riggs-Portsmouth-Ord20510\(10-13-11\).pdf](http://www.ripuc.org/eventsactions/docket/D-10-126-Riggs-Portsmouth-Ord20510(10-13-11).pdf) (report and order).

65. See 16 U.S.C. § 824a-3(e) (2012) (explaining that Qualifying Facilities are exempt from certain costs).

66. Memorandum from Benjamin C. Riggs, Jr. Objecting to and Commenting on National Grid's Tariff Advice Filing to Luly E. Massaro, Comm'n Clerk, R.I. Pub. Util. Comm'n (Aug. 2, 2011) [hereinafter Riggs Memorandum], available at [http://www.ripuc.org/eventsactions/docket/4268-PublicComments-Riggs\(8-2-11\).pdf](http://www.ripuc.org/eventsactions/docket/4268-PublicComments-Riggs(8-2-11).pdf).

67. Portsmouth Net Metering, *supra* note 64, at 19–20.

68. Riggs Memorandum, *supra* note 66, at 1–2.

69. Benjamin Riggs, 138 F.E.R.C. ¶ 61,172, ¶ 61,172 (Mar. 15, 2012) (notice of intent not to act), available at <http://www.ferc.gov/whats-new/comm-meet/2012/031512/E-14.pdf> (stating that FERC declined to initiate an enforcement action under section 210(h)(2)(A) of PURPA).

wholesale power sale transactions or terms,<sup>70</sup> although this particular claim awaits ripeness in order to ground injunctive relief.<sup>71</sup> Subsequently, in Vermont, there was a recent challenge at FERC to Vermont's SPEED net metering program<sup>72</sup> and standard offer program, although the challenger had applied for Qualifying Facility status only one day before the complaint.<sup>73</sup> FERC procedurally chose not to exercise discretion to take jurisdiction over this request for enforcement.<sup>74</sup>

---

70. *Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin*, 838 F. Supp. 2d 183, 239 (D. Vt. 2012), *aff'd in part, rev'd in part on other grounds*, 733 F.3d 393 (2d Cir. 2013). Under the Federal Power Act, 16 U.S.C. § 791a *et seq.*,

Congress has drawn a bright line between state and federal authority in the setting of wholesale rates and in the regulation of agreements that affect wholesale rates. States may not regulate in areas where FERC has properly exercised its jurisdiction to determine just and reasonable wholesale rates or to insure that agreements affecting wholesale rates are reasonable.

*Miss. Power & Light Co. v. Miss. ex rel. Moore*, 487 U.S. 354, 374 (1988). "A State must . . . give effect to Congress' desire to give FERC plenary authority over interstate wholesale rates, and to ensure that the States do not interfere with this authority." *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 966 (1986). Under the filed-rate doctrine, state courts and regulatory agencies are preempted by federal law from requiring the payment of rates other than the federal filed rate. See *Entergy La., Inc. v. La. Pub. Serv. Comm'n*, 539 U.S. 39, 47 (2003) ("The filed rate doctrine requires 'that interstate power rates filed with FERC or fixed by FERC must be given binding effect by state utility commissions determining intrastate rates.'" (quoting *Nantahala*, 476 U.S. at 962)).

71. Under the Supremacy Clause, the filed-rate doctrine, and the Federal Power Act,

[t]he [trial] court then held that even if Entergy were to be forced to enter into a new PPA [power purchase agreement] in violation of the market-based tariff, its recourse would be to have the agreement reviewed by FERC. However, the court concluded that "it is not clear what preemptive effect the [Federal Power Act] has to prevent [Vermont] from refusing to consider continued operation without such an agreement," as there would be no such agreement to review. The court thus declined to enjoin the defendants on the basis of Entergy's Federal Power Act claim,

and both the trial and circuit courts agreed that this issue was not yet ripe for review since FERC review had not yet occurred prior to court action. *Entergy Nuclear Vt. Yankee*, 733 F.3d at 407 (citations omitted).

72. Vermont Energy Act of 2009, 2009 Vt. Acts & Resolves 324–25 (codified at VT. STAT. ANN. tit. 30, § 8005(b) (2008)), *amended by* Vermont Energy Act of 2012, 2012 Vt. Acts & Resolves 727 (codified at VT. STAT. ANN. tit. 30, §§ 8005a, 8006a (Supp. 2013)) (allowing eligible projects of 2.2 MW or less to participate in the FIT).

73. Vermont Department of Public Service Protest and Motion to Dismiss at 9, *Otter Creek Solar L.L.C.*, 143 F.E.R.C. ¶ 61,282 (2013).

74. *Otter Creek Solar*, 143 F.E.R.C. ¶ 61,282 (refusing to exercise jurisdiction to initiate a case to construe the legality of the Vermont Energy Act of 2009, VT. STAT. ANN. tit. 30, § 8005(b)); see also *North Hartland, L.L.C.*, 105 F.E.R.C. ¶ 61,036 (2003) (dismissing without prejudice a request for a

### C. State Renewable Portfolio Standards

Renewable Portfolio Standards ("RPSs") require electric utilities and other retail electric providers to include in their annual retail sales a specified percentage of electricity supply from renewable energy sources in the form of acquired Renewable Energy Credits ("RECs").<sup>75</sup> Twenty-nine states and the District of Columbia have RPSs.<sup>76</sup> The required state percentage of energy delivered to consumers from eligible renewable sources currently varies from 2% to 40% of annual retail sales in different state programs.<sup>77</sup> The RPS programs in the states are very different in terms of what technologies qualify. Most states allow solar, wind, biomass, and landfill gas resources to qualify in RPS programs; states are less consistent regarding the eligibility of other resources, such as biogas, municipal solid waste, geothermal energy, all hydro resources, fuel cells, and ocean-tidal renewable resources.<sup>78</sup> Many RPS programs target only new renewable projects in lieu of older projects.<sup>79</sup> RPS programs have been characterized as a form of backdoor renewable subsidies.<sup>80</sup>

Solar-specific RPS requirements in eleven states and Washington, D.C. include solar or distributed generation set-asides for a percentage of eligible projects.<sup>81</sup> The cost of acquiring the required RECs is passed on to captive retail power consumers.<sup>82</sup>

declaratory order); *Barnet Hydro Co.*, 95 F.E.R.C. ¶ 61,257 (2001) (dismissing a complaint requesting FERC's interpretation of a previously issued order).

75. *Renewable Portfolio Standards*, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/agstar/tools/funding/renewable.html> (last updated Sept. 27, 2012); *Most States Have Renewable Portfolio Standards*, U.S. ENERGY INFO. ADMIN. (Feb. 3, 2012), <http://www.eia.gov/todayinenergy/detail.cfm?id=4850>.

76. See *Renewable Portfolio Standard Policies: March 2013*, *supra* note 6.

77. See *Indiana: Incentives/Policies for Renewable Energy*, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=IN12R&re=1&ee=0](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=IN12R&re=1&ee=0) (last visited Dec. 10, 2013) (showing 4% as Indiana's required state percentage of energy delivered to consumers from eligible renewable sources); *Hawaii Incentives/Policies for Renewable Energy*, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=HI06R&re=1&ee=0](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=HI06R&re=1&ee=0) (last visited Dec. 10, 2013) (showing 40% as Hawaii's required state percentage of energy delivered to consumers from eligible renewable sources).

78. Ferrey et al., *Fire and Ice*, *supra* note 33, at 146–47.

79. See 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, 64–66 (2012) (noting that resource eligibility in state RPS programs has expanded beyond traditional renewables).

80. Robert Glennon & Andrew M. Reeves, *Solar Energy's Cloudy Future*, 1 ARIZ. J. ENVTL. LAW & POL'Y 91, 106 (2010).

81. RYAN WISER & GALEN BARBOSE, RENEWABLE PORTFOLIO STANDARDS IN THE UNITED STATES: A STATUS REPORT WITH DATA THROUGH 2007, at 16–20 (2008), available at <http://eetd.lbl.gov/sites/all/files/publications/report-lbnl-154e-revised.pdf>.

82. See Glennon & Reeves, *supra* note 80, at 108.

The California Public Utility Commission (“PUC”) Division of Ratepayer Advocates criticized the rapid escalation in California ratepayer costs to achieve the RPS mandate.<sup>83</sup> The cost of RPS compliance exceeded the cost of the power itself.<sup>84</sup>

The so-called constitutional dormant commerce clause prohibits actions that are facially discriminatory against interstate commerce.<sup>85</sup> A regulation that “evinces” discriminatory purpose against interstate commerce “or unambiguously discriminates in its effect . . . almost always is ‘invalid per se.’”<sup>86</sup> A facially neutral statute that imposes an incidental “burden on interstate commerce incommensurate with the local benefits secured”<sup>87</sup> would fail the balancing test articulated by the Supreme Court in *Pike v. Bruce Church, Inc.*<sup>88</sup> Discrimination against commerce itself occurs when a statute or regulation

- i. shifts the costs of regulation onto other states, permitting in-state lawmakers to avoid the costs of their political decisions,
- ii. has the practical effect of requiring out-of-state commerce to be conducted at the regulating state’s direction, or
- iii. alters the interstate flow of the goods in question, as distinct from the impact on companies trading in those goods.<sup>89</sup>

The scope of commerce among the states for purposes of a dormant commerce clause analysis is broadly defined,<sup>90</sup> and all objects of interstate trade merit Commerce Clause protection, which

---

83. Geoffrey Craig, *Renewable Costs of California’s Three Big Utilities Soared Last Year, CPUC Data Shows*, ELECTRIC UTIL. WK., Feb. 13, 2012, at 18.

84. *Id.*

85. *Dep’t of Revenue v. Davis*, 553 U.S. 328, 338 (2008) (quoting *Or. Waste Sys., Inc. v. Dep’t of Env’tl. Quality*, 511 U.S. 93, 99 (1994)).

86. *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)).

87. *Sorrell*, 272 F.3d at 108 (citing *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970)).

88. 397 U.S. at 142.

89. *Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin*, 733 F.3d 393, 431 n.37 (2d Cir. 2013) (quoting *Am. Booksellers Found. v. Dean*, 342 F.3d 96, 102 (2d Cir. 2003) (internal quotation marks omitted)).

90. *See City of Philadelphia v. New Jersey*, 437 U.S. 617, 626–27 (1978) (holding 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”).

includes the transmission of electric energy in interstate commerce<sup>91</sup>:

[I]t 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.<sup>92</sup>

State statutes found to facially discriminate against out-of-state commerce interests based on geography or favoring local interests are found to be per se invalid.<sup>93</sup> Laws that attempt to regulate the conduct of out-of-state businesses also violate the Commerce Clause.<sup>94</sup> These laws can assume the form of added taxes and charges on out-of-state goods.<sup>95</sup> State and local laws are deemed unconstitutional under the dormant commerce clause when a law differentiates between in-state and out-of-state economic interests in a manner that "benefits the former and burdens the latter."<sup>96</sup> The Supreme Court held that statutes that establish regional barriers (not necessarily just one-state isolation) and discriminate only against some states rather than all states violate the Commerce Clause.<sup>97</sup>

There are a number of the twenty-nine states with RPSs that have incorporated credit multipliers, geographic restrictions, or preferences to promote in-state/in-region generation of power, to the exclusion of external power, in the following percentages:

- Eight of the twenty-nine RPS states, or 27%, have REC multipliers for in-state generation: Arizona,<sup>98</sup>

91. See *New York v. FERC*, 535 U.S. 1, 16 (2002) ("[T]ransmissions on the interconnected national grids constitute transmissions in interstate commerce.").

92. *FERC v. Mississippi*, 456 U.S. 742, 757 (1982).

93. See *City of Philadelphia*, 437 U.S. at 624 (noting that if a statute is facially discriminatory, it is virtually per se invalid); see also *Gen. Motors Corp. v. Tracy*, 519 U.S. 278, 297–98 (1997); Patrick Jacobi, *Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause*, 30 VT. L. REV. 1079, 1101 (2006) (proposing that a court will likely strike down as unconstitutional any regulation that discriminates geographically or through point of origin); Trevor D. Stiles, *Renewable Resources and the Dormant Commerce Clause*, 4 ENVTL. & ENERGY L. & POL'Y J. 34, 60–61 (2009).

94. See *Healy v. Beer Inst.*, 491 U.S. 324, 335–37 (1989) (striking the requirement that the price of beer not be higher than that charged out of state).

95. See *Chem. Waste Mgmt. Inc. v. Hunt*, 504 U.S. 334, 341–42 (1992) (invalidating an Alabama law imposing an extra fee on imported hazardous waste).

96. *Or. Waste Sys., Inc. v. Dep't of Env'tl. Quality*, 511 U.S. 93, 99 (1994).

97. See *Hunt*, 504 U.S. at 339–40.

98. ARIZ. ADMIN. CODE §§ R14-2-1806(D)–(E) (2009).

Colorado,<sup>99</sup> Delaware,<sup>100</sup> Maine,<sup>101</sup> Michigan,<sup>102</sup> Missouri,<sup>103</sup> Nevada,<sup>104</sup> and Washington.<sup>105</sup>

- Four of the RPS states, or 14%, including two states that also provide for a geographically discriminatory REC multiplier, have either a requirement or preference for in-state generation: California,<sup>106</sup> Colorado,<sup>107</sup> North Carolina,<sup>108</sup> and Ohio.<sup>109</sup>
- Four of the twenty-nine RPS states, or 14%, give program preferences to the use of in-state manufactured products or in-state labor forces: Arizona,<sup>110</sup> Delaware,<sup>111</sup> Michigan,<sup>112</sup> and Montana.<sup>113</sup>
- Eleven of the twenty-nine RPS states, representing 38% of RPS states, have a requirement for in-region, rather than in-state, geographic location of generation to create RECs, including one of the states that also has in-state multipliers and one with an in-state preference: Connecticut,<sup>114</sup> Illinois,<sup>115</sup> Maine,<sup>116</sup> Maryland,<sup>117</sup> Massachusetts,<sup>118</sup> New Hampshire,<sup>119</sup> North Carolina, Ohio,<sup>120</sup> Oregon,<sup>121</sup> Pennsylvania,<sup>122</sup> and Rhode Island.<sup>123</sup>

99. COLO. REV. STAT. §§ 40-2-124(c)(V)(A)–(D), (c)(IX), (d) (2013).

100. DEL. CODE ANN. tit. 26, §§ 356(a)(1), (d)–(e) (2012).

101. ME. REV. STAT. tit. 35-A, § 3605 (2010).

102. MICH. COMP. LAWS SERV. § 460.1039(1) (LexisNexis 2010).

103. MO. ANN. STAT. § 393.1030(1) (West 2013).

104. NEV. REV. STAT. ANN. § 704.7822 (LexisNexis 2011).

105. WASH. ADMIN. CODE §§ 194-37-110(1)(c)(i)–(iii) (2008).

106. *California Incentives/Policies for Renewables Efficiency*, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, [http://www.dsireusa.org/incentives/incentive.cfm?Incentive\\_Code=CA25R&re=1&ee=1](http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=CA25R&re=1&ee=1) (last updated Oct. 30, 2013) (explaining that a maximum of 25% of RPS compliance can be achieved through the use of tradable renewable energy credits; therefore, the remainder of the RPS compliance must be attained through in-state power sales).

107. COLO. REV. STAT. §§ 40-2-124(e)(II)–(III) (2013).

108. N.C. GEN. STAT. ANN. § 62-133.8(b)(2)(e) (West 2012).

109. OHIO REV. CODE ANN. § 4928.64(B)(3) (LexisNexis 2012).

110. ARIZ. ADMIN. CODE §§ R14-2-1806(D)–(E) (2007).

111. DEL. CODE ANN. tit. 26, §§ 351(b)–(c) (2009).

112. MICH. COMP. LAWS SERV. §§ 460.1001(2)(a)–(d) (LexisNexis 2010).

113. MONT. CODE ANN. § 69-3-2005(3)(a) (2013).

114. CONN. GEN. STAT. ANN. § 16-245a(b) (West 2013).

115. 20 ILL. COMP. STAT. ANN. 3855/1-56(b) (West 2013).

116. 65-407-311 ME. CODE R. § 6 (LexisNexis 2011).

117. MD. CODE REGS. 20.61.03(D) (2011).

118. MASS. ANN. LAWS ch. 25A, § 11F(a) (LexisNexis 2013).

119. N.H. REV. STAT. ANN. § 362-F:6(I) (LexisNexis 2011).

120. OHIO REV. CODE ANN. § 4928.64(C)(5) (LexisNexis 2012).

121. OR. REV. STAT. § 469A.135(1)(a), (2) (2011).

122. 73 PA. STAT. ANN. § 1648.4 (West 2008).

123. R.I. GEN. LAWS § 39-26-4(d) (2012).

- Eleven of the twenty-nine states, or 38%, have an in-state requirement for certain distributed power.<sup>124</sup>
- Four of the twenty-nine states, or 14%, have a benefit for an in-state capital component or labor.<sup>125</sup>
- Some states have multiple multipliers and preferences.<sup>126</sup>
- Only seven of the twenty-nine states, or 24%, have no geographic preferences in their laws.<sup>127</sup>

Although states were cautioned regarding how to best design compliant RPS programs,<sup>128</sup> states proceeded as they chose. There has been litigation in major states, including New Jersey, Maryland, Colorado, Missouri, Massachusetts, California, Vermont, and elsewhere, contesting dormant commerce clause violations involved with state energy/electric power regulation<sup>129</sup>:

---

124. Ferrey, *supra* note 79, at 75–77.

125. Steven Ferrey, *Alternative Energy in a Spaghetti Western: Clint Eastwood Confronts State Renewable Energy Policy*, 32 UTAH ENVTL. L. REV. 279, 292 (2012) (listing Arizona, Delaware, Michigan, and Montana as having this in-state benefit).

126. *Id.* at 291–92.

127. *Id.* at 292.

128. See generally Ferrey, *supra* note 79; Steven Ferrey, *Constitutional Barriers Confronting State Renewable Energy Programs*, A.B.A. ENERGY COMM. NEWSL., June 2006, at 3 [hereinafter Ferrey, *Constitutional Barriers*]; Ferrey, *Efficiency in the Regulatory Crucible*, *supra* note 58; Ferrey, *Follow the Money!*, *supra* note 33; Steven Ferrey, *Renewable Orphans: Adopting Legal Renewable Standards at the State Level*, 19 ELECTRICITY J. 52, 52–53 (2006) [hereinafter Ferrey, *Renewable Orphans*]; Steven Ferrey, *Renewable Subsidies in the Age of Deregulation*, PUB. UTIL. FORT., Dec. 1997, at 22; 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. ENVTL. L.J. 507 (2004).

129. For an article concluding that the Maryland RPS program and others that similarly facially discriminate against interstate commerce are likely unconstitutional in violation of the dormant commerce clause, see Anne Havemann, Comment, *Surviving the Commerce Clause: How Maryland Can Square Its Renewable Energy Laws with the Federal Constitution*, 71 MD. L. REV. 848, 851 (2012). Rader and Hempling argued that courts will not apply strict scrutiny to an RPS that bases eligibility on a generator's ability to produce benefits for a state rather than the geographic origin of the electricity. NANCY RADER & SCOTT HEMPLING, *THE RENEWABLES PORTFOLIO STANDARD: A PRACTICAL GUIDE A-3-A-4* (2001). Recent court decisions, however, do not support that argument: stating a basis in the statute other than what a court determines to be the actual purpose or effect of a statute does not allow a state to avoid facial discrimination, strict scrutiny, or a finding of a violation of the dormant commerce clause. See *Gade v. Nat'l Solid Wastes Mgmt. Ass'n*, 505 U.S. 88, 105 (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."); *Entergy Nuclear Vermont, L.L.C. v. Shumlin*, 733 F.3d 393, 393 (2d Cir. 2013); *Norris v. Lumbermen's Mut. Cas. Co.*, 881 F.2d 1144, 1150 (1st Cir. 1989).

- A successful constitutional challenge by conventional power generators to New Jersey's in-state energy facility preferences<sup>130</sup>
- A successful constitutional challenge by conventional power generators to Maryland's in-state energy facility preferences<sup>131</sup>
- A suit involving renewable power RPS RECs in Colorado<sup>132</sup>
- A suit on Missouri RPS RECs limited only to in-state projects<sup>133</sup>

---

130. See PPL Energyplus, L.L.C. v. Hanna, No. 11-745, 2013 WL 5603896, at \*1 (D.N.J. Oct. 11, 2013) (finding the New Jersey regulation a violation of the Constitution's Supremacy Clause); PJM Interconnection, L.L.C., 135 F.E.R.C. ¶ 61,022, ¶ 61,022 (2011). In 2011, New Jersey enacted legislation to encourage the acquisition by utilities of the output of 2000 MW of new in-state power projects. Mary Powers, *PJM Generators File Complaint with FERC Seeking Relief from NJ In-State Generation Law*, ELECTRIC UTIL. WK., Feb. 7, 2011, at 11. New Jersey faced a pending lawsuit by several existing independent power generators asserting that the state law was in violation of the Constitution's Commerce Clause—because it was predicated on in-state “favoritism” and was a “blatant and explicit effort to promote the construction of new generation facilities in New Jersey”—and alleging discrimination in the statute's ordering utilities to sign long-term contracts only with in-state generation facilities participating in multistate PJM ISO capacity. Hannah Northey, *Utilities Challenge N.J. Law While Preparing to Reap Its Benefits*, ENVTL. & ENERGY PUB. (Mar. 2, 2011), <http://www.eenews.net/public/Greenwire/2011/03/02/4>; Powers, *supra*, at 11, 13. In response, in 2011, FERC amended the PJM ISO rules to prevent New Jersey state law from attempting to encourage construction of in-state power generation by, in part, causing New Jersey to bid power into the PJM system at suppressed prices in order to win capacity right auctions. Mary Powers, *Rebuffed by FERC Ruling, New Jersey BPU Plans to Look Again at How to Attract New Generation*, ELECTRIC UTIL. WK., May 23, 2011, at 4, 6 (noting that FERC, on April 12, 2011, eliminated a PJM rule that allowed a prior exemption for projects to make minimum offer prices when tempered by state energy programs).

131. See PPL Energyplus, L.L.C. v. Nazarian, No. MJG-12-1286, 2013 WL 5432346, at \*2 (D. Md. Sept. 30, 2013) (memorandum of decision) (finding the Maryland regulation a violation of the Constitution's Supremacy Clause).

132. Complaint for Injunctive & Declaratory Relief, Am. Tradition Inst. v. Colorado, 876 F. Supp. 2d 1222 (D. Colo. 2012) (No. 1:11-cv-00859-WJM-BNB), available at <http://www.americantradition.org/wp-content/uploads/2011/04/ATI-RPS-Complaint-ATI-v-Colorado.pdf>. The American Tradition Institute (“ATI”), through its Environmental Law Center, filed a lawsuit in federal court challenging the constitutionality of Colorado's renewable energy standard, based upon evidence that the state's law violates the Commerce Clause. *Id.* at 1–2. ATI's complaint argued that because the state mandate provides economic benefits to Colorado's renewable electricity generators that are not available to out-of-state power generators, the program violates the dormant commerce clause. *Id.* at 2.

133. State *ex rel.* Mo. Energy Dev. Ass'n. v. Pub. Serv. Comm'n, Nos. 10AC-CC00512, 10AC-CC00511, 10AC-CC00513, 10AC-CC00528, 10AC-CC00536 (Cole Cnty. Mo. June 29, 2011), *rev'd*, 386 S.W.3d 165 (Mo. Ct. App. 2012). The

- TransCanada's suit against Massachusetts over discrimination against out-of-state energy projects for RPS RECs and renewable energy contracts, which was partially settled in favor of the challengers<sup>134</sup>
- California's attempt to differentiate regulation of out-of-state energy products based on the distance they must travel and the greater carbon intensity of electricity produced in the Midwest to produce renewable energy fuel<sup>135</sup> (separate from California setting in-state wholesale tariffs)<sup>136</sup>

---

state trial court in 2011 ruled that the Missouri RPS program was illegal because it required RECs to be generated by in-state projects or projects that delivered the power to in-state customers. *Id.* at 13–14. The court held that the RPS program “takes the cash property of utilities (and their ratepayers) and transfers it to certain customers” without due process. *Id.* at 14. The decision was reversed on appeal and is now subject to further appeal. See *State ex rel. Mo. Energy Dev. Ass'n*, 386 S.W.3d at 165.

134. Complaint at 1, *TransCanada Power Mktg. Ltd. v. Bowles*, No. 4:10-cv-40070-FDS (D. Mass. Apr. 16, 2010). In April 2010, Massachusetts was sued by TransCanada alleging dormant commerce clause violations regarding requirements that state utilities enter long-term contracts with in-state new renewable energy projects and that solar renewable energy credits be earned only by in-state solar photovoltaic power projects, regardless of where the power generation creating the RECs was sold. *Id.* TransCanada alleged that Massachusetts ratepayers would be negatively impacted because they would be forced to pay higher rates for only in-state renewable energy. *Id.* at 8. Massachusetts quickly settled the suit and fundamentally changed its regulations. See Partial Settlement Agreement at 1–4, *TransCanada Power Mktg. Ltd.*, No. 4:10-cv-40070-FDS, available at <http://www.mass.gov/eea/docs/doer/renewables/solar/settlement-agreement.pdf>.

135. *Rocky Mountain Farmers Union v. Goldstene*, 843 F. Supp. 2d 1071, 1080–81 (E.D. Cal. 2011), *rev'd sub nom.* *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070 (9th Cir. 2013). The trial court reiterated that only the federal government can regulate commerce between the states, and California, attempting to regulate commerce outside its borders, violated exclusive federal authority to regulate interstate commerce. *Id.* at 1088–90. California gave less value to the identical energy fuel, ethanol, when produced in the Midwest, because of the latter region's use of coal-fired power for electricity to produce ethanol and other products and the longer transportation distance for trucks to transport ethanol from there to California. *Id.* While such discrimination did reflect the total embedded energy emissions and transportation costs of different means to produce the energy products and to move them to market from geographically distant production sources, the court held that states cannot elect to discriminate against more-distant out-of-state products. *Id.* The trial court again distinguished motive from constitutional requirements: “Although [the State's] goal to combat global warming may be ‘legitimate,’ . . . it cannot ‘be achieved by the illegitimate means of isolating the State from the national economy.’” *Id.* at 1088–89 (quoting *City of Philadelphia v. New Jersey*, 437 U.S. 617, 626–27 (1978)). As noted by the Supreme Court, “[w]hile a State may seek lower prices for its consumers, it may not insist that producers or consumers in other States surrender whatever competitive advantages they may possess.” *Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth.*, 476 U.S. 573, 580 (1986); see also *Baldwin v. G.A.F. Seelig, Inc.*, 294 U.S. 511, 521

- Vermont's attempt to discriminate against the sale of cheaper interstate power that could be sold otherwise outside of its origin in Vermont<sup>137</sup>

A note about the *TransCanada Power Marketing Ltd. v. Bowles*<sup>138</sup> litigation—TransCanada filed suit challenging Massachusetts for violating the dormant commerce clause in two respects.<sup>139</sup> First, that the Massachusetts legislation was facially discriminatory regarding out-of-state energy commerce for long-term contracts.<sup>140</sup> TransCanada made a similar argument highlighting a violation of the dormant commerce clause with respect to section 32 of the Green Communities Act<sup>141</sup>; because the “Solar Carve-Out” required utilities to purchase a certain amount of solar renewable energy credits from Massachusetts-based producers, the law discriminated against producers from other states.<sup>142</sup> The plaintiff's complaint asserted that Massachusetts ratepayers would be impacted negatively by the legislation because they might be forced to pay higher rates than if all out-of-state renewable energy providers were allowed to submit bids for the contracts.<sup>143</sup> The

---

(1935) (holding that one state “has no power to project its legislation into [another state] by regulating the price to be paid in that state for [products] acquired there”).

136. Cal. Pub. Utils. Comm'n, 132 F.E.R.C. ¶ 61,047, ¶ 61,047 (2010).

137. *Entergy Nuclear Vt. Yankee, L.L.C. v. Shumlin*, 838 F. Supp. 2d 183, 236 (D. Vt. 2012) (reasoning that “states are ‘without power to prevent privately owned articles of trade from being shipped and sold in interstate commerce on the ground that they are required to satisfy local demands or because they are needed by the people of the State’” and holding that the State's regulation in question was a “‘protectionist regulation’ violating the Commerce Clause” (quoting *New Eng. Power Co. v. New Hampshire*, 455 U.S. 331, 338–39 (1982))), *aff'd in part, rev'd in part*, 733 F.3d 393 (2d Cir. 2013). The trial court found the regulation unconstitutional and issued an injunction “enjoin[ing] Defendants from conditioning Vermont Yankee's continued operation on the existence of a below-market PPA with Vermont utilities.” *Id.* at 239. The Second Circuit did not disagree with the substantive decision on the dormant commerce clause but procedurally held that this issue was not yet ripe for review until plaintiffs actually entered into such a forced PPA with the State. *Entergy Nuclear Vt. Yankee*, 733 F.3d at 433–34.

138. *TransCanada Power Mktg. Ltd.*, No. 4:10-cv-40070-FDS.

139. Complaint, *supra* note 134. TransCanada challenged the constitutionality of allowing only in-state renewable energy companies to be able to bid for long-term contracts to supply utilities with the necessary amount of renewable energy, under section 83 of the Green Communities Act. *Id.* at 6. TransCanada's interest was with its investment in a Maine wind project at Kibby Mountain, which had 132 MW capacity, at a cost of \$300 million in capital. *Id.* at 5 (noting the cost and location of the Kibby Wind Power Project); *see also Kibby Wind Power Project*, TRANSCANADA, <http://www.transcanada.com/kibby.html> (last updated Feb. 2, 2011) (discussing the 132 MW capacity).

140. Complaint, *supra* note 134, at 5–6.

141. *Id.* at 11–12, 22.

142. *Id.* at 12.

143. *Id.* at 8.

result of the *TransCanada* litigation was a partial change to the challenged regulations.<sup>144</sup>

The latest and highest federal court statement regarding in-state favoritism on state RPS programs was announced in 2013. Judge Richard Posner, speaking for the Seventh Circuit Court of Appeals in a unanimous decision, declared unconstitutional a state regulation limiting state renewable portfolio standards to in-state generation, as a violation of the Commerce Clause: "[I]t 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."<sup>145</sup> As authority for its holding on the respective jurisdiction of state and federal government to regulate electricity, the opinion relied on precedent and a 2012 law review article on constitutional energy issues authored by Professor Ferrey.<sup>146</sup> Justice Scalia, previously concurring in the majority opinion in *West Lynn Creamery, Inc. v. Healy*,<sup>147</sup> noted that "subsidies for in-state industry . . . would clearly be invalid under any formulation of the Court's guiding principle" for dormant commerce clause cases.<sup>148</sup>

The follow-on from this mid-2013 ruling of the Seventh Circuit was immediate. Within a few days of the Seventh Circuit decision, petitions were filed in New York to reconsider prior state decisions in light of this new opinion.<sup>149</sup> The complaint of an interstate merchant power provider cited this recent Seventh Circuit decision and noted that

[i]n a recent, noteworthy case, the United States Court of Appeals for the Seventh Circuit had the opportunity to comment on an RPS program, that, like New York's current RPS program, facially discriminates against out-of-state sources of renewable power. . . . The court noted that "Michigan cannot, without violating the commerce clause of

---

144. See Order Adopting Emergency Regulations, D.P.U. 10-58, 2010 WL 2376884 (Mass. Dep't Pub. Utils. June 9, 2010) (revising 220 MASS. CODE REGS. §§ 17.00-.09).

145. *Ill. Commerce Comm'n v. FERC*, 721 F.3d 764, 776 (7th Cir. 2013). Michigan actually initiated the issue of in-state electric power discrimination in its RPS program as a demonstration that out-of-state power transmitted to it was not recognized as of the same value as in-state electricity, and therefore Michigan should not pay a share of power line tariffs transmitting power from out of state that did not have equal recognition and benefit. *Id.* at 775. Instead of supporting its position, this assertion caused Judge Posner to respond, even though it was not the tariff issue before the Court. *Id.* at 776.

146. *Id.*

147. 512 U.S. 186 (1994).

148. *Id.* at 208 (Scalia, J., concurring).

149. See, e.g., Petition for Rehearing of H.Q. Energy Services. (U.S.) Inc., No. 03-E-0188 (N.Y. Pub. Serv. Comm'n June 21, 2013).

Article I of the Constitution, discriminate against out-of-state renewable energy.”<sup>150</sup>

These dormant commerce clause<sup>151</sup> decisions are consistent with a Supreme Court decision from three decades earlier involving state regulation of renewable power that discriminates based on the geographic origin of that power in state:

[We] consistently have held that the Commerce Clause of the Constitution, Art. I, § 8, cl. 3, precludes a state from mandating that its residents be given a preferred right of access, over out-of-state consumers, to natural resources located within its borders or to the products derived therefrom. . . . [A] State is without power to prevent privately owned articles of trade from being shipped and sold in interstate commerce on the ground that they are required to satisfy local demands or because they are needed by the people of the State.<sup>152</sup>

#### D. *State System Benefit Charges*

A system benefits charge (“SBC”) is a per-kilowatt-hour power surcharge imposed on all retail electricity consumers within a state utility’s service territory through monthly utility bills, which creates an additional state-controlled or state-administered energy fund.<sup>153</sup> These state renewable trust funds distribute money to subsidize various renewable energy resource projects and technologies pursuant to state legislation.<sup>154</sup> Approximately one-third of U.S. states have enacted SBC and “public benefit funds”<sup>155</sup>: seventeen states plus the District of Columbia.<sup>156</sup> The created funds range in size from less than \$1 million to greater than \$300 million per year.<sup>157</sup> A number of these states, either explicitly or as a matter of practice, will only fund sustainable energy projects within their own states, even though power from all sources inside and outside the state are taxed to create the SBC fund.

Compulsory regulatory requirements to create SBC garner funds from all consumers, while voluntary programs are not as successful. One-quarter of the nation’s utilities offer renewable

---

150. *Id.* at 16–17.

151. U.S. CONST. art. I, § 8, cl. 3.

152. *New Eng. Power Co. v. New Hampshire*, 455 U.S. 331, 338 (1982) (internal quotation marks omitted).

153. *Public Benefits Funds for Renewables*, DATABASE ST. INCENTIVES FOR RENEWABLES & EFFICIENCY, [http://www.dsireusa.org/documents/summarymaps/PBF\\_Map.pdf](http://www.dsireusa.org/documents/summarymaps/PBF_Map.pdf) (last visited Dec. 12, 2013).

154. *Id.*

155. See DORIS ET AL., *supra* note 7.

156. *Id.*

157. *State Clean Energy Funds Fact Sheet*, U.S. ENVTL. PROTECTION AGENCY, [http://www.epa.gov/chp/policies/funds\\_fs.html](http://www.epa.gov/chp/policies/funds_fs.html) (last updated April 2009).

energy purchase options to customers; however, only about 1% to 2% of all customers, concentrated among industrial and commercial customer groups, elect to purchase a voluntary, more expensive green power option.<sup>158</sup> Since only about one-quarter of utilities offer this option, the overall national penetration rate is less: the 11 million megawatt-hour ("MWh") of these green purchases and an estimated 15 million MWh of total U.S. green energy purchases in 2008 represent less than 1% of the total 3,870 million MWh of electric consumption in 2008.<sup>159</sup>

Some states de jure or de facto restrict SBC funds to in-state projects. For example, the Illinois legislature aims to "develop[] new renewable energy resources and clean coal technologies for use in Illinois [for distributing these funds]" and has stated that "[t]he criteria should promote the goal of fostering investment in and the development and use, in Illinois, of renewable energy resources."<sup>160</sup> Articles delineated what was permissible for state benefit charges under the Commerce Clause.<sup>161</sup> New York Utilities in 2012 challenged New York's alleged misuse of system benefit charge funds for non-energy-related economic development programs.<sup>162</sup> There is a pending constitutional suit on renewable power incentives in Colorado,<sup>163</sup> and an initial court ruling in 2011, which

---

158. See Ferrey et al., *FIT in the USA*, supra note 33; *Green Power Usage Edged Higher in 2009 Among EPA Partners*, U.S. ENVTL. PROTECTION AGENCY (Jan. 25, 2010), <http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceac8525735900400c27/f74df277c3c6c40f852576b60064db10> !OpenDocument (discussing an increase in renewable energy usage).

159. See generally *Short-Term Energy Outlook*, U.S. ENERGY INFO. ADMIN. (Jan. 7, 2014), <http://www.eia.gov/forecasts/steol/>.

160. 20 ILL. COMP. STAT. § 6-3(b) (2008) (emphasis added); see also *id.* § 6-4(b).

161. See, e.g., Ferrey, *Follow the Money!*, supra note 33; see also Ferrey, *Constitutional Barriers*, supra note 128; Ferrey, *Renewable Orphans*, supra note 128.

162. Lisa Wood, *New York Utilities Challenge Proposal to Use Clean Energy Funds for Economic Development*, ELECTRIC UTIL. WK., Aug. 1, 2012, at 17. The utilities charged that the funds must be devoted to utility-based programs rather than start-up companies and underused technologies. *Id.*

163. *Am. Tradition Inst. v. Colorado*, 876 F. Supp. 2d 1222, 1226 (D. Colo. 2012). The Colorado suit claimed seven distinct ways in which the state RPS discriminates against out-of-state energy sources. Amended Complaint for Injunctive & Declaratory Relief at 17, 19–20, *Am. Tradition Inst.*, F. Supp. 2d at 1228 (No. 1:11-cv-00859-WJM-BNB). The Colorado RPS statute counts every kWh of renewable energy produced within the state at a 125% multiplier. COLO. CODE REGS. § 723-3:3654(e) (2010) ("For purposes of compliance with the renewable energy standard, each kilowatt-hour of eligible energy generated in Colorado, other than retail renewable distributed generation, shall be counted as 1.25 kilowatt-hours of eligible energy."). At least one-half of a regulated Colorado utility's distribution requirements must be met by retail distributed generation, COLO. REV. STAT. § 40-2-124(1)(c)(II)(A) (2013), which under Colorado law must be located within the state, see *id.* § 40-2-124(1). Wholesale distributed generation is defined by statute as "a renewable energy resource [in

held that the Missouri renewable regulation was illegal, was reversed on appeal and is still pending.<sup>164</sup> An environmental rationale for geographic discrimination based on place of origin of the commerce did not pass muster with the Supreme Court: “even if environmental preservation were the central purpose” of the regulation, it “would not be sufficient to uphold a [geographically] discriminatory regulation.”<sup>165</sup>

### E. State Climate Control

In the absence of federal climate change legislation in the United States, originally ten, and now nine, eastern states have combined into the Regional Greenhouse Gas Initiative (“RGGI”) to regulate carbon dioxide (“CO<sub>2</sub>”) emitted from their larger power plants.<sup>166</sup> Additionally, California has begun comprehensive regulation of all greenhouse gases (“GHGs”) from all sources,<sup>167</sup> and other western<sup>168</sup> and midwestern<sup>169</sup> states initiated—but since postponed or abandoned—global warming gas regulation.

---

Colorado] with a nameplate rating of thirty megawatts or less and that does not qualify as retail [distributed] generation.” *Id.* § 40-2-124(1)(a)(IX).

164. *Mo. Energy Dev. Ass’n v. Mo. Pub. Serv. Comm’n*, No. 10AC-CC00512 (Dist. Ct. Cole Cnty. filed July 28, 2011).

165. *W. Lynn Creamery, Inc. v. Healey*, 512 U.S. 186, 204 n.20 (1994) (citing *Philadelphia v. New Jersey*, 437 U.S. 617, 626–27 (1978)).

166. See *RGGI, Inc.*, REGIONAL GREENHOUSE GAS INITIATIVE, <http://www.rggi.org/rggi> (last visited Nov. 8, 2013) (listing participating states). New Jersey recently withdrew, and other states have considered withdrawal from this cap-and-trade program. Angela Delli Santi & Beth DeFalco, *New Jersey Withdrawing from Regional Greenhouse Gas Program*, CBS CONN., <http://connecticut.cbslocal.com/2011/05/26/42273> (last visited Nov. 8, 2013).

167. CAL. HEALTH & SAFETY CODE §§ 38500–99 (Deering 2010). The California carbon scheme requires that California reduce GHG emissions to 1990 levels by 2020, considering all in-state and out-of-state generation used to serve California electric load. *Id.* § 38550.

168. The Western Climate Initiative is a group of seven western states and four Canadian provinces that planned to release a carbon restriction program to cut GHG emissions 15% below 2005 levels. *History*, W. CLIMATE INITIATIVE, <http://www.westernclimateinitiative.org/history> (last visited Jan. 30, 2014). Six of the seven states withdrew in 2011, “leaving California alone in this now-unitary consortium, along with the four observing Canadian provinces.” 1 FERREY, *supra* note 19, § 6:9. Nothing was accomplished in its four years of existence. *Id.*

169. These states include “Illinois, Iowa, Kansas, Michigan, Minnesota and Wisconsin, and Canadian province of Manitoba.” *Kansas: Climate Action Regional Programs*, BLOOMBERG BNA, [http://climate.bna.com/climate/document\\_climapedia.aspx?id=212874](http://climate.bna.com/climate/document_climapedia.aspx?id=212874) (last visited Nov. 8, 2013). The three states of Indiana, Ohio, and South Dakota opted out of this scheme and are now observers. Nora Macaluso, *Midwest States to Commence Work on Details of Regional Climate Strategy*, BNA ENV’T REP., Nov. 30, 2007, at 2556; Dean Scott, *Midwestern States to Draw up Model Rule by End of 2008 to Implement Cap-and-Trade*, BNA ENV’T REP., Feb. 22, 2008, at 343.

A major practical and policy problem identified by the RGGI states<sup>170</sup> as well as California<sup>171</sup> is so-called "leakage" into the state of less-costly power whose carbon content is not regulated or affected.<sup>172</sup> California imports power from eleven other states.<sup>173</sup> An internal report found that a substantial proportion of CO<sub>2</sub> emissions avoided by RGGI could be offset by corresponding increases in power from non-RGGI states.<sup>174</sup> The governors in affected states agreed to "pursue technically sound measures to prevent leakage from undermining the integrity of the Program,"<sup>175</sup> including securing their borders or surcharging intruding power flows.<sup>176</sup>

Articles<sup>177</sup> provided states with legal guideposts, which were not always incorporated into state programs. The courts have determined that electrons in interstate commerce cannot be traced.<sup>178</sup> Because wholesale electricity is moving constantly in interstate commerce virtually at the speed of light,<sup>179</sup> this raises dormant commerce clause and other issues:

---

170. *Memorandum of Understanding*, REGIONAL GREENHOUSE GAS INITIATIVE 1, 9 (Dec. 20, 2005), [http://www.rggi.org/docs/mou\\_12\\_20\\_05.pdf](http://www.rggi.org/docs/mou_12_20_05.pdf).

171. *Cap and Trade Program Design Options Report of the Cap and Trade Subgroup of the Climate Action Team Final Report*, CAP & TRADE SUBGROUP CLIMATE ACTION TEAM 1, 16–17 (Mar. 27, 2006), [http://www.climatechange.ca.gov/climate\\_action\\_team/reports/2006report/2006-03-27\\_CAP\\_AND\\_TRADE.PDF](http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-03-27_CAP_AND_TRADE.PDF).

172. *See Potential Emissions Leakage and the Regional Greenhouse Gas Initiative (RGGI): Evaluating Market Dynamics, Monitoring Options and Possible Mitigation Mechanisms*, REGIONAL GREENHOUSE GAS INITIATIVE 1, ES-1 (Mar. 14, 2007), [http://www.rggi.org/docs/il\\_report\\_final\\_3\\_14\\_07.pdf](http://www.rggi.org/docs/il_report_final_3_14_07.pdf). States "such as New Jersey, New York, and Maryland are bordered by states that are not signatories to RGGI and do historically produce a large of volume of electricity from coal-fueled power plants." Ferrey, *supra* note 3, at 840 n.24. Similarly, California imports power from eleven states, including a large amount of coal-fired power. *See California Gross System Power for 2006*, CAL. ENERGY COMMISSION, [http://energyalmanac.ca.gov/electricity/system\\_power/2006\\_gross\\_system\\_power.html](http://energyalmanac.ca.gov/electricity/system_power/2006_gross_system_power.html) (last visited Nov. 8, 2013) (showing California imports approximately 10% of its total electricity from out-of-state coal plants).

173. *The Power of California*, INDEP. ENERGY PRODUCERS 1, 2 (Mar. 25, 2008), [http://www.iepa.com/video/iepa\\_power\\_of\\_california.pdf](http://www.iepa.com/video/iepa_power_of_california.pdf).

174. FERREY, *supra* note 12, at 168.

175. *Memorandum of Understanding*, REGIONAL GREENHOUSE INITIATIVE 1, 10 (Dec. 20, 2005), [http://www.rggi.org/docs/mou\\_12\\_20\\_05.pdf](http://www.rggi.org/docs/mou_12_20_05.pdf).

176. Ferrey et al., *FIT in the USA*, *supra* note 33.

177. *See, e.g., Steven Ferrey, Auctioning the Building Blocks of Life: Carbon Auction, the Law, and Global Warming*, 23 NOTRE DAME J.L. ETHICS & PUB. POLY 317 (2009); Steven Ferrey, *Carbon and the Constitution: State GHG Policies Confront Federal Roadblocks*, PUB. UTIL. FORT., April 1, 2009, at 41; Ferrey, *supra* note 3.

178. *New York v. FERC*, 535 U.S. 1, 7 n.5 (2002); *Fed. Power Comm'n v. Fla. Power & Light Co.*, 404 U.S. 453, 460 (1972).

179. *See 1 FERREY, supra* note 19, § 2:1; Steven Ferrey, *Inverting Choice of Law in the Wired Universe: Thermodynamic, Mass, and Energy*, 45 WM. & MARY L. REV. 1839, 1914 (2004).

- California in 2011 lost a suit on its carbon control cap-and-trade regulation, resulting in an additional year of delay in the program until 2013 while it made revisions.<sup>180</sup>
- There was a successful suit in 2009 against New York's RGGI carbon regulation.<sup>181</sup>
- An additional suit is pending against New York's participation in RGGI.<sup>182</sup>

In summary, there are major constitutional issues surrounding the design and implementation of each of the five primary state sustainable policy mechanisms. Several states, as itemized in the Subparts above, have sustainable energy policies that either cross the prohibited restriction on state retail-only energy regulation, or discriminate based on place of origin of the energy commerce, and thus are difficult to defend if legally challenged. Litigation is ongoing. State sustainable energy policy has endured several recent significant legal challenges, discussed above, pursuant to the Supremacy Clause of the Constitution<sup>183</sup>:

---

180. Tentative Statement of Decision, *Ass'n of Irrigated Residents v. Cal. Air Res. Bd.*, No. CPF-09-509562 (Cal. Super. Ct. Jan. 24, 2011); Lisa Weinzimer & Geoffrey Craig, *Delaying California CHG Cap-and-Trade Regime a Year Draws Support from Stakeholders*, *ELECTRIC UTIL. WK.*, July 4, 2011, at 11–12. The court issued a writ of mandate enjoining the California Air Resources Board from any further cap-and-trade rule making until it has complied with the California Environmental Quality Act by analyzing alternatives to cap-and-trade and public comments. Joshua T. Bledsoe, *California Cap and Trade Back on Track, but Compliance Obligations Pushed from 2012 to 2013*, *LATHAM'S CLEAN ENERGY L. REP.*, <http://www.cleanenergylawreport.com/environmental-and-approvals/california-cap-and-trade-back-on-track-but-compliance-obligations-pushed-from-2012-to-2013/> (last visited Dec. 12, 2013). This delayed the plan until 2013. *Id.*

181. *See Indeck Energy Sues State Questioning Legality of Regional Greenhouse Gas Program*, *NEW STATESMAN*, <http://www.newstatesman.com/business/energy/indeck-energy-sues-state-questioning-legality-of-regional-greenhouse-gas-program> (last visited Feb. 7, 2014); *see also* Vicki Shiah, *Settlement Reached in Regional Greenhouse Gas Initiative Lawsuit*, *SPR ENVTL. L. BLOG*. (Jan. 14, 2010, 2:28 PM), <http://blog.sprlaw.com/2010/01/settlement-reached-in-regional-greenhouse-gas-initiative-lawsuit/>. New York's quick settlement had Consolidated Edison Company agreeing to pay the cogeneration project for the cost of its additional carbon allowances through the end of their preexisting long-term contracts. *See* Consent Decree, *Indeck Corinth, L.P. v. David Paterson*, No. 5280-09, at 5–6 (Sup. Ct. NY Cnty. Albany Dec. 17, 2009), *available at* [http://www.dec.ny.gov/docs/legal\\_protection\\_pdf/consdecree.pdf](http://www.dec.ny.gov/docs/legal_protection_pdf/consdecree.pdf).

182. *Thrun v. Cuomo*, No. 4358/11 (N.Y. Sup. Ct. filed Sept. 2, 2011); Geoffrey Craig & Gail Roberts, *Lawsuit Disputes Legality of New York Participation in RGGI, Citing Lack of Legislative Approval*, *ELECTRIC UTIL. WK.*, July 4, 2011, at 10.

183. *See supra* notes 32–42, 70, 135, and accompanying text.

- States either settled in favor of challengers or lost in a majority of these lawsuits.
- One was dismissed on procedural grounds without reaching the merits of the claim, with permission for the plaintiff/challenger to refile the complaint.
- One is still pending, with judges equally split—two finding it unconstitutional, and two not.

Separately, state sustainable energy policy recently has undergone thirteen significant legal challenges under the dormant commerce clause<sup>184</sup>:

- States either settled in favor of challengers or lost at the trial or appellate level in the majority of these matters.
- Others were dismissed on procedural grounds without reaching the merits of the claim or are still pending a final decision.

There is a compelling need for an alternative mechanism that will avoid this barrage of litigation but nonetheless promote sustainable energy. Part III proceeds "outside the box" to suggest such an alternative mechanism to avoid constitutional challenges to state sustainable energy policy within the American judicial system.

### III. THE LEGAL SOLUTION: IT WAS THERE ALL THE TIME

Having charted the constitutional trip wires and ongoing challenges, the purpose of this Article is to sculpt a bulletproof solution. Limiting global warming to a no more than a two degrees Centigrade increase from pre-Industrial Revolution levels will require stabilizing carbon dioxide concentrations in the atmosphere to no more than 450 parts per million ("ppm").<sup>185</sup> Complicating this, CO<sub>2</sub> lingers in the atmosphere, thus causing concentrations to hold steady for decades,<sup>186</sup> perhaps even hundreds of years.<sup>187</sup>

---

184. See *supra* notes 129–37, 145, 149, 162–65, 180–82, and accompanying text.

185. See FERREY, *supra* note 2, at 243. At such modest levels, the degree of warming is not expected to result in radical loss of ice sheet, sea-level rise, and shift of agricultural areas. *Id.*

186. NAT'L ACAD. SCI. ET AL., UNDERSTANDING AND RESPONDING TO CLIMATE CHANGE: HIGHLIGHTS OF NATIONAL ACADEMIES REPORTS 20 (2008), available at [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/stelprdb1048006.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1048006.pdf).

187. See *id.*; Susan Soloman et al., *Irreversible Climate Change Due to Carbon Dioxide Emissions*, 106 PROC. NAT'L ACAD. SCI. 1704, 1704 (2009) (showing that CO<sub>2</sub> warming impact could last 1,000 years).

“Limiting temperature to 2°C requires a low-carbon energy revolution.”<sup>188</sup> Fully two-thirds of emission savings are projected to need to come from the power sector.<sup>189</sup> Achieving this goal will require a “far-reaching transformation of the global energy system.”<sup>190</sup> This transition is vitally important to diversify the electric energy base with more renewable power and to lower carbon emissions and arrest climate change.<sup>191</sup>

To enable and accomplish this revolution, the U.S. Constitution is not going to be amended in the foreseeable future to alter the Supremacy Clause, the Supreme Court has not altered application of the dormant commerce clause, and there is no immediate prospect to amend the Federal Power Act. Therefore, there are constitutional barriers to some state actions and incentives:

- More challenges to state renewable energy policy (in addition to the dozen recent examples<sup>192</sup>), of which at least some will be successful and all will produce uncertainty and delay
- The expenditure of millions of dollars of taxpayer funds to reimburse plaintiff attorney fees of successful challengers and to pay government attorneys defending such policies<sup>193</sup>

---

188. INT’L ENERGY AGENCY, WORLD ENERGY OUTLOOK 2009: EXECUTIVE SUMMARY 7 (2009), available at <https://www.iea.org/textbase/npsum/weo2009sum.pdf>.

189. *Id.* at 8.

190. INT’L ENERGY AGENCY, WORLD ENERGY OUTLOOK 2010: EXECUTIVE SUMMARY 12 (2010), available at [http://www.worldenergyoutlook.org/media/weowebiste/2010/WEO2010\\_es\\_english.pdf](http://www.worldenergyoutlook.org/media/weowebiste/2010/WEO2010_es_english.pdf).

191. FERREY, *supra* note 12.

192. *See supra* Subpart II.D.

193. For example, in *Entergy Nuclear Vermont Yankee, LLC v. Shumlin*, 838 F. Supp. 2d 183 (D. Vt. 2012), *aff’d in part, rev’d in part*, 733 F.3d 393 (2d Cir. 2013), the first level of litigation at the trial court level resulted in an award against the state of Vermont of attorney fees for plaintiff Entergy of approximately \$4.6 million dollars, and mounting over time on appeal, as a result of enacting an unconstitutional energy regulation that was found to violate the Supremacy Clause and the dormant commerce clause. *See* Anne Galloway, *Entergy Seeks \$4.6 Million in Legal Fees from State of Vermont*, VTDIGGER (Feb. 4, 2012), <http://vtdigger.org/2012/02/04/entergy-seeks-4-6-million-in-legal-fees-from-state-of-vermont/>. Vermont is a small state, and this cost to reimburse the plaintiff’s attorney fees is in addition to the cost Vermont incurred for its fees defending the state. *Id.* That litigation is proceeding now through the Second Circuit Court of Appeals, and the cost to Vermont ratepayers continues to mount. *Id.* An eventual appeal to the U.S. Supreme Court is likely. *Id.*

A. *Principles to Make a Regulatory Solution Bulletproof*

There is an intriguing—yet totally unexplored for this purpose—tool to transcend the constitutional concerns.<sup>194</sup> Charting applicable precedent, principles of a new tool must (1) not vary any traditional utility rate-making principles, (2) build on traditional legal principles and tools, and (3) apply traditional rate-making concepts to new renewable energy policy challenges.

Google Inc. has proposed having all utilities provide a new retail voluntary tariff for any customer who wants to use renewable power.<sup>195</sup> This would be a self-contained tariff, internalizing all renewable costs to users.<sup>196</sup> The Natural Resources Defense Council and the Edison Electric Industry, an electric utility industry trade group, in 2014 jointly called for a new state retail rate structure to reflect more equitable prices, based on actual costs and benefits, for distributed renewable energy systems.<sup>197</sup> The groups jointly stated that “[r]ate designs will continue to develop that reward customers for using electricity more efficiently,” and an NRDC official stated that owners of rooftop solar panels “must provide reasonable cost-based compensation for the utility services they use.”<sup>198</sup>

We create this new tool by building on and quantifying the value of distributed renewable power. Additional deployment of renewable energy resources has measureable positive public externalities:

- Increasing power system reliability with more independent points of generation<sup>199</sup>
- Creating a reliable and appropriately more-mixed generation supply diversity for the electric power system<sup>200</sup>

---

194. See *supra* Part III.

195. See *Expanding Renewable Energy Options for Companies Through Utility-Offered “Renewable Energy Tariffs,”* GOOGLE (Apr. 19, 2013), [http://static.googleusercontent.com/external\\_content/untrusted\\_dlcp/www.google.com/en/us/green/pdf/renewable-energy-options.pdf](http://static.googleusercontent.com/external_content/untrusted_dlcp/www.google.com/en/us/green/pdf/renewable-energy-options.pdf).

196. *Id.*

197. See EEI/NRDC Joint Statement to State Utility Regulators 2–3 (Feb. 12, 2014), [http://docs.nrdc.org/energy/files/ene\\_14021101a.pdf](http://docs.nrdc.org/energy/files/ene_14021101a.pdf) (listing “Key Recommendations” for increasing grid performance while decreasing emissions); see also Christopher Martin, *NRDC, Utility Group Urge Grid Payments, New Rate Structure for Rooftop Solar Users*, BLOOMBERG BNA (Feb. 12, 2014, 2:30 PM), <http://www.bloomberg.com/news/2014-02-12/nrdc-and-u-s-utilities-seek-compensation-for-rooftop-solar-cost.html> (explaining the new rate structure).

198. EEI/NRDC Joint Statement to State Utility Regulators, *supra* note 197, at 2.

199. See *Distributed Energy Basics*, NAT’L RENEWABLE ENERGY LAB., [http://www.nrel.gov/learning/eds\\_distributed\\_energy.html](http://www.nrel.gov/learning/eds_distributed_energy.html) (last updated Dec. 3, 2012).

- Putting less pressure on the use of the aging power distribution system by utilizing on-site private power rather than moving more power through the regulated power distribution system<sup>201</sup>
- Using solar photovoltaic (“PV”) systems that can add on-peak value to the power transmission network with which they interconnect by providing supply to proximately located end users,<sup>202</sup> although this is dependent on a case-by-case locational determination of power flow<sup>203</sup>

Some scholars have estimated that the value of distributed solar PV units that sell power back to the grid results in savings to the utility system due to not purchasing that amount of power elsewhere, saving use of transmission and distribution capacity, eliminating risk of changes in fossil fuel prices, and saving transmission and distribution losses of 5% to 10% in transmission—which they valued cumulatively at between \$0.09 and \$0.25 per kilowatt-hour (“kWh”).<sup>204</sup> In addition to these values to the utility system, articles note that there are other societal benefits in environmental and health benefits, jobs, and grid security, which increase the cumulative total by approximately 50%.<sup>205</sup> There is an estimate that power outages cost the U.S. economy losses of \$100 billion annually<sup>206</sup> and that a small amount of additional PV-distributed generation capacity could have prevented the East Coast blackout in 2003.<sup>207</sup>

The key point is that these positive externalities to the power system are quantifiable values. Any state could engage in a regulatory process to put a quantitative dollar value on these benefits of distributed generation, just as retail utility rate making

200. *Id.*

201. *See Benefits of Solar*, STATES ADVANCING SOLAR, <http://www.statesadvancingsolar.org/solar-101/benefits-of-solar> (last visited Dec. 13, 2013).

202. Edward Kahn, *Avoidable Transmission Cost Is a Substantial Benefit of Solar PV*, 21 *ELECTRICITY J.* 41, 45 (2008).

203. While increased solar PV installations sited near load centers can defer substation and grid system investments, they can increase two-way power flows and add grid management costs for voltage fluctuations and equipment overload. Tiernan, *supra* note 57.

204. Richard Perez et al., *Solar Power Generation in the U.S.: Too Expensive, or a Bargain?*, 39 *ENERGY POL'Y* 7290, 7294 (2011). The range of value that this Article attaches to wholesale power is significantly above the average weighted price of wholesale power transactions in the last several years and uses the distributed power value in New York City, a location that is capacity constrained. *See FERREY, supra* note 19, § 10:144 n.29.

205. Perez et al., *supra* note 204, at 7293.

206. *Id.*; Clark W. Gellings & Kurt E. Yeager, *Transforming the Electric Infrastructure*, 57 *PHYSICS TODAY* 45, 48 (2004).

207. Perez et al., *supra* note 204, at 7291.

quantifies costs of serving different customer classes to determine and administer fair costs of service. To date, however, no state has rolled up its sleeves and quantified distributed energy supply values as a component of its rate making and rate setting of retail power rates. No state has done the work to create a separately priced class of retail electric service for distributed generation customers.<sup>208</sup> There is a positive value to this otherwise unreflected contribution of distributed generation.<sup>209</sup> The value would be utility specific and somewhat location specific based on the distribution system. And this quantification not only is doing something that already should have been done but also is less work than defending, and often losing, a barrage of lawsuits.

Electricity, unlike all other forms of energy, cannot be stored efficiently as electricity for more than a second before it is lost as waste heat.<sup>210</sup> Therefore, the supply of electricity must match the demand for electricity over the centralized utility grid of a nation on an instantaneous basis, or else the electric system shuts down or expensive equipment is damaged.<sup>211</sup> The cost of producing electricity varies greatly hour by hour. For most consumers, however, this volatile price is not instantaneously reflected in rates perceived or paid by consumers in their average-cost retail tariffs. The current rate structure in most states for residential consumers has consumers pay the same for the kilowatt-hour purchased during a hot midsummer day as they do for the kilowatt-hour consumed at four in the morning.<sup>212</sup>

While the retail cost to the consumer stays the same under a flat rate structure, the cost to the utility to produce the power is drastically varying and time sensitive. Base-load generation typically is supplied by a coal-fired or nuclear plant that runs continuously because these plants have slow start-up and require cool-down times if not run continuously.<sup>213</sup> When demand for

---

208. There are standby service rates for self-generating customers, but these do not consider the benefit to the system of self-generated power as an element of the applicable rate. See generally 1 FERREY, *supra* note 19, § 4.33, app. 11 (discussing pricing for self-generating customers without the mention of any benefits considered when determining the applicable rates).

209. See RYAN FIRESTONE ET AL., THE VALUE OF DISTRIBUTED GENERATION UNDER DIFFERENT TARIFF STRUCTURES 1 (2006), available at <http://der.lbl.gov/publications/value-distributed-generation-different-tariff-structures>.

210. FERREY, *supra* note 2, at 542.

211. FERREY, *supra* note 12, at 149.

212. Severin Borenstein, *Time-Varying Retail Electricity Prices: Theory and Practice*, in ELECTRICITY DEREGULATION: CHOICES AND CHALLENGES 317, 317–18 (James M. Griffin & Steven L. Puller eds., 2005).

213. See *Electricity in the United States—Generation, Sales & Capacity*, U.S. ENERGY INFO. ADMIN., [http://www.eia.gov/energyexplained/index.cfm?page=electricity\\_in\\_the\\_united\\_states#tab2](http://www.eia.gov/energyexplained/index.cfm?page=electricity_in_the_united_states#tab2) (last updated Apr. 10, 2013) [hereinafter *Electricity in the United States*] (explaining base-load generating units); see also Borenstein, *supra* note 212, at 348 (explaining that coal plants operate with

electricity rises, more flexible fast-starting plants must come on line to meet that demand, and these secondary generators typically are natural gas or oil-fired generators.<sup>214</sup> These secondary generators are expensive to build and run, but they may only be on line for a low percentage of the total operating hours of the year.<sup>215</sup> If, however, peak demand can be lowered significantly enough to prevent the construction of these additional peak-time generating facilities, customers can avoid bearing the bill for the construction of generators whose purpose will only be to meet peak demand. With managed demand, costs for the entire electric system are less.

Utilizing incontestable traditional state regulatory principles, the value to the utility grid—at the margin, with greater reliability, power generation diversity, and power location diversity noted above—can be quantified and reflected as a reduced rate for retail electric service to eligible generation customers. Renewable energy generators would benefit from a subsidy through their state retail power *purchase* rates rather than through legally impermissible state FiT wholesale power *sale* rates.<sup>216</sup> The former are totally within state retail rate authority, while the latter are not within any state retail rate authority. This is the critical legal distinction separating defensible state electric regulatory actions.

Two later Parts of this Article<sup>217</sup> illustrate legal precedent under which several states already sanction routine discounted electric service rates for groups of consumers based not on the cost of providing service to them but on either a concession for using larger amounts of power<sup>218</sup> or a customer's old age or low income.<sup>219</sup> And in each of these situations, it is not the utility company but other electric consumers who, largely unknown to them, pay the cost of this subsidy.<sup>220</sup>

A new rate to serve distributed generation customers, however, would not need to go this far to make arbitrary discounts not related to the cost of service. What I propose is a distributed service generator rate for the sale of electricity based directly on traditional costs of service, net of the value of distributed generation to the grid.

---

high fixed-capacity costs and low variable costs that are generally characteristic of base-load generating).

214. *Electricity in the United States*, *supra* note 213.

215. Borenstein, *supra* note 212, at 348–49.

216. Cal. Pub. Utils. Comm'n, 132 F.E.R.C. ¶ 61,047, ¶ 61,337–38 (2010) (order on petitions for declaratory order), *clarified on reh'g*, 133 F.E.R.C. ¶ 61,059 (2010) (explaining that states may not set rates for wholesale sales in interstate commerce by public utilities); *see also* Tiernan, *supra* note 57.

217. *See infra* Parts IV & V.

218. *See infra* Part V.

219. *See infra* Part IV.

220. *See* CHARLES HARAK ET AL., ACCESS TO UTILITY SERVICE 163–71, 245 (5th ed. 2011). Professor Ferrey acknowledges the research of his students, Darius Pakrooh and Jesse Gag, relevant to this Part.

For distributed renewable power generators, a reduced retail rate for electric service would not be an arbitrary subsidy; it would be empirically based on the actual net cost of service to this class of customers. Therefore, it is more, not less, legally defensible than existing rate discounts to certain customers. It is bulletproof legally because it would finally reflect actual retail rate cost-of-service principles.<sup>221</sup>

*B. Principles of Supportable Legal Rates for Renewable Power Generation Customers*

Traditionally, electricity has been priced in a unique way. Electricity is priced based on its reasonable cost of production and the translation of total cost to "just and reasonable" rates that reflect these costs.<sup>222</sup> "The basic objective of regulation remains to attain efficiency and equity. Regulation of profits and rate levels are the principal focus of public utility regulation."<sup>223</sup> Gross revenues must cover the reasonable cost of running the system, and the allocation of rates among classes to raise those revenues must be made based on the principles of tracking and reflecting costs of serving each reasonably distinct class of customers.<sup>224</sup>

The legal standards guiding the regulatory commissions are broad. Each specific rate must be "just and reasonable."<sup>225</sup> A nearly universal obligation imposed by federal and state laws on public utilities is the obligation to furnish service and to charge rates that will avoid undue or unjust discrimination among customers.<sup>226</sup> Further, "'undue' or 'unjust' discrimination among customers is prohibited."<sup>227</sup> Policy considerations, such as providing environmental incentives or discounting rates to certain segments of the customer base, play a subsidiary role in the ultimate rate allocation among customer classes.<sup>228</sup> These principles are embedded in rate decisions of both FERC<sup>229</sup> and state regulatory

---

221. See *infra* Subpart III.B.

222. 16 U.S.C. § 824d(e) (2012).

223. JAMES C. BONBRIGHT ET AL., PRINCIPLES OF PUBLIC UTILITY RATES 559 (2d ed. 1988).

224. See *Ala. Elec. Coop., Inc. v. FERC*, 684 F.2d 20, 27 (D.C. Cir. 1982) ("[I]t has come to be well established that electrical rates should be based on the costs of providing service to the utility's customers, plus a just and fair return on equity.").

225. 16 U.S.C. § 824d(a).

226. BONBRIGHT ET AL., *supra* note 223, at 515. If an electric plant is operating near full capacity, higher charges for on-peak versus off-peak would actually be required to avoid discrimination. *Id.* at 528.

227. CHARLES F. PHILLIPS, JR., THE REGULATION OF PUBLIC UTILITIES: THEORY AND PRACTICE 434 (3d ed. 1993).

228. BONBRIGHT ET AL., *supra* note 223, at 524.

229. *Ala. Elec. Coop., Inc.*, 684 F.2d at 21, 27.

commissions<sup>230</sup> and in principles when courts review the application of these principles by regulatory agencies.<sup>231</sup>

“The principles of *horizontal equity* that ‘equals should be treated equally,’ and *vertical equity* that ‘unequals should be treated unequally’ . . . [is interpreted to mean] that equal . . . cost causers for the provision of a good or service should pay the same . . . prices.”<sup>232</sup> Horizontal equity among different customer classes, based on cost of service, is a goal: it is illegal for a state to set rates that “grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage.”<sup>233</sup> An electric power customer only needs to show substantial vertical disparity in rates between customers of the same class in order to raise questions of discriminatory or preferential rates.<sup>234</sup>

The burden is on the applicant utility to justify all rates as just and reasonable.<sup>235</sup> Under the Federal Power Act, FERC may only allow “such rates as will prevent consumers from being charged [with] any unnecessary or illegal costs.”<sup>236</sup> Whenever FERC determines that a public utility’s rates, charges, or service classifications are unjust, unreasonable, or unduly discriminatory, FERC can determine and order rates that are just and reasonable.<sup>237</sup>

Notably, unlawful discrimination may arise under a single rate design where “a uniform rate creates an undue disparity between

230. MICH. COMP. LAWS SERV. §§ 460.557(3)–(4) (LexisNexis 2010); *see also* TEX. UTIL. CODE ANN. §§ 36.003(a)–(c) (West 2007).

231. *Ala. Elec. Coop., Inc.*, 684 F.2d at 27.

232. BONBRIGHT ET AL., *supra* note 223, at 568.

233. 16 U.S.C. § 824d(b)(1) (2012).

234. *Pub. Serv. Co. Ind. v. FERC*, 575 F.2d 1204, 1212 (7th Cir. 1978), *aff’d sub nom. City of Frankfort, Ind. v. FERC*, 678 F.2d 699 (7th Cir. 1982).

235. *Nantahala Power & Light Co. v. FERC*, 727 F.2d 1342, 1347, 1351 (4th Cir. 1984).

236. *NAACP v. Fed. Power Comm’n*, 425 U.S. 662, 666 (1976).

237. 16 U.S.C. § 824e(a). The court directly answered the issue of current “usefulness” and provided further insight into what types of canceled investments can be included in rate bases:

[T]he Commission’s decision to authorize full recovery was just and reasonable and consistent with Commission policy. We are unpersuaded by Norwood’s argument that forcing ratepayers to pay for a plant no longer producing electricity conflicts with the regulatory precept that ratepayers should only pay for items “used and useful” in providing service. Although a utility’s rate base normally consists only of items presently “used and useful” . . . a utility may include “prudent but canceled investments” in its rate base as long as the Commission reasonably balances consumers’ interest in fair rates against investors’ interest in “maintaining financial integrity and access to capital markets.”

*Town of Norwood v. FERC*, 80 F.3d 526, 531 (D.C. Cir. 1996) (citations omitted).

the rates of return on sales to different groups of customers."<sup>238</sup> If this rate design provides costs of service to one group that are different from costs of service to another, "the two groups are [then], in one important respect, quite dissimilar."<sup>239</sup> It is also illegal for a public utility to "maintain any unreasonable difference in rates . . . as between localities," which again is a geographically based discrimination.<sup>240</sup> "The provision and pricing of services to any person(s) should not impose unwarranted economic costs on other person(s)."<sup>241</sup>

Regulatory scrutiny is to ensure that only costs passed on to retail rates are "necessary and prudent."<sup>242</sup> In deciding on utility management prudence in a rate-making proceeding, the regulatory agency must judge whether actions

were prudent at the time, under all the circumstances, considering that the company had to operate at each step of the way prospectively rather than in reliance on hindsight . . . [and] in light of all conditions and circumstances which were known or which reasonably should have been known at the time the decisions were made.<sup>243</sup>

The rate charged to one group should not impose a cost burden derived from a different pricing policy of another group.<sup>244</sup> Additionally, a rate structure should avoid undue discrimination in rate relationships, avoid rate structures that encourage wasteful consumption, and include rates that fairly allocate total cost.<sup>245</sup>

### C. Precedent for Differentiated Classes of Customer Retail Rates

Principles of horizontal and vertical equity have not halted class distinction in retail power rates in many states. Distinctions are made for reasons that have nothing to do with the traditionally allowed cost of serving a particular customer. Reduced retail charges from the actual cost of providing electricity, in certain states, are provided to retail electricity customers who

---

238. Ala. Elec. Coop., Inc. v. FERC, 684 F.2d 20, 27 (D.C. Cir. 1982).

239. *Id.* at 27.

240. 16 U.S.C. § 824d(b)(2).

241. BONBRIGHT ET AL., *supra* note 223, at 568.

242. Midwestern Gas Transmission Co., 36 F.P.C. 61, 70 (1966), *aff'd sub nom.* Midwestern Gas Transmission Co. v. Fed. Power Comm'n, 388 F.2d 444 (7th Cir. 1968).

243. Re Bos. Edison Co., 46 Pub. Util. Rep. 4th (PUR) 431, 438 (Mass. Dep't Pub. Utils. 1982), *enforced sub nom.* Att'y Gen. v. Dep't of Pub. Utils., 455 N.E.2d 414 (Mass. 1983).

244. BONBRIGHT ET AL., *supra* note 223, at 568.

245. PHILLIPS, *supra* note 227 (quoting BONBRIGHT ET AL., *supra* note 223, at 291).

- are low income,<sup>246</sup>
- receive forms of financial assistance from the government,<sup>247</sup>
- are elderly,<sup>248</sup>
- have more electricity-using appliances, such as electric heating,<sup>249</sup>
- use more power under declining block rates,<sup>250</sup> or
- use less power and are therefore deemed more efficient.<sup>251</sup>

None of these categories of classification necessarily reflect actual deviations in the cost of serving the customers in the class. They are implemented for policy reasons rather than based on the touchstone cost of service.<sup>252</sup> If such class-based distinctions can be implemented, other new preferences proposed herein, which scrupulously reflect actual lower cost of service for distributed renewable on-site generation, certainly are legally permissible.<sup>253</sup> This new mechanism contrasts with some of the class discounts afforded based on arbitrarily established percentage deductions.<sup>254</sup>

If instead the state regulatory commission promoted renewable energy or distributed generation by setting a real cost-based discounted retail rate at which that customer class is served with power—based strictly on the net contribution of that customer class to lower costs of operating a more geographically distributed and technologically diverse grid—such a retail rate tariff would be clearly within state authority.<sup>255</sup> Moreover, by establishing a retail tariff that affects retail customers of the utility, rather than discriminating on wholesale power generation based on its geographic location of generation before entering interstate

---

246. See, e.g., *id.* at 449, 452.

247. See, e.g., *id.*

248. See, e.g., *id.* at 449, 451–52.

249. See, e.g., *Electric Heat Discount Rate*, CORNHUSKER PUB. POWER DIST., <http://www.cornhusker-power.com/discountrate.asp> (last visited Nov. 7, 2013).

250. See, e.g., *Rate 624*, N. IND. PUB. SERV. CO. 2 (Dec. 21, 2011), <http://www.nipsco.com/Libraries/electric-tariffs-122711/rate-624.sflb.ashx>.

251. See, e.g., *Schedule 7: Residential Service*, PORTLAND GEN. ELECTRIC CO. (Mar. 19, 2012), [http://www.portlandgeneral.com/our\\_company/corporate\\_info/regulatory\\_documents/pdfs/schedules/Sched\\_007.pdf](http://www.portlandgeneral.com/our_company/corporate_info/regulatory_documents/pdfs/schedules/Sched_007.pdf).

252. See PHILLIPS, *supra* note 227, at 449.

253. See *infra* Parts IV–V.

254. See *infra* Tables 4–6.

255. *Compare* *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 962 (1986) (noting “interstate power rates filed with FERC or fixed by FERC must be given binding effect by state utility commissions determining intrastate rates”), *with* Ferrey, *Follow the Money!*, *supra* note 33, at 125–26 (discussing how to use renewable energy sources at the retail rate level without creating constitutional challenges).

commerce, legal scrutiny under the so-called dormant commerce clause is not triggered.<sup>256</sup> For both of these legal distinctions, this suggested alternative form of support for renewable power based on actual net benefits is much less subject to legal challenge. Without such a shift in the use of tools available to the states, there is no end yet in the often-successful challenges to state renewable incentives<sup>257</sup>—embedded in certain state renewable portfolio standards,<sup>258</sup> state system benefit charges,<sup>259</sup> and state net metering<sup>260</sup>—as well as the legal challenges to state climate control regulations<sup>261</sup> and state FITs.<sup>262</sup>

The next Part examines the legal precedent around distinctions in power sale rates for certain customer classes based on nontraditional economic principles of cost of service.

#### IV. HISTORIC RETAIL RATE DISCOUNTS BASED ON THE PURCHASER'S STATUS RATHER THAN THE POWER PURCHASED

In several states, rates consumers pay for the provision of retail electricity are intentionally inequitable by design. Some states have permitted this, while other states have held that a sale of identical

---

256. See *Gen. Motors Corp. v. Tracy*, 519 U.S. 278, 292 (1997) (discussing Commerce Clause issues in the natural gas context); *C & A Carbone v. Town of Clarkstown*, 511 U.S. 383, 390 (1994) (discussing Commerce Clause issues in the solid waste disposal context); *W. Lynn Creamery, Inc. v. Healey*, 512 U.S. 186, 196, 206 (1994) (discussing Commerce Clause issues in the dairy industry context); *Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Natural Res.*, 504 U.S. 353, 361 (1992) (discussing Commerce Clause issues in the solid waste disposal context); *New Eng. Power Co. v. New Hampshire*, 455 U.S. 331, 339 (1982) (noting protectionist regulations that favor one state "cannot be squared with the Commerce Clause"); *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).

257. 16 U.S.C. § 824a-2 (2012) (authorizing FERC-recommended electric utility industry standards for reliability, "including standards with respect to equipment, operating procedures and training personnel, and standards relating to the level or levels of reliability appropriate to adequately and reliably serve the needs of electric consumers"). See *generally* Ferrey, *supra* note 79 (examining Commerce Clause implications of current state renewable energy programs); Ferrey et al., *Fire and Ice*, *supra* note 33 (discussing recent legal challenges to state renewable energy regulations).

258. See *generally* Ferrey, *supra* note 79; Ferrey et al., *Fire and Ice*, *supra* note 33.

259. See Ferrey, *Follow the Money!*, *supra* note 33, at 129–30 (discussing possible legal hurdles for system benefit charges).

260. See *generally* Ferrey, *supra* note 46 (examining the constitutionality of net metering).

261. See *generally* Ferrey, *supra* note 3 (discussing the constitutionality of carbon regulatory measures).

262. See *generally* Ferrey et al., *Fire and Ice*, *supra* note 33; Ferrey et al., *FIT in the USA*, *supra* note 33.

units of electricity must be offered on equal terms to all customers at a nondiscriminatory price.

A. *Retail Energy Rate Discount Variations*

Approximately half of the states grant authority to PUCs to consider discounts for low-income consumers, while the other half of the states do not. In one model, all low-income customers get the same percentage reduction or discount. In another model, the discounts are tiered so the poorest customers get a larger discount based on their lower incomes. State regulatory commissions have developed straight discounts, tiered discounts, consumption-based discounts, and customer charge waivers.<sup>263</sup>

1. *Targeted Lifeline Retail Rates*

Some electric utilities provide discounted rates to low-income consumers through general or targeted "lifeline" rates.<sup>264</sup> These rates provide a certain amount of electricity below cost and are funded by a charge imposed on other residential customers and/or other customer classes, either through a targeted discount or a percentage-income plan.<sup>265</sup> Fourteen states provide targeted, set-amount lifeline rates for low-income customers.<sup>266</sup> Thereunder, utility companies provide a discount to eligible low-income customers for all or some of their electric utility bills.<sup>267</sup> No states, however, provide a general lifeline rate to all residential customers.<sup>268</sup> These variations are set forth in Table 2.

---

263. See HARAK ET AL., *supra* note 220, at 163–71 (listing and explaining these four approaches). Professor Ferrey acknowledges the research of his students, Darius Pakrooh and Jesse Gag, relevant to this Part.

264. See MARGOT FREEMAN SAUNDERS & NANCY BROCKWAY, ACCESS TO UTILITY SERVICE 367–77 (1996) (cataloging discount rate programs in each state).

265. See *id.*

266. See FERREY, *supra* note 19, § 10:17.

267. *Id.*

268. *Id.*

TABLE 2: LIFELINE UTILITY RATES (AS OF 2002)

Type of Low-Income Assistance	States With Participating Utilities
General Lifeline Rate	None
Targeted Lifeline Rate: Straight Percentage Discount	California, Maine, Massachusetts, Montana, Oklahoma, Washington <sup>269</sup>
Targeted Lifeline Rate: Straight Percentage Discount for Certain Season	West Virginia (December–April), Arizona (November–March) <sup>270</sup>
Targeted Lifeline Rate: Marginal Rate for Certain Amount of Energy	Arizona, District of Columbia, Minnesota, New York, North Carolina, Rhode Island, Wisconsin <sup>271</sup>
Percentage-Income Plan	Colorado, Illinois, Kentucky, Maine, Ohio, Pennsylvania, Rhode Island <sup>272</sup>
Flat Credit	New Jersey <sup>273</sup>
Waiver of Customer Charges	Alabama, Georgia, Mississippi, New York <sup>274</sup>
Arrearage Forgiveness	Connecticut, Michigan <sup>275</sup>

269. *Id.*; see also *infra* text accompanying note 276.

270. FERREY, *supra* note 19, § 10.17; see also *infra* note 279 and accompanying text.

271. FERREY, *supra* note 19, § 10.17; see also *infra* text accompanying note 280.

272. FERREY, *supra* note 19, § 10.17; see also *infra* text accompanying note 292.

273. See *infra* note 297 and accompanying text.

274. See *infra* notes 300, 303, and accompanying text.

275. FERREY, *supra* note 19, § 10.17; see also *infra* text accompanying note 305.

California, Maine, Massachusetts, Montana, Oklahoma, and Washington provide a straight percentage discount of the total bill.<sup>276</sup> A straight discount is a specific percentage that is deducted from a customer's total bill.<sup>277</sup> In 1989, California enacted the Low Income Rates for Energy ("LIRA"), which established discounts to low-income customers in an amount of 15% to 20% of bills.<sup>278</sup> Two states provide a straight percentage discount for the winter season;<sup>279</sup> Arizona, the District of Columbia, Minnesota, New York, North Carolina, Rhode Island, and Wisconsin have marginal rates for a certain fixed amount of energy.<sup>280</sup>

A tiered discount program offers varying discounts depending upon a customer's income or poverty level.<sup>281</sup> Two Indiana utilities implemented tiered discount programs.<sup>282</sup> A consumption-based discount is set based on a customer's level of usage, to discourage overconsumption by a customer receiving a discounted price.<sup>283</sup> Arizona utilities have implemented consumption-based discounts.<sup>284</sup>

Massachusetts electric and gas distribution companies are required "to provide discounted rates for low-income customers, with the cost of the discount program recouped from the rates charged to all other customers of the company."<sup>285</sup> The discount to eligible customers is not borne by the utilities; rather, it is passed on with no explanation in the bill, to all other consumers:

Each [Local] Distribution Company shall have on file a low-income tariff that provides a reduction in the distribution charges to which such Customers would otherwise be subject. Each [Local] Distribution Company shall establish eligibility for its low-income rate tariff. . . . Each Local Distribution Company shall allocate to other rate classes, as part of a general rate case, the revenue deficiency resulting from the low-income rate tariff.<sup>286</sup>

In Massachusetts, a consumer on any public assistance gets an automatic discount on his or her distribution costs on the utility

276. FERREY, *supra* note 19, § 10:17.

277. HARAK ET AL., *supra* note 220, at 163.

278. See FERREY, *supra* note 19, § 10:29 n.6. LIRA was later renamed the California Alternative Rate for Energy ("CARE"). *Id.*

279. See *id.* § 10:17. West Virginia provides a discount from December to April, and Arizona provides a discount from November to March. *Id.*

280. *Id.*

281. HARAK ET AL., *supra* note 220, at 167.

282. *Id.*

283. *Id.* at 169.

284. *Id.*

285. 36 THOMAS B. MERRITT, MASSACHUSETTS PRACTICE SERIES: CONSUMER LAW § 27:20 (3d ed. 2013).

286. See 220 MASS. CODE REGS. 14.03(2A) (2008).

bills.<sup>287</sup> Customers are eligible for the low-income discounts if they can show that they are the head of a household or the principal wage earner and they receive "any means tested public benefit," which includes assistance through food stamps, subsidized housing, Supplemental Security Income ("SSI"), veteran benefits, or the Low-Income Home Energy Assistance Program ("LIHEAP").<sup>288</sup>

The Massachusetts Department of Public Utilities ("DPU") requires that the low-income tariff apply "to the distribution charge and, during the transition period, the discount . . . also appl[ies] to the stranded cost charge."<sup>289</sup> A total of \$22 million was transferred on low-income discounts in Massachusetts in 1994.<sup>290</sup> The companies are permitted to recoup the revenue lost from the subsidies in the "access rates" charged to the bills of other customers of all classes.<sup>291</sup>

## 2. Purchaser Percentage-Income Plans

Colorado, Illinois, Kentucky, Maine, Ohio, Pennsylvania, and Rhode Island offer a percentage-income plan.<sup>292</sup> In Ohio, customers who have a gross yearly household income at or below 150% of the federal poverty guidelines can apply for the Percentage of Income Payment Plan Plus, under which each month, customers enrolled pay ten dollars or 6% of their gross monthly household income, whichever is greater.<sup>293</sup> In Pennsylvania, residential customers can enroll in the Customer Assistance Program ("CAP") to lower their monthly utility bills and discharge past debts owed to utility companies.<sup>294</sup> Eligibility for the CAP is based on certain monthly household income limits, which vary by household size.<sup>295</sup>

---

287. MASS. ANN. LAWS ch. 164, § 1F(4)(i) (LexisNexis 2013); see also FERREY, *supra* note 49, at 341 (listing eligible public assistance programs); MERRITT, *supra* note 285.

288. MASS. ANN. LAWS ch. 164 § 1F(4)(i); see also FERREY, *supra* note 19, § 10:13; FERREY, *supra* note 49, at 341 (listing eligible public assistance programs).

289. Commonwealth of Mass. Dep't of Pub. Utils., *Electric Industry Restructuring Plan: Model Rules and Legislative Proposal D.P.U. 96-100*, ENERGY & ENVTL. AFF. 36 (Dec. 30, 1996), <http://www.env.state.ma.us/dpu/docs/restruct/96-100/96-100p.pdf>.

290. FERREY, *supra* note 49, at 341.

291. See *id.* ("The cost of the subsidy is rolled into the rates of all customer classes."); FERREY, *supra* note 19, § 10:13; see also MERRITT, *supra* note 285.

292. See FERREY, *supra* note 19, § 10:17.

293. *Percentage of Income Payment Plan Plus (PIPP Plus)*, PUB. UTIL. COMM'N OHIO, <http://www.puco.ohio.gov/puco/index.cfm/consumer-information/consumer-topics/percentage-of-income-payment-plan-plus-pipp-plus/> (last visited Nov. 9, 2013).

294. *Energy Assistance Programs*, PA. PUB. UTIL. COMM'N, [http://www.puc.state.pa.us/consumer\\_info/electricity/energy\\_assistance\\_programs.aspx](http://www.puc.state.pa.us/consumer_info/electricity/energy_assistance_programs.aspx) (last visited Nov. 9, 2013).

295. *Id.*

Pennsylvania law explicitly preserves the utility companies' rights to fully recover costs of low-income assistance through a "nonbypassable rate mechanism."<sup>296</sup>

### 3. Flat Credits

New Jersey offers the Lifeline program, which is a \$225 flat credit to senior customers, disabled individuals, and low-income customers who have electric and gas costs included as a component in their rents.<sup>297</sup> New Jersey also offers the Universal Service Fund program, which provides a fixed credit each month for up to \$1,800 annually.<sup>298</sup> Alternatively, low-income customers facing a financial crisis can apply to NJ SHARES, a nonprofit corporation that provides a one-time grant of up to \$300 to apply to electric bills.<sup>299</sup>

### 4. Waiver of Customer Charges

Alabama and Georgia utilities have provided discounts for low-income customers through customer charge waivers,<sup>300</sup> which waive the fixed customer charge that is a small element of all monthly residential bills.<sup>301</sup> In Alabama, the waiver is based on the customer's eligibility for social security income.<sup>302</sup> Mississippi and New York also offer waivers of customer charges.<sup>303</sup> Mississippi Power will waive the monthly base charge of \$0.46 per day for qualified elderly and low-income customers.<sup>304</sup>

---

296. See 66 PA. CONS. STAT. ANN. § 2802(17) (West 2013) ("[F]ull recovery of such costs is to be permitted through a nonbypassable rate mechanism.").

297. *Customer Assistance*, N.J. BOARD PUB. UTIL., <http://www.nj.gov/bpu/assistance/programs/> (last visited Dec. 15, 2013); *Lifeline*, N.J. DEPT' HUM. SERVS. DIVISION AGING SERVS., <http://www.state.nj.us/humanservices/doas/home/lifeline.html> (last visited Dec. 15, 2013); see also FERREY, *supra* note 19, § 10:17.

298. *Universal Service Fund*, N.J. BOARD PUB. UTIL., <http://www.state.nj.us/bpu/residential/assistance/usf.html#nbr1> (last visited Dec. 15, 2013).

299. See *Customer Assistance*, N.J. BOARD PUB. UTIL., <http://www.nj.gov/bpu/assistance/programs/> (last visited Dec. 15, 2013); see also *NJ SHARES Provides Energy Assistance*, NJ SHARES, <http://www.njshares.org/aboutNJShares/energy-assistance.asp> (last visited Dec. 15, 2013).

300. HARAK ET AL., *supra* note 220, at 170–71, 245.

301. *Id.*

302. See ALA. POWER CO., RULES AND REGULATIONS FOR ELECTRIC SERVICE § 6.2 (2011), available at <http://www.alabamapower.com/residential/pricing-rates/pdf/APCRulesRegulations.pdf>.

303. See FERREY, *supra* note 19, § 10:17.

304. *Assistance and Help in Mississippi with Cooling and Utility Bills*, UTIL. BILL ASSISTANCE, [http://www.utilitybillassistance.com/html/mississippi\\_assistance\\_and\\_hel.html](http://www.utilitybillassistance.com/html/mississippi_assistance_and_hel.html) (last visited Dec. 15, 2013).

### 5. *Purchaser Bill Arrearage Forgiveness*

Connecticut and Michigan offer bill payment arrearage forgiveness to certain customers.<sup>305</sup> Of note, retail rate discounts based on the age of the customer are somewhat similar to local property tax discounts afforded to older taxpayers owning real property in a community. For example, some local governments provide an exemption from property tax for a homeowner over either sixty-five or sixty-seven years of age with a financial estate, excluding the home, below \$40,000 to \$43,000, depending on the city.<sup>306</sup> This can be a partial or total exemption in some cities.<sup>307</sup>

There is a distinction between tax policy and retail utility rates. Tax policy is initiated by the legislative branch to raise revenue for public services; utility rates are established by an executive agency of the state government under rate precedent to recover the fair and equitable cost of retail energy supply for a typically monopolized provider of private power service.<sup>308</sup> The former is able to exercise legislative discretion, while the latter makes a quasijudicial determination based on administrative law principles.<sup>309</sup> In determining the latter, there is less political discretion in addition to more requirements of law.

### B. *Legal Challenges to Discounted Energy Rates*

It is no secret that utility companies are neither charitable institutions nor government welfare agencies.<sup>310</sup> Utilities cannot be compelled to devote their property for a public use without compensation and are entitled to make a reasonable and fair return on their investments.<sup>311</sup> Utilities recoup costs from required discounts to a given class of customers through an invisible charge imposed on the utility bills of other classes of customers.<sup>312</sup>

---

305. See FERREY, *supra* note 19, § 10:17.

306. See, e.g., *Tax Assistance Programs*, CITY NEWTON MASS., <http://www.newtonma.gov/gov/assessor/programs.asp> (last visited Dec. 15, 2013); *Tax Exemption Information*, TOWN CONCORD MASS., [http://www.concordma.gov/pages/ConcordMA\\_assessor/exemption\\_information](http://www.concordma.gov/pages/ConcordMA_assessor/exemption_information) (last visited Dec. 15, 2013).

307. See *id.*

308. Compare Kenneth L. Sokoloff & Eric M. Zolt, *Inequality and Taxation: Evidence from the Americas on How Inequality May Influence Tax Institutions*, 59 TAX L. REV. 167, 168 (2006), with PHILLIPS, *supra* note 227, at 171–72.

309. See PHILLIPS, *supra* note 227, at 148–53.

310. See 12 EUGENE MCQUILLIN, THE LAW OF MUNICIPAL CORPORATIONS § 34:195 (3d ed. 2011); see also *Narragansett Elec. Co. v. Harsch*, 368 A.2d 1194, 1211–12 (R.I. 1977).

311. *State ex rel. Puget Sound Power & Light Co. v. Dep't of Pub. Works*, 38 P.2d 350, 352 (Wash. 1934) ("One of the main purposes of our statutory public service law is that rates shall at all times be nondiscriminatory, nonpreferential, and just, reasonable, and sufficient to yield a reasonable compensation for the service rendered." (quotation marks omitted)).

312. See FERREY, *supra* note 19, § 10:17; FERREY, *supra* note 49, at 341.

Residential class discounts may be imposed as increases on the rest of residential customers or may be spread over commercial- and industrial-class customers.<sup>313</sup>

The rate-making allocation is a zero-sum game: one class's gain is the other class's increased costs, dollar for dollar. As the legal touchstone, a public utility regulatory commission lacks the power to approve the collection of unjust, unreasonable, discriminatory, preferential, or prejudicial rates.<sup>314</sup> Depending on the language of the state constitution, the practice of discounted utility rates to one class and not to another class with identical costs of service may violate applicable state equal protection clauses.<sup>315</sup>

*1. Legal Metrics: Undue Rate Discrimination Violates the Equal Protection Clause*<sup>316</sup>

Despite the prohibition on setting or administering discriminatory, preferential, or prejudicial rates, a significant number of state commissions have implemented discounted rates to certain classes of retail consumers. When contested, the majority of legal challenges to policies of discounted rates have been based on the equal protection clause of the applicable state constitution.<sup>317</sup> Rate disparity among classes of consumers, alone, does not establish unlawful discrimination.<sup>318</sup> If classifications are reasonable, disparity in rates may exist between different classes of customers and, typically, industrial, residential, commercial, and municipal customers pay different rates for their services.<sup>319</sup> A state regulatory commission must make a determination as to whether different customers have paid variable "amounts for the same service under the same circumstances."<sup>320</sup>

At the federal level of regulation, section 205 of the Federal Power Act prohibits utilities from granting any "undue preference or advantage to any person or . . . maintain[ing] any unreasonable difference in rates . . . either as between localities or as between classes of service."<sup>321</sup> Utilities are permitted, however, to have reasonable differences in the rates charged to distinct classes of

313. See *id.*; see also *City of Pittsburgh v. Pa. Pub. Util. Comm'n*, 126 A.2d 777, 786 (Pa. Super. 1956).

314. 73B C.J.S. *Public Utilities* § 32 (2013).

315. See RICHARD J. PIERCE, JR. & ERNEST GELLHORN, *REGULATED INDUSTRIES: IN A NUTSHELL* 177–87 (4th ed. 1999).

316. *Id.*

317. FERREY, *supra* note 19, § 10:17; see also *Mountain States Legal Found. v. Pub. Utils. Comm'n*, 590 P.2d 495, 496–97 (Colo. 1979); *Re Cent. Me. Power Co.*, 26 Pub. Util. Rep. 4th (PUR) 388, 430 (Me. 1978); *Pa. Pub. Util. Comm'n v. Phila. Elec. Co.*, 91 Pub. Util. Rep. 3d (PUR) 321, 373 (Pa. 1971).

318. See *City of Bethany v. FERC*, 727 F.2d 1131, 1139 (D.C. Cir. 1984).

319. *Atl. Tel. Co. v. Pub. Serv. Comm'n*, 390 A.2d 439, 444 (D.C. 1978).

320. *Id.*

321. 16 U.S.C. § 824d(b) (2012).

customers.<sup>322</sup> It also is typical that customers who utilize electricity for heating their dwellings pay a lower rate for electricity than those who do not.<sup>323</sup> Larger-volume industrial and commercial customers often pay at a lower rate per unit of delivered power than do residential customers.<sup>324</sup>

FERC regulations specify that it is illegal to discriminate in rates between customers of the same class.<sup>325</sup> Utility rates should accurately reflect the cost of serving each customer class rather than the individual within that class.<sup>326</sup> There should be horizontal equity between different customer classes and vertical equity among customers of different amounts of electricity usage within the customer class.<sup>327</sup> It is against these principles that discounted rates to certain customers are often challenged, where certain customers within the residential class of customers receive the same-cost service at a discounted rate compared to other residential customers.

## 2. Successful Challenges to Retail Rates as Unjust Discrimination

Pennsylvania's energy regulatory commission held that utility charges must be applied equally within the residential class and that offering a special rate to low-income and fixed-income customers constituted unconstitutional discrimination.<sup>328</sup> The commission held that the rates should be based on the electric load

---

322. See FERREY, *supra* note 2, at 583.

323. See, e.g., *Electric Heat Discount Rate*, CORNHUSKER PUB. POWER DIST., <http://www.cornhusker-power.com/discountrate.asp> (last visited Nov. 7, 2013).

324. FERREY, *supra* note 2, at 566, 570, tbl.12.4; see also *Average Retail Price of Electricity to Ultimate Customers by End-Use Sector*, U.S. ENERGY INFO. ADMIN., [http://www.eia.gov/electricity/annual/html/epa\\_02\\_10.html](http://www.eia.gov/electricity/annual/html/epa_02_10.html) (last visited Dec. 15, 2013) (noting that in 2011 in Massachusetts, industrial customers paid 13.38 cents per kilowatt-hour, commercial customers paid 14.33 cents per kilowatt-hour, and residential customers paid 14.67 cents per kilowatt-hour, on average).

325. *Pub. Serv. Co. Ind. v. FERC*, 575 F.2d 1204, 1212 (7th Cir. 1978), *aff'd sub nom. City of Frankfort, Ind. v. FERC*, 678 F.2d 699 (7th Cir. 1982); *Wis. Mich. Power Co.*, 54 Pub. Util. Rep. 3d (PUR) 321 (Fed. Power Comm'n 1964) ("Section 205 [of the Power Act] does not prohibit all rate distinctions but only rate discrimination as between customers of same class."); FERREY, *supra* note 49, at 26.

326. See FERREY, *supra* note 2, at 583; see also *Am. Elec. Power Serv. Corp.*, 67 F.E.R.C. ¶ 61,168, ¶ 61,487 (1994).

327. See FERREY, *supra* note 2, at 583; see also *Am. Elec. Power Serv. Corp.*, 67 F.E.R.C. ¶ 61,490 (explaining that the "focal point of claims of undue discrimination has changed from discrimination in the treatment of different customers to discrimination in the rates and services the utility offers third parties when compared to its own use of the transmission system").

328. See *Pa. Pub. Util. Comm'n v. Phila. Elec. Co.*, 91 Pub. Util. Rep. 3d (PUR) 321, 373 (Pa. 1971).

and service characteristics of the customer class.<sup>329</sup> The commission was concerned about the spillover impact of decreased costs to the benefited group and the commensurate increased costs to similar-cost-to-serve customers.<sup>330</sup>

Indiana law prohibits utilities from charging different rates for customers who receive the “same service under the same circumstances.”<sup>331</sup> The Public Service Commission of Indiana held such rates to be prohibited by law; lifeline rates would not be effective in “[p]roviding assistance to low-income residential customers and should not be required.”<sup>332</sup> Targeted lifeline rates that provided a below-cost electric rate for specific customers based on their level of income or demography were found to violate state statutes prohibiting undue discrimination.<sup>333</sup> The court held that it was discriminatory to charge customers different rates when they were “receiving the same service under the same circumstances.”<sup>334</sup> The court found that the practice was discriminatory and that a general discount encourages overconsumption of electricity.<sup>335</sup>

Indiana utilities were given the opportunity to request regulatory approval of low-income programs.<sup>336</sup> The state initiated the Alternative Utility Regulation Act,<sup>337</sup> which allows Indiana utilities to request approval of an alternative regulatory plan from the Indiana Utility Regulatory Commission.<sup>338</sup> Eligibility for the

329. *Id.*

330. *Id.*

331. *Citizens Action Coal. of Ind. v. Pub. Serv. Co. of Ind.*, 450 N.E.2d 98, 101 (Ind. Ct. App. 1983). Section 8-1-2-103(a) of the Indiana Code states the following:

No public utility, or agent or officer thereof, or officer of any municipality constituting a public utility, as defined in this chapter, may charge, demand, collect, or receive from any person a greater or less compensation for any service rendered or to be rendered, or for any service in connection therewith, than that prescribed in the published schedules or tariffs then in force or established as provided herein, or than it charges, demands, collects, or receives from any other person for a like and contemporaneous service.

IND. CODE ANN. § 8-1-2-103(a) (LexisNexis 2012).

332. *Citizens Action Coal. of Ind.*, 450 N.E.2d at 100.

333. *Id.* at 101.

334. *Id.*

335. *Id.* at 102–04.

336. HARAK ET AL., *supra* note 220, at 168.

337. IND. CODE ANN. § 8-1-2.5-1 to -12 (LexisNexis 2012).

338. *Id.* § 8-1-2.5-6; *see also* *Re Ind. Gas Co., Ind. Util. Reg. Comm'n*, No. 43669, slip op. at 27 (Nov. 19, 2009). In making this decision, the Commission is required to consider the following factors:

1. Whether . . . operating conditions . . . render the exercise, in whole or in part, of jurisdiction by the commission unnecessary or wasteful.
2. Whether the commission's declining to exercise, in whole or in part, its jurisdiction will be beneficial for the energy utility, the energy utility's customers or the state.

discounted rates is based on a customer's gross household income being at or below federal LIHEAP eligibility levels, which assistance the customer must also receive.<sup>339</sup> Costs are recovered by a utility company's contribution to the program along with a monthly charge to the bills of residential, commercial, and industrial customers.<sup>340</sup>

Rhode Island employs a LIHEAP-based system, and pilot programs were implemented in Minnesota, Montana, and Wisconsin.<sup>341</sup> There are thirty-five million households in the United States with incomes low enough to qualify for LIHEAP, which generally covers about one-third of a household's heating bill.<sup>342</sup> A variant of this concept in Ohio and Pennsylvania is a non-LIHEAP-based plan that utilizes state revenues, charitable contributions, donations for fuel or emergency assistance, or other utility ratepayer funds.<sup>343</sup>

The Colorado Supreme Court held that targeted lifeline rates for low-income customers were unconstitutional because they were unjustly preferential, discriminatory, and contrary to legal prohibition of preferential rates.<sup>344</sup> The Colorado PUC could not implement a rate structure preferential to a narrowly defined group of low-income customers.<sup>345</sup> The court reasoned that the PUC is a nonelected body that cannot determine which customers could receive a special rate.<sup>346</sup> "To find otherwise would empower the PUC, an appointed, nonelected body, to create a special rate for any group it determined to be deserving."<sup>347</sup> The court expressed

- 
3. Whether the commission's declining to exercise, in whole or in part, its jurisdiction will promote energy utility efficiency.
  4. Whether the exercise of commission jurisdiction inhibits an energy utility from competing with other providers of functionally similar energy services or equipment.

*Id.* at 28.

339. U.S. Dep't Health & Hum. Servs., *Indiana: FY 2013/1014 Low-Income Energy Programs*, LIHEAP CLEARINGHOUSE, <http://liheap.ncat.org/profiles/Indiana.htm> (last updated Nov. 4, 2013).

340. *Re Ind. Gas Co., Ind. Util. Reg. Comm'n*, No. 43669, slip op. at 7–8.

341. SAUNDERS & BROCKWAY, *supra* note 264, at 303.

342. CAMPAIGN FOR HOME ENERGY ASSISTANCE, *THE LIHEAP INVESTMENT 3* (2010), available at [http://liheap.org/assets/investment/LIHEAP\\_investment\\_june2010.pdf](http://liheap.org/assets/investment/LIHEAP_investment_june2010.pdf) ("An estimated 35 million U.S. households—one out of every four in America—were eligible for LIHEAP in 2006."); see also U.S. Dep't Health & Hum. Servs., *MA Releases 2012 Program Overview*, LIHEAP CLEARINGHOUSE, <http://liheap.ncat.org/news/april13/marpt.htm> (last updated Nov. 8, 2013) (stating that the Massachusetts Department of Housing and Community Development estimates that its maximum benefit for FY 2013 will cover only about one-third of a household's heating bill).

343. SAUNDERS & BROCKWAY, *supra* note 264, at 303.

344. See *Mountain States Legal Found. v. Pub. Utils. Comm'n*, 590 P.2d 495, 498 (Colo. 1979).

345. *Id.* at 498.

346. *Id.*

347. *Id.*

concern that other ineligible captive retail customers were compelled to finance the lower rates.<sup>348</sup>

### 3. *Successful Retail Rate Challenges as Ultra Vires Administrative Action*

The Rhode Island Supreme Court ruled that the Rhode Island PUC is not authorized to mandate preferential rates to elderly or poor customers without a grant of power from the legislature.<sup>349</sup> The ruling held that without the legislature's grant of authority, only the utility company shareholders themselves could choose to offer discounted rates and might not be compensated for the same.<sup>350</sup> In a Pennsylvania case, the court held that it was beyond the Pennsylvania PUC's authority to determine subsidies for low-income customers.<sup>351</sup> The court determined that decisions regarding subsidies must be left to the legislature.<sup>352</sup>

The Maine PUC also found the reduced rate for elderly low-income customers to be unjust and unreasonable.<sup>353</sup> The Commission held that the reduced rate was an inappropriate "social judgment[]." <sup>354</sup> The Department of Public Works of Washington ordered utility companies to reduce the utility rates of distressed farmers.<sup>355</sup> On appeal, the Washington Supreme Court reasoned that the customer's value or ability to pay should not be the

---

348. *Id.* at 497.

349. *Blackstone Valley Chamber of Commerce v. Pub. Util. Comm'n*, 396 A.2d 102, 104 (R.I. 1979).

350. *See id.* at 104-05.

351. *U.S. Steel Corp. v. Pa. Pub. Util. Comm'n*, 390 A.2d 865, 871 (Pa. Commw. Ct. 1978).

352. *Id.*

353. *See Re Cent. Me. Power Co.*, 26 Pub. Util. Rep. 4th (PUR) 388, 430 (Me. Pub. Util. Comm'n 1978), *appeal sustained in part, denied in part sub nom. Cent. Me. Power Co. v. Pub. Util. Comm'n*, 405 A.2d 153 (Me. 1979).

354. *Id.* The commission stated the following:

We cannot solve the nation's economic problems and we cannot solve ratepayers' financial problems. What we can do, however, is try to insure that those who buy electricity pay what it costs to generate and deliver that electricity to them, and that no one group of customers is subsidized at the expense of another. By doing this, we believe that all customers will be treated as fairly as possible; that they will be more able to choose wisely among competing energy technologies; that use of electricity will be neither promoted nor discouraged artificially; and that rates will, ultimately, be more stable than might otherwise be the case.

*Id.* at 429.

355. *See State ex rel. Puget Sound Power & Light Co. v. Dep't of Pub. Works*, 38 P.2d 350, 352 (Wash. 1934) (explaining that the Board held public hearings and made findings to decide that "rate reductions are both necessary and advisable" in light of the farmers' dire financial situation).

determinative factor to order rate reductions that were borne by other ratepayers.<sup>356</sup>

#### 4. *Discounts Upheld as Constitutional Under State Law*

Other state courts have reached contrary decisions on the legality of discounted rates to classes of customers not based on cost of service. The Public Service Commission of Utah concluded that lifeline rates were legal under state law<sup>357</sup> and that they were in the public interest.<sup>358</sup>

Massachusetts is the only state in which a discounted rate has been upheld by its highest court.<sup>359</sup> In Massachusetts, utility companies provide a straight percentage discount for low-income customers.<sup>360</sup> These residential discount costs are spread over several other classes of customers; the PUC estimated the discount would cost other customers about \$905,300 in decreased revenues, or an increase of \$1.91 per year on the bill of the average residential customer and \$30.58 per year on the bills of average industrial customers.<sup>361</sup>

The Massachusetts Supreme Judicial Court held that the Massachusetts Department of Public Utilities ("DPU") had the authority to approve a special reduced rate for certain low-income elderly customers.<sup>362</sup> The court found that although there was no express statutory grant of authority, the DPU had not exceeded its jurisdictional power over determining the rate structures of customers.<sup>363</sup> The court reasoned that the DPU had a rational basis for imposing a cost that had a minimal effect on ratepayers: regardless of "whether the rate is unduly or irrationally discriminatory," the court reinforced that "different treatment for different classes of customers, reasonably classified, is not unlawful discrimination."<sup>364</sup>

356. *Id.*; see also *Narragansett Elec. Co. v. Harsch*, 368 A.2d 1194, 1213 (R.I. 1977) (holding that the commission erred in relying upon consumers' ability to pay in setting cost of equity).

357. See *Re PacifiCorp*, 192 Pub. Util. Rep. 4th (PUR) 289, 352-53 (Utah Pub. Serv. Comm'n 1999).

358. *Id.* at 355.

359. See *Am. Hoechst Corp. v. Dep't of Pub. Utils.*, 399 N.E.2d 1, 4 (Mass. 1980) (explaining that it was not improper for the Massachusetts Department of Public Utilities to consider the age and income of customers to offer a reduced rate); FERREY, *supra* note 19, § 10:17.

360. See *Am. Hoechst Corp.*, 399 N.E.2d at 2 (explaining that a customer qualifies for a rate reduced from the standard domestic rate if the customer is at least sixty-five years old, a head of household, and a recipient of supplemental social security income).

361. *Id.*; see also FERREY, *supra* note 19, § 10:17 n.16.

362. *Am. Hoechst Corp.*, 399 N.E.2d at 3.

363. See *id.*

364. *Id.*

Ultimately, the court held that the DPU had the authority to order all classes to share equally the costs of the reduced rate for the low-income elderly "as long as its choice does not have a confiscatory effect or is not otherwise illegal."<sup>365</sup> The DPU ordered that the costs of the discount be shared equally among all classes of customers, not just the residential class.<sup>366</sup>

The lessons from this Part are instructive. States allow both lower (lifeline or assistance) rates and higher rates per unit of energy supplied to be charged to groups of customers, apart from tracking the cost of serving these classes. The clear conclusion is that in many states, the rates can be set higher or lower than the cost of service for a given class of customers.

My proposal for a cost-based rate classification for electric service for distributed generators of renewable energy never enters this "gray zone" of arbitrarily discounted rates for the elderly or poor that are allowed in certain states while disallowed in other states as violating cost-of-service principles for the cost of a monopoly service. My proposal would actually track quantitatively and reflect the net cost of service for sale of power netted against the contribution of that distributed power to the utility system. As such, the resulting rates would conform to traditional rate principles rather than represent a legal aberration. Therefore, once the lower net costs of service for the class of distributed generation customers is quantified by a state regulatory commission, such differentiated retail rate classifications would be clearly justified under legal principles and precedent and would not be subject to any federal court or FERC review. Important for the states that are being challenged in their implementation of other subsidies, my proposed cost-based net retail rate category is completely within state authority and triggers no significant constitutional issues.

#### V. HISTORIC STATE RETAIL RATE DISCOUNTS BASED ON QUANTITY

Even beyond such state price distinctions based on customer income or age, there are existing state retail rate distinctions related to the amount of customer consumption. This occurs in two inverse modes: First, in many states, customers who have more electricity-consuming equipment are afforded discounted rates per unit of power consumption because of the greater amount of equipment and usage.<sup>367</sup> Discounted rates typically are afforded to all-electric heating customers, who use electricity for water heating

---

365. *Id.* at 4.

366. *Id.* at 3.

367. See William K. Jones, *An Example of a Regulatory Alternative to Antitrust: New York Utilities in the Early Seventies*, 73 COLUM. L. REV. 462, 495 (1973) (explaining that customers with a high demand and low consumption rate traditionally pay much more per unit of consumption than customers with lower demand but the same or a higher volume of consumption).

or space heating in addition to conventional lighting applications.<sup>368</sup> The justification for this is general policy rather than a cost-based rationale.<sup>369</sup>

Conversely, a number of states in the age of conservation have adopted inclining block rates, which increase rates for greater usage in excess of a specified amount, accomplishing price signals to consumers to encourage more conservation of energy resources.<sup>370</sup> In neither rate is the altered price typically justified by a comparison of the cost of supplying the electric commodity or service. Customer demand is relatively inelastic when the customer has money or no suitable available substitutes, which can characterize electricity.<sup>371</sup> Quantity discounts provided in tariffs such as declining block tariffs have historically been justified if large customers are cheaper to serve than small ones.<sup>372</sup>

By way of quick example, the Massachusetts utility NSTAR, including Boston Edison and the largest utility in the state and in New England since a recent merger with Northeast Utilities, has five separate residential rates.<sup>373</sup> One is a time-of-use rate,<sup>374</sup> which assigns different electricity prices to different-cost periods during the day and year based on actual statistical data. As set forth in Table 3, the remaining residential rate structures provide a per unit (kWh) distribution charge based on

- (1) a base retail rate of \$0.05847 / kWh,<sup>375</sup>
- (2) a 13.55% less expensive rate for customers who also heat with electricity and therefore use more electricity,<sup>376</sup>

368. See *Summary of Rates*, NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013) (illustrating lower rates of distribution per kilowatt-hour and transmission per kilowatt-hour for A4-Residential Space Heating customers with electric space heating throughout their homes as compared to A1-Residential rates available to all residential customers for heating).

369. BONBRIGHT ET AL., *supra* note 223, at 561.

370. See *Understand Your Electric Charges*, PAC. GAS & ELEC. CO., <http://www.pge.com/en/myhome/myaccount/charges/index.page> (last visited Dec. 16, 2013) (explaining that California determines a baseline electricity quantity based on the energy needs of the average consumer in a region and increases price per kWh as customers move above the baseline quantity).

371. PHILLIPS, *supra* note 227, at 436.

372. BONBRIGHT ET AL., *supra* note 223, at 523 (referencing STEPHEN J. BROWN & DAVID S. SIBLEY, *THE THEORY OF PUBLIC UTILITY PRICING* 179 (1986)).

373. See *Summary of Rates*, NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013).

374. *A5—Optional Residential Time of Use (R-4)*, NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp#REA5](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp#REA5) (last visited Dec. 16, 2013).

375. See *A1—Residential (R-1)*, NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013).

- (3) a 12.02% less expensive rate for “assistance” customers,<sup>377</sup> and
- (4) a 25.57% less expensive rate for “assistance” electric-heating customers.<sup>378</sup>

TABLE 3: NSTAR SUMMARY OF DISTRIBUTION RATE AND PERCENT DISCOUNT BY CLASSIFICATION

Customer Classification	Distribution Rate / kWh	Percent Discount / kWh
A1—Residential (R-1)—Base Rate	\$0.05617 <sup>379</sup>	—
A2—Residential Assistance (R-2)	\$0.04942 <sup>380</sup>	12.02
A3—Residential Assistance (R-2) (with electric heat)— <i>October through May</i>	\$0.04181 <sup>381</sup>	25.57
A3—Residential Assistance (R-2) (with electric heat)— <i>June through September</i>	\$0.04940 <sup>382</sup>	12.05
A4—Residential Space Heating (R-3)— <i>October through May</i>	\$0.04856 <sup>383</sup>	13.55
A4—Residential Space Heating (R-3)— <i>June through September</i>	\$0.05615 <sup>384</sup>	0.04

There are rate discounts in the table above based on whether one already receives other public financial assistance as well as discounts for using more electricity if one has electric heat use; one can double-layer both discounts. Such differentiated rates, based on factors other than the cost of service to the customer class, also characterize NSTAR rates for other customer classes.<sup>385</sup> Moreover, similar rate classifications are provided by other Massachusetts

376. A4—Residential Space Heating (R-3), NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013).

377. A2—Residential Assistance (R-2) (Without Electric Heat), NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013).

378. A3—Residential Assistance (R-2) (With Electric Heat), NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013).

379. A1—Residential (R-1), *supra* note 375.

380. A2—Residential Assistance (R-2) (Without Electric Heat), *supra* note 377.

381. A3—Residential Assistance (R-2) (With Electric Heat), *supra* note 378.

382. *Id.*

383. A4—Residential Space Heating (R-3), *supra* note 376.

384. *Id.*

385. See, e.g., A5—Optional Residential Time of Use (R-4), NSTAR, [http://www.nstar.com/ss3/residential/rates\\_tariffs/rates/rates.asp](http://www.nstar.com/ss3/residential/rates_tariffs/rates/rates.asp) (last visited Dec. 16, 2013) (applying a discount rate to condominium common areas and buildings used exclusively for public worship).

utilities (e.g., National Grid)<sup>386</sup> and utilities in other states.<sup>387</sup> Such deviations from cost principles are the norm rather than the exception. No deviations are based on strict cost-of-service principles.

By way of a second example from the opposite side of the country, Pacific Gas & Electric Company ("PG&E"), the largest California utility provider, similarly provides service discounts for qualified electricity consumers in block rate form.<sup>388</sup> PG&E classifies customers into two groups: Non-CARE Customers and CARE Customers.<sup>389</sup> CARE, California Alternate Rates for Energy, is an electric rate discount program for qualified customers.<sup>390</sup> A criterion for qualification is a factor of a household's gross annual income.<sup>391</sup> Annual gross income levels vary by household size.<sup>392</sup> Customers also may qualify for CARE benefits if they meet household income guidelines and a household member participates in a designated public assistance program, such as Women, Infants, and Children ("WIC"), CalFresh/Supplemental Nutrition Assistance Program ("SNAP" or "Food Stamps"), Head Start Income Eligible, National School Lunch Program ("NSLP"), and Medicaid/Medi-Cal.<sup>393</sup>

Non-CARE customers are subject to a four-tier block rate structure.<sup>394</sup> CARE customers are subject to a three-tier

---

386. See *Service Rates*, NAT'L GRID, [http://www.nationalgridus.com/masselectric/business/rates/3\\_rates.asp](http://www.nationalgridus.com/masselectric/business/rates/3_rates.asp) (last visited Dec. 16, 2013) (showing three levels of service rates).

387. See N.Y. State Electric & Gas Corp., *Electric Rates Summary—October 2013*, NYSEG 1 (2013), <http://www.nyseg.com/MediaLibrary/2/5/Content%20Management/NYSEG/SuppliersPartners/PDFs%20and%20Docs/N%20Electric%20Rate%20Summary.pdf> (breaking down rate classifications in southern New York).

388. See Pac. Gas & Elec. Co., *Understand Your Electric Charges*, PG&E, <http://www.pge.com/en/myhome/myaccount/charges/index.page> (last visited Dec. 16, 2013) (laying out the four-tier rate structure).

389. *Id.*

390. See Pac. Gas & Elec. Co., *CARE (California Alternate Rates for Energy)*, PG&E, <http://www.pge.com/myhome/customerservice/financialassistance/care/> (last visited Dec. 16, 2013) ("The CARE program provides a monthly discount on energy bills for income-qualified households and housing facilities. Qualifications are based on the number of persons living in your home and your total annual household income.").

391. See Pac. Gas & Elec. Co., *Program Guidelines*, PG&E, <http://www.pge.com/en/myhome/customerservice/financialassistance/care/eligibility/index.page> (last visited Dec. 16, 2013) (explaining that to qualify for the CARE discount, a customer's gross annual household income must be at or below the amounts provided).

392. See *id.* (explaining that gross annual household income is "based on the number of household members").

393. *Id.*

394. See Pac. Gas & Elec. Co., *Understand Your Electric Charges*, PG&E, <http://www.pge.com/en/myhome/myaccount/charges/index.page> (last visited Dec. 16, 2013).

structure.<sup>395</sup> The first tier, a baseline amount, is a calculated amount of electric use by zip code, factoring seasons (summer and winter), set by state law and approved by the California Public Utilities Commission.<sup>396</sup> As consumption increases, the per kWh rate increases, as set forth in Table 4.<sup>397</sup>

TABLE 4: PG&E SUMMARY OF DISTRIBUTION RATE AND PERCENT DISCOUNT BY CUSTOMER CLASSIFICATION AND TIER

	Use as Percent of Baseline	NON CARE Rate / kWh <sup>398</sup>	CARE Rate /kWh <sup>399</sup>	Percent Delta
<b>Baseline</b>	0-100%	\$0.13	\$0.08	38%
<b>Tier 2</b>	101-130%	\$0.15	\$0.10	33%
<b>Tier 3</b>	131-200%	\$0.30	\$0.12	60%
<b>Tier 4</b>	201-300%	\$0.34	\$0.12	65%
<b>Tier 5</b>	>300%	\$0.34	\$0.12	65%

CARE rates are at approximately 65% of other residential rates.<sup>400</sup> For the same amount of 300% of the baseline rates for regular customers, the rate increases more than 150%, while increasing only 50% for CARE customers.<sup>401</sup> Thus, CARE provides discounts in several regards for customers based on customer income.

One final example in another part of the country, Georgia Power, electric provider to Atlanta, Georgia, distinguishes rates based on time of year and amount used.<sup>402</sup> The time of year is differentiated for the winter season, which runs October through May, and summer season, which runs from June through September.<sup>403</sup> This is a traditional declining block rate, but it also affords a per unit rate discount for all-electric customers with higher usage.<sup>404</sup> The tariff reduces rates in block form during the winter period but increases rates in block form during the summer period, as displayed in Table 5.<sup>405</sup>

395. *Id.*

396. *Id.*

397. *Id.*

398. *Id.*

399. Pac. Gas & Elec. Co., *Energy Statement*, PG&E 3, <http://www.pge.com/includes/docs/pdfs/myhome/customerservice/financialassistance/sb38gtresl.pdf> (last visited Mar. 2, 2014).

400. Pac. Gas & Elec. Co., *supra* note 394.

401. *See id.*

402. *See Standard Service Plan*, GA. POWER, <http://www.georgiapower.com/pricing/residential/standard-service-plan.cshtml> (last visited Dec. 16, 2013) (setting different rates for October–May and June–September based upon amount of power used).

403. *Id.*

404. *Id.*

405. *Id.*

TABLE 5: GEORGIA POWER MONTHLY RATE SCHEDULE<sup>406</sup>

Time of Year (by season)	Up to 650 kWh (Baseline)	650–1000 kWh	Over 1000 kWh
Winter Rate (October–May)	5.2465¢ per kWh	4.5015¢ per kWh <i>14.2% price reduction from baseline</i>	4.4190¢ per kWh <i>15.8% price reduction from baseline</i>
Summer Rate (June–September)	5.2465¢ per kWh	8.7211¢ per kWh <i>66.2% price reduction from baseline</i>	9.0126¢ per kWh <i>71% price reduction from baseline</i>

Deviation from cost-of-service principles occurs in certain states for certain customer classes based on the size of individual consumption, for either larger usage customers (through declining block rates) or conservative customers (through inclining block rates). For distributed renewable energy customers, reduced net demands on the utility system resulting from the customers' on-site self-generation and usage, when analysis is performed would likely translate to a discounted retail service rate per unit of service reflecting their lesser demands on the system. This could be reflected in a discounted retail rate for service to the class of distributed energy generation customers.

Parts V and VI examined the state constitutional precedent to allow or disallow retail electric rate subsidies to the old and the poor and to large volume consumers, respectively. Approximately half of the states disallow discrimination not tracking actual cost of service in the pricing of retail electric utility rates, as a violation of constitutional requirements of equal protection; other states allow discounts rates to subsidize groups based on the age, income, or amount of consumption of the customer. Discrimination unrelated to the cost of service of electricity is permitted in some states and impermissible on equal protection grounds in others.

In contrast, my proposed new rate class for distributed generation customers would never undergo this level of legal scrutiny, because rather than discriminate from actual cost of service to serve a customer group, it actually reflects—better than do current rates—the cost of serving a customer who also generates some of his or her own electricity. My proposal tracks requirements of equal protection and the universally recognized principle that retail rates should reflect cost of service to each class of customers. Such a net discount in retail services rates accomplishes a subsidy for renewable distributed generation. This new rate class can be used along with some of the other renewable incentives discussed above<sup>407</sup> or as a substitute for them if they are stricken by the courts. This proposal is an elegant, simple solution and is no more

---

406. *Id.*

407. *See supra* Part II.

difficult to implement than conventional rates, because it employs conventional rate principles.

## VI. THE NEW FRONTIER: WHERE NEW SOLUTIONS LEAD

### A. *Why It Matters*

The importance of the electric sector to the modern industrial economy—and the importance of correct, legal decisions in this last of the regulated industries—are reflected in the electric sector's changing role and the societal impacts of power. In 1949, only 11% of global warming gases in the United States came from the electric sector; as of 2007, this sector is responsible for more than one-third of such cases.<sup>408</sup> “The electric power sector offers the most cost-effective opportunities to reduce CO<sub>2</sub> emissions,” compared to transportation and other sectors.<sup>409</sup>

The Obama Administration stimulus package included a significant incentive package for the electric sector,<sup>410</sup> pouring \$50 billion in spending and \$20 billion in tax incentives into renewable energy and efficiency as part of the \$787 billion stimulus plan.<sup>411</sup> Notwithstanding federal tax incentives, the statutory and regulatory foundation for sustainable energy is a creature of state law and regulation. Ambitious recent legal challenges and a long history of Supreme Court constitutional jurisprudence indicate that several state programs may have overstepped legal limits.

It is understandable that states want to benefit in-state energy projects to the exclusion of out-of-state projects, given that states can influence regulation only in their states and expenditures are at the expense of state citizens. And absent state limits, in fact, there is significant arbitrage of credits benefiting out-of-state recipients at in-state utility ratepayer expense. In Massachusetts, only 9.3% of annual Class I RECs are awarded to power generation sited in-state, with generation in other New England states and beyond greatly exceeding these Massachusetts percentages of the credit market.<sup>412</sup>

---

408. See *Historical Data Series: Total Energy-Related Carbon Dioxide Emissions by End-Use Sector and the Electric Power Sector, by Fuel Type, 1949–2007*, U.S. ENERGY INFO. ADMIN. 1 (2007), [http://www.eia.doe.gov/oiarf/1605/ggrpt/excel/historical\\_co2.xls](http://www.eia.doe.gov/oiarf/1605/ggrpt/excel/historical_co2.xls).

409. *Energy Estimates Show Rise in CO<sub>2</sub> Emissions, Offer Mitigation Options*, CLEAN ENERGY REP. (July 2, 2008), <http://cleanenergyreport.com/Energy-EW-Week/Energy-Washington-Week-07/02/2008/energy-estimates-show-rise-in-co2-emissions-offer-mitigation-options/menu-id-570.html>.

410. See generally American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115.

411. Amanda Ruggeri, *What the Stimulus Package Does for Renewable Energy*, U.S. NEWS (March 6, 2009), <http://www.usnews.com/news/energy/articles/2009/03/06/what-the-stimulus-package-does-for-renewable-energy>.

412. MASS. DEP'T. OF ENERGY RES., ANNUAL COMPLIANCE REPORT FOR 2009, at 12, figs.2 & 3 (rev. Jan. 11, 2011), available at <http://www.mass.gov/eea/docs/doer/rps/rps-and-aps-2009-annual-compliance-report-doer-20311.pdf>.

Electric power, however, is increasing in interstate commerce, proceeding through wholesale power transactions:

- (1) the former of which bars as unconstitutional geographic discrimination against out-of-state interstate commerce,<sup>413</sup> and
- (2) the latter of which wholly bars state regulation of the prices and terms at which utilities conduct these transactions.<sup>414</sup>

There have been legal excesses in several states under both constitutional rubrics. State RPS programs, FiTs, system benefit charges, climate control regulation, and net metering programs constitute a broad array of distinct policy tools.<sup>415</sup> These tools create different types of virtual credits and price incentives in favor of state-specified sustainable technologies.<sup>416</sup> These particular state tools, however, are not legally robust; their regulatory "torque" is significantly limited by law. In several states, their use has been applied in a geographically discriminatory manner favoring in-state electric commerce to the detriment of interstate commerce.

The Supreme Court has stated that nothing is more fundamentally part of interstate commerce than commerce in electricity,<sup>417</sup> and states cannot operate on the wholesale side of the regulatory toolbox.<sup>418</sup> Period. Moreover, in implanting an unconstitutional statute or regulation, a state can be held responsible for reimbursing the affected party's legal fees, which can be millions of additional dollars.<sup>419</sup>

To escape these legal trip wires, desperately needed is a new regulatory tool that does not aim at interstate renewable power commerce and operates exclusively on the *retail* side of transactions rather than on *wholesale* commercial transactions. This Article suggests a new mechanism that satisfies both of these key criteria. This mechanism is legally robust, already an accepted technique for other rate-making purposes in every state, and stays clear of the legal trip wires. States do not need to adopt this alternative mechanism to support renewable power; however, it can be tailored to work with whatever other renewable energy incentive programs a state has in place or chooses to implement. This mechanism eliminates any constitutional impacts of some other programs and

---

413. See *C & A Carbone v. Town of Clarkstown*, 511 U.S. 383, 390 (1994).

414. See *Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm'n*, 461 U.S. 375, 380 (1983).

415. See *supra* Part II.

416. See *supra* Part II.

417. *FERC v. Mississippi*, 456 U.S. 742, 757 (1982).

418. See *supra* Subpart II.A.

419. See *supra* note 44 and accompanying text.

still seamlessly accomplishes directing state energy incentives to in-state programs.

*B. The New State Tools and Impacts*

Within law and precedent, states could implement this mechanism using the following tools:

- Combine a new separate class of retail service rates, based on actual net cost of service for renewable distributed generation units connected to the distribution system in the state, with state RPS programs that do not implement in-state preferences.
- Combine a new separate class of retail service rates based on actual net cost of service, with net metering in a manner consistent with recent FERC precedent.
- Combine a new separate class of retail service rates based on actual net cost of service, with system benefit charges to benefit in-state customers of state-regulated utilities.
- Combine a new separate class of retail service rates based on actual net cost of service, with GHG emission requirements.
- Replace state FiTs with a new separate class of retail service rates based on actual net costs of service to generators of distributed renewable energy.

The possibilities and combinations can be sculpted to state needs and preferences. Aside from the primary benefit of implementing a legally defensible program, this mechanism avoids expending taxpayer resources to unsuccessfully defend, and in some cases even pay legal fees to challengers of, unconstitutional regulations.<sup>420</sup> In many ways, this new mechanism can serve as the critical missing link, adopted and tailored as appropriate in a given state. There is no debate that we need to transition expeditiously to “sustainable” infrastructure development and ultimately to a more sustainable economy. To do this effectively, we require a carefully

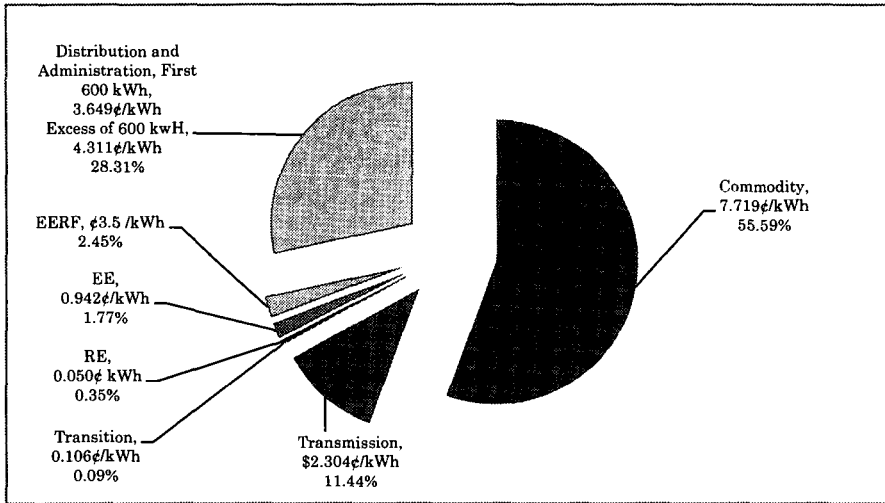
---

420. See *supra* note 44 and accompanying text. In *Entergy Nuclear Vt. Yankee, LLC v. Shumlin*, 838 F. Supp. 2d 183, 242–43 (D. Vt. 2012), *aff'd in part, rev'd in part*, 733 F.3d 393 (2d Cir. 2013), the first level of litigation at the trial court level resulted in an award against the state of Vermont of attorney's fees for plaintiff Entergy of approximately \$4.6 million dollars, and mounting over time on appeal, as a result of enacting an unconstitutional energy regulation that was found to violate the Supremacy Clause and the dormant commerce clause. See Anne Galloway, *Entergy Seeks \$4.6 million in Legal Fees from State of Vermont*, VTDIGGER (Feb. 4, 2012), <http://vtdigger.org/2012/02/04/entergy-seeks-4-6-million-in-legal-fees-from-state-of-vermont/>.

designed and legally "bulletproof" regulatory structure at both the state and federal levels.

Figure 1 illustrates that as part of the Massachusetts electric bill, transmission and distribution expenses constitute a large slice of approximately 40% of the total retail cost of each unit of retail electricity purchased. A quantified netting of benefit versus cost would reduce significantly the cost of electricity service to the distributed power generation customer.

FIGURE 1: MASSACHUSETTS VARIABLE BILL COMPONENTS, 2014  
(TOTAL FOR R-1 CUSTOMER USING 500 KWH/MONTH: \$0.1411/KWH)<sup>421</sup>



1. No More FiTs

If the net cost of retail power were reduced for a class of distributed power generators, it could replace or supplement the current traditional state incentives for distributed renewable power in different ways. First, this mechanism could replace traditional state FiTs. Rather than implement an unconstitutional state FiT that causes utility ratepayers to subsidize the wholesale value of power from this customer, this alternative mechanism would reduce, based on actual value to the utility system, the net cost of retail service to this customer. Changing which side of the transaction the state regulates—retail or wholesale—is of critical legal distinction.

It is legally permissible for the state to implement a retail rate policy or classification on the retail side of the equation, instead of implementing a FiT on the wholesale side, and it avoids any federal court challenge. Rate authority over FiTs for wholesale power sale

421. See *Home Rates*, NAT'L GRID, [https://www.nationalgridus.com/masselectric/home/rates/4\\_res.asp](https://www.nationalgridus.com/masselectric/home/rates/4_res.asp) (last visited Mar. 2, 2013). The fixed customer charge component was not included in this chart.

is not within state discretion.<sup>422</sup> The renewable distributed power generation customer would receive a cross-subsidy through the reduced net retail rate cost of power sold to it.

Beyond its illegality if mandated by U.S. states, the government has done poorly with the design and implementation of FiTs. Those few U.S. states that have adopted FiTs despite the U.S. constitutional prohibition of such state wholesale price regulation have not fared well. In 2011, Oregon lowered the price paid under its solar FiT for the third time in its then only one year of existence, reducing it from its original \$0.65/Kwh to \$0.374/Kwh.<sup>423</sup> Each of Oregon's prior iterations of the FiT at high prices was oversubscribed within less than ten minutes of its availability, even though each time the tariff was lowered 10–20% from the prior available rate.<sup>424</sup> The Oregon PUC proposed to disaggregate the questionably high tariff that was above wholesale costs of power into two components: an avoided-cost payment plus a REC component for solar photovoltaic units.<sup>425</sup>

## 2. Net Metering

Second, this mechanism would change traditional state incentives regarding the separate policy of net metering. By reducing the net rates afforded to the class of distributed generation power customers who contribute distributed net metered power, this reduction in the cost of power sold by the utility to the generator would also reduce the credit rate for net metered power through the retail meter when it is spinning in reverse direction and power is flowing to the utility. While net metered customers would see a lower value credit for their banked net metered power, for a customer who is using all banked net meter power credits on site,<sup>426</sup> this change in rates would have no net impact at the end of a given billing period or year. So the situation that FERC construed in the two net metering cases presented to it for adjudication<sup>427</sup> would not be affected in any manner by use of such an alternative tool.

For other net metered customers, however, who export for credit value much more power than they import and purchase, this

---

422. Cal. Pub. Utils. Comm'n, 132 F.E.R.C. ¶ 61,047, ¶ 61,339 (2010) (order on petitions for declaratory order), *clarified on reh'g*, 133 F.E.R.C. ¶ 61,059 (2010); *see also supra* notes 32–44 and accompanying text.

423. Pam Russell, *Oregon Reduces Solar Feed-In Tariff for Third Time, Looking for "Sweet Spot" Price*, ELECTRIC UTIL. WK., Aug. 8, 2011, at 7.

424. *Id.*

425. Amy Fickling, *Oregon Delays Solar Feed-In Pilot as Issues of Jurisdiction Continue to Be Unresolved*, ELECTRIC UTIL. WK., March 15, 2010, at 14–15.

426. Contrast the virtual net metering in Massachusetts *supra* notes 53–55.

427. Sun Edison L.L.C., 129 F.E.R.C. ¶ 61,146, ¶ 61,618–20 (2009), *reh'g granted in part*, 131 F.E.R.C. ¶ 61,213 (2010); MidAmerican Energy Co., 94 F.E.R.C. ¶ 61,340, ¶ 62,263 (2001).

alternative retail mechanism lowers the value at the same rate of both the credits earned and the cost of power. The directional net export of most distributed power affords a lesser rate incentive and subsidy than if this alternative were not implemented. Net metering has already come under recent legal attack for allowing large freestanding wholesale power generation units to reap a high retail credit value,<sup>428</sup> and FERC decisions have cast doubt on, but not yet reached, whether state net metering rules can apply to these net power export transactions.<sup>429</sup>

Many of the forty-three net metering states already have avoided this issue by restricting state net metering to no larger than distributed generation units scaled approximately to the size of the host facility on-site energy requirements.<sup>430</sup> Pennsylvania limited net metering by third-party operators of renewable units to facilities whose output is no more than 110% of prior year power consumption, in order to prevent merchant power plants, in the guise of net metering, from gaining ratepayer subsidies.<sup>431</sup> Maryland sets this limit at 200% of on-site usage for residential projects.<sup>432</sup> State utilities wanted stricter limits on the size of net metering units: San Diego Gas & Electric Company alleged that net metering provided an "unfair and unsustainable subsidy" of approximately \$34 from each other customer to net metering customers.<sup>433</sup>

Therefore, for many of these states that already restrict the size of eligible net metering units, reducing the net retail rate for customers in this class of service would not be a factor that significantly affected their net metering policies or the incentive levels for distributed generation. For those states that allow freestanding, very large net metering projects, this tool would be a factor to lower the retail rate for this class of customers, which rate would also set the net metered credit value. States, however, would have discretion whether or not to apply this new application of a distinct retail customer class distinction that could enjoy lower rates.

---

428. See Portsmouth Net Metering, *supra* note 64.

429. See *Sun Edison L.L.C.*, 129 F.E.R.C. ¶ 61,620; *MidAmerican Energy Co.*, 94 F.E.R.C. ¶ 62,263.

430. See Ferrey, *supra* note 46.

431. Net Metering—Use of Third Party Operators, No. M-2011-2249441, at 8–9 (Pa. Pub. Util. Comm'n Mar. 29, 2012), available at <http://www.puc.state.pa.us/pcdocs/1170832.docx>.

432. MD. CODE REGS. 20.50.10.01(D)(1)(b) (2011).

433. Lisa Weinzimer, *Consumer and Solar Groups Pan SDG&E's Planned Surcharge, Saying It May Be Illegal*, ELECTRIC UTIL. WK., Nov. 21, 2011, at 18.

### 3. *Renewable Portfolio Standards*

State RPS programs have been criticized as to the invisible cost impact of RPS imposed on captive retail utility ratepayers.<sup>434</sup> The California PUC Division of Ratepayer Advocates criticized the rapid escalation in California ratepayer costs to achieve the state RPS mandate;<sup>435</sup> the cost of RPS compliance exceeded the cost of the power itself.<sup>436</sup> New York City complained that it does not receive a fair share of benefits in return for the RPS payments its residents make<sup>437</sup>: New York City complained that it paid roughly half of the RPS payments because of its one-half share of the New York state population but received only 6% of the projects funded with the revenues raised.<sup>438</sup>

Renewable portfolio standards at the state level do not raise constitutional Supremacy Clause issues but in the design of some state programs raise dormant commerce clause issues.<sup>439</sup> The herein proposed new distributed generator retail rate class alternative could provide both a policy and a legal solution. dormant commerce clause issues arise when an RPS state favors renewable credits associated with in-state or geographically based power production and commerce.<sup>440</sup> By creating a distinct retail customer class for distributed generation customers, however, one still would be benefiting only in-state retail customers. But through this retail mechanism, this in-state benefit would be legally permissible. Out-of-state entities who are not customers of the in-state regulated utilities would not enjoy or be affected by such a mechanism.

Similar net subsidy of in-state retail distributed renewable power generators would be accomplished without doing so through facial constitutional violations associated with the state attempting to regulate or alter the wholesale power transaction. Each of the forty-nine states<sup>441</sup> that have state utility regulatory commissions

---

434. See Tiernan, *supra* note 57, at 108.

435. Craig, *supra* note 83.

436. *Id.*

437. Lisa Wood, *New York City Calls for Revisions in State RPS, Claiming It Is "Grossly Underserved,"* ELECTRIC UTIL. WK., Nov. 30, 2009, at 19 (stating that New York funds RPS programs through a surcharge on ratepayer bills).

438. *Id.*

439. See *supra* Subpart II.C.

440. See *supra* Subpart II.C.

441. Nebraska has no regulated private utilities and is therefore the only state not having a state energy regulatory commission. See NEB. POWER REV. BOARD, <http://www.powerreview.nebraska.gov> (last visited Dec. 20, 2013); see also *Structure and Governance*, NEB. ENERGY OFF., <http://www.neo.ne.gov/phase1/chaptertwo.htm> (last visited Dec. 20, 2013) (describing Nebraska's consumer-owned utilities, which "contrast[] greatly with the electric industry as it is organized in other states . . . [because] in most states electricity is supplied

only regulates the terms and prices of retail electric service for retail customers in their individual states who take service from in-state regulated electric utility companies. Lower retail rates for the class of distributed generators would reflect actual calculated costs/savings of service. These rates would be consistent with long-standing legal principles of rate making.<sup>442</sup>

Since the RPS RECs awarded to a renewable generator *from* their generation are a legal creation totally divorced from the sale of electric power service *to* the customer, the RPS could be preserved intact, and an additional subsidy could be provided, by charging the renewable customer a lower retail rate for power it purchased and consumed from the utility grid. Again, this tool would be of more value to a customer consuming all of the renewable distributed power produced than it would be to a large freestanding renewable energy project, divorced from serving an actual customer, which purchases minimal retail power from the grid. Some of the litigation to date regarding renewable power subsidy has concerned state renewable incentives that benefit divorced, freestanding projects.<sup>443</sup> It is clear that states may regulate the mix of generating/efficiency resources that regulated utilities must procure:

[U]nder state authority, a state may choose to require a utility to construct generation capacity of a preferred technology or to purchase power from the supplier of a particular type of resource. The recovery of costs of utility-constructed generation would be regulated by the state. The rates for wholesale sales would be regulated by this Commission [FERC] on a cost-of-service or market-based rate basis, as appropriate.<sup>444</sup>

My proposed new mechanism operates on the retail side of the energy equation regarding the cost of service provided *to* the customer rather than intruding on the cost or value of commerce/power provided at wholesale *from* the distributed energy

---

predominantly by private electric companies under the oversight of state regulatory commissions").

442. See *supra* Subpart III.B.

443. Complaint by Benjamin Riggs and the Town of Portsmouth Generator Facility to Luly E. Massaro, Comm'n Clerk, R.I. Pub. Util. Comm'n (May 19, 2010), available at <http://www.ripuc.org/eventsactions/docket/D-10-126page.html>.

444. S. Cal. Edison Co., 70 F.E.R.C. ¶ 61,215, ¶ 61,676 (1995). FERC goes on to note that "in setting an avoided cost rate, a state may account for environmental costs of all fuel sources included in an all source determination of avoided cost." *Id.* FERC notes that this could include a tax on fossil-fuel generators or could provide a subsidy to alternative generation. *Id.* FERC also states that the costs imposed in such evaluations must be only actual costs incurred by the utility buyer of the power. *Id.* Therefore, environmental "adders" or "subtractors" must be based on real environmental externality costs, substantiated on a record before the PUC. *Id.*

customer to the utility—there is tectonic legal distinction.<sup>445</sup> The net result on a policy level—subsidy for the generator of certain renewable generation options—can be similar. The legal mechanisms to accomplish the policy results, however, are bulletproof. A state moving to the *retail* side of regulation is a critical legal distinction under the Federal Power Act and the Supremacy Clause.

### C. *The Supreme Court Now Affords Greater Discretion to Regulators*

In spring 2013, the Supreme Court rendered a decision on whether a government regulator can broadly construe the scope of its own jurisdiction and whether it is entitled to judicial *Chevron* deference in this determination.<sup>446</sup> On both issues, the Supreme Court's answer was "yes."<sup>447</sup>

In *Arlington v. FCC*,<sup>448</sup> the majority held that based on circuit precedent holding that *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*<sup>449</sup> applies to an agency's interpretation of the scope of its own statutory jurisdiction, and precedent on state utility regulation, "[s]tatutory ambiguities will be resolved, within the bounds of reasonable interpretation, not by the courts but by the administering agency."<sup>450</sup> There is no distinction in terms of deference afforded to the agency between an agency's "jurisdictional" and "nonjurisdictional" interpretations<sup>451</sup>: "[i]f 'the agency's answer is based on a permissible construction of the statute,' that is the end of the matter."<sup>452</sup>

445. See *supra* text accompanying notes 27–34.

446. *City of Arlington v. Fed. Comm'n Comm'n*, 133 S. Ct. 1863 (2013).

447. *Id.* at 1874.

448. *Id.*

449. *Chevron U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

450. *City of Arlington*, 133 S. Ct. at 1868 (citing *AT&T Corp. v. Iowa Utils. Bd.*, 525 U.S. 366, 397 (1999)). Under *Chevron*, the court must first ask whether Congress directly spoke to the precise question at issue; if so, the court must give effect to Congress' unambiguously expressed intent. *Chevron*, 467 U.S. at 842–43. If, however, "the statute is silent or ambiguous," the court must defer to the administering agency's construction of the statute so long as it is permissible. *Id.* at 843.

451. *NLRB v. City Disposal Sys., Inc.*, 465 U.S. 822, 830 n.7 (1984) (stating that no "exception exists to the normal [deferential] standard of review" for "jurisdictional or legal question[s] concerning the coverage" of an act). There is no principled basis for carving out an arbitrary subset of "jurisdictional" questions from the *Chevron* framework. See, e.g., *Nat'l Cable & Telecomms. Ass'n, v. Gulf Power Co.*, 534 U.S. 327, 333, 339 (2001).

452. *City of Arlington*, 133 S. Ct. at 1874–75 (quoting *Chevron*, 467 U.S. at 842). The Supreme Court has afforded *Chevron* deference to agencies' constructions of the scope of their own jurisdiction. See, e.g., *United States v. Eurodif S. A.*, 555 U.S. 305, 316 (2009); *Commodity Futures Trading Comm'n v. Schor*, 478 U.S. 833, 844 (1986).

Regulatory agencies have authority to determine their own jurisdiction and receive deference on these decisions.<sup>453</sup> There is precedent in several states for providing electricity retail rate discounts based on the age or income of the purchaser.<sup>454</sup> There is precedent in several states for providing electricity rate discounts for the amount of electricity purchased.<sup>455</sup> There is, however, an even stronger legal justification for distinct rates of service for renewable energy generators: if the rates are based to reflect the quantified value of net benefits received by the grid from distributed renewable energy generators, as recommended, then the rates are based on actual net cost of service and are beyond any legal question. Therefore, every state in the Union, regardless of its precedent on the legality of retail rate discounts based only on the income or age of the purchaser, would find such a rate consistent with fundamental cost-of-service rate-making principles.

And on such principles, the current constitutional crisis is avoided. This mechanism avoids the current checkmate situation confronting substantial parts of state renewable energy policy. It is a solution with broad precedent, impeccable principles, and ease of administration.

---

453. *City of Arlington*, 133 S. Ct. at 1874–75.

454. *See supra* Part IV.

455. *See supra* Part V.

\*\*\*