

THREADING THE CONSTITUTIONAL NEEDLE WITH
CARE:
THE COMMERCE CLAUSE THREAT TO THE NEW
INFRASTRUCTURE OF RENEWABLE POWER

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I. REALITY MATTERS

“[I]n today’s regulatory environment, it’s virtually impossible to violate rules . . . [but] it’s impossible for a violation to go undetected. Certainly not for a considerable period of time”

– Bernard Madoff¹

To date, the federal initiatives for renewable energy primarily focus on tax incentives and credits.² State incentives comprise most of the other renewable energy incentives. Chief among these are Renewable Portfolio Standards (RPSs),³ feed-in tariffs,⁴ net metering,⁵ and system benefit charges/trust funds (SBCs).⁶ Government lacks the power to do anything it chooses. And this is especially true with the current state policy to build a new power infrastructure. The new energy infrastructure is all about renewable energy. Both SBC and RPS programs raise revenue by a charge reflecting the amount of power produced or transacted, and then distribute that revenue to certain businesses, in several states based on geographic discrimination. The SBC program involves a direct tax or charge, while the RPS program has the government create a virtual attribute that must be purchased by suppliers of power. In-state consumers of power ultimately bear the

1. Jessica Pressler, *Bernie Madoff: ‘In Today’s Regulatory Environment, It’s Virtually Impossible to Violate Rules,’* NEW YORK MAG. (Dec. 16, 2008), http://nymag.com/daily/intel/2008/12/bernie_madoff_in_todays_regula_1.html.

2. See STEVEN FERREY, *LAW OF INDEPENDENT POWER* (2011).

3. See *infra* Part II.

4. For a discussion of feed-in tariffs, see 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).

5. For a discussion of net metering, see Steven Ferrey, *Nothing But Net: Renewable Energy and the Environment, MidAmerican Legal Fictions, and Supremacy Doctrine*, 14 DUKE ENVTL. L. & POL’Y F. 1 (2003).

6. See *infra* at Part III.A.

entire cost of those charges.

This article examines RPS and SBC state programs, the two most popular state renewable energy incentives, against the significant caveats of the Commerce Clause of the U.S. Constitution. While the mechanism in each program is somewhat different, the legal issues presented are similar. If these programs imposed just a tax—fine.⁷ As long as a state taxes only in-state services, a state can use the tax or surcharge revenues to benefit its own citizens.⁸ Therefore, it is important that states structure their SBC charges to apply only to the in-state distribution of power over in-state power lines.⁹

If this were just a subsidy—fine. However, state renewable energy programs that discriminate against power in interstate commerce bear some resemblance to earlier discriminatory programs that states set up for giving preferences to in-state dairy and other interests. These former state programs were declared by the Supreme Court to violate the U.S. Constitution.¹⁰ Here, similarities, at the very least, put some of these state renewable energy policies in constitutional play.

As examined in detail below and in the Appendix, many of these programs restrict eligibility of out-of-state sited projects from participation. Several states are now being challenged on the legality of their renewable energy policies.¹¹ And to date, the states have failed in several instances to justify the legality of their discriminatory programs. These challenges have taken on the most sophisticated states, which can muster ample legal defense: New York, California, Massachusetts, Colorado, and New Jersey.¹²

However, state RPS and SBC programs also can feature key distinctions that might create a safe harbor from a successful constitutional challenge. It is in these legal interstices that the legal future of American energy policy will be sculpted. This article climbs into the comparative reality of American legal policy and examines these interstices, comprising the American legal foundation for renewable energy policy.

II. CREDIT-WORTHY: STATE RPSs AND RECS

A. *What's in an Acronym: RPS*

Renewable portfolio standards require electric utilities and other retail

7. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 199 (1994).

8. *See id.*

9. *See infra* note 346 and accompanying text.

10. *See infra* Part V.A.

11. *See infra* Part V.D.

12. *See infra* Part V.D.

electric providers to include a specified percentage of electricity supply from renewable energy sources.¹³ The evolution of RPS programs occurred over the past twenty years. Iowa established renewable portfolio standards in 1991.¹⁴ Twenty-nine states and the District of Columbia have some form of RPS.¹⁵ These mandatory RPS programs cover about half of nationwide retail electricity sales.¹⁶ Of that half of U.S. states, half employ differentiated tiers of renewable energy certificates (RECs), serving various functions for those tiers:

1. Some states distinguish tiers by the vintage for the creation of the REC;¹⁷
2. Some states designate tiers by type of technology of renewable resource so as to be able to promote a certain technology;¹⁸
3. Some states create technology set-asides or bands of technology;¹⁹ and
4. Other states have only a single type of REC regardless of technology, evidenced by a single tier, with only new construction of renewable energy projects eligible;²⁰ other states have a single tier which allows both new and existing projects to qualify.²¹

Most RPS programs provide for an incremental annual increased requirement of renewable power.²² By requiring utilities to include various renewables in the energy supply mix, market demand for clean energy supplies is created and an annual market for renewable electricity is created.²³ State requirements of how much electricity must be

13. See *Renewable Portfolio Standards Fact Sheet*, U.S. ENVTL. PROTECTION AGENCY, http://www.epa.gov/chp/state-policy/renewable_fs.html (last updated Apr. 2009).

14. BARRY G. RABE, RACE TO THE TOP: THE EXPANDING ROLE OF U.S. STATE RENEWABLE PORTFOLIO STANDARDS 3 (2006), available at www.pewclimate.org/docUploads/RPSReportFinal.pdf.

15. See *Solar Set-Asides in Renewables Portfolio Standards*, DSIRE, <http://www.dsireusa.org/solar/solarpolicyguide/?id=21> (last visited Oct. 4, 2011).

16. RYAN WISER & GALEN BARBOSE, LAWRENCE BERKELEY NAT'L LAB., RENEWABLES PORTFOLIO STANDARDS IN THE UNITED STATES 1 (2008), available at <http://eetd.lbl.gov/ea/ems/reports/lbnl-154e.pdf>.

17. Rhode Island and Delaware (partially) have such systems. *Id.*

18. Such states include Connecticut, Maryland, New Jersey, Washington DC, and Texas (partially). *Id.*

19. Arizona, Colorado, Minnesota, Montana, Nevada, New Jersey, New York, Pennsylvania, and Washington DC are examples of this. *Id.*

20. Iowa, Massachusetts, Montana (for out-of-state projects), and the Minnesota program covering XCEL are examples of this. *Id.*

21. California (partially), Colorado, Hawaii, Maine, Minnesota, Montana (for in-state projects), New Mexico, New York (partially), Nevada, Pennsylvania, Texas (partially), and Wisconsin are examples of this. *Id.*

22. Robin J. Lunt, *Recharging U.S. Energy Policy: Advocating for a National Renewable Portfolio Standard*, 25 UCLA J. ENVTL. L. & POL'Y 371, 381 (2007).

23. Patrick R. Jacobi, *Renewable Portfolio Standard Generator Applicability Requirements: How States Can Stop Worrying and Learn to Love the Dormant Commerce Clause*, 30 VT. L. REV. 1079, 1082 (2006).

generated from renewable sources vary between 7% and 33%.²⁴ In order to comply with the RPS requirements, electric utilities can own a renewable energy facility and the generated output, purchase RECs, or can purchase bundled electricity inclusive of all additional attributes.²⁵

While many state RPS programs vary, a majority of them utilize RECs.²⁶ The REC represents the property rights to the non-power qualities of generated renewable electricity, and is created by separating the attributes of renewable electricity from the physical electricity generated.²⁷ The REC certifies, by state accounting, that a unit of electricity has been generated from a qualified renewable source.²⁸ For every megawatt-hour (MWh) generated by a renewable energy source, the owner of the system receives one REC.²⁹

Looking at Massachusetts, one state that figures prominently in RPSs, each month, the owner of a renewable energy system reports all metered data to the Production Tracking System maintained by Massachusetts Clean Energy Center.³⁰ The New England Generation Information System records all the generated electricity and, for each megawatt-hour, creates one electronic certificate in the account of that generator.³¹ These RECs can then be sold and transferred between users to meet particular RPS requirements imposed on all retailers of power.³² Each subsequent year after 2009 the percentage increases 1.0% until the Massachusetts requirement reaches 15.0% renewable power in the retail portfolio in 2020.³³

The RECs exist as a separate commodity to be traded and transferred, if so allowed by the state.³⁴ Renewable energy certificates can reduce the cost of complying with an RPS by lowering distribution costs, and because they are not subject to geographic or physical

24. See 225 MASS. CODE REGS. 14.07 (2011) (requiring a minimum of 7% renewable sales for 2012); S. X1-2, 2011-2012 Session, § 4 (Cal. 2011) (raising California's RPS to require 33% renewable sales by 2021).

25. Lunt, *supra* note 22, at 383.

26. See *id.* at 382-83.

27. See K.S. CORY & B.G. SWEZEY, RENEWABLE PORTFOLIO STANDARDS IN THE STATES: BALANCING GOALS AND IMPLEMENTATION STRATEGIES 3 (2007), available at <http://www.nrel.gov/docs/fy08osti/41409.pdf>.

28. See *id.*

29. E.g., *Generation Information System (NE-GIS) and Renewable Energy Certificates (RECs)*, MASS. CLEAN ENERGY CENTER, <http://www.masscec.com/index.cfm/cd/FAP/cdid/11518/pid/11151> (last visited Oct. 4, 2011).

30. See *Production Tracking System (PTS) Guide*, MASS. CLEAN ENERGY CENTER, <http://www.masscec.com/index.cfm/cd/FAP/cdid/11539/pid/11151> (last visited Oct. 4, 2011).

31. E.g., *Generation Information System (NE-GIS) and Renewable Energy Certificates (RECs)*, *supra* note 29.

32. *Id.*

33. 225 MASS. CODE REGS. 14.07(1) (2011).

34. See *Renewable Energy Certificates*, U.S. ENVTL. PROTECTION AGENCY, <http://www.epa.gov/greenpower/gpmarket/rec.htm> (last updated June 2, 2011).

limitation, they provide access to a larger pool of resource options.³⁵ Many utilities utilize RECs to comply with RPS regulatory requirements.³⁶

It has also been estimated that RPSs motivated approximately 45% of the 4,300 MW of wind power installed in the U.S. between 2001 and the end of 2004.³⁷ An additional 15% of these installations were motivated by other state renewable energy trust funds and subsidies.³⁸

Assuming that full compliance is achieved, mandatory state RPS policies in those states that currently have them will require the addition of roughly 60 gigawatts (GW) of new renewable energy capacity by 2025.³⁹ This amount is equivalent to 4.7% of projected 2025 electricity generation in the U.S., and 15% of projected electricity demand growth.⁴⁰ It is not thought to be practically achievable to have the various RPS projects around the country motivate the installation of the required addition of about 60 GW of new generation.⁴¹ Nexant consultants determined that a 33% RPS mandate by 2020 would cost \$8.9 billion, while saving \$6.3 billion (in 2008 constant dollars) as of 2020.⁴² Fitch Ratings Company⁴³ estimated in 2006 that the initial phase of U.S. cap-and-trade CO₂ emission reductions would cost electric utilities approximately \$6.5 billion annually.⁴⁴

There is an obvious connection between RPS renewable power programs and goals for carbon reduction strategies. “That RPS mandates are primarily carbon reduction mandates seems relatively clear [T]his seems to be their primary perceived benefit.”⁴⁵ RPS programs have been labeled as a form of back-door renewable subsidy.⁴⁶ States

35. CORY & SWEZEY, *supra* note 27, at 3.

36. See ED HOLT & LORI BIRD, EMERGING MARKETS FOR RENEWABLE ENERGY CERTIFICATES: OPPORTUNITIES AND CHALLENGES 19 (2005), available at <http://apps3.eere.energy.gov/greenpower/resources/pdfs/37388.pdf>.

37. Ryan Wiser & Mark Bolinger, *Balancing Cost and Risk: The Treatment of Renewable Energy in Western Utility Resource Plans*, ELECTRICITY J., Jan.-Feb. 2006, at 48, 48.

38. *Id.*

39. WISER & BARBOSE, *supra* note 16, at 1.

40. *Id.*

41. Tom Tiernan, *EEI Says Some RPS Targets ‘Unachievable’ as Industry Deals with Infrastructure Debate*, ELECTRIC UTIL. WK., May 5, 2008, at 7, 7.

42. *Time to Grapple with Collateral Issues of Renewable Standards*, ELECTRICITY J., Aug.-Sept. 2009, at 3, 4.

43. The Fitch Group is a global rating agency that provides the world’s credit markets with credit opinions. It is a majority-owned subsidiary of Fimalac, S.A., Paris, France. For additional information, see www.fitchratings.com.

44. *Fitch Puts Utilities’ Initial CO₂ Program Cost at \$6.5 Bil; It Sees Cap-and-Trade Imminent*, ELECTRIC UTIL. WK., Nov. 13, 2006, at 10, 10. This was modeled on a RGGI-capped model with carbon allowances trading at \$10/allowance. *Id.* It also concluded that thousands of megawatts of electric generation capacity would have to be replaced with zero-emission energy sources. *Id.*

45. Neal J. Cabral, *The Role of Renewable Portfolio Standards in the Context of a National Carbon Cap-and-Trade Program*, 8 SUSTAINABLE DEV. L. & POL’Y 13, 13 (2007).

46. See Robert Glennon & Andrew M. Reeves, *Solar Energy’s Cloudy Future*, 1 ARIZ. J.

find RPS programs attractive because they provide various benefits including economic development, reduced emissions, increased job opportunities, establishment of more reliable energy supplies, and greater fuel diversification.⁴⁷

B. What Makes RPSs “Standard” or Renewable?

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.⁴⁸ However, states are less consistent regarding eligibility for municipal waste, fuel cells, and ocean tidal renewable resources to qualify.⁴⁹ Some states count fossil fuel gasification and non-renewable distributed generation, while Pennsylvania and Massachusetts include co-generation.⁵⁰ Resource eligibility in state RPS programs has expanded beyond traditional renewables, with two states now allowing demand-side energy efficiency to meet at least a portion of their RPS requirement.⁵¹ Some states set standards based on a percentage of installed capacity, while other states set standards based on a percentage of total electricity sales.

The Commonwealth of Massachusetts has developed one of the most assertive RPS systems in the country. It has a tiered system of Class I, Class II, and Solar Carve-Out RPSs that require all retail electricity suppliers to supply a percentage of their electricity from renewable sources installed after 1997.⁵² Massachusetts has set goals for Class I renewables on a schedule of increasing percentages of total retail sales of megawatt-hours, currently at 6% in 2011, reaching 15% a year by 2020.⁵³ For each megawatt-hour generated from any of these renewable sources, a REC is created which can be sold to the utilities and other retail power sellers in order to help them meet the stated goals.⁵⁴

RECs for RPS compliance have different longevities and shelf lives for use. “The shelf life of a REC . . . can be as short as three months (in New England) to as long as four years (in Nevada and Wisconsin).”⁵⁵ In some cases where RECs have shorter life spans, they can be banked from one year to the next to meet a certain percentage of the next year’s annual

ENVTL. LAW & POL’Y 91, 106 (2010).

47. CORY & SWEZEY, *supra* note 27, at 7.

48. *Renewable Portfolio Standards Fact Sheet*, *supra* note 13, at figure 3.

49. *Id.*

50. These states are Massachusetts and Pennsylvania. See DSIRE, <http://www.dsireusa.org/>.

51. See CORY & SWEZEY, *supra* note 27, at 1.

52. *RPS and APS Program Summaries*, MASS. EXECUTIVE OFF. ENERGY & ENVTL. AFF., <http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/rps-aps/rps-and-aps-program-summaries.html> (last visited Oct. 4, 2011).

53. *Id.*

54. *Id.*

55. CORY & SWEZEY, *supra* note 27, at 5.

requirement.⁵⁶ Massachusetts utilizes a confined period of a few months to transfer credits from generators of power to retail suppliers before they expire, but allows banking by buyers for three years of up to 30% of the annual RPS requirement;⁵⁷ Delaware and Maryland, along with the District of Columbia, extend banking to a three-year period,⁵⁸ and California allows indefinite banking, which perpetually guarantees the longevity of credits once created as a function of renewable power generation.⁵⁹

Noncompliance penalties imposed on retailers of power vary by state.⁶⁰ Average RPS compliance in 2006 was 94%, resulting in alternative compliance payments (ACPs) of more than \$18 million paid in 2006.⁶¹ Financial penalties have been applied in two states.⁶² The noncompliance or alternative payment penalty ranges from around \$0.05 per kilowatt-hour (kWh) in California, Connecticut, Washington, Rhode Island, New Jersey, New Hampshire, Maine, and Massachusetts, to lower amounts in other states.⁶³ In 2005, 62% of the Massachusetts RPS requirements were satisfied, while power sellers were required to pay state penalties of \$53.19 per MWh for the unsatisfied 38%.⁶⁴ In Massachusetts, where RECs have traded in excess of \$50 per MWh, RECs have been sold for a value as high as the value of the power generated.⁶⁵ Renewable energy financing depends in large part on the forward-monetized value of RECs.⁶⁶

56. See ANDREW SCHWARTZ, CAL. PUB. UTIL. COMM'N, RENEWABLE ENERGY CERTIFICATES AND THE CALIFORNIA RENEWABLES PORTFOLIO STANDARD PROGRAM 24-27 (2006), available at http://docs.cpuc.ca.gov/word_pdf/Report/55606.doc (discussing banking generally).

57. CORY & SWEZEY, *supra* note 27, at 5.

58. *Id.*

59. See SCHWARTZ, *supra* note 56, at 28.

60. See CORY & SWEZEY, *supra* note 27, at 16.

61. WISER & BARBOSE, *supra* note 16, at 1.

62. *Id.*

63. See CORY & SWEZEY, *supra* note 27, at 16.

64. DIV. OF ENERGY RES., MASS. EXEC. OFFICE OF ENERGY AND ENVTL. AFFAIRS, MASSACHUSETTS RENEWABLE ENERGY PORTFOLIO STANDARD: ANNUAL RPS COMPLIANCE REPORT FOR 2005, at 4, 10 (2007), available at <http://www.mass.gov/eea/docs/doer/rps/rps-2005-annual-rpt.pdf>.

65. In 2007, RECs in Massachusetts sold for approximately \$50/MWh. See *Prices for Renewable Certificates Soar in Massachusetts' Public Forward Auction*, ELECTRIC UTIL. WK., Jan. 15, 2007, at 9. The wholesale trading price of power in the ISO-NE market during 2009 was approximately \$40/MWh. See ISO NEW ENGLAND, 2009 ANNUAL MARKETS REPORT 5 (2009), available at http://www.iso-ne.com/markets/mktmonmit/rpts/other/amr09_final_051810.pdf.

66. Ferrey et al., *supra* note 4, at 166. The value of the REC will affect the generator's revenue stream, which is important for project development. If the value of the REC nearly equals the value of the power sold, the generator's revenue stream is doubled. *Id.* n.235 (citing LORI BIRD & JENNY SUMNER, GREEN POWER MARKETING IN THE UNITED STATES: A STATUS REPORT (2009), available at <http://www.nrel.gov/docs/fy11osti/49403.pdf>).

C. The Sun at the Center of the Universe: Solar “Carve-Outs”

Solar-specific RPS designs in eleven states and Washington DC include solar or distributed generation set-asides for a required percentage.⁶⁷ These set-aside policies have already supported more than 100 MW of solar “photovoltaic projects and 65 MW of solar-thermal electric capacity.”⁶⁸ “Roughly 6,700 MW of solar capacity would be needed by 2025 to fully meet existing set-aside requirements.”⁶⁹ Some states allow credits to be traded, while other states do not.⁷⁰

Massachusetts promulgated new rules following New Jersey, Maryland, and Pennsylvania, in creating a special requirement for solar renewable energy credits as part of the RPS mix. Beginning in 2010, Massachusetts created the RPS Solar Carve-Out Program to encourage the development of in-state solar photovoltaic projects, with the intent of increasing the amount of photovoltaic systems in the Commonwealth to 400 MW.⁷¹ Retail electric suppliers are required to meet their RPS obligation with a certain amount of solar renewable energy credits (SRECs), limited to those generated in-state.⁷² The amount of their obligation that they must meet with solar credits is determined and announced by the state Department of Energy Resources (DOER), is the product of a complicated calculation of the previous two years of solar generation and obligations, and is designed to increase each year.⁷³ For 2010, the solar obligation was 0.0679% of each retail supplier’s retail load for the year.⁷⁴

Only facilities built after January 1, 2008 qualify for the solar carve-out creation of SRECs in Massachusetts.⁷⁵ All other facilities merely qualify for regular RECs instead of SRECs. In order to qualify, an application must be filed with DOER and NEPOOL GIS certifying that the facility is located within the Commonwealth, it both uses some of its electricity on-

67. WISER AND BARBOSE, *supra* note 16, at 1.

68. *Id.*

69. *Id.*

70. *Id.* at 26.

71. The solar REC system is statutorily provided by MASS. GEN. LAWS ANN. ch. 25A, § 11F (West 2010 & Supp. 2011), which gives the Commissioner of Energy power to create renewable portfolio standards and is promulgated into a detailed plan by the Code of Massachusetts Regulations. 225 MASS. CODE REGS. 14.00 (2011); *About the RPS Solar Carve-Out Program*, MASS. EXECUTIVE OFF. ENERGY & ENVTL. AFF., <http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/solar/rps-solar-carve-out/about-the-rps-solar-carve-out-program.html> (last visited Oct. 5, 2011).

72. *See* 225 MASS. CODE REGS. 14.07(2)(a); *see also About the RPS Solar Carve-Out Program*, *supra* note 71 (describing the RPS program and stating that eligibility for the carve-out requires the unit to be located within Massachusetts).

73. 225 MASS. CODE REGS. 14.07(2)(b)–(i).

74. *Current Status of the RPS Solar Carve-Out Program*, MASS. EXECUTIVE OFF. ENERGY & ENVTL. AFF., <http://www.mass.gov/eea/energy-utilities-clean-tech/renewable-energy/solar/rps-solar-carve-out/current-status-of-the-rps-solar-carve-out-program.html> (last visited Oct. 5, 2011).

75. *Id.*

site and is interconnected with the utility grid, and has a capacity of 6 MW or less on a single parcel of land.⁷⁶ The DOER will then review the application and after a finding that the facility is qualified, it can begin generating SRECs.⁷⁷

A facility that is found to be over 6 MW can still qualify for the solar carve-out; however, it will only generate SRECs for the first 6 MW.⁷⁸ Any generation above and beyond that may only qualify for Class I RECs.⁷⁹ Projects will only qualify for the SRECs until the 400 MW state goal has been reached.⁸⁰ Once reached, no new projects will qualify, rather, they will be treated as earning regular Class I credits.⁸¹ There is also a restriction on the ability to generate SRECs depending on how the construction and installation of the unit was funded.⁸² If it used funds acquired before January 1, 2010 from the Massachusetts Renewable Trust (the Massachusetts SBC discussed in the next section), or if it received more than 67% of its funding from the American Recovery and Reinvestment Act (ARRA),⁸³ it cannot be part of the solar carve-out program.⁸⁴

The Commonwealth has also created an innovative clearinghouse for SRECs; in the event that the holder of an SREC does not sell them to a utility, it can instead sell them to the Commonwealth, which thereafter makes them available to buyers through an auction.⁸⁵ For 2011, the solar credit clearinghouse rate is \$300/MWh, at which SRECs can be traded through this state mechanism, rather than electing to trade them bilaterally.⁸⁶

The likely market trading ceiling price for SREC trades is determined by the Alternative Compliance Payment rate the utilities must pay if they do not satisfy their annual solar load percentages; for 2011, the ACP rate is \$550/MWh.⁸⁷ The state energy office in Massachusetts recommended that the penalty payment for not meeting this threshold be \$700/MWh (\$.70/kWh) beginning in 2010 and dropping to approximately one-half

76. *About the RPS Solar Carve-Out Program*, *supra* note 71.

77. *See id.*

78. 225 MASS. CODE REGS. 14.05(4)(a).

79. *Id.*

80. 225 MASS. CODE REGS. 14.05(4)(j).

81. *Id.*

82. *Id.* 14.05(4)(b).

83. *About the RPS Solar Carve-Out Program*, *supra* note 71.

84. 225 MASS. CODE REGS. 14.05(4)(b).

85. *See* 225 MASS. CODE REGS. 14.05(4); *see also* *Massachusetts DOER - Solar Renewable Energy Credits (SRECs)*, DSIRE, http://www.dsireusa.org/solar/incentives/incentive.cfm?Incentive_Code=MA98F&re=1&ee=1 (last reviewed Sept. 2, 2011).

86. *Id.*

87. Press Release, Mass. Exec. Office of Energy & Econ. Affairs, Reduction of the Alternative Compliance Payment (ACP) Rate (Jan. 31, 2011), *available at* <http://www.mass.gov/eea/docs/doer/rps-aps/solar-acp-rate-reduction-jan31-2011.pdf>.

this value by 2020.⁸⁸ The penalty was set at \$550/MWh.⁸⁹

D. State Geographic Restrictions

1. The Geographic Contours

In the section immediately above, I discussed the in-state requirement for the Massachusetts solar RPS program.⁹⁰ The available benefits from RPS programs have given cause for many states to establish policies that favor or require in-state development so that the state may reap the benefits locally.⁹¹ To that end, many states specify that a renewable power purchase will only be satisfied if the energy credits are generated by in-state producers, that energy credits must be sold to end-use consumers in the enacting state, or that an incentive will be provided to retailers who comply with the standard by purchasing energy from in-state generators.⁹² There are several dimensions in which such geographic preferences can be implemented. First, geographic preferences may be based on the location of the generator or on the destination of the electricity produced. Additionally, geographic preferences may take the form of a negative restriction (no RECs based on location) or a positive restriction (additional number or tradable RECs if at a particular location). Both are geographic distinctions, but they operate on different sides of the issue.

These requirements technically limit the benefits of the RPS program to the enacting state, and bar the ability of outside states to benefit. Although the enacting states believe these restrictions will have a greater benefit for renewable energy within the state, they may also be giving up the ability to obtain lower cost resources that exist out-of-state, and will cause the RPS program to face constitutional discrimination challenges.

Again, in this matter, states are not uniform or consistent in their enactment of in-state requirements. For example, states employing RPS programs treat customer-side generation differently. While Massachusetts and Rhode Island only allow these distributed generation

88. DEPT OF ENERGY RES., MASS. EXEC. OFFICE OF ENERGY AND ENVTL. AFFAIRS, SOLAR RPS CARVE-OUT STRAW PROPOSAL 12 (2009), available at <http://www.mass.gov/eea/docs/doer/renewables/solar/solar-rps-carve-out-program-straw-proposal-stakeholder-mtg-corrected-090409-doer.pdf>.

89. *Massachusetts Renewable Portfolio Standard*, DSIRE, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MA05R&re=1&ee=1 (last reviewed Sept. 2, 2011).

90. See *supra* Part II.C.

91. See *supra* Part II.C; see also Jacobi, *supra* note 23, at 1096 (proposing that the best method for states to guarantee that benefits accrue within the state is to limit the location of eligible generators to a specific state or area, though this may “awaken the Commerce Clause as it lies dormant”).

92. See Kirsten H. Engel, *The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation*, 26 *ECOLOGY L.Q.* 243, 271 (1999) (noting various methods for states to require in-state purchase of renewable energy).

resources to earn RECs if they are located within the respective states,⁹³ Connecticut allows such facilities to earn credits when situated elsewhere in the New England region.⁹⁴

Geographic requirements may also affect the price of electricity. The price impact of RPS-mandated renewable energy projects has been estimated to range between a 0.1% increase in retail rates (in Maine, Maryland, Washington DC, Delaware, and Pennsylvania) and up to a 1.1% increase in Massachusetts.⁹⁵ Because of geographic limitations and a narrow definition of eligible technologies, the prices of traded RECs have been relatively high in three states: Massachusetts, Connecticut (for Class I RECs), and Rhode Island.⁹⁶ REC trading prices in other states have been significantly lower, led by New Jersey Class I RECs.⁹⁷ In most other states, supply exceeds the demand for RECs, and the prices have trended at about 10% of those in the three highest states.⁹⁸

A state-by-state assessment of in-state preferences, and legal aspects of such in-state discrimination, is examined below.⁹⁹

III. CA-CHING: STATE RENEWABLE TRUST FUNDS AND CHARGES

A. System Benefits Charges

A system benefits charge is a per-kWh power charge imposed on all electricity consumers within a state. Approximately one-third of U.S. states have enacted SBC and “public benefit funds,” as a direct subsidy mechanism to support the development of renewable energy resources.¹⁰⁰ Eighteen states, plus the District of Columbia, have established renewable trust funds in the United States.¹⁰¹

States raise revenues for these renewable trust funds through a small surcharge on electricity bills.¹⁰² These state renewable trust funds distribute money to subsidize various renewable energy resource projects

93. MASS. GEN. LAWS ANN. ch. 25, § 11F(g) (West 2010); 90-060-015 R.I. CODE R. § 6.8(i) (LexisNexis 2011).

94. See Application of Pratt & Whitney for Connecticut Renewable Generator Qualification—Cape Cod Community College Fuel Cell, Docket No. 04-05-13-RE01, 2005 WL 2293281 (Conn. Dep’t of Pub. Utils. July 28, 2005).

95. WISER & BARBOSE, *supra* note 16, at 20.

96. *Id.* at 27–28.

97. *Id.*

98. See *id.*

99. See *infra* Part IV.

100. ELIZABETH DORIS ET AL., STATE OF THE STATES 2009: RENEWABLE ENERGY DEVELOPMENT AND THE ROLE OF POLICY 65–66 (2009), available at <http://www.nrel.gov/docs/fy10osti/46667.pdf>.

101. *Public Benefits Funds for Renewables*, DSIRE, 1 (Oct. 2011), http://www.dsireusa.org/documents/summarymaps/PBF_Map.pptx.

102. *Id.* at 2.

and technologies pursuant to state legislation.¹⁰³ The support can come in the form of renewable power rebate programs, loan programs, research and development assistance, and energy education programs.¹⁰⁴ There are several ways by which to allocate the funds collected from the SBCs, including investment through state loans and equity investments, rebates and grants, research and development grants, consumer education, and resource assessments.¹⁰⁵ Each of these methods of utilizing SBCs to promote renewable energy projects can be applied within both retail and wholesale paradigms.¹⁰⁶

SBCs are typically assessed as charges imposed on the retail use of the distribution system.¹⁰⁷ In this way, even those who are utilizing separate independent sources of supply, in those states where that is permissible,¹⁰⁸ still must pay the SBC to have their power delivered. The funds collected are disbursed as subsidies to support an assortment of energy efficiency and renewable energy programs in order to make them more competitive with conventional energy sources.¹⁰⁹ States generally use SBCs to fund clean energy funds, and they are primarily administered by the state's public utility commission or a separate administrative agency.¹¹⁰ The funds created range in size from less than \$1 million to greater than \$300 million per year.¹¹¹ In most states, utilities, non-profit organizations, or quasi-public agencies are in charge of administering the expenditure of these funds.¹¹²

B. In-State Trust Fund Preference

A state's primary interest with a system benefits charge is to support the in-state renewable energy industry and economic development. Therefore, it is likely that a state will want to retain the funds collected from an SBC program to subsidize or incentivize in-state industries and development.¹¹³ However, the effectuation of the desire to retain subsidy

103. *See generally id.* at 3–12.

104. *Glossary*, DSIRE, <http://www.dsireusa.org/glossary/> (choose “public benefit funds”) (last visited Oct. 5, 2011).

105. *Id.*; *see also*, 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, 523–26 (2004) (explaining system benefits charge programs).

106. Ferrey, *supra* note 105, at 527 (highlighting that system benefits charges can be applied in either wholesale or retail frameworks).

107. *Id.* at 523–24.

108. *See generally* STEVEN FERREY, *THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION* 139 (2000).

109. *See* Ferrey et al., *supra* note 4, at 136 (highlighting how system benefits charges operate).

110. *Id.* at 137.

111. *State Clean Energy Funds Fact Sheet*, U.S. ENVTL. PROTECTION AGENCY, http://www.epa.gov/chp/state-policy/funds_fs.html (last updated Apr. 2009).

112. Ferrey et al., *supra* note 4, at 137.

113. *See* Engel, *supra* note 92, at 295.

funds for in-state benefit raises the dormant Commerce Clause constitutional issue of discriminating against out-of-state electricity.¹¹⁴ The charge is based on total electricity usage and some of that electricity originated from out-of-state; however, the benefit of the charge is dispensed only to in-state renewable generators and projects. Therefore, many SBC funding programs may encounter constitutional challenges because they effectively discriminate against out-of-state producers in favor of in-state producers.

IV. JUST THE FACTS

A. What Types of RPS Programs Geographically Discriminate in Fact?

There are a number of the twenty-nine states with RPSs, which have incorporated credit multipliers, restrictions, or preferences to promote in-state/in-region generation of power. They constitute about three-quarters of those states with RPS programs.¹¹⁵ There are a handful of distinct direct, and indirect, means by which preferences are structured. These geographic preferences fall into several categories: (1) larger REC multipliers for geographic preferences, (2) in-state REC preferences, (3) in-region geographic preferences, (4) absolute requirements for geographic discrimination, and (5) geographic preferences for use of in-state businesses, products, or both.

While the requirements of each state's program are examined and analyzed in detail in Appendix A, the remainder of this section presents a brief description of RPS provisions that fall into the categories described above.

1. In-State REC Multipliers in 27% of RPS States

First, eight of the twenty-nine RPS states have REC multipliers for in-state generation.

Arizona—Multiplier credits are additive, but the maximum combined extra credit multiplier cannot exceed 2.0x.¹¹⁶ Multiplier for in-state manufacturing and installation content for specific technologies installed on or before December 31, 2005, the exact amount to be determined by percentage of in-state content.¹¹⁷ 1.5x multiplier for distributed solar electric generators installed on or before December 31, 2005, with specific criteria that the facility is

114. See discussion *infra* Part V.A.

115. Twenty-three of twenty-nine RPS states have some form of geographic discrimination. See *infra* Part IV.A.

116. ARIZ. ADMIN. CODE § 14-2-1806(G) (2009).

117. *Id.* §§ 14-2-1806(D)–(E).

installed on customer premises.¹¹⁸

Colorado—1.25x multiplier for in-state generation, excluding “retail distributed generation” defined to include all customer-sited systems.¹¹⁹ 1.5x multiplier for “community-based” renewable energy projects.¹²⁰ 2.0x multiplier for renewable projects up to 30 MW interconnected to electrical transmission or distribution lines owned by a cooperative or municipal utility, installed prior to 2015.¹²¹ Only one multiplier may be used.¹²²

Delaware—3.0x multiplier for in-state solar or fuel cell powered by renewables.¹²³ 1.5x multiplier for wind sited in Delaware prior to 2013.¹²⁴

Maine—1.5x multiplier¹²⁵ for community-based renewable installations up to 10 MW, limited to 50 MW in aggregate.¹²⁶ 10 MW reserved for systems that are 100 kW or less, or “are located in the service territory of a consumer-owned transmission and distribution utility.”¹²⁷

Michigan—1.1x multiplier for renewable energy produced using in-state manufactured equipment, available for three years after the in-service date of the facility.¹²⁸ 1.1x multiplier for renewable energy produced using a system which was constructed using an in-state workforce, which is available for three years after the in-service date of the facility.¹²⁹

Missouri—1.25x credit multiplier for in-state generation.¹³⁰

Nevada—2.4x multiplier for customer-sited photovoltaic systems where 50% of generation is used on-site.¹³¹

Washington—2.0x multiplier for distributed generation facilities less than 5 MW in size.¹³²

This is not to suggest that REC/subsidy multipliers are suspect *per se*. It is the geographic preference, implemented through a multiplier, rather than the concept of a multiplier itself, that raises inquiry. Several states

118. *Id.* § 14-2-1806(F).

119. COLO. REV. STAT. ANN. § 40-2-124 (West Supp. 2011).

120. *Id.*

121. *Id.*

122. *Id.*

123. DEL. CODE ANN. tit. 26, § 356 (2009).

124. *Id.*

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

126. *Id.* § 3603(2).

127. *Id.*

128. MICH. COMP. LAWS ANN. § 460.1039(2)(d) (West Supp. 2011).

129. *Id.*

130. MO. ANN. STAT. § 393.1030(1) (West 2010).

131. NEV. REV. STAT. § 704.7822 (2009).

132. WASH. ADMIN. CODE § 194-37-110 (2008).

employ multipliers not based on geographic location, but rather based on timing of the project or type of renewable technology:

District of Columbia—1.1x multiplier for energy generated by wind or solar between January 1, 2007, and December 31, 2009.¹³³ 1.1x multiplier for energy generated by landfill methane or wastewater-treatment methane prior to January 1, 2010.¹³⁴

Kansas—1.1x multiplier after January 1, 2000 applying to all eligible renewable technologies.¹³⁵

Maryland—1.2x multiplier for wind energy before December 31, 2005.¹³⁶ 1.1x multiplier for wind energy after December 31, 2005, and before December 31, 2008.¹³⁷ 1.1x multiplier for energy derived from methane on or before December 31, 2008.¹³⁸

Ohio—Multiplier for electricity generated principally by biomass energy, based on ACP penalty price divided by market REC price.¹³⁹

Oregon—For in-state utilities, 2.0x multiplier for photovoltaic systems between 500 kW and 5 MW operational prior to 2016.¹⁴⁰

Texas—2.0x multiplier for non-wind energy from facility installed and certified by the PUCT after September 1, 2005.¹⁴¹

Of note, Maryland and Ohio provide other forms of in-state or in-region geographic preferences, although in the form of requirements of locating a facility in a particular geographic region, rather than merely giving additional multiplied RECs to such units.¹⁴²

2. Preference for In-State REC Generation in 14% of RPS States

Second, other states have either a requirement or preference for in-state generation. This affects four of the RPS states, including two that

133. D.C. CODE § 34-1433(e) (2010).

134. D.C. CODE §§ 34-1433(f), 34-1431(14)(D).

135. KAN. STAT. ANN. § 66-1258(c) (Supp. 2010).

136. MD. CODE ANN., PUB. UTIL. COS. § 7-704(c) (LexisNexis 2010).

137. *Id.*

138. *Id.*

139. OHIO ADMIN. CODE 4901:1-40-04 (2009).

140. OR. REV. STAT. § 757.375 (2009).

141. TEX. UTIL. CODE ANN. § 39.904(o) (West 2007) (explaining that the commission can establish an alternative compliance payment to reach the non-wind energy goal by 2015); 16 TEX. ADMIN. CODE § 25.173(c)(2) (2010) (explaining that one compliance premium is the equivalent of one REC).

142. MD. CODE ANN., PUB. UTIL. COS. § 7-701(i) (defining “renewable energy credit” as electricity generated from a renewable energy source that is located in the PJM region or in a control region adjacent to the PJM region if the electricity produced is distributed into the PJM region); OHIO REV. CODE ANN. § 4928.64(B)(3) (West 2010) (requiring that half of the renewable energy resources produced by a utility or company be from a facility located in Ohio and that the remainder of the required renewable energy production by the utility or company be deliverable into Ohio); *see also* discussion *infra* Part IV.A.2–3.

also provide for a geographically discriminatory REC multiplier.¹⁴³

California—RPS cap of 25% for tradable RECs disassociated from in-state retail power. 75% must be linked to in-state power sales. There are plans in place to shrink that cap even further to 10% by the year 2017.¹⁴⁴

Colorado—RECs may only be acquired for solar generation located on-site and in-state.¹⁴⁵

North Carolina—There is a preference for in-state generation. Out-of-state RECs are limited to 25% of total RECs.¹⁴⁶

Ohio—“At least one-half of the renewable energy resources implemented by the utility or company shall be met through facilities located in this state; the remainder shall be met with resources that can be shown to be deliverable into this state.”¹⁴⁷

3. In-Region REC Requirements in 38% of RPS States

Third, eleven of the twenty-nine 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 multipliers¹⁴⁸ and one with an in-state preference.¹⁴⁹

Connecticut—Connecticut will recognize RPS credits from other states in the six-state NEPOOL system until 2010, and thereafter will additionally recognize credits from New York, Pennsylvania, New Jersey, Maryland, or Delaware if it is determined by Connecticut at that time that their RPS program standards are similar to those of Connecticut.¹⁵⁰

Illinois—“Prior to June 1, 2011, resources procured pursuant to this Section shall be procured from facilities located in Illinois, provided the resources are available from those facilities. If resources are not available in Illinois, then they shall be procured in states that adjoin Illinois. If resources are not available in Illinois or in states that adjoin Illinois, then they may be purchased elsewhere. Beginning

143. *See supra* Part IV.A.1.

144. *See California Renewables Portfolio Standard*, DSIRE, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=CA25R&re=1&ee=1 (last reviewed Apr. 12, 2011) (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).

145. COLO. REV. STAT. ANN. §§ 40-2-124(e)(II)–(III) (West Supp. 2011).

146. N.C. GEN. STAT. § 62-133.8(b)(2)(e) (2009).

147. OHIO REV. CODE ANN. § 4928.64(B)(3) (West 2010).

148. *See supra* Part IV.A.1.

149. *See supra* Part IV.A.2.

150. CONN. GEN. STAT. ANN. § 16-245a(b) (West 2007); DPUC Review of RPS Standards and Trading Programs in New York, Pennsylvania, New Jersey, Maryland, and Delaware, Docket No. 04-01-13, 2005 WL 3571725 (Conn. Dep’t of Pub. Utils. Nov. 9, 2005).

June 1, 2011, resources procured pursuant to this Section shall be procured from facilities located in Illinois or states that adjoin Illinois. If resources are not available in Illinois or in states that adjoin Illinois, then they may be procured elsewhere.”¹⁵¹

Maine—“Energy used to satisfy the portfolio requirements must be physically delivered to the Northern Maine Independent System Administrator (NMISA) area. For purposes of this Chapter, energy physically delivered is energy that is recognized pursuant to the rules of the ISO-NE or NMISA as serving load obligations in New England or is otherwise used to serve electricity load within the ISO-NE or NMISA control areas.”¹⁵²

Maryland—Suppliers may request recognition of a non-Maryland REC from generation not delivered into the PJM region so long as the electricity is generated within the PJM Region or in a state adjacent to the PJM control area.¹⁵³

Massachusetts—Requires that generation be brought into the ISO-NE six-state area on a real-time basis.¹⁵⁴

New Hampshire—“[S]hall utilize the regional generation information system (GIS) of energy certificates administered by ISO-New England and the New England Power Pool (NEPOOL) or their successors.”¹⁵⁵

North Carolina—RPS may be satisfied by purchasing power from facilities “located outside the geographic boundaries of the State . . . if the power is delivered to a public utility that provides electric power to retail electric customers in the State,”¹⁵⁶ or by purchasing RECs “derived from in-State or out-of-state new renewable energy facilities.”¹⁵⁷ RECs purchased from out-of-state can account for no more than 25% of the requirements.¹⁵⁸

Ohio—“The commission shall consider the availability of renewable energy or solar energy resources in this state and other jurisdictions in the PJM interconnection regional transmission organization or its successor and the midwest system operator or its successor.”¹⁵⁹

Oregon—“The qualifying electricity for which the certificate is issued [must be] delivered to the Bonneville Power Administration, to the transmission system of an electric utility, or to another

151. 20 ILL. COMP. STAT. ANN. § 3855/1-56(b) (West Supp. 2011).

152. 65-407-311 ME. CODE R. § 6 (LexisNexis 2011).

153. MD. CODE REGS. 20.61.03 (2011).

154. MASS. GEN. LAWS ANN. ch. 25A, § 11F (West 2010).

155. N.H. REV. STAT. ANN. § 362-F:6 (2009).

156. N.C. GEN. STAT. § 62-133.8(b)(2)(d) (2009).

157. *Id.* § 62-133.8(b)(2)(e).

158. *Id.*

159. OHIO REV. CODE ANN. § 4928.64(c)(4)(b) (West 2010).

delivery point designated by an electric utility for the purpose of subsequent delivery to the electric utility.”¹⁶⁰

Pennsylvania—“For purposes of compliance with this act, alternative energy sources located in the PJM Interconnection, L.L.C. regional transmission organization (PJM) or its successor service territory shall be eligible to fulfill compliance obligations of all Pennsylvania electric distribution companies and electric generation suppliers. Energy derived from alternative energy sources located outside the service territory of a regional transmission organization that manages the transmission system in any part of this Commonwealth shall not be eligible to meet the compliance requirements of this act.”¹⁶¹

Rhode Island—“To the extent consistent with the requirements of this chapter, compliance with the renewable energy standard may be demonstrated through procurement of NE-GIS certificates relating to generating units certified by the commission as using eligible renewable energy sources, as evidenced by reports issued by the NE-GIS administrator. Procurement of NE-GIS certificates from off-grid and customer-sited generation facilities, if located in Rhode Island and verified by the commission as eligible renewable energy resources, may also be used to demonstrate compliance.”¹⁶² “A generation unit located in an adjacent control area outside of the NEPOOL may qualify as an eligible renewable energy resource, but the associated generation attributes shall be applied to the renewable energy standard only to the extent that the energy produced by the generation unit is actually delivered into NEPOOL for consumption by New England customers. The delivery of such energy from the generation unit into NEPOOL must be generated by: (1) A unit-specific bilateral contract for the sale and delivery of such energy into NEPOOL; and (2) Confirmation from ISO-New England that the renewable energy was actually settled in the NEPOOL system; and (3) Confirmation through the North American Reliability Council tagging system that the import of the energy into NEPOOL actually occurred; or (4) Any such other requirements as the commission deems appropriate.”¹⁶³

4. Defining Eligible Resources as In-State or In-Region REC Generation in 17% of RPS States

Fourth, five states, including two that provide in-state REC multipliers¹⁶⁴ and one requiring in-state REC generation,¹⁶⁵ also define

160. OR. REV. STAT. § 469A.135(1)(b) (2009).

161. 73 PA. CONS. STAT. ANN. § 1648.4 (West 2008).

162. R.I. GEN. LAWS § 39-26-4 (2006).

163. *Id.* § 39-26-5(b).

164. The two states are Delaware and Washington. DEL. CODE ANN. tit. 26, § 356 (2009);

eligible resources or qualifications as in-region or in-state geographic location.

California—“‘Eligible Renewable Energy Resource’ means an electric generating facility . . . that meets the definition of an ‘in-state renewable electricity generation facility.’”¹⁶⁶

Delaware—“‘Eligible energy resources’ include . . . energy sources located within or imported into the PJM region.”¹⁶⁷

Montana—“‘Eligible renewable resource’ means a facility either located within Montana or delivering electricity from another state into Montana”¹⁶⁸

New Jersey—“To qualify as class I or class II renewable energy for the purposes of this subchapter, energy shall be generated within or delivered into the PJM region, as defined in N.J.A.C. 14:4-1.2. Energy generated outside the PJM region shall be considered delivered into the PJM region if it has been added to the PJM region through dynamic scheduling of the output to load inside the PJM region”¹⁶⁹

Washington—Eligibility as a renewable energy resource, for purposes of the RPS statute, means that the facility is located in the Pacific Northwest and the electricity from the facility is delivered into Washington on a real-time basis without shaping, storage, or integration services (an eligible renewable resource within the Pacific Northwest may receive integration, shaping, storage, or other services from sources outside the Pacific Northwest and remain eligible to count towards a utility’s renewable resource target).¹⁷⁰

5. REC Benefits for In-State Components and Labor in 14% of RPS States

Fifth, there are preferences or multipliers for RECs created at power generation units that employ an in-state workforce or in-state manufactured components. All of these states provide other in-state multipliers or define eligible resources as in-state resources,¹⁷¹ so this operates as an additional in-state subsidy.

Arizona—Multiplier for in-state manufacturing and installation content for specific technologies installed on or before December 31,

WASH. ADMIN. CODE 194-37-110 (2008).

165. *California Renewables Portfolio Standard*, *supra* note 144.

166. CAL. PUB. UTIL. CODE § 399.12(c) (West 2004).

167. DEL. CODE ANN. tit. 26, § 352(6).

168. MONT. CODE ANN. § 69-3-2003(10) (2011).

169. N.J. ADMIN. CODE § 14:8-2.7(b) (2009).

170. WASH. ADMIN. CODE 194-37-040(13)(a) (2008).

171. *See supra* Parts IV.A.1, IV.A.4.

2005, the exact amount to be determined by percentage of in-state content.¹⁷²

Delaware—1.1x multiplier for in-state solar and wind installations that are constructed using at least 50% Delaware-sourced equipment/components or at least a 75% Delaware workforce.¹⁷³

Michigan—1.1x multiplier for renewable energy produced using in-state manufactured equipment; available for three years after the in-service date of the facility.¹⁷⁴ 1.1x multiplier for renewable energy produced using a system which was constructed using an in-state workforce; available for three years after the in-service date of the facility.¹⁷⁵

Montana—“[M]ust require all contractors to give preference to the employment of bona fide Montana Residents . . . in the performance of the work on the projects.”¹⁷⁶

Not mentioned in any of the above categories are those seven of the twenty-nine RECs states with RPS programs that have no geographic or other in-state preferences, requirements, or multipliers. These states are Hawaii (it is not electrically interconnected to any other states),¹⁷⁷ Iowa,¹⁷⁸ Kansas,¹⁷⁹ Minnesota,¹⁸⁰ New Mexico,¹⁸¹ New York,¹⁸² and

172. ARIZ. ADMIN. CODE §§ 14-2-1806(D)–(E) (2007).

173. DEL. CODE ANN. tit. 26, §§ 356(d)–(e) (Supp. 2010).

174. MICH. COMP. LAWS ANN. § 460.1039(2)(d) (West Supp. 2011).

175. *Id.*

176. MONT. CODE ANN. § 69-3-2005(3)(a) (2009).

177. HAW. REV. STAT. ANN. § 269-93 (LexisNexis 2011) (explaining how a utility company may achieve Hawaii’s portfolio standard; no mention is made of credit multipliers).

178. *See* IOWA ADMIN. CODE r. 199-15.11(476) (2011).

179. KAN. STAT. ANN. § 66-1256 to 66-1262 (Supp. 2010).

180. MINN. STAT. ANN. § 216B.1691(4)(a) (West 2010 & Supp. 2011) (stating that all eligible technology must be treated equally, with no preference based on the state where the energy was generated).

181. N.M. CODE R. § 17.9.572 (LexisNexis 2011). “Renewable energy certificates representing electricity delivered to New Mexico, but generated in a jurisdiction that requires certificates to be registered with a tracking system other than WREGIS, may be used to meet renewable portfolio standards so long as WREGIS lacks the capability to import certificates from that other tracking system.” *Id.* § 17.9.572.13(F). RECs “may be traded, sold or otherwise transferred . . . [and] such transfers . . . do not require physical delivery of the electric energy represented by the certificate to a public utility or rural electric distribution cooperative, so long as the electric energy represented by the certificate was contracted for electrical distribution in New Mexico,” or the energy is consumed or generated by an end-use customer of the public utility or cooperative in the state of New Mexico. *Id.* § 17.9.572.13(c)(2). However, the commission may determine if there is an active regional market for trading RECs in any region where the public utility or cooperative is located. *Id.* Therefore, there may be an in-region preference down the line if there is a ready market for renewable energy production.

182. Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Order Regarding Retail Renewable Portfolio Standard, 235 P.U.R.4th 414, 445 (N.Y. Pub. Serv. Comm’n 2003).

We see no unnecessary burden on interstate commerce or potential violation of the Commerce Clause. The RPS concerns requirements for the retail sale of electricity in New York State. For commerce to occur, the product, electricity generated from

Wisconsin.¹⁸³ Thirty-one states have no RPS program.

Each of these states, in each of the basic categories of geographic preference, is examined and analyzed in detail in Appendix A to this article. However, the summary above displays the significant number of states that populate different categories of geographic preference in their RPS programs. In all, twenty-two of the twenty-nine RPS states, or 75%, have one or more of the geographic preferences. Just because one state discriminates in favor of certain in-state geography of commerce, does not justify other states offsetting this with their own geographic discrimination. The dormant Commerce Clause prevents any geographic discrimination against interstate commerce,¹⁸⁴ rather than encouraging quid pro quos.

B. Do SBC Systems Geographically Discriminate in Fact?

Funding out-of-state power projects with SBC or RECs does not provide in-state job growth and in-state increased tax base. As a basic premise: “Nothing in the purposes animating the Commerce Clause prohibits a State, in the absence of congressional action, from participating in the market and exercising the right to favor its own citizens over others.”¹⁸⁵ Let’s compare some of the state SBC programs, recognizing that only about one-third of the states employ them. They also vary greatly in their geographic impact.

1. Massachusetts Renewable Energy Trust Fund

The language of current legislation for the Renewable Energy Trust fund of Massachusetts contains no express geographic limitations expressed in the intent and purpose section of the statute.¹⁸⁶ In chapter

renewable resources, must be in the State to be sold to retail customers. The RPS promotes interstate commerce by allowing imports on the same terms as electricity generated within the State. The delivery requirement applies to domestic generation as well as imports. Therefore, it is equivalently applied to in-State and out-of-State renewable generation sources and imposes only a minimal, if any, burden on commerce. In addition, the delivery requirement serves important State interests including supply security and diversity, and environmental benefits. We have reviewed the request by some that, if the delivery requirement is adopted, it be imposed on a regional basis.

Id. New York does have a requirement for hydroelectric facilities to be in-state. *Id.*

183. WIS. STAT. ANN. § 196.374 (West 2002 & Supp. 2011).

184. *See infra* Parts V.A–B.

185. *Hughes v. Alexandria Scrap Corp.*, 426 U.S. 794, 810 (1976).

186. MASS. GEN. LAWS ANN. ch. 23J, § 9(b) (West 2010 & Supp. 2011). The Massachusetts Clean Energy Center (the quasi-public agency administering the fund) can

[M]ake expenditures from the trust fund for public purpose of generating the maximum economic and environmental benefits over time for renewable energy to the ratepayers of the commonwealth through a series of initiatives which exploit the advantages of renewable energy in a more competitive energy marketplace by: (i) promoting the increased availability, use, and affordability of renewable energy; (ii)

23J, § 9(c), the non-geographic limiting language goes even further in stating that the public interests to be advanced by this fund, through the center's actions, shall include support of renewable energy resources, institutions, projects, etc. not only in the Commonwealth of Massachusetts but also within the New England region.¹⁸⁷ There also are no geographic limitations on where the Massachusetts Clean Energy Center can expend these funds.¹⁸⁸

The Department of Public Utilities definition for “renewable resources” includes the “existing or emerging non-fossil fuel energy sources or technologies that have significant potential for commercialization in *New England and New York*.”¹⁸⁹ Section 7 of the code defines the funding of renewable resources as the electric utility collecting a charge to support the Massachusetts Renewable Energy Trust in accordance with the schedules for the public purpose in order to “generate the maximum economic and environmental benefits over time from renewable energy to the ratepayers of the Commonwealth of promoting the increased availability, use, and affordability of renewable energy.”¹⁹⁰

Nothing here is facially discriminatory in favoring geographic interests. However, Massachusetts almost exclusively spends its trust fund on funding in-state programs and projects. Of the over 800 funded projects listed on the Massachusetts Technology Collaborative website, as having been funded by the Massachusetts Renewable Energy Trust fund from

by making operational improvements to existing renewable energy projects and which, in the determination of the center, would yield more significant results in the development of renewable energy if such funds were made available for the creation of new renewable energy facilities; and by fostering the formation, growth, expansion and retention within the commonwealth of preeminent clusters of renewable energy and related enterprises, institutions and projects which serve the citizens of the commonwealth consistent with a strategic plan or annual operational plan.

Id.

187. *See id.* § 9(c).

Public interests to be advanced through the center's actions shall include, but shall not be limited to, the following: (i) the development and increased use and affordability of renewable energy resources in the commonwealth and the New England region; . . . (v) the stimulation of increased public and private sector investment in, and competitive advantage for, renewable energy and related enterprises, institutions and projects in the commonwealth and the New England region; and (vi) the stimulation of entrepreneurial activities in these and related enterprises, institutions and projects.

Id.

188. *Id.* § 9(d). Chapter 23J, § 9(d) provides that the center may expend monies to

[M]ake grants, contracts, loans, equity investments, energy production credits, bill credits or rebates to customers; provide financial or debt service obligation assistance; or take any other action, in such forms, under such terms and conditions and under such selection procedures as the center deems appropriate . . . to advance the public purpose and public interests set forth in this section

Id.

189. 220 MASS. CODE REGS. 11.02 (2011) (emphasis added).

190. 220 MASS. CODE REGS. 11.04(7)(a).

2001 to 2011, very few of the projects listed on the site were located out-of-state.¹⁹¹ There were only two specific instances that could be identified where Massachusetts funded an out-of-state project.¹⁹²

2. Illinois Renewable Energy Resources Trust Fund

The Illinois Renewable Energy Resources Trust Fund (RERTF), in the findings and intent section of the law,¹⁹³ states that the General Assembly:

[F]inds and declares that it is desirable to obtain the environmental quality, public health, and fuel diversity benefits of developing new renewable energy resources and clean coal technologies for use in Illinois, and to lower the cost of renewable energy resources and clean coal resources provided to utility customers. . . . The General Assembly finds and declares that encouraging energy efficiency will improve the environmental quality and public health in the State of Illinois.¹⁹⁴

The statute proceeds to state that the administrator of this fund, the Department of Commerce and Economic Opportunity, shall establish eligibility criteria for distributing these funds and that “the criteria should promote the goal of fostering investment in and the development and use, in Illinois, of renewable energy resources.”¹⁹⁵ The Illinois Administrative Code provision regarding administration of this fund takes the Illinois-centric focus one step further, where it specifies that “[r]enewable energy project means any of the following projects implemented and located in Illinois[.]”¹⁹⁶ The Illinois Institute of Rural

191. *Renewable Energy Trust Project List*, MASS. TECH. COLLABORATIVE, http://www.mass.tech.org/project_list.cfm (last visited Oct. 6, 2011).

192. One was in 2003 when the Massachusetts Renewable Energy Trust helped fund a new biomass system through the Massachusetts Green Power Partnership to help the Public Service of New Hampshire, a utility, develop the “Northern Wood Power Project” at the Schiller generating facility in Portsmouth, New Hampshire. *Newly Operational Biomass Facility Will Mean More Renewable Energy for Mass. Ratepayers*, WATTS NEWS: RENEWABLE ENERGY TRUST NEWSLETTER (Mass. Tech. Collaborative), Winter 2007, available at <http://www.mass.tech.org/wattsnews/winter2007.html>. The other out-of-state project was in September 2010 when the Massachusetts Clean Energy Center gave a grant of \$400,000 to Templeton Municipal Light and Water for the design and construction, through Massachusetts Clean Energy Center’s Community Scale Wind Initiative, of the “Templeton Wind Turbine” which was built on land owned by the Narragansett Regional School District. *Templeton Wind Turbine*, MASS. CLEAN ENERGY CENTER, <http://www.masscec.com/index.cfm/pid/11312/cdid/12075> (last visited Oct. 6, 2011).

193. 20 ILL. COMP. STAT. 687/6-2 (West 2008).

194. *Id.*

195. *Id.* 687/6-3(b); see also *id.* 687/6-4(b) (establishing the existence of the Renewable Energy Resources Trust Fund, and stating that the fund “shall be administered by the Department to provide grants, loans, and other incentives to foster investment in and the development and use of renewable resources as provided in Section 6-3 . . . or pursuant to the Illinois Renewable Fuels Development Program Act”).

196. ILL. ADMIN. CODE tit. 35, § 225.560(b) (2007) (emphasis added).

Affairs website states that “[f]unds are to be used only on projects within Illinois that demonstrate a benefit to the state’s environment or economy.”¹⁹⁷

3. Rhode Island Renewable Energy Development Fund

In accord with RIGL § 39-26, the Rhode Island Economic Development Corporation was given the responsibility of establishing and administering the Renewable Energy Development Fund.¹⁹⁸ All of the funded projects are based in Rhode Island.¹⁹⁹ However, Rhode Island has approved applications for RPS credits for projects located in New York State as well as in other states.²⁰⁰ The fund also provided \$3.2 million to support development of offshore wind projects.²⁰¹

4. New Jersey Trust Fund

Under the statutory language of § 48:3-60, utilities are entitled to recover some of their costs through a societal benefits charge which is imposed on all electric public utility customers and gas public utility customers.²⁰² The statute goes on to state that “[s]uch programs shall include a program to provide financial incentives for the installation of Class I renewable energy projects in the State[.]”²⁰³ While the renewable resources can come from out-of-state producers, the subsidy benefits the state. 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 them to bid power into the PJM system at suppressed prices in order to win capacity right auctions.²⁰⁴

5. Ohio and Pennsylvania Expenditures

Ohio utilizes penalties imposed under its RPS program to fund only in-

197. *Illinois Wind*, ILL. INST. FOR RURAL AFF., <http://www.illinoiswind.org/resources/small/faq05.asp#3> (last visited Oct. 6, 2011).

198. R.I. GEN. LAWS § 42-64-13.2 (2006).

199. R.I. ECON. DEV. CORP., ANNUAL FINANCIAL AND PERFORMANCE REPORT FOR THE YEAR ENDING 12/31/2009, at 19 (2010), available at http://www.riedc.com/files/Financial_and_Performance_Report_2010.pdf.

200. STATE OF R.I. PUB. UTILS. COMM’N, RHODE ISLAND RENEWABLE ENERGY RESOURCES ELIGIBILITY APPLICATIONS, [http://www.ripuc.org/utilityinfo/RES-Applications-Status\(6-21-08\).pdf](http://www.ripuc.org/utilityinfo/RES-Applications-Status(6-21-08).pdf) (last visited November 6, 2011).

201. Ted Nesi, *U.S. Boosts Ocean SAMP Budget to \$3.9M*, PROVIDENCE BUS. NEWS (Mar. 12, 2009), <http://www.pbn.com/US-boosts-Ocean-SAMP-budget-to-39M,40881>.

202. N.J. STAT. ANN. § 48:3-60 (West 1999).

203. *Id.*

204. 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. New projects must now bid at least 90% of their construction cost when bidding capacity into PJM. 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.

state REC-generating new renewable generation. “At least one-half of the renewable energy resources implemented by the utility or company shall be met through facilities located in [Ohio.]”²⁰⁵ Ohio’s Public Utilities Commission is tasked with annually reviewing compliance with the renewable and solar energy benchmarks and imposing penalties if the benchmarks are not met.²⁰⁶ Compliance payments are then paid into the Advanced Energy Fund, which provides financial assistance to renewable energy and energy efficiency projects within Ohio.²⁰⁷

Similarly, Pennsylvania’s RPS penalty payments are paid into Pennsylvania’s Sustainable Energy Funds and devoted only to Pennsylvania projects.²⁰⁸

6. California Self-Generation Incentive Program

California has a renewable power subsidy program known as the Self-Generation Incentive Program. It originally included turbine and internal combustion technology, but evolved to include only wind turbines, fuel cells, and corresponding energy storage systems.²⁰⁹ For renewable fuel cell projects utilizing biogas, LFG, or biomass, the incentive is \$4.50/watt for the first MW, then declining to 50% subsidy of the second MW of capacity at the same facility, and then declining to 25% of the original amount on the third MW of capacity, with no subsidy thereafter.²¹⁰ Natural gas fuel cells receive \$2.50/watt; the wind incentive is \$1.50/watt.²¹¹ The maximum size of all units is 5 MW with a minimum size of at least 30 kW in capacity for wind turbines and renewable fuel cells.²¹²

The project cannot export any significant amount of power to the grid under this subsidy program.²¹³ One only needs to demonstrate that 75% of a project’s fuel source comes from an eligible non-fossil fuel source.²¹⁴ One can virtually bank renewable gas that is eligible for a subsidy by putting it into the regional pipeline and taking it out at another project.

205. OHIO REV. CODE ANN. § 4928.64(B)(3) (West 2010).

206. *Id.* § 4928.64(C).

207. *Id.*

208. 73 PA. CONS. STAT. ANN. § 1648.3(g)(1) (West 2007).

209. *See* Order Instituting Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues, Decision No. 09-09-048, 2009 WL 3229380 at n.1 (Cal. Pub. Utils. Comm’n Sept. 24, 2009).

210. CAL. PUB. UTILS. COMM’N, SELF-GENERATION INCENTIVE PROGRAM HANDBOOK 22–23 (2010).

211. *Id.* at 22.

212. *Id.*

213. *Id.* at 5.

214. *SGIP—Frequently Asked Questions*, PAC. GAS & ELEC. CO., <http://www.pge.com/mybusiness/energysavingsrebates/selfgenerationincentive/faq/> (click on the tab entitled “How do I qualify for the higher incentive rate as a Renewable Fuel Cell?”) (last visited Oct. 6, 2011).

There is an added 20% subsidy premium for an in-state supplier/manufacturer of the renewable energy technology.²¹⁵

V. THE DORMANT COMMERCE CLAUSE AND POWER

A. *The Basic Provisions*

The Commerce Clause of the U.S. Constitution provides that “[t]he Congress shall have Power . . . [t]o regulate Commerce . . . among the several States”²¹⁶ The Commerce Clause is a forthright grant of power to Congress, which is integral when the authority to enact legislation conflicts with multi-state renewable energy efforts. While this clause has been recognized for some time as an affirmative grant of authority to Congress to regulate interstate commerce, the Supreme Court has imbued this clause with “an implicit ‘negative’ or ‘dormant’ aspect in limiting the authority of the States to regulate in the same way,” resulting in the application of the dormant Commerce Clause.²¹⁷

When analyzing dormant Commerce Clause issues, a court will first determine whether the regulation or legislation is facially discriminatory against interstate commerce, and will only uphold that law if a legitimate local purpose can be found.²¹⁸ Except for the necessity to quarantine certain products, this is rarely found. Discriminatory statutes are subject to “strict scrutiny” and for such a statute or regulation to be valid the state must establish that there is a compelling state interest for which the statute is the least intrusive means to achieve that interest.²¹⁹ If the statute is found to discriminate against out-of-state interests based on geographic limitations or favoring local interests to the detriment of interstate commerce, the court will find the statute to be *per se* invalid.²²⁰ If the statute is geographically even-handed, the courts will apply the *Pike* balancing test to determine whether the state’s interest justifies the discriminatory effect of the regulatory mechanism as applied.²²¹

215. 2008 Cal. Legis. Serv. 537 (West).

216. U.S. CONST. art. I, § 8, cl. 3.

217. Nathan E. Endrud, *State Renewable Energy Portfolio Standards: Their Continued Validity and Relevance in Light of the Dormant Commerce Clause, the Supremacy Clause, and Possible Federal Legislation*, 45 HARV. J. ON LEGIS. 259, 265 (2008).

218. See *Dep’t of Revenue of Ky. v. Davis*, 553 U.S. 328, 338 (2008) (quoting *Or. Waste Sys., Inc. v. Dep’t of Env’tl. Quality of Or.*, 511 U.S. 93, 100 (1994)).

219. Trevor D. Stiles, *Renewable Resources and the Dormant Commerce Clause*, 4 ENVTL. & ENERGY L. & POL’Y J. 34, 59 (2009) (outlining a history of the dormant Commerce Clause).

220. See *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); Stiles, *supra* note 219, at 60–61; Jacobi, *supra* note 23, at 1101 (proposing that a court will likely strike down as unconstitutional any regulation that discriminates geographically or through point-of-origin).

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

State and local laws have been deemed unconstitutional under the dormant Commerce Clause if they facially discriminate against, or unduly burden, interstate commerce.²²² This most obviously would be when a law differentiates between in-state and out-of-state economic interests in a manner that benefits the former and burdens the latter.²²³ The scope of commerce among the states for purposes of a dormant Commerce Clause analysis is broadly defined,²²⁴ and all objects of interstate trade merit Commerce Clause protection, which includes the transmission of electric energy in interstate commerce.²²⁵

B. Who Controls RPS Geography?

States control trading and sale of RECs associated with generation of power.²²⁶ An RPS is not the sale of power, so it does not invoke problems under the Federal Power Act, the Supremacy Clause of the Constitution, or the Filed Rate Doctrine.²²⁷ FERC has stepped back from regulating any federal interest in RPS programs.²²⁸

In this regard, the states do not act as market participants, but as regulators, and thus are subject to jurisdictional and constitutional limitations. “Place” matters. Some states regard the geographic location where RECs are created differently:

1. Several states expressly require that the RECs be created by power generation in the state. Some other states require that it either be in-state or in the service territory of a state utility; yet other states ban the export of RECs from their states—these each raise some constitutional dormant Commerce Clause issues.²²⁹
2. Some states require an in-state transmission interconnection to count an out-of-state REC.²³⁰
3. Several states require that a REC actually be associated with energy that is or could be, by virtue of transmission capability that

222. *See* *Gen. Motors Corp. v. Tracy*, 519 U.S. 278, 287 (1997).

223. *See Or. Waste Sys.*, 511 U.S. at 99.

224. *See City of Philadelphia*, 437 U.S. at 621–22.

225. *See id.*; *see also* *New York v. Fed. Energy Regulatory Comm’n*, 535 U.S. 1, 16 (2002) (transmissions on the interconnected national grids constitute transmissions in interstate commerce).

226. *Am. Ref-Fuel Co.*, 105 F.E.R.C. P61,004, 61,007 (2003); *see also* *Xcel Energy Servs., Inc. v. FERC*, 407 F.3d 1242, 1243–44 (D.C. Cir. 2005).

227. *See generally* *Ferrey et al.*, *supra* note 4.

228. The Federal Energy Regulatory Commission (FERC) determined in *Sun Edison L.L.C.*, 129 F.E.R.C. P61,146, 61,618 (1998), that sale of wholesale power by an independent generator pursuant to the FPA is not treated as a utility.

229. Iowa, the XCEL requirement in Minnesota, and Hawaii are examples of this. *See WISER & BARBOSE*, *supra* note 16, at 10.

230. Nevada and Texas are examples of this. *Id.*

is contracted, delivered in-state.²³¹

4. Some states allow a wider trading area within an ISO or similar region.²³²
5. Several states encourage, but do not require, RECs to be traded in-state by attaching a multiplier value to these in-state RECs.²³³
6. Distributed generation typically must be located in the state to qualify to create RECs.²³⁴

For example, Colorado, Illinois, and North Carolina have given preferences to in-state projects.²³⁵ Hawaii and Iowa required RPS generation to be from in-state or the service territory of an in-state utility.²³⁶ California's amendments to its RPS law in 2006 for the first time in a decade allowed regulations, if they followed, to recognize new out-of-state generation to be counted toward RPS requirements of load-serving entities in the state, removing constitutional issues.²³⁷ Eight states required that the power eligible for RPSs and RECs must be delivered to in-state load-serving entities.²³⁸

Geographic program restrictions in energy regulation raise Commerce Clause concerns under the U.S. Constitution.²³⁹ Use of indigenous fuel supplies for electricity was stricken in *Wyoming v. Oklahoma*.²⁴⁰ Income tax credits cannot be given by a state only to in-state producers of fuel additives.²⁴¹ In-state coal cannot be required by a state in order to satisfy federal Clean Air Act requirements.²⁴²

The dormant Commerce Clause restriction is “driven by concern about ‘economic protectionism — that is, regulatory measures designed to benefit in-state economic interests by burdening out-of-state competitors.’”²⁴³ Discriminatory statutes are subject to “strict scrutiny”

231. Arizona, California, Wisconsin, Minnesota, New Mexico, and New York are examples of this. Delivery can be required on a real-time, a monthly, or a yearly basis. *Id.*

232. California, the New England states, Delaware, New Jersey, and Pennsylvania are examples of this, as are multi-jurisdictional utilities. In this case, unbundled RECs can trade apart from the actual energy trade. *Id.*

233. Colorado, Delaware, and Arizona have attached in-state multipliers to RECs created in the state. *Id.*

234. Requirements to create RECs in a particular state raise dormant Commerce Clause issues and multipliers can raise similar concerns. *Id.*

235. *Id.*

236. *Id.*

237. CAL. PUB. RES. CODE § 25741(a) (West 2007).

238. WISER & BARBOSE, *supra* note 16, at 10.

239. STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES AND EXPLANATIONS 150–55 (2010).

240. *Wyoming v. Oklahoma*, 502 U.S. 437 (1992).

241. *New Energy Co. of Ind. v. Limbach*, 486 U.S. 269, 271, 278–80 (1988).

242. *Alliance for Clean Coal v. Miller*, 44 F.3d 591, 596–97 (7th Cir. 1995).

243. *See Dep't of Revenue of Ky. v. Davis*, 553 U.S. 328, 337–38 (2008) (quoting *New Energy Co. of Ind.*, 486 U.S. at 273–74).

and for such a statute or regulation to be valid the state must establish that there is a compelling state interest for which the statute is the least intrusive means to achieve that interest.

There is more than a half-century of Supreme Court Commerce Clause jurisprudence that substantially limits state power to discriminate geographically against articles in interstate commerce. In *Dean Milk Co. v. Madison*, the Supreme Court noted that an agency of local government cannot discriminate against interstate commerce “if reasonable nondiscriminatory alternatives, adequate to conserve legitimate local interests, are available.”²⁴⁴

In *City of Philadelphia v. New Jersey*, the state’s argument that it was protecting a primarily economic interest did not survive strict scrutiny.²⁴⁵ The Court held that the state cannot discriminate against articles of commerce originating in other states unless there is a “reason, apart from their *origin*, to treat them differently.”²⁴⁶ The Court distinguished the quarantine laws because they prohibit the entry and movement of articles that risked “contagion and other evils.”²⁴⁷

During a seven-year period spanning into the mid-1990s, the Supreme Court granted certiorari six times²⁴⁸ to decide the constitutionality of state and local restrictions on the interstate transportation of environmental restrictions.²⁴⁹ Where not based on any geographic discrimination against the origin of commerce, to determine whether a statute *as applied* justifiably burdens interstate commerce, a court will balance the impact of the statute on interstate commerce against the state’s reasons and legitimate purpose for the statute.²⁵⁰ This is not strict scrutiny.

244. *Dean Milk Co. v. City of Madison*, 340 U.S. 349, 354 (1951).

245. 437 U.S. 617 (1978) (New Jersey had enacted a statute prohibiting the importation and disposal of most solid waste originating outside New Jersey, until the state determined that it would not endanger the public health, safety, and welfare of its citizens).

246. *Id.* at 627 (emphasis added).

247. *Id.* at 629.

248. See *Maine v. Taylor*, 477 U.S. 131 (1986); *South-Central Timber Dev., Inc. v. Wunnicke*, 467 U.S. 82 (1984); *C & A Carbone, Inc. v. Town of Clarkstown, N.Y.*, 511 U.S. 383 (1994); *Chemical Waste Mgmt., Inc. v. Hunt*, 504 U.S. 334 (1992); *Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep’t of Natural Res.*, 504 U.S. 353 (1992); *Or. Waste Sys. v. Dep’t of Env’tl. Quality*, 511 U.S. 93 (1994).

249. See, e.g., *Fort Gratiot Sanitary Landfill*, 504 U.S. at 359, 363 (holding that the facts were indistinguishable from those in *Philadelphia* under strict scrutiny); *Chem. Waste Mgmt.*, 504 U.S. at 346–48 (invalidating a facially discriminatory fee based on origination of commerce and availability of nondiscriminatory means of achieving its end; although a limit on all such commerce was permissible if it did not discriminate based on the origin of commerce); *Or. Waste Sys.*, 511 U.S. at 100 (stating that “the purpose of the law has no bearing on whether it is facially discriminatory . . . [T]he virtually per se rule of invalidity provides the proper legal standard here”); *C & A Carbone*, 511 U.S. at 392–93 (stating discrimination against interstate commerce to be “per se invalid, save in a narrow class of cases in which the municipality can demonstrate, under rigorous scrutiny, that it has no other means to advance a legitimate local interest By itself . . . revenue generation is not a local interest that can justify discrimination against interstate commerce”).

250. See *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970); *Minnesota v. Clover Leaf*

If the statute is found to discriminate against out-of-state interests based on geographic limitations or favoring local interests to the detriment of interstate commerce, the court will find the statute to be *per se* invalid.²⁵¹ The courts have determined that electrons in interstate commerce cannot be traced.²⁵² In *West Lynn Creamery v. Healy*, the Supreme Court found that “even if environmental preservation were the central purpose” of the regulation, it “would not be sufficient to uphold a discriminatory regulation.”²⁵³ The specific implications of this case are discussed more below, as they might apply to renewable incentive programs of the states.²⁵⁴

C. Multi-State Compacts

Nor are constitutional concerns wholly avoided if instead of becoming geographically restrictive, states combine collectively to address renewable power issues. An interstate compact may make sense for energy planning on a regional basis, but also causes additional layers of legal issues. The Interstate Compact Clause of the U.S. Constitution provides that:

No State shall, without the Consent of Congress, lay any Duty of Tonnage, keep Troops, or Ships of War in time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.²⁵⁵

If states enter multi-state agreements, these are multi-state compacts that require prior federal Congressional approval to be constitutional. Multi-state agreements, as opposed to coordination, would fall into this category. To the contrary, actions affecting transmission of power by regional Independent System Operators (ISOs), which can transcend state borders, would not invoke the additional issues of the Compact Clause because they operate pursuant to federal approval of FERC. Actions by an ISO, since it is established by federal order and tariff, do not confront the legal impediments that a multi-state compact would.²⁵⁶

Creamery, 449 U.S. 456, 471 (1981) (holding that the statute did not discriminate between interstate and intrastate goods; the state regulated “even handedly” and did not prohibit or distinguish between in-state and out-of-state sellers).

251. See *Clover Leaf Creamery*, 449 U.S. at 471 (noting that if a statute is facially discriminatory, it is virtually *per se* invalid).

252. See, e.g., *New York v. Fed. Energy Regulatory Comm’n*, 535 U.S. 1, 7 n.5 (2002); *Fed. Power Comm’n v. Florida Power & Light Co.*, 404 U.S. 453, 460 (1972).

253. *West Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 204 (citing *Philadelphia v. New Jersey*, 437 U.S. 617, 626–27 (1978)).

254. See discussion *infra* Part V.D.

255. U.S. CONST. art. I, § 10, cl. 3.

256. For a discussion and illustration of FERC tariff jurisdictional authority over ISOs and Regional Transmission Organizations, see *Industries: RTO – ISO*, FERC, <http://www.ferc.gov/>

As an entity approved by federal law and order, ISOs are not subject to Compact Clause, Supremacy Clause, or Commerce Clause legal concerns.²⁵⁷

A multi-state compact, once approved by Congress, elevates state action to federal law.²⁵⁸ The compact would preempt all other conflicting state laws and even state constitutions.²⁵⁹ If there were an interstate compact, it would avoid Supremacy Clause preemption challenges because it constitutes federal law that would preempt all other state law or orders. Since the federal government can discriminate against particular states through federal legislation, an interstate compact as federal law is immunized against dormant Commerce Clause violations.²⁶⁰

Recently, the Supreme Court interpreted a historic compact between New Jersey and Delaware, which Delaware relied upon to veto construction in its territory of structures connected to an LNG terminal on the New Jersey side of the Delaware River.²⁶¹ Multi-state agreements, because they are not the act of a single sovereign state, are not entitled to constitutional Eleventh Amendment immunity, and thus subject the multiple states involved to suit in federal court regarding any disputed issues.²⁶² Sovereign immunity can be lost when more than one sovereign state is involved.²⁶³ The Appointments Clause of the Constitution requires that a regional energy entity member needs to be appointed by the President, and not by states or regional actors.²⁶⁴

D. Constitutional Litigation on Renewable Portfolio Standards

Courts require that state actions that facially discriminate against

industries/electric/indus-act/rto.asp (last updated Oct. 26, 2011); Transmission Planning and Cost Allocation by Transmission Owning and Operating Utilities, Order No. 1000, Docket No. RM10-23-000, 136 F.E.R.C. P61,051 (July 21, 2011); ISO New England, Inc., Order Accepting Tariff Revisions in Part and Rejecting Tariff Provisions in Part, Docket No. ER11-2427-000, 134 F.E.R.C. P61,128 (Feb. 17, 2011) (accepting in part and rejecting in part tariff revisions proposed by ISO-NE and NEPOOL).

257. See *supra* note 256.

258. *Cuyler v. Adams*, 449 U.S. 433, 439–40 (1981).

259. *Stephans v. Tahoe Reg'l Planning Agency*, 697 F. Supp. 1149, 1152 (D. Nev. 1988).

260. See *Prudential Ins. Co. v. Benjamin*, 328 U.S. 408, 434 (1946); see also *Hillside Dairy, Inc. v. Lyons*, 539 U.S. 59, 66 (2003) (noting that Congress can also authorize states to discriminate against interstate commerce if it does so clearly enough); *New York v. United States*, 505 U.S. 144, 171 (1992); *New York State Dairy Foods, Inc. v. Ne. Dairy Compact Comm'n*, 198 F.3d 1, 12 (1st Cir. 1999); *Cent. Midwest Interstate Low-Level Radioactive Waste Comm'n v. Pena*, 113 F.3d 1468, 1470 (7th Cir. 1997).

261. *New Jersey v. Delaware*, 552 U.S. 597 (2008).

262. See *Hess v. Port Auth. Trans-Hudson Corp.*, 513 U.S. 30, 41–46 (1994) (“We would presume the Compact Clause agency does not qualify for Eleventh Amendment immunity ‘[u]nless there is good reason to believe that the States structured the new agency to enable it to enjoy the special constitutional protection of the States themselves, and that Congress concurred in that purpose.’”); *Lake Country Estates, Inc. v. Tahoe Reg'l Planning Agency*, 440 U.S. 391, 401 (1979).

263. *Hess*, 513 U.S. at 41–46; *Lake Country Estates*, 440 U.S. at 400.

264. See U.S. CONST. art. II, § 2, cl. 2.

interstate commerce must not be able to be served by nondiscriminatory regulatory alternatives,²⁶⁵ and geographically discriminatory state statutes are almost always stricken. As discussed above, a number of states prohibit the RECs credit for out-of-state or out-of-region generation facilities.²⁶⁶ Essentially all RECs are linked to the generation of power, as defined by each state, and many states give preferences for RECs associated with the generation of in-state power resources, restrict trading in out-of-state RECs, or harbor RECs created in the state to remain in the state or be restricted in their use outside of the state.²⁶⁷ This becomes critical given that states could not impose such limitation on the underlying associated energy itself, which typically also either proceeds through a federally-jurisdictional wholesale transaction or otherwise often is in interstate commerce.²⁶⁸ The U.S. Supreme Court held in *FERC v. Mississippi* that “it is difficult to conceive of a more basic element of interstate commerce than electric energy, a product used in virtually every home and every commercial or manufacturing facility. No State relies solely on its own resources in this respect.”²⁶⁹

A state cannot regulate to favor or require use of its own in-state energy resources,²⁷⁰ nor can it try to harbor energy-related resources originating in the state from leaving the state.²⁷¹ In 2010, Massachusetts was sued regarding the constitutionality of its renewable energy program, and settled the litigation,²⁷² giving the plaintiffs what they sought rather than have a judge address the program’s legality. Massachusetts’s solar RECs program discussed above,²⁷³ allowed only in-state solar PV RECs to be earned and traded. In addition, utilities were required by state law to have at least 3% of their annual demand met through ten or fifteen-year wholesale power purchase agreements with renewable power

265. *Dep’t of Revenue of Ky. v. Davis*, 553 U.S. 328, 338 (2008) (quoting *Or. Waste Sys., Inc. v. Dep’t of Env’tl. Quality of Or.*, 511 U.S. 93, 100 (1994)).

266. WISER & BARBOSE, *supra* note 16.

267. *See supra* Part V.B.

268. FERC has jurisdiction over sales of electricity “at wholesale in interstate commerce.” 16 U.S.C. § 824(b)(1) (2006); *Miss. Power & Light Co. v. Mississippi*, 487 U.S. 354, 371 (1988) (“FERC has exclusive authority to determine the reasonableness of wholesale rates.”). In 2004, 39.7% of power generation was owned by non-utilities. ELEC. ENERGY MKT. COMPETITION TASK FORCE, REPORT TO CONGRESS ON COMPETITION IN WHOLESALE AND RETAIL MARKETS FOR ELECTRIC ENERGY (2007), available at <http://www.ferc.gov/legal/fed-sta/ene-pol-act/epact-final-rpt.pdf>. The other 60.3% of power generation would be traded among utilities before being sold at retail. *Id.*

269. 456 U.S. 742, 757 (1982).

270. *See Wyoming v. Oklahoma*, 502 U.S. 437, 454–56 (1992); *Alliance for Clean Coal v. Craig*, 840 F. Supp. 554, 560 (N.D. Ill. 1993).

271. *See New Eng. Power Co. v. New Hampshire*, 455 U.S. 331, 339 (1982).

272. Complaint at 1, *Transcanada Power Mktg., Ltd. v. Bowles* (C.D. Mass. 2010) (No. 40070-FDS); Partial Settlement Agreement at 1, *Transcanada Power Mktg.* (No. 40070-FDS), available at <http://www.mass.gov/eea/docs/doer/renewables/solar/settlement-agreement.pdf>.

273. *See discussion infra* Part D.

developers with in-state projects.²⁷⁴

This renewable energy program was successfully challenged by TransCanada Corporation, the owner of a Maine wind project.²⁷⁵ TransCanada claimed section 83 of the Green Communities Act (GCA), which required electric distribution companies to enter into long-term contracts with renewable energy generators located within Massachusetts, was facially discriminatory.²⁷⁶ The suit alleged that Massachusetts's limitation on both solar RECs and long-term contracts to in-state projects discriminated against out-of-state renewable energy projects in violation of the dormant Commerce Clause of the U.S. Constitution.²⁷⁷

Massachusetts immediately settled the litigation,²⁷⁸ to avoid a court decision. Massachusetts suspended the provisions requiring long-term contracts to be with Massachusetts generators.²⁷⁹ Massachusetts adopted emergency regulations by amending 220 C.M.R. §§ 17.00 et seq. to allow solicitations for long-term renewable energy contracts for generation not limited to within Massachusetts.²⁸⁰

Fifteen years before, Massachusetts was the site of an often-overlooked U.S. Supreme Court case that laid the foundation for dormant Commerce Clause analysis with parallels to imposition of burdens and benefits of some renewable energy programs in the states, specifically those arising out of state renewable trust funds. According to the Court in *West Lynn Creamery*, subsidies given by states to in-state projects and programs will generally be constitutional unless partnered with a tax in a manner such that the scheme as a whole discriminates against interstate commerce.²⁸¹

In this particular matter, a Massachusetts pricing order imposed a tax on all fluid milk sold by dealers to Massachusetts retailers even though about two-thirds of that milk was produced out-of-state.²⁸² The order ultimately required every “dealer” in Massachusetts to make a monthly “premium payment” into the “Massachusetts Dairy Equalization

274. See generally 225 MASS. CODE REGS. 14 (2011); 220 MASS. CODE REGS. 17.

275. Partial Settlement Agreement, *supra* note 272, at 1.

276. Complaint, *supra* note 272, at 8.

277. *Id.* at 1.

278. See Partial Settlement Agreement, *supra* note 272, at 1.

279. In Re Green Communities Act, No. 10-58, 2010 WL 2572536, at *1 (Mass. Dep't of Pub. Utils. June 9, 2010) (suspending the applicability of two provisions of Section 83 of the GCA “to allow solicitations for long-term contract proposals for renewable energy generation that is not limited to within the Commonwealth of Massachusetts”).

280. Order Adopting Emergency Regulations, Decision No. 10-58 (Mass. Dep't of Pub. Utils. June 9, 2010), available at <http://www.env.state.ma.us/dpu/docs/electric/10-58/6910dpuord.pdf>.

281. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 199 (1994).

282. *Id.* at 188.

Fund.”²⁸³ Each Massachusetts producer was then given a share of the total fund equal to his proportionate contribution to the state’s total production of raw milk.²⁸⁴ The assessment proceeds were only distributed to dairy farmers exclusively in Massachusetts.²⁸⁵ Petitioners were licensed dealers who bought milk produced by out-of-state farmers and then sold it to Massachusetts retailers.²⁸⁶ The dealers refused to pay the assessment, and the Commonwealth of Massachusetts commenced action to revoke their licenses to do business in the state; the dealers then brought suit alleging that the provisions, as enforced, violated the Commerce Clause.²⁸⁷

One of the Commonwealth’s arguments for upholding the law was that the “‘local benefits’ of preserving the Massachusetts dairy industry” outweighed any incidental burden on interstate commerce.²⁸⁸ Even though the taxes in this case applied also to milk produced in Massachusetts, the Court found the effect on Massachusetts producers was “entirely (indeed more than) offset by the subsidy provided exclusively to Massachusetts dairy farmers” through the Equalization Fund.²⁸⁹

The other argument asserted by the Commonwealth was that the provisions did not discriminate for two reasons: the assessment was paid by in-state residents and also levied against milk produced within the state, and the dairy farmers who received the funds were not competitors of the retail dealers who paid the tax.²⁹⁰ The argument that the tax was paid by in-state and out-of-state businesses was successfully asserted in the *Minnesota* case.²⁹¹ The last argument made by Massachusetts was that the Commonwealth had a right to levy an assessment to subsidize an in-state industry; yet the Court held that “preservation of local industry by protecting it from the rigors of interstate competition is the hallmark of the economic protectionism that the Commerce Clause prohibits.”²⁹²

Based on the total program, the Court reasoned the tax was effectively only imposed on out-of-state products, since out-of-state products were the only ones really affected, on net, by the tax.²⁹³ While similar in many ways to the state renewable trust fund tax-subsidy scheme, there are

283. *Id.* at 190.

284. *Id.* at 191.

285. *Id.*

286. *Id.* at 188.

287. *Id.*

288. *Id.* at 204–05 (quoting Brief for Respondent at 42, *W. Lynn Creamery*, 512 U.S. 186 (No. 93-141)).

289. *Id.* at 194.

290. *Id.* at 198.

291. *Minnesota v. Clover Leaf Creamery Co.*, 449 U.S. 456, 472 (1981).

292. *W. Lynn Creamery*, 512 U.S. at 205.

293. *Id.* at 194.

some key distinctions courts may draw between *West Lynn Creamery* and state renewable trust funds. While in *West Lynn Creamery* the tax was imposed at the level of the wholesale transaction, the tax to fund renewable trust funds is either imposed on the retail transaction or the retail distribution of electricity, both of which are state interests.²⁹⁴ Under the Federal Power Act, states only have jurisdiction over retail electricity markets, while FERC regulates wholesale power transactions.²⁹⁵ The Court in *West Lynn Creamery* looked past such distinctions, finding that the part of commerce taxed is not important and that “the imposition of a differential burden on any part of the stream of commerce—from wholesaler to retailer to consumer—is invalid because a burden placed at any point will result in a disadvantage to the out-of-state producer.”²⁹⁶

The Court stated that the combination of the regulations “simultaneously burdens interstate commerce and discriminates in favor of local producers.”²⁹⁷ Subsidization of domestic industry is generally *per se* constitutional and evenhanded taxes are also generally upheld, but by “conjoining a tax and a subsidy, Massachusetts has created a program more dangerous to interstate commerce than either part.”²⁹⁸ Therefore, a charge on all articles in commerce that results in financial preferences for in-state businesses becomes legally suspect.

In other states, there is litigation in federal court in New Jersey and in a Colorado case, as well as a Missouri state court, contesting dormant Commerce Clause violations for those states’ energy regulation. Colorado was the first state to enact a renewable portfolio standard by popular referendum rather than by legislation.²⁹⁹ American Tradition Institute’s (ATI) 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 of the U.S. Constitution.³⁰⁰ ATI’s complaint argues that because the state mandate provides economic benefits to Colorado’s renewable electricity generators that are not available to out-of-state power

294. Ferrey, *supra* note 105, at 595–96 (2004).

295. *Id.* at 596.

296. *W. Lynn Creamery*, 512 U.S. at 202.

297. *Id.* at 201 (“It is undisputed that an overwhelming majority of the milk sold in Massachusetts is produced elsewhere. Thus, even though the tax is applied evenhandedly to milk produced in State and out of State, most of the tax collected comes from taxes on milk from other States.”).

298. *Id.* at 200; *see also* *New Energy Co. of Indiana v. Limbach*, 486 U.S. 269, 278 (1988) (indicating that “direct subsidization of domestic industry does not ordinarily run afoul of [the Commerce Clause]”).

299. *See* David Olinger, *Renewable Energy Amend. 37 Generates Small Lead in Early Tally*, DEN. POST, Nov. 3, 2004, at B-02.

300. Complaint for Injunctive and Declaratory Relief at 2, *Am. Tradition Inst. v. Colorado*, Civil Action No. 11-cv-00859-WJM-KLM (D. Colo. 2011).

generators, and because the state imposes burdens on interstate electricity generators that are not balanced by the benefits to Colorado and its citizens, that the program violates the dormant Commerce Clause.³⁰¹ The complaint also states that the law promotes renewable sources and discriminates against lower cost, more reliable energy generation from out-of-state suppliers, which is unconstitutional.³⁰²

The complaint states “the Colorado [renewable energy standard (RES)] discriminates on its face against legal, safer, less costly, less polluting, and more reliable in-state and out-of-state generators of electricity sold in interstate commerce. This discrimination is forbidden by the Commerce Clause.”³⁰³ ATI’s complaint alleges that several provisions of the Colorado statute contribute to its unconstitutional nature.³⁰⁴ ATI’s complaint also claims that several comments from interested parties, prior to promulgating the RES, did voice concerns over possible constitutional ramifications under the Commerce Clause.³⁰⁵

In 2011, New Jersey enacted legislation to encourage the acquisition by utilities of the output of 2,000 MW of new in-state power projects.³⁰⁶ A pending lawsuit by several existing independent power generators asserts that the state law is in violation of the Constitution’s Commerce Clause, because it is predicated on in-state “favoritism,” and the New Jersey act is a “blatant and explicit effort to promote the construction of new generation facilities in New Jersey.”³⁰⁷

Power generators in the Atlantic region also filed a complaint at FERC alleging discrimination against New Jersey’s statute ordering utilities to sign long-term contracts only with in-state generation facilities that bid to receive regional, multi-state PJM ISO capacity payments.³⁰⁸ In response, in 2011, FERC amended the PJM ISO rules to prevent New Jersey state law from encouraging construction of in-state power generation by, in part, causing generators to bid power into the PJM system at suppressed prices in order to win capacity right auctions.³⁰⁹ New projects must now bid at least 90% of their construction cost when bidding capacity into PJM.³¹⁰

301. *Id.*

302. *Id.* at 17.

303. *Id.* at 2.

304. *Id.* ATI alleges that the electric resources standards program and the municipally owned utility program are facially discriminatory or impermissibly burden interstate commerce. *Id.*

305. *Id.* at 6.

306. S. 2381, 214th Leg. (N.J. 2011).

307. Hanna Northey, *Utilities Challenge N.J. Law While Preparing to Reap Its Benefits*, E&E (Mar. 2, 2011), <http://www.eenews.net/public/Greenwire/2011/03/02/4>.

308. PJM Interconnection, L.L.C., 135 F.E.R.C. P61,022 (2011).

309. Powers, *supra* note 204, at 6.

310. *Id.*

A Missouri state court in 2011 ruled that the state's RPS program was illegal under the state constitution because it required RECs to be generated by in-state projects or projects that delivered the power to in-state customers.³¹¹ The opinion held that the RPS program "takes the cash property of utilities (and their ratepayers) and transfers it to certain customers" without due process.³¹² A legislative panel questioned the propriety of geographic discrimination, and the PSC withdrew those rules.³¹³ The decision is now being appealed.³¹⁴

California, after losing a suit on its carbon control mechanism for failing to evaluate alternatives to cap-and-trade regulation, chose in mid-2011 to delay its greenhouse gas (GHG) cap-and-trade program for an additional year until 2013 from its scheduled 2012 implementation.³¹⁵ A San Francisco Superior Court issued a final decision in *Association of Irrigated Residents v. California Air Resources Board* enjoining the California Air Resources Board (CARB) from further rulemaking to implement the California Global Warming Solutions Act and its cap-and-trade program.³¹⁶ The court found flaws with CARB's environmental review of the Scoping Plan under the California Environmental Quality Act and its analysis of alternatives to the Plan's recommended GHG reduction measures including cap and trade.³¹⁷

As one more recent example of litigation, in 2009, Indeck Energy, the owner of a New York cogeneration power facility, sued the state of New York regarding the constitutionality of its carbon regulation program, part of the ten-state Regional Greenhouse Gas Initiative (RGGI), which imposes additional costs to purchase carbon emission allowances on wholesale power sellers.³¹⁸ New York quickly settled the suit, granting plaintiffs complete relief and not imposing any of these approximately \$3 million annual additional costs on the specific wholesale market plaintiffs, rather than let the court address the legality of its state program.³¹⁹ New

311. *Missouri Energy Development Association v. Missouri PSC*, Decision of Judge Daniel Green, Cole County (June 29, 2011), available at <http://www.realestatedevelopmentlawupdate.com/files/2011/08/Cole-County-Conc-of-Law-on-RPS-challenge-6-29-2011.pdf>.

312. *Id.*

313. Ethan Howland, *Missouri's RPS Challenged at Every Turn; Judge Finds Key Parts Illegal; Ballot Initiative in Works*, *ELECTRIC UTIL. WK.*, July 25, 2011, at 15–16.

314. *Id.*

315. Lisa Weinzimer & Geoffrey Craig, *Delaying California GHG Cap-and-Trade Regime a Year Draws Support from Stakeholders*, *ELECTRIC UTIL. WK.*, July 4, 2011, at 11–12.

316. Order Granting in Part Petition for Writ of Mandate at 35, *Ass'n of Irrigated Residents v. Cal. Air Resources Bd.*, No. CPF-09-509562, 2011 WL 991534 (Cal. Super. Ct. Mar. 17, 2011).

317. *Id.* at 31–32.

318. Press Release, Indeck Energy, *Indeck Energy Sues State Questioning Legality of Regional Greenhouse Gas Program* (Jan. 29, 2009), available at <http://www.indeckenergy.com/pdfnews/RGGI%20Lawsuit%20012909%20.pdf>.

319. *Notice of Lodging of Consent Decree Pertaining to New York's Regional Greenhouse Gas Initiative Regulations*, NYSERDA, <http://www.nyserda.org/rgginotice.asp> (last visited Nov. 14, 2011).

York's participation in RGGI was challenged a second time in 2011 as being without proper legislative approval and only implemented by regulation.³²⁰

Some authors have commented that it is likely that any RPS or SBC requiring energy used to meet the standard to be generated within the enacting state will violate the dormant Commerce Clause by discriminating geographically.³²¹ Long before the legal challenges and at the time the states were enacting their programs, several states were warned about using care around the Commerce Clause in constructing RPS and SBC renewable energy programs. A technical report conducted for the North Carolina Utilities Commission in 2006 by La Capra Associates noted the possible detriments of explicit exclusions of out-of-state resources: "an explicit exclusion of out-of-state resources may raise questions under the Commerce Clause of the U.S. Constitution."³²² As early as 2005, commenters to the RPS program in Arizona noted in official comments to the state that its proposed in-state credit multiplier "violates the Commerce Clause."³²³ Arizona went ahead with its multiplier for in-state power generating RECs.³²⁴ As mentioned above, a current lawsuit against the Colorado RPS program claims that several comments from interested parties, prior to the promulgation of the program, noted concerns over possible constitutional violations of the Commerce Clause.³²⁵

These types of issues are spilling over international borders. In mid-2011, T. Boone Pickens' company, Mesa Power Group, filed a formal notice of intent to claim that the Canadian government had violated the North American Free Trade Agreement regarding renewable power development by giving priority transmission rights to Samsung projects promoted by the South Korean company, requiring use of "local content" in the wind farm development, and making arbitrary changes in the Canadian feed-in tariff for wind power.³²⁶

320. *Thrun v. Cuomo*, No. 4358/11 (N.Y. Sup. Ct. 2011); G. Craig & G. Roberts, *Lawsuit Disputes Legality of New York Participation in RGGI, Citing State's Lack of Legislative Approval*, *ELECTRIC UTIL. WK.*, July 4, 2011, at 10.

321. See Stiles, *supra* note 219, at 64 (asserting that the dormant Commerce Clause may be violated if RPS programs discriminate based on location); Endrud, *supra* note 217, at 270 (emphasizing that any requirement that renewable energy used to meet a state RPS be generated within the state would most likely be struck down under the dormant Commerce Clause).

322. See LA CAPRA ASSOCS., *ANALYSIS OF A RENEWABLE PORTFOLIO STANDARD FOR THE STATE OF NORTH CAROLINA 87* (2006), available at <http://www.ncuc.commerce.state.nc.us/reps/NCRPSReport12-06.pdf>.

323. In *Re Proposed Rulemaking for the Renewable Energy Standard and Tariff Rules*, No. RE-00000C-05-0030 (Ariz. Corp. Comm'n Nov. 24, 2006), available at <http://images.edocket.azcc.gov/docketpdf/0000063561.pdf>.

324. ARIZ. ADMIN. CODE § 14-2-1806 (2009).

325. Complaint, *supra* note 300, at 6.

326. Housley Carr, *Pickens Company, Mesa, Sets Up NAFTA Claim Against Canada on*

States in 2011 were considering possible curtailment or repeal of their RPS programs—Colorado, Connecticut, Montana, Wisconsin, Arizona, New Mexico, and Maine.³²⁷ New Hampshire, New Jersey, and New York picked the pocket of part of their RGGI funds for non-energy purposes.³²⁸ Massachusetts diverted money from its renewable energy trust.³²⁹ Vermont diluted the price of RECs by changing its regulations to allow large hydroelectric projects to qualify as eligible renewable technologies.³³⁰ New Hampshire considered dropping out of Northeast carbon regulation, and New Jersey Governor Christie announced that his state would withdraw.³³¹

VI. THREADING THE CONSTITUTIONAL NEEDLE

Good environmental motives do not matter or change the constitutional analysis. While encouraging a state to increase use of renewable resources is a legitimate local purpose, the Supreme Court in *West Lynn Creamery* announced that “even if environmental preservation were the central purpose of the pricing order, that would not be sufficient to uphold an otherwise discriminatory regulation.”³³² The Constitution trumps environmental motives.

In fact, combining regulatory controls and subsidies can also make things worse, instead of better. The Supreme Court in *West Lynn Creamery* rejected the respondent’s argument that because each individual piece of the pricing order—taxes and grants—was constitutional, the combination of the two was also constitutional.³³³ The total design and effect of an order or program is evaluated as to geographic discrimination.

So where do such state renewable subsidies stand? Government regulatory programs that are facially discriminatory based on the geographic origin of the regulated commerce immediately suggest inquiry under the dormant Commerce Clause. The host of litigation over the past twenty-four months targeting state energy programs is testament to

Wind Power Issues, ELECTRIC UTIL. WK., July 18, 2011, at 7.

327. Ethan Howland & Pam Russell, *RPS Repeal Is Eyed in Some States but Chances of Success Are Unclear*, ELECTRIC UTIL. WK., Jan. 24, 2011, at 1, 39; Lisa Wood, *Green Advocates in Maine Fear RGGI Funds May be Used to Close Budget Gap*, ELECTRIC UTIL. WK., Jan. 24, 2011, at 8–9.

328. Wood, *supra* note 327, at 8–9; Lisa Wood & Rob Matyi, *New Leadership in Several States May Weaken ‘Green’ Mandates, Citing Cost Considerations*, ELECTRIC UTIL. WK., Feb. 14, 2011, at 34–35.

329. Peter Howe, *Untapped Millions in Energy Fund Tempt State*, BOSTON GLOBE, Mar. 17, 2003, at A1.

330. Wood & Matyi, *supra* note 328, at 34.

331. *Id.*; Mireya Navarro, *Christie Pulls New Jersey from 10-State Climate Initiative*, N.Y. TIMES, May 27, 2011, at A20.

332. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 204 n.20 (1994).

333. *See id.* at 199.

the real-world application of this inquiry. Since the litigation raising Commerce Clause issues regarding renewable energy programs has either been settled or not yet proceeded to final decision, the precedent is not yet established; however, there are important legal nuances with both RPS and SBC programs that make the constitutional analysis more complex and add new legal distinctions. It may be possible to thread the constitutional needle.

A. Renewable Energy Subsidies in the West Lynn Template

First, look at systems benefit charges, operating alone, under the Commerce Clause. While the *West Lynn Creamery* opinion is the template through which the constitutionality of an SBC or RPS would be evaluated, there are some important legal distinctions between an SBC and the wholesale milk charge in the *West Lynn Creamery* matter. First, if an SBC is deemed a tax on power sold in-state, that element alone is likely legally permissible even if the proceeds of the tax are used in a geographically discriminatory manner.³³⁴

Second, the charge is only imposed on transactions between in-state regulated distribution utilities and their in-state consumers.³³⁵ An SBC charge is imposed on retail consumers in a state that has an SBC; the charge in *West Lynn Creamery* was imposed at the wholesale transaction when milk moved into the state.³³⁶ This distinction does not directly assess the charge against any out-of-state interests, which eliminates the direct detriment imposed on out-of-state power. Any impact is indirect and more incidental. Local distribution and retail power sales are exclusively within state authority.³³⁷

Third, on the subsidy side of the equation, if a state SBC does not facially discriminate in expressly financing only in-state projects, it does not parallel the facts in *West Lynn*. As examined in detail above, some state SBC statutes do not facially discriminate based on geography of the commerce. These statutes will be evaluated pursuant to the alternative rubric of balancing analysis under the dormant Commerce Clause. The court will apply a balancing test that will weigh whether the law's burdens on interstate commerce exceed its benefits.³³⁸

This "*Pike* test" finds that if a state statute "regulates even-handedly to effectuate a legitimate local public interest" and only has "incidental" discriminatory effects on interstate commerce, the statute will be upheld, unless "the burden imposed on such commerce is clearly excessive in

334. *See id.*

335. Ferrey, *supra* note 105, at 523–24.

336. *See id.* at 190–91.

337. 16 U.S.C. § 824(b)(1) (2006).

338. *Pike v. Bruce Church Inc.*, 397 U.S. 137, 142 (1970).

relation to the putative local benefits.”³³⁹ A local regulation is not *per se* invalid only because its means or effects are discriminatory.³⁴⁰ When weighing the burdens against the benefits, a court can consider both the very nature of the local interest that is involved, and whether it could be regulated with a lesser impact on interstate activities.³⁴¹

Discriminatory state statutes cannot escape Commerce Clause scrutiny merely by avoiding explicit facial references to in-state interests.³⁴² In *Kentucky Power Co. v. Huelsman*, the court ruled that the Kentucky state statute was discriminatory, even though it did not use the phrase “Kentucky customers” to describe the class of customers favored.³⁴³ Regulations that treat all out-of-state interests in a disparate manner will be regarded as discriminatory even though some in-state interests are also adversely affected by the regulation.³⁴⁴

So what about those states, examined above,³⁴⁵ that do facially discriminate in their renewable energy programs against out-of-state commerce? They might still defend these programs on two distinctions. As long as a state taxes only in-state services, a state can use the tax or surcharge revenues to benefit its own citizens. Therefore, it is important that states link their SBC charges to the in-state distribution of power over in-state power lines in structuring the charge, instead of linking it to the retail sale of the power which also may be moving in interstate commerce.³⁴⁶

Both SBC and RPS programs raise revenue by a charge reflecting the amount of power produced or transacted, and then distribute that revenue to certain businesses, in several states based on geographic discrimination. The former program involves a direct tax or charge, while the latter has the government create a virtual attribute that must be purchased by suppliers of power. The distinction between the direct SBC surcharge on the customer bill, and the obligatory RPS purchase of RECs

339. *Id.*

340. *Id.*

341. *Id.*

342. *Ky. Power Co. v. Huelsmann*, 352 F. Supp. 2d 777, 785 (E.D. Ky. 2005).

343. *Id.* The Court reasoned it was undisputed that only Kentucky customers could benefit from the curtailment priority set forth in the statute and that the protected class only included retail customers inside the utility’s certified territory and Kentucky member distribution cooperatives purchasing power at wholesale to serve their own retail customers. *Id.*

344. *Id.* at 786 (“[I]t is immaterial that Wisconsin milk from outside the Madison area is subject to the same proscription as that moving in interstate commerce.” (quoting *Dean Milk Co. v. Madison*, 340 U.S. 349, 354 (1951))).

345. *Id.*

346. Regarding those RPS programs that facially discriminate based on geographic origin of the renewable power generation, the costs of funding RPSs are passed on in higher fees to customers by the utility that purchases the RECs to retail consumers via higher rates, typically applied to distribution services. Distribution services bill for the amount of megawatt-hours purchased at retail. Technically, there is no imposition of a charge on interstate wholesale sellers.

by utilities and other retailers of power, is not profound: in-state consumers of power ultimately bear the entire cost of those charges. While the mechanism is somewhat different, the legal issues presented are similar.

So while close to the line of dormant Commerce Clause concern, these matters enjoy more legal shelter than the *West Lynn Creamery* tax-and-subsidy scheme. All of these factors blunt some of the critical factors evaluated in Commerce Clause analysis. The facts are close to the line, and the eventual outcome is difficult to predict; however, an RPS is more allowable at the state level than feed-in tariffs, even if there is geographic discrimination in both.³⁴⁷ As a second prong, under the Commerce Clause, there is a market participant exception, discussed below.³⁴⁸ A state can decide whether or not to put its own financial resources into interstate commerce or not.³⁴⁹

B. Inside the Interstate Transmission Construct

Dampening the Commerce Clause inquiry for RPS programs is the larger regulatory structure managing power generation. Federal law has created regions and rules within which power is transmitted. For example, New England is an integrated transmission network, and certain New England states require that a REC producer make arrangements on an hourly basis to actually deliver the power to the New England region, if not the particular state.³⁵⁰ New York has a similar system.³⁵¹ This in-region requirement for the power does not discriminate on the source of power, but just the destination of the power into the interconnected and commonly managed distribution system. After all, there is no electricity delivery on a retail basis, except through those integrated wires.

In New England, the NEPOOL GIS tracking system will only track those resources for RPS credit where out-of-region projects have obtained “firm transmission” into the region of power equal to or exceeding the generation from an eligible RPS renewable facility.³⁵² The NEPOOL system is dispatched on an hourly-forward basis.³⁵³ This does not mean that the exact electrons moved by renewable energy must enter the NEPOOL system; however, enough transmission capacity must be under contract to carry the output of those renewable resources into the NEPOOL region at the precise time they are generated in order to create

347. See Ferrey et al., *supra* note 4; Cal. Pub. Utils. Comm’n, Order on Petitions for Declaratory Order, Docket No. EL-10-64-000, 132 F.E.R.C. P61,047 (July 15, 2010).

348. See *infra* Part VI.C.

349. See *infra* Part VI.C.

350. CORY & SWEZEY, *supra* note 27, at 8.

351. WISER & BARBOSE, *supra* note 16, at 10.

352. CORY & SWEZEY, *supra* note 27, at 8.

353. *Id.*

credits in a New England state with an RPS program.³⁵⁴

Other systems, such as the PJM GATS system which controls thirteen Mid-Atlantic states' and the District of Columbia's transmission decisions,³⁵⁵ provide a more flexible RECs accounting scheme. For the PJM region, this system only requires monthly matching of power from eligible out-of-state renewable sources to transmission capacity into the region in order to qualify for a REC.³⁵⁶ This longer averaging period is much more accommodating than an hourly matching period of out-of-state RECs in the NEPOOL region. One can only trade RPS credits inside the PJM member states if one is physically located within the PJM geographic boundary.³⁵⁷ Certain member states—such as Delaware—propose additional requirements of actual transmission into the system for eligibility.³⁵⁸

Thus, REC creation poses an interesting metric. Much power flow is in interstate commerce and regulated at the federal level.³⁵⁹ However, RECs are created by direct metered registration, controlled in terms of metering at the state or regional level, of renewable power generation to the utility grid.³⁶⁰ Therefore, they are totally virtual state creations—which is critical to maintaining state versus federal jurisdiction over their existence.

A report by the Massachusetts Department of Energy Resources calculated that the number of plants providing RECs to Massachusetts in 2004 was only nineteen; by 2007, this number had risen to fifty-three plants.³⁶¹ RECs, even though virtual creations, are manipulated by generators to register them in the state where they can be traded for the highest value for the seller. For example, the largest supply of Massachusetts RECs, about 39%, came from predominantly biomass

354. Re Retail Renewable Portfolio Standard, Order Authorizing Additional Main Tier Solicitations and Directing Program Modifications, Case No. 0e-E-0188, 2006 WL 191959, at *18 (N.Y. Pub. Serv. Comm'n Jan. 26, 2006).

355. See *PJM Territory Served*, PJM, <http://www.pjm.com/about-pjm/how-we-operate/territory-served.aspx> (last visited Oct. 10, 2011); *Company Overview*, PJM, <http://www.pjm.com/about-pjm/who-we-are/company-overview.aspx> (last visited Oct. 10, 2011); see also PJM, 2008 ANNUAL REPORT 31 (2008), available at <http://www.pjm.com/about-pjm/who-we-are/~media/about-pjm/newsroom/2008-annual-report.ashx>.

356. See CORY & SWEZEY, *supra* note 27, at 8 ("Monthly matching (e.g., as adopted by GATS) provides more flexibility by accepting RECs from out-of-state facilities as long as the power wheeled in a month matches the total renewable generation output over the same month.").

357. STEVEN FERREY, UNLOCKING THE GLOBAL WARMING TOOLBOX 258 (2010).

358. 26 DEL. ADMIN. CODE § 3008 (2005).

359. See *Pub. Utils. Comm'n v. Attleboro Steam & Electric Co.*, 273 U.S. 83, 90 (1927); *Fed. Power Comm'n v. Fla. Power & Light Co.*, 404 U.S. 453, 461–63 (1972).

360. See U.S. ENVTL. PROT. AGENCY, RENEWABLE ENERGY CERTIFICATES 3 (2008), available at http://www.epa.gov/greenpower/documents/gpp_basics-recs.pdf.

361. Lisa Wood, *Massachusetts' REC Supply Now Equals Demand, A Sharp Reversal from Recent Years*, ELECTRIC UTIL. WK., Feb. 25, 2008, at 10.

facilities in Maine, with other New England states providing 17% of RECs and New York and Quebec accounting for 20%.³⁶² This left only about one-quarter of Massachusetts RECs originating in Massachusetts.³⁶³ Power does move physically and actually across state borders, while RECs are “paper” or virtual creations, but also move across state lines to be “created” in other states.

C. A Proprietor Subsidy in Lieu of Regulating Private Markets

States in their actions could be helped by the “market participant” exception under the Commerce Clause in the administration and implementation of renewable trust funds. This exception only applies if states go beyond regulation and participate in the market by exercising their right to favor their own citizens over others.³⁶⁴ When a state participates directly in the market as a purchaser, seller, or producer of articles of commerce, its activities will not be subject to the usual Commerce Clause restrictions, even if discriminatory effects flow from the state’s actions.³⁶⁵

While this possibility was not addressed by the Court in *Philadelphia v. New Jersey*,³⁶⁶ it was addressed by the Court in *Hughes v. Alexandria Scrap*.³⁶⁷ In *Hughes*, a financial bounty (payment) was paid by the state of Maryland, which was more stringent in requirements placed on out-of-state businesses doing business in the state.³⁶⁸ The Court emphasized the fact that Maryland did not seek to prohibit or regulate the flow of interstate commerce, where the burden was on out-of-state *businesses*, not on out-of-state articles of commerce.³⁶⁹ Maryland was a participant in the market, rather than a regulator of the market.³⁷⁰ The Court stated, “[N]othing in the purposes animating the commerce clause prohibits a State, in the absence of congressional action, from participating in the market and exercising the right to favor its own citizens over others.”³⁷¹ The statute did not violate the Commerce Clause.³⁷²

Therefore, a state can choose to place in, or withhold from, interstate commerce an article it controls, even if that article is money or an entitlement that has financial value. SBCs are a relatively pure financial incentive, raised by charges on in-state consumers, that can be placed in

362. *Id.*

363. *Id.*

364. *Dep’t of Revenue of Ky. v. Davis*, 553 U.S. 328, 339 (2008).

365. *South-Central Timber Dev., Inc. v. Wunnicke*, 467 U.S. 82, 93 (1984).

366. *See generally* *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978).

367. *Hughes v. Alexandria Scrap*, 426 U.S. 794 (1976).

368. *Id.* at 799–800.

369. *Id.* at 806–07.

370. *Id.*

371. *Id.* at 810.

372. *Id.* at 814.

interstate commerce, or not, within broad state authority. RPSs impose a regulatory obligation on utilities in the state to purchase a specified quantity of virtual RECs minted by the state and placed in commerce in the state. By combining this more complex structure of regulation and certificate creation, RPS programs still involve the state acting in a regulatory mode. This makes them subject to Commerce Clause inquiry if the program discriminates based on geography of the commerce, unless an exception applies.

In *Oneida-Herkimer*, where the government was participating in the market by owning the commercial entity, the plurality opinion written by Chief Justice Roberts applied the *Pike* balancing test.³⁷³ The Court interpreted the ordinance not to violate the dormant Commerce Clause because it created at least “minimal” local benefits that outweighed whatever “insubstantial” differential burden was placed on interstate commerce.³⁷⁴ The Court noted that it could not detect any disparate impact between in-state and out-of-state interests.³⁷⁵

With RPS programs, a state is electing to inject money into commerce by creating a virtual state certificate and an in-state trading market for these certificates. The state is not expending state funds, except for administrative costs. It is not really putting state money into interstate commerce, as the state did in the *Hughes* case. Instead, with RPSs, it is branding and creating a new state-created product, and regulating utilities with requirements to purchase these products and pass the costs on to captive ratepayers.

With RPSs, while the government “owns” the entity creating, minting, and distributing the RECs, the government does not own the entities that generate, trade, or must obtain the RECs, which operate pursuant to state energy regulation. Therefore, RPSs operate through a combination of market participation and conventional regulation. Creating state certificates, and placing them in commerce with restrictions, is permissible. By regulation, the state mandates a percentage acquisition of these REC certificates by utilities and other power sellers in the state—which is conventional regulation.

In many of the twenty-nine RPS states, RPS costs only impact regulated private monopoly utility suppliers, as they maintain a utility monopoly over all retail power sales in those states, and the RECs must only be obtained by retail sellers of power.³⁷⁶ In perhaps a dozen or so of

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

374. *Id.*

375. *Id.*

376. See *Benefits of Electricity Market Competition*, COMPETE COALITION, <http://www.competecoalition.com/resources/overview-and-benefits-competitive-markets> (illustrating that

the states with RPSs, there has been deregulation of retail power markets and competition.³⁷⁷ In these states, REC obligations typically are imposed on all sellers of retail power—both traditional utilities and their competitors.

The state has jurisdiction, pursuant to the Federal Power Act, to regulate retail activities of utilities in the state.³⁷⁸ Moreover, the creation and regulation of RPSs and RECs is left by FERC to the states.³⁷⁹ Yet, while left to the states, the power which is the quantitative and qualitative platform for the creation of RECs is often in interstate commerce and subject to federal jurisdiction.³⁸⁰

Moreover, while being allowed jurisdiction, this jurisdiction must be exercised in a manner that does not violate the Constitution's Commerce Clause. An independent renewable power generator has an election to sell that power interstate or within a state. Where a state discriminates regarding that RPS benefit generated from the platform linked to the power which could be in interstate commerce, a screening under the dormant Commerce Clause could follow. RPS programs that discriminate based on place of origin of the electricity used to create RECs invite inquiry and examination, while non-geographically discriminatory RPS programs do not.

How RPS programs are structured by an individual state determines the type of legal inquiry that would be applied by a court, and the standard of judicial review of either strict scrutiny or a balancing test.³⁸¹ This test makes all the difference in outcome of the Commerce Clause inquiry, if the market participant exception is not available. Careful structuring by states of their RPS and SBC programs can avoid some of the challenges that have arisen in litigation in the past year. The final chapter is yet to be written on pending challenges to state renewable energy programs.

VII. BRINGING CHALLENGES TO CONCLUSION

There are ways to thread the legal needle. Such threading would better navigate the constitutional issues that can be presented by geographic discrimination in many state renewable power incentives.

few states have deregulated retail power supplies) (last visited Dec. 2, 2011).

377. FERREY, *supra* note 2, at §§ 10:6–10:12.1.

378. STEVEN FERREY, *THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION* 139 (2000).

379. *Am. Ref-Fuel Co.*, 105 F.E.R.C. P61,004, 61,007 (2003); *Xcel Energy Servs., Inc. v. FERC*, 407 F.3d 1242, 1243–44 (D.C. Cir. 2005).

380. *See What FERC Does*, FED. ENERGY REGULATORY COMMISSION, <http://www.ferc.gov/about/ferc-does.asp> (last visited Nov. 10, 2011).

381. *See City of Philadelphia v. New Jersey*, 437 U.S. 617, 624 (1978) (describing the strict scrutiny test); *Pike v. Bruce Church Inc.*, 397 U.S. 137, 142 (1970) (describing the balancing test).

Many states have not done this, instead facially discriminating in their RPS and SBC programs.³⁸²

The value at retail of a particular megawatt-hour of renewable power in the regional grid is identical, and indistinguishable, from another megawatt-hour of power with roughly comparable price.³⁸³ There is no rationale to quarantine this renewable power to remain out-of-state.³⁸⁴ To use state regulatory authority in a way which discriminates on the renewable REC value of an identical unit of power, whether generated in the state or in a regional block across state borders before it is traded into, marketed, sold, and used in the state, discriminates only based on the geography of the commerce. This is where the legal controversy is created.

The state can regulate RECs, but it must not discriminate based solely on geography. There is a range of RPS and SBC programs documented above: some RPS states facially discriminate based on geography, others *de facto* discriminate based on geography, and others do not discriminate. There is a palette of state regulation of these requirements.

The *Dean Milk* constitutional test under the dormant Commerce Clause requires a state, when enacting a regulation which burdens interstate commerce, to demonstrate that there were no viable, less burdensome regulatory alternatives.³⁸⁵ 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.”³⁸⁶ This is a difficult test to satisfy with regard to some RPS and SBC state programs.

If not entitled to the market participant exception, in designing state programs, one goal is to avoid the strict scrutiny test, if challenged.³⁸⁷ This test is almost always fatal to the program challenged, in the absence of the narrow, and seldom granted, quarantine exemption.³⁸⁸ In recent Supreme Court precedent, where a state imposed greater cost disadvantage on certain out-of-state articles in commerce in the regulating state, it was found to be subject to strict scrutiny and to not satisfy the dormant Commerce Clause.³⁸⁹

382. *See supra* Part IV; *see infra* Appendix A.

383. Power can have a different value in different zones in a region. For example, there are slightly different values, of perhaps +/- 10%, in the three LMP zones in Massachusetts, each established by the ISO-NE, operating wholesale power sale markets in New England pursuant to approval of FERC Rule 1. *See LMP Map*, ISO NEW ENG., <http://www.isone.org/portal/jsp/lmpmap/Index.jsp> (last visited Nov. 26, 2011).

384. *See Maine v. Taylor*, 477 U.S. 131, 140 (1986) (upholding the state’s regulation and prohibition of live bait fish imports).

385. *Dean Milk Co. v. City of Madison*, 340 U.S. 349, 354 (1951).

386. *City of Philadelphia v. New Jersey*, 437 U.S. 617, 626–27 (1978).

387. *See generally id.* at 626–27.

388. *See generally Maine*, 477 U.S. at 148.

389. *Chem. Waste Mgmt. v. Hunt*, 504 U.S. 334, 342 (1992) (“Once a state tax is found to discriminate against out-of-state commerce, it is typically struck down without further inquiry.”).

If geographic discrimination is not facially incorporated in the statute or regulations, the *Pike* balancing test could be applied instead to any challenge, in which case there is an opportunity to demonstrate that the benefits to the state outweigh the burdens on interstate commerce.³⁹⁰ More carefully drafting broader RPS and SBC incentive programs at the state level, exclusive of geographic restrictions and treating external locations equally, are an obvious means to this end to avoid strict scrutiny and constitutional challenge.

Of particular note, RPS and SBC discrimination does not confront the more formidable constitutional problem faced by state feed-in tariffs for renewable power.³⁹¹ In 2010, FERC issued a definitive ruling on state feed-in tariffs that made crystal clear their constitutional limits.³⁹² It reiterated that the Commission's authority under the Federal Power Act includes the exclusive jurisdiction to regulate the rates, terms, and conditions of sales for resale of electric energy in interstate commerce by public utilities.³⁹³ State efforts to regulate wholesale power transactions, to set prices in excess of market prices, were entirely stricken.³⁹⁴ Despite this, RPS and SBC programs, if structured consciously and carefully, remain two state renewable power incentives that can fit within the requirements imposed by the U.S. Constitution. Feed-in tariffs do not so fit.³⁹⁵

In part, these jurisdictional and constitutional issues explain why twenty-nine states have adopted RPSs, eighteen states have adopted SBCs, and less than a handful of the contiguous U.S. states have attempted feed-in tariffs.³⁹⁶ Although feed-in tariffs internationally are the most utilized type of renewable power incentive,³⁹⁷ they work at the federal level but do not pass constitutional muster under the U.S. Constitution when implemented by states. They are also facing some skepticism on cost determinations internationally and in the U.S.³⁹⁸

Some E.U. governments have slashed their initial feed-in tariffs by as

390. See *Pike v. Bruce Church*, 397 U.S. 137, 142 (1970).

391. Ferrey et al., *supra* note 4, at 126.

392. Cal. Pub. Utils. Comm'n, Order on Petitions for Declaratory Order, Docket No. EL-10-64-000, 132 F.E.R.C. P61,047 (July 15, 2010).

393. *Id.*

394. *Id.*

395. *Id.*

396. See generally DSIRE, <http://dsireusa.org> (last visited Nov. 10, 2011).

397. Wilson Rickerson & Robert C. Grace, *The Debate Over Fixed Price Incentives for Renewable Electricity in Europe and the United States: Fallout and Future Directions*, 1 (Feb. 2007), http://www.futurepolicy.org/fileadmin/user_upload/PACT/Learn_more/Rickerson_Grace__2007_.pdf (Seventeen European Union countries, as well as Brazil, Indonesia, Israel, South Korea, Nicaragua, Norway, Sri Lanka, Switzerland, and Turkey use feed-in tariffs.).

398. See David Hopwood & Paula Mints, *EPIA: Market Installed 7.2 GW of Solar PV in 2009*, RENEWABLE ENERGY FOCUS, Sept. 7, 2010, available at <http://www.renewableenergyfocus.com/view/12286/epia-market-installed-72-gw-of-solar-pv-in-2009>.

much as 70%.³⁹⁹ Yet past costs committed remain long-term. Those few states that have adopted feed-in tariffs despite their constitutional issues have not fared better. In 2011, Oregon lowered the price paid under its solar feed-in tariff for the third time in its one year of existence, reducing it from its original 65 cents/Kwh to 37.4 cents/Kwh.⁴⁰⁰ Each of the prior iterations 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 availability.⁴⁰¹ While state officials claimed they were looking for the “sweet spot,” the costs of each of the former tariff iterations are forced into the bills of rate-paying customers of the utilities for fifteen years.⁴⁰²

The recent regulatory challenges in California, Massachusetts, New Jersey, Colorado, and New York appeared as the opening legal shots in this major battle over implementation of future energy policy.⁴⁰³ However, with proper drafting and implementation, the constitutional needle can be threaded.

399. See Oliver M. Bayani, *Britain Approves 71 Percent Feed-in Tariff Cut for Solar PV*, ECOSEED (June 10, 2011), <http://www.ecoseed.org/politics/feed-in-tariff/article/32-feed-in-tariff/10146z-britain-approves-71-percent-feed-in-tariff-cut-for-solar-pv>; see also Hopwood & Mints, *supra* note 398.

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

401. *Id.*

402. *Id.*

403. See *supra* Part V.D.

APPENDIX A – STATE RPS PROGRAM GEOGRAPHIC
DISCRIMINATION

Many state RPS programs favor in-state generation over out-of-state production, or grant incentives in the form of multipliers to in-state RECs or facilities. The categories below include: states favoring in-state generation of renewable energy, states requiring renewable energy facilities to be constructed using in-state materials, states granting additional incentives, multipliers, or set-asides for in-state energy that produces RECs, and states favoring regional generation and distribution.

A. Credit Multipliers

1. Arizona

Arizona adopted final rules for the state’s Renewable Energy Standard (RES) in November 2006.⁴⁰⁴ The RES is 15% by 2025, with 30% of the renewable energy to be derived from distributed energy technologies.⁴⁰⁵ Discrimination exists in Arizona’s RES in the form of “extra credit multipliers.”

Arizona has several extra credit multipliers that may be applied when power is generated within Arizona or if generation facility manufacturing and installation takes place within Arizona.⁴⁰⁶ Extra credit multipliers may be earned for early installation of certain technologies, in-state solar installation, and in-state manufactured content. Solar electric power plants installed in Arizona will receive an extra credit multiplier of 0.5.⁴⁰⁷ Solar electric power plants will also receive up to a 0.5 extra credit multiplier related to the manufacturing and installation content that is derived from Arizona.⁴⁰⁸ Distributed solar electric generators may receive credit multipliers if they are located in Arizona and are included in any Load-Serving Entity’s⁴⁰⁹ Green Pricing program, included in any Load-Serving Entity’s Net Metering or Net Billing program, or are included in any Load-Serving Entity’s solar leasing program.⁴¹⁰ A Load-Serving Entity may also receive partial credit if it or its affiliate “owns or makes a significant investment in any solar electric manufacturing plant

404. Proposed Rulemaking for the Renewable Energy Standard and Tariff Rules, Docket No. RE-00000C-05-0030, Decision No. 69127, 2006 WL 3598177 (Ariz. Corp. Comm’n 2006).

405. *Id.* at *36–37.

406. ARIZ. ADMIN. CODE § 14-2-1618(C) (2010).

407. *Id.* § 14-2-1618(C)(2)(a).

408. *Id.* § 14-2-1618(C)(2)(b).

409. *Id.* § 14-2-1601(23) (defining “Load-Serving Entity” as an “Electric Service Provider, Affected Utility, or Utility Distribution Company, excluding a Meter Service Provider, and Meter Reading Service Provider”).

410. *Id.* §§ 14-2-1618(C)(3)(a)–(e).

that is located in Arizona.”⁴¹¹

During the process under which the Arizona Corporation Commission drafted the RES rules, interested parties filed written comments in response to the proposed regulations.⁴¹² Interwest Energy Alliance filed comments in response to the proposed rules on May 3, 2005, which included the specific concern that “the requirement that qualifying electricity must be produced from in-state renewable energy projects is unnecessarily restrictive and violates the Commerce Clause.”⁴¹³ The Arizona Corporation Commission submitted the rules they adopted to the Office of the Arizona Attorney General for endorsement.⁴¹⁴

2. Colorado

Colorado requires state utility companies to obtain 30% of power generation from renewable sources by the year 2020.⁴¹⁵ Colorado also offers credit multipliers, giving preference to in-state generation or local “community-based projects.”⁴¹⁶

1. Each kilowatt-hour (kWh) of eligible electricity generated in-state, other than retail distributed generation, can receive 125% credit for RPS-compliance purposes.⁴¹⁷
2. Electricity generated at a “community-based project”—a project not greater than 30 megawatts (MW) in capacity that is located in Colorado and owned by individual residents of a community, or by an organization or cooperative that is controlled by individual residents, or by a local government entity or tribal council—can receive 150% credit for RPS-compliance purposes.⁴¹⁸
3. Solar electricity located in the territory of a cooperative or municipal utility and generated by a facility that begins operation before July 1, 2015, can receive 300% credit for RPS-compliance purposes.⁴¹⁹ Solar electricity generated by a facility that begins operation on or after July 1, 2015, receives 100% credit.⁴²⁰
4. Projects up to 30 MW that are interconnected to electrical transmission or distribution lines owned by a cooperative or

411. *Id.* § R14-2-1618(I).

412. *See* Proposed Rulemaking for the Renewable Energy Standard and Tariff Rules, Docket No. RE-00000C-05-0030, Decision No. 69127, 2006 WL 3598177, at *2 (Ariz. Corp. Comm’n 2006).

413. *Id.*

414. *Id.* at *1.

415. COLO. REV. STAT. ANN. § 40-2-124(1)(a)(VI)(c)(I)(E) (West Supp. 2011)

416. *Id.* at § 40-2-124(1)(a). *See* Endrud, *supra* note 217, at 264 n.29 (noting Colorado RES applies extra credit multipliers to renewable energy generated in-state).

417. COLO. REV. STAT. ANN. § 40-2-124(c)(III).

418. *Id.* § 40-2-124(1)(c)(VI).

419. *Id.* § 40-2-124(1)(c)(VII)(A).

420. *Id.* § 40-2-124(1)(c)(VII)(B).

municipal utility, which are installed prior to December 31, 2014, can receive 200% credit for RPS-compliance purposes.⁴²¹ With the exception of investor-owned utilities using this multiplier, it is only available for the first 100 MW of projects statewide.⁴²²

3. Missouri

Missouri enacted a 15% by 2021 mandatory Renewable Electricity Standard (RES) in 2008.⁴²³ Missouri's RES also contains a solar electricity carve-out of 2% of each interim portfolio requirement, so 0.3% of retail electricity sales must be derived from solar electricity by 2021.⁴²⁴ Missouri's statute contains a provision with discriminatory language. Each kilowatt-hour of eligible energy "generated in Missouri shall count as 1.25 kilowatt-hours for purposes of compliance" (i.e., in-state generation is worth 25% more for compliance purposes).⁴²⁵ According to commenters, to encourage in-state development, the multiplier confers a benefit on in-state generation of renewable electricity over out-of-state generated energy.⁴²⁶

4. Michigan

On October 6, 2008, Public Act 295 was signed into law.⁴²⁷ The Act, known as the Clean, Renewable and Efficient Energy Act, established a Renewable Energy Standard for the State of Michigan.⁴²⁸ The Renewable Energy Standard requires Michigan electric providers to achieve a retail supply portfolio that includes at least 10% renewable energy by 2015.⁴²⁹ Michigan's RPS contains a series of bonus credits for each megawatt-hour of electricity generated by certain types of systems.⁴³⁰ One-tenth renewable energy credit is provided for each

421. *Id.* § 40-2-124(1)(c)(IX).

422. *Id.* § 40-2-124(c)(IX).

423. *Report of the Renewable Energy and Demand-Side Management Committee*, 30 ENERGY L.J. 273, 285 (2009) (noting Missouri adopted the Clean Energy ballot initiative, repealing the state's voluntary renewable energy objective and replacing it with a mandatory portfolio standard).

424. *Missouri Renewable Electricity Standard*, DSIRE, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MO08R&re=1&ee=1 (last reviewed July 29, 2011).

425. MO. ANN. STAT. § 393.1030(1) (West 2010); MO. CODE REGS. ANN. tit. 4, § 240-20.100(3)(G) (2010).

426. See Brent Stahl et al., *Wind Energy Laws and Incentives: A Survey of Selected State Rules*, 49 WASHBURN L.J. 99, 117 (2009) (indicating Missouri's 1.25 credit for in-state energy generation encourages in-state development).

427. S.B. 213, 94th Leg., Reg. Sess. (Mich. 2008).

428. *Id.*

429. MICH. PUB. SERV. COMM'N, REPORT ON THE IMPLEMENTATION OF THE P.A. 295 RENEWABLE ENERGY STANDARD AND THE COST-EFFECTIVENESS OF THE ENERGY STANDARDS 4 (2011), available at http://www.michigan.gov/documents/mpsc/Report_on_Implementation_of_PA_295_RE_Standards_and_Cost_Effectiveness_of_Standards_345871_7.pdf.

430. MICH. COMP. LAWS ANN. § 460.1039(2) (West Supp. 2011).

megawatt-hour generated from a renewable energy system built using equipment made in Michigan.⁴³¹ This credit is only available for the first three years after the renewable energy system first produces electricity on a commercial basis.⁴³² Similarly, a system constructed by an in-state workforce receives a 1.1x credit multiplier per MWh.⁴³³ This provision is also subject to the three-year time frame.⁴³⁴ The credits are added to the single credit facilities receive for producing 1 MWh of electricity from a qualified renewable resource.⁴³⁵

5. Delaware

Delaware established a Renewable Portfolio Standard in 2005, requiring retail electricity suppliers to purchase 10% of the electricity sold in the state from renewable sources by 2019-2020.⁴³⁶ The state raised the target to 20% in 2007,⁴³⁷ and amended it again in 2010 raising it to 25% by 2025-2026.⁴³⁸ Delaware's RPS provides compliance multipliers favoring in-state project siting and installation by in-state workforce.⁴³⁹ Delaware offers a 300% compliance multiplier for customer-sited solar photovoltaic generators physically sited in-state or a fuel cell powered by renewable fuels.⁴⁴⁰ For energy generated by wind turbines sited in Delaware on or before December 31, 2012, a credit of 150% will be supplied toward the RPS.⁴⁴¹ Delaware also provides credits for facilities constructed to some degree by equipment and components manufactured in-state.⁴⁴² A retail electricity supplier or rural electric cooperative may receive an additional 10% credit toward meeting the RPS for solar or wind energy installations sited in-state provided that a minimum of 50% of the cost of the renewable energy equipment is manufactured in Delaware.⁴⁴³ A 10% credit for solar or wind installations sited in-state may also be applied in the event that a minimum of 75% of state workforce assisted in the installation.⁴⁴⁴

In addition to credit multipliers, renewable energy credits produced from customer-sited eligible energy resources may be used to

431. *Id.* § 460.1039(2)(d).

432. *Id.*

433. *Id.* § 460.1039(2)(e).

434. *Id.*

435. *Id.* § 460.1039(2).

436. *Delaware Renewables Portfolio Standard*, DSIRE, http://dsireusa.org/incentives/incentive.cfm?Incentive_Code=DE06R&re=1&ee=1 (last reviewed Aug. 16, 2011).

437. *Id.*

438. *Id.*

439. DEL. CODE ANN. tit. 26.1, § 356 (West 2009).

440. *Id.* § 356(a).

441. *Id.* § 356(b).

442. *Id.* § 356(d) (West Supp. 2010).

443. *Id.*

444. *Id.* § 356(e).

demonstrate compliance with the RPS, provided that the facilities are “physically located in Delaware.”⁴⁴⁵ Likewise, there is a very specific 350% credit multiplier for Delmarva Power & Light for offshore wind facilities sited on or before May 31, 2017.⁴⁴⁶

6. Nevada

In 1997, Nevada adopted a renewable portfolio standard which required the use of eligible renewable resources to supply a minimum of 25% by the year 2025.⁴⁴⁷ Nevada has many different types of credit multipliers for producing renewable electricity. There is a 2.4x credit multiplier for customer-sited photovoltaic systems in the Tier 1 category, where 50% of generation is used on site.⁴⁴⁸ There is a 1.05x credit multiplier for energy efficiency measures, and the same multiplier for customer-maintained renewable energy distributed generation.⁴⁴⁹

7. Maine

Maine applies a 1.5x credit multiplier for community-based renewable installation up to 10 MW, but limited to 50 MW in aggregate.⁴⁵⁰ Under this multiplier, 10 MW is reserved for systems that are 100 kW or less, or those “located in the service territory of a consumer-owned transmission and distribution utility.”⁴⁵¹ However, the statute does not specifically state that it must be a community from within the state of Maine.

8. Oregon

In Oregon, Investor Owned Utilities (IOUs), specifically PGE and Pacific Power for primary RPS and Idaho Power for secondary RPS, receive a 2.0x multiplier for photovoltaic systems between 500 kW and 5 MW that are operational prior to January 1, 2016.⁴⁵²

9. Washington

The RPS statute has a 2.0x credit multiplier for energy and/or RECs from distributed generation facilities that are less than 5 MW in size.⁴⁵³

445. *Id.* § 355(b).

446. *Id.* § 356(c).

447. NEV. REV. STAT. § 704.7821(1)(h) (2009).

448. *Id.* § 704.7822.

449. *Id.* § 704.7821(2)(a).

450. ME. REV. STAT. ANN. tit. 35-A, §§ 3603, 3605 (2010).

451. *Id.* § 3603.

452. *See* OR. REV. STAT. §§ 757.370, 757.375 (2009).

453. WASH. ADMIN. CODE §§ 194-37-110, 194-37-040(12) (2008).

B. Preference for In-State or Regional Generation

1. Ohio

In 2008, Ohio enacted broad electric industry restructuring legislation containing advanced energy and renewable energy generation and procurement requirements for the state's electric distribution utilities and electric service companies.⁴⁵⁴ Under Ohio's Alternative Energy Resource Standard (AERS), "utilities must provide 25% of their retail electricity supply from alternative energy resources by 2025, with specific annual benchmarks for renewable and solar energy resources."⁴⁵⁵

Under Ohio law, "at least one-half of the renewable energy resources implemented by the utility or company shall be met through facilities located in [Ohio]."⁴⁵⁶ Ohio requires utilities who fail to meet the AERS to submit compliance payments to the Advanced Energy Fund (AEF).⁴⁵⁷ The AEF funds are administered by the advanced energy program's director of development to assist in funding "financial, technical, and related assistance for advanced energy projects in this state or for economic development assistance."⁴⁵⁸

2. New Jersey

New Jersey's RPS requires suppliers and providers serving retail customers in the state to procure approximately 20.38% of electricity sold in New Jersey from qualifying renewable sources by 2021.⁴⁵⁹ The RPS classifies different types of renewable energy sources into "Class I" and "Class II" distinctions.⁴⁶⁰ Class II requires "electricity generated by a resource recovery facility located in New Jersey, covered by all required NJDEP approvals."⁴⁶¹ If electricity is generated by a resource recovery facility outside the state of New Jersey, it will qualify as Class II renewable energy if the facility is located in a state with retail competition and NJDEP determines the facility meets or exceeds all NJDEP requirements that would apply if it were located in New Jersey.⁴⁶² The New Jersey Administrative Code also states that to qualify as Class I or II renewable energy the energy must "be generated within or delivered

454. S.B. 221, 127th Gen. Assemb. (Ohio 2008).

455. *Ohio Alternative Energy Resource Standard*, DSIRE, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=OH14R&re=1&ee=1 (last reviewed Dec. 8, 2011); OHIO REV. CODE ANN. § 4928.64(B) (West 2010).

456. OHIO REV. CODE ANN. § 4928.64(B)(3).

457. *Id.* § 4928.61.

458. *Id.* § 4928.62(A).

459. N.J. ADMIN. CODE § 14:8-2.3(a) (2010).

460. *Id.*

461. *Id.* § 14:8-2.6(b)(2).

462. *Id.* § 14:8-2.6(c).

into the PJM region.”⁴⁶³

New Jersey’s RPS also includes a separate provision for suppliers to procure set gigawatt-hours of solar energy from in-state solar electric generators each year.⁴⁶⁴ Suppliers and providers must purchase gigawatt-hours from solar electric power generators located in New Jersey.⁴⁶⁵

3. Illinois

In August 2007, Illinois enacted legislation creating the Illinois Power Agency (IPA) to develop electricity procurement plans for investor-owned electric utilities supplying over 100,000 Illinois customers to ensure “adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost.”⁴⁶⁶ The IPA requires that procurement plans include “cost-effective” renewable energy resources.⁴⁶⁷ The IPA requires that until June 1, 2011, cost-effective renewable energy resources be procured first from facilities in the state of Illinois, then from facilities located in states adjacent to Illinois.⁴⁶⁸ Only after seeking to procure in-state or adjacent-state resources can a utility look elsewhere to procure resources.⁴⁶⁹ After June 2011, equal preference is given to resources within Illinois and adjoining states.

4. Pennsylvania

Under Pennsylvania’s Alternative Energy Portfolio Standard, 18% of retail electricity sales must be generated using alternative energy resources by 2020.⁴⁷⁰ Section 1648.4 of the Alternative Portfolio Standards Act provides that energy from alternative energy sources inside the Commonwealth are eligible to satisfy the portfolio standards.⁴⁷¹ This section also states, “Energy derived from alternative energy sources located outside the geographical boundaries of this Commonwealth but within the service territory of a regional transmission organization that

463. *Id.* § 14:8-2.7(b).

464. Assemb. 3520, 213th Leg. (N.J. 2010).

465. *Id.*

466. 20 ILL. COMP. STAT. ANN. 3855/1-5(A) (West 2008); *Illinois Renewable Portfolio Standard*, DSIRE, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=IL04R&re=1&ee=1 (last reviewed Nov. 3, 2011).

467. 20 ILL. COMP. STAT. ANN. § 3855/1-75(c)(1) (West Supp. 2011). Cost-effective is defined as “the costs of procuring renewable energy resources do not cause the limit stated in paragraph (2) of this subsection (c) to be exceeded and do not exceed benchmarks based on market prices for renewable energy resources in the region, which shall be developed by the procurement administrator.” *Id.*

468. *Id.* § 3855/1-56(b).

469. *Id.*

470. See 73 PA. CONS. STAT. ANN. § 1648.3 (West 2008) (stating that Tier I renewables and solar photovoltaic must provide 8% of retail electric sales by the 15th year after the effective date and Tier II renewables must provide 10% by the 15th year after the effective date of the legislation).

471. 73 PA. CONS. STAT. ANN. § 1648.4.

manages the transmission system in any part of this Commonwealth shall only be eligible to meet the compliance requirements of electric distribution companies or electric generation suppliers located within the service territory of the same regional transmission organization.”⁴⁷²

Alternative energy sources located within the PJM region shall be eligible for compliance.⁴⁷³ If the alternative energy is derived from alternative energy sources located outside the service territory of a regional transmission organization, it will not serve to comply with requirements under the Act.⁴⁷⁴

Additionally, alternative compliance payments are to be paid into Pennsylvania’s Sustainable Energy Funds and made available to the Regional Sustainable Energy Funds as outlined by the Pennsylvania Energy Board.⁴⁷⁵ The Sustainable Energy Fund is a non-profit organization approved by the PA Public Utility Commission to promote energy efficiency, renewable energy, and energy education initiatives in Pennsylvania.⁴⁷⁶

5. California

California has one of the most aggressive RPS programs in the nation with a goal of reducing greenhouse gas emissions 33% by the year 2020.⁴⁷⁷ The state has taken measures to try to ensure that it will not violate the dormant Commerce Clause.⁴⁷⁸ California traditionally allowed only non-tradable RECs, linked to the sale of electricity in the state, to be used to satisfy the California RPS; this prohibited out-of-state renewable generation from selling their RECs alone in California.⁴⁷⁹ In 2006, the state legislature authorized, but did not require, the use of tradable RECs

472. *Id.*

473. *Id.*

474. *Id.*

475. 73 PA. CONS. STAT. ANN. § 1648.3(g)(1).

476. *About SEF, SUSTAINABLE ENERGY FUND*, <http://www.thesef.org/CMS/Programs/AboutSEF/tabid/59/Default.aspx> (last viewed Oct. 11, 2011).

477. Patrick McGreevy, *Gov. Brown Signs Law Requiring 33% of Energy to be Renewable by 2020*, L.A. TIMES (Apr. 13, 2011), <http://articles.latimes.com/2011apr/13/local/la-me-renewable-energy-20110413>.

478. *California Renewables Portfolio Standard, DSIRE* (Apr. 12, 2011), available at http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=CA25R&state=CA&CurrentPageID=1. (highlighting that to qualify for the RPS, the electricity needs to be produced in-state, or produced out-of-state and delivered into the state); Press Release, Union of Concerned Scientists, *California Legislature to Reconsider Renewable Electricity Standard* (June 21, 2010), available at http://www.ucsusa.org/news/press_release/california-renewable-electricity-standard-0409.html (noting that “California imports a significant amount of its conventional electricity from outside the state” and it is illogical to “completely restrict out-of-state renewable energy from contributing to California’s renewable energy goals”; and “an explicit restriction on the amount of power that could count from outside the state likely would be a violation of the Interstate Commerce Clause”).

479. CAL. PUB. UTIL. CODE § 399.16(a) (West 2004).

apart from its associated in-state use of power.⁴⁸⁰

A 2010 change by regulation allows up to 25% of the California RPS to be satisfied by tradable RECs not bundled with the electric power.⁴⁸¹ While this would seem like a more open-minded removal of state barriers, it actually operates in the opposite fashion. Where before, it could be argued that the regulatory distinction was not based on geographic limitations, but on a non-separate tradable status for the credit, the newer 2010 system has the effect of limiting out-of-state renewable generation RECs to a minority share of the compliance credits.

6. Washington

Washington's Initiative No. 937 created the Renewable Portfolio Standard requiring large utilities to obtain 15% of their electricity from renewable resources by 2020 and undertake cost-effective energy conservation.⁴⁸² Section 3(10)(a) defines "eligible renewable resource" as electricity generated by a facility located in the Pacific Northwest or delivered into Washington state on a real-time basis without shaping, storage, or integration services.⁴⁸³ The Pacific Northwest is defined pursuant to the Pacific Northwest Electric Power Planning and Conservation Act.⁴⁸⁴ The Pacific Northwest consists of Oregon, Washington, Idaho, portions of Montana, Nevada, Utah, and Wyoming.⁴⁸⁵

7. Maine

The Maine Public Utilities Commission adopted rules for a state RPS

480. S.B. 107, 2005-2006 Sess. (Cal. 2006).

481. Order Instituting Rulemaking to Develop Additional Methods to Implement the California Renewables Portfolio Standard, Docket No. 06-02-012, Decision No. 10-03-021 (Cal. Pub. Utils. Comm'n Mar. 16, 2010).

482. WASH. INITIATIVE NO. 937 (2006), *available at* <http://www.secstate.wa.gov/elections/initiatives/text/i937.pdf>.

483. *Id.*

484. 16 U.S.C. § 839a(14) (2006).

485. *Id.* According to the statute, "Pacific Northwest", "region", or "regional" means—

(A) the area consisting of the States of Oregon, Washington, and Idaho, the portion of the State of Montana west of the Continental Divide, and such portions of the States of Nevada, Utah, and Wyoming as are within the Columbia River drainage basin; and

(B) any contiguous areas, not in excess of seventy-five air miles from the area referred to in subparagraph (A), which are a part of the service area of a rural electric cooperative customer served by the Administrator on the effective date of this Act which has a distribution system from which it serves both within and without such region.

Id.

in 1999, following the state's electric-utility restructuring law.⁴⁸⁶ The RPS requires competitive electricity providers in Maine to demonstrate that no less than 30% of its portfolio for retail electricity sales in Maine comes from renewable resources.⁴⁸⁷ In 2006, Maine also enacted L.D. 2041 to create a renewable portfolio goal to increase "new" renewable energy capacity by 10% by 2017.⁴⁸⁸

Maine offers a renewable energy credit multiplier under Section 3605.⁴⁸⁹ The multiplier is 150% of the amount of the electricity and applies to electricity "generated by a program participant that elects the renewable energy credit multiplier under [§ 3603(4)(B)]."⁴⁹⁰ Section 3603 defines the "community-based renewable energy pilot program" as a program designed to "encourage the sustainable development of community-based renewable energy in [Maine]."⁴⁹¹ Section 3602 defines "community-based renewable energy project" as a "locally owned electricity generating facility that generates electricity from an eligible renewable resource."⁴⁹² To be an eligible participant in the community-based program and to receive the credit multiplier, the project must A) have documentation that a resolution was passed by a local legislative body in support of the project to be located in the state, B) be connected to the Maine electric grid, C) have an in-service date after September 1, 2009, and D) satisfy the generating capacity limits outlined in subsection 2.⁴⁹³

8. Massachusetts

Massachusetts has a renewable portfolio standard⁴⁹⁴ and also promotes renewable energy through the Green Communities Act of 2008.⁴⁹⁵ Under the Class I renewable portfolio standard, retail electricity suppliers are required to meet a goal of 15% renewable energy by 2020, and an additional 1% each year thereafter.⁴⁹⁶ Presently, Massachusetts requires that energy be brought into the ISO-NE-6 geographical area on a real time basis.⁴⁹⁷

486. ME. REV. STAT. ANN. tit. 35-A, § 3210 (2010).

487. *Id.* § 3210(3).

488. *Id.* § 3210-C(2)(A); *see also id.* § 3210-C(1)(C) (defining "new" resources).

489. *Id.* § 3605.

490. *Id.*

491. *Id.* § 3603.

492. *Id.* § 3602(1).

493. *Id.* § 3603.

494. MASS. GEN. LAWS ANN. ch. 25A, § 11F (West 2010).

495. *See* An Act Relative to Green Communities, 2008 Mass. Adv. Legis. Serv. 169 (LexisNexis).

496. *See* MASS. GEN. LAWS ANN. ch. 25A, § 11F.

497. DEP'T OF ENERGY RES., MASSACHUSETTS RENEWABLE AND ALTERNATIVE PORTFOLIO STANDARDS (RPS & APS): ANNUAL COMPLIANCE REPORT FOR 2009, at 11 (2011), available at <http://www.mass.gov/eea/docs/doer/rps/rps-and-aps-2009-annual-compliance-report->

9. Connecticut

Connecticut will recognize credits from other states within ISO-NE until 2010.⁴⁹⁸ Thereafter, Connecticut will additionally recognize credits from New York, Pennsylvania, New Jersey, Maryland, or Delaware if it is deemed at that time that their RPS program standards are similar to Connecticut's.⁴⁹⁹

10. New Hampshire

In New Hampshire, the RPS statute establishes a geographical preference for the ISO-NE-6 and NEPOOL.⁵⁰⁰

11. Maryland

A supplier may request recognition of a REC associated with a Tier 1 or Tier 2 renewable energy source not delivered into the PJM region so long as the electricity is generated within the PJM region or in a state adjacent to the PJM control area.⁵⁰¹

12. Colorado

Colorado requires the acquisition of RECs from on-site solar generation in-state.⁵⁰²

13. Oregon

Oregon enacted its Renewable Portfolio Standard in 2007 through Senate Bill 838.⁵⁰³ The RPS requires utilities to meet a percentage of their retail electricity needs with qualified renewable resources. For the three largest utilities (Portland General Electric, PacifiCorp, and the Eugene Water and Electric Board), the standard starts at 5% in 2011, increases to 15% in 2015, 20% in 2020, and 25% in 2025.⁵⁰⁴ Other electric utilities in Oregon, depending on size, have standards of 5% or 10% in 2025.⁵⁰⁵

Oregon grants the State Department of Energy the authority to

doer-20311.pdf.

498. DPUC Review of RPS Standards and Trading Programs in New York, Pennsylvania, New Jersey, Maryland and Delaware, Docket No. 04-01-13, 2005 WL 3571725 (Conn. Dep't of Pub. Utils. Nov. 9, 2005).

499. *Id.*

500. N.H. REV. STAT. ANN. § 362-F:6(I) (2009).

501. MD. CODE REGS. 20.61.03.03 (2011).

502. COLO. REV. STAT. ANN. § 40-2-124 (West Supp. 2011).

503. S. B. 838, 74th Legis. Assemb., Reg. Sess. (Or. 2007); *Summary of Oregon's RPS*, OREGON.GOV (Sept. 2010), http://www.oregon-rps.org/ENERGY/RENEW/RPS_Summary.shtml (summarizing the effects of S. B. 838).

504. OR. REV. STAT. § 469A.052 (West 2009).

505. *Id.* § 469A.055.

establish a renewable energy certificate system that electric utility or electricity service suppliers can utilize to satisfy and comply with RPS requirements.⁵⁰⁶ Section 469A.135 defines the RECs that may be used to comply with the RPS requirements.⁵⁰⁷ Sections 469A.135(1)(a) and (b) provide that a bundled REC may be used to comply with RPS requirements “if the facility that generates the qualifying electricity for which the certificate is issued is located in the United States and within the geographic boundary of the Western Electricity Coordinating Council” and is delivered to the Bonneville Power Association.⁵⁰⁸ Section 469A.135(2) also geographically limits the applicable RECs by stating an unbundled REC will comply with RPS requirements “if the facility that generates the qualifying electricity for which the certificate is issued is located within the geographic boundary of the Western Electricity Coordinating Council.”⁵⁰⁹

The Western Electricity Coordinating Council (WECC) is an electric interconnection grid including parts of Montana, Nebraska, New Mexico, South Dakota, Texas, Wyoming, and all of Arizona, California, Colorado, Idaho, Nevada, Oregon, Utah, and Washington.⁵¹⁰ The interconnection also includes parts of Mexico and the Canadian provinces of British Columbia and Alberta.⁵¹¹ However, the Oregon statute does state the RECs coming from the WECC must be from the United States, excluding the Mexican and Canadian portions included in WECC’s interconnection grid.⁵¹² RECs can “be used to comply with [RPS] standards without regard to the location of the generating facility” so long as they have been designated by “Bonneville Power Administration . . . as environmentally preferred power, or . . . a similar designation for electricity generated from a renewable resource.”⁵¹³

14. North Carolina

North Carolina’s Renewable Energy and Energy Efficiency Portfolio Standard (REPS), established by Senate Bill 3 in August 2007, requires all investor-owned utilities in the state to supply 12.5% of retail electricity sales (in North Carolina) from eligible energy resources by 2021.⁵¹⁴ Municipal utilities and electric cooperatives must meet a target of 10%

506. *Id.* § 469A.130.

507. *Id.* § 469A.135.

508. *Id.*

509. *Id.*

510. W. ELECT. COORDINATING COUNCIL, BYLAWS OF THE WESTERN ELECTRICITY COORDINATING COUNCIL 1, available at <http://www.wecc.biz/library/WECC%20Documents/Business%20and%20Governance%20Documents/WECC%20Bylaws%202009.pdf>.

511. *Id.*

512. See OR. REV. STAT. § 469A.135.

513. *Id.*

514. N.C. GEN. STAT. ANN. § 62-133.8(b)(1) (West 2009).

renewables by 2018 and are subject to slightly different rules.⁵¹⁵ In February 2008, the North Carolina Utilities Commission (NCUC) issued an order adopting final rules to implement the REPS.⁵¹⁶

North Carolina grants electric public utilities the ability to satisfy the REPS requirements by purchasing RECs and by purchasing power generated by a renewable energy facility.⁵¹⁷ The statute is drafted with clear language signifying the ability for in-state or out-of-state energy or RECs to satisfy the requirement.⁵¹⁸ Electric public utilities may purchase electric power from a renewable energy facility “located outside the geographic boundaries of the State . . . if the power is delivered to a public utility that provides electric power to retail electric customers in the State.”⁵¹⁹ The utilities are also allowed to purchase RECs “derived from in-State or out-of-state new renewable energy facilities.”⁵²⁰ The provision for REC purchasing states that RECs purchased from out-of-state can only account for up to 25% of the requirements.⁵²¹

15. Rhode Island

Rhode Island enacted a Renewable Energy Standard (RES) in June 2004, and requires retail electricity providers to supply 16% of their retail electricity sales from renewable resources by 2019.⁵²² Eligible renewable resources are “generation units in the NEPOOL control area.”⁵²³ The New England Power Pool (NEPOOL) control area includes Maine, New Hampshire, Vermont, Massachusetts, Connecticut, and Rhode Island.⁵²⁴ The regional distinction gives preference to renewable energy generated within New England. Section 39-26-5(c) notes that a generation unit outside the NEPOOL region and located in an adjacent control area may qualify as an eligible renewable energy resource under limited circumstances.⁵²⁵ However, an eligible resource from outside NEPOOL will have generation attributes applied only to the extent that the energy produced by the unit is “actually delivered into NEPOOL for consumption by New England customers.”⁵²⁶

515. *Id.* § 62-133.8(c).

516. 4 N.C. ADMIN. CODE 11.R8-67 (2011).

517. N.C. GEN. STAT. ANN. § 62-133.8(b).

518. *Id.*

519. *Id.* Provision (d) is limited in the sense that the electric public utility cannot sell the RECs created pursuant to this provision to another electric public utility. *Id.*

520. *Id.* § 62-133.8(b)(2)(e).

521. *Id.*

522. R.I. GEN. LAWS § 39-26-4(a) (2006).

523. R.I. GEN. LAWS § 39-26-5.

524. *Company Profile: Overview*, ISO NEW ENGLAND, <http://www.nepool.com/aboutiso/company/overview/index.html> (last visited Oct. 25, 2011).

525. R.I. GEN. LAWS § 39-26-5(c).

526. *Id.*

The Rhode Island statute allows any obligated entity to fulfill its compliance requirements by making alternative compliance payments to the Renewable Energy Development Fund.⁵²⁷ Rhode Island's Renewable Energy Fund was legislatively created in 1996 and is dedicated to increasing the renewable energy supply in the state.⁵²⁸ Rhode Island also signed Public Law ch. 51 into law in 2009 regarding long-term contracts for renewable energy.⁵²⁹ The statute defines long-term contracts as a contract not less than ten years.⁵³⁰ Moreover, "minimum long-term contract capacity" is defined as 90 MW of energy, 3 MW of which "must be solar or photovoltaic projects located in the state of Rhode Island."⁵³¹

16. New Mexico

In 2007, the Renewable Energy Act and Rule 572 established an RPS applicable to all investor-owned utilities in New Mexico.⁵³² New Mexico's RPS requires investor-owned utilities to generate 20% of total retail sales in New Mexico from renewable energy resources by 2020.⁵³³

C. Preference if Equipment Manufactured In-State or Use of In-State Workforce

1. Montana

Montana enacted its Renewable Resource Standard (RRS) in 2005 as a part of the Montana Renewable Power Production and Rural Economic Development Act.⁵³⁴ The RRS requires public utilities and competitive electricity suppliers to obtain 15% of their retail electricity sales from renewable resources by 2015.⁵³⁵ Under M.C.A. § 69-3-2005(3)(a), contracts signed for projects located in Montana "must require all contractors to give preference to the employment of bona fide Montana residents . . . in the performance of the work on the projects."⁵³⁶ The provision grants an in-state preference to Montana workers over out-of-state workers for projects based in Montana. An eligible renewable

527. *Id.* §§ 39-26-4(e), 39-26-7.

528. See *Renewable Energy Fund*, R.I. ECON. DEV. CORP., <http://www.riedc.com/business-services/renewable-energy> (last visited Oct. 25, 2011).

529. 2009 R.I. Pub. Laws 51.

530. *Id.*

531. *Id.*

532. N.M. STAT. ANN. § 62-16-4 (2007); N.M. CODE R. § 17.9.572 (2007).

533. N.M. STAT. ANN. § 62-16-4.

534. MONT. CODE ANN. § 69-3-2001 (2009); MONT. ADMIN. R. 38.5.8301 (2006); *Montana Renewable Resource Standard*, DSIRE, http://www.dsireusa.org/incentives/incentive.cfm?Incentive_Code=MT11R&re=1&ee=1 (last reviewed May 2, 2011).

535. MONT. CODE ANN. § 69-3-2004.

536. *Id.* § 69-3-2005.

resource is defined as a “facility either located within Montana or delivering electricity from another state into Montana.”⁵³⁷

2. Michigan

The state RPS provides a 1.1x credit multiplier for renewable energy produced while using in-state manufactured equipment and for using an in-state workforce, which is only available for three years after the in-service date of the facility.⁵³⁸

3. Delaware

There is a 1.1x credit multiplier for in-state solar and wind installations that are constructed using at least 50% Delaware-sourced equipment and components or using 75% of the workforce to construct the facility from Delaware labor.⁵³⁹

4. Arizona

Although not in effect anymore, Arizona had a 1.5x multiplier on the books for in-state manufacturing and installation content for specific technologies installed on or before December 31, 2005.⁵⁴⁰ A multiplier for in-state manufacturing and installation content for specific technologies installed on or before December 31, 2005 does still exist though with the exact amount to be determined by percentage of in-state content.⁵⁴¹

537. *Id.* § 69-3-2003(10).

538. MICH. COMP. LAWS ANN. § 460.1039(2)(e) (West Supp. 2011).

539. DEL. CODE ANN. tit. 26, § 351 (2005).

540. ARIZ. ADMIN. CODE § R14-2-1806 (2006).

541. *Id.* §§ 14-2-1806(D)–(E).