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Goblets of Fire: Potential Constitutional Impediments to the Regulation of Global Warming

Steven Ferrey*

Almost half the U.S. states have begun to regulate the emission of greenhouse gases and global warming, given that the federal government has not acted. However, these leading states are implementing carbon regulatory measures that, if challenged, may be found to violate the Supremacy Clause and/or Commerce Clause of the U.S. Constitution. If so, these state initiatives, as the lead edge of U.S. policy on global warming, will require time-consuming legal revisions that could affect fundamental allowance allocation in lieu of auction, use of government garnered revenues from state carbon restrictions, and the degree to which states can change wholesale generation prices using carbon regulations as a means to alter the power generation queue and profile. This issue is so important from both an environmental and energy perspective that it is imperative that care is used initially to sculpt a legally sustainable regulatory regime. This Article examines these constitutional issues, focusing on the legal initiatives regarding carbon of the leading ten East Coast states and the State of California.

I. The Goblet of Fire	837
A. “Houston, We Have a Problem”	838
B. Carbon Everywhere and Its Regulation	842
1. The Regional Greenhouse Gas Initiative	844
a. Goals and Regulatory Mechanisms of RGGI	845

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b.	Creation and Auction of RGGI Carbon Allowances	847
c.	Use of RGGI Carbon “Offsets” and Lack of Renewables	851
d.	What Qualifies as a Carbon Offset?.....	852
2.	California’s Different Approach to Carbon Regulation.....	855
a.	The California Carbon Choices	855
b.	Specific California Carbon Emission Standards.....	859
II.	Preventing Carbon Leakage: The Commerce Clause as an Impediment to Regional U.S. Carbon Regulation	862
A.	Leakage and the Law	862
B.	Commerce Clause Requirements	866
C.	Jurisprudential Standards and Different Outcomes.....	868
D.	Where There Is Milk, There Is Fire	870
E.	Can Greenhouse Gas Regulation Be Legally Distinguished Notwithstanding the Supreme Court Precedent?	874
1.	Selective Nature of Subsidies between Carbon and Other Products?.....	874
2.	In Versus Out: Market Segmentation and Energy Services?	875
3.	Environmental Protection Rationales?.....	877
4.	Role of the Wholesale ISO	878
F.	Possible Saving Doctrines: Compensatory Tax and Proprietary Actions; Quarantine	879
1.	Compensatory Tax Doctrine	880
2.	Quarantine Exception	881
3.	Proprietary Actions	881
III.	Federal Preemption of State Carbon Regulation	883
A.	Motive and Program Design Matter—The Auction.....	883
1.	Who Is Paid for Wholesale Power	883
2.	The Stated Motive for Auctioning Carbon Emission Allowances	887
B.	Federal Preemption of Carbon Regulation.....	890
C.	Filed Rate Doctrine	893
D.	Reserved State Legal Discretion; Vulnerability of Carbon.....	899
IV.	The Constitution’s Compact Clause and International Commerce as Procedural Impediments to Multi-State Coordinated Carbon Regulation	900
V.	Extra-Constitutional Legal Impediments.....	903
A.	Unauthorized Tax, Fees and Existing Environmental Requirements	903
VI.	Conclusion: Carbon Regulation Is an Important Regulatory Policy to Get Legally Correct.....	905

I. THE GOBLET OF FIRE

We have chosen as a society to utilize fire to manipulate the universe.¹ For power, we predominantly burn fossil fuels to produce electricity.² That electricity, at least as much as oil, is the seminal technology that creates industrialized and post-industrial nations, and separates the world's "haves" from the "have nots."³ But it has become apparent recently that the carbon expelled into the atmosphere from this "Goblet of Fire" is now torquing the planet's thermostat, perhaps beyond repair.⁴ This is primarily related to the way we produce and utilize power in modern society. It is extremely important to immediately and effectively mitigate greenhouse gas (GHG) emissions.

Heat-trapping greenhouse gases include water vapor,⁵ carbon dioxide (CO₂),⁶ methane (CH₄), nitrous oxides (NO₂), sulfur hexafluoride (SF₆), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).⁷ These GHGs are transparent to radiation in the visible part of the spectrum, but absorbent in the lower frequencies, including the infrared part of the spectrum. Thus, they restrain outgoing radiation trying to leave the earth, and raise the temperature.

1. About three-quarters of the anthropogenic sources of carbon in the atmosphere are the result of the combustion of fossil fuels, while the remaining quarter is the result of deforestation and the resultant inability of the biosphere to assimilate and reprocess this chemical compound. ENERGY INFO. ADMIN., DEP'T OF ENERGY, DOE/EIA-X012, GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY 1 (2008), available at <http://www.eia.doe.gov/bookshelf/brochures/greenhouse/greenhouse.pdf> [hereinafter ENERGY INFO. ADMIN., GREENHOUSE GASES]. Many researchers suspect shifting land patterns to be as significant as industrial emissions in terms of their contribution toward global climate change. See, e.g., Roger A. Pielke, Sr. et al., *The Influence of Land-use Change and Landscape Dynamics on the Climate System: Relevance to Climate-Change Policy Beyond the Radiative Effect of Greenhouse Gases*, 360 PHIL. TRANSACTIONS ROYAL SOC'Y LONDON: MATHEMATICAL PHYSICAL AND ENGINEERING SCI. 1705, 1706 (2002). Still, it is projected that the electric power sector will account for 35% of anthropogenic CO₂ emissions. Energy Info. Admin., Dep't of Energy, International Energy Outlook 2008: Highlights (June 2008), <http://www.eia.doe.gov/oiaf/ieo/highlights.html>.

2. Seventy percent of power generation in the United States is from the combustion of fossil fuels. ENERGY

Water vapor in the atmosphere is created by the transpiration of cooler air passing over warmer water bodies. Carbon dioxide and methane originate from non-biological sources, animal respiration, and organic waste. CO₂ is also formed as a by-product of combustion, which accounts for about two-thirds of human-generated GHGs.⁸ Globally, fossil-fuel fired power plants are responsible for 30% of anthropogenic CO₂ emissions,⁹ and the U.S. Environmental Protection Agency attributes 33% of United States GHG emissions to electric power production.¹⁰

According to the 2007 study by the Intergovernmental Panel on Climate Change (IPCC), the global average temperature between now and the year 2100 may be expected to rise between 1.1 and 6.4 degrees Celsius.¹¹ It is important to note, however, that the IPCC's best estimate for temperature rise is between 1.8 and 4 degrees Celsius.¹² The 2007 report also predicts that in the same time period (2007–2100), sea levels will rise by approximately 0.6 to 1.9 feet, noting that such numbers may be increased by 3.9 to 7.8 inches if the ongoing rapid polar ice melt continues.¹³

A. “Houston, We Have a Problem”¹⁴

Carbon reduction in the electric power sector is the urgent new policy focus for mitigation of the effects of global warming. In the absence of federal action in the United States,¹⁵ several states have taken the lead with innovative carbon regulatory schemes: at the time of this Article's publication, ten eastern states have combined into the Regional Greenhouse Gas Initiative (RGGI) to regulate CO₂ from their power plants,¹⁶ California has initiated a

8. Feeling the Heat—The Greenhouse Effect and the Carbon Cycle, http://unfccc.int/essential_background/feeling_the_heat/items/2903.php (last visited Nov. 30, 2008).

9. URANIUM INSTITUTE, RESPONDING TO GLOBAL CLIMATE CHANGE: THE POTENTIAL CONTRIBUTION OF NUCLEAR POWER, <http://www.world-nuclear.org/info/climate.html> (last visited Nov. 30, 2008).

10. U.S. ENV'T'L PROT. AGENCY, INVENTORY OF U.S. EMISSION OF GREENHOUSE GASES AND SINKS: 1990–2005: DRAFT FOR PUBLIC REVIEW, ES-14 (2007), available at <http://www.epa.gov/climatechange/emissions/downloads07/07CR.pdf>.

11. WORKING GROUP 1, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, U.N. ENV'T. PROGRAMME, SUMMARY FOR POLICY MAKERS (2007), available at <http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>.

12. *Id.*

13. *Id.*

14. While this phrase accurately assesses the current state of our country's climate change situation, and is a memorable phrase from the Ron Howard-directed movie, *Apollo 13*, it is historically inaccurate. This Tom Hanks tag line was never actually uttered during the actual Apollo 13 moon orbit mission. See NASA, Detailed Chronology of Events Surrounding the Apollo 13 Accident (Jan. 24, 2006), <http://history.nasa.gov/Timeline/apollo13chron.html>.

15. See *Massachusetts v. EPA*, 127 S. Ct. 1438, 1461 (2007). “EPA has not identified any congressional action that conflicts in any way with the regulation of greenhouse gases from new motor vehicles.” *Id.*

16. See Reg'l Greenhouse Gas Initiative, Participating States, <http://www.rggi.org/states> (last visited Nov. 30, 2008).

comprehensive regulation of all GHGs from all sources,¹⁷ other western¹⁸ and midwestern¹⁹ states are undertaking global warming mitigation programs, and there is a federal voluntary GHG reporting scheme.²⁰

However, there are significant constitutional flaws in almost all of the legal designs of the carbon reduction schemes initiated by these active leading states. If not corrected, those flaws will embroil the carbon reduction efforts in litigation while the world grows hotter. It is imperative that environmental and energy policy be formulated to attack the critical carbon problem in a coherent approach that employs legally sustainable tools. With regard to the constitutionality of these efforts, “we have a problem.”

First, there are Commerce Clause issues:²¹ because states do not want the carbon costs that they impose on their in-state power generators to encourage higher-carbon out-of-state power imports, they are moving to secure their borders, or at least surcharge and dissuade intruding power flows.²² Wholesale

17. CAL. HEALTH & SAFETY CODE §§ 38500–38599 (West 2007), available at http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf.

18. The Western Climate Initiative is a group of six western states and two Canadian provinces that plan to release a carbon restriction program late in 2008 that will cut GHG emissions 15% below 2005 levels. See Ethan Howland, *Power Lines, Renewables, Climate Change Are at Top of New Mexico Agenda in 2008*, ELECTRIC UTIL. WEEK, Jan. 14, 2008, at 26; Lisa Weinzimer, *California Regulators Call for ‘First-Seller’ Variation of Cap-and-Trade GHG Approach*, ELECTRIC UTIL. WEEK, Feb. 18, 2008, at 17.

19. See generally, Midwestern Governor’s Ass’n, *Midwestern Greenhouse Gas Accord*, 2007 (Nov. 15, 2007), available at <http://www.midwesternaccord.org/midwesterngreenhousegasreductionaccord.pdf>; Mike Granstaff, *EcoAgri.biz*, *Cap and Trade—A Primer* (Jan. 21, 2008), <http://www.ecoagri.biz/0801cap.aspx>. These states include Iowa, Illinois, Kansas, Michigan, Minnesota and Wisconsin, and the Canadian province of Manitoba. Dean Scott, *Midwestern States to Draw up Model Rule by end of 2008 to Implement Cap and Trade*, 39 Env’t Rep. (BNA) 343 (Feb. 22, 2008). Each state’s governor and the Premier of Manitoba, Canada executed a regional greenhouse gas emission reduction strategy. *Id.* Indiana, Ohio and South Dakota have opted out of the Midwestern Greenhouse Gas Reduction Accord and are now observers. *Id.* This accord will not set a specific target but will attempt to cut emissions by 2020. See MIDWESTERN GREENHOUSE GAS REDUCTION ACCORD, PRELIMINARY RECOMMENDATIONS OF THE ADVISORY GROUP: 11/1/08 DRAFT 2 (2008), <http://www.midwesternaccord.org/News%20Page/Accord%20Draft%20Recs%2011%201%2008.doc>. This region depends heavily on coal-fired electric generation. A model rule is expected by the end of 2008, and the industries affected are expected to be broader than under the RGGI. Scott, *supra*; see also Nora Macaluso, *Midwest States to Commence Work on Details of Regional Climate Strategy*, 38 Env’t Rep. (BNA) 2556 (Nov. 30, 2007).

20. See Energy Policy Act of 1992, 42 U.S.C. § 13385 (2006); see also Press Release, Office of Public Affairs, U.S. Dep’t of Energy, *DOE Strengthens Public Registry to Track Greenhouse Gas Emissions* (Apr. 17, 2006), available at <http://www.pi.energy.gov/enhancingGHGregistry/documents/1605BApril172006.pdf> (outlining recent changes to voluntary U.S. program).

21. U.S. CONST. art. I, § 8, cl. 3 (“The Congress shall have the Power . . . To regulate Commerce with foreign Nations, and among the several States . . .”).

22. See RGGI EMISSIONS LEAKAGE MULTI-STATE STAFF WORKING GROUP, REG’L GREENHOUSE GAS INITIATIVE (RGGI), *POTENTIAL EMISSIONS LEAKAGE AND THE REGIONAL GREENHOUSE GAS INITIATIVE: EVALUATING MARKET DYNAMICS, MONITORING OPTIONS, AND POSSIBLE MITIGATION MECHANISMS* (2007), available at http://www.rggi.org/docs/il_report_final_3_14_07.pdf [hereinafter RGGI WORKING GROUP].

electricity moves constantly in interstate commerce at the speed of light.²³ States are trying to restrict “leakage” into their borders of less-costly power whose carbon is not regulated or affected, which leaps state boundaries from non-RGGI states into the RGGI zone.²⁴ Because the states are attempting to not only regulate carbon produced within their borders, but also use point-of-origin regulation to create carbon-regulated islands into which externally-produced wholesale power cannot enter without penalty,²⁵ they will face significant dormant Commerce Clause problems.

Second, there are Supremacy Clause issues.²⁶ Most RGGI states will implement the first auction of rights to emit pollutants in the history of environmental regulation rather than allocate rights to currently emitting sources as has traditionally always been done. All ten RGGI states appear to be auctioning emission rights to a greater or lesser degree, and the debate between different stakeholders on this issue has currently consumed California regulators. The six New England RGGI states and New York, the RGGI leader, will auction between 75% and 100% of their allowances beginning immediately.²⁷ Maryland is equivocating. The decision of every state to date to maximize associated revenues by auctioning all or almost all of their newly created allocations for power plants to emit carbon, triggers Supremacy Clause concerns.²⁸ States officially have expressed that the purpose of this auction to increase the price for certain high-emitting carbon power plant operations (coal in particular), as a way to change the dispatch of which plants are allowed to

23. See 1 STEVEN FERREY, *THE LAW OF INDEPENDENT POWER*, § 2:1 (2007) [hereinafter FERREY, *LAW OF INDEPENDENT POWER*]; Steven Ferrey, *Inverting Choice of Law in the Wired Universe: Thermodynamics, Mass and Energy*, 45 WM. & MARY L. REV. 1839, 1914 (2004) [hereinafter Ferrey, *Inverting Choice*].

24. RGGI WORKING GROUP, *supra* note 22, at ES-1. RGGI States such as New Jersey, New York, and Maryland are bordered by states that are not signatories to RGGI and do historically produce a large of volume of electricity from coal-fueled power plants. *Id.* Similarly, California imports power from eleven states, including a large amount of coal-fired power. See CALIFORNIA ENERGY COMMISSION, 2006 NET SYSTEM POWER REPORT, available at <http://www.energy.ca.gov/2007publications/CEC-300-2007-007/CEC-300-2007-007.PDF> (showing California imports approximately 10% of its total electricity from out of state coal plants).

25. To date, six states—Connecticut, Maine, Maryland, Massachusetts, Rhode Island, and Vermont—have decided to auction their allowances. Green Business, RGGI States Announce First Emissions Auction, <http://www.green-business.ca/RGGI-States-announce-first-emissions-auction.html> (last visited Nov. 26, 2008); see also PRE-PROPOSAL OF VERMONT’S RULE TO IMPLEMENT THE REGIONAL GREENHOUSE GAS INITIATIVE (Vt. Dep’t of Envtl. Conservation, Draft 2007), available at <http://www.anr.state.vt.us/air/docs/VTPreProposal%20Draft%20Rule%20to%20Implement%20RGGI.pdf>; N.Y. COMP. CODES R. & REGS. tit. 6 § 242 (2008); Maine Act to Establish the Regional Greenhouse Gas Initiative, ch. 317 (June 18, 2007), available at <http://janus.state.me.us/legis/LawMakerWeb/externalsiteframe.asp?ID=280024997&LD=1851&Type=1&SessionID=7>.

26. U.S. CONST. art. VI, § 2 (“This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the authority of the United States, shall be the supreme Law of the land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”).

27. Lisa Wood, *RGGI Effect Goes Beyond Mandates, Brings Wave of Changes to New England Energy Policy*, ELECTRIC UTIL. WEEK, Sept. 1, 2008 at 1.

28. See *infra* Part II.A.

operate by the regional independent system operator (ISO)²⁹ which controls plant operating schedules in order of lowest cost of operation.

When states deliberately, but indirectly, change wholesale electric power dispatch order by inflating the otherwise federally jurisdictional wholesale (including carbon costs) price at which power plants are approved to operate, that regulation can be questioned constitutionally as not within state power under the Supremacy Clause.³⁰ The constitutional bright line between federal and state jurisdiction over electric power issues has been firmly carved in the judicial firmament over three-quarters of a century, including a relatively recent Supreme Court opinion.³¹ For a state to cross it now is to invite examination of its regulatory system.

Third, there are issues under the Compact Clause of the U.S. Constitution³² when, without federal permission, states combine in such an effort regarding carbon.³³ Two of the four basic carbon regulatory schemes of the states—the West and the Midwest—also include Canadian provinces. This regulation also could be examined as to whether it infringes exclusive federal power over international matters.

Intelligent and legally sustainable carbon policy is imperative and urgent. Some of the most knowledgeable climatologists argue that we have only until 2015 to radically reduce the emission rate of CO₂, or face a very different planet.³⁴ It does little to meet these urgent goals if state carbon restrictions, crafted without careful attention to constitutional requirements, result in protracted litigation on constitutional violations that truncates or halts their implementation.

Finally, there are non-constitutional statutory legal challenges that can be lodged against some of the state carbon programs. These include the argument that the decision to auction carbon allowances, rather than provide them without charge to existing emission sources, constitutes an unauthorized tax under state statute and violates environmental statutes, including requirements for environmental impact assessments. Such challenges have already been suggested against New York's RGGI carbon program on the East Coast.³⁵ While these non-constitutional issues may be remedied by legislation at the

29. See *infra* Part III.A.

30. See *infra* Part III.B–C.

31. 16 U.S.C. § 824 (a), (d) (2006); *Fed. Power Comm'n v. S. Cal. Edison Co.*, 376 U.S. 205, 216 (1964).

32. U.S. CONST. art. I, § 10, cl. 3 (“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.”).

33. See *infra* Part IV.

34. McKibben, *supra* note 4, at 23 (quoting Jim Hansen, *The Threat to the Planet*, N.Y. REV. BOOKS, July 13, 2006).

35. See *infra* Part V.

state level, this is not true of the federal constitutional challenges. Even federal legislation will not supersede requirements of the U.S. Constitution.

The purpose of this Article is not only to point out the constitutional issues, but to focus defensible U.S. carbon policy. This Article dissects what states are doing with greenhouse gas policy for power plant emissions, and what significant constitutional challenges they may be confronting. It is important to implement carbon policy quickly and in ways that do not invite legal vulnerability. At several points, I suggest solutions to keep carbon policy legally on track and to create market certainty. What is necessary to achieve real reductions in carbon dioxide emissions is intelligent, legally defensible carbon regulatory policy.

B. *Carbon Everywhere and Its Regulation*

Greenhouse gases, specifically carbon dioxide, have been identified by many leading scientists as a significant cause of the increase in the earth's temperature.³⁶ The potential increase already set in motion has been estimated in different scientific models to be up to 8 degrees Celsius within forty years.³⁷ In response, policies to monitor and restrain the emission of GHGs were adopted in the Kyoto Protocol, requiring participating countries to lower their emissions by an average of 8% as compared to their 1990 levels.³⁸ After 2012, the World community will have to establish additional controls on greenhouse gases after the first commitment period under the Kyoto Protocol ends.³⁹ President Bush formally withdrew the United States from participating in the Kyoto Protocol in 2001.⁴⁰

There are a variety of policy choices that are made in any market-based environmental regulatory scheme to regulate carbon emissions:

- Whether to target just the electric power sector, or also various other high-carbon emitting sectors;
- Whether to regulate the creation of carbon emitting resources (upstream or wholesale levels), or to regulate at the point of ultimate atmosphere emission of GHGs (downstream or retail levels);
- Whether to regulate CO₂ alone or also to regulate other GHGs;

36. See U.N. Framework Convention on Climate Change, Joint Science Academies' Statement: Global Response to Climate Change, June 7, 2005, available at <http://royalsociety.org/displaypagedoc.asp?id=20742> (stating that "there is now strong evidence that significant global warming is occurring" and "it is vital that all nations identify cost-effective steps that they can take now, to contribute to substantial and long-term reduction in net global greenhouse gas emissions").

37. William Robert Johnston, Global Warming (May 31, 2004), <http://www.johnstonsarchive.net/environment/wrjp365g.html>.

38. *Conference of the Parties to the Framework Convention on Climate Change: Kyoto Protocol*, 137 I.L.M. 22 (1998).

39. See Kyoto Protocol, http://unfccc.int/kyoto_protocol/items/2830.php (last visited Nov. 30, 2008).

40. See Margaret Kriz, *Warm-up Drills*, 37 NAT'L J. 906, 906 (2005).

- Whether GHG allowances to emit GHGs are distributed free to traditional emission sources or are auctioned to the highest bidders;
- Which entities are eligible to purchase and trade allowances;
- Periods of eligibility for use of allowances of a particular vintage, and banking and carryover of allowances;
- Whether compliance can be achieved by regulated entities through creation and use of offsets (reductions in carbon at other sources), and if so what kinds of projects are eligible for creation of offsets, and what requirements are imposed for “additionality”⁴¹ of those emissions results.

There are two advanced regional carbon regulatory schemes in the United States:⁴² the Regional Greenhouse Gas Initiative involving ten eastern states and the California greenhouse gas regulation system. Those states that are participating in the RGGI scheme and California are significant in scale—combined, they approach the entire emissions of the nation of Japan, one of the largest Kyoto participants. California alone is among the sixteen highest GHG

41. A great concern about carbon trading among stakeholders are the requirements of “additionality.” U.S. Government Accountability Office, “Carbon Offsets: The U.S. Voluntary Market is Growing, but Quality Assurances Poses Challenges for Market Participants,” GAO-08-1048, August 2008, at 25. “Additionality” is the requirement in most carbon control statutes or regulations that only “additional” or non-business-as-usual carbon-reduction projects legally qualify to create carbon “offsets;” “offsets” create tradable credits for compliance with these carbon policies. See REG’L GREENHOUSE GAS INITIATIVE, MODEL RULE (Jan. 5, 2007), available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf

42. There are some voluntary programs. With the passage of the Energy Policy Act of 1992, Congress authorized a voluntary program to encourage the public to report achievements in reducing GHG emissions. Pub. L. No. 102-486, 106 Stat. 2776 (1992). Beginning in October of 1994, the U.S. Department of Energy issued guidelines on the voluntary reporting of emissions reductions and carbon sequestration. U.S. DEP’T OF ENERGY, VOLUNTARY REPORTING OF GREENHOUSE GASES UNDER SECTION 1605(b) OF THE ENERGY POLICY ACT OF 1992: GENERAL GUIDELINES (1994), available at <http://www.eia.doe.gov/oiaf/1605/1605b.html>. This program, though, only offers an opportunity to report annual GHG emissions and record projects that reduce emissions or increase carbon sequestration, but does not provide a mechanism or monetary incentives to reduce carbon emissions. *Id.* The Chicago Climate Exchange (CCX) was among the first to create a voluntary, legally binding multi-sector reduction and trade program that provides true monetary incentives. Chicago Climate Exch., History (2007), <http://www.chicagoclimatex.com/content.jsf?id=1>. CCX is currently the single voluntary emissions trading system for all six GHGs and has almost 300 members from various sectors worldwide. *Id.* Another voluntary program is the Western Climate Initiative (WCI). See Cathy Cash, *Western Region Plan to Reduce GHG Emissions has Energy Suppliers Waiting for Specifics*, ELECTRIC UTIL. WEEK, Aug. 27, 2007, at 1. In a regional effort to address climate change, the governors of Oregon, Washington, California, Arizona, New Mexico, and Utah, as well as the premiers of British Columbia and Manitoba signed an agreement establishing the Western Climate Initiative. *Id.* The original agreement was signed in February 2007 by Governors of Arizona, California, New Mexico, Oregon, and Washington. *Id.* In May 2007, the state of Utah and the Canadian provinces of British Columbia and Manitoba joined WCI. Energy Information Administration, State Regulations on Airborne Emissions: Update Through 2007, http://www.eia.doe.gov/oiaf/aeo/otheranalysis/aeo_2008analysispapers/sraemissions.html (last visited Nov. 30, 2008). The states of Kansas, Colorado, Wyoming and Nevada, the Canadian provinces of Ontario, Quebec and Saskatchewan and one Mexican state, Sonora, will participate in WCI as observers. *Id.*

emitting entities among world nations.⁴³ California's GHG emissions are comparable to those of Indonesia,⁴⁴ the fourth most populous nation in the world. The states in these two U.S. schemes have recently made deliberate choices that expose the programs to probable constitutional challenges and possible disqualification. While these states and some economists favor the efficiency of upstream regulation when the carbon sources first enter the stream of commerce, rather than at the point of actual emission of GHGs,⁴⁵ this raises legal issues.

1. *The Regional Greenhouse Gas Initiative*

To fill the vacuum left by the United States' refusal to participate in the Kyoto Protocol, many states have taken direct regulatory action.⁴⁶ Beginning in April 2003, Governor George Pataki of New York initiated the effort by inviting neighboring states to participate in a regional cap-and-trade emissions program. On September 29, 2003, the executive branch environmental agency heads of six northeastern states, including New York, agreed on both guiding principles and an initial timeline for development of the RGGI program.⁴⁷

The Guiding Principles Agreement provided: "The initial phase of the cap and trade program will entail the allocation and trading of carbon dioxide allowances to and by sources in the power sector only."⁴⁸ However, most states now implementing RGGI offer an auction of allowances to essentially any bidder, not an allocation to affected facilities as contemplated in the Guiding Principles Agreement.⁴⁹ This change, as discussed below, is a key constitutional issue.

43. CAL. ENERGY COMM'N, INVENTORY OF CALIFORNIAN GREENHOUSE GAS EMISSIONS AND SINKS III 20 (2006), available at www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.pdf.

44. *See id.*

45. *See* Sheila M. Olmstead & Robert N. Stavins, *A Meaningful Second Commitment Period for the Kyoto Protocol*, ECONOMISTS' VOICE, May 2007, at 3, available at <http://www.bepress.com/ev/vol4/iss3/art1/>.

46. For example, prior to joining any formal agreement, Massachusetts had enacted its own regulations to reduce CO₂ emissions by 10% from 1997–1999. 310 MASS. CODE REGS. 7.29 (2008).

47. *See* REG'L GREENHOUSE GAS INITIATIVE, GOALS, PROPOSED TASKS, SHORT-TERM ACTION ITEMS (2003), available at <http://www.rggi.org/docs/actionplanfinal.pdf>.

48. *Id.* at 1.

49. *Id.* In Massachusetts' RGGI rules, for example, any bidder may bid for up to one-quarter of all available allowances at an auction. *See* REG'L GREENHOUSE GAS INITIATIVE, AUCTION NOTICE FOR CO₂ ALLOWANCE AUCTION 2 ON DECEMBER 17, 2008 § 7.2.3 (2007), available at http://www.rggi.org/docs/Auction_Notice_Oct_13_2008.pdf. This will invite market makers and speculators to bid for allowances, with the hope to create a profit through a secondary market after winning allowances. *See infra* notes 88–92, 96.

a. *Goals and Regulatory Mechanisms of RGGI*

On December 20, 2005, seven states, including Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York and Vermont, entered into an agreement to implement the Regional Greenhouse Gas Initiative.⁵⁰ Since that time, Massachusetts, Maryland, and Rhode Island have agreed to sign the RGGI Memorandum of Understanding (MOU) (collectively, RGGI states).⁵¹ The principal goal of the MOU is for RGGI states to:

commit to propose for legislative and/or regulatory approval a CO₂ Budget Trading Program (the Program) aimed at stabilizing and then reducing CO₂ emissions within the Signatory States, and implementing a regional CO₂ emissions budget and allowance trading program that will regulate CO₂ emissions from fossil fuel-fired electricity generating units having a rated capacity equal to or greater than 25 megawatts.⁵²

The market-based design of the RGGI MOU is a cap-and-trade program. “Cap-and-trade systems operate by capping the amount of [CO₂] emissions allowances, distributing emissions allowances to sources up to the cap, and requiring each covered source to have sufficient allowances to cover its [CO₂] emissions at the end of each compliance period.”⁵³ This is a supply side initiative: “CO₂ emission allowances will be allocated to, and traded among, fossil fuel-fired electricity generators within the region that supply electricity to the grid.”⁵⁴ The first emissions trading programs in the United States included those applied to the phase-down of leaded gasoline in the 1980s, compliance with the Montreal Protocol for reduction of ozone depletion, reduction of SO₂ emissions in the 1990 Clean Air Act, the 1994 RECLAIM program in southern California to reduce NO_x and SO₂ emissions, and the EPA NO_x reduction in twelve northeast states under the Ozone Transport Commission program.⁵⁵

50. REG’L GREENHOUSE GAS INITIATIVE, MEMORANDUM OF UNDERSTANDING (2005), available at http://www.rggi.org/docs/mou_final_12_20_05.pdf [hereinafter RGGI MOU].

51. Massachusetts and Rhode Island were originally given the status of observing states. Press Release, State of Mass., Gov. Patrick Signs Regional Pact to Reduce Greenhouse Gas Emissions (Jan. 18, 2007), available at http://www.mass.gov/?pageID=pressreleases&agId=Agov3&prModName=gov3pressrelease&prFile=reduce_greenhouse_gases011807.xml; Press Release, State of R.I., Lt. Gov. Roberts Calls for R.I. to Join Regional Greenhouse Gas Initiative (January 23, 2007), available at <http://www.ri.gov/press/view.php?id=3423>. In January 2007, both agreed to formally join RGGI as signatory states. *Id.* Maryland, a predominantly coal-powered electricity generating state in contrast to the other RGGI states, also subsequently joined RGGI in 2006. Press Release, State of Md., Gov. Martin O’Malley Signs Greenhouse Gas Agreement, Climate Change Executive Order (April 20, 2007), available at <http://www.gov.state.md.us/pressreleases/070420.html>.

52. RGGI MOU, *supra* note 50, at 2.

53. Edna Sussman, *New York Addresses Climate Change with the First Mandatory U.S. Greenhouse Gas Program*, N.Y. ST. B.J., May 2006, at 43, 44.

54. Hedy Bolster, Note, *The Commerce Clause Meets Environmental Protection: The Compensatory Tax Doctrine as a Defense of Potential Regional Carbon Dioxide Regulation*, 47 B.C. L. REV. 737, 744 (2006) (citing RGGI MOU, *supra* note 50, at 2).

55. Robert Stavins, *Addressing Climate Change with a Comprehensive U.S. Cap-and-Trade System*, at 2, 3 (Kennedy School of Government Faculty Research Working Paper, Paper No. RWP07-

The RGGI Staff Working Group (SWG) finalized the Draft Model Rule (Model Rule) in January 2007. The Model Rule is the product of over two years of work by the SWG and it serves as the foundation upon which the RGGI states will base their individual model rules. The Model Rule will be used by each state as a starting point for obtaining regulatory or legislative approval of its cap-and-trade carbon program.

The RGGI MOU sets the start date for the program in 2009, making it the earliest program in the United States. At that time, CO₂ emissions from power plants in the region will be capped at current levels⁵⁶ and the cap will remain in place until 2015.⁵⁷ RGGI states would then begin the process of incrementally reducing power plant emissions, with the goal of achieving a 10% reduction by 2019.⁵⁸

The MOU creates an annual regional CO₂ emissions budget for the years 2009 through 2014, apportioned among the participating RGGI states.⁵⁹ Beginning in 2015, each RGGI state's annual CO₂ emissions budget would decline by 2.5% per year "so that each state's base annual emissions budget for 2018 will be 10% below its initial base annual CO₂ emissions budget."⁶⁰ By 2020, the program is expected to reach an emissions reduction of approximately 35% compared to a business-as-usual unregulated scenario.⁶¹

The reality of the pending carbon regulation is pointing to carbon allocation prices much higher than the \$7 per ton that has been modeled.⁶² RGGI offsets have already traded at \$7 to \$10 per ton even before the first auction of RGGI allowances.⁶³ Nonetheless, some observers have noted that the impact of carbon allowances in shifting the generating mix to low-carbon technologies in the RGGI region, given the large existing quantity of higher carbon coal-fired generating plants in adjacent states, will be a forty to fifty

53, 2007), available at [http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP07-053/\\$File/rwp_07_053_stavins.pdf](http://ksgnotes1.harvard.edu/Research/wpaper.nsf/rwp/RWP07-053/$File/rwp_07_053_stavins.pdf).

56. The regional base annual CO₂ emissions cap will be equal to 121 million short tons. RGGI MOU, *supra* note 50, at 2.

57. *Id.* at 3.

58. Press Release, Reg'l Greenhouse Gas Initiative, States Reach Agreement on Proposed Rules for the Nation's First Cap-and-Trade Program to Address Climate Change, 1, 2 (Aug. 15, 2006), available at http://www.rggi.org/docs/model_rule_release_8_15_06.pdf.

59. See RGGI MOU, *supra* note 50, at 2-3.

60. *Id.* at 3. In an apparent effort to convince Massachusetts to sign the RGGI MOU, NYSDEC's Commissioner agreed to surrender one million tons of CO₂ emissions that otherwise would have been included in New York State's CO₂ emissions budget. See E-mail from Denise Sheehan, Commissioner, N.Y. State Dep't of Env'tl. Conservation, to RGGI Agency Heads et al. (August 11, 2006) (on file with author).

61. *Id.*

62. See Harvard Electric Policy Group, Rapporteur's Summary at the Harvard Electric Policy Group 49th Plenary Session 34 (Dec. 6-7, 2007), available at <http://www.hks.harvard.edu/hepg/RapporteurReport12-07.pdf>.

63. Cathy Cash, *Banks, Investment Firms, Find Positions for Gigantic Carbon Market*, ELECTRIC UTIL. WEEK, June 30, 2008, at 2.

year process, not a five to ten year process.⁶⁴ Prices much higher than \$7 per ton of carbon have been identified as necessary to change very inelastic consumer power consumption behavior.⁶⁵

b. Creation and Auction of RGGI Carbon Allowances

Each individual allowance provides a limited authorization to emit one ton of CO₂ during the preceding control period.⁶⁶ Each control period runs for three years—with the first control period commencing on January 1, 2009 and ending on December 31, 2011.⁶⁷ The MOU allows affected facilities to take credit for CO₂ emissions reductions achieved prior to the onset of the RGGI program (i.e., prior to 2009) which will thereby create additional allowances. In addition, allowances, offset allowances, and early reductions may be carried over to subsequent years (i.e., “banked”).

One significant aspect of the Model Rule is its requirement that each state reserve a minimum of 25% of that state’s carbon allowances for “consumer benefit or strategic energy purpose[s].”⁶⁸ Depending on the market for carbon allowances, this could leave states with millions of dollars in an essentially open-ended fund. Consumer benefits could range from supplementing consumer electricity bills or funding state-run energy efficiency programs, to putting the money back into state coffers. The Congressional Budget Office estimated that the cost of an allowance would start to be traded at \$23 per ton.⁶⁹ In reaction to the “consumer benefit or strategic energy purpose” requirement, power producers lobbied states to only auction the minimum of 25% of carbon allowances and to allocate the remaining shares to power producers based on their historical or future energy production levels without charging for these allocations.⁷⁰ It is unprecedented in U.S. environmental regulation history that the allocations for emissions be auctioned rather than given to existing

64. See Harvard Electric Policy Group, *supra* note 62, at 39.

65. See *id.* at 46 (indicating that prices as high as fifty dollars per ton are necessary to motivate consumer behavior changes).

66. N.Y. COMP. CODES R. & REGS. tit. 6 § 242-1.2(11) (2008). The sixth offset category, projects to reduce fugitive methane emissions from natural gas transmission and distribution, was removed from the RGGI MOU by an amendment dated August 8, 2006.

67. N.Y. COMP. CODES R. & REGS. tit. 6 § 242-1.2(b)(33) (2008).

68. REG’L GREENHOUSE GAS INITIATIVE MODEL RULE § XX-5.3(a)–(b) (2007), available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

69. *Full Committee Oversight Hearing: To Receive Testimony on Energy and Related Economic Effects of Global Climate Change Legislation (SD-366) Before the S. Comm. on Energy and Natural Resources*, 110th Cong. 10 (2008) (Statement of Peter Orszag, Director, Congressional Budget Office).

70. One power producer, National Grid, has advocated auctioning 100% of the allowances and then having the state use the money to supplement consumer rates. Letter from Joseph M. Kwasnik, Vice President—Environmental, National Grid, to Franz Litz, Policy Change Coordinator, N.Y. State Dep’t of Env’tl. Conservation (May 22, 2006), available at http://www.rggi.org/docs/national_grid_whitepaper.pdf. These generators propose that the costs spent on allowances by the utilities will be passed along to the consumer, resulting in higher retail prices for consumers. *Id.*

sources.⁷¹ The scale of an auction of all allocations would be unprecedented in the world.⁷²

There also is little experience internationally for auctioning any emission allowances. For the history of the European Union (EU) carbon program, allowances have been given away for free, mirroring the U.S. Clean Air Act emission allowance programs in which almost all allowances have been given away to regulated emitters without charge.⁷³ The EU European Trading Scheme utilizes National Allocation Plans for the free distribution of allowances.⁷⁴ This system covers only CO₂ and to date less than 50% of EU emissions.⁷⁵ Additionally, no EU country is now allowed to auction more than 5% of the allowances.⁷⁶ After 2012, the EU is likely to shift to an auction of all power sector allowances in the EU, eliminating all free traditional allocation by 2020.⁷⁷ This will build on the earlier decisions in RGGI in the United States.

Some observers have noted that even five years ago, auctioning allowances for emissions was thought to be a “crazy idea.”⁷⁸ All of that has changed in the past year. Some have argued that allowances should be auctioned in the RGGI system because a state government has the right to control the quality of its common airs, and doing so internalizes all of the costs inside the auction system.⁷⁹

71. Roman Kramarchuk, *All Out Auctions?*, ENVTL. FIN., Mar. 2007, at 45, 45 available at http://www.environmentalmarkets.org/galleries/default-file/Kramarchuk%20ef3marketview_p45.pdf (noting that EPA auctions only 1% of total SO₂ allowances and this does not include any auction to pre-existing sources, which are freely allocated to electric power generators).

72. See Harvard Electric Policy Group, *supra* note 62, at 36.

73. Orszag, *supra* note 69, at 9.

74. European Climate Change Programme, National Allocation Plans: First Phase (2005-2007) (Oct. 14, 2008), http://ec.europa.eu/environment/climat/emission/emission_plans.htm.

75. Twenty-seven EU members constitute the core of the 30 European Annex 1 Kyoto countries. Directive 2003/87/EC of the European Parliament and of the Council, 2003 O.J. (L 275) 32, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:275:0032:0046:EN:PDF> (amending Council Directive 96/61/EC (the “EU Directive”). Phase II of the EU ETS second phase corresponds to the Kyoto 2008-2012 initial phase. See *id.* The EU system caps emissions of about 4000 companies at 11,500 installations. *Id.* This covers larger steel, combustion facilities, oil refineries, pulp and paper mills, cement, ceramics, and glass facilities. *Id.* Aviation was not included. See *id.* Trading is allowed. *Id.*; see also Press Release, EU Emissions Trading System, Questions and Answers on the Commission’s Proposal to Revise the EU Emissions Trading System, § 19 (January 23, 2008), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/35&format=HTML&aged=0&language=EN&guiLanguage=en>.

76. See Harvard Electric Policy Group, *supra* note 62, at 37. This EU system attempts to accomplish an 8% CO₂ reduction from 1990 levels. *Id.*

77. Comm’n of the European Communities, Proposal for a Directive of the European Parliament and of the Council Amending Directive 2003/87/EC so as to Improve and Extend the Greenhouse Gas Emission Allowance Trading System of the Community 15 (2008), available at <http://www.europeanenergyforum.eu/archives/european-union/eu-general-topic-file/eu-environment/third-energy-package-climate-action-and-renewable-energy/amending-directive-2003-87-ec-so-as-to-improve-and-extend-the-greenhouse-gas-emission-allowance-trading-system-of-the-community>.

78. See Harvard Electric Policy Group, *supra* note 62, at 38.

79. See *id.* at 38.

Forcing power producers to pay for all of their carbon allowances could, however, create a competitive disadvantage for in-state producers if neighboring states' generators are given allowances without charge or are not required to procure carbon allowances.⁸⁰ All the ten original RGGI states have ISOs or regional transmission organizers (RTOs), so there are competitive wholesale markets that will have to incorporate the cost of obtaining carbon allowances. According to a 2008 analysis by the staff of the House of Representatives Commerce Committee, a "tough state program 'may just shift the location of, rather than decrease, national emissions because the sources subject to the more stringent state program will need fewer allowances, thus freeing up allowances for sources in other states.'"⁸¹

Power producers also expressed their concerns about how this new expense will affect the unchangeable long-term power contracts that they signed prior to the carbon regulation requirement. The cost of future CO₂ allowances was not factored into any of these existing contracts, and generators producing under these long-term deals fear that they will not be able to adjust the established contract prices to account for them. Note that in wholesale markets in restructured states, the contract rights to dispatch a particular power plant typically are transferred to an ISO, an entity which will not be subject to imposition of carbon costs.⁸² The ten RGGI states and California utilize such entities. Therefore, the party deciding under existing legal contract to operate a generating plant may not be the party that internalizes or perceives the marginal carbon cost of operation.

Several RGGI states, including leading carbon regulatory states Maine,⁸³ Massachusetts,⁸⁴ Vermont,⁸⁵ and New York,⁸⁶ have adopted uniform rules to

80. There is an ongoing debate about whether out-of-state or other producers can purchase allowances from a particular state, which effectively could shift the carbon emission rights away from local generation, and the state would have to import more out-of-state power. Gerald B. Silverman, *Northeast States Move Toward Final Design for Auction of Carbon Emissions Allowances*, 39 *Env't Rep. (BNA)* 114 (Jan. 18, 2008). NGO groups have argued for completely fluid open salable markets, with no preference for local generation. *Id.*

81. Christine Cordner & Alexander Duncan, *Eyeing Carbon Bill, House Panel Considers Interaction of Federal, State Greenhouse Roles*, *ELECTRIC UTIL. WEEK*, March 3, 2008, at 4 (quoting STAFF OF H. COMM. ON ENERGY AND COMMERCE, 110TH CONG., *CLIMATE CHANGE LEGISLATION DESIGN WHITE PAPER: APPROPRIATE ROLES FOR DIFFERENT LEVELS OF GOVERNMENT* (2008), available at http://energycommerce.house.gov/Climate_Change/white%20paper%20st-lcl%20roles%20final%202-22.pdf).

82. See Harvard Electric Policy Group, *supra* note 62, at 41. ISOs do not own any power plants themselves, and therefore are not emitters of any carbon or other pollutants. ISOs are FERC-regulated entities in a geographic region that regulate the operation of, and have among their members, those who own power projects and emit CO₂. Large states such as California and New York have geographic state ISOs, while all six New England states combine in ISO-NE, and PJM controls the operation of power plants owned by others in thirteen states including Pennsylvania, New Jersey, and Maryland. FERC encourages and approves ISO procedures as a way to more efficiently control power plant operations.

83. See ME. REV. STAT. ANN. tit. 38, § 580 (2007), available at <http://janus.state.me.us/legis/LawMakerWeb/summary.asp?ID=280024997>. Maine's Regional Greenhouse Gas Initiative Act of 2007 (LD 1851) was passed by the Maine Legislature and enacted June 18, 2007.

84. See 310 MASS. CODE REGS. §§ 7.00 Appendix B, 7.29 (2007).

implement the RGGI program. Many RGGI states have announced that 100% of their allowances will be auctioned to the highest bidders rather than allocated to emission sources, including New York,⁸⁷ Massachusetts,⁸⁸ Maine,⁸⁹ New Jersey,⁹⁰ and Vermont.⁹¹ For Massachusetts, this auction even at only \$5 per allowance would raise more than \$100 million annually.⁹²

These states have realized that instead of allowing the value of “freely” allocated allowances to affect the price at which electricity ultimately is sold—thereby allowing power producers to keep any windfall—the state could capture the windfall by auctioning all of the allowances and simultaneously requiring that the proceeds of these auctions be directed toward self-determined public benefits.⁹³ Generators can sell any excess allowances or purchase additional allowances from other qualifying power producers.⁹⁴ A bidder can

85. See VT. STAT. ANN. tit. 30, § 255 (2007). Vermont receives the majority of its power from Vermont Yankee nuclear power plant and Hydro-Québec, two power producers with very low carbon output. Cent. Ver. Pub. Serv., Energy Sources (2001), <http://www.cvps.com/ProgramsServices/EnergySources.shtml>. Since Vermont will still have a significant amount of allowances allotted to it, the state could end up selling the allowances to out-of-state power producers.

86. See N.Y. COMP. CODES R. & REGS. tit. 6 § 242 (2008).

87. *Id.* § 242-5.3(a)(3).

88. Governor Deval Patrick has indicated that Massachusetts will auction all of its emission allowances and use the approximately \$25–125 million generated annually to fund various energy efficiency-related programs. See Martha Kessler, *State Energy Secretary Drafts Regulations for Cap-and-Trade Program under RGGI*, 38 Env't Rep. (BNA) 1787 (Aug. 17, 2007).

89. ME. REV. STAT. ANN. tit. 38, § 580 (2007).

90. See Ray Pospisil, *New Jersey Legislature Passes RGGI Bill Requiring 100% Auctions for Allowances*, ELECTRIC UTIL. WEEK, January 14, 2008, at 11. This bill implements the RGGI proposal to stabilize CO₂ emissions at 188 million regional tons by 2009. *Id.*

91. VT. STAT. ANN. 30, § 255(c)(2) (2007). The Vermont rule indicates that 100% of the CO₂ allowances in the state will be auctioned and the proceeds from the sale will be allocated to one or more trustees acting on behalf of consumers. *Id.* The account will be managed by trustees, appointed by the Public Service Board, to provide the maximum long-term benefit to Vermont electric consumers. *Id.* Auction goals and procedures are also loosely outlined in New York's draft rule. See N.Y. DRAFT MODEL RULE PART 242 § 242-5.3(a)(3) (N.Y. State Dep't of Env'tl. Conservation, Draft 2006), available at http://www.dec.ny.gov/docs/air_pdf/part242draft.pdf. The DEC envisions an “open and transparent allowance auction”, which will be held once each year. Other stated objectives of the DEC include creating a liquid allowance market by minimizing entry and exit barriers, allowing any financially qualified individuals or entities to bid on allowances, and designing the system so as to not act as a barrier to investment in new generating facilities. Maine requires the Department of Environmental Protection to allocate 100% of the annual CO₂ emissions allowances for public benefit to produce funds for carbon reduction and energy conservation. ME. REV. STAT. ANN. tit. 38, § 580-B(7) (2007).

92. Cathy Cash & Paul Whitehead, *All-Auction Allowances Get Promoted on Capitol Hill, as Europe Heads that Way*, ELECTRIC UTIL. WEEK, Jan. 28, 2008, at 1.

93. See, e.g., N.Y. COMP. CODES R. & REGS. tit. 6, § 242-5.3(a) (2008). The proceeds from this auction will then be used for “energy efficiency and clean energy technology” as well as “promoting or rewarding investments in energy efficiency, renewable or non-carbon-emitting energy technologies, and/or innovative carbon emissions abatement technologies with significant carbon reduction potential.” *Id.* The rule specifies that the 100% allowance auction is to be used for these purposes. *Id.* An account will be managed by either the New York Department of Environmental Conservation (NYSDEC) or an agent assigned by the NYSDEC.

94. As of early 2008, some RGGI allowance options and rights had been already traded among companies in the \$5–\$10 per ton price range. See Gerald B. Silverman, *Two Options Exchanged for Allowances in Anticipation of Growing American Market*, 39 Env't Rep. (BNA) 343 (Feb. 22, 2008).

purchase up to a maximum of 25% of allowances at a given auction.⁹⁵ Since any speculator may bid for allowances, there is no guarantee that existing carbon-emitting electric power plants will be successful bidders, and they could be short of the necessary allowances to continue their operations.

c. Use of RGGI Carbon “Offsets” and Lack of Renewables

The RGGI scheme also creates an Offsets Program. “Offsets” under RGGI are emissions reductions that come from sources other than the fossil fuel-fired electricity generators that are subject to the carbon emissions cap under RGGI. The Offsets Program awards offset allowances for approved offset projects that were realized on or after the date of the MOU.⁹⁶ Power producers can use offset allowances to comply with part of their carbon cap emission requirements.⁹⁷

Importantly, and somewhat controversially, offsets cannot be created by the installation of renewable energy generation or resources. To some, this would seem to be counterintuitive and to conflict with other policies: twenty-five states and the District of Columbia award renewable energy credits for the installation of eligible⁹⁸ renewable energy electric generation facilities.⁹⁹ In addition, sixteen states authorize a tax on retail utility bills that creates a renewable energy trust fund used to make grants, loans or otherwise provide incentives to renewable energy projects.¹⁰⁰ In addition, 80% of the states allow eligibly defined smaller renewable energy projects to enjoy the net metering of their electricity when sold back to the host electricity supplier, thus effectively

95. REG'L GREENHOUSE GAS INITIATIVE, DESIGN ELEMENTS FOR REGIONAL ALLOWANCE AUCTIONS UNDER THE REGIONAL GREENHOUSE GAS INITIATIVE, March 17, 2008 at 1, 1–2; Gerald B. Silverman, *Regional Initiative Sets Terms, Dates for First Carbon Emissions Auctions*, 39 Env't Rep. (BNA) 549 (Mar. 21, 2008). The first auction was planned for September 2008, and the second for December 2008. *Id.*

96. RGGI MOU, *supra* note 50, at 4.

97. *Id.* The initial offset projects that can be approved under the Offsets Program include: (1) landfill methane capture and combustion; (2) sulfur hexafluoride (SF₆) capture and recycling; (3) afforestation (transition of land from a non-forested to forested state); (4) end-use efficiency for natural gas, propane and heating oil; (5) methane capture from farming operations; and (6) projects to reduce fugitive methane emissions from natural gas transmission and distribution. *Id.*

98. There is significant variation in what is an eligible renewable energy technology in each of the states: while certain wind and solar technologies seem to qualify everywhere, the eligibility of various biomass, landfill gas, hydroelectric and other facilities varies significantly. See 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, 646 tbl. 3 (2004); K.S. COREY & B.J. SWEZEY, NATIONAL RENEWABLE ENERGY LABORATORY, RENEWABLE PORTFOLIO STANDARDS IN THE STATES: BALANCING GOALS AND IMPLEMENTATION STANDARDS (2007).

99. For a detailed discussion of these programs, see Ferrey, *supra* note 98, at 529–532. See also Steven Ferrey, *Renewable Orphans: Adopting Legal Renewable Standards at the State Level*, ELECTRICITY J., Mar. 2006, at 52.

100. See Rules Regulations & Policies, Database of State Incentives for Renewables & Efficiency (2007), <http://www.dsireusa.org/summarytables/reg1.cfm?&CurrentPageID=7&EE=1&RE=1>; Ferrey, *supra* note 98, at 523.

allowing these entities to sell wholesale power at retail rates.¹⁰¹ In sum, renewable resources are significantly promoted by a majority of states as solutions to the GHGs and other pollutants created by traditional fossil-fueled sources.

However, no carbon offset credit is allowed for any project that has an electric generation component, unless the project sponsor transfers the legal rights to the credits to the regulatory agency.¹⁰² Moreover, the Model Rule disallows offset allowances for any offset project that receives funding or other incentives from one of the sixteen state renewable energy trust funds discussed above,¹⁰³ or any credits or allowances that would be earned from any other mandatory or voluntary GHG programs.¹⁰⁴

d. What Qualifies as a Carbon Offset?

Most offsets eligible under the RGGI Model Rule are created by manipulating agricultural resources, for example through afforestation and methane capture. Afforestation projects, unless insurance against biomass loss is purchased for the forest, receive offset credits equal only to 90% of their absorption of CO₂, to account for possible loss of forest mass over time.¹⁰⁵ The RGGI program also depreciates any savings from forestation by 20% to account for the possibility of catastrophic losses. In addition, to ensure permanent forest use, a restrictive conservation easement is required for forest projects that create offset credits.¹⁰⁶ Thus, for some RGGI states, the in-state agriculture RGGI offset opportunities are minimal.

No RGGI carbon offset credits can be awarded for projects that are required by any local, state or federal law, regulation, or administrative or judicial order.¹⁰⁷ Thus, retrofits of better technology, efficiency improvements, or emission reductions required by regulation or embodied in permits or consent decrees will not create salable offset credits. Furthermore, the MOU places limits on the use of offsets and the issuance of additional offsets to moderate offset price impacts.¹⁰⁸ RGGI initially allows offset projects sited

101. For a discussion of net metering and its legal and policy implications, see Steven Ferrey, *Nothing But Net*, DUKE ENVTL. L. & POL'Y. F., Fall 2003, at 1, 1 (2003); see also Steven Ferrey, *Net Zero: Distributed Generation and FERC's MidAmerican Decision*, ELECTRICITY J., Oct. 2004, at 33, 34.

102. REG'L GREENHOUSE GAS INITIATIVE MODEL RULE, § XX-10.3(d)(2) (2007), available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

103. *Id.* § 10.3(d)(3). These measures are quite restrictive considering that renewable energy credits in many states are expected to trade at higher rates than RGGI offsets or credits. Therefore, the RGGI scheme stands conspicuously apart from other carbon schemes and even from the renewable energy incentive programs that the RGGI states may have otherwise adopted and implemented.

104. *Id.* § 10.3(d)(4).

105. *Id.* § 10.5(c)(4)(iii).

106. *Id.* § 10.5(c)(6)(i).

107. *Id.* § 10.3(d)(1).

108. REG'L GREENHOUSE GAS INITIATIVE, MEMORANDUM OF UNDERSTANDING IN BRIEF (2005), available at http://www.rggi.org/docs/mou_brief_12_20_05.pdf.

anywhere in the United States if the average price of an emission allowance remains below \$7 per ton.¹⁰⁹ In each compliance period, each generator will be allowed to cover up to 3.3% of their emissions using offset allowances,¹¹⁰ which is roughly equal to half of that generator's emissions reduction obligation.

If allowance prices rise above \$10 per ton, RGGI will allow sources to cover up to 10% of their carbon emissions with offsets, and will allow offset projects outside the United States as well as permit the transfer and application of allowances created under the EU Emissions Trading Scheme (EU ETS) and the Kyoto Protocol's Clean Development Mechanism (CDM).¹¹¹ Accordingly, "the compliance period will be extended by one year, for a maximum compliance period of 4 years."¹¹² The decision to include EU ETS and Kyoto CDM project credits as eligible offset "currency" is curious. Since EU ETS credits are given away without charge by EU countries to their industries,¹¹³ this effectively works as an income and welfare shift from U.S. power generation owners to EU industries. If the United States were to link any of its CO₂ regulatory systems with the EU system, commentators note that it would increase the relative cost of U.S. allowances and compliance.¹¹⁴ But offsets for projects located in non-RGGI U.S. states may only be awarded if such states are implementing similar greenhouse gas budget/trading programs and enter into an agreement to ensure the credibility and validity of offset allowances from that state.

Offsets credits that are created have a lifetime of ten years, with the possibility of renewal; afforestation projects create credits with a twenty-year lifetime, with a possible renewal up to sixty years.¹¹⁵ The RGGI Model Rule indicates that when a regulated entity's emissions exceed its CO₂ allowance budget, the state can deduct from the entity's compliance account future allowances (beyond the current control period) equal to three times the number of the entity's excess emissions.¹¹⁶

Environmental groups have attacked the Rhode Island RGGI plan, which will try to auction all carbon allowances, since this would make an exception from auction to give for free certain allowances while others are to be auctioned.¹¹⁷ The groups argue that this would create a windfall for early-

109. *Id.*

110. RGGI MOU, *supra* note 50, at 5.

111. Pew Ctr. on Global Climate Change, Q&A: Regional Greenhouse Gas Initiative, <http://www.pewclimate.org/rggi/qanda> (last visited Nov. 30, 2008).

112. *Id.*

113. *See supra* note 74.

114. *See* Harvard Electric Policy Group, *supra* note 62, at 40–41.

115. REG'L GREENHOUSE GAS INITIATIVE MODEL RULE § XX-10.3(e)(2) (2007), *available at* http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

116. *Id.* § XX-6.5(d)(1).

117. Doug Obey, *Early Emission-Reduction Credits in RGGI Prompt Controversy*, CARBON CONTROL NEWS, June 11, 2008.

reducing power plants that made reductions for reasons not related to RGGI and increase the state emissions cap by the amount of these additional allowances.¹¹⁸ Similar arguments are being made by environmental groups in Maine and New York.¹¹⁹ New York would allow a December 20, 2005 through 2008 early-reduction period, and the Pace Energy Center and other environmental groups have argued that any early reduction would not have been motivated by the RGGI program but by other factors; therefore early reduction credits should reduce those allowances otherwise available under the program, rather than adding to it.¹²⁰ This interpretation, however, appears contrary to a RGGI guidance document.¹²¹ Pace argues that they are concerned about an “over-allocation of allowances,” and the “burden of proof should rest with the emitter-applicant” to prove that its carbon reductions are additional.¹²²

This “additionality” requirement and early compliance credits are controversial concepts. First, early reduction credits that add to the total envelope of allowances are embedded as an option in the RGGI model rule that ten states use as the template for their programs.¹²³ Early compliance allowances recognize CO₂ reductions at covered power projects. Early compliance also was incorporated in other U.S. credit trading programs for SO₂.¹²⁴

Second, in the RGGI scheme, the ownership and use of early or other allowances are not dependent on “additionality.” In contrast to allowances, RGGI does require some “additionality” in the creation of “offsets,” which are legally distinct from allowances, but directly do increase the quantity of carbon emission rights for larger power plants.¹²⁵ Offsets must be real, verifiable, permanent, enforceable, and “additional.”¹²⁶ In fact, the amount of RGGI allowances is allocated to each RGGI state based on the cumulative total of historical emissions of all large power plants in the state.¹²⁷ Thus they contain no concept of “additionality” compared to business-as-usual emissions; in fact, they *are* business-as-usual emissions with no “additionality.” RGGI allowances

118. *Id.*

119. *Id.*

120. *Id.*

121. *Id.*

122. *Id.*

123. See REG’L GREENHOUSE GAS INITIATIVE MODEL RULE § XX-5.3 (2007), available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

124. 40 C.F.R. § 73.71(a)-(f) (1991).

125. See REG’L GREENHOUSE GAS INITIATIVE MODEL RULE § XX-10.3(d) (2007), available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

126. See *id.* §§ XX-10, XX-10.7.

127. NEW HAMPSHIRE DEP’T OF ENVTL. SCI., REGIONAL GREENHOUSE GAS INITIATIVE FREQUENTLY ASKED QUESTIONS ON THE ECONOMIC ANALYSIS (2008), available at http://des.nh.gov/organization/divisions/air/tsb/tps/climate/rggi/documents/economic_faqs.pdf (“Historically, cap-and-trade programs, such as federal trading program for sulfur dioxide emissions under acid rain legislation, have allocated allowances directly to regulated emissions sources based on historic operation, a practice commonly referred to as ‘grandfathering.’”).

can be owned or traded by any party or speculator, including parties that contribute no “additionality” to any reduction of carbon.¹²⁸ RGGI offset projects must be commenced and completed after December 20, 2005,¹²⁹ while early-compliance RGGI allowance projects must be commenced and completed prior to 2009.¹³⁰

2. California’s Different Approach to Carbon Regulation

California faces its own challenge to control gross peak electric demand growth. Despite a meltdown of the restructured electric sector in 2001 which caused the recall of the Governor,¹³¹ and the realization that electric demand had been allowed to outstrip supply additions,¹³² California’s peak demand follows an ominous pattern. The state’s peak electric load increased by 38% between its energy crisis in 2001 and 2006, or an astounding increase in demand of more than 6% annually in peak demand.¹³³ This is about three times the national average rate of increase of about 2% annually.¹³⁴

a. The California Carbon Choices

The California carbon scheme requires that California reduce GHG emissions to 1990 levels by 2020, counting all in-state and out-of-state generation used to serve California electric load.¹³⁵ California greenhouse gas

128. See CHARLES HOLT ET AL., AUCTION DESIGN FOR SELLING CO₂ EMISSION ALLOWANCES UNDER THE REGIONAL GREENHOUSE GAS INITIATIVE 8 (2007), available at http://www.rggi.org/docs/rggi_auction_final.pdf.

129. REG’L GREENHOUSE GAS INITIATIVE MODEL RULE § XX-10.3(f) (2007). available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf.

130. *Id.* § XX-10.3(d).

131. *Electricity on the Political Stage in Calif.*, ELECTRICITY DAILY, Sept. 26, 2003, at 1, 1.

132. Steven Ferrey, *Soft Paths, Hard Choices: Environmental Lessons in the Aftermath of California’s Electric Deregulation Debacle*, 23 VA. ENVTL. L.J. 251, 255 (2004).

133. See Seth Hilton, *The Impact of California’s Global Warming Legislation on the Electric Utility Industry*, ELECTRICITY J., Nov. 2006, at 10, 11. During this period, California increased its generation supply by only 23% since the 2001 crisis. *Id.*

134. See Energy Info. Admin., Dep’t of Energy, Annual Energy Review Table 8.2(a) Electricity Net Generation: Total 1949-2007 (2007), available at http://www.eia.doe.gov/aer/pdf/pages/sec8_8.pdf.

135. California Global Warming Solutions Act of 2006, CAL. HEALTH & SAFETY CODE §§ 38500–38599 (West 2007). The California Assembly passed Assembly Bill 32, signed into law by Governor Schwarzenegger on September 27, 2006. Press Release, Governor Arnold Schwarzenegger, Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions (Sept. 27, 2006), available at <http://gov.ca.gov/index.php?/press-release/4111/>. The bill sets a firm limit on GHG emissions in California by requiring the Air Resources Board to determine California’s GHG emission level in 1990 and then issue regulations causing GHG emissions to be reduced to that level by 2020. California Global Warming Solutions Act of 2006 § 1, CAL. HEALTH & SAFETY CODE § 38550 (West 2007). A.B. 32 also requires comprehensive GHG reporting by major sources of GHG emissions. *Id.* § 38530 Market-based compliance mechanisms are also discussed in the legislation, but left to the discretion of the Air Resources Board. See *Id.* §§ 38561(a)–(b), 38570. While A.B. 32 regulates all significant sources of GHGs, because electric power production accounts for about 20% of California emissions of GHGs, electric generation has become the primary target for regulation. Contrast this with

emissions in 2004 were already almost 15% greater than in the 1990s. Pursuant to the California Global Warming Solutions Act of 2006 (commonly referred to as Assembly Bill 32 or A.B. 32), the state is required to reduce its aggregate GHG emissions to 1990 levels by 2020.¹³⁶ This equates to an eventual estimated 25% reduction from business-as-usual levels.¹³⁷

A.B. 32 charges the California Air Resources Board (CARB) with the responsibility of developing and implementing a plan to meet this challenging emissions-reduction goal. CARB is authorized, but not required, to establish and enforce a market-based compliance system, which could include carbon credits and banking. In addition to charging CARB with the responsibility of establishing a statewide GHG emissions cap for implementation in 2020 based on 1990 emissions levels by January 1, 2008, A.B. 32 further requires CARB to:

- Adopt by January 1, 2008 regulations that require mandatory reporting and verification for significant GHG sources and to monitor compliance;
- Adopt a plan by January 1, 2009 for achieving emissions reductions from significant GHG sources via regulations, market mechanisms and other actions;
- Adopt rules and regulations by January 1, 2011 to achieve the maximum technologically feasible and cost-effective GHG reductions, including provisions for using both market mechanisms and alternative compliance mechanisms;
- Evaluate several factors—prior to imposing mandates or implementing market mechanisms—including but not limited to: “impacts on California’s economy, the environment, and public health; equity between regulated entities; electricity reliability; conformance with other environmental laws”; and whether the rules will disproportionately impact low-income communities.¹³⁸

To assist CARB in fulfilling its charge, the Governor created the Market Advisory Committee (MAC) to advise CARB on the development of a statewide plan to reduce GHG emissions.¹³⁹ MAC’s primary objective was to

RGGI, which only regulates CO₂ and only regulates the electric power sector, and then only part of that sector. *See supra* text accompanying note 52.

136. The California Assembly passed Assembly Bill 32, signed into law by Governor Schwarzenegger on September 27, 2006. Press Release, Governor Arnold Schwarzenegger, Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions (Sept. 27, 2006), available at <http://gov.ca.gov/index.php?press-release/4111/>.

137. CAL. ENERGY COMM’N, HISTORY OF CALIFORNIA’S INVOLVEMENT IN AIR POLLUTION AND GLOBAL CLIMATE CHANGE (2008), <http://www.climatechange.ca.gov/background/history.html>.

138. CAL. AIR RES. BD., AB 32 FACT SHEET—CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006 (Sept. 25, 2006), available at <http://www.arb.ca.gov/cc/factsheets/ab32factsheet.pdf>.

139. *See* Press Release, Cal. Env’tl. Prot. Agency, Expert Advisors Release Final Cap-and-Trade Report: Recommendations Intended to Complement California’s Ongoing Efforts to Reduce Emissions (June 29, 2007). MAC is comprised of national and international experts in environmental policy, regulatory affairs, economics, and energy technologies.

design a mandatory cap-and-trade program to achieve cost-effective emissions cuts across all sectors.¹⁴⁰ In its Final Report,¹⁴¹ MAC recommends:

- California's cap-and-trade program should eventually incorporate all major GHG-emitting sectors in the state, with greatest attention to the electricity, industry, buildings, and transportation sectors,¹⁴² covering as many sectors, sources and gases as possible, under mandatory reporting requirements.¹⁴³
- An initial scheme of free allocation of some allowances and auctioning the other share of allowances, with the percentage of allowances auctioned increasing over time.¹⁴⁴ MAC encourages the state to retain flexibility to freely allocate some of the allowances in a manner that stabilizes the price impacts and manages competitiveness among California power producers.¹⁴⁵
- The cap-and-trade program should recognize offsets generated by sources within and outside of California's borders.
- California's cap-and-trade program should be linked to similar policy initiatives in other jurisdictions to actively promote a "global greenhouse gas market."¹⁴⁶
- Because the quantity of California's imported electricity generated from coal is significant (56% of California's GHG emissions are from power imports from out-of-state, while 44% of GHG emissions are from in-state sources), California's cap-and-trade program should take a "first-seller approach" to capping emissions associated with electricity. Under this approach, the entity that first sells electricity within the state must meet the compliance obligation established under the cap-and-trade scheme.¹⁴⁷ For power generated in California, the owner or operator of the in-state power plant is considered the first seller and would be required to meet the emissions cap.¹⁴⁸ For imported power, the first seller is typically an investor-owned or municipal utility or wholesale power marketer that sells electricity to a load-serving entity or large end-user. The out-of-state entity under this approach would also be required to meet the emissions cap.¹⁴⁹

140. MKT. ADVISORY COMM., CAL. AIR RES. BD., RECOMMENDATIONS FOR DESIGNING A GREENHOUSE GAS CAP-AND-TRADE SYSTEM FOR CALIFORNIA (2007), available at http://www.climatechange.ca.gov/events/2007-06-12_mac_meeting/2007-0601_MAC_DRAFT_REPORT.PDF.

141. *Id.*

142. *Id.*

143. *Id.*

144. CAL. ENERGY COMM'N, *supra* note 137.

145. *Id.*

146. *Id.*

147. *Id.*

148. *Id.*

149. *See id.*

This final MAC recommendation represents a significant departure from the original legislative scheme, and this departure is legally significant in considering the scheme's constitutionality. Originally, California intended to regulate GHGs from the utility sector by regulating all retail electric load-serving entities (LSEs), or retailers of power.¹⁵⁰ Legally, all of these LSEs are located in-state or at least doing business in-state, and regulation would be imposed at the retail level on California activities. Note that regulators still regulate the allowed retail price of power sold by utilities and load-serving entities, if they end up being the entity that is directed to obtain carbon allowances.¹⁵¹

However, this MAC recommendation, which in 2008 was accepted to be implemented by the Air Resources Board and Public Utilities Commission, shifts the point of control upstream to regulate power wholesalers at the first-seller transaction.¹⁵² This change makes it identical to the RGGI point of regulation. With the restructuring of California's electric market in 1998 and the subsequent restructuring in 2001 due to an electric energy crisis,¹⁵³ most of the power retailed in the state first goes through a wholesale power marketer as a wholesale transaction. Thus, many of these first-sellers are now outside the state, and regulating first-sellers causes the state at least indirectly to regulate the wholesale transaction, which traditionally is reserved to FERC at the federal level rather than to state authority.

Therefore, this decision on point-of-regulation is more than just a cosmetic or policy choice. It has significant legal ramifications. While the MAC's accepted recommendation to the state¹⁵⁴ would make the point-of-regulation parallel to that of RGGI, it raises legal issues, especially for a state like California that imports its wholesale power from many other states. It has been noted by observers that California's choice to regulate carbon at the point of generation is necessary for California to get at the problem of high-carbon power leakage into the state.¹⁵⁵

The debate as to where to monitor and assess CO₂ emissions is controversial. If regulation is imposed downstream, very different incentives are produced and different legal issues are raised than if regulation is imposed upstream. Certain industries, like mining and extraction, want to push the regulation away from their upstream operations to downstream users at power plants and in end-use applications. By contrast, end-users of energy in would prefer not to be the target of regulation.

150. *Id.*

151. See Harvard Electric Policy Group, *supra* note 62, at 39.

152. See Weinzimer, *supra* note 18.

153. Ferrey, *supra* note 131, at 297.

154. See Weinzimer, *supra* note 18.

155. See Harvard Electric Policy Group, *supra* note 62, at 39.

b. *Specific California Carbon Emission Standards*

The California scheme covers all load-serving entities (LSEs), including municipal LSEs.¹⁵⁶ Electric generators are required to meet a CO₂ emissions level no higher than that achievable by a combined-cycle gas-fired power generator.¹⁵⁷ Any new contracts for a term of five years or more for the procurement of baseload generation must comply with a performance standard of emitting no more than 1100 lbs CO₂/MWh of power generation.¹⁵⁸ “Baseload” generation is defined as generation that is designed and intended to operate at an annualized capacity factor of 60% or greater.¹⁵⁹

California power comes significantly from outside the state—roughly one-half of California’s electric sector GHG emissions are the result of electric power imports from out-of-state that are generated predominately by coal-fired power plants.¹⁶⁰ The impact of California’s new emissions limitations will thus significantly reduce the attractiveness and viability of coal-fired generation for California. While California has little in-state coal generation, various California LSEs, particularly the Los Angeles Department of Water and Power (DWP),¹⁶¹ import significant amounts of coal-fired power from various other states. The Los Angeles DWP has argued that it serves a lower-income

156. California is home to the largest municipal utility in the nation, the Los Angeles Department of Water and Power (LADWP), serving a multi-million person consumer base. L.A. Dep’t of Water and Power, Our Service and History, <http://www.ladwp.com/ladwp/cms/ladwp000508.jsp> (last visited Nov. 30, 2008). LADWP is among the most dependent California LSEs on both power imports from out of state, and coal-fired high-GHG power. See Hilton, *supra* note 133, at 13.

157. CAL. PUB. UTILS. CODE § 8341(d)(1) (West 2007). This legislation targets only electric generation. Sections 8340 and 8341 govern all new long-term energy commitments and establish a “greenhouse gas emissions performance standard.” *Id.* §§ 8340–8341. This is specific to the electric power role in meeting A.B. 32 goals. The GHG emissions standard creates a specific level of permissible emissions and prohibits new construction, new long-term power contracts, and any major plant investment that will not meet the performance standard. See *id.* This prohibits load serving entities from entering long-term power contracts with out-of-state producers who do not meet California’s stringent new emissions standard. California’s Public Utilities Commission (PUC) has set the GHG emissions performance standard at the equivalent of the emissions from a combined-cycle natural gas plant. See *id.*

158. See *id.* § 8341(b), (d)(1). This is a level that conventional coal-fired electric generation will not be able to meet, generating about 1770 lbs. CO₂/MWh. See Hilton, *supra* note 133, at 14.

159. CAL. PUB. UTILS. CODE § 8340(a) (West 2007).

160. Order Instituting Rulemaking to Implement the Commission’s Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, R.06-04-009, D.07-09-017, 2007 Cal. P.U.C. LEXIS 330 (Cal. Pub. Utils. Comm’n Sept. 6, 2007). Three-quarters of California’s power imports come from the Southwest, and involves much coal-fired power, as opposed to the other quarter that is imported through the Northwest. AL ALVARADO & KAREN GRIFFIN, CAL. ENERGY COMM’N., REVISED METHODOLOGY TO ESTIMATE THE GENERATION RESOURCE MIX OF CALIFORNIA ELECTRICITY IMPORTS: UPDATE TO THE MAY 2006 STAFF PAPER 1, 1, 3 (2007).

161. See Hilton, *supra* note 133, at 13. The three major investor-owned utilities import 3–15% of their total supply in the form of out-of-state coal-fired power. *Id.* The Los Angeles DPW imports half of its power from these sources. *Id.*

population and that the change to a first-seller point of CO₂ regulation is “unfair treatment” and targets Southern California.¹⁶²

Additionally, A.B. 32 specifically requires the California Air Resources Board to consider cumulative impact of direct and indirect sources of emissions on adversely affected communities. Environmental groups have argued that the program must reduce emissions within California, and that it must not permit the use of offsets that are purchased from out of state. “The offsets we support are those that provide benefits to polluted, disadvantaged communities in California,” according to Bill Magavern, a Sierra Club lobbyist.¹⁶³ Others have warned that location of offsets should not be limited.¹⁶⁴

In a meeting held by the California Public Utilities Commission and the California Energy Commission to review various proposals for A.B. 32 implementation, Southern California Edison proposed to have coal-fired generators to be given free allowances to shield ratepayers from carbon allowance costs.¹⁶⁵ The Los Angeles DWP requested an opt-out option from the cap-and-trade requirements.¹⁶⁶ The utility stated that if it had to comply with California’s carbon cap-and trade requirements, it would have to either jettison its renewable energy program or raise rates substantially.¹⁶⁷

Pursuant to A.B. 32, utilities are required to “account for greenhouse gas emissions from . . . electricity generated within the state or imported from outside the state.”¹⁶⁸ The California scheme thus impacts all in-state and out-of-state generation used to serve California’s electric load.¹⁶⁹ It does not distinguish the geographic source of power generation, and covers the liberal flow of power into California from other states.

California’s carbon regulation system was originally intended to be different from that of RGGI in that the carbon compliance obligation of the former was to be placed on load-serving entities, rather than generators of power. This is a distinction of whether carbon regulation covers the generator of the power or the distributor of the power. Load-serving entities are distributors of retail power, such as utilities or retail suppliers. LSEs have an entire portfolio of power generation resources that they can optimize and blend for purposes of carbon limitation compliance. They can continue to purchase

162. Weinzimer, *supra* note 18.

163. *California GHG Law Sparks Debate on Other Air Pollutants*, CARBON CONTROL NEWS, April 14, 2008.

164. *Id.* (citing unnamed industry spokespeople).

165. Lisa Weinzimer, *Debate Heats up over Allocating CO₂ Allowances in Calif., Generators Deny Windfall is Possible*, ELECTRIC UTIL. WEEK, April 28, 2008, at 13. Load served and historical emissions both would be factors in determining the amount of allowances given. *Id.*

166. *Id.* This is being endorsed by some Southern California lawmakers. *Id.*

167. *Id.*

168. CAL. HEALTH & SAFETY CODE § 38530(b)(2) (West 2007). “This requirement applies to all retail sellers of electricity, including load-serving entities as defined in subdivision (j) of Section 380 of the Public Utilities Code and local publicly owned electric utilities as defined in Section 9604 of the Public Utilities Code.” *Id.*

169. See Hilton, *supra* note 133, at 16.

carbon-rich generation, and compensate by adding renewable energy resources or other low-carbon generation, to achieve the average requirements over their entire portfolio of power generation resources.

If the California MAC recommendations are followed, however, both schemes would regulate at the individual wholesale generator level.¹⁷⁰ Like the RGGI scheme, the MAC recommendations would require each and every power generator to comply individually, would penalize high-carbon generating resources per se, and would not allow any optimization within portfolios of generation. In RGGI and the revised California protocol of regulation, each individual power generation facility is responsible for compliance.

The RGGI and California systems, while similar, are not identical. RGGI regulates only CO₂ and regulates only the electric power sector, and then only larger plants in that sector.¹⁷¹ California regulates all GHGs, including CO₂.¹⁷² RGGI begins in 2009; California's carbon program begins in 2012.¹⁷³ This delay may be California's hope regarding constitutional challenges—perhaps federal requirements will begin before the 2012 commencement date, thus mitigating some of the constitutional uncertainty.

The constitutional issues confronting these state carbon regulation efforts are that the agreement and the means of its implementation may violate the Supremacy Clause and the Compact Clause of the U.S. Constitution¹⁷⁴ Moreover, in order for RGGI to work effectively at reducing carbon emissions, rather than increasing the importation of carbon-intensive electricity, states are actively considering surcharging or taxing wholesale power “leaking” in from outside the region, which itself might violate the Commerce Clause.¹⁷⁵ In certain states, the RGGI scheme may also constitute an unauthorized tax because most states require taxes to be created by legislatively-passed statutes, not regulations enacted by the executive branch. We next will examine each of the constitutional issues confronting the current design of these leading carbon programs.

170. The RGGI system governs only the original power producers, whereas the California bill governs any load serving entity, defined as “every electrical corporation, electric service provider, or community choice aggregator serving end-use customers in the state.” CAL. PUB. UTILS. CODE § 8340(h) (West 2007).

171. See Reg'l Greenhouse Gas Initiative, About RGGI, <http://www.rggi.org/about> (last visited Nov. 30, 2008).

172. Cal. Air Res. Bd., Climate Change, <http://www.arb.ca.gov/cc/cc.htm> (last visited Nov. 30, 2008).

173. Reg'l Greenhouse Gas Initiative, Fact Sheet, http://www.rggi.org/docs/RGGI_Executive_Summary.pdf (last visited Nov. 30, 2008).

174. Claire Carothers, *United We Stand: The Interstate Compact as a Tool for Effecting Climate Change*, 41 GA. L. REV. 229, 236 (2006) (arguing that “[a] regional plan or compact regulating emission controls would likely be found as encroaching upon areas typically delegated to the federal government, as well as potentially increasing the powers of the participating states”).

175. Bolster, *supra* note 54, at 737.

II. PREVENTING CARBON LEAKAGE: THE COMMERCE CLAUSE AS AN IMPEDIMENT TO REGIONAL U.S. CARBON REGULATION

A. *Leakage and the Law*

A major practical and policy problem identified by the RGGI states,¹⁷⁶ as well as California,¹⁷⁷ is so-called “leakage.” Leakage occurs when “generators outside of the capped region export[] power to load-serving entities [] within the region without being covered by the regional carbon cap,”¹⁷⁸ and is defined by the RGGI scheme “as the increase in CO₂ emissions outside the RGGI region that may ‘net out’ (or partially eliminate) a portion of the emissions reductions made within the RGGI region under the Program.”¹⁷⁹

The reality is that leakage will occur as CO₂ producing activities that are regulated and limited under a particular region’s program move outside that region, thereby eliminating net reductions in emissions with the shift of generation location. Developers in non-carbon-regulated states will have economic incentives to build and operate CO₂ emitting facilities where they do not have to incur the cost of acquiring allowances and complying with regulations. In such event, carbon costs will be borne, to their competitive disadvantage, by competing facilities in the regulated (RGGI or California) region.

This results in negating the environmental improvements that would otherwise result from the carbon-reduction program.¹⁸⁰ For example, since RGGI includes East Coast states, the plants outside the RGGI region are to the west and south—or upwind in terms of migration of power plant emissions. A shift to out-of-region generation is a shift to additional upwind pollutants from heavier polluting power plants, producing electricity that otherwise would have been generated by cleaner RGGI-region compliant projects.

The results of modeling commissioned by the RGGI Staff Working Group found that a substantial proportion of CO₂ emissions avoided by RGGI will be offset by corresponding increases in non-RGGI states. Leakage from

176. RGGI MOU, *supra* note 50, at 9–10.

177. CAP AND TRADE SUBGROUP, CAL. CLIMATE ACTION TEAM, CAP AND TRADE PROGRAM DESIGN OPTIONS (2006), available at http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-03-27_CAP_AND_TRADE.PDF.

178. RICHARD COWART, REGULATORY ASSISTANCE PROJECT, ADDRESSING LEAKAGE IN A CAP-AND-TRADE SYSTEM 1 (2006), available at <http://www.raonline.org/Pubs/RC-Leakage-4-06.pdf>.

179. N.Y. STATE DEP’T OF ENVTL. CONSERVATION, FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT 107 (2008), available at http://www.dec.ny.gov/docs/air_pdf/rggigeis.pdf.

180. See Regional Greenhouse Gas Initiative Stakeholder Meeting, Stakeholder Comments 17–18 (Mar. 12, 2007), available at <http://www.mass.gov/dep/air/climate/rggisum2.doc>; Morgan Hansen, Emissions Trading: EU ETS, US Voluntary Market & Carbon Credit Projects as Offsets 21 (Apr. 2008) (unpublished Master’s thesis, Duke University), available at http://dukespace.lib.duke.edu/dspace/bitstream/10161/549/1/MP_mbh15_a_200804.pdf.

neighboring states like Pennsylvania is a significant concern with RGGI.¹⁸¹ RGGI is projected to have a significant leakage problem even if CO₂ allowances sell for only the modest price of \$7 per ton of CO₂.¹⁸² The early modeling showed leakage as high as 90% depending on the programmatic assumptions. The final models predict annual leakage of CO₂ between 40% and 57% over the life of the RGGI program. Moreover, this October 11, 2006 modeling was conducted without assuming Maryland's participation in RGGI, and Maryland's participation is predicted to increase leakage. Provisions of RGGI state regulations that would permit allowances to be purchased and retired by non-affected facilities will also increase leakage. Thus, leakage is a significant problem for the RGGI program.

An additional issue affecting leakage involves regional power generation reliability. In its 2008 Reliability Needs Assessment,¹⁸³ the New York State Independent System Operator (NYISO) analyzed the effects of RGGI on energy supply reliability in the control region and concluded that because there will be a finite number of carbon allowances, RGGI creates the risk that generators could not obtain sufficient allowances "to meet bulk power system electricity needs and also comply with the RGGI program."¹⁸⁴ NYISO concluded that RGGI could further threaten reliability through allowance hoarding, allowance market manipulation, or the removal of allowances from the market¹⁸⁵ (e.g., by purchasers that are not using allowances for RGGI compliance). Because New York, like other regional areas, must have certain specific plants operating to satisfy electric demand at certain times, if allowances were not available, plants could not operate and electric reliability would be compromised. Under RGGI, there is no ability to pay a fine for a shortfall in possessed allowances; civil and criminal penalties under the Clean Air Act Title V operating permit are instead imposed.¹⁸⁶

This leakage threat is very real to the goals of regional carbon control initiatives. In trying to decrease the amount of CO₂ emissions from RGGI states by 55 million tons over the period of 2009–2019, an increase of unregulated power imports from uncapped coal-fired plants in states such as Ohio and Pennsylvania of even 1.5% to 2.5% would wipe out all scheduled emissions

181. See Harvard Electric Policy Group, *supra* note 62, at 42. This opens the possibility for a state such as Pennsylvania to make arbitrary allocations to sell its cleaner power into RGGI states, and attempt to allocate its dirtier power to in-state use where there is no CO₂ regulation. *Id.*

182. See *id.* at 45.

183. N.Y. INDEPENDENT SYSTEMS OPERATOR, 2008 RELIABILITY NEEDS ASSESSMENT SUPPORTING DOCUMENTS, AND LIST OF APPENDICES FOR THE 2008 COMPREHENSIVE RELIABILITY PLANNING PROCESS (2007), available at http://www.nyiso.com/public/webdocs/services/planning/reliability_assessments/2008_RNA__Supporting_FINAL_REPORT_12_12.pdf.

184. *Id.* at I-26.

185. *Id.*; see also Younger Aff. ¶¶ 28–29, 47, 61 (2007) (on file with author).

186. See 42 U.S.C. § 7413(c) (2006) (authorizing criminal or civil penalties for violation of Clean Air Act).

reductions from regulated generators within the regulated carbon RGGI region.¹⁸⁷

Concern about “leakage” is real. There are multi-billion dollar projects to build electric transmission infrastructure that would allow electricity generated by high-carbon emission coal fired power plants to travel east into the RGGI region. RGGI states such as New Jersey, New York, Maryland and Delaware are bordered by states that are not signatories to RGGI and historically produce a large of volume of electricity from coal-fired power plants.¹⁸⁸ Similarly, California imports power from eleven states, including a large amount of coal-fired power.¹⁸⁹

In addition, concern about leakage is growing. Massive new transmission infrastructure is planned to bring externally-generated power into the carbon-regulated states. The largest and most significant of these projects is the American Electric Power (AEP) Interstate Project which would put in place a 765 kV transmission line stretching from West Virginia to New Jersey. There are other similar projects on the drawing boards. The Trans-Allegheny Interstate Line (TrAIL) Project, being undertaken by Allegheny Power to enhance transmission capability from western Pennsylvania to Maryland and Virginia, and the Meadow Brook–Loudon 500 kV line proposed by Dominion Resources to carry that power into the Washington D.C. metropolitan area, are other examples.¹⁹⁰

In the initial phase of RGGI program design and at the time the Guiding Principles Agreement was drafted, leakage as a separate economic phenomenon was not a consideration.¹⁹¹ The extent of leakage predicted by subsequent modeling, however, was projected to dramatically diminish the utility and cost-effectiveness of the program. Also of note, subsequent state RGGI proposals abandoned the traditional method of direct allocation of allowances to affected facilities without cost in favor of the currently-proposed 100% allowance auction design, which could increase leakage.¹⁹²

Existing state efforts are already underway. The New Jersey energy regulator is required to develop a plan to reduce leakage of power into the state by July 2009. Public Service Electric & Gas Company (PSEG) proposed a plan to have New Jersey curtail imports of high-carbon power from out-of-state cheaper power supplies by requiring regulated retailers to purchase a certain amount of power from RGGI-covered suppliers.¹⁹³ Even at a modest auction

187. COWART, *supra* note 178, at 3.

188. RGGI WORKING GROUP, *supra* note 22, at ES-1.

189. See CAL. ENERGY COMM'N, *supra* note 24, at 4 tbl.2 (showing California imports approximately 10% of its total electricity from out of state coal plants).

190. For more information on these projects, compiled by the Edison Electric Institute, see http://www.eei.org/industry_issues/energy_infrastructure/transmission/Trans_Project_A-D.pdf at 4.

191. See REG'L GREENHOUSE GAS INITIATIVE, *supra* note 47.

192. *Id.*

193. Mary Powers, *PSEG 'Leakage' Plan Would Cost New Jersey Ratepayers \$50 Million Annually, Group Says*, ELECTRIC UTIL. WEEK, July 14, 2008, at 8.

price of \$6.35 per ton for RGGI allowances, the rationale is that leakage into the state would stop RGGI's goal of fostering low-carbon power by increasing the import of less expensive high-carbon power into the state by 26% to 35%.¹⁹⁴ The New Jersey Public Advocate responded that it would require a subsidy of about \$50 per Mwh to gas plants to make state gas-fired plants as cost-efficient as out-of-state coal-fired plants.¹⁹⁵ In response, the Los Angeles Department of Water and Power, the nation's largest public utility, is undertaking an analysis of whether this will require it to divest its out-of-state coal-fired power contracts. For coal-fired power imported from out-of-state, constituting about 45% of its supply, these contracts otherwise do not expire until 2119 and 2027.¹⁹⁶

While these regulatory responses would deal with leakage, they also enact a form of regulation that discriminates on power based on geographic point of origin. New Jersey state legislation prohibits energy efficiency measures from being deployed to mitigate potential leakage, unless other methods are found to violate the Constitution.¹⁹⁷ It thus favors regulation of conduct rather than incentives for demand side management (DSM) alternatives or conservation. The New Jersey Public Advocate criticized another proposal for New Jersey to extend the state's RGGI cap to cover imported generation, as creating Commerce Clause violations.¹⁹⁸ To stem this inflow of power from outside the RGGI control region, the RGGI states are now discussing implementing some type of control, regulation, or tax to discourage cheaper power imports to LSEs from unregulated states external to the RGGI regions.¹⁹⁹ Such regulation by the RGGI states will have to target power flows based on their state of power generation origin, distinguishing between those from RGGI states and non-RGGI states. Such controls on the free flow of electricity from other states, where electricity is a commodity or service that is a quintessential article in interstate commerce,²⁰⁰ run up against the dormant Commerce Clause.

The governors in affected RGGI states agreed to "pursue technically sound measures to prevent leakage from undermining the integrity of the [p]rogram."²⁰¹ The MOU provides for a multi-state RGGI Emissions Leakage Staff Working Group to "consider potential options for addressing leakage" and to issue a report assessing those options by December 2007.²⁰² Nonetheless, some

194. *Id.*

195. *See id.*

196. Lyn Corum, *Los Angeles DPW Hires Goldman Sachs, JP Morgan, to Evaluate Divesture of Assets*, ELECTRIC UTIL. WEEK, at 1.

197. Powers, *supra* note 193.

198. *Id.*

199. *See Bolster, supra* note 54, at 745 ("The resulting increase in cheaper, imported electricity will undermine the goal of the program because imported emissions will not count towards the region's emission limits even though they are directly associated with the region's electricity consumption.").

200. *See infra* Part III.B.

201. RGGI MOU, *supra* note 50, at 10.

202. *Id.* at 9.

states proposed RGGI regulations prior to receipt of final analysis from the RGGI Emission Leakage Staff Working Group.²⁰³

The effort against leakage by the early states is ultimately a fight of “us” (a state regulating carbon from its power generators) versus them “them” (neighboring states or foreign countries that do not similarly regulate carbon emissions from their power sectors). This is a very real policy concern because the import of higher-carbon power was already occurring prior to carbon regulation; it may now accelerate. States blanch at the thought of penalizing their own in-state power generators via carbon regulation, but in the end leakage could increase total regional carbon emissions and emissions by out-of-state producers—counter to the intended policy outcome. However, the legal mechanisms used to control such leakage are geographically-based discriminatory regulation. This immediately raises dormant Commerce Clause concerns, and invokes the most exacting strict scrutiny legal standard, under which few similar state regulations have survived. A March 2008 RGGI working group report urged states to be cautious in trying to tax or adopt measures to frustrate leakage from outside the RGGI region.²⁰⁴

B. Commerce Clause Requirements

The specific mechanism for structuring and protecting state RGGI or California carbon regulations must not run afoul of constitutional Commerce Clause requirements. Traditionally, a state’s ability to protect its citizens’ “health, life, and safety” is a valid exercise of its power.²⁰⁵ The retail regulation of utilities is also a traditional function of local police power of the states.²⁰⁶ The generation and transmission of electric energy, however, are activities particularly likely to affect more than one state.²⁰⁷ The Supreme Court has recognized 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.”²⁰⁸ Under the Federal Power Act of 1935, the federal government exercises regulatory power over the wholesale

203. The RGGI Emissions Leakage Staff Working Group issued a preliminary report on March 14, 2007 entitled POTENTIAL EMISSIONS LEAKAGE AND THE REGIONAL GREENHOUSE GAS INITIATIVE (RGGI): EVALUATING MARKET DYNAMICS, MONITORING OPTIONS, AND POSSIBLE MITIGATION MECHANISMS, *supra* note 22. This report lists options for addressing leakage, but does not assess the potential effectiveness of these options or analyze the potential impacts on energy prices, allowance prices, electric system reliability, or the economies of RGGI states as instructed in the MOU. Likewise, the New York RGGI Proposal is being proposed prior to design and development of the auction platform and structure. *See infra* Part V.

204. *See* RGGI WORKING GROUP, *supra* note 22.

205. *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 443 (1960).

206. *Ark. Elec. Coop. Corp. v. Ark. Pub. Serv. Comm’n*, 461 U.S. 375, 377 (1983) (citing *Munn v. Illinois*, 94 U.S. 113 (1977)).

207. *Id.*

208. *Fed. Energy Reg. Comm’n v. Mississippi*, 456 U.S. 742, 757 (1982).

power market, while the states are left alone to regulate most retail transactions.²⁰⁹

The Commerce Clause provides that “[t]he Congress shall have Power . . . [t]o regulate Commerce . . . among the several States.”²¹⁰ Although the Commerce Clause is an affirmative grant of power, the Supreme Court has also interpreted it as limiting the States’ ability to “unjustifiably . . . discriminate against or burden the interstate flow of articles of commerce.”²¹¹ Although the Commerce Clause affirmatively grants Congress the ability to regulate interstate commerce, there is no clear directive limiting states’ abilities to regulate where Congress has remained silent.²¹² Nevertheless, the U.S. Supreme Court has consistently held that the Commerce Clause exerts a prohibitive force limiting states’ powers to regulate interstate commerce in certain situations, even where Congress has not regulated.²¹³ Therefore, although states are permitted to promote in-state businesses, they are not permitted to protect those businesses from out-of-state competition by enacting laws that “benefit in-state economic interests by burdening out-of-state competitors.”²¹⁴

The power of the Commerce Clause “has long been understood to have a ‘negative’ aspect that denies the States the power unjustifiably to discriminate against or burden the interstate flow of articles of commerce.”²¹⁵ This specific aspect of the “dormant” Commerce Clause has been interpreted by courts as a tool used to prevent the states from splitting into separate economic entities.²¹⁶ The issue of the application of the dormant Commerce Clause has been characterized as the “oldest question in constitutional law.”²¹⁷

209. See Title II of the Public Utility Act of 1935, 74 Pub. L. 333, 49 Stat. 803, 838–863 (1935) (amending the Federal Power Act).

210. U.S. CONST. art. I, § 8, cl. 3.

211. *Or. Waste Sys., Inc. v. Dep’t of Env’tl. Quality*, 511 U.S. 93, 98 (1995); *accord* *H.P. Hood & Sons, Inc. v. Du Mond*, 336 U.S. 525, 534–38 (1949); *Cooley v. Bd. of Wardens*, 53 U.S. (12 How.) 299 (1851).

212. See *Maine v. Taylor*, 477 U.S. 131, 137–38 (1986) (maintaining that the Commerce Clause limits, but does not forbid, state commercial legislation).

213. *E.g.*, *Reading R.R. Co. v. Pennsylvania*, 82 U.S. (15 Wall.) 232, 279–80 (1872); *Brown v. Maryland*, 25 U.S. (12 Wheat.) 419, 448–49 (1827); *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, 208 (1824).

214. *New Energy Co. of Ind. v. Limbach*, 486 U.S. 269, 273 (1988) (citing *Bacchus Imports, Ltd. v. Dias*, 468 U.S. 263, 270–273 (1984); *H.P. Hood & Sons*, 336 U.S. 525, 532–533 (1949)).

215. *Or. Waste Sys.*, 511 U.S. at 98 (citing *Wyoming v. Oklahoma*, 502 U.S. 437 (1992); *Welton v. Missouri*, 91 U.S. 275 (1876)).

216. See *Hughes v. Oklahoma*, 441 U.S. 322, 325–26 (1979) (noting that the Commerce Clause is intended to prevent “economic Balkanization” among the states, and recognizing that the Dormant Commerce Clause limits state regulation as much as federal regulation of commerce).

217. H. Jefferson Powell, *The Oldest Question of Constitutional Law*, 79 VA. L. REV. 633, 635 (1993).

C. *Jurisprudential Standards and Different Outcomes*

There are two standards of judicial review under a dormant Commerce Clause challenge to state regulation. First, geographically-based discrimination is evaluated under a strict scrutiny test applied by the federal courts, and such a statute, with rare exceptions, is found to be *per se* a violation of the dormant Commerce Clause.²¹⁸ Second, state regulation that is not geographically-based, but nonetheless has incidental impacts on interstate commerce, is evaluated under a balancing test where the state interest is balanced against the degree of impairment of interstate commerce.²¹⁹ Moderately discriminatory state actions can survive this challenge.

The construction of the dormant Commerce Clause is one of the most litigated environmental and energy issues before the Supreme Court in the last quarter century.²²⁰ Where a regulation “clearly” on its face discriminates against interstate commerce or has that practical effect, that regulation violates the Constitution unless some justification for the discrimination unrelated to protectionism is demonstrated.²²¹ Point of origin discrimination to protect in-state interests to the detriment of interstate commerce “is *per se* invalid,” unless the state can identify a legitimate and compelling local interest that can be served by no other means.²²² If local regulations discriminate facially or by intent against interstate commerce based on geographic location, whether by regulation or taxation, courts apply a “strict scrutiny” standard and there is a high probability that the regulation will be invalidated.²²³ Any statute or regulation that facially discriminates against interstate commerce by giving “differential treatment [to] in-state and out-of-state economic interests that benefits the former and burdens the latter” will be “virtually *per se* invalid.”²²⁴

On the other hand, there are cases in which a state may be exercising traditionally recognized authority (including protection of health, environment, natural resources, and safety), and not discriminating based on geographic locus, but the effect nonetheless is to discriminate against the free flow of interstate commerce. In such cases, the court will balance the interest of the state against the burden on commerce, and will evaluate less offensive means

218. STEVEN FERREY, ENVIRONMENTAL LAW: EXAMPLES & EXPLANATIONS 148–49 (4th ed. 2007).

219. *Id.*

220. The issue of bans or discouragement of interstate waste transport has been before the Supreme Court many times since 1978. *See id.* at 148–157.

221. *C. & A. Carbone v. Town of Clarkstown*, 511 U.S. 383, 402 (1994) (citing *Wyoming v. Oklahoma*, 502 U.S. 437, 454 (1992); *Maine v. Taylor*, 477 U.S. 131, 138 (1986)).

222. *Id.* at 392 (citing *Maine v. Taylor*, 477 U.S. at 138).

223. *See H.P. Hood & Sons, Inc. v. Du Mond*, 336 U.S. 525 (1949); *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978) (finding a ban on interstate waste disposal in private facility impermissible); *West v. Kan. Natural Gas Co.*, 221 U.S. 229 (1911) (holding that an attempt by a state to prohibit export of natural gas discriminated against interstate commerce on such basis).

224. *Or. Waste Sys., Inc. v. Dep’t of Env’tl. Quality*, 511 U.S. 93, 99 (1995).

of effectuating the purpose of local regulation.²²⁵ A nondiscriminatory regulation supported by a legitimate state interest, incidentally burdening interstate commerce, can be constitutional unless the burden on interstate commerce is clearly excessive in relation to the local benefits. With such a balancing it is not necessary to demonstrate that the state statute is necessarily the least restrictive means to accomplish the stated purpose.²²⁶

“[N]ondiscriminatory regulations that have only incidental effects on interstate commerce are valid ‘unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits.’”²²⁷ These are two distinct standards for judicial review. Challenged environmental regulations that have been deemed valid under the less stringent “incidental burden” standard have balanced the “substantial state interest in promoting conservation of energy and other natural resources”²²⁸ against any burdens on interstate commerce.²²⁹

Because no bright line separates regulation that does and does not discriminate, and the judicial standard applied by the court is so distinct between the two, the critical determinants in analyzing a challenged regulation are the court’s initial conclusion as to whether or not a regulation is discriminatory,²³⁰ and if so, whether such discrimination is based on point-of-origin regulation.²³¹ If a regulation is discriminatory and the discrimination is based on point-of-origin regulation, judicial strict scrutiny will apply. Even in the absence of a discriminatory intent, courts are able to find Commerce Clause violations and strike state regulations to prevent “balkanization” that would result in an inconsistent patchwork of regulations.²³²

225. See *Hughes v. Oklahoma*, 441 U.S. 322 (1979); *City of Philadelphia*, 437 U.S. 617; *Dean Milk Co. v. City of Madison*, 340 U.S. 349 (1951) (holding that the city must use a less discriminatory means of regulating the quality of milk sold and choose a nondiscriminatory method to effectuate such purpose).

226. See *Minnesota v. Clover Leaf Creamery Co.*, 449 U.S. 456 (1981) (holding that a Minnesota statute banning plastic milk containers as environmentally unacceptable served a legitimate purpose and was sustained, notwithstanding the fact that it promoted local industry at the expense of out-of-state industry). Cf. *Pike v. Bruce Church, Inc.*, 397 U.S. 137 (1970) (holding that the state may not restrict fruit packaging because the restriction was clearly imposed to protect local industry and burdened interstate commerce).

227. *Or. Waste Sys.*, 511 U.S. at 99 (quoting *Pike*, 397 U.S. at 142 (1970)).

228. *Clover Leaf Creamery*, 449 U.S. at 473.

229. See, e.g., *id.*

230. See *Hunt v. Wash. State Apple Adver. Comm’n*, 432 U.S. 333 (1977).

231. *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978); *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186 (1994).

232. See *Hughes v. Oklahoma*, 441 U.S. 322 (1979) (invalidating a statute that placed no limit on the number of minnows that could be taken by licensed minnow dealers but forbade any person from leaving the state with more than three dozen minnows). In this case, the Supreme Court refined the *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978), per se test to accommodate potentially offensive laws that may not discriminate in construction, but have the practical effect of burdening out-of-state competitors. The Supreme Court articulated three inquiries: (1) whether the challenged statute regulates evenhandedly with only “incidental” effect on interstate commerce, or discriminates against interstate commerce either on its face or in *practical effect*; (2) whether the statute serves a legitimate local

D. Where There Is Milk, There Is Fire

While mankind manipulates the universe with goblets of fire, the key applicable Commerce Clause case for state carbon regulation involved milk, not fire. This U.S. Supreme Court precedent, involving milk regulation in Massachusetts, looms as the significant analogous precedent that may restrict the ability of states to regulate the use of high-carbon sources in the power sector. As such, the RGGI states, particularly Massachusetts, one of the leading carbon regulation states, may find that where there is milk, there is fire.

No one has yet challenged any of the carbon regulation schemes directly. Indeed, as the regulations are still being formulated by the states, such a legal challenge would be premature.²³³ This also was true about analogous state renewable energy regulation until 2008, when the first challenge was filed against these less controversial programs.²³⁴ Will the effort of the GHG emissions regulation schemes to stop leakage of power from outside the regulated region survive challenge? There is important precedent that suggests an answer.

The combination of (1) a tax or charge on exterior suppliers, with (2) a subsidy to certain in-state activities, as is now contemplated by most of the RGGI states based on point of origin of the articles in commerce, factually and legally parallels the U.S. Supreme Court decision in *West Lynn Creamery, Inc. v. Healy*.²³⁵ The Court there found a violation of the dormant Commerce Clause in the state regulatory scheme.²³⁶ It conceded that either part of the

purpose; and, if so, (3) whether alternative means could also promote this local purpose without discriminating against interstate commerce. *Id.* at 336. This last inquiry is similar to the one articulated in *Dean Milk Co. v. City of Madison*, 340 U.S. 349 (1951), where the Court established the rule that even when a regulation is not facially discriminatory, it may not be constitutional if the practical effect of its application is discriminatory.

233. As to the doctrine of ripeness and exhaustion of administrative remedies regarding challenge of administrative regulations, see FERREY, *supra* note 218, at 57–60.

234. See *Miller v. Ariz. Corp. Comm'n*, No. CV-08-1096SA (Ariz. filed June 27, 2008), complaint available at <http://www.goldwaterinstitute.org/Common/Img/Miller%20v%20Arizona%20Corporation%20Commission.pdf> (challenging a 2006 agency action where there was no specific RPS legislation in the state, but where rules for RPS had been approved by the Arizona Attorney General in 2007).

235. 512 U.S. 186 (1994).

236. *Id.* at 199. The pricing order's "avowed purpose" was to enable Massachusetts dairy farmers to compete with lower cost out-of-state farmers. *Id.* at 194. The Massachusetts scheme was comprised of two parts. First, the state issued a regulatory pricing order requiring every milk dealer selling in Massachusetts, regardless of loci, to make a monthly "premium payment" into the "Massachusetts Dairy Equalization Fund." *Id.* at 190. The amount of such payments was determined by the amount of the individual dealer's "Class I" milk sales in Massachusetts. In other words, the extraction was a direct function of the quantity sold. See *id.* at 190–91 (articulating a formula for calculating payments). Second, the fund's proceeds were distributed monthly to Massachusetts milk producers. *Id.* at 191. Each Massachusetts producer received a share from the total fund equal to his or her proportionate share of the state's total production of raw milk. *Id.* Out-of-state milk dealers were regulatorily ineligible to receive funds. See *id.* at 190 n.4 (applying the order to only dealers within the Commonwealth). This disbursement operated as a state subsidy of in-state dairy farmers, the initial link in the milk production process, by a tax imposed on all wholesalers participating in the state market—a subsequent link in the chain of commerce affecting this good. See *id.* at 194–96 (explaining how the tax impermissibly

program considered alone—the tax or the payments—would probably be constitutional.²³⁷ However, the Court assessed the “entire program,” declining to “divorce the premium payments from the use to which the payments [were] put.”²³⁸ The scheme imposed the net burden of the tax on out-of-state producers.²³⁹

What is important to note is that many of the arguments the state of Massachusetts advanced to the Supreme Court to defend that regulation also apply to carbon regulation, all of which the Supreme Court entirely rejected as mitigating elements.

First, the state in *Healy* argued that because its pricing order or tax was applied only to in-state transactions, it was “nondiscriminatory.”²⁴⁰ In other words, a state should be allowed to tax or penalize its own in-state transactions. The Supreme Court has upheld state taxation of sales, properly measured by the gross charge for the purchase, “regardless of any activity outside the taxing jurisdiction that might have preceded the sale or might occur in the future.”²⁴¹ Similarly, a sale of services can be treated as a local state event similar to a sale of tangible goods solely within the state of final services delivery.²⁴² Therefore, “even gross receipts derived from sales of services to be performed wholly in one State are taxable by that State.”²⁴³ Nonetheless, the Court found that the tax did not stand alone, and the whole program was discriminatory. The combination of tax on interstate articles and subsidized projects together violated the Commerce Clause.

Second, the state argued that since the direct subsidization of domestic industry is per se constitutional, the combination of tax and subsidy—each allowed in its own right—would not violate the dormant Commerce Clause.²⁴⁴ The Court disagreed:

A pure subsidy funded out of general revenue ordinarily imposes no burden on interstate commerce, but merely assists local business. The pricing order in this case, however, is funded principally from taxes on the sale of milk

discriminated against out of state milk). By the time Massachusetts declared a “state of emergency” in early 1992, the number of dairy farms in the state had declined from approximately 850 in 1978 to approximately 380 in late 1991. *See* Ferrey, *supra* note 98, at 591 n.483 (noting the decline in the number of Massachusetts dairy farms).

237. *Healy*, 512 U.S. at 199. The state had argued that each component of the program was valid and therefore the sum of the parts must also be valid.

238. *Id.* at 201. The *Healy* Court observed that its “Commerce Clause jurisprudence is not so rigid as to be controlled by the form by which a State erects barriers to commerce. . . . [O]ur cases have eschewed formalism for a sensitive, case-by-case analysis of purposes and effects.” *Id.*

239. *Id.* at 199.

240. *Id.* at 198.

241. *Okla. Tax Comm’n v. Jefferson Lines, Inc.*, 514 U.S. 175 (1995) (citing *McGoldrick v. Berwind-White Coal Mining Co.*, 309 U.S. 33 (1940) (upholding tax on coal shipped into the taxing state)), *superseded by statute*, ICC Termination Act of 1995, Pub. L. No. 104-88, 109 Stat. 803 (1995).

242. *Id.* at 188 (citing *Goldberg v. Sweet*, 488 U.S. 252 (1989)).

243. *Id.*

244. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186, 198 (1994).

produced in other States . . . [W]hen a nondiscriminatory tax is coupled with a subsidy to one of the groups hurt by the tax, a State's political processes can no longer be relied upon to prevent legislative abuse, because one of the in-state interests which would otherwise lobby against the tax has been mollified by the subsidy.²⁴⁵

The Supreme Court focused on how combined tax and subsidy schemes undercut normal political checks and balances to find that they violated constitutional principles.²⁴⁶

Third, the state argued that because the milk dealers who incurred the charges were wholesalers, and thus not direct competitors of the Massachusetts dairy farmers who received the awarded subsidies and who were producers, the scheme imposed no discriminatory burden on commerce.²⁴⁷ The Supreme Court rejected this argument by holding 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."²⁴⁸

With the RGGI carbon scheme, even this unsuccessful argument could not be advanced, as the restricted or taxed out-of-region electricity wholesalers are direct competitors of the in-region electricity power wholesalers. In fact, most of the RGGI states have restructured their regulatory systems and partially deregulated their electric sectors to promote exactly such competition. Of the ten participating RGGI carbon-regulating states, all have restructured their electricity sectors in the past decade. So the RGGI carbon scheme lacks even some of the factual insulation that was unsuccessful in *Healy*.

Fourth, the state argued that any incidental burden on interstate commerce resulting from the pricing order in *Healy* is outweighed by local benefits, including "protecting unique open space and related benefits."²⁴⁹ The environmental argument is one that has been raised in most of the commerce clause adjudications of solid waste regulation that have occupied the courts.²⁵⁰ The Supreme Court here was not convinced that the protection of environmental values was a central purpose of the pricing order, and did not accept the state's stated purposes at face value.²⁵¹ In addition, the Court states that "even if environmental preservation were the central purpose of the pricing

245. *Id.* at 199–200.

246. *Id.*

247. *Id.* at 202.

248. *Id.* (citing *Brown v. Maryland*, 25 U.S. 419, (12 Wheat.) 419, 444, 448 (1827)).

249. *Id.* at 207 n.20 (quoting Brief for Respondent at 40).

250. *See, e.g., City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978).

251. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186 (1994). *Cf. City of Philadelphia*, 437 U.S. at 625–27. In that case, although the statute was "cloaked in the fashionable garb of environmental protection," there had been no showing "that the very movement of waste into or through New Jersey endangers health." *Id.* at 626, 629.

order, that would not be sufficient to uphold a discriminatory regulation.”²⁵² The use of facially discriminatory economic means taints an otherwise laudable end and violates the dormant Commerce Clause.²⁵³

On balance, the court found Massachusetts’ pricing charge and subsidy regulatory scheme to be “clearly unconstitutional” because “[i]ts avowed purpose and its undisputed effect are to enable higher cost Massachusetts dairy farmers to compete with lower cost dairy farmers in other States.”²⁵⁴ Because the pricing order’s effect on Massachusetts producers was entirely offset by the subsidy provided exclusively to Massachusetts dairy farmers, the court equated the combined tax and subsidy scheme to the legal equivalent impact of an ordinary tariff.²⁵⁵ A RGGI region (or other state) surcharge or tax on out-of-region carbon-emitting wholesale power imports bears many similarities to this scheme. The arguments that the states or groups of states regulating carbon will advance to defend regulation will parallel those advanced by Massachusetts to defend its regulation of milk. The only difference is that RGGI carbon regulation appears to lack some of the factual mitigating factors that characterized the milk regulation.

252. *Healy*, 512 U.S. at 207 n.20 (quoting *City of Philadelphia*, 437 U.S. at 626–27) (“[W]hatever New Jersey’s ultimate purpose, it may not be accomplished by discriminating against articles of commerce coming from outside the State unless there is some reason, apart from their origin, to treat them differently.”).

253. *Id.*

254. *Id.* at 194.

255. *Id.* The concurring opinion of Justice Scalia, joined by Justice Thomas, found the majority’s opinion too extensive. *Id.* at 207 (Scalia, J., concurring). Justice Scalia distinguishes the *Healy* scenario of a non-discriminatory tax upon industry, the revenue from which is placed in a segregated fund and is disbursed as subsidies to in-state members of the industry, from a non-discriminatory tax on industry coupled with a subsidy for the in-state members of the industry funded directly from the state general revenues. *Id.* at 210–11 (Scalia, J. concurring) (“There are at least four possible devices that would enable a State to produce the economic effect that Massachusetts has produced here: (1) a discriminatory tax upon the industry, imposing a higher liability on out-of-state members than on their in-state competitors; (2) a tax upon the industry that is nondiscriminatory in its assessment, but that has an ‘exemption’ or ‘credit’ for in-state members; (3) a nondiscriminatory tax upon the industry, the revenues from which are placed into a segregated fund, which fund is disbursed as ‘rebates’ or ‘subsidies’ to in-state members of the industry (the situation at issue in this case); and (4) with or without nondiscriminatory taxation of the industry, a subsidy for the in-state members of the industry, funded from the State’s general revenues The issue before us in the present case is whether the third of these methodologies must fall. Although the question is close, I conclude it would not be a principled point at which to disembark from the negative-Commerce-Clause train. The only difference between methodology (2) (discriminatory ‘exemption’ from nondiscriminatory tax) and methodology (3) (discriminatory refund of nondiscriminatory tax) is that the money is taken and returned rather than simply left with the favored in-state taxpayer in the first place. The difference between (3) and (4), on the other hand, is the difference between assisting in-state industry through discriminatory taxation and assisting in-state industry by other means. I would therefore allow a State to subsidize its domestic industry so long as it does so from nondiscriminatory taxes that go into the State’s general revenue fund.”).

*E. Can Greenhouse Gas Regulation Be Legally Distinguished
Notwithstanding the Supreme Court Precedent?*

Part D examined the Court's reasoning regarding the arguments advanced by Massachusetts. With carbon regulation, the regulation at issue is of a different article in commerce than with *Healy*, one that is expelled generally into the environment, rather than sold as a packaged commodity, and is directly related to the production, flow and sale of power, an interstate article of commerce, in interstate commerce. Power is not milk, and RGGI or California surcharges and subsidies are not local dairy subsidies.

With carbon, the proposed state schemes would create an emission right, rather than a market in a commodity per se. Yet that emission right has an intimate connection to a quintessential article of interstate commerce: electric power. Can the regulation of greenhouse gases be legally or factually distinguished from the regulation of milk with respect to the Commerce Clause? The analysis below explores three possible creative distinctions between the matters. Although there are significant factual distinctions between milk and power distribution, the constitutional distinction between them is scant in terms of carving out a legal exception for carbon regulation under the dormant Commerce Clause.

1. Selective Nature of Subsidies between Carbon and Other Products?

Is there a meaningful distinction in the nature of the subsidy that results under carbon regulation compared to milk subsidies? In *Healy*, every in-state dairy producer was entitled to receive a portion of the eventual subsidy. With an energy efficiency trust fund funded by the proceeds of auctioning RGGI allocations by a given state, only certain in-state users or generators of power will receive subsidies. A discriminatory subsidy, standing wholly alone, should be within state policy discretion and not violate the Commerce Clause.²⁵⁶

In *Healy*, approximately one-third of the milk tax was imposed on milk in-state, and two-thirds on milk in interstate commerce from out-of-state producers.²⁵⁷ So, the two-thirds out-of-state subsidized the one-third of the producers located in-state. In some of the electricity deregulated states, less than two-thirds of the taxed power may come from out of state.²⁵⁸ But whether

256. See *C. & A. Carbone, Inc. v. Town of Clarkstown*, 511 U.S. 383, 394 (1994) (stating in dicta that the town could subsidize its solid waste processing facility through general taxes or municipal bonds); *New Energy Co. of Ind. v. Limbach*, 486 U.S. 269, 278 (1988) ("Direct subsidization of domestic industry does not ordinarily run afoul of" the Commerce Clause); *S.-Cent. Timber Dev., Inc. v. Wunnicke*, 467 U.S. 82, 99 (1984) ("[T]he State could support its [timber] industry . . . by direct subsidy.").

257. *Healy*, 512 U.S. at 188, 191 n.5.

258. On average, about 50% of power ultimately sold proceeds through an interstate wholesale transaction prior to its retail sale. As recently as 1983, about 31.8% of all power arrived via a wholesale transaction. By the 1990s, this number had increased to 37%. See FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, §§ 8:3–8:4, tbl.8.5.

the power taxed from out of state is one-third or two-thirds does not alter the basic legal distinction based on the point of origin of the power. The Court in *Healy* focused on the ultimate economic impact, noting that “the [assessment is] effectively a tax which makes milk produced out of State more expensive. Although the tax also applies to milk produced in Massachusetts, its effect on Massachusetts producers is entirely . . . offset by the subsidy provided exclusively to Massachusetts dairy farmers.”²⁵⁹

What is important in *Healy* is not the discretionary or nondiscretionary nature of the subsidy (although this exacerbated its economic impacts), but the legal nature of the combined effect of tax and subsidy.²⁶⁰ Moreover, the carbon scheme could be even more facially discriminatory based on the point of origin of the power—out-of-region power imports would be taxed, and the benefits of the tax would be steered to power producers in-state. A surcharge and subsidy system was held by the Supreme Court as still discriminatory based on point of origin.²⁶¹

2. *In Versus Out: Market Segmentation and Energy Services?*

Is there a meaningful regulatory distinction between the subject matters of carbon and milk, or between goods and services? The dormant Commerce Clause regulates articles potentially in interstate commerce, which is typically applied to goods. States also regulate the provision of services, and do in some cases treat differently such in-state and out-of state services.²⁶² While milk is a classic good, states vary as to whether electricity is considered a good or a service, which could influence whether it is deemed an article in interstate commerce.²⁶³ However, emissions from the production of power certainly cause air emissions that are capable of interstate movement, and will have a value in commerce as carbon emissions are monetized and traded.

259. *Healy*, 512 U.S. at 195.

260. *See id.* at 195.

261. In *Bacchus Imports, Ltd. v. Dias*, 468 U.S. 263, 265 (1984), only a limited number of Hawaiian liquor producers were benefitted by the tax credit. The fact that other Hawaiian liquor dealers would be bearing the same discriminatory burden as out-of-state competitors did not protect the tax credit from constitutional attack. *Id.*

262. For example, some states regulate the certification and provision of legal and other services within a state, and may not afford equal status to professionals certified in or originating in a different state. *See generally* Ferrey, *Inverting Choice*, *supra* note 23, at 1865–1889.

263. For a discussion of the “goods” versus services distinction for electricity, *see* Ferrey, *Inverting Choice*, *supra* note 23; STEVEN FERREY, *THE NEW RULES: A GUIDE TO ELECTRIC MARKET REGULATION* ch.12 (2000). *See generally* Steven Ferrey, *Defining Power: Electrons and the Law*, 32 ENVTL. L. REP. NEWS & ANALYSIS 10038 (2000).

While the trend at FERC appears to be to consider electricity a good,²⁶⁴ and state law is mixed,²⁶⁵ it should not fundamentally alter the Commerce Clause analysis, although no one has examined whether power plant emissions are articles in commerce. As a matter of basic physics, a moving electron is an electron, no matter where it originates.²⁶⁶ But the determination of whether electricity is a good or service, and whether its by-product CO₂ emissions are goods or services, may pose an interesting wrinkle for Commerce Clause analysis and exceptions. This issue of “good” versus “service” characterization of electric power is dealt with thoroughly elsewhere.²⁶⁷ Because CO₂ emissions are directly linked to interstate power flows, the key question here is whether the carbon regulatory scheme is based on point of origin of the power and carbon; if so, it is evaluated under a strict scrutiny test which presumes per se invalidity, subject to very few exceptions.

The California carbon scheme, had it been implemented as originally proposed, could have been different from what it has become. States can segment the market to promote low carbon or renewable energy. FERC expressly acknowledged a state’s ability to use regulation to favor particular generation technologies over others, in holding that a “state may choose to require a utility to construct generation capacity of a preferred technology or to purchase power from the supplier of a particular type of resource.”²⁶⁸ Mandating by regulation that retail portfolios be comprised of a set percentage of lower pollution resources is distinct from a mandatory combined tax/subsidy scheme based on the point of origin of the power resource. The latter provisions utilize point of origin discriminatory regulation.

A surcharge on higher-carbon, out-of-state, wholesale power will also not pass muster. While the state can segment the market among resources, a state cannot discriminate in price or require an arbitrary price be paid for wholesale power.²⁶⁹ In *New England Power Co. v. New Hampshire*, the Supreme Court overturned a New Hampshire Public Utilities Commission regulation that

264. In several cases, FERC applied the U.C.C. rule or an equivalent, thus reinforcing its determination that electricity is a “good” for the purposes of law. See *Commonwealth Elec. Co.*, 46 F.E.R.C. ¶ 61,253, ¶ 61,759 n.15 (1989); *Village of Jackson Center*, 91 F.E.R.C. ¶ 63,013, ¶¶ 65,123–124 (2000); *Cent. Ill. Pub. Serv. Co.*, 20 F.E.R.C. ¶ 61,043, ¶ 61,089 (1982); *Golden Spread Elec. Coop.*, 40 F.E.R.C. ¶ 61,348, ¶ 62,047 (1987).

265. See Ferrey, *Inverting Choice*, *supra* note 23, at 1865–1888.

266. See FERREY, *LAW OF INDEPENDENT POWER*, *supra* note 23, § 10:79.

267. See Ferrey, *Inverting Choice*, *supra* note 23, at 1865–1889.

268. *S. Cal. Edison Co.*, 70 F.E.R.C. ¶ 61,215, ¶ 61,676 (1995).

269. FERC held that “regardless of whether the State regulatory authority determines avoided cost administratively, through competitive solicitation (bidding), or some combination thereof, it must in its process reflect prices available from all sources able to sell to the utility whose avoided cost is being determined. If the state is determining avoided cost by relying on a combination of benchmark and bidding procedures, as here, this means that the bidding cannot be limited to certain sellers (QFs); rather, it must be all-source bidding.” *Id.* ¶ 61,677.

restricted the export of privately owned hydroelectric energy produced within the state by a multi-state wholesale company.²⁷⁰

The New Hampshire regulation of in-state hydroelectric power, based exclusively on its point of origin, attempted to reserve cheaper hydroelectric power for consumers within the state.²⁷¹ The Supreme Court held such discriminatory pricing of interstate power through state regulation to be facially discriminatory and a violation of the dormant Commerce Clause, in spite of the states' traditional power to regulate the retail electric market.²⁷² It is also clear that regulation in one state cannot affect the actual physical flow of power from or in another state.²⁷³

It is not relevant in commerce clause jurisprudence whether the particular state regulation attempts to keep commerce "in" or "out" of the region.²⁷⁴ Power is a quintessential article in interstate commerce, moving almost at the speed of light. Therefore, the distinction of trying to keep certain preferential power in the state (such as in the *New Hampshire* case) or keep certain unpreferred power out of the region (in carbon regulating states, for example) is not what is legally significant. With carbon regulation, if a state or region attempts to segregate certain power within or without the region based on its point of origin, it creates similar constitutional concerns.

3. *Environmental Protection Rationales?*

The stated purpose of carbon allocation auctions and regulation, as articulated by some of the RGGI states, is raising revenue for the state as well as furthering environmental objectives.²⁷⁵ The Supreme Court has deferred to the stated purpose and made seminal in its reasoning a state's stated purpose for a particular regulation.²⁷⁶ Therefore, stated purposes matter.

270. 455 U.S. 331 (1982).

271. *Id.* at 336.

272. *Id.* at 339–40.

273. Power flows pursuant to Kirchoff's Law, at nearly the speed of light. *See generally* Kirchoff's Laws (Aug. 10, 2004), <http://cnx.org/content/m0015/latest/>. We have constructed a series of legal fictions that, for contractual, tort, and other commercial purposes, make assumptions about how electricity is transacted commercially. *See* FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, § 10.79; Ferrey, *Inverting Choice*, *supra* note 23, at 1843, 1908–14.

274. *Compare* City of Philadelphia v. New Jersey, 437 U.S. 617 (1978), Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep't of Natural Res., 504 U.S. 353 (1992), Or. Waste Sys., Inc. v. Dep't of Env'tl. Quality, 511 U.S. 93 (1995), *and* Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334 (1992) (keeping articles of commerce out of the region), *with* C. & A. Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383 (1994), *and* U. & I. Sanitation v. City of Columbus, 205 F.3d 1063 (8th Cir. 2000) (keeping articles of commerce in the region).

275. *See* discussion *infra* Part III.A regarding articulated objectives of certain states in RGGI regulation.

276. *See, e.g.,* Pac. Gas & Elec. Co. v. State Energy Res. & Dev. Comm'n, 461 U.S. 190 (1983) (deferring to California's stated purpose of economic planning where a regulation appeared to have been enacted to block nuclear power based on health and safety impacts, which are exclusively within federal jurisdiction).

The underlying purpose of the milk subsidy was to promote in-state milk production against cheaper out-of-state competition.²⁷⁷ However, an environmental rationale also was raised to defend the milk regulation, including “protecting unique open space and related benefits.”²⁷⁸ The *Healy* Court did not accept the environmental purpose or rationale at face value, and was not convinced that the protection of unique open space was a “central” purpose of the Massachusetts milk pricing order.²⁷⁹

In *New Jersey v. Philadelphia*, the Court held that however legitimate a state’s ultimate environmental protection purpose, such may not be accomplished by discriminating against out-of-state articles of commerce, unless justified by some rationale apart from place of origin.²⁸⁰ The Court in *Healy* found that *even if* environmental preservation were the central purpose of the milk pricing order, that would not be sufficient justification to uphold a discriminatory regulation.²⁸¹ The Court has consistently maintained that a Commerce Clause violation occurs from either discriminatory purpose or discriminatory effect—either by the design or application of regulation.²⁸² The environmental purpose of carbon regulation, when accompanied by discriminatory purpose or effect, creates significant constitutional issues under controlling Supreme Court precedent.

4. *Role of the Wholesale ISO*

Does the supposed deregulation of power markets in many states, and the creation of regional independent system operators to control the transmission system, change the analysis?²⁸³ FERC has encouraged the formation of ISOs and of regional transmission organizations (RTOs).²⁸⁸ The price for the sale of wholesale power is still regulated by FERC.²⁸⁹

277. *W. Lynn Creamery, Inc. v. Healy*, 512 U.S. 186 *passim* (1994). The purpose of the scheme “is to save an industry from collapse.” *Id.* at 204 (quoting Brief for Respondent at 16).

278. *Id.* at 204 n.20 (quoting Brief for Respondent at 40).

279. *Id.*

280. *City of Philadelphia v. New Jersey*, 437 U.S. 617, 626–27 (1978); *see also* *C. & A. Carbone, Inc., v. Town of Clarkstown*, 511 U.S. 383, 393 (1994) (holding that the town cannot “justify the flow-control ordinance as a way to steer solid waste away from out-of-town disposal sites that it might deem harmful to the environment. To do so would extend the town’s police power beyond its jurisdictional bounds”).

281. *Healy*, 512 U.S. at 207 n.20.

282. *Bacchus Imports, Ltd. v. Dias*, 468 U.S. 263, 270 (1984); *Minnesota v. Clover Leaf Creamery Co.*, 449 U.S. 456, 471 n.15 (1981).

283. *See* FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, § 10:87.

288. *See* F.E.R.C. Docket No. RM99-2-000, 89 F.E.R.C. ¶ 61,285 (1999).

289. In many states, utilities are compelled to provide a Standard Offer regulated electric supply for those customers who do not choose a competitive supplier, and a default service supply for those who lose or leave an alternative generation provider. Standard Offer service is scheduled to be no longer available after a multi-year transition period. *See, e.g.*, the Massachusetts D.T.E. Order in Docket 96-100.

The RGGI states and California operate their wholesale regional power markets in similar ways.²⁹⁰ Non-utility generators may sell power to a customer or a retailer through the regional ISO power market.²⁹¹ Each participant is required to submit hourly balanced generation and demand bids²⁹² to the ISO.²⁹³ Taking these balanced bids, the ISO controls the dispatch of generation, manages the reliability of the transmission grid, provides open access to transmission facilities, and provides ancillary services.²⁹⁴

Most of the power purchased by providers in a carbon-regulating state will have previously passed through a wholesale transaction to arrive eventually at the retail user. The entirety of this wholesale power flow is in interstate commerce and is subject to terms and conditions set by FERC, rather than state jurisdiction.²⁹⁵ There is no residual state jurisdiction of any kind over wholesale power transactions, let alone their restriction.²⁹⁶

*F. Possible Saving Doctrines:
Compensatory Tax and Proprietary Actions; Quarantine*

As set forth above, there are limited exceptions to the presumption of invalidity of state regulatory actions that discriminate against interstate commerce based on point of origin of that commerce. Where a tax is imposed on interstate commerce for the purpose of compensating regulated entities as against an in-state tax, or if the state acts in an ownership or proprietary manner over a resource, rather than a pure regulatory manner, such an exception may

290. For a discussion of the California energy market debacle, see Steven Ferrey, *The Eagles of Deregulation: The Role of the Courts in a Restructured Environment*, 32 ENVTL. L. 297 (2002); Ferrey, *supra* note 131.

291. See ISAAC MOORE & JOHN H. ANDERSON, PAC. GAS & ELEC. CO., INTRODUCTION TO THE NEW CALIFORNIA POWER MARKET (1997); CAL. PUB. UTIL. CODE §§ 367(e)(2), 365(a) (West 2008). The scheduling coordinator provides a forum for market clearing sales. The Power Exchange is a special scheduling coordinator operating pursuant to orders approved by FERC, and under regulations promulgated by the California Public Utilities Commission and approved by FERC, that determines a minimum price per kilowatt hour (kWh), the market clearing price, for each hour of the day based on participants' initial bids.

292. Demand denominates the maximum quantity of energy delivered to a customer. A customer or retailer places demand bids into a scheduling coordinator indicating the quantity of energy that a participant wishes to buy during a particular time for a particular price. See 3 STEVEN FERREY, THE LAW OF INDEPENDENT POWER app. B (2008).

293. See Cal. Pub. Utils. Code § 335. The ISO is a state-created non-profit corporation that manages the utility-owned transmission grid. Creating ISOs gives operating control of the transmission system to an independent organization of the generating facilities using the network. The operating responsibilities of an ISO would include having final authority over the dispatch of generation, ensuring open access to the transmission grid, administering nondiscriminatory service tariffs subject to FERC jurisdiction, and maintaining compliance with reliability standards. F.E.R.C. Order 889, 18 C.F.R. Part 37 (1996); F.E.R.C. Docket No. RM96-11-000 (1996) (amending 18 C.F.R. Part 35). In most situations, utilities will retain ownership of existing transmission facilities while relinquishing operational power to the ISO.

294. See CAL. PUB. UTIL. CODE §§ 345-50.

295. See *infra* Part III.B for a detailed treatment of federal authority over wholesale power flows.

296. See *infra* Part III.B.

exist. If regulations do not qualify for one of these exemptions under a court's strict scrutiny test, they are usually found to be in violation of the dormant Commerce Clause. Would the carbon regulation schemes proposed by the states qualify for such exemptions?

1. *Compensatory Tax Doctrine*

Any state regulation of carbon that directly works to solve the problem of leakage would likely require either a separate surcharge or emissions cap-and-trade system to deal with imported electricity, and would thus likely be considered facially discriminatory because it distinguishes between in-region and out-of-region power.²⁸⁴ The Court has addressed and overturned a number of interstate taxation schemes. In *Boston Stock Exchange v. State Tax Commission*, the Court struck down New York's stock transfer tax.²⁸⁵ In 1978, the Court overturned Louisiana's first-use mineral/energy tax.²⁸⁶

Although the Supreme Court has deemed that a state statute being discriminatory "may be a fatal defect," it has also outlined an exception known as the "Compensatory Tax Doctrine," which "justif[ies] a facially discriminatory tax as achieving a legitimate local purpose that cannot be achieved through nondiscriminatory means."²⁸⁷ To qualify, such a tax must "impose[] on interstate commerce the rough equivalent of an identifiable and 'substantially similar' tax on intrastate commerce."²⁸⁸

As a threshold matter, the state must identify the intrastate burden for which it is attempting to compensate.²⁸⁹ Once identified, this tax must be shown to "approximate—but not exceed—the amount of the tax on intrastate commerce."²⁹⁰ Finally, "events on which the interstate and intrastate taxes are imposed must be 'substantially equivalent' . . . serv[ing] as mutually exclusive prox[ies] for each other."²⁹¹

284. See Bolster, *supra* note 54, at 748 ("The LSE regulation imposes burdens on electricity crossing state lines only. Therefore it burdens out-of-state generators wishing to sell into the RGGI region, but does not *itself* impose the same burdens on in-state generators.").

285. 429 U.S. 318 (1977). The transfer tax applied to all sales and transfers, except those sales completed in New York. The exemption was designed to encourage sellers to work through New York brokers. See *id.* at 327–28 (describing purpose of transfer tax). The Court determined that the exemption would induce sellers to trade through New York brokers in order to reduce tax liability. *Id.* at 330–31. This incentive offended the Commerce Clause by "foreclos[ing] tax-neutral decisions." *Id.* at 331.

286. *Maryland v. Louisiana*, 451 U.S. 725 (1981). The Louisiana Legislature enacted a tax of \$0.07 per thousand cubic feet on the "first use" of any natural gas imported into Louisiana that was not previously taxed by another state or the federal government. *Id.* at 731–32. The statute defined "first use" as selling, transporting, processing, treating, using in manufacturing, or "other ascertainable action." *Id.*

287. *Or. Waste Sys., Inc. v. Dep't of Envtl. Quality*, 511 U.S. 93, 101, 102 (1995).

288. *Id.* at 102–03.

289. *Id.* at 103 (finding unsuccessful a resort to compensatory tax doctrine to save a state-imposed waste surcharge).

290. *Id.*

291. *Id.* (brackets in original).

The challenge in assigning any type of surcharge or emissions cap-and-trade program on imported electricity into those states that regulate carbon, would be establishing a uniform way to measure both the emissions from the in-state regulated generators and the out-of-state non-regulated generators to satisfy the “equivalent burdens” aspect of the exception.²⁹²

2. *Quarantine Exception*

Other than the Compensatory Tax Doctrine, another recognized exception to invalidity under strict scrutiny of geographically-based regulatory discrimination is the necessary quarantine of commodities or things. The narrow quarantine exception was recognized in *Maine v. Taylor*.²⁹³ The state demonstrated in that case that there was a distinct danger to the ecosystem and no less discriminatory way to realize the state interest than quarantining the commodity out-of-state.²⁹⁴ Even in applying this exception, the Supreme Court stated that the “Commerce Clause significantly limits the ability of States and localities to regulate or otherwise burden the flow of interstate commerce, but it does not elevate free trade above all other values.”²⁹⁵

Problems exist, however, in extending the holding of *Maine v. Taylor* to a carbon-regulating scheme for out-of-state electricity. First, in contrast to a key fact in *Taylor*, in-state CO₂ is identical to out-of-region CO₂. Second, CO₂ impact is not local and isolated as the environmental toxin in *Taylor*; it is cumulatively an international problem. Third, there are less discriminatory alternatives to achieve CO₂ reductions²⁹⁶ available, some of which have even been proposed by committees associated with RGGI. Therefore, it is hard to legally transfigure carbon emission regulation into the judicially limited last-resort quarantine exception recognized in *Taylor*.²⁹⁷

3. *Proprietary Actions*

There is one additional exception where, in a proprietary mode, a state may marshal and control its *own* energy resources, even if that discriminates in favor of in-state interests, and against out-of-state interests or interstate commerce. In *Hughes v. Alexandria Scrap Corp.*, the Court held that in a proprietary mode, a state can burden “commerce which would not exist if [the

292. See RGGI WORKING GROUP, *supra* note 22, at 11–25. Proposals for tracking imported electricity have been made, focusing on the extension of current tracking systems to establish historical baselines on import which would then be used to measure any increases in demand. *Id.*

293. 477 U.S. 131 (1986).

294. *Maine v. Taylor*, 477 U.S. 131, 151–52 (1986).

295. *Id.* at 151.

296. See *Dean Milk Co. v. City of Madison*, 340 U.S. 349 (1951) (holding that a state must pursue first reasonable nondiscriminatory regulatory alternatives); *Fort Gratiot Sanitary Landfill, Inc. v. Mich. Dep’t of Natural Res.*, 504 U.S. 353 (1992)

297. *Taylor*, 477 U.S. at 151–52.

state] had not decided to subsidize a portion of the . . . business.”²⁹⁸ Recently, in *United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Authority*, the Supreme Court determined that a local “flow control” ordinance that required that waste from a particular area go solely to one waste handling facility was valid.²⁹⁹

While this seems at odds with some prior jurisprudence,³⁰⁰ some have viewed these cases as giving states greater leeway in regulation where they may have an impact on businesses outside of their state.³⁰¹ However, the key distinction in *United Haulers* was that the regulated entity was publicly-owned. That is not the case with carbon regulation under the RGGI or the California schemes. The affected generating sources are almost entirely not state-owned.

Moreover, there is precedent, originating in the RGGI region, regarding regulation of privately-owned power differentially based on state of origin. In New Hampshire, an effort to allocate less expensive in-state hydroelectric power for local consumers, as opposed to more expensive out-of-state power produced from fossil fuels by the same multi-state utility, was stricken by the Supreme Court.³⁰² State carbon regulation does not entail quarantining an unavoidable toxin; instead, such regulation allows copious quantities to be emitted, but charges for that right or implements modest restrictions. Moreover, CO₂ is not a toxin; it is essential to life on earth. Therefore, the proprietary exception and the quarantine exception would not apply.

The RGGI Working Group will try to defend against possible Commerce Clause challenges by (1) advocating that such regulation be interpreted as an “incidental burden” and (2) invoking the *Pike v. Bruce Church, Inc.* balancing test rather than the *Philadelphia* strict scrutiny standard of review.³⁰³ However, because RGGI’s regulations are geographically-based, this may be a difficult needle to thread. The prevention of leakage will involve an “us” versus “them” distinction based on state of origin of power, which is itself in interstate commerce. The *Pike* balancing test would yield to the strict scrutiny test,

298. *Hughes v. Alexandria Scrap Corp.*, 426 U.S. 794, 815 (1976) (Stevens, J., concurring).

299. 127 S. Ct. at 1790, 1798 (2007).

300. *See, e.g., C. & A. Carbone, Inc. v. Town of Clarkstown*, 511 U.S. 383 (1994). The sole difference between the two cases is that in *United Haulers* the waste handling facility in question was publicly owned, unlike the privately owned facility in *Carbone*. Four of the six Supreme Court Justices who comprised the majority in the *United Haulers* case clearly based their decision, at least in part, on a belief that regulations that are not motivated by economic discrimination (protecting local businesses) should be viewed with favor even if they have some effect on interstate commerce. *United Haulers*, 127 S. Ct. at 1797–98. Two Justices (Scalia and Thomas) go further and favor scrapping the entire doctrine entirely. *Id.* at 1798–99 (Scalia, J., concurring in part); *id.* at 1799 (Thomas, J., concurring in the judgement).

301. *See* Letter from Seth Kaplan, Dir. of Clean Energy and Climate Change Program, Conservation Law Found., to RGGI Commissioners, RGGI Staff Working Group, & RGGI Stakeholders (May 22, 2006), <http://www.rggi.org/docs/clf.pdf> (noting potential for “leakage” affecting markets outside of RGGI states).

302. *See New England Power Co. v. New Hampshire*, 455 U.S. 331 (1982).

303. RGGI WORKING GROUP, *supra* note 22, at 55–56; *see Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970); *City of Philadelphia v. New Jersey*, 437 U.S. 617 (1978).

which, absent one of the few exceptions, generally finds regulation to violate the dormant Commerce Clause.³⁰⁴ Here, none of the three exceptions, compensatory tax, quarantine, or proprietary, should apply to state regulation of CO₂ emissions from their privately-owned power sector generators. Thus, the RGGI and California regulatory schemes are unlikely to survive a Commerce Clause challenge.

III. FEDERAL PREEMPTION OF STATE CARBON REGULATION

Even putting aside regulatory mechanisms to address leakage that triggers dormant Commerce Clause problems, the carbon regulatory schemes trigger other constitutional issues of federal preemption. This is a function of how state regulators choose to implement state carbon regulation programs by electing to auction allowances necessary to operate power plants, rather than provide them as per all other historical allowance regimes. Terry Tamminen, an energy advisor to California Governor Schwarzenegger, stated that the “potential legal challenges could pose the biggest stumbling block” to California’s climate change initiatives.³⁰⁵ As this article went to press in 2009, Indeck Energy initiated litigation against RGGI in New York.

A. *Motive and Program Design Matter—The Auction*

1. *Who Is Paid for Wholesale Power*

First, let’s reset the RGGI stage affecting the leading carbon-regulating states. As discussed earlier,³⁰⁶ the states are veering off the original program agreement for RGGI whereby allowances to emit carbon would be allocated to existing emission sources. The Guiding Principles Agreement provided that “[t]he initial phase of the cap and trade program will entail the allocation and trading of carbon dioxide allowances to and by sources in the power sector only.”³⁰⁷ However, most states now implementing RGGI include an auction of all available allowances to the highest bidder, not an allocation to affected facilities requiring allowances as contemplated in the Guiding Principles Agreement.³⁰⁸

By auctioning 100% of allowances, the carbon schemes are intentionally designed to impose higher costs (via the requirement to purchase allowances) on certain high-carbon coal and oil-fired power plants. This will change the trading price of all wholesale power in the region. Because power prices are

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

305. Lisa Weinzimer, *Schwarzenegger Advisor says States, Regions will Take Lead on Climate Program*, ELECTRIC UTIL. WEEK, June 16, 2008, at 7.

306. See *supra* notes 77, 82–85 and accompanying text (discussing RGGI program design).

307. REG’L GREENHOUSE GAS INITIATIVE, *supra* note 47, at 1.

308. *Id.*

set in the three control regions of the RGGI states (New York Independent System Operator, Independent System Operator New England, and Pennsylvania Jersey Maryland Independent System Operator, also known as PJM) and in California (Cal-ISO) through a second-price auction where the highest accepted bid price for wholesale power supply for a given hour determines the price of all power (including lower bid power),³⁰⁹ the marginal, highest cost unit sets the price for all power.³¹⁰ That highest-cost unit for many hours of the day will likely be from the high-carbon units that have to buy more allowances per kilowatt of power produced than other units. However, this higher price will be earned by all wholesaling power suppliers under the controlling regulations, and the resulting price shock will reverberate through all power sales.

This reality is not reflected by the regulating states. Taking the RGGI scheme as an example, the auction of 100% of the allowances is defended by New York regulators as not changing the cost of the program, despite the added cost of purchasing needed allowances:

A plant operator will include the value of the allowances needed to operate in its electricity price because the value represents the opportunity cost of using the allowances to operate rather than selling the allowances on the market. Given this dynamic, allocating allowances to generators at no cost is not cost effective. Furthermore, the cost of the Program does not increase if the generators are required to purchase the allowances, because the generator incorporates the same dollar value of the allowance in its bid to supply electricity whether the allowance was obtained at no cost or through purchase on the open market. Allocation ensures that the value of the allowances is used to promote the emissions reduction goals of the program through cost-effective energy efficiency and clean energy technologies, while simultaneously reducing the cost of the Program to consumers.³¹¹

However, because the most expensive marginal unit that sets the hourly clearing price for electric energy is almost always an affected facility (i.e., subject to RGGI carbon allowance purchase obligations), the cost of RGGI carbon allowances will be reflected in the clearing price that is the highest offer accepted for service.³¹² This clearing price will be paid to every power plant that is dispatched during the hour.³¹³ The marginal cost of the most

309. For a discussion of various power auction practices and theories, *see generally* FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, § 9.

310. For a discussion of the operation of some of these ISO regional energy control areas, *see id.* § 10.87.

311. N.Y. STATE DEP'T OF ENVTL. CONSERVATION, REVISED REGULATORY IMPACT STATEMENT ON CO2 BUDGET TRADING PROGRAM: 6 NYCRR PART 242, CO2 BUDGET TRADING PROGRAM 43 (2008), *available at* http://www.dec.ny.gov/docs/air_pdf/242ris.pdf.

312. ISO NEW ENGLAND, INC., ISO NEW ENGLAND MANUAL FOR MARKET OPERATIONS: MANUAL M-11 *passim* (2008), *available at* http://www.isone.org/rules_proceeds/isone_mnls/m_11_market_operations_revision_31_10_01_08.doc (taking effect October 1, 2008).

313. *Id.*

expensive power purchased determines the price paid for all power at each hour, with the second price auction system employed in the control regions of each of the RGGI states.³¹⁴ Those facilities that do not have to purchase allowances in order to operate and sell wholesale power (e.g., unregulated out-of-state carbon-emitting power plants selling power into a RGGI-regulated state) will thus collect a price for their wholesale power reflecting the cost of RGGI allowances embedded in the highest hourly clearing price paid for power, even though they have no RGGI compliance costs.³¹⁵

Consequently, certain power generating facilities, including higher carbon-emitting, out-of-state facilities, will receive increased revenues due to the implementation of RGGI or similar regulatory schemes.³¹⁶ Moreover, it is conceivable that the relative cost advantage provided to out-of-state generating facilities due to the ISO-determined power purchase scheme could result in investments for new electric generating supplies being channeled to cheaper-to-operate non-RGGI states at the expense of the RGGI state economies.

Fights over the use of proceeds from auction of carbon allowances have already emerged in the RGGI scheme. The Connecticut governor sought to funnel some of these proceeds back to state ratepayers and was halted by an opinion of the Connecticut attorney general that doing so would violate the state's RGGI legislation that dedicates such funds to energy efficiency and renewable energy.³¹⁷ Lurking behind these issues is the constitutional question of whether selling allowances and dedicating and utilizing proceeds, either for in-state energy efficiency investments or in-state consumer rebates, raises any Commerce Clause issues.

California's joint agency staff paper on allocation of GHG allowances in the electric sector recommended a combination of allocating and auctioning emission rights.³¹⁸ CARB favors a gradual approach to auctioning allowances, with the auction percentage increasing over time.³¹⁹ While CARB will submit this design by the end of 2008, the California legislature has the final determination of any auction.³²⁰

314. FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, § 9.26.

315. *Id.* Since the final, highest price accepted from supplier bids during each hour of the day sets the price paid to all generators from whom power is purchased, *id.*, this highest price is passed on in all costs paid for power during that hour as the marginal cost of supply as set by the ISO, regardless of the individual costs actually incurred by each supplier of power.

316. See AES & Dynegy, Comments on New York State Department of Environmental Conservation's Proposed 6 NYCRR Part 242, CO2 Budget Trading Program, Revisions to 6 NYCRR Part 200, Dec. 24, 2007, at 101 (on file with author) (noting impacts of RGGI proposal).

317. Lisa Wood, *Connecticut's AG Challenges Governor's Push to Channel Some RGGI Money to Ratepayers*, ELECTRIC UTIL. WEEK, July 21, 2008, at 8.

318. CAL. PUB. UTILS. COMM'N & CAL. ENERGY COMM'N, JOINT STAFF PAPER ON OPTIONS FOR ALLOCATION OF GREENHOUSE GAS ALLOWANCES IN THE ELECTRICITY SECTOR, R. 06-04-009, Dec. 07-OIIP-01 (2008).

319. Lisa Weinzimer, *Economy-Wide Draft GHG Plan Released by California Air Resources Board*, ELECTRIC UTIL. WEEK, June 30, 2008, at 15.

320. See *id.* (noting that the California legislature has final authority over the plan).

Major fights have erupted in California over the allocation and auction of CO₂ emission allowances. One major battle is whether allowances will be dispersed without charge to load-serving entities, and if so, whether the traditional load served or the traditional level of emissions should constitute the basis for distribution.³²¹ The California investor-owned utilities in May 2008 submitted comments to regulators, urging California to allocate carbon allowances to all emission sources based on historical power output, rather than emissions output, employing a uniform GHG baseline.³²² This would favor the award of allowances to less-carbon intensive sources and utilities.³²³ Surplus allowances could be sold.³²⁴ Dynegy and other independent power providers in California that operate higher-carbon electricity generators believe that allowances should be distributed based on historic emissions levels, rather than power output, to “recognize the reliability benefits conferred by such sources,” and the “loss of market value of these resources.”³²⁵ However, environmental groups charge that any allocation based on historic emissions “[g]randfathering . . . rewards historical polluters, penalizes early actors, could lead to windfall profits, and asks the biggest polluters to reduce their emissions the least.”³²⁶

The concept of auctioning carbon allowances and capturing substantial payments has been extremely attractive to carbon regulators across the United States. Seven western states participating in the Western Climate Initiative also recommended that 25% to 75% of total emission allowances be auctioned in their own proposed regional market design.³²⁷ But several state regulators, including those from California and Washington, have also acknowledged that the states could be preempted in their efforts to regulate carbon.³²⁸

321. Julie A. Fitch, Dir. of Policy and Planning, Cal. Pub. Utils. Comm'n, Address at the Joint Workshop of the California Public Utilities Commission and California Energy Commission: Context, Principles, and Key Questions for Allowance Allocation in the Electricity Sector (Apr. 21–22, 2008), available at <http://docs.cpuc.ca.gov/Published/Graphics/82593.PDF> (Attachment 15) (allocating allowances based on traditional emissions ensures that higher CO₂ emission utilities are protected, while distribution based on load of electricity supplied favors lower CO₂ emission utilities with surplus tradable allowances, while high carbon utilities do not receive allowances reflecting this reality).

322. *Emissions Deepen over California Emissions-Allowance Plan*, CARBON CONTROL NEWS, June 9, 2008, <http://www.carboncontrolnews.com>.

323. *Id.*

324. *Id.*

325. Pre-Workshop Comments of Dynegy on Allocation Issues at 8, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emission Standards into Procurement Policies, R.06-04-009, D.07-07-018, 2007 Cal. P.U.C. LEXIS 330 (2007), available at <http://docs.cpuc.ca.gov/efile/CM/75023.pdf>.

326. KRISTIN GRENFELL, NATURAL RES. DEF. COUNSEL, MEMORANDUM TO CALIFORNIA AIR RESOURCES BOARD STAFF RE: NRDC COMMENTS ON ALLOWANCE ALLOCATION ISSUES (2008), available at http://www.arb.ca.gov/cc/scopingplan/pgmdesign-sp/meetings/031708/NRDC_comments_from_031708_Program_Design_Technical_Stakeholder_Workgroup_Meeting.pdf.

327. See generally Carolyn Whetzel, *Western States Release Draft Policies for Allocating Emissions Allowances*, 39 Env't Rep. (BNA) 702 (Apr. 11, 2008); Western Climate Initiative (2008), <http://westernclimateinitiative.org/>.

328. *States for Preemption?*, CARBON CONTROL NEWS, March 26, 2008.

2. *The Stated Motive for Auctioning Carbon Emission Allowances*

Environmental officials in the various carbon-regulating states have declared that the rationale for the auction of 100% of the carbon allowances is to increase the cost of carbon-emitting power generation and capture of profits as state revenues. In New York, for example, the lead dog pulling the RGGI sled, New York Department of Environmental Conservation (NYDEC) has issued official public statements claiming that the decision and purpose of the auction of 100% of carbon allocations is to prevent affected electric generators from earning “excess” profits resulting from the operation of the wholesale market.³²⁹ Environmental officials thus have gone on record as implementing the auction of all allowances to reduce the rate of return that power generators receive pursuant to their FERC-approved market rates, which NYDEC considers to include “excess” profits.³³⁰ Thus, the auction policy is designed to alter, at the hand of state regulators, the “just” and “reasonable” rates previously established pursuant to FERC-approved tariff or market design.

If allowances are given away without charge to upstream sources, which is where both RGGI and California may regulate, state credits could subsidize out-of-state businesses. If California did not auction allowances to emit carbon, it would instead divest without charge California carbon allowances to cover power generated by many out-of-state power generation sources. While approximately 20% to 25% of California’s power is imported, approximately 55% to 60% of California’s electricity-related GHG emissions that would need these allowances are associated with that smaller share of imported power.³³¹ Therefore, a decision to distribute carbon allowances without charge to first-sellers of wholesale power would distribute up to 60% of credits to cover out-of-state power or to external power generation businesses operating out-of-state. States are hesitant to subsidize out-of-state business, which motivates auctioning these allowances. The natural incentive of any state is not to give away credits created by regulation in State A, which have a significant resale value, to entities in State B, which does not regulate carbon. States cannot directly regulate assets operating outside their borders.

The articulated rationale in many of the states moving towards auction of carbon emission allowances is to prevent affected electric generators from

329. Because the value of the allowances will be included as a cost in the generators’ bids to supply electricity, the price of electricity will be the same whether the allowances are given away at no cost to generators or generators must purchase allowances. An allowance giveaway, therefore, means generators are able to substantially increase their revenues (and, hence, profits) under a program like RGGI because they pass on the cost of a commodity they obtained at no charge. This has been referred to as “excess revenues”, and these excess revenues occur at the expense of electricity consumers. N.Y. STATE DEP’T OF ENVTL. CONSERVATION, NOTICE OF PRE-PROPOSAL OF NEW YORK RGGI RULE (2006), available at <http://www.dec.ny.gov/regulations/26450.html>.

330. *Id.*

331. See CAL. ENERGY COMM’N, *supra* note 24, at 4 tbl.2 (2006) (showing the amount of electricity imported from out of state).

earning excess or windfall profits from free carbon allocation and the operation of the wholesale power market. The comments of record in California dockets evidence such concerns.³³² An explicit design objective of an auction is to raise the cost of high-carbon wholesale power production and reduce windfall or excess profits to any power generators.³³³ Thus, the auction is designed to impose and regulate carbon costs by altering the market prices at which power from different generation sources trade at the wholesale level from wholesaler to retailer.

For example, carbon costs can have a significant impact on the ultimate price of electricity. If approximately one ton of carbon is created per megawatt hour (of electricity produced from coal-fired generation), then a cost of \$10 per ton to purchase a carbon allowance or credit translates into an increase in cost of approximately \$0.01/kWh in the price of electricity, for which the wholesale price is about \$0.06/kWh at present.³³⁴ At \$10 per ton for the cost of CO₂ allowances or credits, this would add approximately \$75 per year, or 10%, to the cost of power for the average household electricity bill of approximately \$1,500 per year (more in certain high-cost states).

However, it is not even clear that \$10 per ton for a carbon credit is realistic. European Union CO₂ emission credits have traded at twice this price, and as much as three times in extremes.³³⁵ In addition, to be able to stabilize CO₂ atmospheric concentrations at 650 ppm (the current levels are about 380 ppm), it is projected that a price of \$20 per ton would be required for CO₂ credits.³³⁶ To stabilize CO₂ emissions at a lower level of 550 ppm, it is projected that credits would trade at \$50 per ton.³³⁷ This cost would consume 1% to 2% of gross domestic product in developed countries, such as the United States.³³⁸

332. See generally comments filed with California Air Resource Board, available at <http://www.arb.ca.gov/homepage.htm>.

333. N.Y. COMP. CODES R. & REGS. tit. 6 § 242 (2008).

334. For natural gas-fired generation, the CO₂ emissions are approximately half this coal-related amount, with approximately one-half ton of CO₂ emissions per megawatt hour of electricity generated. JOHN MARION ET AL., ALSTOM POWER, CONTROLLING POWER PLANT CO₂ EMISSIONS: A LONG-RANGE VIEW, 3 fig.3a (n.d.), http://www.netl.doe.gov/publications/proceedings/01/carbon_seq/1b2.pdf (depicting CO₂ emissions from electricity and heat generation sectors in Annex II countries).

335. ROBERT STAVINS, THE BROOKINGS INSTITUTE, A U.S. CAP-AND-TRADE SYSTEM TO ADDRESS GLOBAL CLIMATE CHANGE 21 (2007) available at http://www.Brookings.edu/papers/2007/10climate_stavins.aspx; Heather Timmons, *Data Leaks Shake Up Carbon Trade*, N.Y. TIMES, May 16, 2006, at C1.

336. Billy Pizer, Resources for the Future, Address at the Harvard University Kennedy School Electricity Policy Group, 47th Plenary Group Symposium (June 1, 2007) (quoting statistics developed by the MIT program on climate change).

337. *Id.*

338. See Bureau of Economic Analysis, National Economic Accounts (Nov. 25, 2008), available at <http://www.bea.gov/national/index.htm#gdp> ("current dollar and gross GDP"). The U.S. GDP was \$13.8 trillion in 2007. *Id.* 1-2% of this amount, or \$100-250 billion annually, would be the likely cost of auction of CO₂ emission allowances.

RGGI first auction of emission allowances occurred in September 2008.³³⁹ The price of allowances auctioned was \$3.07/ton.³⁴⁰ If a low RGGI allowance price turns out to be accurate, it might signify that CO₂ reductions are not in fact being accomplished because there are a surplus of credits and offsets driving prices lower. RGGI offsets, in fact, traded already at \$7 to 10 per ton even before the first auction of RGGI allowances.³⁴¹

Electric generating units are dispatched, or told to operate, in the order of the lowest price first, and then in ascending order. These costs include operating costs, which include new costs to purchase carbon allowances or offsets to cover operating emissions. Operating costs affect which units are dispatched to run by the ISOs, the dispatch order of designated power generation, and which units are ordered not to run. This regulatory mechanism does two things whose physical implications are important to understand. First, base-load plants designed to operate on a constant basis, which instead are pushed to the end of the dispatch queue, become so uneconomic to run in this altered mode that they instead may be deactivated. Second, most of the high-carbon power plants are older base-load Brayton cycle³⁴² plants designed to operate around the clock, not to cycle on occasionally to meet a peak need.³⁴³ If these base-load plants are reassigned because of cost of carbon regulation to a service mode where they are cycling on and off, they experience metal fatigue and metal creep, which under certain conditions can destroy the operating efficiency and capital equipment of their prime movers.³⁴⁴ So this change in dispatch order can become a death sentence for the operational, and in some cases physical, longevity of certain high-carbon generating assets banished to the end of the dispatch queue.

Various documents and reports issued by the regional RGGI staff Working Group³⁴⁵ state that an expressed objective of the RGGI MOU is to modify the dispatch order and the carbon intensity of the existing portfolio of power generation units.³⁴⁶ Insofar as the state RGGI regulations are designed to change wholesale pricing of power and thus “modify the dispatch” of generating units in the wholesale market operating pursuant to FERC-approved

339. See Demand “Very Strong” in Nation’s First Carbon Allowance Auction (Oct. 3, 2008, 10:12 EST), <http://energylegalblog.com/archive/2008/10/03/450.aspx> (documenting the first auction RGGI price for allowances at \$3.07/ton CO₂).

340. *Id.*

341. Cash, *supra* note 63.

342. See generally FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, §§ 2:5, 2:14 (discussing various prime mover technologies).

343. *Id.* § 2:5.

344. *Id.* § 10:37, at 10-249 to -250, nn.7–10.

345. The RGGI SWG is made up of representatives of the ten RGGI Northeast states which designed RGGI as a regional program for implementation by each state signatory to the RGGI MOU. Those states do not include Pennsylvania or West Virginia.

346. NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NOTICE OF PRE-PROPOSAL OF NEW YORK RGGI RULE (2006), available at <http://www.dec.ny.gov/regulations/26450.html>.

tariffs, the system runs afoul of the Federal Power Act's grant of exclusive federal jurisdiction over such wholesale matters and is preempted by the Supremacy Clause and the filed rate doctrine.³⁴⁷

Here again, motive matters. As the Supreme Court articulated in *Pacific Gas & Electric Co. v. California Energy Resources Conservation and Development Commission*, the articulated motive of the agency regulating power resources will be taken at face value as the true motive for purposes of constitutional preemption analysis.³⁴⁸ Having articulated these motives, the agencies should be evaluated in that context. And preemption under the Supremacy Clause looms as a real issue.

B. Federal Preemption of Carbon Regulation

Sections 205 and 206 of the Federal Power Act³⁴⁹ empowers FERC to regulate rates for the interstate or wholesale sale and transmission of electricity. In doing so, the Act bestows upon FERC broad power to shape the energy markets and affect all stakeholders, including generators, retailers, and consumers. By exercising exclusive authority over “just and reasonable” wholesale or interstate rates and terms, FERC ensures that wholesale generators of electric power will charge fair rates to retailers and that wholesale generators receive a fair rate of return, and thus have the incentive to continue to produce and supply power.³⁵⁰ The Act creates a “bright line” between state and federal jurisdiction with wholesale power sales falling clearly and unequivocally on the federal side of the line.³⁵¹

FERC jurisdiction preempts state regulation of wholesale power transactions and prices. Where federal law occupies the field and there is evidence of a pervasive federal scheme in a given area, courts will find state or local legislation preempted.³⁵² Even where there is no evident congressional intent to federally occupy a field, the conflict principle requires that a court strike inconsistent state or local law.³⁵³ State regulation is not allowed to veto the regulatory scheme of a superior level of government.³⁵⁴ Correspondingly,

347. See *infra* Part III.C.

348. 461 U.S. 190, 216 (1983).

349. An Act to Provide for Control and Regulation of Public-Utility Holding Companies, and for Other Purposes (Federal Power Act), 74th Cong. ch. 687, 49 Stat. 803 (1935).

350. *Snhomish County Pub. Util. Dist. No. 1 v. F.E.R.C.*, 471 F.3d 1053, 1066, (2006) *aff'd in part and rev'd in part sub nom. Morgan Stanley Capital Group, Inc. v. Pub. Util. Dist. No. 1*, 128 S. Ct. 2733 (2008).

351. *Id.*

352. See *City of Burbank v. Lockheed Air Terminal, Inc.*, 411 U.S. 624 (1973) (holding that the federal government occupied field of noise regulation for aircraft).

353. See *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947); *Hill v. Florida ex rel. Watson*, 325 U.S. 538, 541–42 (1945); *Rombom v. United Air Lines, Inc.*, 867 F.Supp. 214 (S.D.N.Y. 1994) (holding that state law can not stand as an obstacle to accomplishment and execution of the full purposes and objectives of Congress).

354. See *Granite Rock Co. v. Cal. Coastal Comm'n*, 480 U.S. 572 (1987), *rev'g* 768 F.2d 1077 (9th Cir. 1985).

courts hold that where state and federal laws complement each other, there is no preemption.³⁵⁵ Consider the delineation between federal and state authority under the Federal Power Act.

The North American power grid is comprised of many individual pieces, owned by the local transmission companies, which operate under the overlapping jurisdiction of fifty-five state and provincial government agencies, as well as three national regulatory authorities. Within the United States, FERC exclusively regulates every element of wholesale power transactions. The Federal Power Act defines “sale at wholesale” as any sale to any person for resale.³⁵⁶

FERC’s exclusive power is even broader than just wholesale power sales. FERC also regulates power generation (to a limited degree), power transmission in interstate commerce, and interstate power sales.³⁵⁷ Power is the quintessential commodity or service flowing in interstate commerce, faster than every other commodity—moving at the speed of light across state boundaries on copper cable throughout the United States.³⁵⁸ “FERC jurisdiction is plenary and extends to all [] sales in interstate commerce.”³⁵⁹ FERC does not regulate the local distribution of power, power solely in intrastate commerce, or the self-generation and use of power.³⁶⁰

Consider how all-encompassing FERC authority is—“interstate commerce” is a broad legal term.³⁶¹ Sales of power that appear to be intrastate or local in character may be considered interstate for purposes of FERC jurisdiction. A utility, even if it sells its power first to an intermediate utility that then places the power in interstate commerce, may be regulated by FERC.³⁶² FERC jurisdiction can extend from the point of the power’s origin on the basis that the entire sale affects interstate commerce.³⁶³

The quantity of power transacted is not a limiting factor on FERC jurisdiction. There is no statutorily or judicially imposed threshold amount of interstate sale of power which triggers FERC jurisdiction. Although the amount

355. See *N.Y. State Dep’t of Social Servs. v. Dublino*, 413 U.S. 405 (1973) (no preemption where complementary state and federal statutes); *Merrill Lynch, Pierce, Fenner & Smith, Inc. v. Ware*, 414 U.S. 117 (1973) (state policy allowed absent conflict with federal scheme). For some courts, even where the federal act is pervasive, local regulation is permitted. See *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440 (1960).

356. 16 U.S.C. § 824(d) (2006).

357. *Id.* § 824(a)–(b).

358. See *FERREY*, *supra* note 218, at 548.

359. *N. States Power Co. v. Minn. Pub. Utils. Comm’n*, 344 N.W.2d 374, 378 (Minn. 1984), *cert. denied*, 467 U.S. 1256 (1984).

360. See *Conn. Light & Power Co. v. Fed. Power Comm’n*, 324 U.S. 515 (1945); *City of Batavia v. Fed. Energy Reg. Comm’n*, 672 F.2d 64, 68 n.2 (1982) (FERC regulates wholesale transactions; states regulate retail transactions).

361. 16 U.S.C. § 824(c) (2006).

362. The burden is on FERC to assert and prove jurisdiction. *Fla. Power & Light Co. v. Fed. Power Comm’n*, 430 F.2d 1377 (5th Cir. 1970), *rev’d on other grounds*, 404 U.S. 453 (1972).

363. *Jersey Cent. Power & Light Co. v. Fed. Power Comm’n*, 319 U.S. 61, 70–72 (1943).

of power an electric utility may place in interstate commerce is de minimus compared to the same utility's sales in intrastate commerce, FERC may assert its regulatory authority over such a utility.³⁶⁴ If a small amount of interstate power is commingled with interstate power, the entire amount of power becomes "interstate" for purposes of vesting FERC with the authority to exercise jurisdiction.³⁶⁵ Once FERC exercises jurisdiction over a utility, the entire wholesale structure of the entity's operations becomes subject to FERC regulation.

The transmission of electricity in interstate commerce, an additional basis for FERC jurisdiction, is defined as electricity transmitted from one state and consumed at any point outside the state.³⁶⁶ Section 201(c) of the Energy Policy Act defines electric energy transmitted in interstate commerce as energy "transmitted from a State and consumed at any point outside thereof"³⁶⁷ However, this provision has consistently been interpreted to mean that FERC has jurisdiction when the system is interconnected and capable of transmitting energy across the state boundary, even though the contracting parties on the electric contract pathway between them are wholly within one state.³⁶⁸ Similarly, transmission of power over a utility transmission grid that is used in interstate commerce is subject to FERC jurisdiction, even when all parties to the wheeling transaction are located within the same state.³⁶⁹

If a transmission agreement provides for the movement of power from one state to another, that transmission agreement and the obligations of all parties to it are subject to FERC jurisdiction.³⁷⁰ If the utility's power moves in interstate commerce, although it does not own all transmission facilities, FERC may construe the generating entity's contracts, accounts, and records as "facilities" for the purpose of asserting jurisdiction over the power sale.³⁷¹ FERC jurisdiction is exclusive and preempts state regulation of the rates for transmission that occurs in interstate commerce.³⁷²

364. Fed. Power Comm'n v. S. Cal. Edison Co., 376 U.S. 205 (1964); Ark. Power & Light Co. v. Fed. Power Comm'n, 368 F.2d 376 (8th Cir. 1966).

365. United States v. Pub. Utils. Comm'n, 345 U.S. 295 (1953); Cincinnati Gas & Elec. Co. v. Fed. Power Comm'n, 376 F.2d 506 (6th Cir. 1967), cert. denied, 389 U.S. 842 (1967); Pub. Serv. Co. of Ind. v. Fed. Power Comm'n, 375 F.2d 100, 104 (7th Cir. 1967).

366. *Jersey Cent.*, 319 U.S. at 70 n.9 (quoting Federal Power Act of 1935, § 210(b) (1935) Pub. L. No. 74-333, 49 Stat. 847).

367. 16 U.S.C. § 824(c) (2006).

368. Fed. Power Comm'n v. Florida Power & Light Co., 404 U.S. 453 (1972).

369. In *Federal Power Commission v. Florida Power & Light Co.*, 404 U.S. 453 (1972), the Supreme Court made clear that federal jurisdiction attaches even if the utility has no direct connection with another utility outside the state but is interconnected with another utility that in turn has interstate connections with other utilities.

370. Appalachian Power Co. v. Pub. Serv. Comm'n, 630 F. Supp. 656 (S.D. W. Va. 1986), *aff'd*, 812 F.2d 898 (4th Cir. 1987).

371. Hartford Elec. Light Co. v. Fed. Power Comm'n, 131 F.2d 953, cert. denied, 319 U.S. 741 (1943).

372. *Id.*

There is no doubt that RGGI auctions are designed to affect the prices and terms of (1) wholesale power transactions, (2) interstate power transactions, and (3) transmission of high-carbon power into the state.³⁷³ All three of these are subject to exclusive federal jurisdiction; state authority is preempted.

Recent jurisprudence has accentuated the exclusivity of FERC's power in not only setting just and reasonable rates but also exclusively ensuring the performance of the energy market. As the Ninth Circuit has remarked, and the Supreme Court confirmed, when combined with federal preemption precedent, energy market regulatory reforms have contributed to "a massive shift in regulatory jurisdiction from the states to the FERC."³⁷⁴ In sum, there is no prudential or other residual state authority of any kind over wholesale sales of power subject to exclusive federal jurisdiction after these most recent Supreme Court decisions.

C. Filed Rate Doctrine

If a utility or independent power producer is subject to FERC jurisdiction and regulation, state regulation of the same operational aspects is preempted as a matter of federal law.³⁷⁵ Principles of preemption require a state regulatory agency to accept and pass through in retail rates all cost items deemed by FERC to be "just and reasonable," and which are otherwise allowed.³⁷⁶ Therefore, a FERC determination regarding any aspect of a wholesale price is universally binding.

The so-called "filed rate doctrine" holds that state regulatory agencies may not second-guess or overrule on any grounds a wholesale rate determination made pursuant to federal jurisdiction.³⁷⁷ The Supreme Court in 1986, and again in 1988 and 2003, upheld the filed rate doctrine.³⁷⁸ Five years ago, the

373. See *supra* Part II.A–B.

374. *Snohomish County Pub. Util. Dist. No. 1 v. F.E.R.C.*, 471 F.3d 1053, 1066, (2006) *aff'd in part and rev'd in part sub nom. Morgan Stanley Capital Group, Inc. v. Pub. Util. Dist. No. 1*, 128 S. Ct. 2733 (2008); *Entergy Louisiana, Inc., v. La. Pub. Serv. Comm'n*, 539 U.S. 39 (2003).

375. *E.g.*, *Ark. Power & Light Co. v. Fed. Power Comm'n*, 368 F.2d 376 (8th Cir. 1966); *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953 (1986); *New England Power Co. v. New Hampshire*, 455 U.S. 331 (1982).

376. *In re Sinclair Mach. Prods., Inc.*, 498 A.2d 696, 706 (N.H. 1985).

377. However, the Supreme Court has determined that Congress, in enacting the Federal Power Act, intended to vest exclusive jurisdiction in the FERC to regulate interstate wholesale utility rates. *Fed. Power Comm'n v. S. Cal. Edison Co.*, 376 U.S. 205, 216 (1964); *Narragansett Elec. Co. v. Burke*, 381 A.2d 1358, 1361 (R.I. 1977) (federal preemption of state discretion on retail rate pass-through of wholesale rated established pursuant to federal jurisdiction), *cert. denied*, 435 U.S. 972 (1978), *superseded by statute*, Utility Restructuring Act, R.I. Gen. Laws § 39-1-27 (1996), *as recognized in* *Narragansett Elec. Co. v. Pub. Utils. Comm'n*, 773 A.2d 237 (2001); *Spence v. Smyth*, 686 P.2d 597, 600 (Wyo. 1984) (citing *N. States Power Co. v. Hagen*, 314 N.W.2d 32, 38 (1981)). A state court in Pennsylvania developed the so-called "Pike County" exception, allowing states to review the prudence of utility wholesale purchases or allocations and deny pass-through of FERC-approved wholesale costs. *Pike County Light & Power Co. v. Pa. Pub. Util. Comm'n*, 465 A.2d 735 (Pa. Commw. Ct. 1983).

378. See *Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 963 (1986) ("This Court has held that the filed rate doctrine applies not only to the federal-court review at issue in Montana-Dakota,

Supreme Court clarified that there is no residual “prudence” authority, as initially supposed by some states, to reserve a state role in determining the ultimate choice of certain suppliers in wholesale power market transactions.³⁷⁹ This point is important because in 2003, the Supreme Court closed the door on any coincident state authority based on other grounds.³⁸⁰ This would mean that states may not retain residual authority to alter the wholesale market cost of high-carbon power with mandatory purchase of additional regulatory credits or assets. Such sale, rather than free allocation of regulatory credits or assets, has never before occurred in the United States or elsewhere.

Until 2003, some states presumed that the *Pike County* prudence concept would allow a state to determine from whom power prudently should be obtained, and permit a state to overrule FERC-approved wholesale market orders or rules in the guise of supervising the prudent operation of the buy/sell decision of their utilities’ actions in integrated power markets in their states.³⁸¹ This theory of any residual authority was summarily quashed by the Supreme Court in 2003 in *Entergy Louisiana, Inc. v. Louisiana Public Service Commission*.³⁸² There was found to be no ability of states to tamper, directly or indirectly, with wholesale market operations approved by a FERC order or operating subject to FERC-approved tariffs. Any state deliberate attempts to design RGGI regulations to tilt the wholesale electric market operation, power pricing, and dispatch order in wholesale markets (operating pursuant to FERC-approved tariffs), runs counter to *Entergy*.

The Supreme Court clarified that there is no such reserved prudence authority for the state PUC to accomplish indirectly what it could not do directly: influence the terms of a wholesale or interstate power transaction for power flowing into the state under a FERC-approved tariff.³⁸³ The wholesale and interstate nature of the transactions in electric power prohibited states from

but also to decisions of state courts.”); *Miss. Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 372 (1988) (holding that the filed rate doctrine applies without exception to state regulation of interstate holding companies); *Entergy La., Inc., v. La. Pub. Serv. Comm’n*, 539 U.S. 39 (2003) (holding that no residual prudency power of the states can alter a federal rate or term).

379. See *supra* note 371 for an explanation of the *Pike County* prudency theory.

380. See *Entergy La., Inc. v. La. Pub. Serv. Comm’n*, 539 U.S. 39, 46 (2003) (holding federal energy regulation preempts state commission of public service).

381. *Pike County*, 465 A.2d at 738.

382. *Entergy Louisiana*, 539 U.S. 39. This case involved a long-running battle between the Louisiana PUC and Entergy, an integrated multi-state electric utility holding company operating in four southern states, whose in-state LSE retail affiliate purchased wholesale power from affiliated wholesale suppliers and then “equalized” payments among its state LSEs to compensate those who supplied the most capacity. Paying for this capacity through equalization payments under the FERC-approved tariff, especially when those payments flowed out of state to affiliates, was contested. This allocation scheme was approved by FERC but was viewed by the Louisiana PUC to unfairly burden the Louisiana retail affiliate LSE and its ratepayers with excess above-market wholesale costs. Because of the Filed Rate Doctrine, the PUC was forced to pass on the federally approved wholesale costs in local retail rates. It challenged the prudency of the Louisiana LSE electing to purchase power from its affiliated (higher cost) supplier with embedded excess capacity.

383. *Id.* at 49–50.

tampering, directly or indirectly, with wholesale market operations approved by a FERC order or operating subject to FERC-approved tariffs.³⁸⁴ If wholesale price determinations are exclusively within FERC authority, even on issues about which they have made a determination, there is no residual power of the state to alter indirectly the ultimate price and terms of the approved transaction.³⁸⁵ Where it is a wholesale or interstate power price matter, FERC alone has jurisdiction. This is exactly the point where state carbon regulation would attempt to influence the ultimate cost of wholesale power.

Moreover, attempts by states indirectly or directly to promote higher wholesale energy prices for certain higher-cost low-carbon renewable energy projects have been stricken by the courts. In 1994, the Ninth Circuit Court of Appeals rejected the California Public Utilities Commission's claim that it had independent authority to regulate the prices and terms for such low-carbon renewable power sales.³⁸⁶ Promotion of certain types of low-carbon renewable fuels for power supply, via a price preference above and beyond the FERC-established price of other wholesale power transactions, was held preempted by the Federal Power Act and stricken.³⁸⁷

Precedent holds that a higher price set by California for renewable low-carbon electric power supply sources is not permissible.³⁸⁸ If a state is prohibited from inflating the quantity of certain renewable resources by setting higher wholesale prices for such favored technologies, it follows that it could also be prohibited from accomplishing the same "tilt" in wholesale prices by the opposite mechanism: inflating the wholesale operating costs of less desirable high-carbon-emitting generation resources. If it mandates that high-

384. *Id.*

385. *Id.* at 47, 50. Regarding the effort of the state to attempt to disallow as imprudent a particular element that the FERC tariff did not specifically address, the Court unanimously held: "FERC-mandated cost allocations could not be second-guessed by state regulators," and continued, "[i]t matters not whether FERC has spoken . . . but only whether the FERC tariff dictates how and by whom that classification should be made." *Id.*

386. *Indep. Energy Producers Ass'n v. Cal. Pub. Utils. Comm'n*, 36 F.3d 848 (9th Cir. 1994) (finding no separate basis for the state PUC to act to establish a premium price for renewable low-carbon power projects).

387. *Id.* at 858.

388. *S. Cal. Edison Co.*, 70 F.E.R.C. ¶ 61,215 (1995) (holding that the costs of renewable energy not to exceed the market or bid price of all other sources of energy makes ratepayers indifferent as to the procurement of wholesale power), *requests for reconsideration denied*, 71 F.E.R.C. ¶ 61,269 (1995). California LSEs, *inter alia*, had picked the most favorable renewable power bids from QFs, even where those renewable price bids were in excess of the avoided cost of wholesale power supplied by other eligible non-renewable independent power project bidders. While this case involved renewable QFs operating as beneficiaries of the PURPA purchasing requirements, PURPA is an amendment to, and an integral part of, the Federal Power Act. The Filed Rate Doctrine and Supremacy Clause federally preempt state authority on PURPA rates and terms to the same degree that they affect non-PURPA transactions. The state regulation at issue, which promoted certain types of renewable fuels for power supply by allowing for a price premium above and beyond the FERC-established avoided cost price established by all wholesale power transactions, was held preempted by the Federal Power Act and stricken. Under FERC precedent, a state cannot set market-clearing prices for renewable electric power supply sources at a higher price than non-renewable supply sources. *Id.*

carbon generating resources purchase more carbon allowances, it achieves the same relative tilt in favor of certain resources. This same relative tilt happens by allowing the high-carbon sources to operate but increasing their costs of operation and ultimate later dispatch order, fewer total hours of called-upon operation, and by requiring purchase of a larger supply of allowances.

Under the filed rate doctrine, any dispute about these matters may not be arbitrated by the state, but is reserved exclusively to federal authority.³⁸⁹ In each of the RGGI states, there is no approval by FERC to run plants on other than the least-cost market bid rules that are approved and in place for purposes of ISO operation.³⁹⁰ Those rules do not countenance a state imposing a differential auction obligation designed and announced by the state to raise the price of particular (high-carbon) wholesale generation within the state.

It was not intended by Congress that the scope of FERC's jurisdiction over the interstate sale of electricity at wholesale be determined by case-by-case analysis of the impact of state regulation on national interests.³⁹¹ Instead, Congress meant to draw a bright line, easily ascertained between state and federal jurisdiction.³⁹² Even if the RGGI states could now somehow eliminate the already-public record of their professed intentions to unilaterally and differentially tilt the price and dispatch order of different sources of power supply in the wholesale power markets, and instead justify RGGI auctions as purely environmental regulation,³⁹³ a state law may not frustrate the operation of federal law, even if the state legislature has valid purposes for the legislation.³⁹⁴

And here, with regulatory officials in some states having publicly announced their attempts to use allowances to change wholesale power prices and dispatch order, there is no ability. State law is not allowed to preempt federal determinations by layering on additional requirements not contained in federal law.³⁹⁵ The wholesale price determination is reserved exclusively to

389. See *Miss. Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 372 (1988).

390. See, e.g., ISO-NE FERC Form 1 tariff, available at <http://www.isone.org/regulatory/ferc/orders/index.html> (reliability must-run (RMR) designations exist for a limited number of generation plants in ISO-NE which occupy an essential geographic location and ability to deliver power to high-load centers); see also ISO New England Inc., Market Rule 1: Standard Market Design, FERC Electric Tariff No. 3, §§ III.1.7.6, III.1.10.8, III.1.15.5, III.10 (2006), available at http://www.isone.org/regulatory/tariff/sect_3/08-11-7_mr1_sect_1-12.pdf.

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

392. *Id.*

393. Note that the RGGI auction is not akin to an application or annual compliance fee imposed by the state environmental regulatory agency on all generators. The RGGI auction imposes a fee that is a function of differential operation attributes that vary depending on the fossil fuel burned, as the CO2 emitted varies as a function of the carbon content differences of different fossil fuels.; there is no history of any such environmental fees in the RGGI states.

394. See, e.g. *Perez v. Campbell*, 402 U.S. 637 (1971), *superseded by statute*, Act of Nov. 6, 1978, Pub. L. 95-598, 92 Stat. 2593.

395. See, e.g., *Granite Rock Co. v. Cal. Coastal Comm'n*, 768 F.2d 1077, 1083 (9th Cir. 1985), *rev'd on other grounds*, 480 U.S. 572 (1987).

federal authority.³⁹⁶ The filed rate doctrine extends to non-rate matters as well.³⁹⁷ The Federal Power Act precludes all state regulation of interstate wholesale power transactions.³⁹⁸

In 2007 the Ninth Circuit increased the delineation of federal responsibility in this area. During the 2000–2001 California power shortage, the crisis was significantly linked to California’s allegedly flawed restructured retail power market design and regulation.³⁹⁹ When prices subsequently fell, California attempted to be excused from the very wholesale power supply contracts that it had forced into place on reluctant wholesale power suppliers.⁴⁰⁰ The state’s legal argument was that the wholesale power contracts were the exclusive province of federal jurisdiction by FERC, and FERC had not sufficiently policed the wholesale market.⁴⁰¹ This event occurred before the Supreme Court decision in *Entergy*.

A majority of the Ninth Circuit affirmed this theory. In *Public Utility District No. 1 of Snohomish County Washington*, FERC, as the traditional wholesale power regulator, must protect the state (and other stakeholders) against the state’s own regulatory actions or mischief.⁴⁰² FERC not only has exclusive authority unaffected by any state actions over wholesale power markets, but FERC has an ongoing obligation to continually monitor and police these markets against state interference.⁴⁰³

Applied to the RGGI situation by analogy, FERC has an ongoing obligation to continually ensure that wholesale and interstate power markets and resultant market prices are not compromised by direct or indirect state actions not approved by FERC. Here, certain carbon-regulating states have expressly announced that they unilaterally are intending to influence the price and the dispatch protocol (operation) of selective high-carbon generating resources that are exclusively within the province of FERC, rather than the state authority.⁴⁰⁴

The role of an auction is revenue-raising, but states typically must act within their jurisdictional reaches. It is likely that an auction of carbon

396. *Entergy La., Inc., v. La. Pub. Serv. Comm’n*, 539 U.S. 39 (2003).

397. The Supreme Court extends the filed rate doctrine generally to include most aspects of federal-state utility regulation: moreover, the filed rate doctrine is not limited to “rates” per se: “our inquiry is not at an end because the orders do not deal in terms with prices or volumes of purchases.” *N. Natural Gas Co. v. State Corp. Comm’n*, 372 U.S. 84, 90–91 (1963); *accord Nantahala Power & Light Co. v. Thornburg*, 476 U.S. 953, 966–67 (1986).

398. *Nantahala Power*, 476 U.S. 953; *Mississippi Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 371 (1988); *accord Miss. Indus. v. Fed. Energy Reg. Comm’n*, 808 F.2d 1525, 1535–49 (D.C. Cir. 1985), *cert. denied*, 484 U.S. 985 (1985).

399. See generally FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, §§ 10:17.1 to 10:17.9.

400. *Snohomish County Pub. Util. Dist. No. 1*, 471 F.3d 1053, 1067 (9th Cir. 2006); see also FERREY, LAW OF INDEPENDENT POWER, § 10:145, at 10-560 to -561.

401. *Snohomish*, 471 F.3d at 1067.

402. See, e.g., *id.*

403. See *id.* at 1066–67.

404. See *supra* Part II.A.

allowances by the state would or could legally occur under first-seller point of regulation, which reaches to out-of-state generators.⁴⁰⁵ Auction of allowances significantly impacts the price and terms of wholesale power transactions, which in turn alters the dispatch order of wholesale power generation within the state and ISO power pools. FERC-approved California and RGGI state wholesale power market design already establishes the market-clearing wholesale power prices by second-price auction bids.⁴⁰⁶ Auction of carbon allowances, rather than the traditional distribution of pollutant emission allowances without charge,⁴⁰⁷ tilts the prices to produce wholesale power that determine the generator operation order in centrally dispatched wholesale markets.

More specifically, most of the RGGI states and California operate under FERC-approved terms and conditions for ISOs.⁴⁰⁸ The respective ISOs manage the electricity transmission grid and oversees wholesale electricity markets. All power sold into the grid, which is managed by the ISO, is sold under wholesale terms and conditions that are part of its approved FERC tariff.⁴⁰⁹ These tariffs do not include state efforts to impose differential prices on selective power generation resources at the wholesale level. The rates, terms, and provisions of any wholesale sale or transmission of electricity, whether across state lines or not, are exclusively within federal control, under the Federal Power Act.⁴¹⁰ California regulators have shown particular sensitivity to this potential legal vulnerability. In contrast to some of the RGGI states, after debating the constitutional issues, the California February 2008 order establishing its first generator cap-and-trade carbon program states that it is not seeking to interfere with or affect the wholesale market, even though there might be such impact.⁴¹¹ California is trying to distinguish itself optically from those other states that seem anxious to increase higher-carbon wholesale power prices as a purpose of their regulatory schemes.

405. See CAL. PUB. UTILS. COMM'N, FINAL OPINION ON GREENHOUSE GAS REGULATORY STRATEGIES 21 (2008), available at http://docs.cpuc.ca.gov/word_pdf/AGENDA_DECISION/90810.pdf (noting recommendation of "first seller approach").

406. See FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, § 9.3.

407. See *supra* text accompanying notes 73–77 for a discussion of both U.S. and EU historic practices on fee emission and carbon allowance allocation.

408. See FERREY, LAW OF INDEPENDENT POWER, *supra* note 23, § 10:87, at 10-406 (describing FERC-approved tariffs for ISO operations in these states).

409. See FERC Form 1 Tariff, *supra* note 390.

410. *Gross Income Tax Div. v. Chicago Dist. Elec. Generating Corp.*, 139 N.E.2d 161, 124 (Ind. 1965); *New England Power Co. v. New Hampshire*, 455 U.S. 331, 340 (1982) (stating that intrastate sale of wholesale power is explicitly within FERC's jurisdiction under the FPA); *accord* *Consol. Edison Co. v. Pub. Service Comm'n*, 472 N.E.2d 981, 987 (N.Y. 1984) (stating that the FPA was specifically enacted in part to fill the regulatory "gap" left by *Public Utilities Commission v. Attleboro*, 273 U.S. 83 (1927), regarding intrastate wholesale sale of electricity).

411. See CAL. PUB. UTILS. COMM'N, INTERIM OPINION ON GREENHOUSE GAS REGULATORY STRATEGIES 60–61 (2008), available at <http://docs.cpuc.ca.gov/efile/PD/78643.pdf> (noting intention of regulation and unintentional consequences).

These issues are coming to the forefront by way of litigation. The first challenge to the analogous state renewable portfolio standards was raised in mid-2008,⁴¹² which is the opening shot of the anticipated legal challenges.

D. Reserved State Legal Discretion; Vulnerability of Carbon

From any type of source, moving electrons are power.⁴¹³ There is no engineering difference in the end product.⁴¹⁴ It is clear that the state can regulate non-price aspects of the power sale market within state boundaries.⁴¹⁵ Within this general authority, states have regulated what electric facilities can be sited, where they can be sited, environmental standards of plant operation, and the mix of demand-side and supply-side resources. For example, California by statute prevents the construction of new nuclear power facilities until such time as there is a solution to the long-term nuclear waste disposal problem.⁴¹⁶

If properly utilized, a state could get at the carbon-intensity of its power supply not by controlling its borders, but by specifying eligible environmental parameters for regulated purchasers of power. There is mixed jurisprudence on how far a state can go. As one example, a New York decision held that a state cannot compel a utility to purchase power from a particular wholesale source.⁴¹⁷ Other courts have allowed states to regulate the mix of generating/efficiency resources that regulated utilities must procure.

[U]nder state authority, a state may choose to require a utility to construct generation capacity of a preferred technology or to purchase power from the supplier of a particular type of resource. The recovery of costs of utility-constructed generation would be regulated by the state. The rates for wholesale sales would be regulation by this [FERC] Commission on a cost-of-service or market-based rate basis, as appropriate.⁴¹⁸

What a state cannot do is to attempt to determine the price of a wholesale power transaction, which is exclusively within FERC jurisdiction.

412. See *Miller v. Ariz. Corp. Comm'n*, No. CV-08-1096SA (Ariz. filed June 27, 2008), complaint available at <http://www.goldwaterinstitute.org/Common/Img/Miller%20v%20Arizona%20Corporation%20Commission.pdf> (challenging 2006 agency action where there was no specific RPS legislation in the state, but rules approved by Arizona Attorney General in 2007).

413. See generally Ferrey, *Inverting Choice*, *supra* note 23, at 1908–09.

414. See FERREY, *LAW OF INDEPENDENT POWER*, *supra* note 23, § 10:79.

415. See *S. Cal. Edison Co.*, 70 F.E.R.C. ¶¶ 61,215, 61,676–77 (1995).

416. *Pac. Gas & Elec. Co. v. State Energy Res. Conservation and Dev. Comm'n*, 461 U.S. 190 (1983) (upholding the Warren-Alquist Act).

417. *Consol. Edison Co. v. Pub. Serv. Comm'n*, 472 N.E.2d 981, 987 (N.Y. 1984).

418. *S. Cal. Edison Co.*, 70 F.E.R.C. ¶¶ 61,215, 61,676 (1995). FERC goes on to note that “[i]n setting an avoided cost rate, a state may account for environmental costs of all fuel sources included in an all-source determination of avoided cost.” *Id.* FERC also notes that the costs imposed in such evaluations must be only actual costs incurred by the utility buyer of the power. *Id.* ¶ 61,676. Therefore, environmental “adders” or “subtractors” must be based on real environmental externality costs, substantiated on a record before the state regulatory agency. See *id.* An addition or decrement could be used to factor in environmental externalities of costs imposed by the emissions from the combustion of certain types of fuel, so as to monetize the full impact of environmental costs.

We [FERC] cannot ascertain at this date any legal basis under which states have independent authority to prescribe rates for sales by QFs at wholesale [to utilities] that exceed the avoided cost cap contained in PURPA.⁴¹⁹

Moreover, there are constitutional limitations to a state directly taking action that affects persons or property in another state,⁴²⁰ which limit extra-territorial efforts of any state to regulate power emanating from a different state.

IV. THE CONSTITUTION'S COMPACT CLAUSE AND INTERNATIONAL COMMERCE AS PROCEDURAL IMPEDIMENTS TO MULTI-STATE COORDINATED CARBON REGULATION

The U.S. Constitution Compact Clause states that “no State shall without the Consent of Congress . . . enter into any Agreement or Compact with another State, or with a foreign Power.”⁴²¹ “The process of establishing an interstate compact generally includes three steps: (1) the negotiation and agreement of a tentative compact, (2) enactment of enabling compact legislation by the relevant state legislatures, and (3) consent of Congress if the compact encroaches upon the political power of the federal government.”⁴²² The vast majority of interstate compacts that were enacted and upheld prior to the 1970s involved boundary lines and parcel purchases between states; since then, there has been a sharp increase in interstate compacts that have dealt with economic and environmental regulations.⁴²³ A rough estimate of the number of active interstate compacts is in excess of one hundred; roughly forty of these compacts deal in some way with the environment.⁴²⁴

In some instances, the federal government has promoted the use of interstate compact agreements to address environmental issues.⁴²⁵ The RGGI states have enacted what they have termed their “Memorandum of

419. *Id.* This case involved a QF selling to a utility. *Id.* ¶ 61,666–67. In this opinion, FERC articulated that if the seller was not a QF under PURPA, the sale would still be under FERC’s jurisdiction based on the exclusive authority given to FERC under the Federal Power Act. *See id.* ¶ 61,675–77 (discussing FERC jurisdiction).

420. *See Shaffer v. Heitner*, 433 U.S. 186, 197 (1977) (“[A]ny attempt ‘directly’ to assert extraterritorial jurisdiction over persons or property would offend sister States and exceed the inherent limits of the State’s power.”); *C. & A. Carbone, Inc. v. Town of Clarkstown*, 511 U.S. 383, 392–93 (1994); *Cf. Baldwin v. G.A.F. Seelig, Inc.*, 294 U.S. 511 (1935) (invalidating New York prohibition on cheaper out-of-state milk being sold in state for less than New York minimum price, thus discriminating against the competitive advantage of foreign producers).

421. *See* U.S. CONST. art. I, § 10, cl. 3.

422. Carothers, *supra* note 174, at 242 (citing JOSEPH F. ZIMMERMAN, INTERSTATE COOPERATION: COMPACTS AND ADMINISTRATIVE AGREEMENTS 40, 43 (2002)).

423. *See id.* at 241 (referencing Patricia S. Florestano, *Past and Present Utilization of Interstate Compacts in the United States*, 24 PUBLIUS 19 (1994)).

424. *See* WILLIAM KEVIN VOIT & GARY NITTING, COUNCIL OF STATE GOV’TS, INTERSTATE COMPACTS & AGENCIES 1998 (1999).

425. Applicability of the Compact Clause to Use of Multiple State Entities Under the Water Resources Planning Act, 4B U.S. Op. Off. Legal Counsel 828 (1980), 1980 WL 20996.

Understanding,” which likely would be deemed an interstate compact.⁴²⁶ Given this, does that RGGI compact require congressional consent to pass constitutional muster? “Regional arrangements may represent a necessary method for handling problems, such as transportation, waste disposal and environmental preservation, which, because of their interstate nature, cannot be handled by individual states acting alone.”⁴²⁷ “Congress requires consent for compacts addressing matters within the national government’s traditional jurisdiction.”⁴²⁸

However, “[c]ongressional approval of a compact is only required under the Compact Clause if the compact enhances the power of the states and encroaches upon federal supremacy.”⁴²⁹ In *United States Steel v. Multi-State Tax Compact*, in which twenty-one states entered in a cooperative agreement aimed at creating a more uniform system of taxation for multi-state taxpayers,⁴³⁰ a tax-paying entity challenged the compact as unconstitutional.⁴³¹ The Supreme Court upheld the agreement by focusing on the substance and not the form of the agreement.⁴³²

A key similarity to the RGGI carbon scheme was present in that case. The actual implementation was dependent on individual state action, albeit consistent with the multi-state compact.⁴³³ Each signatory state had the ability to withdraw, reject or modify any of the rules set forth in the agreement.⁴³⁴ The collective body was only advisory, and thus constitutional without congressional consent.⁴³⁵ Where an agreement is a voluntary action and a state is allowed to withdraw unilaterally, it may not qualify as a compact.⁴³⁶

426. Carothers, *supra* note 174, at 250 (“The presence of an overarching administrative body assisting in the implementation and monitoring of compliance with the plan suggests binding terms more akin to a compact than an agreement . . . [g]iven . . . the complex nature of the RGGI, it is not likely to escape characterization as a compact by merely posing as a ‘Memorandum of Understanding.’”).

427. *Columbia River Gorge United-Protecting People & Prop. v. Yuetter*, 960 F.2d 110, 114 (9th Cir. 1992) (holding that the compact between Oregon and Washington did not violate the Compact Clause because it had the conditional consent of Congress due to an express condition in a federal statute that the compact had to model the terms from that same federal statute).

428. Carothers, *supra* note 174, at 251 (citing MARIAN E. RIDGEWAY, *INTERSTATE COMPACTS: A QUESTION OF FEDERALISM* 19, 20 (1971)).

429. *Fisher v. Carroll*, 375 F. Supp. 2d 385, 394 n.13 (D. Del. 2005).

430. 434 U.S. 456, 458 (1978) (stating that the purposes of the MTC were “(1) facilitating proper determination of state and local tax liability of multistate taxpayers . . . ; (2) promoting uniformity and compatibility in state tax systems; (3) facilitating taxpayer convenience and compliance in the filing of tax returns and in other phases of tax administration; and (4) avoiding duplicative taxation”).

431. *Id.* at 458.

432. *See id.* at 473–477 (following *Virginia v. Tennessee*, 148 U.S. 503 (1893)).

433. *Id.* at 457.

434. *Id.*

435. *Id.* The dissent, as well as the reaction of many scholars to the decision, voiced concern that the Court was putting too much emphasis on actual threats to the federal power, as opposed to potential threats. *Id.* at 480–481 (White, J., dissenting); *see also* Michael S. Greve, *Compacts, Cartels, and Congressional Consent*, 68 MO. L. REV. 285, 307–17 (2003).

436. *See Ne. Bancorp, Inc. v. Bd. of Governors of the Fed. Reserve Sys.*, 472 U.S. 159, 175 (1985).

RGGI provides to the signatory states the ability to withdraw from the agreement without permission from any of the other signatory states.⁴³⁷ However, RGGI does have a spill-over power supply impact on other states.⁴³⁸ Finding a negligible effect on other states and interstate commerce in *United States Steel* was a critical part of that agreement's constitutionality.⁴³⁹ Therefore, the impact of the Compact Clause limitation on RGGI, or the western or midwestern state carbon regulation plans, remains unclear.

Federal power also is exclusive over international commerce. There are efforts to link one of these domestic programs with a foreign GHG trading system, like the EU-ETS system. California, in fact, has executed a number of carbon agreements with other states or foreign governments, including with Mexico, Sao Paulo, Brazil, the United Kingdom, British Columbia, and the European Union. But commerce with foreign nations is exclusively the providence of the federal government.⁴⁴⁰ This could cause additional constitutional issues, especially with the lack of uniformity in state carbon regulation.

The Midwestern Carbon Initiative,⁴⁴¹ as well as the Western Carbon Initiative,⁴⁴² both bind states and provinces of Canada. Thus, they affect foreign commerce as well as interstate commerce in power. To the extent that any carbon regulation attempts to include foreign EU offsets or Kyoto CDM offsets in those eligible to be traded in the state, as California appears to do, it affects international commerce in these carbon regulatory assets. As such, it is legally controversial.

437. See RGGI MOU, *supra* note 50, at 9.

438. See *id.*

439. See *United States Steel*, 434 U.S. at 477–79.

440. U.S. CONST. art. 1, § 8, cl. 3 (exclusive federal power to regulate commerce with foreign nations); see, e.g., *Crosby v. Nat'l Foreign Trade Council*, 530 U.S. 363, 380–81 (2000) (finding that a Massachusetts state act restricting trade with Burma was preempted by a federal act that gave Congressional power over commerce with Burma to the President); *Nat'l Foreign Trade Council v. Giannoulis*, 523 F. Supp. 2d 731, 747–50 (N.D. Ill. 2007) (finding that an Illinois state act limiting trade with Sudan was found unconstitutional under Article I, section 8, clause 3).

441. In November 2007, six participating Midwestern states and Manitoba, Canada province, executed a regional greenhouse gas emission reduction strategy. This included Minnesota, Illinois, Indiana, Iowa, Michigan, Kansas, Ohio, South Dakota, Wisconsin, and Manitoba and Ontario. Three of these nine states are observing rather than participating initially. The group worked to develop a cap-and-trade carbon program in 2008 for implementation in 2010. This accord will not set a specific target but will attempt to cut emissions by 2020.

442. In a regional effort to address climate change, the governors of Oregon, Washington, California, Arizona, New Mexico, and Utah, as well as the premiers of British Columbia, Manitoba, Quebec, and Ontario signed an agreement establishing the Western Climate Initiative. The original agreement was signed in February 2007 by Governors of Arizona, California, New Mexico, Oregon, and Washington. In May 2007, the state of Utah and the Canadian provinces of British Columbia and Manitoba joined. The states of Kansas, Colorado, Wyoming and Nevada, the Canadian provinces of Ontario, Quebec and Saskatchewan and one Mexican state, Sonora, will participate in WCI as observers. See Cathy Cash, *Western Region Plan to Reduce GHG Emissions has Energy Suppliers Waiting for Specifics*, ELECTRIC UTILITY WEEK 20 (Aug. 27, 2007); see also <http://www.westernclimateinitiative.org>.

These constitutional incursions into areas reserved exclusively for federal authority are significant legal issues. The constitutional construct importantly divides state and federal authority on which U.S. law is based. It transcends innovative policy ideas of both the states and the federal government. Transgressions of constitutional limits cannot be waived by a state law.

V. EXTRA-CONSTITUTIONAL LEGAL IMPEDIMENTS

The three Parts above outline federal constitutional complications and impediments to state carbon regulation. New York, the lead state in the RGGI initiative, is now also seeing at least two non-federal constitutional legal challenges being raised in response to its attempt to launch its carbon regulation program. Challengers claim that the program is an unauthorized tax and a violation of state environmental statutes. Similar arguments could affect other states where legislation is required as a prerequisite or action of a non-executive agency is required prior to carbon regulation.⁴⁴³

A. *Unauthorized Tax, Fees and Existing Environmental Requirements*

The New York RGGI Proposal has been challenged in rulemaking comments as an unauthorized tax in contravention of the New York State Constitution that lacks the requisite statutory enabling authority insofar as it provides for the sale of regulatory licenses/permits (i.e., allowances) that are necessary for future electric generating facilities to operate and generates sale proceeds from the allowances that will far exceed the cost of administering the New York RGGI Proposal.⁴⁴⁴ The significant surplus revenues will be used by New York State Energy Research and Development Authority (NYSERDA) to fund other governmental general welfare programs related to energy efficiency and clean energy technology research.

The New York RGGI Proposal would have the NYSERDA and the New York Department of Environmental Conservation impose a charge akin to a tax on affected power generation facilities, then decide how these millions of tax dollars would be spent, without any legislative involvement or budget process. First, the only authority asserted by New York for this is, at the executive level, a RGGI Memorandum of Understanding (MOU) signed by then-Governor George Pataki in December 2005.⁴⁴⁵ However, this was never authorized or ratified by the legislature. Second, the Legislature's previous general grants of statutory operating authority to NYSDEC and NYSERDA

443. Most RGGI states are enacting legislation to authorize, although many do it as an afterthought. For example, Massachusetts announced it was joining RGGI in late 2006, but only enacted legislation encompassing RGGI in mid 2008. S.B. 2768, 2008 Mass. Leg. Serv. 169 (West).

444. AES & Dynegy, *supra* note 316, at 5.

445. The RGGI MOU was subsequently amended on August 8, 2006. *See generally* REG'L GREENHOUSE GAS INITIATIVE, AMENDMENT TO MEMORANDUM OF UNDERSTANDING (2006) (amending 2005 MOU), http://rggi.org/docs/mou_8_8_06.pdf.

which created executive agency power are statutes that have nothing to do with RGGI.

The coal industry has threatened suit against RGGI as an unauthorized tax or otherwise illegal fee.⁴⁴⁶ New York officials have countered that New York has authority to implement RGGI based on New York's adoption of California's GHG regulations for automobiles.⁴⁴⁷ However, there are distinctions between programs regulating mobile sources and stationary sources. A New York RGGI official commented that there is a substantial chance of litigation challenge in New York, Maryland, and Massachusetts.⁴⁴⁸ "Charges exacted for revenue purposes or to offset the cost of general governmental functions are generally held to be taxes [], while fees are 'enacted principally as an integral part of the regulation of an activity and to cover the cost of regulation.'"⁴⁴⁹ Ultimately, the "amount of a regulatory fee 'cannot be greater than a sum reasonably necessary to cover the costs of issuance, inspection and enforcement.'"⁴⁵⁰ The revenues raised by the sale of the proposed carbon allowances will bear no relationship to the costs of administering or enforcing the RGGI program. Instead, the CO₂ Allowance Auction Program has been intentionally designed to generate a vast surplus of money to be used to fund programs for the common welfare.⁴⁵¹ Given the lack of state authority for New York's RGGI regulations and its possible failure to qualify under norms as a fee, it could be vulnerable to state law challenge. Auction of allowances will raise hundreds of millions of dollars annually in many states. Since most of any auction proceeds would not be scaled to administrative costs, the fee may be challenged. A legal challenge is also forecast over California's authority to impose carbon fees on "upstream" energy sources that exceed state administrative costs.⁴⁵² The California Assemblymember who authored California's GHG legislation, A.B. 32, stated that state regulators must identify "direct program costs" before regulating and

446. *First RGGI Allowance Auction May Trigger Coal Industry Lawsuits*, CARBON CONTROL NEWS, July 21, 2008.

447. *Id.*

448. *Id.* at 5.

449. *Health Servs. Med. Corp. of C.N.Y., Inc. v. Chassin*, 668 N.Y.S.2d 1006, 1009–10 (Sup. Ct. 1998) (quoting *Radio Common Carriers of N.Y., Inc. v. New York*, 601 N.Y.S.2d 513, 517 (Sup. Ct. 1993)).

450. *Id.* at 1010 (quoting *In re Torsoe Bros. Constr. Corp. v. Bd. of Trustees*, 375 N.Y.S.2d 612, 617 (N.Y. App. Div. 1975)); *see also Mobil Oil Corp. v. Town of Huntington*, 380 N.Y.S.2d 466, 474 (Sup. Ct. 1975) (The amount of a fee "must be such . . . as will legitimately assist in regulation of the business or occupation, and it should not exceed the necessary or probable expense of issuing the license and of inspecting and regulating the business which it covers.").

451. *See AES & Dynegy, supra* note 316, at 5, 36 ("[T]he present value of New York RGGI revenues would [be] about \$3 billion, while the present value of the New York RGGI administrative costs would be about \$320 million.") (quoting accompanying affidavit of Dr. Harrison).

452. *Dispute over California Carbon-Fee Authority May Spur Legal Fight*, CARBON CONTROL NEWS, July 21, 2008.

must impose fees that are “fair, appropriate and balanced.”⁴⁵³ Sempra Energy Utilities, the electric and gas distribution utility in the greater San Diego area, has questioned the legality of auctioning allowances if the revenues were returned to the state general fund.⁴⁵⁴ Essentially, this looks like an executive-branch authorized tax in the guise of carbon regulation.

On a second legal basis, the New York RGGI Proposal has been criticized because it contravenes the State Environmental Quality Review Act (SEQRA) because the draft environmental impact study (DEIS) was published before a critical final report on emissions leakage, as required by the RGGI MOU, had been issued and before design of the proposed CO₂ allowance auction had been completed.⁴⁵⁵ The New York RGGI regulations also are challenged alleging they exceed both NYSDEC and NYSERDA’s statutory authority.⁴⁵⁶ So if carbon regulation is deemed a tax, proper legislative authorization of the taxing power is an issue. If instead it is deemed a fee, the fact that it raises huge state revenues of hundreds of millions of dollars annually beyond its associated costs, becomes a potential legal issue. Raising such large revenues on sale of allowances have the appearance of a tax, and there is early evidence that state consumers, who ultimately will bear the costs of such tax, may want some of the distribution of tax proceeds back to them, rather than expended on state programs.⁴⁵⁷

VI. CONCLUSION:

CARBON REGULATION IS AN IMPORTANT REGULATORY POLICY TO GET LEGALLY CORRECT

The law is a stubborn thing. Carbon policy would be much more seamlessly implemented at the state level in a coordinated fashion by leading states if the Constitution did not get in the way. However, the manner in which most of the states have attempted to regulate carbon raises significant potential constitutional challenges.

453. *Id.*

454. *See Divisions Deepen Over California Ghg Emission-Allowance Plan*, CARBON CONTROL NEWS, June 9, 2008 (noting Sempra objections over legality of redistribution).

455. *See AES & DYNEGY, supra* note 316, at 6 (arguing RGGI proposal does not comply with applicable New York law).

456. *See id.* (arguing RGGI exceeds regulatory authority). “Specifically, although the Legislature has never authorized NYSERDA to issue or sell regulatory licenses/permits, the Proposal purports to empower NYSERDA to auction CO₂ allowances, which constitute licenses/permits under New York State law. Likewise, NYSDEC lacks statutory authority to deed licenses or permits (such as the CO₂ allowances) to other governmental entities for ultimate issuance or sale. Also, NYSDEC is not authorized by the provisions of the State Administrative Procedures Act (“SAPA”) and the Uniform Procedures Act (“UPA”) to issue licenses/permits to NYSERDA for ultimate sale to the highest bidder.” *Id.*

457. New Hampshire will return amounts over \$6/ton to consumers and Connecticut’s governor plans to return a percentage of revenues above \$5/ton to consumers as rebates, even though the Connecticut Attorney General has ruled this illegal under state law. RGGI Effect is Beyond Mandates, Brings Wave of Changes to New England Energy Policy, ELECTRIC UTIL. WEEK, Sept. 1, 2008, at 1. The EIA documents that New England already has the country’s highest electricity rates, with Connecticut the highest rates in the continental U.S. *Id.*

First, because states do not want the carbon reduction costs they impose on their in-state generators to attract higher-carbon power from out-of-state power imports, they seek to secure the borders, or at least surcharge and dissuade the intruding power flows.⁴⁵⁸ Because the states are attempting to not only regulate carbon produced within their borders, but also create carbon-regulated islands into which externally-produced wholesale power can no longer enter freely without penalty, there are significant Commerce Clause issues. Wholesale electricity moves in interstate commerce at the speed of light.⁴⁵⁹ While it is perfectly understandable why certain states see this as a policy imperative, their actions trip over historic legal prohibitions against impeding the free flow of commerce based on the geographic point of origin of that commerce.

Second, the decision of most of these states to maximize associated revenues by auctioning all of their newly created allocations to emit carbon triggers Supremacy Clause concerns.⁴⁶⁰ Again here, the motives may be worthy: public money is limited, carbon emissions loom large on the policy landscape, and auctioning allocations to emit carbon maximizes public income while rationing the emissions. The motive appears even more integrated when states propose to utilize the revenues of this allocation sale to fund a variety of programs that will reduce greenhouse gas production within the state.⁴⁶¹

However, jurisprudentially, motive matters according to the Supreme Court. States officially have expressed their purpose of this auction to increase the price for certain high-emitting carbon power plant operations (coal in particular), as a way to change the dispatch order of which plants are allowed to run by the FERC-regulated Independent System Operator.⁴⁶² The announced objective is to make the operation of certain high-carbon-emitting plants so expensive that they become the last plants called on to operate by the regional ISO.

When unit dispatch order and operation, solely a function of federally jurisdictional pricing in modern electricity markets, is manipulated indirectly by states that attempt to inflate the federally approved wholesale price at which certain facilities operate, it becomes constitutionally suspect under the Supremacy Clause.⁴⁶³ When there are ignored, more direct, and less legally burdensome ways⁴⁶⁴ to get at these carbon issues, such as by requiring a certain percentage of renewable energy or low-carbon energy in the power supply

458. *See* U.S. Steel Corp. v. Multistate Tax Comm'n, 434 U.S. 452 (1978).

459. *See supra* Part II.A.

460. *See supra* Part III.A.

461. *See supra* Part III.A.

462. *See supra* Part III.A.

463. *See supra* Part III.

464. *See* Dean Milk Co. v. City of Madison, 340 U. S. 349 (1951) (a state must consider the least burdensome ways to accomplish its state interests); C. & A. Carbone, Inc. v. Town of Clarkstown, 511 U.S. 383 (1994) (the financial purpose of a state is not sufficient justification for a commerce clause violation in state regulations).

mix,⁴⁶⁵ the probability of finding a state legally overreaching the normal exclusive wholesale jurisdiction of the FERC to regulate wholesale power pricing is more likely.

Nowhere is the line of demarcation of federal-state responsibility pursuant to the Supremacy Clause more firmly etched in the legal precedent than in power sector regulation. In fact, Supremacy Clause jurisprudence in the power area has its own distinct nomenclature—the filed rate doctrine.⁴⁶⁶ This bright line between federal and state jurisdiction has been firmly and consistently carved in the judicial firmament over three-quarters of a century.

Finally, but perhaps less clear, are constitutional issues with the Compact Clause and foreign commerce powers.⁴⁶⁷ While this may or may not affect RGGI, it is another issue that can be litigated and thus undercut legal confidence in, and regulatory certainty of, state carbon regulation programs. California's joining with other western states and some Canadian provinces raises foreign commerce issues. This is not to mention a host of other legal issues, beyond the scope of this Article, that some of the state carbon regulatory initiatives may run afoul of state statutes. These latter issues can be more readily cured by remedial state legislation or other action. However, the Commerce Clause and Supremacy Clause issues are fundamental elements of the U.S. Constitution. They are not cured by any legal state action which would be inferior to the Constitution itself.

Having focused on the legal issues accompanying the particular way the leading states have embarked on carbon regulation, nonetheless, intelligent carbon policy is imperative. The consensus of scientific opinion is that this is the preeminent ecological issue of this century. Some of the most respected climatologists argue that we have until 2015 to radically reduce the emission of CO₂, or face a very different planet.⁴⁶⁸ We require an expedited, targeted carbon policy to temper the Goblet of Fire that powers industrial society.

But it does little to accelerate carbon restrictions at the state level, only to walk into protracted litigation that will truncate or halt the implementation of these initiatives. Whether the constitutional issues raised by the structure chosen for these state carbon schemes in the United States will prove to be fatal, is only one consideration. The corollary point is that the constitutional issues are real enough not to be easily dismissed by a court, and thus guarantee years of litigation and appeal, during which time these programs will be stunted, if not enjoined altogether. And if Dr. Hansen is correct that carbon emissions worldwide must be reversed by 2015,⁴⁶⁹ then we will expend the

465. See Ferrey, *supra* note 99, at 59–60.

466. See *supra* Part III.C.

467. See *supra* Part IV.

468. See McKibben, *supra* note 4, at 23 (citing Jim Hansen, *The Threat to the Planet*, N.Y. REV., July 13, 2006).

469. *Id.*

majority of these precious remaining years litigating the constitutionality of state carbon schemes instead of implementing legally sound solutions.

These Commerce Clause and Supremacy Clause issues are just now beginning to be raised⁴⁷⁰ against the less controversial renewable energy trust fund and Renewable Portfolio Standard programs that half the states have adopted as matters of state law.⁴⁷¹ There is some legal similarity in the design of RGGI and these trust fund programs. In fact, use of system benefit charges⁴⁷² and trust fund expenditures is one suggestion of how to defend the RGGI scheme may deal with the major problem of “leakage.” However, the existing state renewable programs have escaped legal challenge until mid 2008 for reasons that the carbon regulation programs will not:

- The trust fund programs are financed by taxes in the retail utility bill to all ratepayers, and are spread across the utility consumer rate-base so that the impact on any stakeholder is de minimus at a few cents each month.⁴⁷³
- Carbon regulation will impose huge financial obligations differentially on different generating sources, depending on their carbon emissions and size. While the impact is vested only on a limited number of stakeholders, that impact is significant and dramatically shifts the playing field for electric power production, fuel source, and economic viability in deregulated markets.⁴⁷⁴
- Carbon regulation in the RGGI region will only target CO₂ emissions from larger power generating sources;⁴⁷⁵ it exempts smaller units and exempts other GHGs that are up to several thousand times more potent per molecule in causing global warming and persist in the atmosphere much longer than CO₂.⁴⁷⁶
- There is a broad constituency for the “carrot” of grants to fund renewable energy trust fund projects, without any stakeholder objecting – most rate payers do not know they are paying for these

470. See, e.g., *Miller v. Ariz. Corp.* Comm’n, No. CV-08-1096SA (Ariz. filed June 27, 2008), complaint, available at <http://www.goldwaterinstitute.org/Common/Img/Miller%20v%20Arizona%20Corporation%20Commission.pdf>.

471. Ferrey, *supra* note 99, at 54; see also *supra* text accompanying note 98.

472. RGGI WORKING GROUP, *supra* note 22, at 56–57.

473. See Ferrey, *supra* note 99, at 53, 58–59.

474. Approximately eighteen states and the District of Columbia have partially or wholly deregulated electric power supply, where there is no guarantee of power sale by any wholesale entity. See DEP’T OF ENERGY, STATUS OF STATE ELECTRIC INDUSTRY RESTRUCTURING ACTIVITY (2003), available at http://www.eia.doe.gov/cneaf/electricity/chg_str/restructure.pdf.

475. The RGGI regulations target only power generation of 25 MW or larger. REG’L GREENHOUSE GAS INITIATIVE MODEL RULE § XX-1.4(a) (2007) available at http://www.rggi.org/docs/model_rule_corrected_1_5_07.pdf. California meanwhile plans to regulate all publicly owned electric utilities; see Cal. Energy Comm’n, SB 1368 Performance Emission Standards, http://www.energy.ca.gov/emission_standards/index.html (last visited Nov. 30, 2008) (describing regulation of public utilities).

476. See Regional Greenhouse Gas Initiative, <http://www.rggi.org> (last visited Nov. 30, 2008).

programs and utilities are held economically harmless and can take some credit for the program. By contrast, there will be significant resistance to the “stick” of carbon taxes and allowance auctions imposed on previously unregulated independent power producers.⁴⁷⁷

- It is unprecedented that government in the United States charges targeted regulated entities for allowances to emit air emissions.⁴⁷⁸

The stakes and stakeholders are very different in carbon regulation and renewable energy support. Both Governor Schwarzenegger’s energy advisor and industry groups looking at RGGI implementation forecast litigation.⁴⁷⁹ While these litigants are initially targeting the non-constitutional grounds, over time the broader issues will be apparent. In sum, the state scheme for carbon regulation, once the program regulations become final,⁴⁸⁰ is sure to be challenged legally by the adversely affected stakeholders. This Article has suggested that states have legal discretion to shape carbon policy within constitutional bounds.

In the end, it may be that federal carbon legislation is necessary not only for uniformity and certainty, but to eliminate the issues of the Commerce Clause, Supremacy Clause, and Compact Clause in state-formulated carbon regulation. If RGGI really was an effort to get the federal government to take more definitive action to regulate carbon emissions,⁴⁸¹ then it has been effective. And if RGGI encounters constitutional challenges, this may be a more lasting achievement. All of these issues arise only because carbon regulation is being implemented differentially by state action, which in some instances may overreach the limits of state authority or set up geographically-based ring-fences. And here may be the compelling reason for prompt enactment of carbon legislation at the federal level—it will result in immediate action rather than years of litigation.

477. See e.g., EDISON ELECTRIC INSTITUTE, COMMENTS ON DRAFT REGIONAL GREENHOUSE GAS INITIATIVE MODEL RULE 4 (2006), available at http://www.rggi.org/docs/eei_ltr_comments.pdf (hypothesizing adverse affects of RGGI on system reliability, fuel diversity, capital investment and leakage).

478. Under the SO₂ allowance program, the NO_x ERC program, and the summer NO_x/ozone trading program, the allowances have been dispensed by the relevant government air regulators without changing for the quantity of allowances or credits possessed. See *supra* text accompanying note 73.

479. Weinzimer, *supra* note 305, at 7, 8. Curt Barry, *First RGGI Allowance Auction may Trigger Coal Industry Lawsuits*, CARBON CONTROL NEWS, July 21, 2008.

480. Challenge would be premature prior to implementation of final regulations. See *Kleppe v. Sierra Club*, 427 U.S. 390 (1976); FERREY, *supra* note 218, at 57-58 (pertaining to ripeness of action).

481. See Harvard Electric Policy Group, *supra* note 62, at 41. Note that the RGGI states have never indicated that they would remove RGGI if there were a federal carbon regulation program. *Id.* at 45.

Federal carbon regulation avoids the challenge to individual state actions and constitutional issues. Truly, time is of the essence, and good policy regarding the goblets of fire should follow suit to address carbon emissions.

We welcome responses to this Article. If you are interested in submitting a response for our online companion journal, *Ecology Law Currents*, please contact ecologylawcurrents@boalt.org. Responses to articles may be viewed at our website, <http://www.boalt.org/elq>.