Comments

Shaping the Energy Future in the American West: Can California Curb Greenhouse Gas Emissions from Out-of-State, Coal-Fired Power Plants Without Violating the Dormant Commerce Clause?

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Introduction

CONVENTIONAL COAL-FIRED POWER PLANTS are among our nation's largest and dirtiest sources of energy. Not only are they a leading cause of respiratory illness, they account for more than forty percent of United States carbon dioxide emissions.[1] Over the course of its fifty-year life span, a single 850 megawatt conventional coal-fired plant will spew 400 million tons of carbon dioxide, four tons of mercury, and 189,000 tons of sulfur dioxide into the environment—into the air we breathe, the water we drink, the food we eat, and the atmosphere that sustains life on earth.[2] Yet the world relies on coal-fired power to provide the energy it needs to run its ever growing econo-

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1. Sierra Club, The Truth Behind Coal, http://www.sierraclub.org/coal/overview (last visited July 7, 2007).

2. PUB. CITIZEN'S TEX. OFFICE & THE SUSTAINABLE ENERGY & ECON. DEV. COAL., PREMATURE MORTALITY FROM PROPOSED NEW COAL-FIRED POWER PLANTS IN TEXAS 7 (2006), *available at* http://www.cleartheair.org/documents/TxDDAPreportFINAL.pdf.

mies. Forty percent of the world's electricity is generated by coal-fired power plants.[3]

We are currently faced with a monumental struggle as we attempt to wrest ourselves from our reliance on conventional coal-fired power and other fossil fuels and fully embrace the potential of energy efficiency, renewable energy, and new energy technology. There is nothing less at stake than the future of the planet. Overwhelming scientific evidence supports the reality that climate change is happening right now and that carbon dioxide and other greenhouse gases ("GHGs") are the likely cause. We will not find a solution to global warming until we can control emissions from two major sources—motor vehicles and coal-fired power plants.[4]

California, the twelfth-largest producer of carbon dioxide in the world,[5] took affirmative steps to reduce its GHG emissions and in so doing, provided leadership for the rest of the nation. The focus of this paper is on California's attempt to curb its use of conventional coal-fired power through an innovative new law known as the Greenhouse Gas Emissions Performance Standard Act ("SB 1368" or "Act"), which forbids California utilities from making long-term financial investments or procurement contracts with power plants whose GHG emissions exceed the performance standard.[6]

Opponents, however, claim that the new law violates the dormant Commerce Clause of the United States Constitution. They are wrong. As will be demonstrated, SB 1368 passes dormant Commerce Clause scrutiny and is an appropriate state response to the dangers posed by global warming. Part I of this Comment provides both the federal and state political and economic context for the law. It discusses how the federal government's coal-friendly energy policy and its decision not to ratify the Kyoto Protocol or enact climate change legislation re-

3. ENERGY INFO. ADMIN., DEP'T OF ENERGY, INTERNATIONAL ENERGY OUTLOOK 2007: ELECTRICITY (2007), http://www.eia.doe.gov/oiaf/ieo/electricity.html.

4. *See* R.T. Pierrehumbert, *Climate Change: A Catastrophe in Slow Motion*, 6 CHI. J. INT'L L. 573, 587–88 (2006) ("Coal is a particularly pernicious fuel because, even burned efficiently, it puts fully a third more carbon dioxide into the air than natural gas for a given amount of energy released. In practice, the figure is even worse than this since the cheapest ways of burning coal waste a large amount of the energy, meaning that yet more coal has to be burned to produce the desired quantity of electricity. Coal is cheap, so there is little incentive to invest capital in its efficient use unless the environmental costs of burning it are somehow internalized.").

5. *See* Union of Concerned Scientists, California Global Warming Impacts and Solutions (Feb. 2006), http://www.ucsusa.org/clean_california/ca-global-warming-impacts.html.

6. S.B. 1368, 2006 Leg., Reg. Sess. (Cal. 2006).

sulted in an explosion in the number of new coal-fired power plants in the last five years. It also describes California's primary efforts to address global warming through litigation and legislation. Part II details the provisions of SB 1368, traces its beginnings in the California Public Utilities Commission, and examines the likely impacts of the law. Part III analyzes dormant Commerce Clause challenges to SB 1368 in light of its potentially serious repercussions for businesses located outside the state. Part IV concludes that SB 1368 is constitutional and may provide guidance to other states that are crafting their own global warming solutions.

I. Background

A. Federal Economic and Political Context

In 1992, the first President Bush signed the United Nations Framework Convention on Climate Change ("UNFCCC"), which the United States Senate quickly ratified.[7] UNFCCC called for voluntary measures aimed at stabilizing "greenhouse gas concentrations (not emissions) in the atmosphere at a level that would prevent dangerous human interference with the climate system."[8]

In 1997, signatories to UNFCCC adopted the Kyoto Protocol ("Protocol") which requires participating countries to lower their emissions of GHGs collectively by at least five percent from 1990 levels.[9] President Bill Clinton supported the Protocol, and it was signed by Vice President Al Gore in 1998.[10]Nevertheless, the Protocol was never submitted to the Senate for ratification in light of a Senate resolution strongly opposing the Protocol and expressing concern it "could result in serious harm to the United States economy."[11]

In a surprising move, Presidential candidate George W. Bush pledged that if elected he would support setting limits on carbon dioxide emissions from power plants.[12] Two months after his inaugura-

7. Naomi Oreskes, *The Long Consensus on Climate Change*, WASH. POST, Feb. 1, 2007, at A15.

8. United Nations Framework Convention on Climate Change, May 9, 1992, S. Treaty Doc. No. 102-38, 1771 U.N.T.S. 107.

9. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 11, 1997, 37 I.L.M. 22 (1998), *available at* http://unfccc.int/resource/docs/convkp/conveng.pdf.

10. Fred Hiatt, *Obstinate Orthodoxy*, WASH. POST, Mar. 31, 2003, at A13.

11. Byrd-Hagel Resolution, S. Res. 98, 105th Cong. (1997), *available at* http://www.nationalcenter.org/KyotoSenate.html.

12. *See* Douglas Jehl & Andrew C. Revkin, *Bush, in Reversal, Won't Seek Cut in Emissions of Carbon Dioxide*, N.Y. TIMES, Mar. 14, 2001, at A1, *available at* http://select.nytimes.com/

tion, however, President Bush backed away from that promise, saying it was inconsistent with the goal of increasing energy production.[13]

In June of 2001, he formally announced his administration's opposition to the Protocol and adopted the position of his National Energy Task Force headed by Vice President Dick Cheney.[14] President Bush explained he had changed his position because United States compliance with carbon dioxide limits would be too expensive.[15]

The cost concerns of limiting carbon dioxide emissions and scientific uncertainty concerning global warming influenced the federal government's decision not to regulate GHGs on a national level.[16] In his first speech about global climate change, President Bush stated:

> We do not know how much our climate could, or will change in the future. We do not know how fast change will occur, or even how some of our actions could impact it. . . . And, finally, no one can say with any certainty what constitutes a dangerous level of warming, and therefore what level must be avoided.[17]

Although the United States never ratified the Protocol, a sufficient number of other countries did, and it went into effect on February 16, 2005.[18]

B. California Economic and Political Context

While the Bush administration downplayed the science linking GHG emissions and climate change, California officials were heeding warnings that global warming could degrade air quality, cause severe flooding in California's coastal communities, cause deadly heat waves

gst/abstract.html?res=F30917FE345E0C778DDDAA0894D9404482&n=top%2fReference%2fTimes%20Topics%2fOrganizations%2fE%2fEnergy%20Department%20.

13. *Id.*

14. The National Energy Task Force was a source of national controversy when government watchdog groups claimed that oil and coal company executives had too much influence in crafting the nation's energy policy. *See generally* Michael Abramowitz & Steven Mufson, *Papers Detail Industry's Role in Cheney's Energy Report*, WASH. POST, July 18, 2007, at A1, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2007/07/17/AR2007071701987.html?hpid=topnews. Vice President Cheney battled all the way to the Supreme Court to keep secret the details of the meetings and who attended. *Id.*; *see also* Cheney v. U.S. Dist. Ct. for D.C., 542 U.S. 367 (2004).

15. Press Release, White House, President George W. Bush Discusses Global Climate Change (June 11, 2001), http://www.whitehouse.gov/news/releases/2001/06/20010611-2.html.

16. *Id.*

17. *Id.*

18. Shankar Vedantam, *Kyoto Treaty Takes Effect Today*, WASH. POST, Feb. 16, 2005, at A4.

in the Central Valley, and significantly decrease snowfall in the Sierra Nevada mountains.[19]

Scientists warned that water supplies would be at risk because rising sea levels would result in saltwater intrusion into California estuaries.[20] As the snow pack shrank it would decrease snowmelt and spring stream flows, contributing to shortages in drinking water and water used to irrigate crops.[21] Decreased snow melt would also result in decreased hydroelectricpower, which supplies about fifteen percent of in-state electricity production.[22]

California has long recognized and accepted its role as a leader in environmental regulation.[23] The state has made great strides in reducing pollution from the energy sector within its borders. Tough air pollution laws kept virtually all conventional coal-fired power plants out of California.[24] The state promoted energy efficiency, adopting the nation's "most aggressive goals for electricity and natural gas efficiency program savings for the state's three major investor-owned utilities."[25] In addition, the California Public Utilities Commission adopted a renewable portfolio standard requiring utilities to procure twenty percent of their power from clean, renewable sources by 2017.[26]

Faced with the federal government's unwillingness to ratify the Protocol or pass climate change legislation with mandatory controls on GHG emissions, California chose to deal with the problem. It looked at the two sources that generate a large part of the world's

19. CAL. CLIMATE CHANGE CTR., OUR CHANGING CLIMATE: ASSESSING THE RISKS TO CALIFORNIA 5–8 (2006), http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF.

20. *Id.* at 7.

21. *Id.* at 6–7.

22. *Id.* at 7.

23. It was the first state in the nation to adopt vehicle emission standards for criteria pollutants, before passage of the Federal Clean Air Act. *See* ROBERT PERCIVAL ET AL., ENVINROMENTAL REGULATION: LAW, SCIENCE AND POLICY 554 (4th ed. 2003). California's stringent emission standards have served as models for federal standards and several other states have adopted them. *See* Rachel L. Chanin, Note, *California's Authority to Regulate Mobile Source Greenhouse Gas Emissions*, 58 N.Y.U. ANN. SURV. AM. L. 699, 713–20 (2003).

24. CTR. FOR ENERGY EFFICIENCY & RENEWABLE TECHS. ET AL., CLEARING CALIFORNIA'S COAL SHADOW FROM THE AMERICAN WEST 3 (2005), *available at* http://www.westernresourceadvocates.org/media/pdf/CA%20Coal%20Shadow.pdf.

25. *Id.* at 33.

26. *Id.* at 9. Governor Arnold Schwarzenegger and the California Energy Commission have endorsed an acceleration of the deadline to 2010 with an expanded goal of thirty-three percent renewable energy by 2020. *See* S.B. 107, 2006 Leg., Reg. Sess. (Cal. 2006), *available at* http://www.energy.ca.gov/portfolio/documents/SB_107_BILL_20060926_CHAPTERED.PDF.

GHG emissions—motor vehicles and conventional coal-fired power plants[27]—and began to take action.

Controlling GHG emissions from vehicles was the first step. In 2002, the California legislature passed an innovative law, AB 1493, requiring the California Air Resources Board ("CARB") to adopt a rule regulating GHG emissions from cars, the first rule of its kind in the nation.[28] In 2004, CARB adopted regulations implementing AB 1493 requiring SUVs and trucks to reduce GHG emissions by nearly thirty percent.[29] Six weeks later a group of nine automobile manufacturers filed a lawsuit in federal court challenging the regulations.[30] As of publication, the case is still pending in federal court.

Passing a law requiring GHG emissions reductions in the energy sector took longer. State officials, grappling with the power crisis and rolling blackouts of 2000–2001, focused their attention on "reliability" to ensure that there would be a reliable and adequate supply of electricity humming across state transmission lines.[31] In order to provide that adequate supply, officials faced "an inconvenient truth." The truth indicated that a sizeable percentage of California's electricity originated from dirty, out-of-state, coal-burning power plants, and that percentage was growing. In the decade between 1995 and 2004, California's importation of coal-fueled power grew from 16.5% of overall electricity to 21.3%.[32] However, during the same period, the state's

27. Lainie Motamedi, California Public Utilities Commission, Climate Change and the California Public Utilities Commission's Role, http://www.cpuc.ca.gov/static/energy/electric/climate+change/climatechangediscussionpaper.doc (last visited Aug. 31, 2007).

28. CAL. HEALTH & SAFETY CODE § 43018.5(a) (West 2006); *see* Alice Kaswan, *The Domestic Response to Global Climate Change: What Role for Federal, State, and Litigation Initiatives?*, 42 U.S.F. L. REV. 39 (2007). California took action after the Environmental Protection Agency ("EPA") claimed it did not have authority under the Clean Air Act to establish standards for motor vehicle GHG emissions. Massachusetts v. EPA, 127 S. Ct. 1438, 1450 (2007). As a result of a lawsuit brought by California, eleven other states, and various environmental groups, the United States Supreme Court ruled that EPA had the authority and was required to regulate motor vehicle GHG emissions unless EPA determined emissions were not a danger to public health and welfare. *Id.* at 1463.

29. News Release, Air Res. Bd., Cal. Envtl. Prot. Agency, ARB Approves Greenhouse Gas Rule (Sept. 24, 2004), http://www.arb.ca.gov/newsrel/nr092404.htm.

30. Cent. Valley Chrysler-Jeep, Inc. v. Witherspoon, 456 F. Supp. 2d 1160 (E.D. Cal. 2006).

31. Allan Chen, *The California Energy Crisis: A Brief Summary of Events*, ENVTL. ENERGY TECHS. DIV. NEWS, Summer 2001, at 1, *available at* http://eetdnews.lbl.gov/nl8/eetd8.pdf.

32. Mark Martin, *Imported Electricity Fails State Standards, Coal-Fired Plants Harm Environment in West, Report Says*, S.F. CHRON., Dec. 2, 2005, at A1, *available at* http://sfgate.com/cgi-bin/article.cgi?file=/C/a/2005/12/02/MNGSNG1SQF1.DTL.

use of renewable energy remained stagnant, hovering between 9.2% and 11.5%.[33]

To feed California's growing hunger for energy, California utilities made large investments in conventional coal-fired power plants in the four corner states of Nevada, Arizona, New Mexico, and Utah.[34] While tough laws had kept particulate pollution and mercury emissions from coal-fired power plants out of California, the laws did nothing to control the growing GHG emissions associated with California's electricity use.

California officials faced a challenge. Anticipating a growth in electricity consumption of 1.5% annually between 2004 and 2016, they predicted California utilities would need to procure 24,000 megawatts of peak resources to replace expiring contracts, retiring power plants, and meet peak demand growth by 2016.[35] The question was how to procure that new capacity and still achieve reductions in GHG emissions. Would energy efficiency programs and purchases of electricity from renewable energy sources, natural gas, and hydroelectric power plants be adequate to meet demand and be cost-effective? Or, if coal-fired power plants continued to supply California with a large part of its electricity, was there a way to make them utilize new technology that would reduce their greenhouse gas emissions?

Electricity generators were gambling that California and other states would look at the options and decide that electricity purchased from conventional coal-fired power plants was still the cheapest and most reliable source. Proposals for construction of new coal-fired power plants exploded as energy companies decided to take advantage of the Bush administration's coal-friendly energy policy.[36] Electric utility companies proposed building 129 large coal-fired power

33. *Id.*

34. *See* CTR. FOR ENERGY EFFICIENCY & RENEWABLE TECHS. ET AL., *supra* note 24.

35. Electricity demand is measured in two ways: consumption and peak demand. Electricity consumption is the amount of electricity, measured in gigawatt hours (GWh), that consumers in the state actually use. CAL. ENERGY COMM'N, 2005 INTEGRATED ENERGY POLICY REPORT 46 (2005), *available at* http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CMF.PDF. In contrast, peak demand, measured in megawatts, is the amount of generation needed to keep electrons flowing in the system at any given moment of peak demand. *Id.* at 46–47. Meeting peak demand is primarily an operational issue for system operators—how much will be needed to keep the lights on under worst case conditions and where will those resources come from? *Id.* at 52.

36. Under the Bush administration, EPA scuttled a plan made by the Clinton EPA to regulate mercury emissions from coal-fired power plants using the Clean Air Act's most stringent technology based standard, replacing it with a less stringent "cap and trade" system that would create mercury hot spots. *See* David B. Spence, *Coal-Fired Power in a Restructured Electricity Market*, 15 DUKE ENVTL. L. & POL'Y F. 187, 204–11, 218 (2005). Also, the

plants throughout the country,[37] thirty-one of them in the Interior West states of Montana, Wyoming, Idaho, Colorado, Utah, New Mexico, Arizona, and Nevada.[38] These proposed plants wait, poised to feed the energy demands of booming metropolitan areas, not only in California, but also Phoenix, Las Vegas, Denver, and Salt Lake City.[39]

Deregulation of energy markets also fueled the rush to build coal-fired power plants and gave rise to a new category of electricity generators, so-called "merchant" power plants.[40] Unlike traditional power plants built to provide electricity to local retail customers and regulated by public utility commissions, merchant power plants are built to sell electricity on the wholesale market, often to out-of-state utilities who then distribute the electricity to their retail customers.[41] These merchant power plants are under the jurisdiction of the Federal Energy Regulatory Commission and out of the regulatory reach of state public utility commissions.[42]

Coal companies have chosen states such as Wyoming, Nevada, and Utah as the site of new merchant power plants.[43] However, coal companies recognized that transmission lines needed to be constructed to bring power from merchant plants to California—a major undertaking.[44] California Governor Arnold Schwarzenegger, elected after the state's power crisis fueled the recall of Governor Gray Davis, threw his weight behind the idea of new transmission lines.[45]

Bush administration abandoned steps EPA had already taken to regulate carbon dioxide emissions from coal-fired power plants. *Id.*

37. NAT'L WILDLIFE FED'N, FUELING THE FIRE: GLOBAL WARMING, FOSSIL FUELS AND THE FISH AND WILDLIFE OF THE AMERICAN WEST 15 (2006), *available at* http://www.nwf.org/globalwarming/pdfs/FuelingTheFire.pdf.

38. Platts.com, Proposed Coal Plants in the Interior West, http://www.platts.com/Electric%20Power/Resources/News%20Features/capower/frontier_map.xml (last visited Aug. 31, 2007) [hereinafter Proposed Coal Plans in the Interior West].

39. John Ritter, *California Planning Green Power Revolution*, USA TODAY, July 5, 2005, http://www.usatoday.com/news/nation/2005-07-05-cal-energy_x.htm.

40. Jeffery S. Dennis, *Federalism, Electric Industry Restructuring, and the Dormant Commerce Clause:* Tampa Electric Co. v. Garcia *and State Restrictions on the Development of Merchant Power Plants*, 43 NAT. RES. J. 615, 616–17 (2003).

41. *Id.*

42. *See generally* ENERGY INFO. ADMIN., DEP'T OF ENERGY, THE CHANGING STRUCTURE OF THE ELECTRIC POWER INDUSTRY 2000: AN UPDATE: IMPACTS OF ELECTRIC POWER INDUSTRY RESTRUCTURING ON THE COAL INDUSTRY, http://www.eia.doe.gov/cneaf/electricity/chg_stru_update/chapter1.html (last visited Sept. 25, 2007).

43. Penni Crabtree, *4–State Transmission Plan to be Powered Up*, SAN DIEGO UNION TRIB., Apr. 4, 2005, http://www.signonsandiego.com/uniontrib/20050404/news_1n4power.html.

44. *Id.*

45. *Id.*

In April 2005, Governor Schwarzenegger signed an agreement with the governors of Wyoming, Utah, and Nevada to pursue a 1,300 mile long transmission line, dubbed the Frontier Line, that would connect the four states.[46] The agreement signaled each State's commitment to the effort and established a task force to explore regulatory hurdles and financial options.[47] Even before the agreement was signed, the states began to identify the route of the project, which for the most part would rely on proposed or existing transmission corridors.[48]

Projected to cost $3.3 billion, the line was designed to bring as much as 12,000 megawatts of power to the West Coast.[49] Frontier Line proponents claimed it would carry electricity from a mix of sources, including "clean coal," wind, and solar, and predicted that it would be the largest enabler of renewable energy technologies ever proposed in the United States.[50]

Project skeptics, however, saw conventional coal plants as the likely winners.[51] In Wyoming, proposals had already been submitted for nearly 4,000 megawatts of coal-fired generation to be built near the open-pit, low-sulfur coal mines in the state's Powder River Basin.[52] In all, fourteen new coal-fired power plants were proposed in the Frontier Line states[53] and none of them utilized "clean coal" integrated gasification combined cycle ("IGCC") technology.[54] In fact,

46. Martin, *supra* note 32, at A1.

47. Platts.com, Western Governors Pursue Four-State Frontier Line, http://platts.com/Electric%20Power/Resources/News%20Features/capower/frontier.xml (last visited Aug. 31, 2007) [hereinafter Western Governors Pursue Four-State Frontier Line].

48. *Id.*

49. *Id.*

50. Ritter, *supra* note 39.

51. *Id.*

52. Platts.com, California's Resource Planners Think Long-term, http://www.platts.com/Electric%20Power/Resources/News%20Features/capower/index.xml (last visited Sept. 25, 2007).

53. Proposed Coal Plants in the Interior West, *supra* note 38.

54. For a description of IGCC technology, see *Clean Coal*, STATE ENV'T EXCH. (Progressive Pol'y Inst., D.C.), Dec. 2, 2004, http://www.ppionline.org/ppi_ci.cfm?knlgAreaID=116&subsecID=900039&contentID=253047 ("IGCC [Integrated gasification combined cycle] plants turn coal into a synthetic gas composed mainly of hydrogen . . . and carbon monoxide . . . . The gas is processed to remove 95 percent or more of its sulfur and nitrogen impurities, making it nearly as clean-burning as natural gas. The cleaned-up gas is burned in a turbine to create one source of electricity. Then the heated exhaust is captured to boil water, creating steam to drive a second electricity-generating turbine. This latter exhaust contains carbon dioxide in a highly concentrated form, which makes it easier to capture and keep out of the environment, for example by pumping it into the ground.").

none of the thirty-one proposed coal-fired power plants in the Interior West proposed using "clean coal" technology.[55]

The tension between the need to provide the State with a reliable source of electricity and the State's goal of reducing its GHG emissions provided the backdrop for what ultimately became Senate Bill 1368.

II. Senate Bill 1368: California's Authority to Regulate its Own Utilities Provides the Cornerstone for an Innovative Approach

A. Laying the Groundwork

SB 1368 had its genesis in actions taken by the California Public Utilities Commission ("CPUC" or "Commission") and the California Energy Commission ("CEC") between 2003 and 2006.[56] CPUC regulates the three major investor-owned electric utilities, Pacific Gas and Electric Company ("PG&E"), Southern California Edison Company ("SCE"), and San Diego Gas and Electric Company ("SDG&E"), as well as some smaller electric service providers, which together provide about seventy-eight percent of the state's power.[57] CPUC also regulates some smaller electric-service providers, publicly-owned utilities, and community-choice aggregates.[58] Collectively the utilities and electric-service providers are known as load serving entities ("LSEs").[59]

CPUC and CEC first addressed GHG emissions reductions in their 2003 Energy Action Plan ("EAP").[60] No specific reduction target was identified, only a nonspecific goal to minimize "the energy sector's impact on climate change."[61] The focus in the original EAP was on decreasing per capita energy use and reducing toxic emissions and

55. Ritter, *supra* note 39.

56. CPUC, Phase 1 Scoping Memo and Notice of Workshop on Interim Greenhouse Gas Emissions Performance Standard at 2–8, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (June 1, 2006), *available at* http://www.cpuc.ca.gov/EFILE/RULC/56888.pdf.

57. CAL. ENERGY COMM'N, 2007 INTEGRATED ENERGY POLICY REPORT 13–14 (2007), *available at* http://www.energy.ca.gov/2007publications/CEC-100-2007-008/CEC-100-2007-008-CTD.PDF.

58. Cal. Pub. Utils. Comm'n ("CPUC"), http://www.cpuc.ca.gov (last visited Aug. 31, 2007).

59. CAL. PUB. UTIL. CODE § 8340(h) (West 2004 & Supp. 2007).

60. State of Cal., Energy Action Plan (May 8, 2003), *available at* http://www.energy.ca.gov/energy_action_plan/2003-05-08_ACTION_PLAN.PDF.

61. *Id.* at 3.

gases through increased conservation, efficiency, and renewable resources.[62]

The process of writing regulations to achieve GHG emission reductions began on April 1, 2004 when CPUC issued an *Order Instituting Rulemaking* calling for the establishment of a cap and trade procurement incentive framework.[63] CPUC envisioned a multi-step process. First, it would quickly establish some sort of interim cap or standard that would keep utilities from locking themselves into long term contracts or investments in power plants with high GHG emissions.[64] Once there were some initial limits on GHG emissions in place, the Commission would have breathing room to work out the details of an overall cap and trade system for the electricity sector.[65]

As part of this initial cap component, the Commission began to explore ways to limit the carbon-based energy that utilities were allowed to produce or buy. In March 2005, CPUC convened a three-day workshop to discuss ways to achieve GHG emission reductions through the procurement process.[66] Representatives from the utilities, energy producers, ratepayers' associations, and environmental groups submitted comments.[67]

Some parties raised the issue of CPUC's legal authority to impose a GHG emissions cap on the load-serving entities.[68] Parties also presented their viewpoints on which kind of cap should be implemented.[69] Two major options discussed were a load-based cap and a generation-based cap.[70] Under a load-based cap, the LSEs would be subject to a GHG emissions cap for all resources they purchased to serve their load, no matter from which source, including imports.[71]

62. CPUC, Opinion on Procurement Incentives Framework at 7, Decision 06-02-032, Order Instituting Rulemaking to Promote Policy and Program Coordination and Integration in Electric Utility Resource Planning, Rulemaking 04-04-003 (Feb. 16, 2006) [hereinafter Opinion on Procurement Incentives Framework], *available at* http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/53720.PDF.

63. CPUC, Order Instituting Rulemaking to Promote Policy and Program Coordination and Integration in Electric Utility Resource Planning, Rulemaking 04-04-003 (Apr. 1, 2004).

64. *Id.*

65. *Id.*

66. Opinion on Procurement Incentives Framework, *supra* note 62, at 9.

67. *See id.* at 5.

68. *Id.* at 17.

69. *Id.*

70. *Id.*

71. *Id.*

Under a generation-based cap, each electricity generator would be subject to a GHG emissions cap.[72]

SCE and SDG&E supported the generation-based cap.[73] Environmental groups, however, supported the load-based cap as the best way to minimize "leakage."[74] Leakage occurs when utilities, faced with a cap on emissions from electricity providers within the state, import electricity from out-of-state power plants which traditionally have been beyond the reach of a state cap.[75] Environmental groups also raised concerns about "contract shuffling" where suppliers with large portfolios of resources with differing levels of GHG emissions allocate their contracts to California in such a way as to show a reduction in GHG emissions without actually lowering their overall GHG emissions.[76]

On June 1, 2005, Governor Schwarzenegger created a new impetus for an emissions cap when he announced statewide GHG emission reduction targets in Executive Order S-3-05.[77] The targets were: (1) reduction to 2000 emissions levels by 2010; (2) reduction to 1990 levels by 2020; and (3) reduction to eighty percent below 1990 levels by 2050.[78] The Order also established a multi-agency effort, known as the Climate Action Team, to develop strategies to achieve the targets.[79] Among the strategies identified was a significant reduction in GHG emissions from the electricity sector.[80]

In September and October 2005, CPUC and CEC updated the EAP with EAP II, incorporating several key actions specific to reducing GHG emissions, such as "ensuring that energy supplies serving California, from any source, are consistent with the Governor's climate change goals."[81]

The updated plan was a response not only to the Governor's Executive Order but also to the Frontier Line agreement for a proposed new 1300 mile transmission line linking Wyoming and California.[82] Both CPUC and CEC were well aware that the proposed transmission line would likely spur the construction of conventional coal-fired

72. *Id.*
73. *Id.*
74. *Id.*
75. *Id.*
76. *Id.*
77. Cal. Exec. Order No. S-3-05 (2005), *available at* http://www.dot.ca.gov/hq/energy/ExecOrderS-3-05.htm.
78. *Id.*
79. *Id.*
80. Opinion on Procurement Incentives Framework, *supra* note 62, at 19.
81. *Id.* at 11–12.
82. Western Governors Pursue Four-State Frontier Line, *supra* note 47.

power plants in other states to meet California's demand, unless California imposed controls.[83]

On October 6, 2005, CPUC issued a Policy Statement on Greenhouse Gas Performance Standards in which it stated:

> The State's energy agencies must act expeditiously and in concert to send the right investment signals to electricity markets throughout the West. . . . there are approximately 30 proposed coal fired plants across the West, some of which are planned in anticipation of meeting demand in California. The carbon dioxide emissions from just three 500 MW conventional coal-fired power plants would offset all of the emissions reductions from the IOUs' [Investor Owned Utilities] energy efficiency programs and would seriously compromise the State's ability to meet the Governor's GHG goals. As the largest electricity consumer in the region, California has an obligation to provide clear guidance on performance standards for utility procurement . . . .[84]

That guidance began to take shape in a policy decision issued February 16, 2006, in which CPUC laid out the framework for its cap and trade program.[85] The Commission decided, despite the objections of SCE and SDG&E, to establish a load-based cap.[86]

There were two main reasons for choosing the load-based cap. First, it would minimize the potential for leakage across California's borders because LSEs would not be able to get around the cap by purchasing electricity from out-of-state generators who exceeded the emissions performance standard.[87] Second, by choosing a load-based cap, CPUC confined its regulatory reach to the California utilities over which it had jurisdiction.[88] The Commission reasoned that while it probably could not impose a generation-cap on out-of-state "merchant" power plants under the jurisdiction of the Federal Energy Commission, regulation of the GHG emissions associated with LSEs' electricity purchases was well within CPUC authority over the procurement activities of LSEs, pursuant to Public Utility Code § 701.[89]

CPUC noted the permissive nature of section 701.[90] "'[T]he commission's powers are not limited to those expressly conferred on it:

83. CPUC, Comm'n, Policy Statement on Greenhouse Gas Performance Standards (Oct. 6, 2005), http://www.cpuc.ca.gov/word_pdf/REPORT/50432.pdf.

84. *Id.*

85. Opinion on Procurement Incentives Framework, *supra* note 62, at 22–23.

86. *Id.* at 17.

87. *Id.*

88. *Id.*

89. *Id.*; *see also* CAL. PUB. UTIL. CODE § 701 (West 1997).

90. CAL. PUB. UTIL. CODE § 701 ("The commission may supervise and regulate every public utility in the State and may do all things, whether specifically designated in this part

the Legislature further authorized the commission to "*do all things*, whether specifically designated in [the Public Utilities Act] *or in addition thereto*, which are necessary and convenient" in the exercise of its jurisdiction over public utilities.' "[91]

CPUC also noted that no party had cited any statute directly barring CPUC from issuing these regulations and had not provided any justification for the argument that pollution and emissions from utility generation or purchased power are not "'cognate or germane to the regulation of public utilities,'" the primary limiting factor on Commission jurisdiction.[92]

CPUC expressed hope that the implications of its policy decision would be far-reaching.

> [W]e are joining in the pioneering efforts on greenhouse gas regulation started in the Northeast and Mid-Atlantic states with the voluntary Regional Greenhouse Gas Initiative there. We hope that these parallel but distinct efforts on both coasts will help move the ball forward on initiatives to reduce greenhouse gas emissions and mitigate global climate change in the United States and around the world.[93]

B. Legislative Action

Building on the momentum created by the actions of CPUC and CEC, California Senate President Don Perata introduced the Greenhouse Gas Emissions Performance Standard Act in the California Senate on February 21, 2006.[94] A GHG "emissions performance standard" ("EPS") is the amount of GHGs a power plant can emit without exceeding the cap set by agencies that regulate utilities' electricity purchases.[95]

The bill prohibits investor-owned utilities and other electric-service providers regulated by CPUC, as well as local, publicly-owned electric utilities under CEC's jurisdiction, from entering into long-

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or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction.").

91. Opinion on Procurement Incentives Framework, *supra* note 62, at 20-21 (citing SDG&E v. Super. Ct., 920 P.2d 669, 681 (Cal. 1996) (citing section 701)).

92. *Id.* at 21 (citing PG&E Corp. v. Cal. Pub. Utils. Comm'n, 13 Cal. Rptr. 3d 630, 650 (Ct. App. 2001)).

93. *Id.* at 5. The seven states in the Regional Greenhouse Gas Initiative have signed a Memorandum of Understanding to set a cap on GHG emissions from fossil-fuel-fired electric generators in their states and begin a regional cap and trade program on January 1, 2009. *See* Reg'l Greenhouse Gas Initiative, Multi-State RGGI Agreement, http://www.rggi.org/agreement.htm (last visited Aug. 31, 2007).

94. S.B. 1368, 2006 Leg., Reg. Sess. (Cal. 2006).

95. CAL. PUB. UTIL. CODE § 8341(a) (West 2004 & Supp. 2007).

term financial commitments to purchase electricity from, or invest in, power plants that do not comply with a GHG EPS.[96] A long-term financial commitment is defined as "either a new ownership investment in baseload generation or a new or renewed contract with a term of five or more years, which includes procurement of baseload generation."[97]

The bill required CPUC, by February 1, 2007, and CEC, by June 30, 2007, to set a GHG EPS that would not exceed the rate of GHG emissions of a combined-cycle natural-gas-fired power plant.[98] CPUC and CEC were also required to adopt enforcement rules and procedures for utilities to verify the emissions of GHGs from any power plant supplying their electricity under a contract subject to the GHG EPS.[99]

The Legislative Counsel's Digest explained the bill's two primary purposes. First, the legislature sought to reduce California's contribution to global warming by encouraging new long-term financial commitments to zero- or low-carbon generating resources.[100] The legislature declared that "[i]n order to have any meaningful impact on climate change, the Governor's goals for reducing emissions of greenhouse gases must be applied to the state's electricity consumption, not just the state's electricity production."[101]

Second, the legislature sought to protect California consumers from financial risks and reliability problems which could result from federal regulation of GHG emissions:

> [F]ederal regulation of emissions of greenhouse gases is likely during this decisionmaking timeframe. It is vital to ensure all electricity load-serving entities internalize the significant and underrecognized cost of emissions recognized by the PUC with respect to the investor-owned electric utilities, and to reduce California's exposure to costs associated with future federal regulation of these emissions.[102]

While SB 1368 was making its way through the legislature, CPUC moved ahead with the next phase of its rulemaking process, which involved thrashing out the specific details of the EPS. On June 1, 2006, the Commission issued a Scoping Memo and Notice of Work-

96. *Id.* § 8341(a)(b).
97. *Id.* § 8340(j).
98. *Id.* § 8341(d)(1), (e)(1).
99. *Id.* § 8341(b)(3).
100. S.B. 1368 § 1(d)–(e), 2006 Leg., Reg. Sess. (Cal. 2006).
101. S.B. 1368 § (1)(k), 2006 Leg., Reg. Sess. (Cal. 2006).
102. *Id.* § 1(f)–(g).

shop on Interim Greenhouse Gas Emissions Performance Standard.[103] The Commission directed the parties to submit briefs discussing jurisdictional and other legal issues pertinent to the interim performance standard.[104] Utilities and coal companies continued to argue that CPUC did not have sufficient authority under the Public Utility Code to regulate GHG emissions. In its Opening Brief to CPUC, the Center for Energy and Economic Development[105] ("CEED") stated,

> The Commission appears to be considering the over-all impact of pollution on society at large in the course of carrying out its regulatory function by creating the load-based GHG emissions cap and interim EPS. The authority to promulgate such sweeping environmental reforms lies with the California legislature, not with the Commission.[106]

The arguments concerning CPUC's authority were put to rest when the legislature passed SB 1368, giving CPUC and CEC specific authority to set a GHG EPS and setting February 1, 2007 as the date the new standard was to take effect.[107] On September 29, 2006, Governor Schwarzenegger put his signature to the Greenhouse Gas Emissions Performance Standard Act[108] just two days after signing the highly publicized Global Warming Solutions Act,[109] which established some of the nation's most significant statewide emissions reduction goals.[110] Although SB 1368 did not receive the worldwide press attention accompanying the Global Warming Solutions Act, it began to have an immediate impact.

At the time the governor signed SB 1368, six Southern California cities, which provided significant financing for the coal-fired Inter-

103. CPUC, Phase 1 Scoping Memo and Notice of Workshop on Interim Greenhouse Gas Emissions Performance Standard at 4, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (June 1, 2006), *available at* http://www.cpuc.ca.gov/EFILE/RULC/56888.pdf.

104. *Id.*

105. CEED is a non-profit organization formed by the nation's coal-producing companies, railroads, some electric utilities and equipment manufacturers, and related organizations. CPUC, The Center for Energy and Economic Development's Opening Brief on Jurisdictional and Other Legal Issues, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (June 30, 2006) [hereinafter CEED Opening Brief].

106. *Id.* at 5.

107. S.B. 1368, 2006 Leg., Reg. Sess. (Cal. 2006).

108. Assemb. B. 32, 2006 Leg., Reg. Sess. (Cal. 2006).

109. *Id.*

110. Press Release, Cal. Office of the Governor, Governor Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions (Sept. 27, 2006), http://gov.ca.gov/index.php?.press-release/4111/.

mountain Power Plant in Utah and received a large amount of their baseload power[111] from that plant, were in the midst of considering an offer from the plant to extend their long term contracts for an additional seventeen years, from 2027 through 2044.[112] Faced with the new legislation, Los Angeles turned down the offer.[113] However, when officials in Burbank and Riverside saw the opportunity to extend their contracts slipping away, they quickly voted to authorize contract renewal, and Pasadena Water and Power wrote a staff report recommending renewal.[114]

Those actions prompted a strongly worded letter of condemnation from California's United States Senator Dianne Feinstein as well as a rebuke from the office of state Senator Don Perata, who authored SB 1368.[115] Environmental groups, including the Sierra Club and the Natural Resources Defense Council, also weighed in.[116] Bowing to public and political pressure, officials in Burbank and Riverside rescinded their approval of the contract extensions, and eventually all six cities indicated to Intermountain Power they did not intend to accept the offer.[117]

In response to the cities' rejection of the contract extension, Intermountain Power indicated it would fund a study to evaluate ways in which it might reduce GHG emissions from the plant, including converting the plant to an IGCC plant or capturing GHGs and sequestering them underground.[118]

The Tahoe Donner Public Utility District also faced political heat from Senators Feinstein and Perata while it debated whether to enter into a fifty-year contract to purchase electricity from a proposed expansion to the Intermountain Power Plant.[119] The contract would

111. Baseload power is electricity generation from a power plant that is designed to provide electricity at least sixty percent of the total hours in a year. CAL. PUB. UTIL. CODE § 8340(a) (West 2004 & Supp. 2007). Baseload power contracts are for power intended to meet demand night and day and throughout the year. Senate Third Reading, Bill Analysis of S.B. 1368, at E (Aug. 21, 2006). They differ from peak power contracts, which are intended to be available only at those times of the year when demand spikes. *Id.*

112. David Czamanske, *Power by the People: Pasadena, Other Cities Abandon Effort to Skirt New Global Warming Law*, PASADENA WEEKLY, Dec. 7, 2006, http://www.pasadenaweekly.com/article.php?id=4098&IssueNum=49.

113. *Id.*

114. *Id.*

115. *Id.*

116. *Id.*

117. *Id.*

118. *Id.*

119. Mark Martin, *Truckee: Small Town, Global Issues; Climate Change, Energy Costs at Heart of Utility District's Vote on Coal-fired Power*, S.F. CHRON., Dec. 10, 2006, at B1.

have helped finance construction of the plant expansion which, in return, would have supplied the small mountain town of Truckee with much of the electricity it needs.[120]

At two marathon public hearings, townspeople debated whether it better served the town's long-term interest to have low-cost electricity or to limit GHG emissions.[121] A large part of Truckee's economy depends on nearby ski resorts, and residents were concerned that global warming was already reducing the Sierra Nevada snowpack.[122] Ultimately, Utility Board members voted to turn down the contract, citing coal's contribution to global warming as one of the reasons for their opposition.[123]

C. Implementing the Law

On January 25, 2007, CPUC adopted regulations implementing SB 1368.[124] The Commission explained that the interim EPS is needed "to ensure that there is no 'backsliding'" as California transitions to a statewide GHG emissions cap:[125]

> If LSEs enter into long-term commitments with high-GHG emitting baseload plants during this transition, California ratepayers will be exposed to the high cost of retrofits . . . under future emission control regulations. They will also be exposed to potential supply disruptions when these high-emitting facilities are taken off line for retrofits, or retired early . . . .[126]

The Commission set the EPS at a level of 1100 pounds of CO_2 per megawatt hour.[127] All combined-cycle natural-gas-fired power plants

120. *Id.*

121. Truckee Donner Pub. Util. Dist., Special Meeting Minutes: Dec. 13, 2006, http://www.tdpud.org/pdf/Dec.13,2006,%20minutes-special.pdf.

122. Martin, *supra* note 119, at B1.

123. Truckee Donner Pub. Util. Dist., *supra* note 121.

124. CPUC, Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions Performance Standard, Decision 07-01-039, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (Jan. 25, 2007) [hereinafter Interim Opinion on Phase 1 Issues] , *available at* http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/64072.pdf.

125. *Id.* at 3.

126. *Id.*

127. *Id.* at 8. CEED objected to the decision to set the EPS at 1,100 pounds per megawatt hour because it would preclude power plants that use oil, coal, petroleum, and coal-fueled resources. *Id.* at 66–67 n.90. In its comments to CPUC's proposed decision, CEED did not propose a specific EPS level, but the record indicates the EPS would need to be 1,700 or 1,800 pounds per megawatt hour in order for baseload generation using these resources to be able to meet the standard. *Id.* at 66.

were deemed to be in compliance with the EPS.[128] Pursuant to SB 1368, the regulations require that all new ownership investments, or new or renewed contract commitments of five years or more, in baseload generation to serve California consumers be with power plants that meet the EPS.[129]

The regulations also require that facilities with multiple generating sources delivering power under a single contract have each generating source evaluated individually.[130] For example, if a power plant has one generating unit fueled by coal and another generating unit powered by wind, there will be no blending of the emissions rates in calculating whether the power plant has met the EPS.

Only two narrow exemptions to the EPS requirement were created: (1) if an LSE could demonstrate that a long-term contract or commitment to a non-compliant power plant was necessary to address reliability concerns or (2) because of "extraordinary circumstances, catastrophic events, or threat of significant financial harm."[131]

On February 23, 2007, CEED filed an application for a rehearing of CPUC's decision to adopt the regulations.[132] CEED's objections

128. *Id.* at 4–5. However, if units are added to a deemed compliant natural-gas-fired power plant that add fifty megawatts or more to the plant's rated capacity, the plant must meet the EPS. *Id.* at 5–6.

129. *Id.* at 4–5. A "new ownership investment" is: an investment in new construction of a baseload power plant; acquisition of new or additional ownership interest in an existing baseload power plant previously owned by others; any investment intended to extend the life of one or more generating units at an existing LSE-owned power plant for five years or more; any investment that results in a net increase in the existing rated capacity of the power plant; or any investment designed and intended to convert a non-baseload plant to a baseload plant. *Id.* at 66.

130. *Id.* at 10.

131. *Id.* at 22. On May 23, 2007, CEC adopted rules pursuant to SB 1368 that were similar to those adopted by CPUC. Cal. Energy Res. Conservation & Dev. Comm'n, Order Adopting Regulations and Approving Negative Declaration, Order No. 07-0523-7, Proposed Adoption of Regulations Establishing a Greenhouse Gases Emission Performance Standard for Baseload Generation of Locally Publicly Owned Electric Utility Companies, No. 06-OIR-1 (May 29, 2007), http://www.energy.ca.gov/ghgstandards/notices/2007-05-23_ORDER_ADOPTNG_REGS_NEG_DECLARATION.PDF. By statute, CEC was required to submit its rules for review to the Office of Administrative Law ("OAL"). Cal. Office of Admin. Law, Decision Regarding Disapproval of a Rulemaking Action at 2, File No. 07-0601-04S (June 29, 2007), http://www.energy.ca.gov/ghgstandards/documents/2007-07-02_OAL_DISAPPROVAL_DECISION.PDF. On June 29, 2007, OAL disapproved CEC's rulemaking action because it did not demonstrate a need for certain exemptions, such as for investments that result in a ten percent or less increase in rated capacity, or for additions to deemed-compliant power plants that result in an increase of less than fifty megawatts. *Id.* at 1–2. As of this writing the CEC had not yet adopted changes to its regulations in response to the disapproval.

132. CPUC, Center for Energy and Economic Development's Application for Rehearing of Decision 07-01-039, Interim Opinion on Phase 1 Issues: Greenhouse Gas Emissions

were based in large part on arguments that the regulations were preempted by federal regulation and policy[133] and that they violated the dormant Commerce Clause of the Constitution.[134]

On May 25, 2007, CPUC denied the application for rehearing stating that no grounds for rehearing had been demonstrated.[135] As CPUC explained in its decision, and as will be shown in the next section, there is no federal legislation that preempts SB 1368 and no dormant Commerce Clause violation.

III. Dormant Commerce Clause Inquiry

The regional nature of the deregulated electricity marketplace has pushed California and other states to enact legislation that has impacts on electricity generation beyond their borders, triggering a seemingly inevitable dormant Commerce Clause challenge. Proponents of deregulation view it as a necessary mechanism to develop and nurture reliable sources of power, and they view the low cost of electricity generation as paramount.[136] Critics insist that the environmental impacts and full social costs of electricity generation must be considered when permitting decisions for new or expanded power plants are made.[137]

Performance Standard, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (Feb. 23, 2007) [hereinafter Ctr. for Energy & Econ. Dev.], *available at* http://www.cpuc.ca.gov/EFILE/R/64911.pdf.

133. *Id.* at 19.

134. *Id.* at 3.

135. CPUC, Order Denying Rehearing of Decision 07-01-039 at 1, Decision 07-65-003, Order Instituting Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (May 24, 2007), *available at* http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/68325.pdf. As of this writing the CPUC's decision had not been appealed.

136. *See* Joel Eisen, *The Environmental Responsibility of the Regionalizing Electric Utility Industry*, 15 DUKE ENVTL. L. & POL'Y F. 295, 301 (2005).

137. *Id.* Burning coal is considered one of the least expensive methods of generating electricity. Seth Borenstein, *Carbon-Emissions Culprit? Coal*, SEATTLE TIMES, June 3, 2007, http://seattletimes.nwsource.com/html/nationworld/2003732690_carbon03.html. Thus, for those who think the cost of electricity should be the primary factor in determining what kind of plant gets built, coal is the favored option. However, critics argue that when the costs of air pollution, mercury pollution, respiratory illness, and climate change are factored into the cost of electricity generated by coal-fired power plants, coal is not the least expensive option. Sierra Club, Coal Questions and Answers, http://www.sierraclub.org/coal/questions (last visited Aug. 31, 2007).

The ongoing tug-of-war between state environmental regulations and regional marketplaces is winding up in court with increasing frequency. As Steven Ferrey has noted, "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."[138]

Given the contentious history, the authors of both SB 1368 and CPUC regulations were well aware that they would likely have to withstand a dormant Commerce Clause challenge.[139] They have met the test.

A. Federal Preemption

The analysis of SB 1368 and its validity under the dormant Commerce Clause begins first with the threshold question of federal preemption. Before a court begins a dormant Commerce Clause analysis, it asks whether Congress has regulated the particular economic activity implicated by the state law to the extent that federal legislation occupies the entire field of that activity.[140] If the court finds that federal legislation does occupy the entire field, either explicitly or implicitly, then the federal legislation preempts the state law[141] and the court's inquiry need go no further.

The Act clearly passes this threshold test. There is no federal law instituting a mandatory GHG emissions standard as part of a cap and trade program for power plants. The Senate never ratified the Kyoto Protocol.[142] In place of mandatory regulations, the federal government has instituted programs through which industries may volunta-

138. 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. 50, 579 (2004) (noting that the issue of bans on or discouragement of interstate waste transport has been before the Supreme Court seven times since 1978).

139. *See* Nicholas Inst. for Envtl. Policy Solutions, Duke Univ., *Northeast Plan to Extend Climate Cap Raises Constitutional Questions*, July 19, 2006, http://www.nicholas.duke.edu/institute/news-neclimate.html. While the CPUC was taking comments it received a letter from the Wyoming Infrastructure Authority that argued the Standard was discriminatory because it targeted coal generation.

> [O]nly coal generation cannot meet the standard . . . . The standard thus discriminates against a source of generation and a fuel that does not exist in-state in favor of generation and fuels that do. This discrimination against commerce would be sufficient by itself to place the GHG standard in legal peril.

Id.

140. ERWIN CHEMERINSKY, CONSTITUTIONAL LAW 381 (2d ed. 2005).

141. U.S. CONST. art. VI, § 1, cl. 2.

142. Hiatt, *supra* note 10, at A13.

rily reduce their GHG emissions.[143] The voluntary nature of the federal programs has left the field open for states to impose mandatory reductions in power plants' GHG emissions.

However, Yvonne Gross argues that state cap and trade programs that regulate GHG emissions are implicitly preempted under the Supremacy Clause through field preemption.[144] Congress, by enacting the Federal Power Act, granted the Federal Energy Regulatory Commission ("FERC") "exclusive authority to regulate the transmission and wholesale of electric energy in interstate commerce."[145] In addition, she argues that Congress, at least for the present, intended to occupy the entire field of GHG emissions reductions with a non-regulatory approach where entities would voluntarily reduce their carbon dioxide emissions.[146] CEED makes many of the same claims in its application for rehearing of the CPUC decision, arguing that Congress has chosen to occupy the field of GHG regulation by providing incentives for technology development, research, and study.[147]

The few voluntary programs that Gross refers to, and the research and technology development incentives that CEED describes, fall far short of the comprehensive federal legislation required to preempt state law in this area.[148] Where the area of regulation is one traditionally reserved for local or state police power regulation, courts must exercise a strong presumption against implied federal preemption in the absence of evidence of the "clear and manifest purpose of Congress."[149]

Regulation of utilities that provide electricity to local retail customers is a police power long reserved to the states—FERC has no jurisdiction over such utilities.[150] The voluntary GHG emissions reduction programs Gross refers to were established by the executive branch,[151] not by Congress, and are not evidence that it is the clear and manifest purpose of Congress to preempt the state police power

143. See Robert B. McKinstry, Jr., *Laboratories for Local Solutions for Global Problems: State, Local and Private Leadership in Developing Strategies to Mitigate the Causes and Effects of Climate Change*, 12 PENN. ST. ENVTL. L. REV, 15, 23–24 (2004), for a description of federal voluntary programs.

144. Yvonne Gross, *Kyoto, Congress, or Bust: The Constitutional Invalidity of State CO_2 Cap-and-Trade Programs*, 28 T. JEFFERSON L. REV. 205, 230 (2005).

145. *Id.*

146. *Id.* at 232.

147. Ctr. for Energy & Econ. Dev., *supra* note 132, at 21–22.

148. Hillsborough County v. Automated Med. Labs, Inc., 471 U.S. 707, 712–13 (1985).

149. *Id.* at 715.

150. McKinstry, *supra* note 143, at 82 n.317.

151. *See* Gross, *supra* note 144, at 230.

in this area. Therefore, SB 1368 is not preempted by federal law; the dispositive question is whether the law is constitutionally permissible in light of the dormant Commerce Clause.

B. Broad Policies of the Dormant Commerce Clause

In examining the possible dormant Commerce Clause challenges to the Act and its regulations, it is useful to understand the reasons why the doctrine was established. Article I, Section 8, clause 3 of the United States Constitution states that Congress shall have the power "[t]o regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes."[152] Thus, the Constitution grants Congress the power to make laws that regulate interstate commerce. The United States Supreme Court developed the "dormant" or "negative" Commerce Clause doctrine to address situations where Congress has not acted, but a state or local law discriminates against or unduly burdens interstate commerce.[153]

There are three traditional policy arguments for the existence of the dormant Commerce Clause—historical, economic, and political.[154] In *H.P. Hood & Sons, Inc. v. Du Mond*,[155] the Supreme Court presented the historical and economic arguments for the doctrine. The Court explained that the Framers wanted to create a Constitution that would stop the "drift toward anarchy and commercial warfare between states" after the Revolutionary War, and that it was the Framers' intention to prevent state laws that interfered with interstate commerce.[156] The Court emphasized that the nation's economy has thrived because there are open markets between the states, and no state may "promote its own economic advantages by curtailment or burdening of interstate commerce."[157]

Thus, a fundamental historic and economic policy reason for the dormant Commerce Clause is the promotion of free trade between the states. The fundamental evil which the dormant Commerce Clause seeks to prevent is state economic protectionism.

The Supreme Court has also found a political justification for the dormant Commerce Clause. If the burden of a law passed by one state falls primarily on those in another state, "legislative action is not likely

152. U.S. CONST. art. I, § 8, cl. 3.
153. CHEMERINSKY, *supra* note 140, at 385.
154. *Id.*
155. 336 U.S. 525 (1939).
156. *Id.* at 533.
157. *Id.* at 532.

to be subjected to those political restraints which are normally exerted on legislation where it affects adversely some interests within the state."[158] The Court has explained that the dormant Commerce Clause is needed so that states and their citizens will not be harmed by laws in other states where they lack political representation.[159]

While the Court has established a doctrine that protects the "interstate movement of goods against local burdens and repressions,"[160] the Court has also recognized that a state has broad power "to protect its inhabitants against perils to health or safety, fraudulent traders and highway hazards, even by use of measures which bear adversely upon interstate commerce."[161]

In the seminal dormant Commerce Clause case, *Gibbons v. Ogden*,[162] Chief Justice John Marshall wrote that laws which are a valid exercise of a state's police power should be upheld, even if they have a "considerable influence on commerce."[163]

> [They are] a portion of that immense mass of legislation, which embraces every thing within the territory of a State, not surrendered to the general government: all which can be most advantageously exercised by the States themselves. Inspection laws, quarantine laws, health laws of every description, as well as laws for regulating the internal commerce of a State, and those which respect turnpike roads, ferries, etc., are component parts of this mass.[164]

It has been 183 years since *Gibbons*, but the Court still invokes the underlying policies of the Clause in explaining its decisions.[165]

Turning to the Act, and viewing it in the context of the broad policies of the dormant Commerce Clause, it is clear that the Act does not contradict the policies behind the doctrine. First, SB 1368 does not promote economic protectionism. It does not give California businesses an economic advantage over businesses in other states because the GHG emissions standard applies to all electricity providers, both in-state and out-of-state, who wish to enter into long term contracts with California utilities.

Second, the burden of the law does not fall primarily on residents outside of California. The consumers who will ultimately buy electric-

158. S.C. State Highway Dep't v. Barnwell Bros., 303 U.S. 177, 185 (1938).
159. CHEMERINSKY, *supra* note 140, at 385.
160. *H.P. Hood & Sons, Inc.*, 336 U.S. at 538.
161. *Id.* at 531–32.
162. 22 U.S. (9 Wheat.) 1 (1824).
163. *Id.* at 203.
164. *Id.*
165. CHEMERINSKY, *supra* note 140, at 389.

ity from the utilities affected by the Act live in California. If the Act has any adverse affect on the price of electricity in California, California consumers will bear the burden. Instead of burdening out-of-state residents, the law will probably benefit them. For example, if coal-fired power plants are modified in the future to capture GHGs and other harmful emissions that pollute the areas around coal-fired power plants, out-of-state residents will have cleaner air to breathe.

Third, the Act regulates the purchase and distribution of electricity within California,[166] which is a valid exercise of the State's police power to regulate its own internal commerce. In addition, the Act is intended to protect California residents against perils to their health, safety, and well being caused by global warming. Thus, SB 1368 is a valid exercise of the State's police power and should be upheld, even if it has a considerable influence on interstate commerce.

C. Contemporary Dormant Commerce Clause Tests

The tests that courts use in their dormant Commerce Clause analyses have evolved since *Gibbons*. However, the initial inquiry is the same—whether the subject of the state regulation is a matter of interstate commerce.[167]

SB 1368 regulates the purchase and distribution of electricity in California. The Supreme Court has found electricity to be an item of interstate commerce.[168] "[I]t is difficult to conceive of a more basic element of interstate commerce than electric energy, a product used in virtually every home and every commercial or manufacturing facility."[169] In addition, transmissions of electricity on interconnected national grids have been found to be an item of interstate commerce.[170] Therefore, the Act does regulate an activity which is an item of interstate commerce.

If the court finds that the regulated activity is an item of interstate commerce, the court will apply the appropriate dormant Commerce Clause tests. Courts generally use three tests for determining whether a law is valid under the dormant Commerce Clause: (1) Does the law discriminate against interstate commerce?[171] (2) If the law is not dis-

166. S.B. 1368, 2006 Leg., Reg. Sess. (Cal. 2006).
167. CHEMERINSKY, *supra* note 140, at 389.
168. Fed. Energy Regulatory Comm'n v. Mississippi, 456 U.S. 742, 757 (1982).
169. *Id.*
170. New York v. Fed. Energy Regulatory Comm'n, 535 U.S. 1, 16 (2002).
171. CHEMERINSKY, *supra* note 140, at 382.

criminatory, does it place an undue burden upon interstate commerce?[172] Or (3) is the law an attempt to regulate extraterritorially?[173]

1. SB 1368 Does Not Discriminate Against Interstate Commerce

Under the first test, a state law may violate the dormant Commerce Clause if it discriminates against out-of-state interests.[174] State laws discriminate if they treat in-state and out-of-state economic interests in a way that benefits in-state interests and burdens out-of-state interests.[175] Some laws are facially discriminatory, drawing a clear distinction between in-state and out-of-state interests.[176] Some laws are facially neutral, but are deemed discriminatory if they have the purpose or effect of discriminating against out-of-state interests.[177]

Where a state law discriminates against out-of-state economic interests as a matter of simple protectionism, it faces a virtually per se rule of invalidity under the Commerce Clause.[178] For example, a New Jersey law that banned the importation of out-of-state waste for disposal in New Jersey landfills, but allowed disposal of in-state waste, was found to be facially discriminatory, an unjustified protectionist measure, and thus invalid.[179]

The law was struck down even though it was intended to protect the local environment and not the local economy.[180] The Court said it did not matter that the State wished to prevent its remaining open space from turning into landfills, because a state cannot seek to achieve a legitimate goal by the illegitimate means of isolating itself from the national economy.[181] "What is crucial is the attempt by one State to isolate itself from a problem common to many by erecting a barrier against the movement of interstate trade."[182]

However, in a recent dormant Commerce Clause decision, *United Haulers Association, Inc. v. Oneida-Herkimer Solid Waste Management Au-*

172. *Id.* at 414.
173. Healy v. Beer Inst., 491 U.S. 324, 336 (1989).
174. CHEMERINSKY, *supra* note 140, at 382.
175. Granholm v. Heald, 544 U.S. 460, 472 (2005).
176. *Id.*
177. For example, a law that imposed an assessment on all milk sold to Massachusetts retailers was found to have a discriminatory purpose because the assessed funds were used to aid only Massachusetts dairy farmers. West Lynn Creamery v. Healy, 512 U.S. 186 (1994).
178. Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978).
179. *Id.*
180. *Id.* at 621.
181. *Id.* at 628.
182. *Id.*

thority,[183] the Court created an important public benefit versus private commerce distinction.[184] "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."[185] The ruling may make it easier for state laws that benefit the local environment, but impact out-of-state industry, to withstand dormant Commerce Clause challenges.

In *United Haulers*, the Court held that when a state law favors a public interest corporation over out-of-state competition it does not discriminate against interstate commerce.[186] The law at issue required local trash haulers to dispose of their loads at a state-owned facility, so that the waste could be sorted and disposed of properly in local landfills.[187] The trash haulers complained that they could dispose of their trash more cheaply at out-of-state facilities, and the requirement that haulers dump their loads at the publicly owned in-state facility discriminated against out-of-state businesses.[188]

The law was passed in response to an environmental crisis where many local landfills were operating without permits and in violation of state regulations. Sixteen landfills were ordered to close and remediate the surrounding environment, costing the public tens of millions of dollars.[189] The "tipping" fees that the state-owned facility charged trash haulers were significantly higher than those charged on the open market.[190] The fees, however, funded recycling, composting, household hazardous waste disposal, and other services in addition to disposal.[191] The Court held that a law that favors local government at the expense of private industry, whether in-state or out-of-state, does not discriminate.[192] The Court explained it was particularly hesitant to interfere with the law because waste disposal is typically and traditionally a function of local government exercising its police power. "The dormant Commerce Clause is not a roving license for federal courts to decide what activities are appropriate for state and local government

183. 127 S. Ct. 1787 (2007).
184. *Id.*
185. Maine v. Taylor, 477 U.S. 131, 151 (1986).
186. *United Haulers Ass'n, Inc.*, 127 S. Ct. at 1798.
187. *Id.* at 1790–91.
188. *Id.* at 1787.
189. *Id.* at 1790.
190. *Id.* at 1791.
191. *Id.*
192. *Id.*

to undertake, and what activities must be the province of private market competition."[193]

United Haulers sets an important precedent for SB 1368, which is also an exercise of local police power intended to benefit the local environment and which is at the expense of some, but not all, out-of-state electric generators.

a. The Act Does Not Discriminate on Its Face

Applying the discrimination test to SB 1368, it is clear that the law is not facially discriminatory. It makes no distinction between electricity that is generated in-state and electricity that is generated out-of-state. It also does not distinguish between electricity purchased from generators that use oil, natural gas, coal, wind power, solar-energy power, hydroelectric power, or any other source of energy. All electricity purchased by California utilities through long-term contracts and subject to the Act must meet the same GHG EPS.

SB 1368 is distinguishable from the law struck down in *Philadelphia v. New Jersey*,[194] which blocked the flow of all out-of-state waste into New Jersey, thus treating out-of-state waste differently than waste created in-state.[195] Under the Act, electricity that is generated out-of-state will not be blocked at California's border simply because of its geographic origin. Electricity from out-of-state generators will be allowed to enter the California market as long as it meets the EPS which is imposed on every electricity generator or seller subject to the Act. According to a table prepared by CEC, many out-of-state power plants already meet the EPS and would be able to sell electricity to California utilities under the Act, including one out-of-state power plant that relies in large part on coal.[196]

The Act is also distinguishable from the regulation in *Philadelphia v. New Jersey* because California is not seeking to "isolate itself in the stream of interstate commerce from a problem shared by all."[197] In-

193. *Id.* at 1796.

194. 437 U.S. 617, 624 (1978).

195. *Id.* at 629.

196. CPUC, Reply to Center for Energy and Economic Development Comments for the People of the State of California, *ex rel.* Bill Lockyer, Attorney General at 5–6, Rulemaking to Implement the Commission's Procurement Incentive Framework and to Examine the Integration of Greenhouse Gas Emissions Standards into Procurement Policies, Rulemaking 06-04-009 (Nov. 1, 2006) [hereinafter Attorney General Reply] (discussing the Standard, which was implemented by CPUC on January 25, 2007, and set a limit of 1,100 pounds of carbon dioxide per megawatt hour).

197. Philadelphia v. New Jersey, 437 U.S. at 629.

stead, California is using its considerable influence within the stream of interstate commerce to tackle a problem shared by all—global climate change. California realizes that it cannot isolate itself from global warming. It must act in the most effective way it can, which is to influence the marketplace.

b. SB 1368 Does Not Have Discriminatory Purposes or Effects

The purposes for enacting SB 1368 are also not discriminatory. The stated purposes are to reduce California's contributions to global warming and to protect California consumers from financial risks and reliability problems that may result from future federal regulation.[198] Opponents of the Act have not claimed that it was enacted for any discriminatory purpose. However, they have charged that the Act has discriminatory effects.

CEED argued that the EPS has an unconstitutional discriminatory effect on interstate commerce because the impacts would fall heavily on out-of-state coal-fired power plants.

> [T]he ability of out-of-state coal-fueled generation plants to export their electricity into California [would] be severely limited, if not foreclosed altogether. The limitation of CO_2 emissions described by CPUC effectively precludes in-state utilities and other load-serving entities from the purchase and importation of coal-fueled generation.[199]

However, in *Exxon v. Governor of Maryland*,[200] the Supreme Court stated, "[t]he fact that the burden of a state regulation falls on some interstate companies does not, by itself, establish a claim of discrimination against interstate commerce."[201] In *Exxon*, the Court found that a Maryland statute which banned producers or refiners of petroleum products from operating retail gas stations within the State did not have a discriminatory effect, even though the burden fell entirely on out-of-state companies that refined or produced gasoline.[202] The Court stated that the statute did not discriminate because it did not create barriers against interstate petroleum marketers who did not refine or produce gasoline, and it did not favor local producers or refiners of petroleum products because there were none.[203] The Court acknowledged that gasoline consumers might switch from buying gas

198. S.B. 1368, 2006 Leg., Reg. Sess. § 1(e)(k) (Cal. 2006).
199. CEED Opening Brief, *supra* note 105, at 7.
200. 437 U.S. 117 (1978).
201. *Id.* at 126.
202. *Id.* at 119.
203. *Id.* at 125.

from company-operated gas stations to buying it from independent dealers.[204] However, "the [Commerce] Clause protects the interstate market, not particular interstate firms, from prohibitive or burdensome regulations."[205]

In light of *Exxon*, it is clear there is no merit to CEED's argument that the Act has an impermissible discriminatory effect because the burden falls heavily on out-of-state coal-fired power plants. While an effect of the Act might be that California utilities switch from buying electricity from out-of-state conventional coal-fired power plants to buying electricity from other out-of-state sources, that would not be an impermissible burden on interstate commerce because electricity would still be able to flow into California from out-of-state companies.

CEED also argued the EPS is discriminatory in effect because it places a heightened financial burden on the construction of new coal-fired power plants in neighboring states.

> The initial capital required to construct a power plant is typically secured with pre-construction contracts for the output of the unit. If California is effectively closed to coal-fueled power due to the EPS, reduced potential market breadth makes securing financing for construction of new coal-fueled power plants in all Western states more difficult.[206]

Again, CEED equated burdening companies that operate conventional coal-fired power plants with impermissibly burdening interstate commerce. However, the Commerce Clause does not require California to help coal companies build more power plants in other states. As the Attorney General stated, "[W]hile California cannot simply exclude all power generated in other states, neither is it required to maintain a certain level of import . . . . California is not the financial guarantor for other states and their construction projects."[207]

In summary, the Act does not discriminate against interstate commerce because it does not treat in-state and out-of-state economic interests differently, it is not protectionist, it does not have a discriminatory purpose, and it does not have discriminatory effects that benefit in-state interests at the expense of out-of-state interests.

2. SB 1368 Is Not an Undue Burden on Interstate Commerce

The second dormant Commerce Clause test is applied where a law does not discriminate on its face or have a discriminatory purpose

204. *Id.* at 126–27.
205. *Id.* at 127.
206. CEED Opening Brief, *supra* note 105, at 8.
207. Attorney General Reply, *supra* note 196, at 8.

or effect.[208] In that case, the court will balance the interests of the state against the burden the law places upon interstate commerce.[209]

In *Pike v. Bruce Church*,[210] the Supreme Court articulated the balancing test used to determine whether nondiscriminatory state laws and regulations are valid under the Commerce Clause:

> Where the statute regulates evenhandedly to effectuate a legitimate local public interest, and its effects on interstate commerce are only incidental, it will be upheld unless the burden imposed on such commerce is clearly excessive in relation to the putative local benefits. If a legitimate local purpose is found, then the question becomes one of degree. And the extent of the burden that will be tolerated will of course depend on the nature of the local interest involved, and on whether it could be promoted as well with a lesser impact on interstate activities.[211]

As the language of *Pike* makes clear, in order to pass the balancing test a state law must effectuate a legitimate local interest. If those local interests relate to the health, safety, and welfare of the state's citizens, the law is more likely to pass muster.[212] The Supreme Court has stated:

> [T]he Constitution when "conferring upon Congress the regulation of commerce, * * * never intended to cut the States off from legislating on all subjects relating to the health, life, and safety of their citizens, though the legislation might indirectly affect the commerce of the country. Legislation, in a great variety of ways, may affect commerce and persons engaged in it without constituting a regulation of it, within the meaning of the Constitution."[213]

a. The EPS Has Substantial Local Benefits

SB 1368 has two kinds of benefits, economic and environmental, and both relate to the health, safety, and welfare of California citizens. The EPS provides an economic benefit because it protects ratepayers from the costs and risks of complying with future GHG regulations and protects the reliability of the grid.[214] Ensuring there is a reliable source of electricity to power traffic systems and hospitals relates to the health, safety, and welfare of California citizens.

The EPS also benefits the health, safety, and welfare of California citizens by protecting the local environment. A reduction in GHG

208. CHEMERINSKY, *supra* note 140, at 414.
209. *Id.*
210. 397 U.S. 137 (1970).
211. *Id.* at 142 (citation omitted).
212. Head v. New Mexico Bd. of Examiners in Optometry, 374 U.S. 424, 428 (1963).
213. *Id.*
214. Interim Opinion on Phase 1 Issues, *supra* note 124, at 3.

emissions may prevent the adverse impacts of climate change including:

> [E]xacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.[215]

Some opponents of state-imposed GHG emissions reductions question whether actions taken by an individual state will result in any local environmental benefit. Commentator Yvonne Gross has argued that the local environmental benefits of state GHG emissions reductions are too speculative to justify mandatory GHG reductions.[216]

> [I]t is questionable whether a state-level cap-and-trade program would produce any environmental benefits for the state. Indeed, due to concerns about leakage and contract shuffling, it is not certain that a state-level employed program would achieve any net reductions in CO_2 emissions. Additionally, due to the lack of consensus among scientists regarding the nexus between GHGs and climate change, it is not entirely certain that reduction of CO_2 will further result in any positive environmental goal.[217]

Given the serious threat that climate change poses to California's environment and its citizens, and the significant amount of GHGs that California emits, there is more than enough justification for arguing that regulations that reduce California's emissions, especially when combined with other states' and countries' efforts, will effectuate a legitimate local environmental interest. A state should not be denied the right to pass a law that reduces GHG emissions because that particular law may make only a small impact on global warming. It would surely be perverse if states could not regulate problems because they are widespread and pervasive. The dormant Commerce Clause should not preclude state action because the state cannot solve the problem it is intending to solve alone. A state should at least be allowed to do its part to address the problems it faces.

The Supreme Court has recognized that those who challenge a law on the grounds of being only a small incremental step toward solving a large problem make an erroneous assumption:

> [A]ccepting that premise would doom most challenges to regulatory action. Agencies, like legislatures, do not generally resolve

215. CAL. HEALTH & SAFETY CODE § 38501(a) (West Supp. 2007).
216. Gross, *supra* note 144, at 7.
217. *Id.* at 229.

> massive problems in one fell regulatory swoop. . . . They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed.[218]

b. The Burdens on Interstate Commerce Are Only Incidental

Once the nature of the local interests has been analyzed, the next step in the *Pike* balancing test is an analysis of the burdens on interstate commerce and whether the burdens are clearly excessive in relation to the benefits.[219] One way to measure the extent of a law's interstate burden is by the degree that the state's law shifts the costs of regulating to other states. "[W]hen state legislation nominally of local concern, is in point of fact aimed at interstate commerce or by its necessary operation is a means of gaining a local benefit by throwing the attendant burdens on those outside the state," it violates the Commerce Clause.[220]

As discussed previously, CEED has argued that the EPS imposes several burdens on those outside the state: it severely limits the ability of coal-fired power plants to export their electricity to California, it makes securing financing for the construction of new coal-fired power plants more difficult, and it will depress the price of electricity in exporting states because there will be a surplus of electricity from coal-fired power plants that cannot sell their supply to California.[221]

These burdens only fall on some out-of-state generators and the restrictions on those generators who are burdened will be lifted if the generators invest in technology that reduces their GHG emissions to the point that they meet the EPS. Ultimately, the cost of complying with the regulation will be the cost of making modifications or building new plants that meet the EPS.

If coal-fired power plants wish to enter into new long term contracts with California utilities, the plants will eventually make the modifications and pass the costs to California utilities. Accordingly, California utilities and ratepayers, not out-of-state companies, will ultimately bear the costs.

Furthermore, because the EPS encourages electricity generators to adopt technology that, as a side benefit, reduces local air pollution as well as GHG emissions, the standard provides a benefit to the states

218. Massachusetts v. EPA, 127 S. Ct. 1438, 1457 (2007).
219. Wyoming v. Oklahoma, 502 U.S. 437, 455 (1992).
220. S.C. State Highway Dep't v. Barnwell Bros., 303 U.S. 177, 185–86 (1938).
221. *See supra* Part III.C.1.b.

where conventional coal-fired power plants serving California are located.[222] As the California Attorney General pointed out, rather than shifting the costs to other states, the EPS "represents an effort by California to avoid creating environmental externalities in its consumption of electricity," externalities which are in many cases borne by residents of other states.[223]

A regulation's interstate burden may also be measured by the degree to which the regulation conflicts with the regulations of other states.[224] One may argue that California's EPS conflicts with the lack of a standard in other states. Even if California's EPS does conflict with other states that do not regulate GHG emissions, the EPS is not an unreasonable burden because it is an innovative safety measure.

In *Bibb v. Navajo Freight Lines*,[225] the United States Supreme Court held that an Illinois requirement for a different kind of mudflaps on trucks traveling within the state was an unreasonable burden on interstate commerce.[226] The Court also found, however, that although a state safety measure might place a great burden of delay and inconvenience on interstate carriers, such regulation is not necessarily invalid because a new safety device may be so compelling that the innovating state should not be the one to give way.[227]

California's innovative GHG emissions standard requires coal-fired power plants to install devices which lower their GHG emissions and other pollutants, making them safer to the public. The need for these devices is so compelling that, even if conflict is found, California should not be required to give way.

In many ways the Act is analogous to a Minnesota law that the Supreme Court upheld after it balanced the local benefits of the law against the burdens on interstate commerce and found that the law did not place an undue burden on interstate commerce.[228] The Minnesota law banned the sale of milk in plastic non-returnable containers but allowed its sale in non-returnable paperboard milk cartons.[229] It was enacted for environmental purposes—to encourage the use of

222. *See* CTR. FOR ENERGY EFFICIENCY & RENEWABLE TECHS. ET AL., *supra* note 24, at vi–ix.

223. CPUC, Phase 1, Legal Issues Reply Brief of the People of the State of California, *ex rel.* Bill Lockyer, Attorney General at 6, Rulemaking 06-04-009 (July 10, 2006) [hereinafter Attorney General Phase 1 Brief].

224. *See, e.g.*, Nat'l Elec. Mfrs. Ass'n v. Sorrell, 272 F.3d 104, 109 (2001).

225. 359 U.S. 520 (1959).

226. *Id.*

227. *Id.* at 530.

228. Minnesota v. Clover Leaf Creamery Co., 449 U.S. 456, 474 (1980).

229. *Id.* at 456.

environmentally-superior containers, to prevent the in-state milk industry from becoming reliant on the new throwaway plastic containers, to ease solid waste disposal problems, and conserve energy.[230] After applying the *Pike* balancing test, the Court in *Minnesota v. Clover Leaf Creamery Co.*,[231] held that "[e]ven granting that the out-of-state plastics industry is burdened relatively more heavily than the Minnesota pulpwood industry, . . . [the] burden [was] not 'clearly excessive' in light of the [statute's stated benefits]."[232]

Applying the dormant Commerce Clause tests to SB 1368 in the same manner the Court applied it in *Clover Leaf* results in a similar conclusion. First, the Act does not discriminate and it is not protectionist. Applying the *Pike* balancing test, the environmental benefits of California's EPS are similar to those the Court found sufficient in *Clover Leaf*. The EPS promotes the generation of electricity using environmentally-superior means; it prevents California utilities from relying further on electricity generated by high GHG emitting power plants; it eases global warming (by reducing the "disposal" of GHGs into the atmosphere); and it conserves energy by encouraging efficiency.

The burdens of the EPS may be felt more by out-of-state coal-fired power plants than by other plants out-of-state or in-state. However, as the California Attorney General pointed out, "[t]he burden on interstate commerce from the standard would be slight, since electricity can continue to move freely across California's borders."[233] Therefore the burdens would not be excessive in light of the benefits of the EPS.

c. Alternatives Are Not Feasible or Effective

The final factor in the *Pike* test is whether the state's interests could be promoted as well with a lesser burden on interstate commerce.[234] It is difficult to identify alternatives that are less burdensome while achieving the same GHG emission reductions as those required by SB 1368. The State has already instituted several measures intended to cut GHG emissions associated with electricity generation. The Act's reductions are meant to supplement those achieved by the other measures.

230. *Id.* at 465–69.
231. 449 U.S. 456 (1980).
232. *Id.* at 473.
233. Attorney General Phase 1 Brief, *supra* note 223, at 8.
234. Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).

For example, as discussed in Part I, California already has the most aggressive energy efficiency goals in the nation. In addition, CPUC has adopted a renewable portfolio standard requiring utilities to procure twenty percent of their power from renewable sources, both in-state and out-of-state, by 2017.[235] The action taken by California in reducing its GHG emissions[236] is still insufficient to truly address the threat of global warming. The consequences of global warming are so severe that California must find other ways to reduce the GHG emissions associated with its electricity consumption.

One possible alternative to setting an EPS would be to allow power plants to achieve emission reductions through carbon offsets. Instead of installing new technology to reduce their GHG emissions, power plants could invest in carbon offset projects, such as reforestation, and get credit for the GHG emission reductions achieved by those projects.

However, in its decision adopting the EPS, CPUC explained that although offsets will likely be a component of the cap and trade system in the future, allowing them at this point in the process would be counterproductive.

> The objective of the interim EPS . . . is to ensure that there is no "backsliding" as California transitions to a statewide GHG emissions cap. This objective cannot be accomplished if LSEs are permitted to comply with the standard by . . . increasing the permissible level of emissions for non-compliant powerplants through offsets or other means. These options would only serve to disguise the types of problems that the EPS is designed to avoid, e.g., the high costs of future plant retrofits and reliability disruptions . . . .[237]

Another alternative to the EPS is the use of a GHG adder in the utility procurement process. "Carbon adders account for the potential future costs of mitigating GHG emissions in the event national legislation is adopted and, as such are an expected future price for CO_2 that is assumed when comparing investment options."[238]

In its decision, CPUC found that carbon adders would not further the goal of preventing utilities from making long-term commitments to power plants with high GHG emissions.[239] The Commission explained that while adders may be a disincentive to procuring elec-

235. S.B. 1078, 2002 Leg., Reg. Sess. (Cal. 2002).

236. *See generally* S.B. 1368, 2006 Leg., Reg. Sess. (Cal. 2006); S.B. 1078, 2002 Leg., Reg. Sess. (Cal. 2002).

237. Interim Opinion on Phase I Issues, *supra* note 124, at 24–25.

238. Gross, *supra* note 144, at 227.

239. Interim Opinion on Phase 1 Issues, *supra* note 124, at 33–34.

tricity from such sources, utilities would still be allowed to procure from the "dirtiest resources" in some cases.[240]

Another alternative to the EPS would be to require utilities to insert clauses in their procurement contracts providing that power plants bear the increased costs of generating electricity caused by federal legislation, and forbidding them from passing those costs on to their customers. However, such clauses can create a reliability risk. Faced with similar constraints on passing increased costs on to consumers during the California electricity crisis, one power plant simply shut down.[241]

Because there are no feasible alternatives less burdensome to interstate commerce that would achieve the same benefits as the Act, and because the benefits outweigh the incidental burdens, the Act is not an undue burden on interstate commerce.

3. SB 1368 Is Not Extraterritorial Legislation

The third way in which a state law can violate the dormant Commerce Clause is if it is considered an attempt to regulate extraterritorially.[242] The critical questions are whether a state statute regulates commerce that occurs wholly outside the state, and whether the statute has the practical effect of controlling conduct outside the boundaries of the state.[243]

For example, the New York law struck down in *Brown-Forman Distillers v. New York State Liquor Authority*[244] prevented distillers from selling liquor in other states at a price greater than that which they had committed to sell their liquor in New York.[245] The Illinois statute struck down in *Edgar v. MITE, Corp.*[246] conditioned the acceptance of tender offers by multinational companies incorporated in other states upon the registration of such offers in Illinois.[247]

In *Healy v. Beer Institute, Inc.*,[248] a case involving a price affirmation statute similar to the one in *Brown-Forman*, the United States Su-

240. *Id.* at 34.

241. CPUC, The Natural Resources Defense Council's Opening Brief on Phase 1 Legal Issues Associated with the Greenhouse Gas Emissions Performance Standards 23–24, Rulemaking 06-04-009 (June 30, 2006).

242. Healy v. Beer Inst., 491 U.S. 324, 336 (1989).

243. *Id.*

244. 476 U.S. 573, 573 (1986).

245. *Id.*

246. 457 U.S. 624, 624 (1982).

247. *Id.*

248. 491 U.S. 324.

preme Court summarized the four principles it had derived from prior cases involving extraterritoriality:

> First, the "Commerce Clause . . . precludes the application of a state statute to commerce that takes place wholly outside of the State's borders, whether or not the commerce has effects within the State, ..." Second, a statute that directly controls commerce occurring wholly outside the boundaries of a State exceeds the inherent limits of the enacting State's authority and is invalid regardless of whether the statute's extraterritorial reach was intended by the legislature. The critical inquiry is whether the practical effect of the regulation is to control conduct beyond the boundaries of the State. Third, the practical effect of the statute must be evaluated not only by considering the consequences of the statute itself, but also by considering how the challenged statute may interact with the legitimate regulatory regimes of other States and what effect would arise if not one, but many or every, State adopted similar legislation. Generally speaking, the Commerce Clause protects against inconsistent legislation arising from the projection of one state regulatory regime into the jurisdiction of another State. And, specifically, the Commerce Clause dictates that no State may force an out-of-state merchant to seek regulatory approval in one State before undertaking a transaction in another.[249]

Analyzing the EPS under the first principle, the GHG emissions standard is not extraterritorial because it does not regulate *commerce* that takes place wholly outside of California's borders. The EPS will affect the sale of electricity from power plants both within and outside of California. In addition, the majority of the commerce affected, the acts of entering into and carrying through with long-term financial commitments for electricity procurement, will occur inside California.

The critical question under the second principle is whether the practical effect of a statute is to directly control conduct occurring wholly outside the boundaries of the state. The Act does not directly control conduct in another state. An out-of-state coal-fired power plant may choose to alter its conduct to meet California's EPS, but it is equally free not to by selling its electricity to another state. Any economic effects of the EPS, such as lowering electricity prices in the exporting state, or discouraging the construction of new coal-fired power plants, would be indirect, and therefore do not constitute direct regulation of interstate commerce.[250]

249. *Id.* at 336-37 (citing *Brown-Forman*, 476 U.S. at 579, 582, 642–43) (citations omitted).

250. Attorney General Reply, *supra* note 196, at 8 (citing Bronco Wine Co. v. Jolly, 29 Cal. Rptr. 3d 462 (Ct. App. 2005)).

The EPS is not extraterritorial under the third principle because the EPS does not project California's regulatory scheme into the jurisdiction of another state. Other states are not required to regulate the GHG emissions of their electricity generators.

If every state were to adopt its own GHG emissions performance standard there might be a problem with inconsistency. However there is always the possibility that a state regulation may potentially conflict with a future regulation passed by another state. That potential for conflict should not hamstring a state's ability to solve its problems.

At this point most states that have begun to set GHG emissions caps are working in conjunction with other states in their respective regions in order to avoid the problem of conflicting standards. California has joined with six other Western states and the Canadian province of British Columbia in the Western Regional Climate Action Initiative to collaboratively fight global warming.[251] There are seven Northeastern and MidAtlantic states working together in the Regional Greenhouse Gas Initiative to cap GHG emissions.[252] If, despite these regional efforts, conflicting standards were to arise and become too problematic, the federal government could always act and set a national standard preempting all state standards.

Finally, under the fourth principle laid out in *Healy*, the EPS is not extraterritorial because California is not requiring out-of-state merchants to seek regulatory approval in California before they sell electricity to utilities in other states.

CEED argued that the EPS is extraterritorial legislation because it "cannot avoid having the practical and actual effect of regulating GHG emissions of out-of-state generators selling into the California market, thus unlawfully controlling commercial conduct beyond the borders of California."[253] As evidence of the EPS's impermissible extraterritorial effect, CEED cited a newspaper article reporting that Sempra Energy had halted or downsized the development of its Granite Fox power plant in Nevada because of California's new regulations.[254]

CEED has misapplied the test. CEED appears to believe that if a law has any kind of economic extraterritorial effect, then it is uncon-

251. *See* Western Regional Climate Action Initiative, http://www.utah.gov/governor/docs/Western_Regional_Climate_Action_Initiative.pdf (last visited Sept. 27, 2007).

252. *See* Reg'l Greenhouse Gas Initiative, *supra* note 93.

253. CEED Opening Brief, *supra* note 105, at 9.

254. *Id.* at 8 (citing Susan Voyles, *Sempra Energy Halts Gerlach Project Study*, RENO GAZETTE J., Mar. 8, 2006, http://www.nevadacleanenergy.com/20060308RenoGazette.html).

stitutional. However, there is a distinction between a law that impacts conduct in another state and a law which directly controls conduct outside a state's boundaries.

Kirsten Engel correctly argued that when reviewing state environmental regulations, courts should interpret the extraterritorial test in a way that encourages states to consider not only the economic impacts of their acts but also the extraterritorial environmental impacts.[255] "[A]n important goal of environmental policy (and, obviously, economic efficiency) is to encourage economic actors to account for the full environmental costs of their actions."[256] In addition:

> [S]tate concern for such effects would seem to promote the core federalism value of interstate harmony. Concern for the impact of one's actions upon others is a fundamental tenet of good-neighborliness, both among persons and states.
>
> Indeed, where a state's activities harm the environment, failure to accord weight to extraterritorial effects can have disastrous effects upon interstate relations. This is aptly demonstrated by the current acrimony between Northeastern and Midwestern states over the pollution-generating utilities located in the Midwest.[257]

California's electricity purchases have caused extraterritorial environmental consequences that California is now attempting to control through its EPS. The legislature's action, however, does not constitute "extraterritorial" regulation under the dormant Commerce Clause. Rather, the Act is an example of one state trying to be a good neighbor and a concerned global citizen.

IV. Conclusion

California has taken an important step forward in the battle against global warming by enacting the landmark Act. The State has continued its tradition of leading the nation in environmental protection by enacting a law that is tough on GHG emissions but respectful of the United States Constitution. CPUC and CEC carefully considered the legal consequences of the EPS they were called upon to create. The result is a EPS that does not violate the dormant Commerce Clause of the Constitution. The EPS does not discriminate against out-of-state power plants on its face or by purpose or effect. The legitimate local interests and benefits of the law outweigh the minimal burden

255. Kirsten Engel, *The Dormant Commerce Clause Threat to Market-Based Environmental Regulation: The Case of Electricity Deregulation*, 26 Ecology L.Q. 243, 343–44 (1999).

256. *Id.* at 343–44.

257. *Id.* at 345–46.

on interstate commerce. The law is not extraterritorial because it does not directly control commerce which occurs wholly outside the boundaries of the State.

It remains to be seen whether this law, on its own, can stop the rush to build conventional coal-fired power plants in the Western Region. It may be enough, however, to send a jolt through the industry and make it realize it can no longer live in the past. The time has arrived to invest in the future and the development of clean-energy technology. California's new law will help guide the way.[258]

258. On May 3, 2007, Washington Governor Christine Gregoire signed a bill similar to SB 1368 that will go into effect in July 2008. Washington Senate Bill 6001 prohibits utilities from entering into long-term contracts with electric-generating units unless they meet a GHG EPS of 1,100 pounds per megawatt hour. S.B. 6001, 2007 Leg., Reg. Sess. (Wash. 2007), *available at* http://www.leg.wa.gov/pub/billinfo/2007-08/Pdf/Bills/Session%20Law%202007/6001-S.SL.pdf.