

PROTECTING FARMERS FROM GLOBAL WARMING: CALIFORNIA FACES LEGAL CHALLENGES REGULATING GREENHOUSE GASES

I. INTRODUCTION

United States President George W. Bush has stated, “[w]hen it comes to energy and the environment, the American people expect common sense, and they expect action.”¹ In response to these expectations, individual states have enacted numerous pieces of environmental legislation.² Should the legislation conflict with the United States Constitution or an act of Congress, the state law is preempted and must yield to the supreme law of the land.³ California has specifically responded to climate change concerns by articulating greenhouse gas emissions goals and enforcing emission standards on energy companies in Senate Bill 1368 (“S.B. 1368”).⁴ The legislation prohibits an electric service provider from entering into long term contracts to sell power in California unless the power plant complies with the greenhouse gas performance standards determined by California Energy Commission.⁵ This Comment will examine the motives behind the enactment of S.B. 1368 and its implications for California’s agriculture industry. It will also discuss whether or not S.B. 1368 withstands federal preemption.

¹ George W. Bush, U.S. President, CAFE and Alternative Fuel Standards, (May 14, 2007), <http://www.whitehouse.gov/infocus/energy> (last visited July 27, 2007).

² Arnie’s Uphill Climb, *The Economist* Print Ed. (June 21, 2007) available at http://www.economist.com/world/na/displaystory.cfm?story_id=9370380 (last visited Aug. 10, 2007) [hereinafter Arnie’s Uphill Climb].

³ U.S. CONST. art. VI, cl. 2. (The Supremacy Clause reads: “This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.”).

⁴ 2006 Cal SB 1368 (Deering’s 2007).

⁵ CAL. PUB. UTIL. CODE § 8341 (Deering’s 2007); CAL. PUB. UTIL. CODE § 8340 (Deering’s 2007); SB 1368: Greenhouse Gas Emissions Performance Standard for Major Power Plan Investments, A Fact Sheet of the Union of Concerned Scientists, found at http://www.ucsusa.org/assets/documents/global_warming/SB-1368-Fact-Sheet.pdf. (last visited Nov. 2, 2007) [hereinafter Fact Sheet].

II. COMBATING ENERGY EMISSIONS

California's plan to reduce energy emissions and greenhouse gases began with Governor Arnold Schwarzenegger's executive orders.⁶ Governor Schwarzenegger has declared, "I say the debate is over. We know the science. We see the threat. And we know the time for action is now."⁷ With the non-partisan support of Californians,⁸ these executive orders have led the way in decreasing California's emissions of greenhouse gases.⁹ Specifically, Governor Schwarzenegger signed Executive Order No. S-3-05, articulating ambitious new greenhouse gas emission targets which would reduce greenhouse gas emissions to year 2000 levels by 2010.¹⁰

A. Greenhouse Gases and Climate Change

An increase in greenhouse gases¹¹ in the atmosphere traps energy reflected by the Earth's surface and temperatures on the planet rise.¹² These gases have risen since the mid-twentieth century, in part, due to

⁶ Arnie's Uphill Climb, *supra* note 2.

⁷ Governor's Remarks at World Environment Day Conference, Arnold Schwarzenegger; June 1, 2005 <http://gov.ca.gov/speech/1885/> (last visited Dec. 28, 2007).

⁸ In a field poll released April 12, 2007, California Republicans, Democrats, and non-partisan voters by a majority agreed that global warming is a serious problem and they support legislation on climate change; Frank D. Russo, *Poll Shows 79% Support for AB 32, California's Global Warming Law, That Only 1 Republican in Legislature Voted For* California Progress Report (Apr. 12, 2007) available at http://www.californiaproggressreport.com/2007/04/poll_shows_79_s.html.

⁹ Exec. Order No. S-3-05 (June 1, 2005), <http://gov.ca.gov/index.php?executive-order/1861/> (last visited Oct. 8, 2007); Exec Order No. S-20-06 (Oct. 18, 2006), <http://gov.ca.gov/index.php?executive-order/4484/> (last visited Aug. 4, 2007). (California emissions goals are threefold, first a reduction to year 2000 emission levels by 2010, then, by 2020 a reduction in California emissions to 1990 levels and finally by 2050 a reduction of eighty percent below 1990 levels).

¹⁰ *Id.*

¹¹ Joseph E. Aldy, *Climate Change: An Agenda for Global Collective Action* (Oct, 2001) available at <http://www.aei-brookings.org/admin/authorpdfs/redirect-safely.php?fname=../pdffiles/climate.pdf> (last visited Aug. 13, 2007) at 2 [hereinafter Aldy] (Greenhouse gases generally refer to carbon dioxide, methane, and nitrous oxide.); CAL. HEALTH & SAF. CODE § 42801.1(h) (Deering's 2007). (The California Health and Safety Code defines greenhouse gases, for S.B. 1368 in CAL. PUB. UTIL. CODE § 8340(g) as: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride).

¹² See Aldy, *supra* note 11, at 2.

the increased use of fossil fuels.¹³ During this time, the average global temperature has increased between 0.4°C and 0.8°C.¹⁴ The Intergovernmental Panel on Climate Change has determined that sustained greenhouse gas emissions at or above current rates will cause further warming.¹⁵

The California Energy Commission estimates that greenhouse gas emissions from California climbed more than fourteen percent between 1990 and 2004.¹⁶ California has the eighth largest economy in the world and if the state were a country, it would be ranked the sixteenth largest greenhouse gas emitter in the world.¹⁷ Climate change is of concern to Californians because it affects California's agriculture, resources, and public health in general.¹⁸

B. *Public Health Costs as a Result of Climate Change*

Climate change is fueled by air pollutants, including greenhouse gases such as carbon dioxide, which in turn encourages global warming.¹⁹ Californians have already begun paying the cost of climate change by inhaling some of the most polluted air in the Nation.²⁰ Eight of the top ten counties with the worst ozone air pollution, in the United States, are

¹³ SUMMARY FOR POLICYMAKERS, CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, (Richard Alley et al., Cambridge University Press 2007) at 2; available at <http://www.ipcc.ch/SPM2feb07.pdf> [hereinafter Physical Science Basis].

¹⁴ 32.72°F to 33.44°F, calculations provided by <http://www.csgnetwork.com/tempcon-vjava.html> (last visited Nov. 2, 2007); Aldy, *supra* note 11, at 3.

¹⁵ Physical Science Basis, *supra* note 13, at 13.

¹⁶ Bernie Woodall, *Californian Greenhouse Emissions up 14 Pct 1990-2004* (June 11, 2006) <http://www.planetark.org/avantgo/dailynewsstory.cfm?newsid=38824> (last visited Oct. 13, 2007), [hereinafter Woodall].

¹⁷ *Id.* (If Texas was a country it would be the ninth largest greenhouse gas emitter in the world.); Brad Knickerbocker, *China Now World's Biggest Greenhouse Gas Emitter*, Christian Science Monitor (June 28, 2007), available at <http://www.csmonitor.com/2007/0628/p12s01-wogi.htm>. (The largest greenhouse gas emitter in the world is China, surpassing the United States by eight percent. However, Americans retain the title of largest individual emitters).

¹⁸ 2006 Cal SB 1368(a) (Deering's 2007).

¹⁹ Lisa Gardiner, *Air Pollution and Climate Change*, (Feb. 14, 2006 http://www.windows.ucar.edu/tour/link=/earth/Atmosphere/pollution_climate_change.html (last visited Dec. 23, 2007).

²⁰ American Lung Association, *State of the Air 2005 – Best and Worst Cities*, http://lungaction.org/reports/sota05_cities.html (last visited Aug. 11, 2007) [hereinafter ALA].

found in California.²¹ More people suffer from respiratory disease in California due to higher concentrations of air pollution when compared with areas with less air pollution.²² The expected effects of the pollution over Los Angeles add 8,800 deaths to the statewide death toll and an estimated seventy-one billion dollars, in healthcare costs, per year.²³ Climate change not only affects public health, but California agriculture as well.

C. California Climate Change and California Agriculture

California agriculture is a major business with a thirty billion dollar industry employing over a million workers.²⁴ In 2005, California's agricultural industry set a new record with \$9.3 billion in exports, shipped to more than 150 countries.²⁵ Agriculture is a significant part of California's economy, and the Nation's economy.²⁶ Both a reduction in water supply and a change in temperature would have a significant effect on agriculture and both are predicted effects of climate change.

The National Academy of Sciences published a study predicting that by the end of the century the snow pack in the Sierras will be significantly lower than current levels, causing a thirty percent reduction in

²¹ *Id.* (The following areas are ranked in the top twenty metropolitan areas most polluted by short-term particle pollution: Los Angeles-Long Beach-Riverside, Fresno-Madera, Bakersfield, Sacramento-Arden-Arcade-Truckee, Visalia-Porterville, Hanford-Corcoran, Modesto, and San Diego-Carlsbad-Sar. Marcos. Ten of top twenty five most polluted counties in the United States are found in California and are: Riverside, San Bernardino, Los Angeles, Kern, Tulare, Fresno, Orange, Kings, and Merced).

²² SUMMARY FOR POLICYMAKERS, CLIMATE CHANGE 2007: IMPACTS, ADAPTION, AND VULNERABILITY, CONTRIBUTION OF WORKING GROUP II TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, (M. L. Parry et al. eds., Cambridge University Press 2007) at 12; available at <http://www.ipcc.ch/SPM13apr07.pdf>; See also, Air Pollution, Heart Disease and Stroke, American Heart Association, <http://www.americanheart.org/presenter.jhtml?Identifier=4419> (last visited Dec. 24, 2007) at 3 [hereinafter Heart Disease].

²³ Heart Disease, *supra*, note 22, at 3. (The American Heart Association found that long term exposure to pollution reduces life expectancy by a few years.); *Clearing the Air*, The Economist Print Ed. (Aug. 17, 2006), http://www.economist.com/world/na/displaystory.cfm?story_id=7796968 (last visited Aug. 10, 2007) [hereinafter Clearing the Air].

²⁴ Omid Rowhani & Daniel A. Sumner, California's International Agricultural Exports in 2005, AIC Issues Brief – University of California, No. 31 (Apr. 2007) at 1, 5. *Clearing the Air*, *supra*, note 23, at 1.

²⁵ Rowhani, *supra* note 24, at 1, 5.

²⁶ *Id.*

California's water supply.²⁷ Approximately forty-two percent of the current subsurface and surface water in California is used for agricultural purposes.²⁸ California agriculture would be seriously threatened by a significant reduction in water supply.²⁹

A change in ambient temperature also has a direct effect on the agricultural crops grown in California.³⁰ Crop growth and development are affected by temperature via its effect on enzyme and membrane controlled processes.³¹ Temperature is a controlling factor for developmental processes including triggers for flowering and fruit maturation stages.³² Studies show a change in only a few degrees will negatively affect tomato production, which is the thirteenth most produced commodity in California.³³ It has also been shown that a temperature change will likely cause grapes, California's second most produced commodity,³⁴ to sustain premature ripening, leading to a reduction in quality for California grapes used in wine production.³⁵

²⁷ Robert Collier, *State Bypasses Kyoto, Fights Global Warming: California tries to cut emissions on its own*, Feb. 17, 2005, <http://www.sfgate.com/cgiin/article.cgi?file=/c/a/2005/02/17/MNG1IIBCSUS1.DTL>, at 1.

²⁸ TIMOTHY CAVAGNARO ET AL., *CLIMATE CHANGE: CHALLENGES AND SOLUTIONS FOR CALIFORNIA AGRICULTURAL LANDSCAPES* (California Climate Change Center, Feb. 2006) CEC-500-2005-189-SF at 11; available at http://johnmuir.ucdavis.edu/pdflibrary/whitepapers/cec_climatechange.pdf.

²⁹ Collier, *supra* note 27, at 1.

³⁰ Cavagnaro, *supra* note 28, at 43, 44, 46.

³¹ *Id.* at 43.

³² *Id.*

³³ USDA, National Agricultural Statistics Service, Summary of County Ag. Commissioners' Reports, http://www.nass.usda.gov/Statistics_by_State/California/Publications/AgComm/indexcav.asp; (then follow "Previous Bulletins by Crop Year: 2006 pdf.") at 8 [hereinafter Summary of County Ag]. See also Cavagnaro, *supra* note 28, at 44.

³⁴ Summary of County Ag, *supra* note 33, at 8.

³⁵ Cavagnaro, *supra* note 28, at 44, 46; *Climate Change May Bring Sour Grapes*, <http://www.cbsnews.com/stories/2006/07/10/tech/main1789525.shtml> (last visited Oct. 18, 2007), at 1-2. (A paper released by the National Academy of Sciences indicates that areas suitable for growing wine grapes could be reduced by fifty percent by the end of the century. It also suggests that climate change may affect California grape growing conditions, climate change may improve growing conditions in the Northwest and Northeast parts of the country. This movement would reflect the historical grape production migration from region to region. In Medieval times, England was a prime spot for grape production, but England's vineyards were later destroyed by a 'Little Ice Age' and now grapes are being grown again).

III. S. B. 1368 ACTING AGAINST GREENHOUSE GASES

S. B. 1368 furthers California's stated goal to curb the output of greenhouse gases and promote clean technology in other states.³⁶ The legislation prescribes greenhouse gas emission standards for power plants selling electricity to the California market.³⁷ Enacting S.B. 1368, the legislature of California declared, "Global warming will have serious adverse consequences on the economy, health, and environment of California."³⁸ The bill generally links the greenhouse gas emission levels of energy companies with new long term financial investments in the generation of electricity in California.³⁹ Specifically, S.B. 1368 prohibits an electric service provider or local publicly owned electric utility from entering into long-term contracts to provide power to Californians, unless the power plant complies with the greenhouse gas performance standards set by the California Energy Commission.⁴⁰ The standard mandated by the California Energy Commission is "a rate of emissions of greenhouse gases that is no higher than the rate of emissions of greenhouse gases for combined-cycle natural gas base-load generation."⁴¹

A. *Rising Energy Prices*

California's new standard, as set out in S.B. 1368, virtually eliminates energy purchases from power plants using coal because coal emits more greenhouse gas into the atmosphere than natural gas whose emission levels set the standard.⁴² The cost of this legislation will be high because average costs for coal are significantly less than natural gas.⁴³ S.B. 1368

³⁶ Fact Sheet, *supra* note 5.

³⁷ CAL. PUB. UTIL. CODE § 8341 (Deering's 2007).

³⁸ 2006 Cal SB 1368(a) (Deering's 2007).

³⁹ Fact Sheet, *supra* note 5; CAL. PUB. UTIL. CODE § 8341 (Deering's 2007).

⁴⁰ CAL. PUB. UTIL. CODE § 8341 (Deering's 2007); CAL. PUB. UTIL. CODE § 8340 (Deering's 2007); Fact Sheet, *supra* note 5.

⁴¹ CAL. PUB. UTIL. CODE § 8341(d)(1) (Deering's 2007); CAL. PUB. UTIL. CODE § 8340(a) and (b). ("Baseload Generation" means electricity generation from a powerplant that is designed and intended to provide electricity at an annualized plant capacity factor of at least 60 percent." Regarding a powerplant a "'Combined-cycle natural gas' means the powerplant employs a combination of one or more gas turbines and steam turbines in which electricity is produced in the steam turbine from otherwise lost waste heat exiting from one or more of the gas turbines."). Essentially, S.B. 1368 limits power plants doing business with California to emissions levels equaling natural gas power plants.

⁴² Cheryl Pellerin, *Clean Coal Production Key to Reducing Greenhouse Gas Levels*, at 1, available at, <http://usinfo.state.gov/xarchives/display.html?p=washfile-english&y=2007&m=May&x=200705301342191cnirellep0.6537592> (last visited Dec. 28, 2007).

⁴³ Energy Information Administration, *Summary Statistics for the United States*, <http://www.eia.doe.gov/cneaf/electricity/epa/epates.html> (last visited Oct. 15, 2007);

requires that all electricity provided to Californians must be generated from plants that meet the state's restrictive greenhouse gas standards.⁴⁴ Critics claim that S.B. 1368 will cause an increase in energy prices because twenty percent of the energy used in California is generated from coal-energized power plants.⁴⁵ The business critics argue that many non-California plants will no longer be able to sell their power to California utilities, creating a shortfall in supply.⁴⁶

B. High Cost for California Agriculture

A University of California study found that California's agriculture is particularly vulnerable to higher energy prices.⁴⁷ The study showed that farmers tend to rely on subsidized energy resources which may not meet their future energy needs.⁴⁸ Farmers are also dependent on transporting their goods to markets that can involve long distances and can be quite energy-intensive.⁴⁹ If more efficient methods of transport and production are not found, growers may attempt to reduce their costs by producing their products closer to the final market.⁵⁰ This possibility is presented

Energy Information Administration, *Average Cost of Natural Gas Delivered for Electricity Generation by State*, http://www.eia.doe.gov/cneaf/electricity/epm/table4_13_a.html (last visited Oct. 15, 2007); and Energy Information Administration, *Average Cost of Coal Delivered for Electricity Generation by State*, http://www.eia.doe.gov/cneaf/electricity/epm/table4_10_a.html (last visited Oct. 15, 2007). (In 2005, the cost of coal for the United States was 154 cents per million BTUs while natural gas cost \$8.21 cents per million BTUs. The cost of natural gas in California in 2007 was \$6.94 dollars per million BTUs and though the cost of coal in California in 2007 was not readily available, the cost of coal in Oregon was reported as 1.31 dollars per million BTUs and in the Pacific region coal was \$1.97).

⁴⁴ John Myers, *CA: The Other Greenhouse Gas Bill... (SB 1368 & the rest of today's story)*. (Sept. 27, 2006), <http://www.freerepublic.com/focus/f-news/1709439/posts> (last visited Aug. 12, 2007) at 1.

⁴⁵ *Id.*; California's Major Sources of Energy, California Energy Commission, <http://www.energy.ca.gov/html/energysources.html> (last visited Nov. 2, 2007) at 1. (California Energy Commission reports that 78.3% of California's electric energy came from either an in state source or a source in California utilities' control areas).

⁴⁶ Myers, *supra* note 44, at 1; *Calif. Poised to Act on its Own Global Warming*, http://www.usatoday.com/news/nation/2006-08-24-calif-global-warming_x.htm (last visited July, 27, 2007) at 1. (Coal-fired plants currently under development will be forced to adopt non-polluting technologies or risk losing their slice of the California market).

⁴⁷ DAVID ROLAND-HOIST & DAVID ZILBERMAN, *How Vulnerable is California Agriculture to Higher Energy Prices*, University of California Giannini Foundation, Vol. 9 No. 5, May/June 2006 at 1; also available at http://www.agecon.ucdavis.edu/extension/update/articles/v9n5_1.pdf (last visited Nov. 2, 2007).

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.* at 4.

with the historical backdrop of California innovation and ability.⁵¹ California farmers are the most technologically savvy and “their capacity as a laboratory of innovation in process efficiency and product quality” sets global standards.⁵²

With some creativity, California farmers will be able to weather the effects of increased energy prices; to be sure S.B. 1368 does present farmers with a loophole. To avoid an expensive power bill, farmers could contract with companies’ purchasing power from power plants not meeting the emission standards under S.B. 1368, specifying that the contract be for less than five years, the minimum requirement for the legislation to apply.⁵³ The prospect of cheaper energy from coal may allow California farmers time to develop adaptive processes to address the rising cost of energy. Until cost-effective measures are engineered, S.B. 1368 must surpass the constitutional challenge of preemption, or California farmers may not have to withstand the effects of the legislation at all.⁵⁴

IV. PREEMPTION AND FEDERALISM: A FOUNDATIONAL IDEA

The legal theories behind current challenges to S.B. 1368 derive from disputes that arose at the very formation of our government. After the American Revolution, the people of the United States were wary of a powerful national government.⁵⁵ Federalism arose as an apportionment of power between the states and the national government.⁵⁶ There were

⁵¹ *Id.*

⁵² *Id.*

⁵³ CAL. PUB. UTIL. CODE § 8341 (Deering’s 2007). This rule applies to contracts lasting five years or more.

⁵⁴ See also, Peter Carl Norberg’s Comment, *Excuse me sir...But Your Climate’s on Fire: California’s S.B. 1368 and the Dormant Commerce Clause*, 82 NOTRE DAME L. REV. 2067 (2007) for a discussion of another type of constitutional challenge.

⁵⁵ Federalism; <http://www.constitutioncenter.org/explore/BasicGoverningPrinciples/Federalism.shtml> (last visited Oct. 10, 2007) [hereinafter Federalism]; Patrick Henry Against the Federal Constitution; <http://www.wfu.edu/~zulick/340/henry.html> (last visited June 26, 2008). (In a speech made at the Virginia Convention, on June 1788, Patrick Henry said, “We, the *people*, instead of the *states*, of America. I need not take much pains to show that the principles of this system are extremely pernicious, impolitic, and dangerous. . . Here is a resolution as radical as that which separated us from Great Britain. It is radical in this transition; our rights and privileges are endangered, and the sovereignty of the states will be relinquished; and cannot we plainly see that this is actually the case? . . . But I am fearful I have lived enough to become an old-fashioned fellow. Perhaps an invincible attachment to the dearest rights of man may, in these refined, enlightened days, be deemed old-fashioned. . . I say, the time has been when every pulse of my heart beat for American liberty, and which, I believe, had a counterpart in the breast of every true American”).

⁵⁶ Federalism, *supra* note 55, at 1.

strong arguments made in favor of balancing federal and state powers.⁵⁷ James Madison attempted to reassure those doubting the method of federalism proposed at the Constitutional Convention by writing the following:

The powers delegated by the proposed constitution to the federal government are few and defined. Those which are to remain in the State governments are numerous and indefinite. . . The powers reserved to the several States will extend to all the objects which, in the ordinary course of affairs, concern the lives, liberties, and properties of the people, and the internal order, improvement, and prosperity of the State.⁵⁸

Federalism allows a “single, courageous State” to serve as a laboratory in which to try new social and economic experiments without risking the economy and welfare of the rest of the country.⁵⁹ A federalist government allows states to cultivate new ideas because the states are independent sovereigns within the federal system.⁶⁰ With a smaller electorate and elected representatives more immediately accountable to the concerns of individuals, a state brings the government closer to the people.⁶¹ Modernly, the United States operates under a cooperative federalist government, advancing the notion that a national government is supreme over the state governments, yet working in concert with its states to achieve specific goals.⁶²

The Preemption Doctrine, derived from the Supremacy Clause,⁶³ “[P]reempts state laws that Congress expressly preempts, when federal law occupies the field, or where the law, generally or as applied, ob-

⁵⁷ See generally, CLINTON ROSSITER Ed., *THE FEDERALIST PAPERS*, viii (A Signet Classic 1961) (2003).

⁵⁸ *Id.* at 289.

⁵⁹ *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting).

⁶⁰ *Medtronic, Inc. v. Lohr*, 518 U.S. 470, 485 (1996).

⁶¹ Erwin Chemerinsky, David G. Trager, *Public Policy Symposium: Our New Federalism? National Authority and Local Autonomy in the War on Terror: Empowering States When It Matters: A Different Approach to Preemption*, 69 *BROOK. L. REV.* 1313, 1325 [hereinafter Trager].

⁶² Constitutional Topic: Federalism, http://www.usconstitution.net/consttop_fedr.html (last visited Oct. 2, 2007) [hereinafter Constitutional Topic]; *Connecticut v. Environmental Protection Agency*, 696 F.2d 147, 151 (2d Cir. 1982). (The Clean Air Amendments of 1970 began a bold experiment in cooperative federalism that Congress designed to protect the nation against the threat of air pollution. The new national standards identified the maximum concentrations of certain air pollutants and require each state to draft their own plans to keep pollution levels below national standards. A crucial mechanism for the success of is joint effort is the guarantee that air pollution generated in one state does not disrupt another state’s plan for compliance).

⁶³ U.S. CONST. art. VI, cl. 2.

structs federal law from achieving its purpose.”⁶⁴ Preemption offers an important safeguard against a patchwork of state policies that would otherwise adversely interfere with the national economy.⁶⁵ Cases involving preemption turn on a judicial determination of whether Congress had the intent to preempt state or local action.⁶⁶ Parties in preemption cases are either private actors seeking to maintain or bring in some kind of hazard, as perceived by the community, or a state or local government looking to exclude that perceived hazard.⁶⁷ In the present instance, the state government is seeking to reduce the hazard of greenhouse gases.

A. Express Preemption

The first step for courts in discerning whether federal law preempts a state action is a specific congressional intent that federal law governs the subject.⁶⁸ This specific congressional intent expressly preempts a state law from being applied and provides that the federal law will provide the applicable rules.⁶⁹

In *Jones v. Roth Packing Co.*, the Supreme Court addressed a conflict between a California code providing labeling requirements for packaging bacon and the Federal Meat Inspection Act (“FMIA”), which creates and enforces standards of labeling accuracy.⁷⁰ The Court found that the FMIA contained a preemption provision which explicitly prohibited states from imposing labeling requirements, in addition to or different from, those made under the act.⁷¹ The California rule mandating the bacon label accurately state the net weight of the product enclosed, without an allowance for moisture loss, was deemed different than the federal requirement allowing for variations caused by moisture and manufacturing deviations.⁷² The Court held this section to be an explicit preemption of California labeling requirements for bacon.⁷³

⁶⁴ David R. Hodas, *State Law Responses to Global Warming: Is It Constitutional to Think Globally and Act Locally?* 21 PACE ENVTL. L. REV. 53, 67 (2003).

⁶⁵ Richard A. Epstein & Michael S. Greve, FEDERAL PREEMPTION: PRINCIPLES AND POLITICS, American Enterprise Institute for Public Policy Research No. 25 June, 2007.

⁶⁶ David B. Spence & Paula Murray, *The Law, Economics, and Politics of Federal Preemption Jurisprudence: A Quantitative Analysis*. 87 CAL. L. REV. 1125, 1146 (1999).

⁶⁷ *Id.* at 1160.

⁶⁸ *Gade v. National Solid Wastes Management Association*, 505 U.S. 88, 96 (1992).

⁶⁹ *See generally*, Erwin Chemerinsky, et al., CONSTITUTIONAL LAW PRINCIPLES AND POLICES 396, 402 (Aspen Publishers 2006).

⁷⁰ *Jones v. Rath Packing Co.*, 430 U.S. 519, 526, 528 (1977).

⁷¹ *Id.* at 530.

⁷² *Id.* at 532.

⁷³ *Id.* at 530-531.

B. Implicit Preemption

Even in the absence of express preemption, the Supreme Court has held that where there is a clear congressional intent that federal law should exclusively occupy the field, the federal law preempts the state law.⁷⁴ This category of preemption has been referred to by the courts and scholars as “field preemption”⁷⁵ or “implicit preemption.”⁷⁶

In *Hines v. Davidowitz*, the Supreme Court found the federal Alien Registration Act, (“ARA”), preempted a Pennsylvania statute governing the registration of alien residents living within the state.⁷⁷ The Court acknowledged that the basic system for both pieces of legislation was identical.⁷⁸ Attorneys for the state argued that the law should not be preempted because it was constitutional when it was enacted, before the ARA.⁷⁹ Though Pennsylvania’s statute was enacted first, the Court held that it should be preempted by the federal rules because of the subject matter’s close relationship to foreign policy.⁸⁰ The Court noted that the Federal Government had enacted a complete scheme of regulation giving the act superior authority in the field.⁸¹

Pennsylvania v. Nelson also presents a scenario where the Supreme Court has found field preemption.⁸² In this case, Pennsylvania enacted a law prohibiting covert or subversive acts against the state⁸³ before the Federal Government’s passage of the Smith Act.⁸⁴ The Court clarified that states had the right to enforce their own laws against sedition at times when the “Federal Government has not occupied the field and is not protecting the entire country” from such conduct.⁸⁵ In deciding whether the Smith Act preempted Pennsylvania’s law, the Court re-

⁷⁴ Chemerinsky, *supra* note 69, at 402.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Hines v. Davidowitz*, 312 U.S. 52, 60 (1940).

⁷⁸ *Id.* at 61.

⁷⁹ *Id.*

⁸⁰ *Id.* at 61; *Crosby v. National Foreign Trade Council*, 530 U.S. 363, 366 (2000). (The Supreme Court invalidated a Massachusetts law exacting economic sanctions on the country of Burma because it frustrated federal foreign policy objectives).

⁸¹ *Hines*, at 66, 67; Rossiter, *supra* note 57, at 475. (Alexander Hamilton in Federalist paper No. 80 wrote: “The peace of the whole ought not to be left at the disposal of a part. The Union will undoubtedly be answerable to foreign powers for the conduct of its members.”).

⁸² *Pennsylvania v. Nelson*, 350 U.S. 497, 500 (1956).

⁸³ *Id.* at 499.

⁸⁴ *Id.*; The Smith Act, 18 U.S.C. §§ 2384-2385 (1948). (The act prohibits the knowing advocacy of the overthrow of the United States government by force and violence).

⁸⁵ *Id.* at 500.

viewed the different pieces of legislation enacted when Congress reentered the field of anti-subversive legislation.⁸⁶ The Court concluded that Congress intended to “occupy the field of sedition,” leaving no room for the states to supplement their laws.⁸⁷

C. Conflict Preemption

Preemption as a result of a conflict may occur when “compliance with both state and federal regulations is a physical impossibility.”⁸⁸ Conflict preemption also applies when state law stands in the way of achieving or executing the objectives of congressional legislation.⁸⁹

A California statute regulating the maturity of avocados was threatened with conflict preemption in *Florida Lime & Avocado Growers v. Paul*.⁹⁰ The growers contended that the more stringent California regulation should be preempted by the federal Agricultural Adjustment Act which also regulates the maturity of avocados.⁹¹ First, the Supreme Court determined that both rules can be concurrently complied with.⁹² It then dismissed the idea that avocado regulation was a subject matter that Congress had the intent to deal in exclusively, and determined that avocado maturity is not a subject in which national uniformity is vital.⁹³ The Court decided the supervision of food was a local concern; therefore the federal law articulated a minimum standard that a state could improve should it be locally necessary.⁹⁴

V. ANALYZING THE PREEMPTION POTENTIAL OF S.B. 1368

There is little likelihood that S.B. 1368 will be preempted because it is firmly rooted in the public purpose of reducing greenhouse gas emissions and it is part of California’s effort to curb the costly effects of climate change, making it an unlikely victim of preemption.⁹⁵ Additionally, Congress has not explicitly prohibited states from regulating greenhouse gas emissions from power plants in the Public Utility Regulatory Act

⁸⁶ *Id.* at 502-503.

⁸⁷ *Id.* at 504.

⁸⁸ Trager, *supra* note 61, at 1317. (Quoting *Gade v. National Solid Wastes Management Association*, 505 U.S. 88, 90 (1992)).

⁸⁹ *Id.*

⁹⁰ *Florida Lime & Avocado Growers v. Paul*, 373 U.S. 132, 133 (1963).

⁹¹ *Id.* at 134.

⁹² *Id.* at 143.

⁹³ *Id.* at 143-144.

⁹⁴ *Id.* at 144, 145.

⁹⁵ 2006 Cal SB 1368(a), (c) (Deering’s 2007); CAL. PUB. UTIL. CODE § 8340 (Deering’s 2007).

(“PURPA”),⁹⁶ the Clean Air Act (“CAA”),⁹⁷ or in the National Climate Program Act (“NCPA”).⁹⁸

Congress intended the PURPA to encourage electric utilities to conserve energy.⁹⁹ Congress also intended to optimize the efficient use of the facilities and resources available to the electric companies.¹⁰⁰ Finally, Congress wanted to ensure fair rates for consumers by authorizing any state regulatory agency to adopt a different rate standard affecting electric utilities, with the caveat that state law must also authorize the change.¹⁰¹

In 1970, Congress found that air pollution had increased due to the growth of the Nation’s cities and population.¹⁰² This finding prompted Congress to pass the CAA.¹⁰³ Congress acknowledged that air pollution endangers not only human health and welfare, but causes harm to agricultural products, deteriorates property values, and creates hazards for transportation.¹⁰⁴ Congress determined controlling air pollution should be primarily the responsibility of the state and local governments and pledged federal financial support.¹⁰⁵ This was done in hope that state, regional, and local governmental programs would be developed to prevent pollution.¹⁰⁶

Congress enacted the NCPA to create a national climate program to help the United States recognize and respond to “natural and man-induced climate processes and their implications.”¹⁰⁷ The act created a National Climate Program office to coordinate with federal agencies, state governments, and private groups to further the climate research.¹⁰⁸

Unlike the Congressional prohibition of state labeling requirements,¹⁰⁹ seen in *Jones*, the regulation of power generating entities is not explicitly prohibited by these federal rules.¹¹⁰ However, S.B. 1368 may still be challenged by implicit preemption or conflict preemption.

⁹⁶ Public Utilities Regulatory Policies Act, 16 U.S.C. §§ 2601-2645 (2007).

⁹⁷ Clean Air Act, 42 U.S.C. §§ 7401-7431 (2007).

⁹⁸ National Climate Program Act, 15 U.S.C. §§ 2901-2908 (2007).

⁹⁹ 16 U.S.C. § 2611(1) (2007).

¹⁰⁰ *Id.* at § 2611(2).

¹⁰¹ *Id.* at § 2611(3); 16 U.S.C. 2627(b) (2007).

¹⁰² 42 U.S.C. § 7401(a)(2) (2007).

¹⁰³ *Id.*

¹⁰⁴ *Id.*

¹⁰⁵ *Id.* at § 7401(a)(3).

¹⁰⁶ *Id.* at § 7401(a)(4).

¹⁰⁷ 15 U.S.C. § 2902 (2007).

¹⁰⁸ 15 U.S.C. § 2904(d)(2) (2007).

¹⁰⁹ *Jones*, 430 U.S. at 530.

¹¹⁰ *See generally* 29 U.S.C. § 1144(a) (2007).

S.B. 1368 has not frustrated federal foreign policy objectives, one of the first triggers of an application of implicit preemption, as seen in *Hines*.¹¹¹ Like *Hines*, where Pennsylvania enacted rules governing the regulation of alien residency to further state immigration laws, California legislators enacted S.B. 1368 to further the stated federal objective of pollution prevention.¹¹² S.B. 1368 is a state program that would reduce greenhouse gas emissions, helping to prevent pollution, while the rule in *Hines* interfered with federal policies on immigration.¹¹³ S.B. 1368 will not meet the same fate as the state statute in *Hines* because S.B. 1368 promotes the goals of the CAA, which specifically authorizes state programs to prevent pollution.¹¹⁴

As seen in *Pennsylvania v. Nelson*, when Congressional legislation occupies a specific topic, a court may hold there is no room for a state to supplement federal laws.¹¹⁵ Congress passed the CAA in 1970, the PURPA was passed in 1978, and the NCPA was passed in 1978.¹¹⁶ Each of these pieces of legislation could have completely occupied the field of emissions regulation and climate change. However, these pieces of legislation have provided national goals and the framework for a state to regulate the pollution problem locally.¹¹⁷ In *Pennsylvania*, the court held that the federal government occupied the field of subversion to “the exclusion of parallel state legislation,”¹¹⁸ while S.B. 1368 is permitted by the CAA, the PURPA, and the NCPA to assist in the reduction of pollutants and greenhouse gases.¹¹⁹

The PURPA governs rules requiring electric utilities to offer electric energy, for purchase and sale, to qualifying facilities and small power production facilities.¹²⁰ California’s law governs contracts for five years or longer.¹²¹ Since the California law governs the length and not the pur-

¹¹¹ *Hines*, 312 U.S. at 68.

¹¹² *Hines*, 312 U.S. at 61; 42 U.S.C. § 7401(c) (2007).

¹¹³ CAL. PUB. UTIL. CODE § 8341 (Deering’s 2007).

¹¹⁴ *Hines*, 312 U.S. at 77; 42 U.S.C. § 7401(a)(4) (2007).

¹¹⁵ *Pennsylvania*, 350 U.S. at 504.

¹¹⁶ See generally PURPA, CAA, and NCPA, *supra*, notes 96, 97, 98.

¹¹⁷ 16 U.S.C. § 2627(b) (2007); 42 U.S.C. § 7401 (2007); 15 U.S.C. § 2904(f)(1) (2007).

¹¹⁸ *Pennsylvania*, 350 U.S. at 509.

¹¹⁹ See generally 16 U.S.C. § 2627, *supra* note 101; 42 U.S.C. § 7401, *supra* note 97; and 15 U.S.C. § 2904, *supra* note 108.

¹²⁰ 16 U.S.C. § 824a-3(a) (2007).

¹²¹ CAL. PUB. UTIL. CODE § 8341(j) (2007) (“Long-term financial commitment” means either a new ownership investment in base-load generation or a new or renewed contract with a term of five or more years, which includes procurement of base-load generation.”); CAL. PUB. UTIL. CODE § 8340(a) (2007) (“No load-serving entity or local publicly owned electric utility may enter into a long-term financial commitment unless any base-load generation supplied under the long-term financial commitment complies with the green-

chase or sale itself, S.B. 1368 may be followed in conjunction with the PURPA. In fact, S.B. 1368 furthers the PURPA rules in that energy facilities may seek to improve their greenhouse gas emissions standards to enjoy long-term contracts with Californians which would result in a better use of their facilities, which is the PURPA's purpose.¹²²

Like *Florida Lime*, a court reviewing S.B. 1368 will first hold that S.B. 1368 can be complied with at the same time as the applicable federal regulations.¹²³ Then the court will determine whether the subject is vital to national interests, like the court in *Florida Lime*.¹²⁴ S.B. 1368 allows the California Energy Commission to set greenhouse gas emission levels and apply these regulations to all power companies actively selling energy to the California market, whether or not the power plant is located in the state.¹²⁵ This creates a patchwork of emissions standards for energy companies selling to the California market. A reviewing court may note that, the Environmental Protection Agency recently denied California the right to set its own standards for carbon dioxide emissions from cars.¹²⁶ The agency cited the concern that patchwork state rules cause confusion and a clear national solution is a better approach.¹²⁷ Though S.B. 1368 does not apply to car emissions, a court will likely weigh the benefits of greenhouse gas emission standards and compare them with the cost of a hodgepodge of emissions standards across the nation. Another argument would be that California's law responds to its specific local concerns about the effect of climate change on Californian's public health, resources, or the California agriculture industry.¹²⁸ A court is likely to hold that S.B. 1368 is not in conflict with a national rule or objective.¹²⁹

Finally, like the minimum federal standards applied in *Florida Lime*, S.B. 1368 promotes the CAA goal of pollution reduction.¹³⁰ The CAA acknowledges and promotes stringent emission limitations on hazardous

house gases emission performance standard established by the commission, pursuant to subdivision (d), for a load-serving entity, or by the Energy Commission, pursuant to subdivision (e), for a local publicly owned electric utility.”)

¹²² 16 U.S.C. § 2611(1) (2007).

¹²³ *Florida Lime*, 373 U.S. at 143.

¹²⁴ *Florida Lime*, 373 U.S. at 143-144.

¹²⁵ CAL. PUB. UTIL. CODE § 8341 (Deering's 2007).

¹²⁶ John M. Broder and Felicity Barringer, *E.P.A. Says 17 States Can't Set Emission Rules*, N. Y. TIMES (Dec. 20, 2007), available at <http://www.nytimes.com/2007/12/20/washington/20epa.html?th&emc=th> (last visited Dec. 21, 2007).

¹²⁷ *Id.*

¹²⁸ *Florida Lime*, 373 U.S. at 144; 2006 Cal SB 1368(a) (Deering's 2007).

¹²⁹ Constitutional Federalism, *supra* note 62.

¹³⁰ *Florida Lime*, 373 U.S. at 145; 42 U.S.C. § 7401(c) (2007).

air pollutants and gives a strong indication that Congress encouraged and anticipated state involvement in emission standard regulation.¹³¹ These facts suggest that the standards articulated in S.B. 1368 will be welcomed and not preempted by federal regulations.

VI. PROPOSED NATIONAL CLIMATE CHANGE LEGISLATION

Currently new climate change legislation is circulating the halls of Congress.¹³² The proposed federal climate change rules would require cuts in greenhouse gases across utilities, transportation, and manufacturing sectors, accounting for a seventy-five percent reduction of U.S. emissions.¹³³ The bill would also cap greenhouse gas emissions at 2005 levels starting in 2012, gradually reducing them to 1990 levels.¹³⁴ It is unlikely the national legislation will preempt state climate change legislation already in place, like S.B. 1368.¹³⁵ Recently, state leadership on climate change has been referred to industry groups as the “best federalist tradition.”¹³⁶ In light of these proclamations, it is unlikely that future Congressional legislation would preempt S.B. 1368.

VII. CONCLUSION

California’s legislative attempt to curb greenhouse gases does not expressly or implicitly circumvent the congressional intent of the PURPA, the CAA, or the NCPA. If and when the Federal Government develops a standard that demands national uniformity, the California law would be preempted, however the national legislation currently being proposed will likely preserve S.B.1368. California’s specific concerns regarding climate change’s potential effects on resources, public health, and agriculture may be eased by the implementation of S.B. 1368. Due to the likely increase in

¹³¹ 42 USC § 7412(d) (7) (2007). (“No emission standard or other requirement promulgated under this section shall be interpreted, construed or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established pursuant to section 111, part C or D . . . , or other authority of this Act or a standard issued under State authority.”).

¹³² Zachary Coile, *Historic bill in Senate to fight warming California law a model for new measure*, Oct. 19, 2007, <http://www.sfgate.com/cgi-bin/article.cgi?file=c/a/2007/10/19/MNKCSSD31.DTL> (last visited Nov. 5, 2007).

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.*

¹³⁶ Andrew C. Revkin & Jennifer Lee, *White House Attacked for Letting States Lead on Climate*, Dec. 11, 2003, N. Y. Times; available at <http://query.nytimes.com/gst/fullpage.html?res=9F01EEDE173CF932A25751C1A9659C8B63> (last visited Nov. 2, 2007).

energy cost, from coal powered to natural gas powered plants, California agriculture will be specifically affected. This cost may be mitigated through the use of short term energy contracts and the development of more efficient production processes. In short, S.B. 1368 is a forward-looking and far-reaching piece of legislation, promoting cleaner power production for the benefit of California's farms and citizens.

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