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**STATE AND REGIONAL APPROACHES TO CLIMATE CHANGE:
PRECOCIOUS OR PREEMPTED?**

By

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I. Introduction

Congress has yet to enact comprehensive, mandatory climate change legislation. This has left a vacuum for action by state and local governments. Various municipalities, states and regions are forming their own initiatives to limit carbon emissions. These initiatives—the Regional Greenhouse Gas Initiative (RGGI) in the Northeast, California’s AB 32 and the Western Climate Initiative (WCI) in the West—were all formed to address global warming issues, and to reduce greenhouse gas (GHG) emissions in their respective regions. This paper outlines these two major regional efforts and California’s groundbreaking legislation and addresses some of the Constitutional issues that arise from regional solutions to a global problem.

A. Background to Climate Change Legislation

1. United Nations Kyoto Protocols

When Russia ratified the United Nations Kyoto Protocols in November 2004, the Protocols became legally binding on its signatories beginning in February 2005. The Protocols require the 30 participating industrialized countries to reduce emissions of six GHG (including carbon dioxide, methane, nitrous oxide, and others) by 2012 to a combined average of 5.2% below 1990 baseline levels.¹ Compliance plans must be completed by participating countries by 2008, which is the beginning of the treaty’s 5-year compliance period. Developing countries (including China and India) are not subject to these quantitative emissions reductions obligations.

2. United States’ Voluntary Program

The United States is not a party to the Kyoto Protocols. President Bush, instead, is relying on voluntary actions to reduce GHG emissions in the United States. He has called for U.S. industry to voluntarily cut carbon intensity by 1.8 percent per year from 2002 to 2012.² Carbon intensity is the amount of CO₂ emitted per unit of economic production.

Climate VISION³ (Voluntary Innovative Sector Initiatives: Opportunities Now), the

¹ More details of the Kyoto Protocols are available from the United Nations Framework Convention on Climate Change:

http://unfccc.int/essential_background/convention/items/2627.php.

² President Bush Announces Clear Skies & Global Climate Change Initiatives, National Oceanic and Atmospheric Administration, Silver Spring, Maryland, February 14, 2002:

http://www.climatevision.gov/statements_021402.html.

³ Climate VISION: <http://www.climatevision.gov/>; President Bush has continued to refuse to commit to any binding action or obligation. *See* Exec. Order No. 13, 432, 72 Fed. Reg. 27, 717 (May 14, 2007), which stated his intent to protect the environment...from motor vehicles...in a manner consistent with sound science” but no obligations.

President's voluntary program to reduce GHG emission intensity, is predicated primarily on public/private partnerships with industry associations. Trade and business groups representing 14 industrial sectors are involved and have committed to improving energy efficiency or reducing GHG emissions in each sector to try and meet the President's 18 percent intensity reduction goal.⁴

In early December 2004, organizations representing 100 percent of the U.S. power generators signed an MOU with the DOE pledging to reduce collectively the power sector's GHG emissions intensity by an equivalent of 3-5% below 2000-2002 baseline levels, as measured over the 2010-2012 period. Other industries participating in the Climate VISION program include refining, coal and mineral production, aluminum, automobile manufacturers, cement, chemical manufacturing, forest products, iron and steel, magnesium, oil and gas production, railroads, and semiconductors.⁵

3. Federal Legislation and Preemption

Several comprehensive climate change bills are under active consideration before Congress. The bills include proposals for the creation of a national cap-and-trade market, energy efficiency measures, and restrictions on generators' emissions growth.⁶ There are many issues involved in this legislation as can be seen by the number of bills that have been introduced. One of the most contentious of these issues is whether the federal legislation would preempt the early efforts of state, regional and local programs.

The House Committee on Energy and Commerce and its Subcommittee on Energy and Air Quality have issued a series of White Papers to prompt discussion on issues to be addressed regarding climate change legislation.⁷ Pre-emption of state and local government is being

⁴ The electric power sector participates in the Climate VISION program through the Electric Power Industry Climate Initiative (EPICI) and the Power Partners program (<http://www.climatevision.gov/sectors/electricpower/index.html>), which is currently being developed with the U.S. Department of Energy (DOE). The seven organizations comprising EPICI are the American Public Power Association (APPA), Edison Electric Institute (EEI), Electric Power Supply Association (EPSA), Large Public Power Council (LPPC), National Rural Electric Cooperative Association (NRECA), Nuclear Energy Institute (NEI) and the Tennessee Valley Authority (TVA). VISION claims this is 100 percent of the U.S. power generators.

⁵ Other industry sector initiatives: <http://www.climatevision.gov/initiatives.html>.

⁶ For example, the Senate climate change bills include: Climate Stewardship and Innovation Act of 2007 (S.280) Lieberman (I-CT)/McCain (R-AZ); Global Warming Pollution Reduction Act (S.309) Sanders (I-VT)/Boxer (D-CA); Electric Utility Cap-and-trade Act of 2007 (S.317) Feinstein (D-CA)/Carper (D-DE); Global Warming Reduction Act of 2007 (S.485) Kerry (D-MA)/Snowe (R-ME); Discussion Draft of Global Warming Legislation Bingaman (D-NM)/Specter (R-PA).

⁷ See, e.g., http://energycommerce.house.gov/Climate_Change/white%20paper%20st-lcl%20roles%20final%202-22.pdf.

sharply debated, especially given the powerful positions held by California lawmakers, such as Speaker Pelosi and Senate Environment and Public works Committee Chair Barbara Boxer. For example, in the third White Paper in the series, Representative Dingell (D-Mich.), chairman of the House Committee on Energy and Commerce, and Representative Boucher (D-Va.) take the position that motor vehicle GHG standards should be set by the federal government, not by state governments. "The global nature of climate change takes away (or at least greatly minimizes) one of the primary reasons many national environmental programs have provisions preserving state authority to adopt and enforce environmental programs that are more stringent than federal programs," Dingell and Boucher wrote. They reasoned that the state and local programs will impose greater costs and less benefits than a comprehensive federal program because climate change results from the global nature of GHG emissions and is not a localized harm, such as acid rain.

Dingell's position is a direct attack on California's state legislation, and the California Congressional delegation has promised to fight back. For businesses trying to comply with laws such as AB 32, this debate causes uncertainty and confusion in an already chaotic situation.

B. Prior Federal Cap-and-Trade Programs

The U.S. Environmental Protection Agency (US EPA)'s Acid Rain Program is a federal program that uses a cap-and-trade system. RGGI has based some of its Model Rule upon Acid Rain regulations,⁸ and while the Acid Rain Program is a limited, federal model, it provides some precedence for regional cap-and-trade programs dealing with GHG emissions. The Acid Rain Program includes the sulfur dioxide (SO₂) regulation in Title IV of the 1990 Clean Air Act Amendments⁹ and the nitrogen oxide (NO_x) cap-and-trade program, commonly referred to as the EPA's Acid Rain Program.¹⁰

At its inception, the SO₂ program was bifurcated into two phases.¹¹ The first phase ran from 1995 to 1999 and focused on reducing emissions from the largest and highest emitting power plants.¹² The second phase, which began in 2000, includes all generators with a capacity of 25 MW or greater. The US EPA estimated that this program would reduce annual SO₂ emissions by 10 million tons (almost half the 1980 level) between 1980 and 2010.¹³

⁸ <http://www.rggi.org/modelrule.htm>; see also the program summary for the RGGI CO₂ Budget Trading Program at http://www.rggi.org/docs/program_summary_10_07.pdf ("The initial template for the Model Rule was based on EPA's Part 96 rule..." and "The emissions monitoring and reporting provisions contained in the Model Rule are primarily based upon the US EPA monitoring provisions at 40 CFR Part 75 [Acid Rain Program]....").

⁹ See, 42 U.S.C. §§7651b and f; see also, 40 CFR Parts 72 through 78.

¹⁰ <http://www.epa.gov/acidrain/>.

¹¹ 42 U.S.C. § 7651c and d.

¹² 42 U.S.C. §7651c(a)(1).

¹³ U.S. Environmental Protection Agency, *EPA's Efforts to Reduce SO₂* at <http://www.epa.gov/oar/urbanair/so2/effrt1.html> (last modified July 23, 2007).

Compliance with the program cost utilities and consumers about \$1 billion to \$2 billion a year—about a quarter of what was originally forecasted.¹⁴

The NO_x program has been similarly successful. Finalized in 1995, the first phase of the US EPA's NO_x program aimed to reduce NO_x emissions by over 400,000 tons per year between 1996 and 1999. The second phase began in 2000 and aimed to reduce NO_x emissions by over 2 million tons per year.¹⁵ The second phase reduction goal has been surpassed, in part due to additional state-initiated NO_x reductions in the Northeast.¹⁶ Overall, the NO_x program has reduced NO_x emissions levels by about 50% than would otherwise be present without the program.

The success of these programs has caused many to consider them as models for a carbon-based system, though critics warn that a carbon-based cap-and-trade system would be many times more complex given the staggering number and species of emissions sources as compared to SO₂ and NO_x. Still, the EPA's Acid Rain Programs offer guidance and insight into structuring a sustainable cap-and-trade market.

C. Other Methods of Reduction

Tax incentives, renewable portfolio standards and other regulations have also encouraged and guided industry towards reducing GHG as well as encourage sustainability and conservation measures. Here are a few policies that are helping shape the local landscape in lieu of comprehensive climate change federal legislation.

Federal Incentives for Energy Efficiency and Conservation. While the federal government has not passed a mandatory GHG reduction initiative, several tax incentives exist for voluntary actions that reduce GHG emissions or promote conservation. These tax incentives include credits for the purchase of alternative fuel vehicles,¹⁷ home energy efficiency improvements¹⁸ and installation of on-site renewable generation resources.¹⁹

State Renewable Energy Policies. Thirty-two states have adopted renewable energy portfolio standards requiring electricity providers to obtain a minimum percentage of their power from renewable energy resources by a certain date.²⁰ The standards vary in their goals and

¹⁴ Zachary Coile, *Cap-and-trade Model Eyed for Cutting Greenhouse Gases*, SAN FRAN. GATE, Dec. 3, 2007. <http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2007/12/03/MNMMTJUS1.DTL&type=printable>.

¹⁵ 42 U.S.C. §7651d.

¹⁶ <http://www.epa.gov/oar/urbanair/nox/effrt.html>.

¹⁷ 26 U.S.C. § 26B (2007).

¹⁸ 26 U.S.C. § 25C (2007).

¹⁹ 26 U.S.C. § 48 (2007).

²⁰ Database of State Incentives for Renewables and Efficiency, *Renewable Portfolio Standards for Renewable Energy* at

enforcement provisions. As discussed *infra*, California is often viewed as having the most ambitious renewable portfolio standard, though other states such as New York have also set aggressive renewables goals.

State Energy Efficiency Policies. All fifty states have incorporated some form of energy efficiency standard into their state building codes.²¹ Additionally, thirty-one states have adopted heightened efficiency standards for public buildings,²² and twelve states have enacted appliance and equipment efficiency standards.²³

State vs. Federal Automobile Standards. A major legal and political battle is presently being fought over states' power to mandate higher automobile fuel efficiency standards than those required by the federal government. The Corporate Average Fuel Economy (CAFE) standard for cars was established in 1984 and required manufacturers to achieve an average of 27.5 miles per gallon.²⁴ The National Highway Traffic Safety Administration has just recently raised the fuel economy standard for light trucks, a class which includes minivans and sport utilities, to an average of 22.5 miles per gallon for 2008, and higher for following years.²⁵ In enacting A.B. 1493 in 2002, California introduced a plan to reduce emissions of GHGs from cars and light trucks by 30 percent by 2016.²⁶ However, the EPA has denied California's mandate, finding that CARB's amendment to the regulations under California Code of Regulations §§1900 and 1961 "are not needed to meet compelling and extraordinary conditions" and denied CARB's

<http://www.dsireusa.org/library/includes/type.cfm?Type=RPS&Back=regtab&CurrentPageID=7&EE=0&RE=1&Search=TableType>.

²¹ Database of State Incentives for Renewables and Efficiency, *Building Energy Codes for Energy Efficiency* at

<http://www.dsireusa.org/library/includes/type.cfm?Type=Building&Back=RegEETab&CurrentPageID=7&Search=TableType&EE=1&RE=1>.

²² Database of State Incentives for Renewables and Efficiency, *Public Incentives for Energy Efficiency* at

<http://www.dsireusa.org/library/includes/type.cfm?Type=Public&Back=RegEETab&CurrentPageID=7&Search=TableType&EE=1&RE=1>.

²³ Database of State Incentives for Renewables and Efficiency, *Appliance Incentives for Energy Efficiency* at

<http://www.dsireusa.org/library/includes/type.cfm?Type=Appliance&Back=RegEETab&CurrentPageID=7&Search=TableType&EE=1&RE=1>.

²⁴ 49 U.S.C. § 32902 (2006); these standards were increased under HR 6, the Energy Independence and Security Act of 2007 [Title V § 502 (2007)] which was signed by President Bush in December 2007. The Act, beginning in 2011, would annually increase the national average fleet fuel economy standards for cars and light trucks to reach 35 miles per gallon by 2020. California standards under AB 1493 go beyond this.

²⁵ 49 C.F.R. § 533.5 (2007).

²⁶ See footnote 24 and

http://www.climatechange.ca.gov/documents/AB1493_PRESENTATION.PDF.

request for a waiver under section 209(b) of the Clean Air Act.²⁷ The US EPA underscored the regional versus federal debate by stating that “nor...do I believe that the effects of climate change in California are compelling and extraordinary compared to the effects in the rest of the country.” California has appealed the US EPA’s denial, and the debate continues in the courts and in the legislature.²⁸

Social Norms. Moreover, the private sector has taken notice of the paradigm shift in social norms and how a resurgence in environmental consciousness affects consumers’ buying trends. As a result, several private companies and non-profits have begun offering certification for “green,” energy efficient construction practices and projects. The leader among such certification entities is the United States Green Building Council.²⁹

D. Other Regional and Local Programs

Many cities are also implementing their own programs in the absence of federal legislation. On February 16, 2005, the same day that the Kyoto Protocol became law for 141 countries, Seattle Mayor Greg Nickels launched the US Mayors Climate Protection Agreement to advance the goals of the Kyoto Protocol through leadership and action at the municipal level.³⁰ Two years later, The U.S. Conference of Mayors launched the Mayors Climate Protection Center to administer and track the agreement, among its other activities.³¹ By November 1, 2007, there were more than 710 signatories to the Agreement.

E. The Climate Registry

The Climate Registry has emerged as the dominant entity for purposes of registering emissions, a key to implementing a cap-and-trade system.³² The Climate Registry is a 501(c)(3) nonprofit organization governed by a board of directors and includes 39 states that represent more than 70 percent of the country’s population. Currently, there are 54 corporations, state and local government and other organizations including 39 states and the District of Columbia, six Canadian provinces, three Native American tribes, two Mexican states that are members of the Registry.

²⁷ California State Motor Vehicle Pollution Control Standards; Notice of Decision Denying a Waiver of Clean Air Act Preemption for California’s 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles (Feb. 29, 2008), 73 Fed. Reg. 12156-12169 (March 6, 2008) available at <http://www.epa.gov/otaq/url-fr/fr-waiver.pdf>.

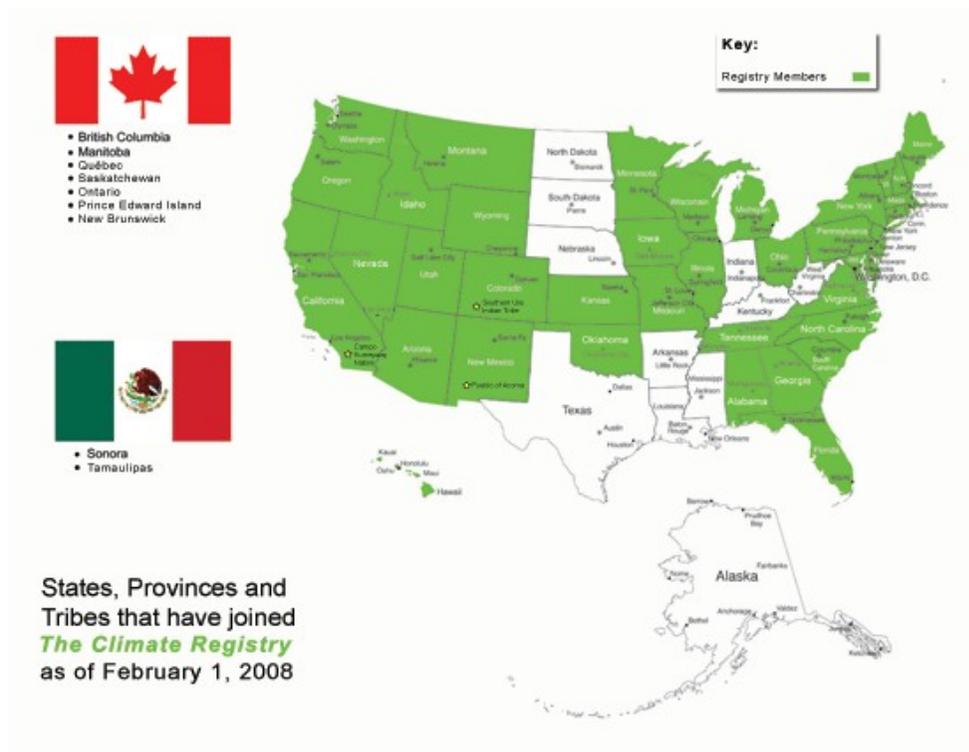
²⁸ Brief for Appellant, *California v. United States Environmental Protection Agency* (9th Cir. 2008) (No. 08-70011).

²⁹ <http://www.usgbc.org/>.

³⁰ <http://www.seattle.gov/mayor/climate/>.

³¹ <http://www.usmayors.org/climateprotection/>.

³² <http://www.theclimateregistry.org/>.



Source: <http://www.theclimateregistry.org/>

The Climate Registry began with and incorporated the California Climate Action Registry, which was authorized under SB 1771 (and amended by SB 527) in September of 2001, as a voluntary measure to encourage companies, government agencies and other organizations that do business in California to report their GHG emissions. The Registry is not a platform for emissions trading but in order to participate in any emissions trading scheme, companies and organizations must have accurate, transparent and verifiable records of their emissions. The Registry provides that service, ensuring that reported emissions are accurate and verified.

II. The Northeast Regional Greenhouse Gas Initiative (RGGI)

The RGGI is a cooperative effort among Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont to reduce carbon dioxide (CO₂) emissions.³³ The plan is to design and implement a regional cap-and-trade program, initially covering carbon dioxide (CO₂) emissions from power plants. Once established, the program may be extended to include other sources of GHG.

The policy goal of a cap-and-trade program is to trigger an increase in the price of carbon-based electricity so that energy efficiency and low-polluting electricity will be relatively

³³ The District of Columbia, Pennsylvania, the Eastern Canadian Provinces, and New Brunswick are currently participating as observers in the RGGI process. See www.rggi.org.

less expensive.³⁴ Market forces, reinforced by complementary public policies, will provide economic incentives to promote energy efficiency and clean, renewable energy sources to supplant carbon-intensive, fossil-fuel-based electricity.³⁵

A. Memorandum of Understanding and the Model Rule

After several years of negotiation, the seven states that initially formed the RGGI signed a Memorandum of Understanding (MOU) on December 20, 2005, and by August of 2006 had issued a “Model Rule” for the RGGI program.³⁶ The MOU forms the basis of the statutory and regulatory proposals but each state must provide the regulatory framework to carry out the program. The initial phase of the cap-and-trade program will allocate and trade carbon dioxide allowances within the power sector only.

The CO₂ Budget Trading Program is based upon the Model Rule, which was developed to provide guidance and consistency to the RGGI states as they implemented the program.³⁷ RGGI’s Model Rule was based upon EPA’s Part 96 rule, the starting point for addressing the basic administrative functioning of the cap-and-trade program.³⁸

B. Program Begins January 1, 2009

RGGI is scheduled to go into effect January 1, 2009, capping emissions initially at 188 million short tons of CO₂.³⁹ The MOU sets out a goal to stabilize power sector CO₂ emissions over the first six years of the program implementation (2009-2014) at a level roughly equal to current emissions, and then initiates a decline of 2.5% per year during the next phase of 2015-2018.⁴⁰ The reduction is phased to provide market signals and regulatory certainty not only so electricity generators can budget and plan for low carbon alternatives but also to avoid rate shocks to consumers. Each state receives an apportionment of the cap roughly corresponding to the historical emissions from power plants located in that state.⁴¹

Each participating state will likely require each CO₂ source to have an approved CO₂

³⁴ Chris Busch and Ned Reynolds, *Regional Cap-and-Trade Programs to Cut Global Warming Emissions*, available at http://www.ucsusa.org/global_warming/solutions/regional_cap-and-trade_programs.html (last updated Nov. 2007).

³⁵ *Id.*

³⁶ <http://www.rggi.org/modelrule.htm>.

³⁷ *See id.* This Model Rule facilitates the state’s regulatory and legislative efforts by including the provisions needed to implement RGGI.

³⁸ 40 CFR Part 96 -- NO_x Budget Trading Program and CAIR, NO_x and SO_x Trading Programs for State Implementation Plants.

³⁹ *See* http://www.rggi.org/docs/program_summary_10_07.pdf, page 2.

⁴⁰ *See* footnote 36, *supra*, and http://www.rggi.org/docs/program_summary_10_07.pdf;

⁴¹ *See* the Regional Greenhouse Gas Initiative Memorandum of Understanding, section 2(c) at http://www.rggi.org/docs/mou_12_20_05.pdf.

budget emission monitoring plan (EMP), much like those under the EPA Acid Rain Program. CO₂ budget sources that are not subject to the EPA Acid Rain Program may be required to include in their EMP a detailed emissions monitoring plan that meets requirements of the Budget Trading Program.⁴²

All 10 RGGI states are in various stages of implementing the program. Massachusetts has passed final rules implementing a CO₂ Budget Trading Program.⁴³ Maine,⁴⁴ New York,⁴⁵ Vermont,⁴⁶ Maryland,⁴⁷ Rhode Island⁴⁸ and Connecticut⁴⁹ have recently proposed rules and are currently taking public comment. New Hampshire has instituted a substantial local stakeholder process but has yet to propose implementation rules.⁵⁰ Similarly, the Delaware legislature revisited implementation of RGGI in late 2007 but has yet to issue proposed rules.⁵¹ New Jersey's Governor Jon Corzine has signed a bill authorizing the state's participation in RGGI in January 2008, although no proposed rules have been issued.⁵²

C. Allowances

RGGI members have taken a clear position regarding the crucial issue of allowance allocation. Every state that has formally issued a proposed regulation or enacted legislation (Maine, Massachusetts, New York, Vermont and Connecticut) has decided to auction nearly 100

⁴² These monitoring plans would be consistent with monitoring provisions under 40 CFR Part 75.

⁴³ Massachusetts CO₂ Budget Trading Program, 310 CMR 7.70 (Mass. 2007) at <http://www.mass.gov/dep/service/regulations/co2btreg.doc>.

⁴⁴ [Proposed] Act to Establish the Regional Greenhouse Gas Initiative Act of 2007, L.D. 1851 (2007) at <http://www.mainelegislature.org/legis/bills/billtexts/LD185101.asp>.

⁴⁵ Proposed CO₂ Budget Trading Program, 6 NYCRR Part 242 (NY 2007) (Proposed Rule and related materials at <http://www.dec.ny.gov/regulations/38974.html>).

⁴⁶ Vermont CO₂ Budget Trading Program (Proposed Rule and related materials at <http://www.anr.state.vt.us/air/hm/ProposedAmendments.htm>).

⁴⁷ Maryland CO₂ Budget Trading Program, COMAR 26.09 (Proposed Rule at http://www.dsd.state.md.us/mdregister/3503/main_register.htm).

⁴⁸ Rhode Island Air Pollution Control Regulation No. 46: CO₂ Budget Trading Program at <http://www.dem.ri.gov/rggi/pdf/draft46.pdf>.

⁴⁹ Connecticut CO₂ Trading Program (Proposed Rule at http://www.ct.gov/dep/lib/dep/public_notice_attachments/draft_regulations/sec31draft122707.pdf).

⁵⁰ <http://www.des.state.nh.us/ARD/ClimateChange/rggi.htm>.

⁵¹ See Delaware State Senate Concurrent Resolution No. 28 (ordering a Working Group to evaluate auction mechanisms related to RGGI)(Resolution at www.seu-de.org/docs/legislation/DE_Senate_Concurrent_Resolution_SCR28_2007.pdf).

⁵² Debra Kahn, Northeast States Prep for Inaugural Carbon Auction, EARTHNEWS Jan. 22, 2008 available at <http://www.earthportal.org/news/?p=823>.

percent of the emissions allowances created by the program. This deviates from prior cap-and-trade programs, which allocated allowances for free to regulated emission sources.

RGGI also provides for Early Reduction Allowance (ERA) provisions. ERAs provide an incentive for facilities to take action to reduce emissions sooner than otherwise would be required by granting allowances for reductions made before May 1, 2009.⁵³

The emissions offset component of the RGGI program provides compliance flexibility by awarding offset allowances to projects outside the capped sector that reduce and/or sequester emissions of GHGs.⁵⁴ Initially, the use of CO₂ offset allowances is constrained to 3.3% of a unit's total compliance obligation, although it may be expanded to 5% and 10% under certain circumstances.⁵⁵ States may be able to achieve greater emissions reductions as the sources and the variety of compliance options increase, thereby reducing compliance costs.⁵⁶

D. First Auction June 2008

In November 2007, representatives from the RGGI states held a stakeholder's meeting to discuss various auction design proposals and accompanying research. Several potential auction formats were discussed, ranging from single-round, single-bid to the "English Clock" auction format.⁵⁷ Comments submitted by parties after the meeting reflected a range of preferences.⁵⁸ The stakeholders also discussed the primary goals of the auction, which centered on developing an auction process with low administrative and transaction costs, transparency, and a low risk of collusive behavior.⁵⁹ The first allowance auction is scheduled for June 2008. As the first mandatory cap-and-trade program for CO₂ emissions in the United States, RGGI will be closely watched by those designing other regional cap-and-trade programs, as well as by Congress.

III. California's Climate Change Legislation

California is the world's 12th largest source of carbon dioxide, producing 1.4% of all global emissions in 2004.⁶⁰ California passed the first U.S. legislation to reduce all GHG

⁵³ http://www.rggi.org/docs/program_summary_10_07.pdf

⁵⁴ *Id.*

⁵⁵ http://www.rggi.org/docs/offsets_summary-runs10.11.06.xls

⁵⁶ <http://www.rggi.org/goals.htm>

⁵⁷ Dallas Burtraw, Jacob Goeree, Charles Holt, Karen Palmer, and William Shobe, Auction Design for Selling CO₂ Emission Allowances Under the Regional Greenhouse Gas Initiative available at http://www.rggi.org/docs/auction_project_11_7_07.ppt

⁵⁸ Comments available at http://www.rggi.org/auction_comments.htm.

⁵⁹ See Burtraw, Goeree, Holt, Palmer and Shobe, *supra*.

⁶⁰ Brown, Susan J. "California Greenhouse Gas Emissions Trends and Selected Policy Options" (Slide presentation); California Energy Commission (http://www.energy.ca.gov/global_climate_change/04-CCAC-1_advisory_committee/documents/2004-10-07_meeting/2004-10-07_BROWN_SUSAN.PDF).

emissions across all industries, and is now implementing the ensuing regulatory scheme.

A. California's Early GHG Reduction Legislation

1. Voluntary Programs

California's program to reduce GHG emissions started with a voluntary program that established the California Climate Action Registry⁶¹ but these actions were ramped up and became part of the regulatory scheme enacted in AB 32.

2. Executive Order S-3-05 - Greenhouse Gas Emission Targets

Governor Schwarzenegger signed Executive Order S-3-05 on June 1, 2005 to establish the following GHG emission reduction targets:

- By 2010, Reduce to 2000 Emission Levels
- By 2020, Reduce to 1990 Emission Levels
- By 2050, Reduce to 80 percent below 1990 Levels

To meet these targets, the Governor directed the Secretary of the CalEPA to coordinate with the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission and President of the Public Utilities Commission. The Secretary of CalEPA established the Climate Action Team, made up of representatives from the agencies listed above to implement global warming emission reduction programs and they have reported on the progress made toward meeting the statewide GHG targets that were established in the executive order.⁶² The first report to the Governor and the Legislature was released in March 2006 and has been issued bi-annually thereafter.

B. AB 32: Global Warming Solutions Act of 2006

The centerpiece in California's climate change initiative came with the Governor's signing of AB 32 in September 2006, the Global Warming Solutions Act of 2006.⁶³ Governor Schwarzenegger touted AB 32 it as "a first-in-the-world comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of GHGs."⁶⁴

⁶¹ The California Climate Action Registry, formed under the authorization of SB 1771 (as amended by SB 527) in September 2001 is now The Climate Registry (*see* section I(E), *supra*).

⁶² http://www.climatechange.ca.gov/climate_action_team/reports/index.html

⁶³ Cal. Health & Safety Code §§38500-38599 (added by Stats. 2006, c. 488 (AB 32), §1.

⁶⁴ http://www.climatechange.ca.gov/documents/2006-09-27_AB32_GOV_NEWS_RELEASE.PDF.

MEASURING EMISSION REDUCTION

Climate change documentation uses the unit of a million metric tons of carbon dioxide equivalents (MMT CO₂) to describe the magnitude of GHG emissions or reductions. The California Air Resources Board has provided some equivalents to make this measurement more accessible. For example, to reduce one million metric ton of carbon dioxide would require:

- not driving 216,000 passenger cars for one year;
- every adult under 65 in California walking up one floor instead of taking an elevator each workday;
- replacing 13 million standard light bulbs with compact florescent lamps for a year;
- recycling 556,000 tons of waste instead of putting it in a landfill;
- converting a typical 500 MW power plant burning coal to two state of the art 500 MW combined cycle gas-fired power plants and running for one year (i.e., the efficiency gains are great enough to reduce CO₂ emissions while generating twice the electricity)

1. Summary of AB 32

AB 32's main goal is to reduce man-made California GHG emissions back to 1990 emission levels by 2020.⁶⁵ The preamble of AB 32 recites the impacts of global warming on California, including the reduction in the quality and supply of water to the state from the Sierra snow pack; the exacerbation of California's air quality problems; the adverse impact on human health by increasing heat stress and related deaths, increased incidence of infectious disease, risk of asthma, respiratory and other health problems; the rise in sea level along the 1,100 miles of coastline; detrimental impacts to agriculture (including wine) due to increased temperatures, diminished water supply and changes in the abundance and distribution of pests.⁶⁶

The legislature made nine specific findings and declarations, including that “[g]lobal warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California”⁶⁷ and that global warming “will have detrimental effects on some of California’s largest industries....”⁶⁸ Nay-sayers call AB 32 “draconian” and state that “even if one agrees that global warming is occurring....” the solution chosen by California is “co sponsored by extreme environmentalists” and warn of economic downturns as a result of the

⁶⁵ Cal. Health & Safety Code § 38550.

⁶⁶ Cal. Health & Safety Code § 38501 (a).

⁶⁷ *Id.*

⁶⁸ Cal. Health & Safety Code § 38501(b).

legislation.⁶⁹

This legislation grants the California Air Resources Board (CARB) broad authority to promulgate regulations, lead the enforcement efforts, levy fines and fees to finance it and punish violators.⁷⁰

Multiple agencies are participating in the implementation of AB 32. CARB is the lead agency with the California Energy Commission (CEC), the Climate Action Team (CAT), the California Public Utilities Commission (CPUC), the Climate Action Registry, and several advisory committees providing input and analysis. While regulatory cooperation and consensus is a “laudatory goal,” some commentators have pointed out that the number of agencies involved in promulgating the regulations results in confusion and regulatory uncertainty.⁷¹

2. Proposed “Early Actions”

AB 32 required CARB to publish “a list of discrete early action GHG emission reduction measures” by June 30, 2007⁷²; which it did.⁷³ CARB must adopt these “discreet early actions” as regulations by 2010.⁷⁴ Because of the timing and implementation issues, only three new measures will meet the AB 32’s “discrete early action” requirements: (1) a low carbon fuel standard, which will require fuels sold in California meet a declining standard for GHG emissions; (2) restrictions on high global warming potential refrigerants and (3) standards for landfill methane capture.⁷⁵ Other measures were reclassified as “discrete early actions” including the SmartWay Truck Efficiency, Tire Inflation Program, Green Ports and Reduction of PFCs from the semiconductor industry.⁷⁶

⁶⁹ Kibbe, THE WALL STREET JOURNAL, “California Dreaming,” Tuesday, March 27, 2007, page A19 (“Handicapped by a deeply flawed legislative mandate, some Golden State pols are hoping that their newly empowered congressional delegation in Washington, D.C., can force the rest of the nation to drink the same carbon-free Kool-Aid.”)

⁷⁰ Cal. Health & Safety Code § 38510 (“[CARB] is the state agency charged with monitoring and regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases”); Cal. Health & Safety Code § 38580 (CARB “shall enforce any rule, regulation, order, emission limitation, emissions reductions measure, or market-based compliance mechanism....”).

⁷¹ Greenwald and Gray, “AB 32, One Year Later,” ENERGY PULSE, October 7, 2007 at http://www.energypulse.net/centers/article/article_display.cfm?a_id=1599.

⁷² Cal. Health & Safety Code § 38560.5(a).

⁷³ The 200 page final report is at http://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf.

⁷⁴ *Id.* at § 38560.5(b).

⁷⁵ *See, supra*, http://www.arb.ca.gov/cc/ccea/meetings/ea_final_report.pdf.

⁷⁶ *Id.*

3. Environmental Justice Advisory Committee

AB 32 calls for CARB to convene a global warming environmental justice advisory committee (EJAC), to advise CARB in developing the scoping plan, and implementing AB 32. The advisory committee “shall be comprised of representatives from communities in the State with the most significant exposure to air pollution, including, but not limited to, communities with minority populations or low-income populations, or both.”⁷⁷ The Board appointed a ten member committee at the January 25, 2007 Board meeting.⁷⁸

4. Greenhouse Gas Emissions Inventory and Mandatory Reporting

AB 32 requires the CARB to establish a statewide GHG emission cap for 2020, based upon 1990 emissions by January 1, 2008.⁷⁹ CARB is responsible for maintaining and updating California’s GHG inventory per AB 1803, which is maintained by the CEC.⁸⁰ In the spring 2006, the CEC began new proceedings to update the California Greenhouse Gas Emissions Inventory.⁸¹ The accuracy of this inventory is very important, as it will establish the baseline from which reductions will be made.

The Inventory provides estimates of the amount of GHGs emitted to and removed from the atmosphere by human activities within California and includes the “six Kyoto gases.” The current inventory covers years 1990 to 2004 based upon statewide estimates that rely primarily on state, regional or national data sources, rather than individual facility-specific emissions.⁸² That inventory established the California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit.⁸³ The CARB Board approved a 2020 emissions limit of 427 million metric tons of CO₂ equivalent in December 2007.⁸⁴ The 2020 emissions limit is equivalent to the 1990 emissions level.⁸⁵

⁷⁷ Cal. Health & Safety Code §38591.

⁷⁸ For the EJAC’s mission statement see <http://www.arb.ca.gov/cc/ejac/ejac.htm>. The bi-monthly meeting schedule of EJAC is posted on its website.

⁷⁹ Cal. Health & Safety Code §38550.

⁸⁰ See http://www.energy.ca.gov/global_climate_change/inventory/

⁸¹ Information about this update can be found at:

www.energy.ca.gov/global_climate_change/inventory/.

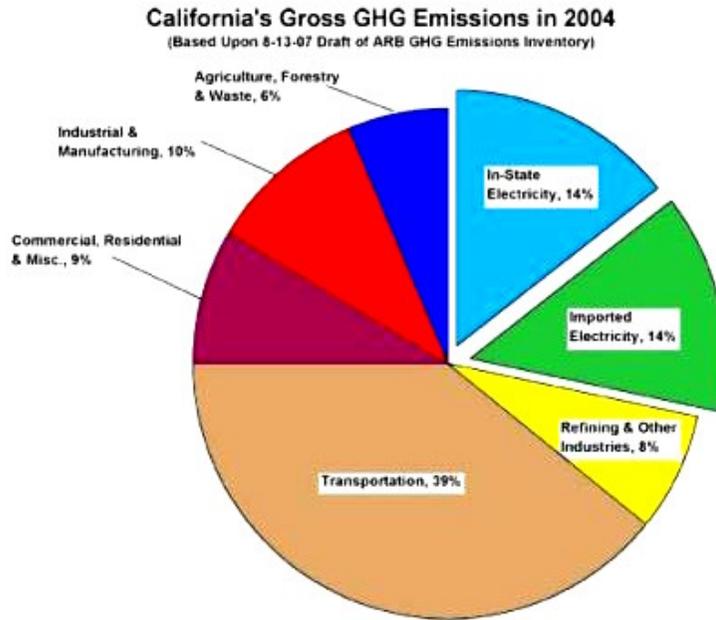
⁸² *Id.*

⁸³ <http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm>

⁸⁴ *Id.*

⁸⁵ *Id.*; see also Cal. Health & Safety Code § 38550.

The source of GHG emissions in California are generally as shown in the diagram below:



Source: California Energy Commission; see http://www.energy.ca.gov/global_climate_change/inventory/

At the same time CARB must adopt mandatory reporting rules for significant sources of GHG. The mandatory reporting regulations are being made available for public comment after February 2008, which reporting will contribute to the accuracy of the inventory.⁸⁶

5. Scoping Plan

Then, by January 1, 2009, the CARB “shall prepare and approval a scoping plan” for achieving reductions of GHG emissions via regulations, market mechanisms or by other methods.⁸⁷ The CARB’s AB 32 Scoping Plan contains the main strategies California will use to reduce GHGs. The Plan, when it is completed, will have a range of GHG reduction actions which can include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

These measures have been and will continue to be provided for public comment through

⁸⁶ <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>; see also <http://www.arb.ca.gov/regact/2007/ghg2007/ghg2007.htm>

⁸⁷ Cal. Health & Safety Code §38561.

four workshops that started November 30, 2007 and end on April 17, 2008.⁸⁸ A draft Scoping Plan will be released for public review and comment in June, 2008 followed by more workshops in July. The Plan will go to the CARB Board for adoption in November, 2008.⁸⁹

Regulations must be in place by 2011 to achieve the “maximum technologically feasible and cost-effective reductions” in GHG.⁹⁰ CARB’s initial budget was \$36 million and the bill created 126 new positions. In February 2008, Governor Schwarzenegger’s latest budget proposal called for a stopgap, two-year effort that relies on borrowing money from California’s recycling fund to pay for the AB 32 programs.⁹¹

6. Safety Valve/Market Mechanisms

AB 32 requires that prior to imposing any mandates or authorizing “market mechanisms,” the CARB must evaluate several factors, including but not limited to:

- impacts on California’s economy⁹²
- the impact on the environment⁹³
- the impact on public health⁹⁴
- electricity reliability⁹⁵
- conformance with other environmental laws⁹⁶
- assure that the rules and regulations do not disproportionately impact low-income communities⁹⁷

AB 32 also authorizes the Governor to invoke a “safety valve” to move deadlines in the event of extraordinary circumstances, catastrophic events or the threat of significant economic harm, for up to 12 months at a time.⁹⁸

⁸⁸ <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>

⁸⁹ *Id.*

⁹⁰ Cal. Health & Safety Code §38562; *see, e.g.*, the draft report for public comment by the Economic and Technology Advancement Advisory Committee to the CARB, dated November 15, 2007 at http://www.arb.ca.gov/cc/112907pubmeet/etaac_discussion_draft_11-15-07.pdf

⁹¹ San Francisco Chronicle, March 4, 2008, “State Scrambles to Fund Global Warming Fight,” Mathew Yi at <http://www.sfgate.com/cgi-bin/article.cgi?file=/c/a/2008/03/04/MNESV8EBA.DTL>.

⁹² Cal. Health & Safety Code §§ 38501(f) and (h), 38561(d) and 38562(b)(4).

⁹³ Cal. Health & Safety Code §§ 38501(g), 38561(d), 38562(b)(6) and 38593.

⁹⁴ Cal. Health & Safety Code §§ 38561(d) and 38562(b)(6).

⁹⁵ Cal. Health & Safety Code §§ 38501(g) and 38593.

⁹⁶ Cal. Health & Safety Code §§ 38592(b).

⁹⁷ Cal. Health & Safety Code § 38562(b)(2).

⁹⁸ Cal. Health & Safety Code § 38599.

7. Summary of AB 32’s Ambitious Timeline

AB 32 establishes an ambitious time line to reach the GHG emission reductions goals.⁹⁹ Here is a summary of the relevant deadlines (including ones already reached):

July 2007	Develop and adopt “early action measures” to be implemented before Jan. 2010. These have been identified and the regulatory adoption process is ongoing.
January 2008	Develop and adopt regulations for mandatory GHG emissions reporting. Define 1990 emissions baseline for California and adopt as statewide cap (These have been accomplished.)
January 2009	Plan must be in place indicating how emission reductions will be achieved including: <ul style="list-style-type: none"> • Cost/benefit analysis • Protocols for allocations • Credits for voluntary reductions • Market Mechanisms • Alternative compliance incentives
Jan-Dec 2009	Drafts of implementation plan are vetted in public workshops and subject to public comment
Jan. 2010	Early Action Measures take effect and are enforceable
Jan-Dec 2010	CARB conducts rule makings, after workshops and public hearings, to adopt GHG regulations to implement the reductions
Jan 2011	CARB completes rule making but may revise and adopt new rules as necessary
Jan 2012	Regulations, rules and other mechanisms to reduce GHG take effect
Dec 2020	Deadline to achieve the 1990 GHG emissions level.
Dec 2050	Deadline to achieve 80 percent reduction in GHG

⁹⁹ See Cal. Health & Safety Code § 38562; <http://www.arb.ca.gov/cc/factsheets/ab32timeline.pdf>.

C. Other Related Agency Actions

1. Public Utilities

Current climate change work is contained in the CPUC's Rulemaking on GHG policies, which is divided into two phases.¹⁰⁰

(a) Greenhouse Gas Emissions Performance Standard

The CPUC in a nearly 300 page decision filed January 25, 2007, implementing SB 1368,¹⁰¹ adopted an interim GHG emission performance standard for new long-term financial commitments to baseload generation undertaken by all load-serving entities (LSEs).¹⁰² This EPS is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plans that have emissions no greater than a combined cycle gas turbine plant. That level is 1,100 pounds of CO₂ per megawatt hour. What the CPUC means by “long term commitment” is new plant investments (new constructions), new or renewal contracts with a term of five years or more, or major investments by the utility in its existing baseload power plants.

SB 1368 directed the CPUC to adopt an emissions performance standard (EPS) for all LSEs and directs the CEC to implement an energy performance standard for all of the local publicly-owned electric utilities consistent with the standard adopted by the CPUC.¹⁰³

This performance standard, explains the CPUC, is like an energy efficiency appliance standard, such as what you might find in a refrigerator.¹⁰⁴ Like that standard, SB 1368 establishes a minimum performance requirement for any long-term financial commitment for baseload generation that will be supplying power to California ratepayers. Under the new rules, a facility must comply with the new standard to enter into a long term (over 5 years) contract to supply electricity.

(b) Consideration of a Load-base Greenhouse Gas Emissions Cap

AB 32 requires that CARB, in adopting a GHG emissions cap, consult with the CPUC and the CEC for its plan.¹⁰⁵ On February 8, 2008 the CPUC and the CEC issued for comment a proposal of recommendations to the CARB on GHG emissions reductions for the electricity and

¹⁰⁰ CPUC R.06-04-0091; see <http://docs.cpuc.ca.gov/PUBLISHED/proceedings/R0604009.htm>

¹⁰¹ Public Utilities Code § 8340(h); see also CPUC Docket #: R.06-04-009 (January 25, 2007)..

¹⁰² For a copy of the Standard, see http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/64072.htm

¹⁰³ Cal. Pub. Utilities § 8341(e).

¹⁰⁴ http://docs.cpuc.ca.gov/PUBLISHED/FINAL_DECISION/64072.htm (Introduction).

¹⁰⁵ Cal. Health & Safety Code §38562(f).

natural gas sectors in California.¹⁰⁶ The CPUC and CEC recommend that the CARB adopt a mix of direct mandatory/regulatory requirements and a cap-and-trade system for the energy sectors, including:¹⁰⁷

- “All retail electricity providers should be required to provide all cost-effective energy efficiency programs and renewable energy delivery beyond the level of 20 percent of their retail sales to their customers.”¹⁰⁸
- “All entities that provide transportation, distribution, and/or retail sales of natural gas to end-users in California should be required to provide all cost-effective energy efficiency programs to their customers.”¹⁰⁹
- “A multi-sector cap-and-trade program should be developed for California that includes the electricity sector (the natural gas sector should not be included in a cap-and-trade system at this time but should be considered for inclusion in the future).”¹¹⁰
- “The CARB should designate deliverers of electricity to the California grid as the entities responsible for compliance with the AB 32 requirements. This is a variation on the “first-seller” proposal first advanced by the Market Advisory Committee to the CARB.”¹¹¹
- “At least some portion of the emission allowances available to the electricity sector for the cap-and-trade program should be auctioned. An integral part of this auction recommendation is that at least a portion of the proceeds from the auctioning of allowances for the electricity sector should be used in ways that benefit electricity consumers in California, such as to augment investments in energy efficiency and renewable energy or to provide customer bill relief.”¹¹²

If adopted by the CPUC and the CEC, these recommendations will be submitted to the CARB for its consideration as part of the AB 32 Scoping Plan. The CPUC is expected to consider adoption of the proposal this spring.

¹⁰⁶ A copy of the proposal is at: <http://docs.cpuc.ca.gov/efile/PD/78643.pdf>.

¹⁰⁷ http://www.cpuc.ca.gov/PUC/energy/electric/Climate+Change/080220_ghgsummary.htm

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

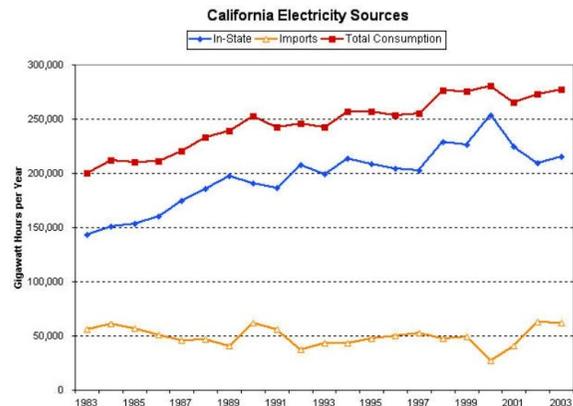
¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

(c) *Extraterritorial Scope*

California imports about one quarter to one third of the electricity used in the State, thus, the CPUC proposals will have effects beyond the borders of California.¹¹³ The figure to the right shows in-state Electricity Generation, Electricity Consumption and Apparent Net Import of Electricity to California.¹¹⁴



AB 32's extraterritorial reach, through the CPUC regulations, could be construed to be an attempt to regulate out of state generation, or an impediment to commerce. These issues are discussed *infra*.

2. Transportation Fuel Standards

Most of California's carbon emissions come from transportation;¹¹⁵ thus fuels and transportation are the focus of efforts to reduce emissions. The CEC reduction targets in this area include:

- In the 2003 Integrated Energy Policy Report (IEPR): reduce gasoline demand to 15 percent below 2003 actual use by 2020; increase non-petroleum fuels to 20 percent by 2020.¹¹⁶
- In the 2005 IEPR, goals were also set to have a 10 percent renewable content in gasoline and a 5 percent non-petroleum content in diesel.¹¹⁷
- In the 2007 IEPR, emphasis is placed upon meeting growing needs for energy while reducing CO₂ under AB 32.¹¹⁸

¹¹³ See, generally and at page 9, <http://www.energy.ca.gov/2006publications/CEC-700-2006-007/CEC-700-2006-007.PDF>. Imports are difficult to quantify but this CEC report delineates methodology for determining imports and their mix of electric resources (coal, hydro, gas, etc.).

¹¹⁴ California Energy Commission (2001), see http://www.climatechange.ca.gov/policies/1990s_calif_in_context/page11.html

¹¹⁵ In 2002, 41.2% of California's GHG emissions came from transportation. CARB, March 2006 CAT Report.

¹¹⁶ For a copy of the 2003 report, see http://www.energy.ca.gov/2003_energypolicy/index.html; see 2004 update at http://www.energy.ca.gov/2004_policy_update/index.html.

¹¹⁷ For a copy of the 2005 report, see http://www.energy.ca.gov/2005_energypolicy/index.html; see 2006 update at http://www.energy.ca.gov/2006_policy_update/index.html.

¹¹⁸ For a copy of the 2007 report, see http://www.energy.ca.gov/2007_energypolicy/index.html.

AB 1007¹¹⁹ (State Alternative Fuels Plan) provides for 20 percent alternative fuel use by 2020 (this is equal to 4.84 billion gallons). The Governor issued Executive Order 3-6-06 regarding his “biofuels action plan” to produce a minimum of 20 percent of biofuels by 2010 and 40 percent by 2020 and 75 percent by 2050.

Governor’s Low Carbon Fuel Standards (LCFS) under Executive Order S-01-07 will reduce the “carbon intensity” of transportation fuel sold in California by 10 percent by 2020. Other goals in this EO include capturing over half of CO₂ to return emissions by vehicles to 1990 levels and replace 20% of petroleum fuel use. Under AB 32, CARB has determined that the LCFS is an “early action measure” mandated by 2010. LCFS applies to all refiners, blenders, producers or importers of transportation fuels and the reductions may be met through market-based reductions.

IV. The Western Climate Initiative

The Western Climate Initiative (WCI) is a regional coalition that includes seven western states (Arizona, California, Montana, New Mexico, Oregon, Utah and Washington) and two Canadian provinces (British Columbia and Manitoba). The WCI originated as a memorandum of understanding (MOU) signed by the governors of five states in February of 2007. Since then, Utah and Montana joined in the MOU, along with the Canadian provinces of British Columbia and Manitoba.

The MOU outlined three tasks for the WCI:

- Participate in a multistate GHG gas registry;
- Set a regional limit on global warming pollution; and
- Develop a blueprint by August 2008 for a regional, multi-sector market program, such as cap-and-trade, to help achieve the regional emissions cap.¹²⁰

The WCI has accomplished two of the three tasks. All the participating states and provinces have joined the newly formed Climate Registry.¹²¹ In August 2007, the WCI partners announced a regional goal of reducing emissions 15 percent below 2005 levels,¹²² which is

¹¹⁹ Chapter 371, Statutes of 2005.

¹²⁰ See Western Climate Initiative Memorandum of Understanding (2007) available at http://www.governor.wa.gov/news/2007-02-26_WesternClimateAgreementFinal.pdf; see also Chris Busch and Ned Reynolds, Regional Cap-and-Trade Programs to Cut Global Warming Emissions available at http://www.ucsusa.org/global_warming/solutions/regional_cap-and-trade_programs.html (last updated Nov. 9, 2007).

¹²¹ *Id.*

¹²² Western Climate Initiative Statement of Regional Goal (Aug. 2007) available at <http://www.westernclimateinitiative.org/ewebeditpro/items/O104F13006.pdf>.

similar to California's AB 32.¹²³ AB 32 is expected to cut emissions in California by about 29 percent below what would have otherwise occurred, and the WCI states and provinces will reduce their emissions by at least that much. British Columbia, for example, must cut emissions approximately 46 percent and Arizona approximately 45 percent over their forecasted emissions growth in the absence of the WCI initiative.¹²⁴

WCI is substantially further from actual implementation than RGGI and is now designing a regional cap-and-trade program to help meet its emission goals. WCI has published a work plan,¹²⁵ which is being executed by subcommittees addressing allocation, reporting, electricity, offsets, and scope.¹²⁶ Following recommendations from each subcommittee, the WCI plans to release design recommendations for a cap-and-trade program in August 2008.¹²⁷ The regional plan must then be approved by each of the member jurisdictions. For example, Washington State intends to consider the plan during its 2009 legislative session. It remains to be seen whether enough jurisdictions approve the plan to enable it to be effectively implemented.

V. Potential Constitutional Roadblocks to Regional and Transnational Cap-and-Trade Programs

Mandatory regional carbon markets, such as RGGI and WCI, implicate at least three provisions of the U.S. Constitution: the Commerce Clause, the Compact Clause, and the Supremacy Clause. Depending on how the regional markets are constructed, any one of them could prove to be a roadblock.

A. The Commerce Clause

1. Overview

The Commerce Clause affirmatively grants to Congress the power to regulate interstate commerce.¹²⁸ The Supreme Court has construed this as implicitly limiting state regulation of interstate commerce, in part to limit economic protectionism and to promote economic

¹²³ Global Warming Solutions Act of 2006, Cal. Health & Safety Code § 38560 (2006). *See also* Chris Busch and Ned Reynolds, Regional Cap-and-Trade Programs to Cut Global Warming Emissions available at http://www.ucsusa.org/global_warming/solutions/regional_cap-and-trade_programs.html (last updated Nov. 9, 2007).

¹²⁴ *Id.*

¹²⁵ <http://www.westernclimateinitiative.org/ewebeditpro/items/O104F13792.pdf>.

¹²⁶ Western Climate Change Initiative Subcommittee Membership available at http://www.westernclimateinitiative.org/WCI_Subcommittees.cfm.

¹²⁷ *Id.*

¹²⁸ The Commerce Clause provides that: "The Congress shall have power . . . To regulate commerce with foreign nations, and among the several states, and with the Indian tribes;" Article I, Section 8, Clause 3.

efficiency.¹²⁹ A violation of this so-called “dormant” Commerce Clause generally occurs when a state either (1) adopts a regulation that, on its face, discriminates against interstate commerce or (2) regulates extraterritorial commerce.¹³⁰

But even a state law that discriminates against out-of-state goods is not necessarily unconstitutional. Courts will tolerate such state laws if: (a) they impose a burden that is only incidental; (b) they are justified by a legitimate local purpose; and (c) that legitimate purpose could not have been accomplished in a less burdensome manner. Essentially, courts strike down interstate burdens that smack of mere economic protectionism, but tolerate those that protect a legitimate local interest in a reasonable manner.¹³¹

2. Application to Regional Carbon Markets

Although a Commerce Clause challenge to a regional cap-and-trade regime could take many forms, the highest potential for finding a violation arises when the regional entity attempts to minimize ‘leakage’—the purchasing of (presumably cheaper) electricity by a signatory state from an entity located outside the compact region. If the mechanism for preventing leakage discriminates on its face against electricity from out-of-state, and the regional entity does not effectively demonstrate a legitimate interest in preserving the local environment from the effects of climate change, the anti-leakage mechanism is likely to fall. On the other hand, if the mechanism impacts both intra- and interstate producers of electricity equally (or, perhaps, impacts intrastate producers to a greater extent), and is the least burdensome alternative reasonably available, the mechanism has a reasonable chance of surviving judicial scrutiny. Demonstrating a legitimate interest in preserving the local environment from the effects of climate change should be relatively easy in light of the Supreme Court’s recent decision in *Massachusetts v. EPA*.¹³² Although *Massachusetts* did not involve the Commerce Clause, it nevertheless supports the proposition that a state can point to local environmental risks from climate change as a justification for imposing on interstate commerce.¹³³

WCI and RGGI are attempting to construct their anti-leakage mechanisms so as to avoid a Commerce Clause challenge. In its February 29, 2008 preliminary recommendations, the WCI’s Electricity Subcommittee suggested that leakage issues could be adequately addressed if all of the jurisdictions within Western Electricity Coordinator Council (WECC) became members of WCI. Because the WECC includes the entire western interconnection, including 14 states, the provinces of British Columbia and Alberta, and a portion of northern Mexico, the amount of power delivered from outside the WCI would presumably be minimal.

¹²⁹ 1 Laurence H. Tribe, *American Constitutional Law* § 6-2 (3rd ed. 2000).

¹³⁰ *Id.*, § 6-2.

¹³¹ *Maine v. Taylor*, 477 U.S. 131, 140 (1986); *Pike v. Bruce Church, Inc.*, 397 U.S. 137, 142 (1970).

¹³² 127 S. Ct. 1438 (2007).

¹³³ *Id.* at 1455.

Assuming that WCI does not succeed in making its footprint co-extensive with the western interconnection, the Electricity Subcommittee recommends asserting jurisdiction over all generators located in the WCI, along with the “first jurisdictional deliverer” within WCI of power generated outside of the WCI. In this way, WCI hopes to avoid the charge of trading on interstate commerce.

RGGI has struggled with this issue as well. In 2007, analysts for RGGI concluded that a discriminatory leakage prevention policy would likely fail strict judicial scrutiny analysis because challengers could “readily demonstrate that there are less-discriminatory means of achieving the same results.”¹³⁴ Nevertheless, the Supreme Court has concluded that a state “is not required to develop new and unproven means of protection at an uncertain cost.”¹³⁵ Therefore, WCI and RGGI may be able to successfully argue that other approaches offered by challengers require too much speculation as to their effectiveness.

Although the emission reduction efforts of a group of states will not by itself significantly deter global warming, that is not a fatal defect.¹³⁶ The *Massachusetts* court similarly found that the State of Massachusetts had standing because EPA action to reduce carbon dioxide emissions from tailpipes would help remediate, however slightly, harm to that state.¹³⁷

Notably, the fact that RGGI members did not emphasize local harms in the ‘Whereas’ clauses of their Memorandum of Understanding was cited by EEI as support for the claim that RGGI violates the Commerce Clause.¹³⁸

B. The Compact Clause

1. Overview

Taken literally, the Compact Clause prohibits all agreements among states, and between a

¹³⁴ RGGI Emissions Leakage Multi-State Staff Working Group, *Potential Emissions Leakage and the Regional Greenhouse Gas Initiative (RGGI): Evaluating Market Dynamics, Monitoring Options, and Possible Mitigation Mechanisms* 58 (March 14, 2007).

¹³⁵ *Maine*, 477 U.S. at 147.

¹³⁶ *Maine* 477 U.S. at 151 (“The impediments to complete success . . . cannot be a ground for preventing a state from using its best effort to limit [an environmental] risk.”) (quoting the Magistrate’s opinion).

¹³⁷ 127 S. Ct. at 1458.

¹³⁸ See Letter from William L. Fang, Deputy Gen. Counsel, Edison Elec. Inst., to Franz Litz, Chair of the Reg’l Greenhouse Gas Initiative (Mar. 20, 2006), available at http://www.rggi.org/docs/rggi-eeimou_comments032006final.pdf (noting that RGGI’s “Whereas” clauses included concerns such as the “change in the Earth’s climate;” global risks to human health and ecosystems; reducing the “import of fossil fuels”; and establishing the RGGI states as “world leaders”).

state and a foreign country, absent Congressional approval.¹³⁹ But, in practice, the Supreme Court has limited at least the interstate portion of this clause to only require Congressional consent for interstate compacts that tend to increase the political power in the states and “may encroach upon or interfere with the just supremacy of the United States.”¹⁴⁰ Of course, if Congress were to grant WCI and/or RGGI consent to form a compact, this issue would become moot (as would other constitutional concerns), because a compact endorsed by Congress is considered federal law. Our analysis proceeds on the assumption that no such permission is forthcoming.

2. Application to Regional Carbon Markets

Although RGGI currently includes only U.S. states, WCI includes both states and Canadian provinces. Therefore, both regional initiatives implicate the interstate component of the Compact Clause, and WCI involves the international component as well. Each component will be discussed in turn.

No interstate agreement has yet been invalidated for lack of Congressional consent.¹⁴¹ However, WCI and RGGI arguably present a case for invalidation on the grounds that they would increase the power of the states at the expense of the federal government. In fact, an apparent goal of both regional initiatives is to increase the voices of the states in the climate change debate, and thereby pressure Congress to respond in a way that the member states think best.

A closer analysis of Compact Clause case law indicates, however, that both regional efforts have a reasonable likelihood of surviving a challenge under the interstate component. In *U.S. Steel v. Multistate Tax Comm’n*, the Supreme Court confronted a compact among 21 states designed, among other things, to facilitate the determination of state and local tax bills for corporate multistate taxpayers.¹⁴² In furtherance of its goals, the compact created the Multistate Tax Commission (“MTC”), an administrative body empowered to adopt uniform—but merely advisory—regulations, and to perform an audit on behalf of any requesting state.¹⁴³ States in the compact were free to withdraw and to reject or modify any rules promulgated by the MTC.¹⁴⁴

In holding that this agreement did not violate the Compact Clause, the Court focused on

¹³⁹ U.S. Const, art. I, §10, cl.3 (“No State shall, without the Consent of Congress, . . . enter into any agreement or compact with another State or with a foreign power . . .”).

¹⁴⁰ *U.S. Steel Corp. v. Multistate Tax Comm’n*, 434 U.S. 452, 471 (1978) (quoting *New Hampshire v. Maine*, 426 U.S. 363, 369 (1976)).

¹⁴¹ Note, *The Compact Clause and the Regional Greenhouse Gas Initiative*, 120 Harv. L. Rev. 1958, 1960 (2007).

¹⁴² 434 U.S. at 456.

¹⁴³ *Id.* at 457.

¹⁴⁴ *Id.*

whether it allowed the states to do something together that they could not have done alone.¹⁴⁵

In *U.S. Steel*, the Court found no impermissible state empowerment because the MTC had no additional power beyond what each state independently possessed. Likewise here: states presumably have the power to implement an intrastate carbon market; in fact, California and New Hampshire have put in motion plans to do just that.¹⁴⁶ Assuming, therefore, that an intrastate carbon market is lawful, an interstate agreement would at least arguably not bestow upon the states any new powers. Even if WCI and RGGI potentially enables their member states to enlarge their political influence, the “enhanced capacity to lobby within the federal legislative process falls far short of threatened encroach[ment] upon or interfer[ence] with the just supremacy of the United States.”¹⁴⁷

It is important to note the significance that the *U.S. Steel* court placed on the fact that rules of the MTC were not binding on member states, and that states retained the ability to withdraw from the regional organization. In support of finding no Compact Clause violation, the Court noted that the agreement at issue contained no “delegation of sovereign power to the Commission; each State retains complete freedom to adopt or reject the rules and regulations of the Commission. Moreover, as noted above, each State is free to withdraw at any time.”¹⁴⁸

It is unclear whether a regional cap-and-trade system could function if each state is free to accept or reject the rules of the regional organization, and can withdraw at any time. If the member states of RGGI and/or WCI decide that they must be bound by at least some uniform rules, and that there must be at least some limits on the ability of a member to withdraw, the precedential value of *U.S. Steel* may be lost, leaving the regional organization vulnerable to attack under the interstate component of the Compact Clause.

The inclusion of Canadian provinces in WCI raises the question whether a court would apply the international component of the Compact Clause more strictly. The limitations imposed

¹⁴⁵ *Id.* at 473 (“[T]he test is whether the Compact enhances state power *quoad* the National Government. This pact does not purport to authorize the member States to exercise any powers they could not exercise in its absence.”) (italics in original); *see also id.* at 490 (White, J., dissenting) (asserting that the majority’s holding is “purely on the basis of its form: that no power is conferred upon the Multistate Tax Commission that could not be independently exercised by a member State.”).

¹⁴⁶ *See* David Wooley and Elizabeth Morss, *Global Climate Change, Including International, National, and State Initiatives to Reduce Emissions of Greenhouse Gases*, Clean Air Act Handbook § 6:33 (2007).

¹⁴⁷ *U.S. Steel*, 434 U.S. at 480 n. 33 (alterations in original) (quoting *Virginia v. Tennessee*, 148 U.S. 504, 519 (1893)).

¹⁴⁸ *U.S. Steel*, 434 U.S. at 473; *see also* Kirsten H. Engel, *Mitigating Global Climate Change in the United States: A Regional Approach*, 14 N.Y.U. Env’tl L. J. 54, 74-75 (arguing that agreements in which “participating states can impose mandatory requirements upon one another” may run afoul of the Compact Clause).

by the Supreme Court on the interstate component should, by analogy, extend to the international —i.e., compacts or agreements between states and foreign powers should also require Congressional consent only when they increase state power *and* encroach upon federal supremacy. So argues the Restatement (Third) of Foreign Relations Law.¹⁴⁹

To the extent that this argument is convincing, a Compact Clause challenge to the international element of WCI or RGGI is likely to fail, assuming that those organizations are able to function in a completely non-binding manner. However, “[n]o authority has conclusively resolved the status of state-foreign covenants under international law.”¹⁵⁰ Ultimately, because this area of the law is unsettled, the inclusion of Canadian provinces in WCI could result in a more demanding review under the Compact Clause.

C. Supremacy Clause

1. Overview

The preemptive effect of federal law derives from the Supremacy Clause¹⁵¹ and from affirmative grants of power to the federal government in the Constitution.¹⁵² When a federal statute expressly preempts state law, the latter must yield.¹⁵³ Federal law may also preempt by implication under the doctrines of field or conflict preemption.¹⁵⁴ Field preemption voids state law when federal law leaves no room for state regulation, or when the federal interest in the area is too dominant. *Id.* Conflict preemption applies when compliance with both federal and state law is impossible. *Id.* Beyond those well-established doctrines, the Supreme Court has also indicated that the “dormant foreign affairs power” may suffice to strike state law,¹⁵⁵ but it has expressly applied this doctrine only once.¹⁵⁶

¹⁴⁹ Restatement (Third) of Foreign Relations Law § 302 comt. f (1987). *See also* Peter R. Jenetten, *State Environmental Agreements with Foreign Powers: The Compact Clause and the Foreign Affairs Power of the States*, 8 Geo. Int’l Env’tl. L. Rev. 141, 151 (1995) (making the same argument).

¹⁵⁰ *Id.* at 142 (arguing for an interpretation of the case law that would permit states to enter into binding agreements with foreign nations).

¹⁵¹ The Supremacy Clause provides that: “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.” Article VI, Clause 2.

¹⁵² Tribe, *supra*, § 6-28.

¹⁵³ *Id.*

¹⁵⁴ *See Note, Foreign Affairs Preemption and State Regulation of Greenhouse Gas Emissions*, 119 Harv. L. Rev. 1877, 1878 (2006).

¹⁵⁵ *Id.* at 1878-79.

¹⁵⁶ *See id.* at 1878-80.

2. Application to Regional Carbon Markets

Currently, no federal statute relating to climate change expressly preempts state law or occupies that field. Nevertheless, the doctrine of conflict preemption threatens WCI and RGGI. The issue is whether the United States has a clear policy regarding climate change and, if so, whether a mandatory regional cap-and-trade program would conflict with such a policy.

Opponents of regional cap-and-trade programs argue that the U.S. has a clear foreign policy on climate change, that this policy consists of working with other nations on a voluntary, coordinated basis, and that this forecloses the states from imposing mandatory GHG emission reductions.¹⁵⁷ Others disagree about both the existence of a coherent federal policy,¹⁵⁸ as well as the level of conflict between state action to reduce GHG emissions and any such policy.¹⁵⁹

It is not clear which side will ultimately prevail in this debate. However, it is important to note that a recent federal district court opinion strongly rejected the argument that there is a coherent federal policy regarding climate change that may give rise to a conflict with state law.¹⁶⁰ In that case, the court concluded that: “While the court will accept as factual Plaintiffs’ allegation that it is United States foreign policy to secure commitments of other developing nations before committing itself to international treaty obligations to reduce greenhouse gas emissions, the court finds that Plaintiffs’ contention that it is also United States foreign policy to hold in abeyance internal efforts to reduce greenhouse gas emissions in order to leverage foreign cooperation is completely without factual support.”¹⁶¹

¹⁵⁷ Letter from William L. Fang, *supra*; see also Norman W. Fichtorn & Allison D. Wood, *Constitutional Principles Prohibit States From Regulating CO2 Emissions*, 26 Andrews Env’tl. Litig. Rep. 11 (October 7, 2005) (arguing that state-enacted programs that impose binding, unilateral requirements for the reduction of carbon emissions are preempted because “the President has clearly designated a foreign policy for the United States on global climate change[,]” which involves working with other nations and not mandating unilateral carbon reductions from domestic sources and thus “state greenhouse gas emission reduction mandates ‘stand as an obstacle’ to [that] foreign policy decision[.]” (quoting *Crosby v. National Foreign Trade Council*, 530 U.S. 363, 373 (2000)).

¹⁵⁸ See, e.g., Note, *Foreign Affairs Preemption*, *supra*, at 1889-91.

¹⁵⁹ See, e.g., *id.* at 1891-93; Kirsten H. Engel, *Mitigating Global Climate Change*, *supra*, at 54 n. 1 (“The better view of the current Administration’s federal foreign policy, however, is that the Administration is simply opposed to federal mandatory emissions limitations but is not necessarily opposed to state regulation.”).

¹⁶⁰ See *Central Valley Chrysler-Jeep v. Goldstone*, 2007 U.S. Dist. LEXIS 91309 (E.D. Cal., 2007); see also, *Green Mountain Chrysler Plymouth, et. al, v. Crombie*, 508 F.Supp.2d 295 (D. Vt. 2007).

¹⁶¹ *Central Valley*, 2007 U.S. Dist. LEXIS 91309 at 106. The court went on state that: “There is absolutely no reason in logic for any presumption that the efforts of California or any other state

A court's decision on this matter may turn on the extent to which it follows the Supreme Court's decision in *American Ins. Ass'n v. Garamendi*.¹⁶² In *Garamendi*, a divided Court applied conflict preemption and held that a California statute requiring disclosure of information from insurance companies regarding Holocaust-era policies conflicted with the President's foreign policy, and was thereby preempted.¹⁶³ *Garamendi* has been widely criticized,¹⁶⁴ and the current Supreme Court contains more dissenters than justices who were in the majority (all four dissenters remain on the Court, but two of the five in the majority have since resigned). Accordingly, its continued vitality is uncertain.

Nevertheless, because it is the law, at least for now, the majority's willingness to stretch the doctrine of conflict preemption to infer from a Presidential agreement that did not obviously foreclose the California statute a conflict sufficient to preempt the state law does not bode well for WCI and RGGI.¹⁶⁵ *Garamendi* may be distinguishable, however. First, the Presidential policy in that case was arguably much clearer than the current federal policy regarding climate change.¹⁶⁶ Second, executive department officials in *Garamendi* publicly expressed that the state law damaged and threatened to derail the executive agreements, thereby undermining the President's policy.¹⁶⁷ No similar statements regarding regional GHG reduction initiatives have been made to date.

In any event, the inclusion of Canadian provinces in WCI places that agreement in peril of being preempted. While the doctrine of dormant foreign affairs preemption probably does not apply to RGGI (as a wholly domestic program), the argument that it applies to an agreement between states and foreign countries is much stronger.¹⁶⁸ At least one commentator has suggested a bright-line rule under which "no state law would be preempted unless it involves state interaction with foreign governments, foreign nationals, or their trading partners as such."¹⁶⁹ Such a test would "preserve the interest in uniform dealings with foreign nations, and would protect state experimentation at a time when the boundaries of foreign affairs are

to reduce greenhouse gas emissions would interfere with efforts by the Executive Branch to negotiate agreements with other nations to do the same." *Id.*

¹⁶² 539 U.S. 396 (2003).

¹⁶³ *Id.* at 427.

¹⁶⁴ See Note, *Foreign Affairs Preemption*, *supra*, *id.* at 1881.

¹⁶⁵ See *Garamendi*, 539 U.S. at 441 (Ginsburg, J., dissenting) ("Here, the Court invalidates a state disclosure law on grounds of conflict with foreign policy 'embod[ied]' in certain executive agreements . . . although those agreements do not refer to state disclosure laws specifically, or even to information disclosure generally.") (quoting the majority opinion) (internal citation omitted).

¹⁶⁶ See *id.* at 405-408 (detailing the executive agreements entered into by the President with foreign countries).

¹⁶⁷ See *id.* at 411.

¹⁶⁸ See Note, *Foreign Affairs Preemption*, *supra*, *id.* at 1898.

¹⁶⁹ *Id.* at 1898.

expanding unpredictably.”¹⁷⁰

VI. Conclusion

States, acting individually and through regional entities, are pursuing admirable goals regarding GHG emission reductions, but they are also on a collision course with the federal government. Although many state and regional efforts are complementary of what Congress is likely to enact, other programs are likely to create a regulatory patchwork, leading to uncertainty, if not chaos, in the marketplace. Out of this comes the strong potential for needless delay as the courts attempt to disentangle the conflicting programs.

It is important to recognize that the above analysis is based on a moving political and legal target. Assuming that the next President is either Senator Obama, Senator Clinton or Senator McCain, it is safe to say that executive-level articulations of climate change policy will change dramatically. And if the Democrats retain control of Congress, the chances of comprehensive federal climate change legislation substantially increase. As noted above, there is a lively debate in Congress as to whether, and to what extent, that legislation should preempt state and regional programs. It is likely that this debate will intensify as Congress moves toward enactment of legislation while, at the same time, regional programs are progressing toward actual implementation. Thus, the landscape regarding preemption may be vastly different by the time that WCI or RGGI are challenged in court.

¹⁷⁰ *Id.*