

## AB 32 California Climate Change Initiative

### Preface

California recently enacted a landmark global warming law, **Assembly Bill 32 (AB32)**, whose goals were to establish state-wide programs designed to combat greenhouse gases and promote the development and use of energy-efficient technologies. Carbon dioxide is the main focus of AB32. Carbon dioxide is produced by the burning of fossil fuels, such as coal, petroleum, natural gas, or wood, and is discharged primarily from exhaust pipes and industrial smokestacks. Because greenhouse gas emissions are directly related to the use of energy, measures designed to conserve energy and reduce greenhouse gas emissions are key, but surely not the entire picture.

Regulatory actions will have a profound impact on almost every sector of our economy and communities. The most immediate impact will be felt by a wide range of private and public entities that consume significant amounts of energy. The affected activities and operations will include energy and power production, educational institutions, chemical production, landfills, manufacturers, cement production, agriculture, forestry, land use, health care facilities, construction, transportation, shipping, and goods movement.

Potentially affected parties, and those who deal directly or indirectly with such parties, must now start thinking about how these laws and policies will impact their operations and activities. AB32 will soon produce regulations that will flush out the nature and extent of the impacts on various activities. The time line is short.

The following is an outline of the key issues and event timetables in AB 32.

#### The Legislation

The thrust of the legislation is to establish a comprehensive program of regulatory and market mechanisms to achieve real, quantifiable, cost-effective reductions of greenhouse gases (GHG). The responsibility for this is vested in the California Air Resources Board (CARB). It requires CARB to do the following:

1. **Establish a statewide GHG emissions cap** for 2020, based on 1990 emissions by January 1, 2008.
2. **Adopt mandatory reporting rules** for significant sources of GHG by January 1, 2008.
3. **Adopt a plan by January 1, 2009**, indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms and other actions.

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#### Topics Covered

- The Legislation
- Early Action GHG Reduction Measures
- Additional Measures Which May Reach Regulatory Status
- GHG Inventory & Mandatory Reporting
- GHG Emissions Data Report
- GHG Reporting Process
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4. **Adopt regulations by January 1, 2011** to achieve the maximum technologically feasible and cost-effective reductions in GHGs, including provisions for using both market mechanisms and alternative compliance mechanisms.
5. Prior to imposing any mandates or authorizing market mechanisms, **requires CARB to evaluate several factors**, including, but not limited to: impacts on California's economy, the environment, and public health; equity between regulated entities; electricity reliability, conformance with other environmental laws, and to ensure that the rules do not disproportionately impact low-income communities.
6. **Adopt a list of discrete, early action measures by July 1, 2007** that can be implemented before January 1, 2010 and adopt such measures.
7. **During 2010 CARB will conduct a series of rulemakings**, after workshops and public hearings, to adopt GHG regulations including rules governing market mechanisms.
8. **By January 1, 2011, CARB will complete major rulemakings** for reducing GHGs including market mechanisms. CARB may revise the rules and adopt new ones after January 1, 2011 in furtherance of the 2020 cap.
9. **By January 1, 2012, GHG rules and market mechanisms adopted by CARB take effect** and are legally enforceable.
10. **December 31, 2020 - deadline** for achieving 2020 **GHG emissions cap**.



#### **Early Action GHG Reduction Measures**

CARB is required to identify a list of "discrete early action GHG reduction measures." Once on the list, these measures are to be developed into regulatory proposals, adopted by the Board, and made enforceable by January 1, 2010. As of this time, the following have been selected as "Approved Discrete Early Action Items" which have regulatory effect:

1. **Low Carbon Fuel Standard:** Would establish a "carbon content" standard for transportation fuels linked to the fuel's impact on GHG emissions.
2. **Restrictions on High Global Warming Potential Refrigerants:** Would restrict the use of high GWP refrigerants for non-professional recharging of leaky automotive air conditioning systems.
3. **Landfill Methane Capture:** Would set statewide standards for the installation and performance of active gas collection/control systems at uncontrolled municipal solid waste (MSW) landfills.
4. **SmartWay Truck Efficiency:** The strategy involves requiring existing trucks/trailers to be retrofitted with the best available approved technology that reduce GHG emissions. This may include devices that reduce aerodynamic drag and rolling resistance.
5. **Tire Inflation Program:** The strategy involves actions to ensure that vehicle tire pressure is maintained to manufacturer specifications.

6. **Reduction of PFCs from the Semiconductor Industry:** The strategy involves establishing a PFC emissions reduction goal and determining measures to achieve that goal.
7. **Green Ports:** The strategy involves providing an alternative source of power for ships while they are docked.



### **Additional Measures Which May Reach Regulatory Status**

Likely additional measures which will reach regulatory status:

1. **Refrigerant Tracking, Reporting, and Recovery Program:** The strategy involves the reduction of emissions of high GWP GHGs through establishing requirements for enhanced monitoring, enforcement, reporting, and recovery.
2. **Cement (A):** Energy Efficiency of California Cement Facilities-The strategy involves reducing CO<sub>2</sub> emissions from fuel combustion, calcinations, and electricity use by converting to a low-carbon fuel-based production, decreasing fuel consumption, and improving energy efficiency practices and technologies in cement production.
3. **Cement (B):** Blended Cements-This strategy to reduce CO<sub>2</sub> emissions involves the addition of blending materials such as limestone, fly ash, natural pozzolan and/or slag to replace some of the clinker in the production of Portland Cement.
4. **Anti-idling Enforcement:** The strategy guarantees emission reductions as claimed by increasing compliance with anti-idling rules, thereby reducing the amount of fuel burned through unnecessary idling.
5. **Research to Understand How to Reduce GHG Emissions from Nitrogen Land Application:** The strategy involves the identification of methodologies for better characterizing California's nitrogen cycle.



### **GHG Inventory and Mandatory Reporting**

First is the requirement for the CARB to adopt a regulation to require the mandatory reporting and verification of GHG emissions and the second is to establish the 1990 GHG emissions level as the limit to be achieved by 2020. The initial reporting facilities will be:

1. Cement plants;
2. Petroleum refineries;
3. Hydrogen production facilities that emit greater than or equal to 25,000 metric tonnes per year of CO<sub>2</sub> from stationary combustion sources and hydrogen production processes;
4. Electric generating facilities with generating capacity rated  $\geq 1$  megawatt (MW) and emissions greater than or equal to 2,500 metric tonnes of CO<sub>2</sub> per year, including hybrid generating facilities and excluding generating facilities that are

solely nuclear, hydroelectric, wind, or solar powered;

5. Cogeneration facilities with electricity generating capacity  $\geq 1$  MW and emissions greater than or equal to 2,500 metric tonnes of CO<sub>2</sub> per year or within the operational control of another facility;
6. Retail electricity providers and marketers (e.g. Investor Owned Utilities, Publicly Owned Utilities); and,
7. Any individual facility, except a hospital identified as SIC 8069 and school identified as SIC 8299, within California that emits greater than or equal to 25,000 metric tonnes per year of CO<sub>2</sub> resulting from stationary combustion sources, such as transmission (of water primarily), manufacturing of industrial gases and paperboard manufacturing, colleges and universities; oil production, food processing, steel foundries, mineral processing, glass container manufacturing and the making of malt beverages.<sup>1</sup>



### **GHG Emissions Data Report**

Facility operators and retail providers shall provide the information below and other specific data, using the methods and requirements specified. Operators and retail providers shall file emissions reports according to the schedule specified in 17 CCR § 95103(b).

1. Facility name, identification number, mailing address, location, and other specified information;
2. Description of the reporting organization including SIC and NAICS code;
3. Person responsible for reporting and contact information;
4. Reporting period covered;
5. Direct GHG emissions, indirect energy use, and other data specified. Quantification shall be separate for each GHG and shall include emissions occurring during routine maintenance, start-ups, shutdowns, upsets and downtime;
6. Indirect electric and thermal energy consumed for electricity, heat, steam, cooling or hydrogen production;
7. Efficiency metrics as specified in individual sector requirements;
8. A signed and dated statement that the GHG report has been prepared in accordance with the regulations; and,
9. A signed and dated certification provided by the operator or retail provider attesting that the statements and information contained in the emissions data report are true and accurate to the best knowledge and belief of the certifying official, including the full name, title, address, email, and telephone number of the certifying official.

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<sup>1</sup> CARB estimates that 25,000 metric tonnes of CO<sub>2</sub> are equivalent to: (1) 2,840,000 gallons of gasoline burned; (2) 2,466,000 gallons of diesel burned; (3) 459,140,464 standard cubic feet of natural gas burned; and (4) 12,000 Short Tons of coal burned. Approximately 200 facilities will fall within this category.

## GHG Reporting Process

The reporting requires:

1. First reports are due in 2009 for 2008 GHG emissions. Facilities may use “best available data” for 2008 estimates;
2. No independent third-party verification required for 2009 report. For 2010 and future years, annual verification required for refineries, hydrogen plants, oil and gas production facilities, retail electricity providers and marketers, power plants and cogeneration facilities. All other sources require triennial verification; and,
3. 2010 and future reports must use GHG emission calculation methods specified in the regulations.



## 1990 GHG Emissions Inventory

The 1990 GHG Emissions Inventory includes:

1. “Kyoto GHG”: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs);
2. Each GHG was assigned a “global warming potential” (GWP) to allow a comparison of global warming influence relative to CO<sub>2</sub>;
3. Emissions estimated in seven GHG emitting sectors: Transportation, Electricity Generation, Industrial, Residential, Agriculture, Commercial, and Forestry;
4. Emissions of the six GHG from all known anthropogenic and biogenic sources within California, as well as emissions from imported electricity and transmission and distribution line losses; and,
5. Staff estimates that net emissions in 1990 were 427 million metric tonnes of CO<sub>2</sub> equivalents (CO<sub>2</sub>e). (Gross emissions of 433 million metric tonnes with forestry sinks offsetting 7 million metric tonnes).



## About Brownstein

California's Hatch & Parent merged with Denver-based, Brownstein Hyatt Farber Schreck on January 1, 2008. The merger brings together a real estate and political powerhouse with California's largest water and environmental practice. For more information about the firm, see [bhfs.com](http://bhfs.com).

In the field of Climate Change, Brownstein brings a wealth of experience working in both the regulatory and compliance arena and on the federal and state policy governing climate change and related initiatives. We advise on carbon trading, clean technologies, renewables, oil and gas, coal, nuclear, and energy efficiency and in many related areas involving water and natural resources. We routinely represent companies in all aspects of development, engineering & construction, contracts, corporate & business matters, and environment & natural resource issues, including water, land use and litigation.

This document is intended to provide you with general information about issues related to AB32, the California Climate Change Initiative. The contents of this document are not intended to provide specific legal advice. If you have any questions about the contents of this document or if you need legal advice as to an issue, please contact one of the attorneys listed below or your regular Brownstein Hyatt Farber Schreck, LLP, attorney. This communication may be considered advertising in some jurisdictions.

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