

CALIFORNIA

The California Air Resources Board (CARB) has prepared a report: "California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit" that discusses the development of a 1990 statewide emissions level and provides a summary of the key emissions sources, the methodologies used to calculate the emissions, and the sources of data. CARB staff will present to the Board their recommendation for the 2020 California Greenhouse Gas Emissions Limit, equivalent to the 1990 Emissions Level, on December 6, 2007.

http://www.arb.ca.gov/cc/ccei/inventory/1990_level.htm

On October 16, The California Climate Action Team has released a report updating the macroeconomic analysis presented in the March 2006 Climate Action Team Report with: updates of the climate strategies presented in the 2006 CAT Report; and refined methodologies for analyzing the strategies and estimating macroeconomic impacts. The results of the analysis show that California's 2020 emission target can be achieved with small positive or small negative aggregate macroeconomic impacts through 2020. The updated data show that the emission reductions from the climate strategies in the 2006 CAT Report may be smaller than previously estimated. However, new strategies have been identified that provide additional emission reduction opportunities.

- [Updated Macroeconomic Analysis of the Climate Strategies Presented in the March 2006 Climate Action Team Report](#) Final Report, posted 10/16/07. (PDF file, 46 pages, 172 kilobytes).
- [Attachment A](#), Summary of Climate Strategy Updates. (PDF file, 23 pages, 76 kilobytes).
- [Attachment B](#), Climate Strategy Updates. (PDF file, 349 pages, 2.4 megabytes).
- [Attachment C](#), Updated Macroeconomic Analysis. (PDF file, 9 pages, 68 kilobytes).
- [Attachment D](#), Economic Analysis of California Climate Policy Initiatives Using the BEAR Model. (PDF file, 17 pages, 76 kilobytes).

On October 12, 2007, the Air Resources Board posted a Final Staff Report entitled "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California Recommended for Board Consideration" in support of the objectives of the Global Warming Solutions Act of 2006. This report will be considered at the ARB Hearing on October 25, 2007. The report and information on the hearing can be found at:

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

September 2007, California Energy Commission. [Geologic Carbon Sequestration Strategies for California: The Assembly Bill 1925 Report to the California Legislature](#), Draft Staff Report. Publication # CEC-500-2007-100-SD. (PDF, 161 pgs, **1.6 MB**).

[Our Changing Climate Assessing the Risks to California: A Summary Report from the California Climate Change Center](#), 2006 Biennial Report, published July 2006

On August 31, 2007, the California Energy Commission released for public comment the final staff report [The Role of Land Use in Meeting California's Energy and Climate Change Goals](#).

On August 2, 2007, the University of California released a blueprint for the Air Resources Board to consider in implementing the **low carbon fuel standard** as part of its efforts to reduce greenhouse gas emissions 25 percent by 2020. The report, which is the second in a series, examines many of the policy issues involved in designing a low carbon fuel standard. Go [here](#) to view the report and UC press release.

On June 30, 2007, the Market Advisory Committee to the California Air Resources Board issued a report: [*Recommendations for Designing a Greenhouse Gas Cap-and-Trade System for California*](#). The objective of the Committee was to design a cap-and-trade program to achieve cost-effective emissions reductions within and across all sectors of the State's economy. Some of the recommendations include:

- The program should eventually include all major greenhouse gas-emitting sectors of the economy in the cap-and-trade program;
- To address emissions associated with imported electricity within a state-based cap-and-trade program, the Committee recommends a "first-seller approach."
- The Committee recommends that California's cap-and-trade program recognize offsets generated both within and outside the state's borders.
- California should encourage linkages with other mandatory greenhouse gas cap-and-trade systems.

On June 21, 2007, the California Air Resources Board (CARB) approved early action measures to address climate change emissions as set forth in the California Global Warming Solutions Act of 2006 (AB 32). The three adopted regulations meet the narrow legal definition of "discrete early action GHG reduction measures." They are:

- A low-carbon fuel standard - reducing carbon intensity in California fuels
- Reduction of refrigerant losses from motor vehicle air conditioning system maintenance - restricting the sale of "do-it-yourself" automotive refrigerants
- Increased methane capture from landfills - requiring broader use of state-of-the-art methane capture technologies.

CARB Press release and report: <http://www.arb.ca.gov/newsrel/nr062107.htm>

On June 12, 2007 the CEC and PUC issued a joint staff draft proposal for the tracking and reporting of GHG emissions associated with all retail sales of electricity within California. Upon the adopting of a decision, the two Commissions will send the recommendations to CARB in September. The CARB must adopt final reporting regulations by the end of 2007. The proposal includes a recommendation to expand on staff's efforts to date to work with other states in the region on a consistent regional tracking system. In particular, California would work with Washington and Oregon to develop a pilot project to ensure that the tracking systems in all three states exclude generation otherwise claimed to serve native load.
PUC and CEC [Staff Proposal](#) for an electricity retail provider reporting protocol

On May 23, 2007 the California Energy Commission approved regulations that limit the purchase of electricity from power plants that fail to meet strict greenhouse gas emissions standards. New regulations, as part of SB 1368, prohibit the state's publicly owned utilities from

entering into long-term financial commitments with plants that exceed 1,100 pounds of carbon dioxide (CO₂) per megawatt hour.

[Order Adopting Regulations, and Approval of Negative Declaration](#) - Dated May 23, 2007. (PDF file, 4 pgs, 112 kb)

On January 25, 2007 the Public Utility Commission [adopted an interim Greenhouse Gas \(GHG\) Emissions Performance Standard](#) (EPS) in an effort to help mitigate climate change. This first-of-its-kind Emissions Performance Standard is a facility-based emissions standard requiring that all new long-term commitments for baseload generation to serve California consumers be with power plants that have emissions no greater than a combined cycle gas turbine plant. That level is established at 1,100 pounds of CO₂ per megawatt-hour. "New long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of five years or more, or major investments by the utility in its existing baseload power plants.

[Press Release](#) and [Fact Sheet](#) on interim GHG EPS.

[Climate Action Team Proposed Early Actions to Mitigate Climate Change in California](#)

April 20, 2007. (Acrobat PDF, 14 pages, 178 kb)

[Download Air Resources Board's Report: Proposed Early Actions to Mitigate Climate Change In California](#), released 4/20/07. (PDF file, 20 pages, 336 kilobytes)

On January 9, 2007 Gov. Schwarzenegger announced he would issue an Executive Order establishing a Low Carbon Fuel Standard (LCFS). This first-of-its kind standard will reduce reliance on fossil fuels and support AB 32 emissions targets, the governor said. The LCFS will use market-based mechanisms that allow providers to choose how they reduce emissions while responding to consumer demand. By 2020 the standard will reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent.

The Governor's Executive Order directs the Secretary for Environmental Protection to coordinate the actions of the California Energy Commission (CEC), the California Air Resources Board (ARB), the University of California and other agencies to develop the protocols for measuring the "life-cycle carbon intensity" of transportation fuels.

http://www.gov.ca.gov/sots/alt_fuels.html

In October 2006, Governor Arnold Schwarzenegger signed [Assembly Bill \(AB\) 32](#) that requires the California Air Resources Board (CARB) to develop regulations and market mechanisms that will ultimately reduce California's GHG emissions to 1990 levels by 2020, an estimated 25 percent reduction. Mandatory caps will begin in 2012 for significant GHG sources—such as utilities, industries, and large businesses—and ratchet down to meet the 2020 goals. CARB must establish the statewide GHG emissions cap by January 1st, 2008; adopt mandatory reporting rules for significant GHG sources and adopt a plan for achieving GHG emissions reductions by January 1st, 2009; and adopt its final GHG emission regulations by January 1st, 2011. See the governor's [press release](#) and the [CARB Climate Change Web page](#).

Other climate change bills also were enacted at the end of 2006. [Senate Bill \(SB\) 107](#) requires the state's investor-owned utilities to draw on renewable energy for 20 percent of their electricity by 2010, codifying a rule that was set by the California Energy Commission (CEC) and the California Public Utilities Commission. [AB 1925](#) requires the CEC to consider capturing and

storing industrial carbon dioxide. [SB 1368](#) prohibits the state's utilities from buying their power from power plants that emit high amounts of GHGs, particularly those located outside the state, unless that baseload generation complies with a greenhouse gas emissions performance standard. The standard, to be developed by the California Public Utilities Commission ("CPUC") for utilities, energy service providers, and community choice aggregators, and by the California Energy Commission ("CEC") for local publicly-owned utilities, provides that emissions cannot be any higher than the greenhouse gas emissions rate from a baseload combined-cycle natural-gas-fired plant. [AB 2778](#) extends the Self Generation Incentive Program for distributed generation resources to January 1st, 2010. [AB 2600](#) increases by 10,000 the number of permits for hybrid vehicles using high occupancy vehicle lanes. [SB 1505](#) calls for the California Hydrogen Highway to result in reduced emissions of GHGs and other pollutants and will eventually require one-third of the hydrogen to be produced from renewable energy sources. [AB 1969](#) will encourage water and wastewater agencies to generate their own renewable power.

In April 2006, the Climate Action Team (CAT) released its final report.

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

The CAT recommends 46 specific strategies to reduce greenhouse gas emissions in California, including implementation of the California Solar Initiative, development of alternative fuels, forest conservation measures, and intelligent transportation systems. In addition, the report includes nine key recommendations to help ensure the Governor's targets are met, including:

- A multi-sector, market-based program which considers trading, emission credits, auction and offsets
- Mandatory greenhouse gas emission reporting from the largest sources, including oil and gas extraction facilities, oil refineries, power plants, cement manufacturing plants, and solid waste landfills
- Require new electricity generated for use in California to come from sources with climate change emissions equivalent to or less than new combined cycle natural gas power plants
- Require all utilities, whether publicly or privately owned, to meet the state's energy efficiency goals and Renewable Portfolio Standard
- A coordinated investment strategy to develop technologies in California that will reduce greenhouse gas emissions.

In 2002, a California law was enacted to lower greenhouse gas emissions from motor vehicles. In 2004, the California Air Resources Board (CARB) adopted regulations to implement the law. The regulations went into effect in 2006 and apply to new passenger vehicles and light duty trucks beginning with the 2009 model year.

<http://www.arb.ca.gov/regact/grnhs gas/grnhs gas.htm>

In December 2005, CARB submitted to the U.S. Environmental Protection Agency a Request for Waiver of Preemption Under Clean Air Act Section 209(b) regarding California's regulations to control greenhouse gas emissions from motor vehicles.

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

In October 2006, the Governor signed an Executive Order directing state agencies to develop a comprehensive market-based compliance program with the goal of creating a program that permits trading with the European Union, the Regional Greenhouse Gas Initiative and other jurisdictions. <http://gov.ca.gov/index.php?/press-release/4447/>

In July 2006, the Department of Water Resources (DWR) released a technical report that offers a first look at changes that may affect California's water resources in the future. The report shows that climate change could significantly impact California's water picture in many ways, including: Loss of Sierra snow pack and the seasonal water storage it provides; More rain and less snow, impacting both water supply reliability and hydropower generation; More variable precipitation and extreme weather events, such as floods and droughts - the latter resulting in more energy-intensive groundwater pumping.

<http://baydeltaoffice.water.ca.gov/climatechange/DWRClimateChangeJuly06.pdf>

In November 2006, The California Energy Commission released a new draft staff report that provides estimates of the state's greenhouse gas (GHG) emissions compared over a 15-year period. The report, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, provides policy makers and researchers with the sources of emissions that could dramatically alter the climate and landscape of California.

www.climatechange.ca.gov/policies/greenhouse_gas_inventory/

Renewable Portfolio Standard:

Increase 2% per year beginning in 2003 to reach at least 20% by end of 2010; goal of 33% by end of 2020