

AB 32 Status Report: California Hitting Clean Energy Targets

AB 32: THE GLOBAL WARMING SOLUTIONS ACT OF 2006

AB 32 will enable California to reduce global warming pollution to 1990 levels by 2020, or just more than 20 percent compared to the forecast business-as-usual emissions in 2020.¹ In collaboration with local governments and stakeholders, state agencies are working together to design and implement a package of complementary policies to ensure that California achieves its greenhouse gas emission reductions in a cost-effective manner, while protecting public health and transforming the state's energy infrastructure.

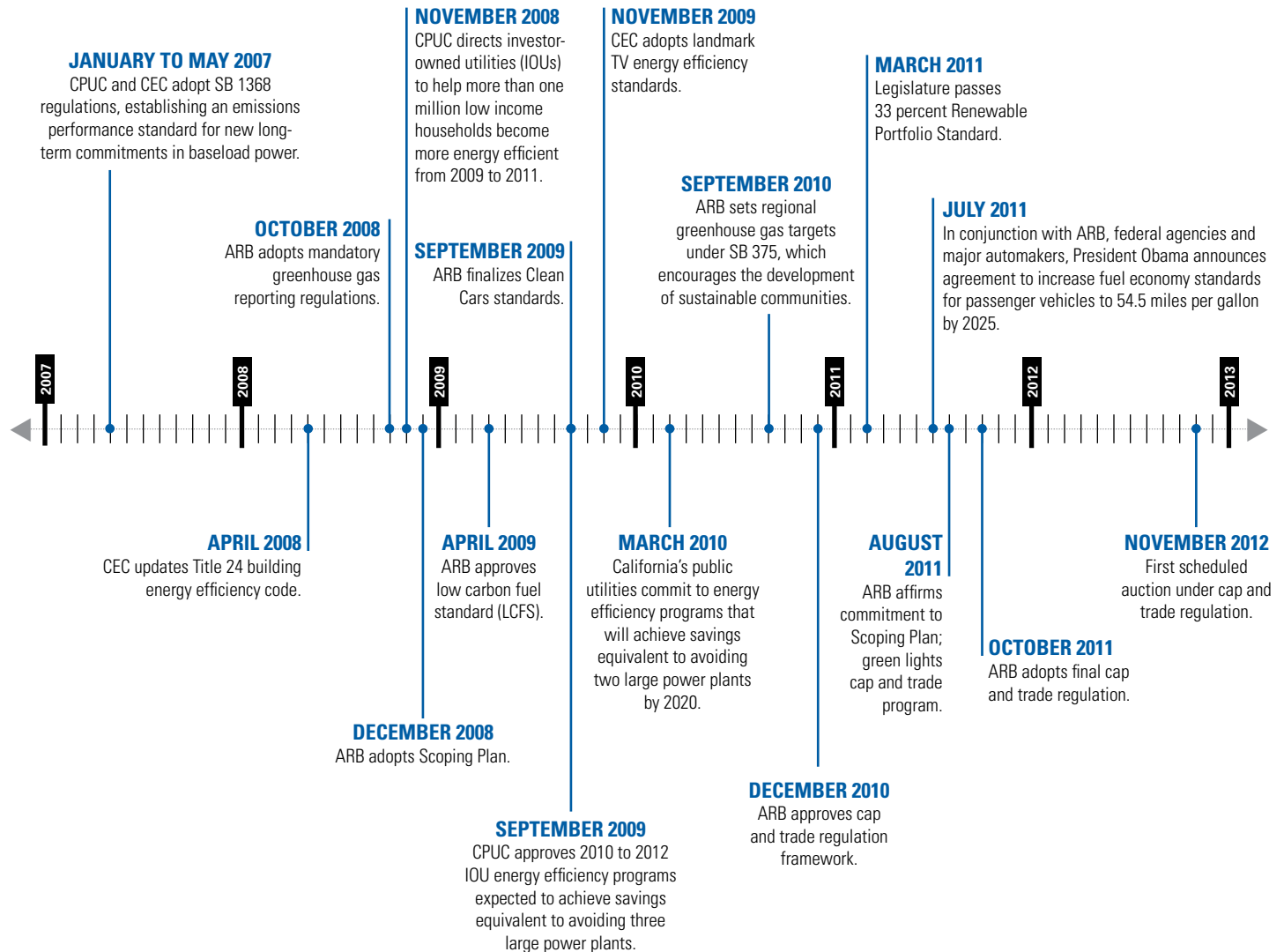


MILESTONES

California is on track to meet AB 32’s emission targets. The agencies responsible for implementing AB 32—the California Air Resources Board (ARB), California Public Utilities Commission (CPUC), and California Energy Commission (CEC)—have made major strides towards achieving the state’s goals. CARB regularly publishes a scorecard charting the state’s progress on the more than two dozen measures already

adopted and under development to achieve AB 32’s goals.² Figure 1 highlights these milestones, which now encompass all of the major emission reduction measures under AB 32. Although regulatory programs under AB 32 have been the subject of litigation, state agencies are taking the necessary steps to resolve those disputes and ensure the AB 32 program remains on track.³

Figure 1: AB 32 Milestone Time Line



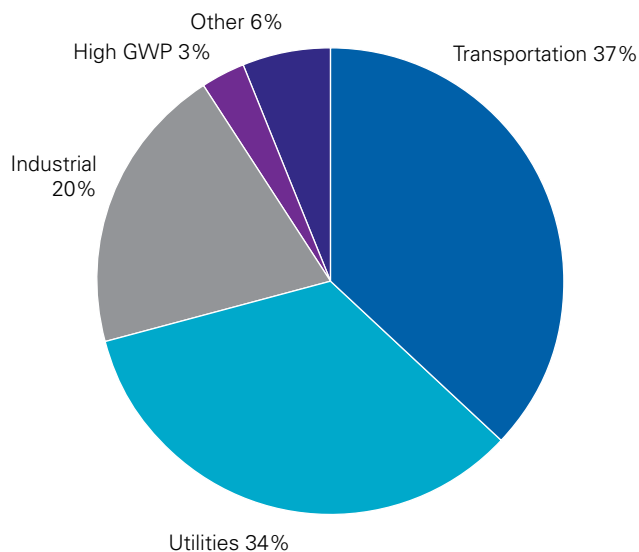
CALIFORNIA'S PLAN TO CUT POLLUTION AND TRANSITION TO CLEAN ENERGY

In December 2008, after extensive public input, ARB released its blueprint—known as the Scoping Plan—for achieving AB 32's goal of reducing global warming pollution statewide. In August 2011, following a more comprehensive look at alternative strategies to reduce emissions under AB 32, ARB reaffirmed its commitment to moving forward with

the mix of strategies outlined in the Scoping Plan.⁴ The plan lays out a comprehensive suite of direct emission reduction measures across all sectors of the economy, backed up by a hard cap to ensure compliance with AB 32's goals. The solution strategies for the individual sectors are summarized in table 1. The relative contributions of each sector to California's global warming pollution (figure 2) are addressed through the Scoping Plan measures, each of which have a specific reduction target (figure 3).⁵

Sector	Percent of Emissions (2008)	Selected Solutions
Transportation	37%	Implement cleaner vehicles (Clean Cars Standards) cleaner fuels low carbon fuel standard (LCFS), reduce the need to drive through smart growth development (SB 375).
Utilities (Electricity and Natural Gas)	34%	Improve energy efficiency through minimum standards and utility programs, increase renewable energy (33 percent RPS), incentivize low carbon generation, avoid further investments in high carbon generation (SB 1368).
Industrial Operations	20%	Improve industrial energy efficiency (Industrial Audit Measure), incentivize low carbon industrial processes and products.
High Global Warming Potential (GWP) Gases	3%	Phase out high GWP gases across multiple sectors, including consumer products and refrigerants.

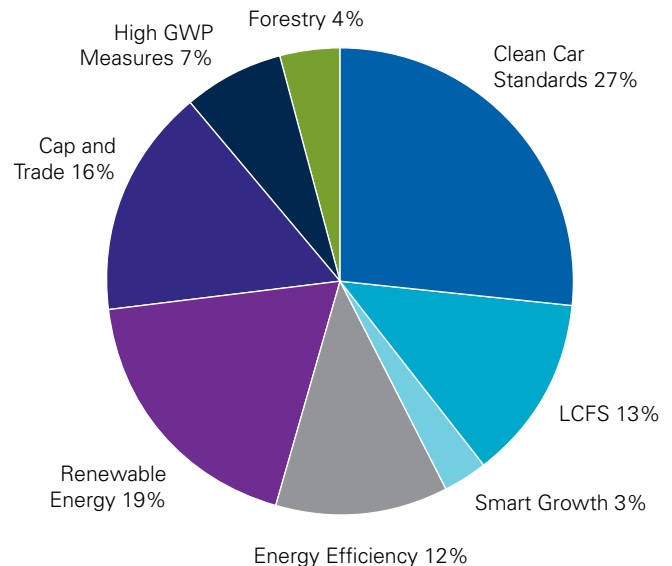
Figure 2: California Emissions Sources 2008
(Sector, percent of total)



Source: ARB, California GHG Inventory for 2000 to 2008.

The industrial sector accounts for roughly one-fifth of California's total greenhouse gas emissions and has significant co-pollutant impacts. In June 2011, ARB announced that it would build on an existing regulation targeting the industrial sector—the Industrial Audit Measure—that requires California's largest industrial polluters to perform energy efficiency audits by adding a

Figure 3: AB 32 Emissions Reduction Strategies
(Measure, percent of total)



Source: ARB, Emissions Reductions from Scoping Plan Measures; 2020 GHG Emissions Forecast.

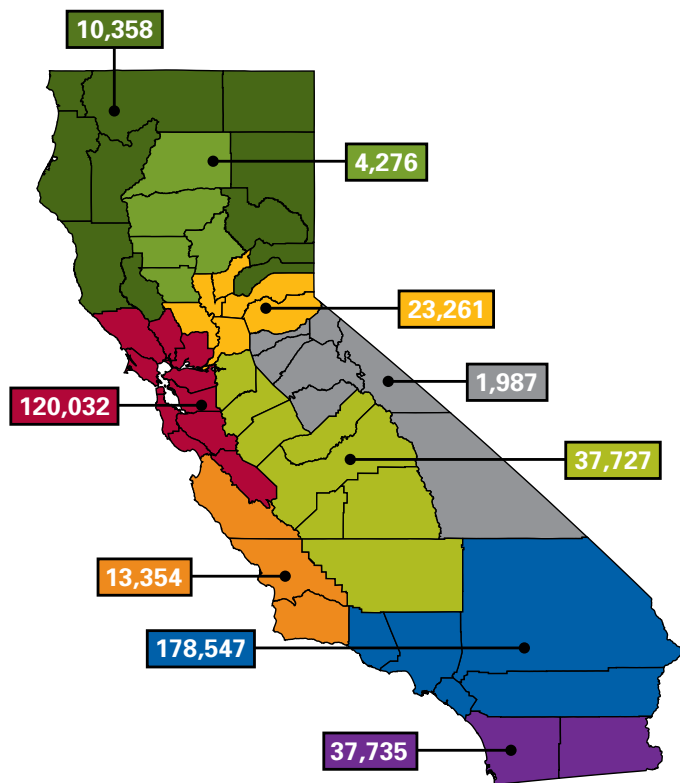
requirement that industrial facilities implement all cost-effective and feasible reduction measures identified in their audits.⁶ Revamping the Industrial Audit Measure will help ensure AB 32 achieves significant cost-effective greenhouse gas emission reductions in the industrial sector and advance ARB's efforts to improve air quality in communities already adversely impacted by air pollution.

BUILDING A CLEAN ENERGY ECONOMY

In designing the suite of measures that make up the Scoping Plan, state policymakers have built on California's track record of pioneering clean energy policies—including utility programs and minimum efficiency standards for buildings and appliances—that over the past 30 years have already generated \$56 billion in net economic benefits, yielding an employment dividend of 1.5 million jobs.⁷

In March 2010, ARB released a peer-reviewed economic analysis to confirm that AB 32 continues that historic legacy. The study found that implementing the Scoping Plan will have *no negative effect* on California's economy in 2020, and in fact will *save consumers money* by increasing energy efficiency throughout the economy. Nearly a 5 percent reduction in fuel expenditure was found when the Scoping Plan is implemented compared to the reference case.⁸ Individual Scoping Plan measures have also been designed to protect the competitiveness of California industries. For example, ARB has structured the cap and trade program to ensure in-state and out-of-state electricity generators and other industrial producers compete on a level playing field.

Figure 4: Regional Distribution of California's Green Jobs



AB 32 HAS MADE CALIFORNIA A GLOBAL LEADER IN CLEAN ENERGY

AB 32 has already provided a successful roadmap to jumpstart California's clean energy economy by sending a clear signal to the market that California has the policy infrastructure to support clean energy solutions. Since AB 32 was passed in 2006, the annual flow of clean technology venture capital into California has increased nearly tenfold, making the clean energy sector the fastest growing sector of California's economy, growing ten times faster than the statewide average. In 2011, California attracted \$3.5 billion in cleantech investment, making up almost 60 percent of total venture capital investment in the United States and 40 percent worldwide. With unprecedented investment dollars flowing in, there are more than 10,000 clean energy businesses and more than 400,000 related jobs distributed throughout the state (figure 4). These numbers continue to rise as California remains a leader in clean technology and investment.⁹

PROTECTING PUBLIC HEALTH

California is home to some of the worst air pollution in the nation. Air pollution in the form of nitrogen oxides (NO_x) and particulate matter from vehicles, power plants, and refineries contributes to thousands of premature deaths and hospitalizations each year.¹⁰ By reducing the state's global warming pollution and dependence on burning fossil fuels, AB 32 will provide substantial public health co-benefits, including a reduction of 15 tons per day of combustion-generated soot and more than 60 tons per day of NO_x (precursors to smog).¹¹ All told, more than 700 premature deaths, 12,000 incidences of asthma and other respiratory problems will be avoided through these reductions in toxic air pollution, and more than \$4 billion in health costs will be saved by 2020.¹²

Scoping Plan measures targeted at reducing our car dependence will also deliver a range of public health benefits by facilitating the expansion of alternative modes of transportation such as walking and biking.

Californians Overwhelming Support AB 32, State Action on Climate

In November 2010, California voters resoundingly defeated Proposition 23, an attempt to roll back the state's march towards clean energy by suspending AB 32 indefinitely. Californians were not fooled—in fact, more votes were cast “No on 23” than on any other candidate or issue on the November ballot. That strong message of support was reaffirmed in July 2011 when a statewide survey found that more than 75 percent of Californians support state action to combat climate change.

Source: PPIC Statewide Survey, July 2011.

CAP AND TRADE PROGRAM SMALL BUT CRITICAL PIECE OF AB 32 PACKAGE

In November, the state will hold the first planned quarterly auction to introduce a portion of permits (called emission “allowances”) into the market. Polluters will be required to obtain emission permits in 2013. Although the state’s cap and trade program will limit greenhouse gas emissions from California’s major emitters, ARB currently projects that this will account for less than one-fifth of the emissions reductions required to comply with AB 32.¹³ As part of the larger AB 32 package of policies, however, establishing a hard cap on emissions is critical for the following reasons:

- It places an absolute limit on greenhouse gas emissions from the state’s largest polluters.
- It enables enforcement against individual emitters.
- It sends a stable market signal to drive innovation and investment in low-carbon solutions.
- It serves as a backstop for all other intensity-based regulations in the Scoping Plan (i.e., in case the reductions from other measures do not fully materialize, the cap and trade program will pick up the slack).
- It provides a platform to link with other jurisdictions and build a broader market to reduce greenhouse gas emissions.

SECURING CALIFORNIA’S CLEAN ENERGY FUTURE

California policymakers have adopted all the major measures necessary to meet the state’s goal of returning to 1990 greenhouse gas levels by 2020. Yet opportunities remain to improve upon the current regulatory framework, including the following examples:

- Ensuring that ARB follows through on its commitment to revamp the Industrial Audit Measure will simultaneously reduce greenhouse gas emissions and air pollution in local communities, furthering a key objective of AB 32.
- Dedicating AB 32 revenues to invest in new and more effective clean energy strategies, paving the way for California to make good on its long-term climate objectives.
- Regularly improving California’s minimum energy efficiency standards for cars, improving minimum energy efficiency standards for cars, buildings and appliances, extending and integrating energy and water efficiency programs, and moving forward on a comprehensive strategy to achieve sustainable emission reductions from California’s forests.

AB 32 has put California in the vanguard of the global push for clean energy. To maintain the state’s competitive advantage and capture the clean energy industries and jobs of tomorrow, California must continue full and timely implementation of the Scoping Plan and achieve the goals set out under AB 32.

Endnotes

- 1 ARB, “California Greenhouse Gas Inventory for 2000-2008—by Category as Defined in the Scoping Plan,” (last updated May 12, 2010), http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-08_2010-05-12.pdf; ARB “California Greenhouse Gas Inventory for 1990,” http://www.arb.ca.gov/cc/inventory/pubs/reports/appendix_a2_inventory_ipcc_all_1990.pdf.
- 2 ARB, “Scoping Plan Measures Implementation Timeline,” (last updated October 28, 2010), http://www.arb.ca.gov/cc/scopingplan/sp_measures_implementation_timeline.pdf.
- 3 For example, in December 2011, the San Francisco Superior Court discharged a writ issued against ARB for failing to adequately consider alternatives to the Scoping Plan, finding that CARB’s improved alternatives analysis had complied with the terms of the court’s writ.
- 4 ARB, “Supplement to the AB 32 Scoping Plan Functional Equivalent Document,” http://www.arb.ca.gov/cc/scopingplan/document/Supplement_to_SP_FED.pdf.
- 5 See note 1, *supra*.
- 6 ARB, “Rulemaking to Consider the Adoption of Proposed Regulation for Energy Efficiency and Co-Benefits Assessment of Large Industrial Facilities,” <http://www.arb.ca.gov/regact/2010/energyeff10/energyeff10.htm>.
- 7 D. Roland-Holst, “Energy Efficiency, Innovation and Job Creation in California,” p. 3, October 2008, http://are.berkeley.edu/~dwrh/CERES_Web/Docs/UCB%20Energy%20Innovation%20and%20Job%20Creation%2010-20-08.pdf.
- 8 ARB, “Updated Economic Analysis of California’s Climate Change Scoping Plan: Staff Report to the Air Resources Board,” p.ES-1 March 2010, http://www.arb.ca.gov/cc/scopingplan/economics-sp/updated-analysis/updated_sp_analysis.pdf.
- 9 Next Ten, “California Green Innovation Index,” p. 15, 2012, http://next10.org/sites/next10.huang.radicaldesigns.org/files/2012_GII%20Report_mech_final.pdf; Employment Development Department – Labor Market Information Division, “California’s Green Economy,” p. 28, October 2010, http://www.labormarketinfo.edd.ca.gov/contentpub/GrSurveyRpt_1115.pdf; Next Ten, “Many Shades of Green: Diversity and Distribution of California’s Green Jobs,” p. 4, December 2009, http://www.next10.org/next10/pdf/Many_Shades_of_Green_1209.pdf. The Pew Charitable Trust, “The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America,” p. ES-8, June 2009, http://www.pewcenteronthestates.org/uploadedFiles/Clean_Economy_Report_Web.pdf.
- 10 According to the American Lung Association, more than 90 percent of Californians live in counties with substandard air quality, contributing to 19,000 premature deaths, 9,400 hospitalizations, and 300,000 cases of respiratory illness each year; “State of the Air 2010,” <http://www.lungusa.org/associations/states/california/assets/pdfs/sota/california-report.pdf>.
- 11 ARB, “Climate Change Scoping Plan: A Framework for Change,” p.ES-11-12, December 2008, http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.
- 12 *Ibid*.
- 13 ARB, “Status of Scoping Plan Recommended Measures,” http://www.arb.ca.gov/cc/scopingplan/status_of_scoping_plan_measures.pdf.