

## California's Pioneering Clean Energy & Climate Policies

*AB 32, SB 535, SB 350, SB 32, AB 197 and AB 1550 together are advancing a strong economy and healthy environment*

---

### Overview

Over the last 10 years, California has led the nation with its ground-breaking climate and clean energy laws. AB 32 (2006), passed with bipartisan support, sets a statewide limit on carbon pollution and directs the California Air Resources Board (CARB) to create a roadmap to roll back emissions to 1990 levels by 2020. SB 535 (2012) ensures that the communities that suffer the most from pollution and climate change are given the resources they need to address those impacts. SB 350 (2015) reinforces California's leadership on climate and clean energy by directing the state to generate half of its electricity from renewable sources and double the efficiency of all buildings by 2030.

*"AB 32, and now SB 32, have solidified CA's leadership position in the clean energy sector employing more than 500,000 Californians."*

**Mary Leslie**

Los Angeles Business Council

Building upon these successes, in 2016, SB 32 and AB 197 were enacted to advance the state's climate and clean energy goals well into the future. SB 32 extends AB 32 beyond 2020 and codifies Governor Brown's Executive Order B-30-15, requiring the state to reduce GHG emissions 40 percent below 1990 levels by 2030. AB 197 requires CARB to consider the social cost of GHG emissions and prioritize direct emission reductions, as well as imposes certain accountability provisions on the agency. AB 1550 directs additional cap and trade proceeds to disadvantaged and low-income communities.

These policies build a formidable framework for the state's clean energy and climate programs, serving as a proven and powerful engine of innovation in California. They already are delivering benefits:

- *Reducing air pollution and improving public health*
- *Creating new jobs*
- *Using more clean, renewable energy*
- *Reducing our dependence on oil*
- *Stabilizing energy costs for consumers*
- *Attracting clean-tech investment*

*"California can steer the world in ways that blunt the worst impacts of climate change."*

**Prof. Hilda Blanco**

University of  
Southern California

## Emissions are down, while California's GDP is up

The most recent data available shows that greenhouse gas emissions fell by 2.8 million metric tons in 2014 compared to 2013<sup>i</sup>, while California's economy grew by 2.8%, which was greater than the national average.<sup>ii</sup> Emissions have fallen by 9.4% since peak levels in 2004,<sup>iii</sup> while GDP generally has been on the rise, demonstrating that emissions reductions and economic growth can go hand-in-hand.

## Making cap and trade work for all of California - a global movement

Praised as the best-designed program of its kind in the world, the cap and trade system under AB 32 requires California's major producers of carbon pollution to steadily reduce emissions by acquiring a shrinking number of tradable permits (called "allowances") for every ton of carbon they emit. Billions of dollars are being generated by the sale of these permits and, under SB 535 and AB 1550, state policy directs a substantial share of the funds to those communities most impacted by climate change.

California joins 9 Northeastern states, the Canadian provinces of Québec and Ontario, the European Union, and 7 regions in China—the world's largest producer of greenhouse gases—among the major economies enforcing cap and trade programs to reduce carbon pollution. Ontario and Manitoba are expected to join Québec in the near future in linking with the California program and Oregon and Mexico also are working toward a similar market-based program.

## AB 32 auction proceeds fund California Climate Investments

- *Targets benefits to California's vulnerable and disadvantaged communities*
- *Helps fund the development of livable and transformative climate communities that serve California's changing demographics*
- *Promotes and protects environmental and public health*
- *Advances the state's clean energy economy and creates jobs*
- *Reduces the impacts of climate change*
- *Funds clean transportation alternatives, including transit and clean fuel vehicles*

### Climate Investments for CA

- Nearly \$3.4 billion appropriated since 2013
- FY 2016-17 = \$1.1 billion appropriated
- FY 2017-18 budget = \$2.2 billion proposed
- Min. 35% to disadvantaged and low-income communities

*"The same communities who so often bear the brunt of climate change are also historically on the losing end of policy decisions, but California is shattering this flawed model by fighting poverty and pollution at the same time."*

**Sekita Grant**  
The Greenlining Institute

Since 2014, more than 140,000 projects have been implemented statewide, with 175,000 clean light-duty vehicle rebates or vouchers redeemed since 2010.<sup>iv</sup>

The lifetime greenhouse gas emissions reductions expected as a result of these investments through 2016 is 15.2 million metric tons of carbon dioxide equivalent.<sup>v</sup>

## SB 535 and AB 1550 help communities most impacted by climate change and pollution

Disadvantaged and low-income communities are hit first and worst by climate change and air pollution. California's visionary SB 535 and AB 1550 ensure that these chronically underserved communities are prioritized when proceeds from the auctions are invested. Together, these laws require that at least 35 percent of California Climate Investments go to projects that benefit disadvantaged and low-income communities. The California Environmental Protection Agency developed a tool called CalEnviroScreen to identify communities most impacted by poverty and pollution, which is used to inform these investments. You can learn more about this tool by visiting <https://oehha.ca.gov/calenviroscreen>.

*"California's pioneering policies have added up to opportunity—opportunity that didn't happen by accident."*

**Mike Mielke**  
Silicon Valley Leadership Group

*"AB 32 is cutting pollution and cleaning up the air we breathe."*

**Dr. David Tom Cooke**  
American Lung Association  
in California

## California's Toolbox for Reducing Emissions

California's growing suite of climate and clean energy policies encompass a full set of strategies to transition California to a clean energy economy. In addition to AB 32 and SB 32, they include:

- *Requiring at least 50% of California's electricity to come from renewable sources, such as solar, wind and geothermal by 2030*
- *Mandating a 50% increase in energy efficiency in buildings by 2030*
- *Establishing a greenhouse gas reduction target of 40% below 1990 levels by 2030*
- *Reducing greenhouse gas emissions from new and used cars and trucks by improving vehicle technologies through better performance standards*
- *Requiring oil companies and other fuel providers to deliver an increasing share of low carbon transportation fuels*
- *Setting stricter emissions limits on power plants that deliver electricity to California*
- *Encouraging local governments to change land use and transportation planning to build more walkable, mixed-use communities and reduce dependence on driving*
- *Setting aggressive recycling goals for commercial buildings and apartment complexes*
- *Tackling methane, black carbon and other potent, short-lived climate pollutants*

## The AB 32 Scoping Plan will be updated this year

### Scoping Plan Key Sectors:

Low Carbon Energy; Industry; Transportation; Natural and Working Lands (including Agricultural); Waste Management; Water

Updated every five years, the AB 32 Scoping Plan outlines the state's strategies to achieve its greenhouse gas emissions reduction goals. Thanks to these strategies, California is on track to meet its 2020 goal of reducing emissions to 1990 levels. The 2017 Climate Change Scoping Plan Update will build upon the programs established to reach the 2020 goal and carry these programs through to 2030 and beyond to achieve a 40% reduction in greenhouse gases below 1990 levels by 2030.

## California's Approach to Transportation Pollution

Transportation is the largest source of carbon pollution in California. It accounts for nearly 40% of all greenhouse gas emissions.<sup>vi</sup> To cut transportation pollution, California is taking a three-pronged approach:

### 1. Clean Vehicles

California is bringing the most advanced clean vehicles to consumers, and its Advanced Clean Cars standards have been adopted at the federal level, improving fuel efficiency and saving American consumers money at the pump. Air quality in California continues to improve because of the program's strict smog standards. Policies that incentivize clean fuel infrastructure and clean vehicle purchases are structured to help those in disadvantaged communities move to cleaner vehicle choices.

### 2. Clean Fuels

The Low Carbon Fuel Standard (LCFS) sets pollution limits for transportation fuels in California, and is delivering cleaner fuels, insulation from gas price spikes, cuts in greenhouse gas emissions, and healthier air while our economy continues to grow. By spurring greater use of clean alternative fuels, the LCFS and the inclusion of transportation fuels in the AB 32 cap and trade program together will result in \$3.0-\$4.8 billion annually by 2030 in avoided damage costs attributable to reduced criteria air pollutant emissions and GHGs, and a decrease in petroleum consumption.<sup>vii</sup> Strengthening the LCFS to a 15-18% reduction in the carbon intensity of fuel, from its current 10% target, would reduce oil consumption by 18-26% by 2030.<sup>viii</sup>

*"California's policies advance the alternative fuels and clean vehicle markets giving consumers more low-carbon transportation choices and spurring innovation."*

**Eileen Tutt**

California Electric Transportation  
Coalition

### 3. Smart Cities

Under the Sustainable Communities Act (SB 375), local governments across California are required to make new blueprints for growth planning over the next two decades to reduce carbon pollution. These blueprints—called Sustainable Communities Strategies—will reduce traffic and pollution trends and improve public health as leaders plan for communities that are more walkable and interconnected with existing neighborhoods and commercial centers. By 2030, it is estimated that Californians will save 350 million hours from sitting in traffic, with a cumulative value of more than \$6 billion - or 20 hours and \$350 per worker per year.<sup>ix</sup>

*"I'm confident that the opportunities for me and my family will only grow as California continues to invest in clean energy."*

**Evangeline McDonald**

Navy veteran, IBEW 569 member, and  
Imperial County resident

## California climate policies are driving cleaner transportation options

AB 32 is lowering the cost of driving (30% by 2020)\* by delivering cleaner cars, a wider range of fuels, increased public transit, and more walkable, sustainable communities. In addition, investments of cap and trade auction proceeds are providing real benefits to Californians, with a focus on those living in disadvantaged communities.

By reducing our demand for oil and providing California drivers with more fuel choices, California's climate policies are delivering cleaner fuels, insulation from gas-price volatility, healthier air, and less pollution—while our economy continues to grow.

---

<sup>i</sup> "California Greenhouse Gas Emissions for 2000 to 2014 – Trends of Emissions and Other Indicators," California Air Resources Board, June 2016. [https://www.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2014/ghg\\_inventory\\_trends\\_00-14\\_20160617.pdf](https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf)

<sup>ii</sup> "2014 GDP Growth: California Outperforms Nation," California Legislative Analyst's Office, June 2015. <http://www.lao.ca.gov/LAOEconTax/Article/Detail/113>

<sup>iii</sup> California Air Resources Board, *supra* note 1.

<sup>iv</sup> "Low Carbon Transportation Investments and Air Quality Improvement Program presentation," California Air Resources Board, February 10, 2017. [https://www.arb.ca.gov/msprog/aqip/fundplan/fp\\_workshop\\_presentation\\_final\\_021017.pdf](https://www.arb.ca.gov/msprog/aqip/fundplan/fp_workshop_presentation_final_021017.pdf)

<sup>v</sup> "2017 Annual Report to the Legislature on California Climate Investments Using Cap-and-Trade Auction Proceeds," California Air Resources Board, March 2017.

[https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/cci\\_annual\\_report\\_2017.pdf](https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/cci_annual_report_2017.pdf)

<sup>vi</sup> "California Greenhouse Gas Emissions for 2000 to 2014 – Trends of Emissions and Other Indicators," California Air Resources Board, June 2016. [https://www.arb.ca.gov/cc/inventory/pubs/reports/2000\\_2014/ghg\\_inventory\\_trends\\_00-14\\_20160617.pdf](https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf)

<sup>vii</sup> "Consumer Impacts of California's Low-Carbon Transportation Policies," Consumers Union, March 2016.

<http://consumersunion.org/wp-content/uploads/2016/03/Consumer-Impacts-of-Low-Carbon-Transportation-Policies-Report.pdf>

<sup>viii</sup> "Post-2020 Carbon Constraints – Modeling LCFS and Cap-and-Trade," California Electric Transportation Coalition, February 2017. <http://www.caletc.com/wp-content/uploads/2016/08/Final-Report-Cap-and-Trade-LCFS.pdf>

<sup>ix</sup> Consumers Union, *supra* note 7.

<sup>x</sup> "New Analysis: California is Already Cutting Carbon Pollution and Reducing Vehicle Fuel Expenditures," NRDC blog, May 2014. <https://www.nrdc.org/experts/simon-mui/new-analysis-california-already-cutting-carbon-pollution-and-reducing-vehicle-fuel>