
TARGET 2030: TOP FOUR CLIMATE POLICY RECOMMENDATIONS FOR CALIFORNIA

BY CHRIS BUSCH, HAL HARVEY, SONIA AGGARWAL, ERIC GIMON, ROBBIE ORVIS, AND MICHAEL O'BOYLE
MARCH 2015

California is on track to go beyond its 2020 goal of lowering emissions to 1990 levels. This success is impressive, but the state's emissions must fall even faster after 2020 to achieve a trajectory consistent with its 2050 carbon goals. There is broad agreement that California needs a post-2020 policy framework, including interim policies that set midterm targets between 2020 and 2050.

In his January 5 inaugural address, Governor Brown announced three ambitious goals for 2030: 1) 50 percent of electricity sales from renewable electricity; 2) a 50 percent reduction in petroleum use by cars and trucks; and 3) doubling the rate of energy efficiency gains in existing buildings. Now it is up to policymakers to implement measures needed to achieve these goals and put statewide emissions on a trajectory to meet 2050 targets. What follows are Energy Innovation's top recommendations for extending the state's policy framework through 2030.

This list is meant to complement—not substitute for—the suite of well-conceived steps that the state has already announced and the existing policies that are already succeeding. One area that deserves continued emphasis is California's climate policy leadership beyond the state's borders. It is no exaggeration to say that California's climate leadership has inspired action by other governments and entities around the world. A priority should be achieving ever-greater harmonization and linkage—in electricity markets, electric vehicle policy, and carbon markets—with nearby states (including Mexican states and Canadian provinces).

To ensure a post-2020 pathway consistent with California's 2050 climate goal, the most important additional policy initiatives needed now are:

1. [CROSS-SECTOR \(DETAILED DISCUSSION PAPER AVAILABLE\)](#)

- Set a 2030 statewide carbon cap of 40 percent below the 1990 emissions level

- Chart a course for this target by continuing the approach of using the state’s broad cap-and-trade program as a backstop for sectoral policies and to introduce market flexibility and cost containment

2. ELECTRICITY SECTOR ([DETAILED DISCUSSION PAPER AVAILABLE](#))

Put the electricity sector on pace to meet 2050 carbon targets by increasing renewable energy deployment, adding operational flexibility to the system, and improving energy efficiency in existing buildings.

Electricity Supply:

Set a carbon target for the electricity sector and take advantage of low-carbon options for grid integration.

- Decarbonize electricity supply by introducing a carbon standard for the sector that is either intensity-based (e.g. 393 pounds of CO₂e per megawatt-hour), or mass-based (e.g. 48.9 million metric tons of CO₂e), to be achieved by 2030, including incentives and penalties tied to utility performance.
- Back this up with a statewide 50 percent renewable energy target that covers publicly-owned utilities to meet the governor’s target.
- Ensure cost-effective integration of variable renewable electricity sources by adding low-carbon flexibility to the system; for example, by creating a Westwide Energy Imbalance Market.

Electricity Demand:

Reform utility incentives and target energy use in existing buildings.

- Streamline utility incentives by replacing the current energy efficiency incentive program with a kilowatt-hour per capita standard
- Tie performance on this standard to penalties and incentives, targeting a 1.2 percent annual reduction in each utility’s per capita electricity sales, adjusted to reflect progress toward greater electrification of transportation and buildings.
- Consider a comparable standard for natural gas (therms per capita).
- Remove barriers to energy efficiency investments by allowing program administrators to count energy savings from bringing existing buildings up to code, instead of only counting savings from improving existing buildings beyond code.
- Voluntary approaches planned under AB 758, the Comprehensive Energy Efficiency Program for Existing Buildings, may not significantly increase the rate of existing building energy upgrades. Consider signaling now that if the rate of progress does not achieve a predetermined level, then mandated measures, such as required upgrades at time of sale, will come into force at a time certain in the future, such as 2025.

Initial analysis suggests these policies would reduce the electricity sector’s greenhouse gas emissions by more than 50 percent in 2030 compared to 2012 levels.

3. TRANSPORTATION SECTOR

Continue and expand on the use of policy tools that target each transportation-related driver of carbon emissions: fuels, vehicles, and motorized travel demand.

Fuels:

Extend Low Carbon Fuel Standard (LCFS) targets through 2030 to require continuous improvement in carbon intensity.

- Adopt the California Air Resources Board (CARB) staff proposals for cost containment at a trigger price of \$200/ton of CO₂e, but turn this into an opportunity to buy down the cost of future, deeper reductions.
- Allow for the purchase of LCFS credits at this trigger price and use this revenue as discussed below. If legal hurdles are deemed too larger for CARB to collect and reinvest fee revenue, then CARB should develop an alternative compliance option that allows regulated entities to receive LCFS credits in return for approved investments that reduce the carbon intensity of the fuel supply.

Vehicles:

Ensure the benefits of vehicle electrification are broadly shared, especially with disadvantaged communities.

- Extend and steadily increase the ambition of both the light-duty vehicle tailpipe standards and the Zero Emission Vehicle mandate through 2030.
- Introduce performance standards for heavy-duty vehicle tailpipe standards for 2018-2025.
- Provide durable regulatory incentives for utilities to facilitate the deployment of electric vehicle charging infrastructure to help achieve greater electrification of transportation.

Smart Growth:

Press forward with implementation of SB 375, the Sustainable Communities and Climate Protection Act, including setting ambitious new targets for 2035.

- Continue to align state policies—including the California Environmental Quality Act (CEQA) and General Plan Guidelines—with SB 375 to encourage infill development and multimodal transportation options.
- Use auction revenue to provide stronger incentives for local governments to approve infill development
- Encourage innovation in smart mobility strategies to provide new alternatives to single-passenger driving.

Investment:

For vehicles and fuels, use auction revenues to reduce the costs of a low-carbon future with consideration of co-benefits such as improved local air quality. Invest revenue in:

- Programs to reduce pollution in the most affected neighborhoods (e.g. Inland Empire and Central Valley).
- Incentives for low-carbon technology deployment for innovations that are ready for commercialization.
- R&D for zero- and low-carbon technologies, especially for transportation.

METHANE

Set the global benchmark in performance standards, monitoring, and enforcement for methane emissions.

- A recent study by the consulting firm ICF found great potential for cost-effective measures to stop methane leakage in oil and gas operations; standards should require these steps. New technologies, such as mobile air sampling devices, should be used to improve the accuracy of the state's methane inventory.