

JOINT LEGISLATIVE COMMITTEE ON CLIMATE CHANGE POLICIES
INFORMATIONAL AND OVERSIGHT HEARING
2030 TARGET SCOPING PLAN
June 14, 2017

AB 197 in the 2030 Target Scoping Plan

*This information was pulled from the current draft of the 2030 Target Scoping Plan, pages 3-4 and pages 57-59.
The full draft is available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf*

The companion bill to SB 32, AB 197, provides additional direction to CARB on the following areas related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016:

- It requires annual posting of GHG, criteria, and toxic air contaminant data throughout the State, organized by local and sub-county level for stationary sources and by at least a county level for mobile sources. Separate from the development of the Proposed Plan, CARB has begun the process to implement this provision of AB 197.
- When adopting rules and regulations to achieve emissions reductions to protect the State's most affected and disadvantaged communities, CARB shall consider the social costs of the emissions of GHGs, and prioritize both of the following:
 - Emission reduction rules and regulations that result in direct emission reductions at large stationary sources of GHG emissions and direct emission reductions from mobile sources.
 - Emission reduction rules and regulations that result in direct emission reductions from sources other than those listed above.

In the development of each scoping plan, AB 197 also directs CARB to identify for each emissions reduction measure, including each alternative compliance mechanism, a market-based compliance mechanism, and potential monetary and nonmonetary incentives the following information:

- The range of projected GHG emissions reductions that result from the measure.
- The range of projected air pollution reductions that result from the measure.
- The cost-effectiveness, including avoided social costs, of the measure.

Table III-1. Ranges of Estimated GHG and Air Pollution Reductions by Policy or Measure in 2030

<p>Important: These estimates assume a 1:1 relationship between changes in GHGs, criteria pollutants, and toxic air contaminant emissions, and it is unclear whether that is always the case. The values should not be considered estimates of absolute changes for other analytical purposes. The ranges are estimates that represent current assumptions of how programs may be implemented; actual impacts may vary depending on the design, implementation, and performance of the policies and measures. The table does not show interactions between measures, such as the relationship with increased transportation electrification and associated increase in energy demand for the electricity sector. The measures in bold are included in the Proposed Plan.</p>					
Measure	Range of GHG Reductions (MMTCO ₂ *)	Range of NOx Reductions (Tons/Day)	Range of VOC Reductions (Tons/Day)	Range of PM _{2.5} Reductions (Tons/Day)	Range of Diesel PM Reductions (Tons/Day)
50% Renewables Portfolio Standard (RPS)	13–15	1.9–2.4	0.2–0.3	1.4–1.7	< 0.01
Mobile Sources CTF and Freight	12–14	64	6.0	1.1	6.8
18% Carbon Intensity Reduction Target for LCFS - Liquid Biofuels	~4	4.0–4.9	0.6–0.7	0.5–0.6	—
20% Refinery Measure	2–5	0.4–0.5	0.5–0.6	< 0.1	< 0.01
Short-Lived Climate Pollutant Strategy	17–35 (CO ₂ e 100-yr GWP)	—	—	—	< 0.01
10% of residential and commercial electric space heating, water heating, A/C, and refrigeration are assumed to be flexible by 2018	~2	0.3–0.4	< 0.1	0.2–0.3	(< 0.01)
60% RPS and additional 10 GW behind-the-meter solar PV*	~14	1.0–1.3	0.1–0.2	**	—
25% Carbon Intensity Reduction Target for LCFS and a Low-Emission Standard - Liquid Biofuels*	~5	3.8–4.7	0.8–1.0	< 0.1	—
30% Refinery*	1–3	0.2–0.3	0.2–0.3	< 0.1	< 0.01
25% Industry	2–7	0.5–0.6	0.6–.7	< 0.1	< 0.01
25% Oil and Gas	1–3	0.1–0.2	0.2–0.3	< 0.1	< 0.01
5% Increased Utilization of renewable natural gas (RNG) (core and non-core)	~2	0.3–0.4	0.4–0.5	< 0.1	0
Mobile Source Strategy (CTF) with Increased ZEVs in South Coast and early retirement of light-duty vehicles (LDVs) with more efficient LDVs*	5–8	7	20	< 0.1	3.8
2x additional achievable energy efficiency in the 2015 Integrated Energy Policy Report (IEPR)	6-8	0.3–0.4	0.4–0.6	< 0.1	< 0.01
2.5x additional achievable energy efficiency in the 2015 IEPR, electrification of buildings (heat pumps and res. electric stoves) and early retirement of heating, ventilation and air conditioning (HVAC)*	6-9	1.9–2.4	0.2–0.3	1.4–1.7	< 0.01
Cap-and-Trade Program	45–100	A	A	A	1.4–3.3
Carbon Tax	45–100	B	B	B	1.4–3.3

* Where enhancements have been made to a measure or policy, the ranges in emissions reductions are incremental to the original measure. For example, the ranges for the 60% RPS are incremental to the emissions ranges for the 50% RPS.

**Some measures do not show a significant change in 2030 when there is an incremental increase in measure stringency or when modeling uncertainty was factored.

~ Some measures do not show a significant change in the single year 2030 reductions when there is an incremental increase in measure stringency or when uncertainty was factored.

— CARB is evaluating how to best estimate these values.

Criteria and toxic values are shown in tons per day, as they are episodic emissions events with residence times of a few hours to days, unlike GHGs, which have atmospheric residence times of many decades.

A. Due to the inherent flexibility of the Cap-and-Trade Regulation, as well as the overlay of other complementary GHG reduction measures, the mix of compliance strategies that individual facilities may use is not known. However, based on current law and policies that control industrial and electricity generating sources of air pollution, and expected compliance responses, CARB believes that emissions increases at the statewide, regional, or local level due to the regulation are not likely. A more stringent post-2020 cap-and-trade program will provide an incentive for covered facilities to decrease GHG emissions and any related emissions of criteria and toxic pollutants. Please see CARB's Co-Pollutant Emissions Assessment for a more detailed evaluation of a cap-and-trade program and associated air emissions impacts: <https://www.arb.ca.gov/regact/2010/capandtrade10/capv6appp.pdf>

B. A carbon tax has the same inherent flexibility of a cap-and-trade program, with the distinction that without a cap, a carbon tax option may not result in any emissions reductions for GHGs or other air emissions. If a carbon tax resulted in the same amount of GHG reductions as the cap-and-trade measure, we would expect similar types of compliance responses and similar impacts to criteria and toxics emissions.

NOx = nitrogen oxides; VOC = volatile organic compound