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Overview of California Climate Goals and Policies

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Presented to:
Joint Committee on Climate Change Policies
Hon. Eduardo Garcia, Chair

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State GHG Goals and Policies

☑ The Global Warming Solutions Act of 2006 (Chapter 488 [AB 32, Nunez/Pavley])

- Established the goal of reducing greenhouse gas (GHG) emissions statewide to 1990 levels by 2020.
- Directed the Air Resources Board (ARB) to adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions by 2020. Authorized ARB to adopt cap-and-trade regulation through 2020.

☑ State Established a Variety of Policies to Meet 2020 Target

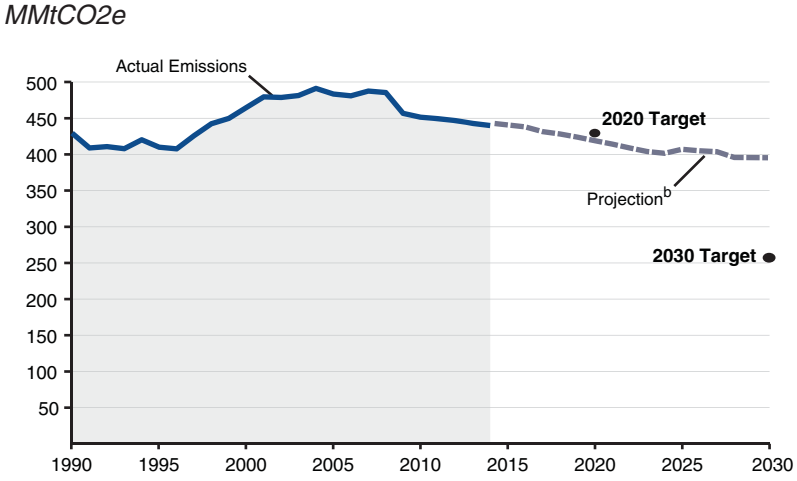
- Scoping Plan developed by ARB includes 33 percent renewable portfolio standard (RPS), low carbon fuel standard (LCFS), energy efficiency, and cap-and-trade.

☑ Recent Legislation Established 2030 GHG Target and Policy Direction

- Chapter 249 of 2016 (SB 32, Pavley) established GHG target of at least 40 percent below 1990 levels by 2030.
- Chapter 250 of 2016 (AB 197, E. Garcia) directs ARB to prioritize regulations that result in direct GHG emission reductions.
- Other legislation provides more specific direction regarding some of the policies that must be used to achieve 2030 target, including a 50 percent RPS, doubling energy efficiency, and activities to reduce short-lived climate pollutants.

New 2030 Goal Likely More Difficult to Achieve Than 2020 Goal

SB 32[a] Requires More Greenhouse Gas Reductions by 2030



[a] Chapter 249 of 2016 (SB 32, Pavley).
[b] Projection from Air Resources Board based on actions that have been taken to achieve the 2020 target.
MMtCO2e = million metric tons of carbon dioxide equivalent.

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Options for Achieving More Aggressive 2030 Target

January Scoping Plan Alternatives to Achieve 2030 Goal

	Options For Meeting 2030 Goals					
	Proposal: Cap-and-Trade + Others	Alternative 1: No Market-Based Mechanism	Alternative 2: Carbon Tax + Others	Alternative 3: Cap-and-Trade Only	Alternative 4: Cap-and-Tax + Others	Estimated Cost Per Ton
Policies Enacted by the Legislature						
50 percent RPS	✓	✓	✓	✓	✓	$100 to $300
Double energy efficiency	✓	✓	✓	✓	✓	-550 to -$300
Reduce SLCPs	✓	✓	✓	✓	✓	N/A
Demand response	✓	✓	✓	✓	✓	-200
Additional Scoping Plan Measures						
Market-based approaches						
Extend cap-and-trade	✓			✓		25 to 85
Carbon tax			✓			50
Complementary Policies						
Mobile Source Strategy and Sustainable Freight Initiative	✓	✓	✓	✓	✓	Less than 50
Reduce refinery emissions by 20 percent	✓	✓	✓		✓	70 to 200
Reduce refinery emissions by 30 percent		✓				70 to 200
Increase LCFS to 18 percent	✓	✓	✓		✓	250
Increase LCFS to 25 percent		✓				400
Increase RPS to 60 percent		✓				300 to 450
Reduce emissions from oil production by 25 percent		✓				70 to 200
Reduce other industrial emissions by 25 percent		✓				70 to 200
Increase renewable natural gas by 5 percent		✓				300 to 1500
ZEVs and vehicle retirement incentives[a]		✓				-150 to 200
Energy efficiency[b]		✓				100 to 200
Other						
Cap-and-tax					✓	N/A

[a] In addition to what is included in the Mobile Source Strategy and Sustainable Freight Initiative.

[b] In addition to doubling energy efficiency savings, as required by Chapter 547 of 2015 (SB 350, de León).

RPS = renewable portfolio standard; SLCPs = short-lived climate pollutants; N/A = not available; LCFS = low carbon fuel standard; and ZEVs = zero emission vehicles.

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Key Issues for Legislative Consideration

☑ **Ensuring Oversight and Evaluation of Major Climate Policies.**

- To date, there have been no robust evaluations of the overall statewide effects—including on GHG reductions, costs, and co-pollutants—of most of the state's major climate policies and spending programs that have been implemented.
- Legislature might want to consider creating an independent committee of outside experts, including academic researchers and economists, to help evaluate effects of California's climate policies.

☑ **GHG Reductions and Costs Needed to Meet 2030 Target Are Highly Uncertain.**

- How do different policy options balance and/or mitigate these uncertainties?

☑ **Criteria for Evaluating Policy Options.**

- Cost-effectiveness of reducing GHGs.
- Likelihood of encouraging GHG reductions in other jurisdictions.
- Effects on other pollutants, such as criteria and toxic pollutants.
- Distribution of costs and benefits across different regions, sectors of the economy, or households with different income levels.