
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2023 - 2024 Regular

Bill No: SB 12
Author: Stern, et al.
Version: 12/5/2022
Urgency: No
Consultant: Eric Walters

Hearing Date: 3/15/2023
Fiscal: Yes

SUBJECT: California Global Warming Solutions Act of 2006: emissions limit

This bill increases California’s greenhouse gas (GHG) emission reduction target from 40% below the 1990 level to 55% below that level.

ANALYSIS:

Existing law, under the California Global Warming Solutions Act of 2006 (Health and Safety Code (HSC) §38500 et seq.):

- 1) Requires the California Air Resources Board (CARB) to approve a statewide greenhouse gas (GHG) emissions limit equivalent to the statewide GHG emissions level in 1990 to be achieved by 2020 (AB 32, 2006) and to ensure that statewide GHGs are reduced to at least 40% below the 1990 level by 2030 (SB 32, 2016).
- 2) Requires CARB to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions and to update the scoping plan at least once every 5 years.
- 3) States, under the California Climate Crisis Act—AB 1279 (Muratsuchi, Chapter 337, Statutes of 2022), that it is the policy of the state to achieve net zero GHG emissions no later than 2045, and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced to at least 85% below the 1990 level.

This bill changes the SB 32 emission reduction target for 2030 from a 40% reduction below the 1990 level to a 55% reduction below that level.

Background

- 1) *California’s climate reality.* California is particularly susceptible to the harmful effects of climate change, including an increase in extreme heat events, drought, wildfire, sea level rise, and more. According to the Fourth California

Climate Change Assessment, by 2100, the average annual maximum daily temperature is projected to increase by 5.6-8.8 °F, water supply from snowpack is projected to decline by two-thirds, the average area burned in wildfires could increase by 77%, and 31-67% of Southern California beaches may completely erode without large-scale human intervention, all under business as usual and even moderate GHG reduction pathways.

The effects of climate change to date have been felt the world over, but the most dire consequences have often struck those least able to defend themselves. This is true both in California and worldwide. Should reaching net-zero GHG emissions be delayed and rapid warming allowed to continue, experts predict unprecedented numbers of deaths, ecosystem destruction, and human migration. In a 2019 report on climate change and poverty, the United Nations Human Rights Council states, “Addressing climate change will require a fundamental shift in the global economy, decoupling improvements in economic well-being from fossil fuel emissions.”

- 2) *Reducing emissions across the economy.* The AB 32 Climate Change Scoping Plan is an actionable blueprint for aligning action to achieve California’s ambitious climate goals. The state achieved its 2020 GHG emissions reductions target of returning to 1990 levels 4 years earlier than mandated by AB 32. By law, the next GHG emission reduction target is 40% below the 1990 level by 2030.

The pace of emission reductions needed to achieve the 2030 targets is much greater than what was needed for 2020. The 2021 California Green Innovation Index, published by the nonpartisan think tank Next 10, found that total GHG emissions dropped 1.6 percent between 2018 and 2019 but far short of what is needed to achieve the SB 32 goals. California must now sustain an annual decrease in emissions far greater than the previous average every year between now and 2030.

In short, California achieved its 2020 GHG emissions reduction goals early, but appears to not yet be on pace to achieve its current 2030 goal of a further 40% reduction, let alone an even more ambitious goal.

- 3) *Increasing ambition across the country.* Since 2016, when the Legislature set the SB 32 target of a 40% reduction from 1990 emissions by 2030, other states have followed and even surpassed California. According to the States Climate Action Map maintained by UC Berkeley’s California-China Climate Institute, 12 other states have emission reduction goals for 2030.

Specifically, California, (40%), Maine (45%), Massachusetts (50%), New York (40%), Rhode Island (45%), Vermont (40%) and Washington (45%) all have GHG emission reduction goals for 2030 emissions below a 1990 baseline. No state has a 2030 emission reduction goal higher than 50%, as this bill proposes.

- 4) *Raising the bar across the world.* California's climate goals have generally been in-line with the scientific consensus at the time, consistent with Intergovernmental Panel on Climate Change (IPCC) recommendations to prevent a 1.5 °C rise by 2050. No IPCC report has been issued since 2018 when the last target was set, however, the United Nations Environment Programme (UNEP) 2020 Emissions Gap Assessment indicates that current global GHG targets are insufficient to ensure a safe climate future.

The UNEP warns that, globally, emissions need to be cut by 7.6% every year until 2030 to meet the 1.5 °C target. Presently, California will need to cut emissions more than 4% per year to achieve its 2030 goal. Under the proposed 55% by 2030 goal, the state would need to cut emissions over 5.5% per year. The latest California GHG emission inventory data do not show reductions at near that rate, and thus they do not inspire confidence in reaching any of the above annual emission reduction rates without major changes.

- 5) *The 2022 Scoping Plan Update.* The Scoping Plan was initially required by AB 32 and is updated by CARB at least once every five years for the purpose of achieving California's climate goals with the maximum technologically feasible and cost-effective reductions in GHG emissions.

The 2022 Scoping Plan Update is primarily focused on achieving the newly statutorily required carbon neutrality by 2045 goal, although it does briefly address the 2030 SB 32 goal as well. The Update stated that in order to be on track for success in reaching net neutrality (and 85% reduction in emissions) by 2045, California should in fact strive for a 48% reduction by 2030, rather than the SB 32 target of 40% below 1990 levels. The Scoping Plan outlines a set of policy assumptions that, taken together, would reach that 48% reduction. These are boldly ambitious assumptions, and they will require massive action and likely significant policy changes to be achieved.

- 6) *Joint legislative oversight hearing of CARB of 3/1/23.* On March 1, 2023, this committee, along with the Joint Legislative Committee on Climate Change Policies (JLCCCP) and the Assembly Natural Resources Committee hosted the CARB Chair, Liane Randolph, in a hearing to assess the 2022 Scoping Plan Update.

Comments

- 1) *Purpose of Bill.* According to the author, “Last summer, Governor Newsom endorsed a package of climate related measures called the “Climate Pillars”, nearly all of them passed the Legislature and were signed into law. But among them was one pillar that didn’t get to his desk, AB 2133 by former Assemblymember Quirk, that would have raised the state’s greenhouse gas emissions reduction goal from 40% by 2030 to instead 55% by 2030, further proving California’s commitment, leadership and resolve in mitigating the worsening effects on our climate. Additionally, last fall, global leaders convened in Sharm El Sheik, Egypt, for the COP 27 climate conference to find new solutions and make renewed commitments in combating the global effects of climate change. I attended the conference, and the big take away was without accelerated and equitable climate policies to increase renewable energy, move away from fossil fuels and decarbonize our economies, global temperatures will certainly exceed 1.5 degrees Celsius as early as 2030. California can’t afford to simply adapt to a worsening climate, it must also lead with effective climate strategies. We are on target to exceed our own 40% emission reduction goal by 2030, a goal set 7 years ago, well before annual catastrophic wildfires became the norm, before 75% of the state was in severe drought and fire severity zones, before the terms atmospheric river and bomb cyclone entered our vocabulary. It is important that we revisit our climate goals, and aim higher. Increasing our greenhouse gas reduction target remains a very important pillar to challenge ourselves, and show the rest of the world that accelerated emissions reductions are achievable.”
- 2) *Is 55% the right number?* As discussed above, GHG emission reduction targets vary significantly between states and nations. While a 55% target would set California ahead once more as the state with the most ambitious goal, it is not entirely clear if that is the most appropriate target.

However, there is mounting evidence that existing climate goals worldwide are woefully inadequate to minimize global warming and the associated catastrophes. In a letter published in *Environmental Research Letters* in 2021, Daniel Kammen and seven other respected experts called for California to raise its climate ambitions. They implored,

“California’s once aggressive climate targets are no longer scientifically defensible. California is banking on outdated targets and policies in the face of an accelerating climate crisis, aspiring yet struggling to reach inadequate goals... it is time for California to establish a new set of targets backed by feasibility studies that take into account the declining cost for

clean energy technologies, a social cost of carbon, and the disproportionate health, housing, transportation, and other costs to frontline and other disadvantaged communities.”

The letter ultimately calls for California to move its carbon neutrality goal up fifteen years from 2045 to 2030. While this may seem eye-poppingly ambitious, this recommendation was made by a number of well-informed academics with a keen eye toward the current state of climate science, clean energy technology, and environmental policy.

From that perspective, perhaps even 55% below 1990 levels by 2030 is not nearly ambitious enough to stave off the worst, most devastating impacts of global climate change.

- 3) *Is now the right time?* Despite this bill being identical to AB 2133 (Quirk, 2022) as it was heard in this committee last August, the circumstances surrounding it are significantly different. Namely, the 2022 Scoping Plan Update was finalized and approved by the CARB board, and it planned for a 48% reduction in statewide GHGs by 2030.

CARB will not be required by existing law to update the Scoping Plan again until 2027. If SB 12 were signed into law, even if the target was updated as of January 1, 2024, it is unclear how much impact that number would have until the Scoping Plan was updated again. *Going forward, the author should assess how the requirements of this bill would interact with the existing Scoping Plan Update timeline and consider amending the bill accordingly, whether that be an explicit call to update the Plan before 2027, or other direction to CARB for conforming changes.*

- 4) *Is an emission reduction number the right focus?* The climate science could not be clearer: a massive, unprecedented decrease in GHG emissions from virtually all stationary and mobile sources is essential to stop global climate change. However, that is not the whole picture of what is needed to combat the injustices inherent in our present climate catastrophe. While carbon dioxide emissions may have minimal local health impacts, they are often accompanied by a bevy of other gases and particles that harm those breathing nearby. Thus, the approach this bill currently takes—namely, setting an ambitious GHG emission reduction target without accompanying guardrails to center environmental justice—runs the risk of encouraging the most cost-effective emissions reduction measures at the continued expense of vulnerable and historically pollution-burdened communities.

Going forward, the author may wish to consider what guardrails could be included in this measure to prioritize environmental justice in all actions taken to achieve the bill's goal. One potential idea to consider is the concept of no-trade zones (or facility-level emission limits) raised by the Environmental Justice Advisory Committee and recently uplifted by the Independent Emissions Market Advisory Committee's annual report. This could, in short, require regulated entities in specified communities to comply with cap-and-trade through direct emission reductions, rather than the purchase and use of flexible compliance instruments.

- 5) *Is a new statewide GHG target the right goal?* Ultimately, an ambitious target is only useful if it is able to drive action. The pace at which California has approached its existing 2030 goals gives some cause for concern.

Over the last decade, statewide GHGs have fallen at roughly 1% per year (with a few notable exceptions). To reach the current statutory 2030 goal, that number will need to be quadrupled. To reach the 2022 Scoping Plan Update's 48% reduction, it will need to be quintupled. By increasing ambition even further, to a 55% reduction by 2030, success would rely on an even greater still acceleration in emission reductions. A question arises as to whether it is more impactful at this time to litigate exactly which ambitious 2030 goal we are already hurtling towards, or to identify what hurdles impede progress towards even our current goals.

It is the understanding of committee staff that the author of this measure is engaged in discussions with stakeholders about the appropriate 2030 emissions reduction target for this bill. Regardless of whether that agreed-upon number ends up being the 40% in existing law, the 48% called for in the 2022 Scoping Plan Update, the 55% contemplated in this bill currently, or an even higher number entirely, committee staff maintains that achieving the goal is more important than setting the goal.

The author may wish to consider, going forward, whether to include any of the specific considerations raised in the March 1st oversight hearing in this measure. This could include, but need not be limited to:

- a) *Programmatic reform to the state's cap-and-trade program, such as those suggested by the past five annual reports of the Independent Emissions Market Advisory Committee;*
- b) *Pursuing the idea of an "Implementation Plan" to address the challenges and shortcomings identified in achieving the policy outcomes identified in the Scoping Plan Update; and*

- c) *Directing CARB to quantify the relative contributions of different policy approaches to achieving the state's emission reduction goals.*

Related/Prior Legislation

AB 2133 (Quirk, 2022) was identical to this bill and was introduced late in the 2022 legislative session in accordance with Governor Newsom's five climate pillars. AB 2133 died on concurrence on the Assembly floor.

SB 582 (Stern, 2021), in its earlier form heard in this committee, updated the statewide GHG emission reduction target to 80% by 2030, among other things. SB 582 died in the Senate due to bill limits enacted in 2021 during the COVID-19 pandemic.

SOURCE: Author

SUPPORT:

350 Bay Area Action
 350 Conejo / San Fernando Valley
 350 Humboldt
 350 Sacramento
 350 South Bay Los Angeles
 350 Southland Legislative Alliance
 350 Ventura County Climate Hub
 Breast Cancer Action
 California Climate Action
 California Climate Voters
 California Environmental Voters
 California Environmental Voters (formerly Clcv)
 California Interfaith Power and Light
 California Nurses for Environmental Health and Justice
 Center for Biological Diversity
 Center for Climate Change and Health
 Ceres
 Clean Coaliton
 Climate Action California
 Climate Action Campaign
 Climate First: Replacing Oil & Gas (CFROG)
 Climate Hawks Vote
 Climate Reality Project, San Fernando Valley
 Climate Resolve

Community Environmental Council
Elders Climate Action, Norcal and Socal Chapters
Endangered Habitats League
Environment California
Environmental Working Group
Fossil Free California
Glendale Environmental Coalition
Greenbelt Alliance
Hammond Climate Solutions
Human Impact Partners
Indivisible California Green Team
Indivisible Ventura
Joint Venture Silicon Valley
Let's Green Ca!
Physicians for Social Responsibility - San Francisco Bay Area Chapter
Socal 350 Climate Action
Sunflower Alliance
The Climate Center
The Nature Conservancy
Treepeople

OPPOSITION:

California Business Roundtable
California Chamber of Commerce
California Independent Petroleum Association (CIPA)
California Manufacturers & Technology Association
California Restaurant Association
California Trucking Association
El Dorado County Chamber of Commerce
El Dorado Hills Chamber of Commerce
Elk Grove Chamber of Commerce
Family Business Association of California
Folsom Chamber of Commerce
Lincoln Area Chamber of Commerce
Rancho Cordova Area Chamber of Commerce
Rocklin Area Chamber of Commerce
Roseville Chamber of Commerce
Shingle Springs/cameron Park Chamber of Commerce
State Building and Construction Trades Council of Ca
Western Growers Association
Western States Petroleum Association

Wine Institute
Yuba Sutter Chamber of Commerce

ARGUMENTS IN SUPPORT: According to a coalition of over fifty environmental groups in support, “Recently, in its Scoping Plan, CARB proposed that the state could exceed the ambition of its statutory target of 40% and achieve a 48% reduction in GHGs by 2030. Even with this increase, California is behind many of our closest allies. The European Union’s target for reducing emissions by 2030 is 62% below 2005 levels (EU emissions were slightly lower in 2005 than 1990 making this relatively comparable to California’s baseline of 1990). Denmark has set a more ambitious target of a 70% reduction while the United Kingdom aims for a 68% cut in emissions below 1990 levels by 2030.

“With California expending a projected \$48 billion over the next five years for climate change adaptation and mitigation measures, and \$374 billion being invested nationally by the federal government through the Inflation Reduction Act over the next decade, it is time for California to step up its leadership in this arena. SB 12 would set California on the path to do just that by establishing a statutory goal for the state to achieve a minimum of 55% emissions reduction by 2030, commensurate with new state funding and positioning the state to leverage significant new federal and private investments.”

ARGUMENTS IN OPPOSITION: According to a coalition of twenty chambers of commerce and other business groups in opposition, “This proposal undermines the existing public and transparent process that the California Air Resources Board (CARB) recently adopted, where hundreds of stakeholders engaged in a months-long inclusive Scoping Plan review. During that process stakeholders made clear that the transition to a clean energy future will require a deliberate and thoughtful approach to ensure that we are appropriately balancing affordability with reliability. Unfortunately, this proposal does not carry that degree of nuance, but rather sets an ambitious target on top of a target that the LAO suggests lacks a clear strategy to achieve our 2030 goals.

“Increasing the GHG 2030 emissions reduction target from 40% to 55% below the 1990 level, would require the state to remove an additional 17 million gasoline vehicles off the road by 2030, according to data developed by CARB. Additionally, CARB data shows that CARB’s initial modeling of scenarios in this range concluded them to be ‘economically and technically infeasible due to the current lack of low-carbon energy infrastructure, unavailability of technology, large job loss and high implementation costs.’”

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