
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2021 - 2022 Regular

Bill No: AB 2133
Author: Quirk
Version: 8/22/2022
Urgency: No
Consultant: Eric Walters

Hearing Date: 8/25/2022
Fiscal: Yes

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

DIGEST: 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) Establishes the State Air Resources Board (ARB) as the state agency responsible for monitoring and regulating sources emitting greenhouse gases.
- 2) Requires ARB to approve a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas 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).
- 3) Requires ARB to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions and to update the scoping plan at least once every 5 years.

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.

Climate change comes with a huge price tag for every government, and California is no exception. To give a sense of scale, California's 2018 wildfires (though only less than half the size of those in 2020) cost \$148.5 billion in damages. This amount is roughly half of California's entire 2022-2023 budget. There is a greater human cost to climate change as well. In addition to capital losses, increased cost of resources, and health costs, the impacts of climate change on mental health, food security, displacement and migration, and more are becoming a bigger part of the conversation but are still difficult to quantify.

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... An over-reliance on the private sector could lead to a climate apartheid scenario in which the wealthy pay to escape overheating, hunger, and conflict, while the rest of the world is left to suffer."

California has long prided itself on its climate leadership. Even when the national climate discourse was still litigating whether the climate was changing or not, California began setting aggressive targets and taking decisive action. In the preface to an August 1989 report from the Senate Office of Research titled *The Greenhouse Effect and Global Climate Change: Doing Something About the Weather* then-President pro Tempore of the Senate David Roberti wrote, "Although a global problem, California bears significant responsibility for the increasing greenhouse effect. With only about .6 percent of the world's population, we create about 1.5 percent of the world's carbon dioxide, the major greenhouse gas. As a responsible member of the world community, California must explore ways to reduce its contribution to the global climate change problem." While some of those numbers vary slightly today, the message still rings as true as it did then, 33 years ago.

- 2) *Governor Newsom's five climate pillars.* In the spirit of upholding California's climate leadership, Governor Newsom has taken steps in the last several weeks to push California further. In a July 22 letter to the chair of the Air Resources

Board, the Governor wrote, “The Legislature has been a leader in establishing California’s ambitious climate goals and is our indispensable partner in increasing the ambition of those goals and making them a reality in our state. I am committed to working with the Legislature in the coming weeks to make carbon neutrality state law and to increase our ambition towards our 2030 climate goals.”

Subsequently, the Governor’s Office provided five specific proposals to the Legislature on August 12th, of which this is one. In total, the package proposes to (1) accelerate our 2030 GHG emission reduction goal, (2) codify a 2045 carbon neutrality goal, (3) advance the state’s clean electricity targets, (4) establish a statewide carbon capture, utilization, and storage (CCUS) framework, and (5) establish protections with setbacks from fossil fuel wells.

Taken together, these bills would reassert California’s climate leadership. In the years since many of California’s climate goals have been established, other states and countries have met and surpassed our ambition. As more data is gathered and catastrophes are endured, the world has become more and more acutely aware of the need for drastic action, unprecedented in scale and necessity. While many cities, states, and countries have met the call, much more action is still needed.

All five of these bills bear similarity to legislative proposals from either past or present sessions, each of which substantially increases California’s ambition on addressing the causes of climate change. Thus, the committee will likely be familiar with the broader considerations surrounding these proposals, if not yet the specifics included here. While acting upon these proposals will require accelerated legislative action at the end of session, this may make sense given the pressing severity of the climate crisis.

- 3) *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. The state is currently implementing strategies in the 2017 Scoping Plan Update to further reduce its GHG emissions by 40% below 1990 levels 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—the second largest

percentage decrease since 2010—but far short of what is needed to achieve the SB 32 goals. California must now sustain a 4.3 percent annual decrease through 2030—a reduction that is more than 2.5 times greater than was achieved in 2019.

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.

- 4) *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. Many of those targets are based on other years’ emission levels, but some do also use the same 1990 baseline California, which makes comparison easier.

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.

- 5) *Raising the bar around the world.* California’s climate goals have generally been in-line with the scientific consensus at the time, including current targets to achieve a 40% GHG decrease by 2030 and carbon neutrality by 2045, which were 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 ensuring 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. At California’s current level of emissions, the state will need to cut emissions about 4% per year to achieve it’s 2030 goal. Under the proposed 55% by 2030 goal, the state would need to cut emissions over 5.5% per year. While ARB has not released official GHG emissions data that are suitable for use in policy making decisions in several years, the 1.6% drop reported between 2018 and 2019 does not inspire confidence in reaching any of the above annual emission reduction rates.

- 6) *The Scoping Plan and 2030.* Serving as an important roadmap towards the 2020 and 2030 goals, ARB's AB/SB 32 Scoping Plan is updated every five years. This document charted a path to the 2020 goals, and the first post-2020 Scoping Plan Update is currently nearing completion. This Update focuses primarily on achieving carbon neutrality by 2045, a goal established by Executive Order B-55-18, though it does briefly mention complying with SB 32 and achieving a 40% reduction by 2030 as well.

For the draft Scoping Plan Update, released in May of 2022, ARB modeled four scenarios of potential policy action and compared them to a reference scenario, which modeled emissions given no further policy changes and without the inclusion of cap-and-trade. The Proposed Scenario envisages California making ample use of engineered carbon removal (as well as nature-based carbon removal) alongside a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies to achieve net-zero emissions by 2045. All four scenarios contemplated achieved the SB 32 2030 emission reduction goals, and the reference scenario fell short.

Comments

- 1) *Purpose of Bill.* According to the author, "The passage of AB 32 (Pavley), the California Global Warming Solutions Act of 2006, marked a watershed moment in California's history. By requiring in law a sharp reduction of greenhouse gas (GHG) emissions, California set the stage for its transition to a sustainable, low-carbon future. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020 and to ensure that statewide greenhouse gas emissions are reduced to at least 40% below the 1990 level by no later than 2030. The United Nations Framework Convention on Climate Change (UNFCCC) emphasized that the global emissions need to be halved by 2030 to avoid the most catastrophic impacts of climate change. Following the guidance of the UNFCCC, this bill would require the California Air Resources Board (CARB) to ensure that statewide greenhouse gas emissions are reduced to at least 55% below the 1990 level by no later than 2030."
- 2) *So where do we stand?* As reported in the May 2022 draft of the Scoping Plan Update, the Proposed Scenario should achieve approximately 47% emission reductions from the 1990 level in 2030. This would be sufficient for achieving the SB 32 goal of a 40% reduction, but would be insufficient to reach the 55% reduction proposed in this bill.

While there is potential for this gap to be closed by cap-and-trade, it is undoubtedly true that the proposed scenario was initially developed and

modeled with a 40% by 2030 target in mind, not a 55% one. While it is presently unclear how much time and effort it would take to model one or more scenarios that achieve a 55% reduction, it seems likely to be a substantial undertaking.

- 3) *Measure twice, cut once.* The value of the Scoping Plan process cannot be understated. The policy, technology, and behavioral changes needed to stave off the worst effects of climate change are big and happen slowly. Thus, those decisions must be made well in advance, with the best possible forecasts and information available to policymakers. With the Scoping Plan being updated every five years, we will not get another chance to bring this robust process to bear until 2027, at which point it will be too late to make significant changes before 2030.

Currently, ARB is reviewing and editing the draft 2022 Scoping Plan based on extensive public feedback and stakeholder engagement. Per AB 32, the final Scoping Plan Update must be released by five years from the release of the previous update. Absent an urgency clause, this bill would come into force on January 1, 2023. This creates something of a conundrum.

Should ARB release the 2022 Scoping Plan Update on time without the 55% reduction target, perhaps only including it in the next Scoping Plan Update? Surely not, since, if passed and signed into law, the Governor and Legislature will have stated their clear intent to increase the ambition of the state's 2030 targets. We are already behind schedule to reach our current 2030 goals; postponing progress towards an even more stringent goal would be setting the state up for failure.

Should ARB quickly tweak and amend the proposed scenario in the Scoping Plan Update to increase the estimated 47% reductions by 2030 to the proposed 55%? Possibly, though this solution creates new problems. The Scoping Plan Update has gone through years of public participation and robust analysis, and while it may be technically possible to make the numbers work in the next four months, any proposed or amended scenario will be hard-pressed to receive a comparable level of scrutiny and review as we have come to expect from ARB's Scoping Plan Updates.

While it may be difficult for ARB to adjust the Scoping Plan in time given the scale of the change and the fact the Update is nearly complete, putting California on the right path to meet our goals as early as possible is of tantamount importance. Setting a target without also charting a well-reasoned, realistic, and thoughtful approach to reaching it makes it more likely for

California to fail at doing so. Increasing the ambition of the state's 2030 GHG emission reduction goals from 40% to 55% is significant; it would once more put California in the lead as the state with the most ambitious emission reduction goals. *Actually achieving* that goal will be considerably more difficult and immensely more impactful.

Related/Prior Legislation

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:

California Environmental Voters
CALPIRG
Environmental Defense Fund
Environment California
Sierra Club California
The Climate Center

OPPOSITION:

State Building Trades & Construction Council of California

ARGUMENTS IN SUPPORT: According to a coalition of six environmental groups, “The Intergovernmental Panel on Climate Change has found that the world could exceed the 1.5 degree Celsius threshold of dangerous warming as early as 2030, meaning that ambitious action in the current decade is imperative if California is to do its part to address global climate change.

Reducing greenhouse gas emissions now decreases the cumulative climate pollution in the atmosphere; reducing the build-up of greenhouse gases in the atmosphere is what matters for curbing the dangerous impacts of climate change. This is why near-term reductions are so essential.

“In addition to the climate imperative of near-term ambition, a 55% reduction goal is still achievable while also increasing our commitment to fighting climate

change. The draft Scoping Plan from the California Air Resources Board finds the state can achieve 46.7% reductions below 1990 levels by 2030. Coupled with the newly-adopted Inflation Reduction Act from the United States Congress, California could already be looking at 50% reductions below 1990 levels. Therefore, to maintain our role as a climate leader we as a state should continue to raise the bar on ambition to an achievable 55%.”

ARGUMENTS IN OPPOSITION: According to the State Building & Construction Trades Council, “While necessary and much needed to meet the climate crisis, our state’s existing 40% GHG reduction goals are already ambitious to the point where meeting them is proving unlikely, as has been pointed out repeatedly by the administration’s own agencies. Speeding up this process without having sufficient clean base-load power online will only exacerbate the weaknesses of our existing power grid, risking a Texas-sized disaster and, potentially, the lives of countless vulnerable Californians.

Just last year, at the Governor's request, the Building Trades brought five previously and prematurely decommissioned gas-fired power plants back online to ensure that vulnerable Californians could keep the lights on. Policies that serve to increase the burdens on our already struggling power grid without simultaneously creating new forms of production pose an enormous economic, workforce, and health and human safety risk to every family in California. Prematurely increasing goals will require equally premature reliance on electrification, pricing out working families who cannot afford a new sixty thousand- dollar EV or their electric bill, for that matter. California will be at the whim of other states to produce our power, including states that rely on production from fuels that California prohibits, like coal, and will hurt the tens of thousands of our members who go to work every day to generate and distribute the in-state power that keeps our state operational.”

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