



**JOINT LEGISLATIVE COMMITTEE ON CLIMATE CHANGE POLICIES AND
SENATE ENVIRONMENTAL QUALITY COMMITTEE AND
ASSEMBLY NATURAL RESOURCES COMMITTEE**

SENATORS STERN AND ALLEN
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CHAIRS

Wednesday, March 1, 2023
10 a.m. -- 1021 O Street Room 1100

JOINT OVERSIGHT HEARING

Assessing the 2022 Scoping Plan Update's Strategies and Our Progress Towards
Statewide Climate Goals: Does the Roadmap Get Us There?

BACKGROUND INFORMATION

1. ***Protecting our Progress.*** Seventeen years ago, when AB 32 (Nuñez) was passed and California was the world's eighth largest economy, our state committed—by law—to achieving 1990 greenhouse gas (GHG) emission levels by 2020. This was an unprecedented and vitally important feat in the face of global climate change. Even still, some of the hardest work began only after the bill was signed: implementing the law and charting a path to the goal.

Ultimately, California not only achieved the AB 32 goal, but did so four years ahead of schedule. We could not have done so without the hard work and tremendous expertise of the California Air Resources Board (CARB). The progress California has made towards its climate goals is commendable, but the ever-growing threat of global climate change means we cannot rest on our laurels.

This Legislature has continued to build upon the ambitious goalsetting of AB 32, notably with the passage of SB 32 (Pavley, 2016) and more recently AB 1279 (Muratsuchi, 2022). Setting targets of 40% below the 1990 level by 2030, and 85% below it by 2045 (with corresponding carbon removal to reach carbon neutrality), respectively, push the state even further, even faster. Today, California has grown to be the world's fourth largest economy, and we again have a daunting, uncertain path ahead of us to achieve our climate goals.

The purpose of this hearing is to ensure the progress we have made towards our climate goals is not squandered, even in a time of worsening climate impacts, dire financial outlooks, and competing visions of the future. California needs a clear roadmap to achieve its ambitious climate goals; does the 2022 Scoping Plan Update meet the moment?

2. ***Independent oversight.*** To empower CARB in its efforts to reduce statewide GHGs, the Legislature has granted broad authority to the Board under the AB 32 framework and carried that forward with SB 32 and AB 1279. These bills focus on targets and leave many implementation details to CARB. But the Legislature also made clear, by packaging AB 197 (E. Garcia, 2016) with SB 32, that greater authority would only be delegated if it came with expanded Legislative oversight and accountability. In recognition of the immense complexity of the work underway, the Legislature added two new legislatively appointed ex officio members to the CARB Board, and further strengthened its independent oversight of CARB's efforts to achieve the state's climate goals. Today's hearing brings together three entities who the Legislature has tasked with understanding and reporting on the highly complex work being done at CARB:

- **Joint Legislative Committee on Climate Change Policies (JLCCCP):** This joint committee was established by AB 197 (E. Garcia, 2016) to ascertain facts and make recommendations to the Legislature concerning the state's programs, policies, and investments related to climate change.
- **Legislative Analyst's Office (LAO):** Since 1941, the LAO has served as the "eyes and ears" for the Legislature to ensure that the executive branch is implementing legislative policy in a cost efficient and effective manner. AB 398 (E. Garcia, 2017) further required the LAO to annually report to the Legislature on the economic impacts and benefits of specified GHG emissions targets.
- **Independent Emissions Market Advisory Council (IEMAC):** Established by AB 398 (E. Garcia, 2017), the IEMAC analyzes the environmental and economic performance of the state's cap-and-trade program and other relevant climate policies, then reports its findings to CARB and the JLCCCP.

Put simply, the LAO and IEMAC were directed to let the JLCCCP and Legislature know if there was reason for concern, and since the Scoping Plan Update was released, they have both sounded alarms. This hearing is intended to heed those warnings.

The following sections of this background document will very briefly describe the nexus of the 2022 Scoping Plan Update and the Legislature, followed by some of the major issues raised by the above independent oversight entities. Released by the LAO at the beginning of January 2023, *Assessing California's Climate Policies: The 2022 Scoping Plan Update* evaluated the 2022 Scoping Plan Update and highlighted some inadequacies therein. The IEMAC's 2022 annual report has provided insights to CARB and the Legislature on the cap-and-trade program, representing the consensus view of the Committee's appointed expert members. The Scoping Plan Update and both reports are available online to be viewed in their entirety, where the matters touched upon here are discussed in much greater depth and detail.

3. ***The Legislature and the Scoping Plan.*** The Scoping Plan was initially required by AB 32 (Nuñez, 2006), and is updated by CARB at least once every five years to “ensure the greenhouse gas emissions reduction activities to be adopted and implemented by the state board are complementary, nonduplicative, and can be implemented in an efficient and cost-effective manner.”

CARB released its first Scoping Plan in 2008, and the most recent Scoping Plan Update was released in December of 2022. This latest document is the most comprehensive and far-reaching Scoping Plan developed to date.

As required under SB 32, California's GHG emissions must be at least 40% below their 1990 level by 2030. However, in the process of developing and modeling the latest Scoping Plan scenario, CARB determined that the most feasible path to carbon neutrality by 2045 meant achieving an even more ambitious 48% emission reduction in 2030. Thus, all assumptions and recommendations included in the Scoping Plan Update for 2030 are in furtherance of that 48% goal, rather than the statutorily required 40% one.

The Scoping Plan Update emphasizes strategies across nearly all levels of the state's government and economy. It discusses the role of local governments, academic institutions, the private sector, individuals, incentive programs, and environmental justice in achieving the state's goals.

But the new Scoping Plan is quite different from previous iterations. The current plan is somewhat vague as to how the mix of near term emissions reductions measures will collectively achieve economywide targets. In past Scoping Plans, CARB presented its strategy in more concrete, quantified terms, transparently indicating to the Legislature the balance of strategies chosen. The current plan has no such analysis.

Granularity about the specific legislation, regulation, and investment necessary to achieve the 48% below 1990 target by 2030 is generally lacking in the latest Scoping Plan. For example, while a jobs and economic impact analysis was conducted, the 2022 Scoping Plan did not account for the impacts of the Inflation Reduction Act, other federal investments, or the state's climate investment plan (recently proposed to be downsized by Governor Newsom).

Despite occasional references to the role the Legislature can play, there is not a more comprehensive or actionable message to the Legislature. While it would of course be inappropriate for CARB to presuppose what bills or budget items the Legislature should take up, there is still a distinct lack of clarity around what legislative and budgetary action is needed to achieve the Scoping Plan's goals.

Thus, the Legislature is left to connect the dots between more ambitious, but vaguely quantified, emissions reductions strategies, and the potentially transformative impact of public and private investment without the necessary data to do so.

Successfully decarbonizing the world's fourth largest economy will come with tremendous benefits to public health, environmental justice, and the state's climate leadership on the world stage. However, these benefits will not come without substantial costs. Given the state's current budgetary environment, the Legislature is taking a particularly close look at the costs of certain state programs and attempting to make some difficult decisions about where cuts may be necessary. In this and future years, the Legislature will make decisions about the budget that may affect the implementation of the Scoping Plan; how can legislators use the information in the Scoping Plan to ensure the state is relying on the most essential and effective climate-related programs to meet its goal?

Turning the big ideas and ambitious assumptions contained in the Scoping Plan into action will require unprecedented effort. As Chapter 5 ("Challenge Accepted") of the Scoping Plan states:

*"Ultimately, the success of this Scoping Plan will be measured by our ability to implement the actions modeled in the Scoping Plan Scenario at all levels of government and society. This will depend on a mix of **legislative action**, regulatory program development, incentives, institutional support, workforce and business development, education and outreach, community engagement, and research and development and deployment."* – pg. 265 (emphasis added)

This is a laudable sentiment, but does suggest a dependency on further legislative action that is not clearly articulated in the Scoping Plan Update.

The members of the Committees may wish to consider requesting CARB to provide a legislative addendum to its Scoping Plan to provide additional information that quantifies the level of investment and identifies the specific regulations that will be necessary to achieve the enhanced 2030 target.

Moreover, the JLCCCP may wish to consider commissioning further independent expert analysis, in accordance with AB 197's authorization of a technical advisory panel to the Joint Committee, providing answers to some of the missing pieces in the Scoping Plan, especially with respect to pre-2030 action.

4. **2030 is just around the corner.** The end of this decade represents two important milestones for the state's climate goals and policies: the statutory obligation under SB 32 to achieve a 40% reduction of GHG emissions below 1990 levels, and the end of cap-and-trade's current explicit authorization. As we begin the 2023-2024 legislative session, it is vital that the Legislature and CARB engage in thoughtful and honest dialogue about the magnitude of the changes that must come in the next seven years. To quote the Scoping Plan (pg. 24), "Modeling for this Scoping Plan shows that this decade must be one of transformation on a scale never seen before to set us up for success in 2045."

Achieving the unprecedented emissions reductions called for in the Scoping Plan Update will require similarly unprecedented action. Over the last decade, California on average has reduced emissions by about 1% annually, with few exceptions (such as the Great Recession and COVID-19-related

shutdowns). To meet the 48% Scoping Plan Update goal, California will need to average a 5% reduction every year between now and 2030. **How do we quintuple our average rate of GHG emissions reductions, starting this year?**

The extremely ambitious assumptions included in the Scoping Plan Scenario lack clear policy strategies for how to achieve them. Without understanding the role the Legislature may need to play in advancing those changes, we urgently risk running out of time to enact necessary changes before 2030. For each year we fall short of the emissions reductions needed, even greater changes at the end of the decade will be necessary. To be blunt, we are running out of road to kick the can down.

5. ***Cap-and-trade this decade.*** Despite the fact that cap-and-trade covers roughly three-quarters of the state's emissions and the looming uncertainty around the program after 2030, the 2022 Scoping Plan Update dedicated only six pages to discussion of cap-and-trade, and made no mention of the program's authority potentially expiring. The 2022 Scoping Plan Update largely deferred discussions of cap-and-trade's programmatic design and role in achieving the state's climate goals until the end of 2023 at the earliest, rather than addressing them as part of the broader Scoping Plan Update.

Punting discussion of cap-and-trade reform and reauthorization to 2024 complicates matters in California and beyond. Washington's cap-and-invest program under their Climate Commitment Act came into force this year, and in fact is expected to carry out their first auction of allowances the day before this hearing - February 28th. Notably, Washington is expecting to make a decision whether or not to link its carbon market to ours in the summer of this year. There is no time to dawdle. As we contemplate the future of our cap-and-trade program, California should be sensitive to any interactions between these markets, and we should also look for opportunities to learn from our partners.

Despite the scant discussion of cap-and-trade in the Scoping Plan Update, both the LAO and IEMAC reports speak at length about the current state of California's cap-and-trade program and the consequences of its potential 2030 expiration. These reports are further detailed below.

The LAO highlighted several concerns about the stringency of cap-and-trade, but it also emphasized that making changes could affect state revenues from the Greenhouse Gas Reduction Fund. Ultimately, the LAO recommended that conversations about programmatic reform go hand-in-hand with any discussion of post-2030 reauthorization of cap-and-trade. The time until 2030 is already so short—and the number of banked allowances already so great—that even the best-intentioned and best-designed changes to the program may simply need a longer runway than 2030 allows.

Fortunately, the IEMAC report this year, as in previous years, has a number of recommendations for reform to the state's cap-and-trade program. These changes could help address some of the important concerns raised about the validity of certain compliance mechanisms, the unclear impacts of cap-and-trade on environmental justice communities, and the predictability of future auction revenues. These recommendations need not be the definitive suite of changes considered, but they should at least be part of an open dialogue between the Legislature, CARB, and stakeholders.

Ultimately, cap-and-trade is one piece of the much larger constellation of policies being used to reach California's emission reduction goals. Even though the 2022 Scoping Plan Update does not provide much insight into the role of cap-and-trade in achieving our goals in 2030 and beyond, the urgency of

the matter forces the issue. Luckily, the Legislature can and should lean on the independent oversight it has commissioned to help it understand this important issue. In this hearing, and in the coming months and years, the Legislature should think hard about cap-and-trade; if we do reauthorize the program post-2030, what reforms should also be included to align our actions with our values?

6. ***IEMAC: “The role of the carbon market remains uncertain and in need of additional policy direction.”*** This year, the Committee’s fifth annual report consists of four chapters and an appendix. The IEMAC report is a fairly technical document, so the highlights provided here are particularly abridged. Some members of the IEMAC are available at the hearing today to address more specific questions committee members may have.

In short, the 2022 IEMAC report discusses potential changes to the design of California’s cap-and-trade program, important context outside of the program that could affect the stringency of the carbon market, and the complex legal matter of cap-and-trade after 2030 in the state. Some of the proposed reforms to cap-and-trade build upon several years of consistent discussion and analysis from the Committee. Some of the ideas, like no-trade zones and facility-level emission limits, are new to the IEMAC reports, and stem from close collaboration with CARB’s Environmental Justice Advisory Committee (EJAC).

The modeling that goes into appropriately setting cap-and-trade’s “firm and declining cap” is based on the best available information at the time, but it is all dependent on assumptions about the future. The IEMAC report helpfully points out some places where assumptions and methodologies have become outdated, but they are not yet fully acknowledged throughout CARB’s models. Raising these issues at a time when reforms to cap-and-trade may soon be considered should help ensure CARB continues to use the best available data and science across all aspects of the program.

Finally, the IEMAC report importantly discusses the complex interplay of implicit and explicit statutory authorities to carry out the state’s cap-and-trade program. While the IEMAC does not express a view about the correct legal interpretation, it urges CARB and the Legislature to take appropriate steps to clarify cap-and-trade’s post-2030 future.

7. ***LAO: “Plan lacks a clear strategy for meeting 2030 GHG goals.”*** The issues raised by the LAO in its report *Assessing California’s Climate Policies: The 2022 Scoping Plan Update* include (1) that the Scoping Plan Update lacks a clear strategy for meeting the 2030 GHG goal, (2) that the state’s cap-and-trade program is not currently positioned to close the emission gap in 2030, and (3) recommending the Legislature require CARB to clarify the 2030 plan and consider cap-and-trade’s role.

The Scoping Plan Scenario developed by CARB outlines a set of policy assumptions that, taken together, would in fact achieve that 48% reduction. By 2030, these assumptions include many drastic changes including, but not limited to, a 25% reduction in statewide vehicle miles traveled (VMT); 380 additional dairy digesters; 80% sales of electric water heaters and heating, ventilation, and air conditioning (HVAC) units; and carbon capture and storage (CCS) on the majority of refineries. Each of these outcomes represents a significant departure from the status quo, and yet the LAO asserts that the Scoping Plan does not specify how those ambitious assumptions might be achieved. The plan fails to specify the mix of regulations and investments that will be necessary to achieve the stated emissions

reductions. Given the short time until 2030 and the magnitude of the changes needed, a more detailed and operational strategy to realize those policies is essential.

Turning to cap-and-trade, the LAO found that the program is not currently positioned to make up for any significant shortfall in emissions reductions from other programs. In California's complex climate policy landscape, cap-and-trade has historically played a role as a "backstop" to ensure emission reduction targets would be met, even as other more targeted policies reduce emissions to varying degrees. However, the LAO raises concerns that given a number of factors (the number of banked allowances in circulation, the increasing ambition of the 48% 2030 target, and greater-than-predicted emissions reductions across covered sectors, to name a few), the program is not sufficiently stringent to drive real emissions reductions. This raises important questions about the role cap-and-trade is expected to play in reaching the state's climate goals. Unfortunately, the 2022 Scoping Plan Update did not specify that role, instead opting to provide a "status update" to the Legislature by the end of 2023. (2022 Scoping Plan Update, Pg. 113-114)

In light of the shortcomings identified above, the LAO ultimately makes several recommendations to the Legislature:

1. **Direct CARB to submit a report to the Legislature**, by July 31 of this year, to clarify its plan for reducing GHG emissions to meet the statutory 2030 GHG goal, including but not limited to:
 - i. Identifying new or expanded policies that would be used to meet the 40% and 48% 2030 GHG reduction goals;
 - ii. Explaining the role CARB expects cap-and-trade to play; and
 - iii. Describing details around the estimated emissions reductions, air pollution reductions, distributional impacts, and cost-effectiveness of the above-identified new or expanded policies.

2. **Consider changes to the cap-and-trade program** to address concerns about program stringency, including but not limited to:
 - i. Reducing the supply of allowances issued in future years;
 - ii. Limiting the use of offsets; and
 - iii. Extending the program beyond 2030.

3. **Hold hearings in 2023 to have CARB report on the changes it is considering to cap-and-trade**, given the wide variety of potential modifications and the trade-offs associated with each approach.

Throughout this hearing and beyond, committee members may wish to consider to what extent they would like to pursue these recommendations from the LAO, as well as those separate recommendations outlined above regarding further clarity around the Legislature's role in achieving the Scoping Plan's goals.