

JOINT LEGISLATIVE COMMITTEE ON CLIMATE CHANGE POLICIES

ASSEMBLYMEMBER EDUARDO GARCIA, CHAIR

ASSEMBLY COMMITTEE ON NATURAL RESOURCES

ASSEMBLYMEMBER CRISTINA GARCIA, CHAIR

OVERSIGHT HEARING:

2030 TARGET SCOPING PLAN

JANUARY 4, 2018

1:00PM

STATE CAPITOL ROOM 126

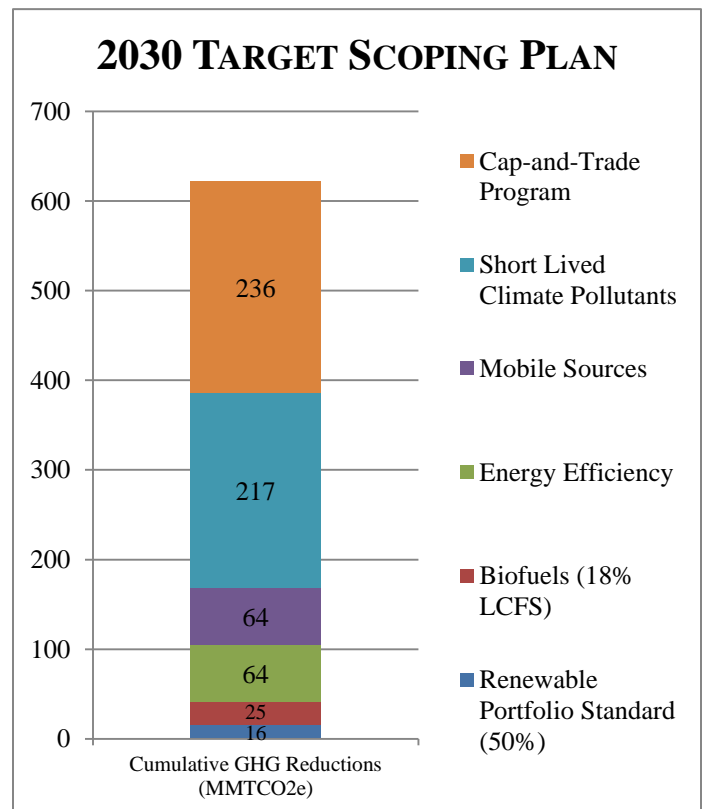
BACKGROUND ON THE SCOPING PLAN

The Global Warming Solutions Act of 2006 (AB 32, Núñez/Pavley) requires the State Air Resources Board (ARB) to prepare and approve a Scoping Plan at least once every five years. The first Scoping Plan was approved by ARB in 2008, with an update approved in 2014. ARB began development of the 2030 Target Scoping Plan in October 2015 in response to Executive Order B-30-15 to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030. SB 32 (Chapter 249, Statutes of 2016) codified that 2030 target.

ARB's Scoping Plans identify how ARB intends to achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas (GHG) emissions from sources or categories of sources of GHG emissions in line with the State's statutory climate goals. Each Scoping Plan identifies and makes recommendations on direct emissions reduction measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and nonmonetary incentives for sources and categories of sources that are necessary or desirable to meet the State's climate goals. ARB must also identify opportunities for emissions reductions measures from all verifiable and enforceable voluntary actions.

In developing a Scoping Plan, statutes require ARB to evaluate all relevant information as well as the potential costs and potential economic and noneconomic benefits of the Scoping Plan to California's economy, environment, and public health using the best available economic models, emission estimation techniques, and other scientific methods. The Scoping Plan must take into account the relative contribution of each source or category of sources of statewide GHG emissions.

ARB is required to hold a series of public workshops,



including some in regions of the state that have the most significant exposure to air pollution. ARB is also required to convene an Environmental Justice Advisory Committee (EJAC) to advise it in developing the Scoping Plan and any other pertinent matters in implementing AB 32.

AB 197 (Chapter 250, Statutes of 2016) requires ARB to consider the social cost of GHG emissions when adopting rules and regulations. ARB must also prioritize both direct emissions reductions at large stationary sources of GHG emissions and direct emission reductions from mobile sources, as well as direct emissions reductions from other sources.

AB 398 (Chapter 135, Statutes of 2017) requires ARB to make several changes to the Cap-and-Trade Program after 2021. This bill also requires the California Environmental Protection Agency to convene an Independent Emissions Market Advisory Committee, and requires ARB to convene a Compliance Offset Protocol Taskforce. AB 398 directs ARB to finalize the 2030 Target Scoping Plan by January 1, 2018.

The 2030 Target Scoping Plan was adopted by ARB on December 14, 2017. ARB conducted 3 hearings and worked with other state agencies to host over 15 public workshops. The EJAC held 20 public meetings and an additional 19 public workshops on the draft Scoping Plan. Key strategies within the adopted Scoping Plan:

1. Implementation of SB 350:
 - Achieving 50 percent Renewables Portfolio Standard
 - Doubling of energy efficiency savings
2. Increasing the stringency of the Low Carbon Fuel Standard from 10 to 18 percent
3. Implementation of the Mobile Sources Strategy:
 - Continuing ramp up of GHG standards for light-, medium- and heavy-duty vehicles
 - Putting 4.2 million zero-emission vehicles (ZEVs) on the road
 - Increasing zero-emission buses, delivery and other trucks
 - Reducing vehicle miles traveled
4. Implementation of the Sustainable Freight Strategy
5. Implementation of the Short-Lived Climate Pollutant Reduction Strategy:
 - Reduce emissions of methane and hydrofluorocarbons 40 percent below 2013 levels
 - Reduce emissions of black carbon 50 percent below 2013 levels
6. Implementation of a post-2020 Cap-and-Trade Program

The resolution that ARB adopted on December 14, 2017 outlined several tasks not included in the final scenario that ARB staff would complete as they implement the final Scoping Plan:

- Work with metropolitan planning organizations to update the proposed SB 375 targets for 2035 to enable the state to meet the 2030 emissions target, and to work with state agencies to explore other methods for reducing vehicle miles traveled and promoting sustainable communities
- Adopt a goal of sequestering or avoiding 15-20 MMTCO₂e for natural and working lands by 2030, and to work with other state agencies and stakeholders to conduct an emissions and carbon sequestration inventory and develop related strategies
- Work with state agencies to establish a timeline and action plan to better integrate a health analysis into the design and implementation of the State's climate change programs with the goal of maximizing health benefits
- Continue and expand research and development efforts to identify, evaluate, and help deploy technologies and techniques to further reduce GHG emissions in all sectors, which also provide air quality co-benefits, and to update the Board by December 31, 2018 and annually thereafter
- Work with the Office of Environmental Health Hazard Assessment (OEHHA) on their reports on the benefits and impacts of GHG emissions limits in disadvantaged communities

- Work with stakeholders to develop additional reports on the emissions inventory mapping tool to allow for evaluation at the census tract level, and to include transportation sector emissions in that tool

Stakeholders engaged in the Scoping Plan process presented several concerns and critiques regarding the final Scoping Plan during the December 14, 2017 hearing:

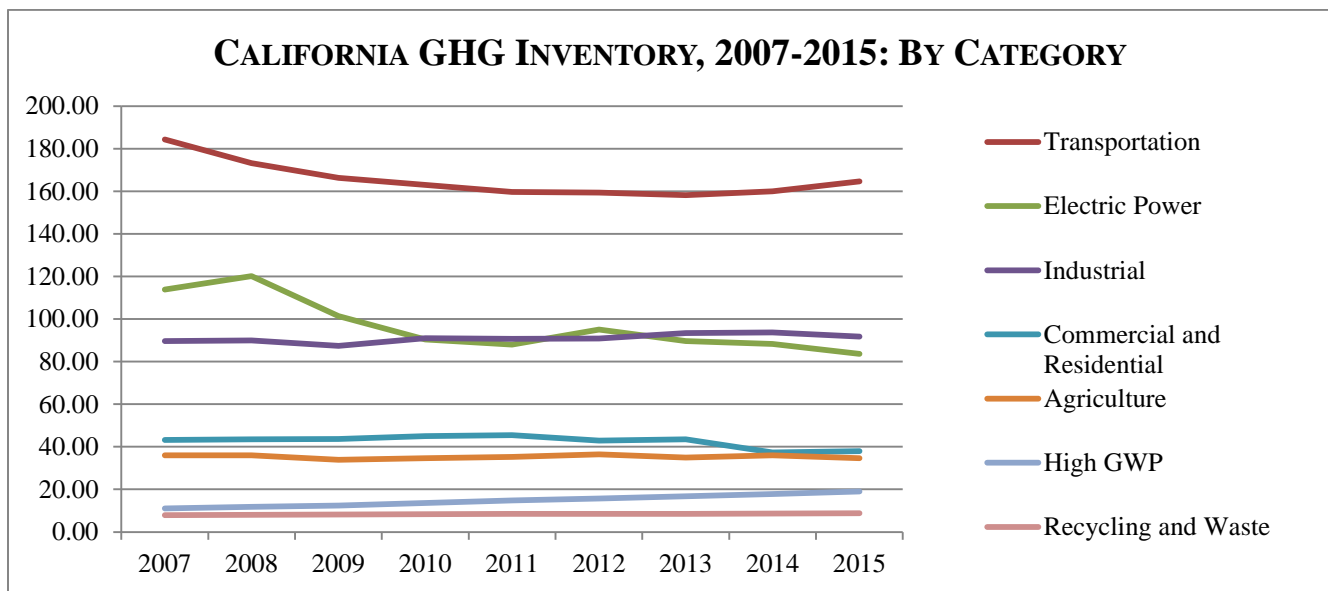
- Inaccurate Definition of “Direct Emissions Reduction Measure”: on page 34 of the adopted Scoping Plan, Cap-and-Trade is listed as a direct emissions reduction measure. California Health and Safety Code Sections 38505 and 38562 are clear that the Cap-and-Trade program, with its inherent compliance flexibility, was not to be considered a direct emissions reduction measure – it is a “market-based compliance mechanism”. When asked about this discrepancy, ARB contended that the hard cap in the Cap-and-Trade program functioned in a way that would promote reductions at the source, which in their opinion qualified it as a direct emissions reduction measure. However, the Cap-and-Trade program will not feature a hard cap after 2020; beginning in 2021, AB 398 requires ARB to adopt a price ceiling at which point unlimited allowances would be sold, allowing entities to potentially emit more than the nominal program cap.
- Inadequate Analysis of Additional Direct Measures: stakeholders asserted that ARB did not do a sufficient analysis on potential additional direct emissions reduction measures that would have been included in the final Scoping Plan, per the mandate of AB 197. Charts in the appendices of the final adopted Scoping Plan included several direct emissions measures that were analyzed and eventually excluded from the final plan with no robust explanation for that decision from ARB. Some examples of potential measures considered but not included in the final Scoping Plan (as listed in Appendix G):
 - Additional Industry or Oil and Gas Sector GHG Reduction Targets
 - Additional deployment of ZEVs
 - Increasing vehicle miles traveled reduction targets
 - Increasing electrification in the residential sector and general energy efficiency measures
 - Additional reductions from the waste sector
- Increased Reliance on Cap-and-Trade: in the first Scoping Plan adopted in 2008 Cap-and-Trade reductions accounted for less than 20% or 34.4 MMTCO₂e of the state’s annual reductions to get to the 2020 target. In 2014 that percentage increased to just under 30% or 23 MMTCO₂e. The final Scoping Plan relies on Cap-and-Trade to drive 46.5% or 60 MMTCO₂e of the annual reductions needed to reach the 2030 target. This projection, and ARB’s uncertainty analysis on page 28 and 29 of the final Scoping Plan, drew serious criticism from stakeholders. Although ARB identified a large role for Cap-and-Trade, ARB did not analyze the necessary market conditions or likely market price requirements that are consistent with this increased role. Furthermore, ARB did not account for projected allowance oversupply in 2020. Independent analysts have expressed concern about whether the current program design, which currently does not address oversupply, will be strong enough to drive emissions down to SB 32’s 2030 target.^{1,2}
- Inadequate Monitoring of Localized Impacts: ARB removed the Adaptive Management Plan from the final Scoping Plan and did not replace it with any equivalent strategy that would task ARB with proactively tracking and analyzing overall emission trends and potential localized impacts of Scoping Plan implementation. ARB staff argues that implementation of AB 617 (Chapter 136, Statutes of 2017) would fulfill their obligation to monitor and address any localized air quality impacts from their

¹ Chris Busch. “Oversupply Grows in the Western Climate Initiative Carbon Market: An adjustment for oversupply is needed to ensure the program will achieve its 2030 target.” December 2017.

² Legislative Analyst’s Office. “Cap-and-Trade Extension: Issues for Legislative Oversight.” December 2017.

programs, but stakeholders argued that AB 617 implementation would not be sufficient to fulfill ARB’s statutory requirement to monitor implementation of their programs. ARB staff pointed out that the availability of data regarding emissions trends at various sources was still an issue preventing them from conducting a robust and enforceable analysis, however staff presented no strategy or plan to address those data issues. In addition to arguing that ARB’s responsibility regarding localized impacts is solely related to criteria and toxic emissions – an assertion that does not align with current law that requires similar analysis for GHG emissions – ARB staff also rebuts arguments about a potential correlation between GHG emissions and emissions of criteria pollutants, despite two studies^{3,4} that have found moderate correlations in some sectors for certain criteria pollutants. Those same studies argue that emissions trends have gone up for some sectors covered by Cap-and-Trade, a trend that could have a disproportionate burden on disadvantaged communities that are more likely to live in close proximity to those facilities.

EMISSIONS TRENDS IN CALIFORNIA



California is on track to reach the 2020 emissions target established per AB 32. Reductions seen so far have largely been attributed to the economic decline that started in 2008 and on decarbonizing efforts in the electricity sector.

IMPACTS ON VULNERABLE COMMUNITIES

California’s landmark climate policy – AB 32 – outlined how ARB was to plan and implement California’s climate targets. In that bill, the Legislature made clear its intent to ensure co-benefits were distributed equitably across the state and that climate policies would reinforce and not interfere with the state’s efforts to improve air quality. It also mandated that ARB ensure its activities did not disproportionately impact low-income communities in the state, and further directed ARB to ensure that their rules, regulations, programs,

³ Office of Environmental Health Hazard Assessment. “Tracking and Evaluation of Benefits and Impacts of Greenhouse Gas Limits in Disadvantaged Communities: Initial Report.” February 2017.

⁴ Lara J. Cushing, Madeline Wander, Rachel Morello-Frosch, Manuel Pastor, Allen Zhu, and James Sadd. “A Preliminary Environmental Equity Assessment of California’s Cap-and-Trade Program.” September 2016.

mechanisms, and incentives directed public and private investment toward the most disadvantaged communities in the state. Specifically regarding market-based compliance mechanisms, AB 32 directs ARB to consider the potential for direct, indirect, and cumulative emissions impacts from these mechanisms, including localized impacts in communities already adversely impacted by air pollution. AB 32 does not limit the definition of impacts to the emission of criteria pollutants or toxic air contaminants, and expressly includes co-benefits and investments as key benefits needed in vulnerable communities.

The Legislature's commitment to vulnerable communities was further codified with AB 197, where it was declared:

Continuing to reduce greenhouse gas emissions is critical for the protection of all areas of the state, but especially for the state's most disadvantaged communities, as those communities are affected first, and most frequently, by adverse impacts of climate change, including increased frequency of extreme weather events such as drought, heat, and flooding. The state's most disadvantaged communities are also disproportionately impacted by the deleterious effects of climate change on public health.

Implicit in this legislative direction is the mandate to track and analyze the impacts of ARB's programs on vulnerable communities, however no such report has been completed by ARB. When asked about their previous focus on an Adaptive Management strategy – which was removed from the final Scoping Plan – ARB cited that they are no longer proceeding with that strategy because AB 617 would identify and address any issues. ARB also cited the ongoing analysis from OEHHA on the impact GHG limits have on disadvantaged communities as fulfilling that legislative mandate, however did not detail how OEHHA's first report released in February 2017⁵ informed the analysis or development of the final scenario in the Scoping Plan.

It was not the Legislature's intent with AB 617 to absolve ARB of its responsibility under AB 32 and AB 197 to track and analyze the impacts and benefits of their programs, particularly regarding vulnerable communities. AB 617 will only apply focus and changes to a select number of communities, and is an analysis of cumulative pollution burden – not of the impacts of specific ARB programs. External analyses have shown some potentially troubling trends of larger GHG sources located near vulnerable communities not reducing emissions, and in some cases increasing emissions since the passage of AB 32; those same analyses show potential correlations between some sources of GHG emissions and certain criteria pollutants.^{6,7} While ARB has been quick to note that there is more analysis needed to substantiate those claims, there isn't a strategy within the final Scoping Plan to conduct that analysis.

While statistical correlation between GHG emissions and emissions of other pollutants harmful to public health are debated among stakeholders, and many contest whether efforts to reduce GHGs will directly result in reductions of other pollutants, the fact that most sources of GHG emissions also emit other pollutants – either through the direct activities that result in GHGs or through supporting activities at that site – is commonly accepted. It is also accepted that large emitters of GHGs and relatively older facilities are more likely to be located in vulnerable communities. It is important to note that AB 32 and subsequent legislation has outlined co-benefits as an important reason to focus on reductions in vulnerable communities; investments in mitigation measures, technology deployments, job training, and other opportunities that result from efforts to reduce

⁵ Office of Environmental Health Hazard Assessment. "Tracking and Evaluation of Benefits and Impacts of Greenhouse Gas Limits in Disadvantaged Communities: Initial Report." February 2017.

⁶ Ibid.

⁷ Lara J. Cushing, Madeline Wander, Rachel Morello-Frosch, Manuel Pastor, Allen Zhu, and James Sadd. "A Preliminary Environmental Equity Assessment of California's Cap-and-Trade Program." September 2016.

emissions can carry great benefits to impacted communities beyond any potential shifts in the emissions of GHGs, criteria pollutants, or toxic air contaminants.

DISCUSSION QUESTIONS

AB 197 requires the chair of ARB to appear at least annually before the JLCCCP to present on emissions of GHGs, criteria pollutants, and toxic air contaminants from all sectors covered by the Scoping Plan. The report shall evaluate emission trends and include a discussion of the regulatory requirements, initiatives, and other programs that may influence those trends. The report also may include recommendations from the state board for legislative action and consideration.

This first oversight hearing with the chair of ARB will allow committee members to better understand the divergence in ARB's interpretation of law, stakeholder arguments, and legislative intent. It will also allow committee members to establish a common understanding of emissions data and program philosophies to aid in future oversight over the state's progress toward the ambitious 2030 target established by SB 32, as well as to inform future budget or policy decisions presented to the Legislature.

Potential questions for panelists:

- What programs have driven emissions reductions to date? Are the reductions observed to date consistent with ARB's prior Scoping Plan expectations? If not, what changed?
- What process was used to construct the final package of direct emissions reduction measures included in the Scoping Plan? How did ARB determine that specific direct emissions reduction measures weren't cost effective or technologically feasible to be included in the final Scoping Plan?
- Given that ARB did not analyze the expected costs of the Cap-and-Trade program, how did ARB balance the contributions of direct emissions reduction and market-based measures?
- Has ARB analyzed the risk that excess Cap-and-Trade allowances could pose to the program's ability to deliver the large reductions called for in the Scoping Plan? What is ARB doing to address concerns about oversupply of allowances in the post-2020 Cap-and-Trade regulation?
- What options is ARB examining to increase the stringency of Cap-and-Trade program to ensure we achieve necessary emissions reductions? What processes does ARB have in place to ensure that the implementation of AB 398's reforms to the Cap-and-Trade program is consistent with the role identified for the program in the final Scoping Plan?
- What process will ARB use to engage the Independent Emissions Market Advisory Committee in the development of the post-2020 Cap-and-Trade regulation?
- How does ARB track and analyze GHG emissions, criteria pollutants and toxic air contaminants to ensure that direct and market emissions measures do not have a negative impacts on vulnerable communities?
- What kind of data or analysis would be necessary for ARB to understand if there are causal or correlated relationships between GHG emissions and criteria pollutants? What is ARB doing to conduct that analysis?
- Does ARB have a formal process for tracking implementation of the overall Scoping Plan outside of the statewide GHG emissions inventory? If so, what is this process and what public information will it produce?
- Given the rapid decline in emissions that will be necessary to reach the 2030 target, what contingency plans does ARB have if emissions do not go down as quickly as projected?