

California Air Resources Board

Public Hearing to Consider Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

Final Statement of Reasons for Rulemaking, Including Summary of Comments and Agency Response

*Public Hearing Date: May 28-29, 2026
Agenda Item No.: 26-3-2*

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I. General

In this rulemaking, the California Air Resources Board (Board or CARB) staff is proposing to amend the Regulation for the Mandatory Reporting of Greenhouse Gas (GHG) Emissions (MRR) to ensure the reported GHG data are accurate and fully support the California Cap on Greenhouse Gas Emissions and Market Based Compliance Mechanisms (title 17, California Code of Regulations, section 95800 et seq.) (Cap-and-Invest Regulation). Staff is also proposing amendments to ensure the data that are collected for CARB's other climate change programs, including the statewide greenhouse inventory program, are complete and accurate.

The Staff Report: Initial Statement of Reasons for Rulemaking (staff report or ISOR), entitled "Public Hearing to Consider the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions," released January 20, 2026, is incorporated by reference herein. The staff report contained a summary of and description of the rationale for the proposed amendments. On January 20, 2026, all references relied upon and identified in the staff report were made available to the public for at least 45 days.

The proposed amendments support the Cap-and-Invest Regulation with the highest quality of data by improving clarity for reporting entities as to their reporting requirements and collecting additional information to ensure complete and accurate GHG emissions estimates. This supports continued, robust methods for reporting emissions and product data to support the statewide greenhouse inventory program and emissions reduction programs that directly improve the health and welfare of California residents, worker safety, the state's environment, and CARB's Cap-and-Invest Regulation. CARB staff has proposed amendments to the regulations to:

- Align with and support California's Cap-and-Invest Regulation, including allocation and the calculation of compliance obligations.
- Ensure that reported GHG emissions and product data are accurate and complete to support California's GHG emissions reduction programs, including the statewide GHG emissions inventory.

The proposed amendments to MRR are necessary to ensure complete and accurate GHG reporting by entities regulated under the Cap-and-Invest regulation, clarifying reporting requirements and including additional or modified definitions reflecting the other modifications. The proposed amendments do not change the overall reporting structure or requirements of MRR. These proposed amendments improve upon, clarify, and add to the existing requirements.

CARB staff informed the Board of proposed amendments to MRR at the May 28-29, 2026, public hearing. At the hearing the Board approved Resolution 26-6, adopting the proposed regulatory amendments. The Resolution also directed the Executive Officer to finalize the Final Statement of Reasons (FSOR) for the regulatory amendments and to submit the final rulemaking package to the Office of Administrative Law for review. The FSOR provides written responses to all comments received on the proposed

amendments during the 45-day and 15-day comment period, and oral comments given at the Board hearing on May 28, 2026.

A. Mandates and Fiscal Impacts to Local Governments and School Districts

The Board has determined that this regulatory action will not result in a mandate to any local agency or school district the costs of which are reimbursable by the state pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

The Board has also determined that this regulatory action will not create additional costs or impose a mandate upon any local agency or school district, whether or not it is reimbursable by the State pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code. Although some government agencies may be affected, they are affected only because they are subject to a generally applicable rule for all similarly-situated reporters; there is no specific mandate to local government. Accordingly, there is no mandate for purposes of the Government Code.

Specifically, some public local government agencies are affected by the updates to MRR. Sixty local entities that operate general stationary combustion sources or provide electricity (generated in-state and/or imported) are estimated to have cumulative cost savings of \$80,000 for all agencies over a 6-year time horizon, which is the sum of the total costs of \$20,000 and total cost savings of \$100,000.

B. Consideration of Alternatives

For the reasons set forth in the Staff Report, which is incorporated by reference, in staff's comments and responses at the hearing, and in this FSOR, the Board determined that no alternative considered by the agency would be more effective in carrying out the purpose for which the regulatory action was proposed, or would be as effective and less burdensome to affected private persons, or would be more cost-effective to affected private persons and equally effective in implementing the statutory policy or other provisions of law than the action taken by the Board.

Small Business Alternative

Government Code subsection 11346.9(a)(5) requires that an FSOR contain an "explanation setting forth the reasons for rejecting any proposed alternative that would lessen the adverse economic impact on small businesses." CARB has not identified any reasonable alternatives that would lessen any adverse impact on small businesses.

II. Modifications Made to the Original Proposal

A. Modifications Approved at the Board Hearing and Provided for in the 15-Day Comment Period

On January 20, 2026, CARB released the Notice of Public Hearing (45-Day Notice) and Staff Report: Initial Statement of Reasons for Rulemaking (Staff Report), titled “Public Hearing to Consider the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions,” for public review, and made all supporting references available to the public. The 45-Day Notice comment period began on January 23, 2026, and closed on March 9, 2026. CARB received a total of 332 written comments. Many of these comments were related to a different regulation.

On April 14, 2026, CARB released a Notice of Public Availability of Modified Text and Availability of Additional Documents and Information (15-Day Notice), which presented additional modifications to the regulatory text after consultation with stakeholders. CARB received a total of 127 written comments during the comment period, which closed on May 4, 2026. Similarly, many of these comments were also related to a different regulation.

On May 28-29, 2026, CARB held a public hearing to consider approving the Proposed Amendments. After considering staff’s presentation of the Proposed Amendments, CARB’s environmental analysis, and all public comments received, the Board approved Resolution 26-6, which approved the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions for adoption.

The Board directed the Executive Officer to determine if additional conforming modifications to the regulation were appropriate. If no additional modifications were appropriate, the Executive Officer was instructed to take final action to adopt the regulation. No further modifications were made.

The list below summarizes changes made to the original proposal.

1. In subsection 95101(c)(5), language was added to reestablish the “importer of fuel” as the point of regulation (POR) for imported Liquefied Petroleum Gas (LPG), retracting the 45-day package proposal that placed the POR on the operator of the LPG receiving facility. Language was also added to assert that an entity which owns a majority interest in, or exercises operational control over, other importer entities must aggregate the imported volumes and report as the “importer of fuel” or designate one of the existing importers as the “importer of fuel” for the aggregated volume of fuel imported by those entities. Collectively, these changes reverse the revisions proposed in the 45-day package that shifted the point of regulation from the “importer of fuel” to the “operator of an LPG receiving facility,” and clarify that importers of fuel cannot split up reportable volumes amongst companies that are held under common ownership or common operational control in order to avoid applicable reporting and/or Cap-and-Invest thresholds. Supplier operations conducted by multiple entities under common control, or under common ownership must report emissions as a single supplier under a single ARB ID for MRR.

2. In subsection 95102(a), the definition of “baghouse dust” was added to support amendments to subsection 95110(d) that add requirements to report baghouse dust consumed for blending as additional product data.
3. In subsection 95102(a), the definition of “committed capacity” was updated to be broadened from a specific subset of contracted megawatt-hours (MWh) meeting narrow Resource Adequacy requirements to serve California load, to all MWh that are contracted to serve California load. The proposed change aligns MRR’s definition with language used in CAISO’s tariff and excludes a larger subset of MWh that are at little to no risk to cause emissions leakage from the Outstanding Emissions calculation, which estimates emissions leakage from California Independent System Operator (CAISO) markets. This change avoids a scenario where clean energy that is not considered eligible resource adequacy capacity, but still presents little risk of leading to emissions leakage, is excluded from attribution to California via CAISO markets.
4. In subsections 95102(a) and 95103(h), the definition of “dynamically tagged power” was updated to prevent the implied conflation of e-Tags and power as being the same, and additional jargon were removed to define only the term used in the regulation.
5. In subsection 95102(a), the definition of “Extended Day-Ahead Market” or “EDAM” was updated to clarify that EDAM day-ahead schedules are settled in the real-time Western Energy Imbalance Market (WEIM), and that EDAM participants also participate in WEIM. These clarifications were made to avoid confusion about CAISO market operation in tandem with a clarifying update to the EDAM Outstanding Emissions calculation.
6. In subsection 95102(a), the definition of “grind aid” was added to support amendments to subsection 95110(d) that add requirements to report grind aid consumed as additional product data.
7. In subsection 95102(a), the definition of “importer of cement” or “cement importer” was revised to specify that the “importer of record under federal custom law” is the entity subject to reporting imported cement. This addition clarifies which entity is subject to reporting the imported cement and aligns with the definition of an “enterer” in MRR. Language was also added to assert that an entity which owns a majority interest in, or exercises operational control over, other importer entities must aggregate the imported cement and report as the “importer of cement” or designate one of the existing importers as the “importer of cement” for the aggregated amount of cement imported by those entities.
8. In subsection 95102(a), the definition of “importer of fuel” was amended to reestablish the “importer of fuel” as the point of regulation (POR) for imported Liquefied Petroleum Gas (LPG), retracting the 45-day package proposal that placed the POR on the operator of the LPG receiving facility. The definition of “importer of fuel” was further amended to clarify that an “upstream supplier” would be considered the “importer of fuel” when fuel is imported to California from within the United States. In addition, the “importer of fuel” definition was revised to clarify that it is only

applicable to importers of liquefied petroleum gas, compressed natural gas, and liquefied natural gas. In subsection 95102(a), the definitions for “upstream suppliers” and “local retail suppliers” were added as referenced in the updated definition of “importer of fuel” to define the terminology used in the “importer of fuel” definition in a manner consistent with industry terminology. In subsection 95102(a), proposed definitions for “liquefied petroleum gas receiving facility” or LPG receiving facility,” and “supplier of imported liquefied petroleum gas” or “supplier of imported LPG” were removed as these terms will no longer be used in the definition of “importer of fuel” or elsewhere in the regulation. In section 95102(a), the definition of “natural gas supplier” was revised to add back in LPG suppliers. In section 95102(a) the definition for “supplier” was revised to remove the term “LPG receiving facility” which will no longer be used in the definition of “importer of fuel” or elsewhere in the regulation. Collectively, the above suite of changes were made to: (1) reverse the revisions proposed in the 45-day package that shifted the point of regulation from the “importer of fuel” to the “operator of an LPG receiving facility,” and (2) simplify the structure and clarify the terminology used in the definition of “importer of fuel” to prevent entities from using overly broad terminology to structure transactions in a way that splits reportable volumes amongst downstream customers as a means to avoid applicable reporting and/or Cap-and-Invest thresholds.

9. In subsection 95102(a), the definition of “pseudo-tie” was updated to improve clarity and align better with electricity market definitions by the North American Electric Reliability Corporation (NERC) and CAISO.
10. In subsection 95102(a), the definition of “retail sales” was updated to include new terminology for “residential” retail sales and “total” retail sales, specifying that residential retail sales are a subset of total retail sales. This change, in tandem with an update to the retail sales reporting requirements in 95111(c)(1), is necessary to enable Cap-and-Invest to distribute natural gas supplier allocated allowances to electric utilities with residential ratepayers in accordance with AB 1207.
11. In subsection 95102(b), definitions for “Light-duty vehicle” and “Passenger vehicles” were added to support amendments to subsection 95115(n) that add requirements to report light-duty vehicles as covered product data;
12. In subsection 95110(d)(4) minor clarifications were made to improve language related to new cement reporting requirements.
13. In subsection 95111(c)(1), the requirement for retail providers of electricity to report California retail sales was updated to require that both residential and total California retail sales be reported. This change, in tandem with an update to the retail sales definition, is necessary to enable Cap-and-Invest to distribute natural gas supplier allocated allowances to electric utilities with residential ratepayers as required by AB 1207.
14. In subsection 95111(h)(1)(B), language was updated to clarify that MWh data used in the EDAM Outstanding Emissions calculation are from EDAM day-ahead schedules settled in the real-time WEIM. In tandem with a clarifying update to the

EDAM definition, this clarification was made to avoid confusion about CAISO market operation and which market's data is used in the Outstanding Emissions calculation.

15. In subsection 95111(i), language was updated to address a gap in the proposed regulation where an existing Energy Storage System (ESS), or a currently registered specified source that acquired an integrated ESS in the current year, would have been unable to register a specified emission factor for the ESS for its first reporting year.
16. In subsection 95114(m), language was added to align the proposed requirements for hydrogen plants with existing provisions in section 95113 (refineries) which would improve consistency across facility types. Added language excludes process vents where the concentrations of CO₂, N₂O, and CH₄ are below the thresholds defined in 40 CFR section 98.253(j). This framework is already established, well-understood by reporters and verifiers, and has been effectively implemented within refinery reporting under MRR.
17. In subsection 95115(n)(22), language was updated to remove the word "finished" for clarification of terminology because cement is finished at cement or concrete plants.
18. In subsection 95115(n)(23), the operator of an automobile manufacturing facility will now be required to report the number of light-duty vehicles produced in the data year to support allowance allocation in the Cap-and-Invest program.
19. In subsections 95121(b)(1) and 95121(d)(1) through (4), reporting of denaturant was updated to be reported as pentanes plus, which is also referred to as natural gasoline, instead of Reformulated Blendstock for Oxygenated Blending (RBOB). This change was made to ensure that emissions from denaturant, which is commonly pentanes plus, are captured accurately in an entity's total emissions and covered emissions.
20. In subsection 95121(d)(10) the requirement to report Low Carbon Fuel Standard (LCFS) related non-emissions data proposed in the 45-day package was removed. To streamline reporting requirements that transportation fuel suppliers must comply with across various CARB programs, data reported to the LCFS program listed in subsection 95121(d)(10) need not be reported under MRR.
21. In subsections 95122(a)(3) and (4), 95122(b)(9) and (10), and 95122(d)(5), references to "supplier of imported LPG" were removed, as this definition was removed from subsection 95102(a), and references to the "importer of fuel" or "importer of LPG" were added. This change reverses proposed language in the 45-day package, and supports the definitional changes in 95102(a) that retain the point of regulation for imported LPG as the "importer of fuel" rather than the "operator of an LPG receiving facility."
22. In section 95126 language was changed to require importers of cement to report data associated with cement or clinker imported into California and subsequently exported for use outside of California. This addition supports implementation of SB 596 by enabling CARB to track information on cement imported to California that is subsequently exported out of California.

23. In subsections 95126(c)(3) and (4), language was added in subsection 95126(c)(3) that will require cement importers to report the annual amount of electricity used to produce imported cement, as well as the annual average grid emission factor. Language previously in subsection 95126(c)(3) was moved to subsection 95126(c)(4). This change enables CARB to collect data to track and analyze information on GHG emissions associated with imported cement, supporting implementation of SB 596.
24. In subsection 95127(a)(4), the requirement for matching procured electricity with the hydrogen production facility load was revised to require monthly matching rather than the 45-day proposal that would have required annual matching through 2029, moving to hourly matching starting in 2030. This change ensures that the new hydrogen production calculation methods in MRR are consistent with existing LCFS program requirements.
25. In subsection 95127(d)(2)(C) the requirement to report LCFS-related non-emissions data proposed in the 45-day package was removed. To streamline reporting requirements and minimize reporting burden, data reported to the LCFS program listed in this section need not be reported under MRR.
26. In subsection 95133(b)(5), language was revised to clarify that this subsection refers to the reporting entity for which the verification body intends to provide verification services, not reporting entities who report to CARB under MRR or LCFS more broadly.

B. Non-Substantial Modifications

In addition to the modifications described above, additional modifications correcting grammar, punctuation and spelling have been made throughout the proposed changes. These changes are non-substantial.

III. Documents Incorporated by Reference

The regulation and the incorporated documents and test methods adopted by the Board incorporate by reference the following documents:

- ASTM International. (April 2021). D4806-21: Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel. Incorporated in section 95102(a), "Fuel ethanol"
- ASTM International. (July 2022). C150/C150M-22: Standard Specification for Portland Cement. Incorporated in section 95102(a), "Cement"
- ASTM International. (July 2023). C595/C595M-23: Standard Specification for Blended Hydraulic Cements. Incorporated in section 95102(a), "Cement"
- ASTM International. (September 2023). C1157/C1157M-23: Standard Performance Specification for Hydraulic Cement. Incorporated in section 95102(a), "Cement"

- 40 C.F.R. §§ 98.440-98.449. (November 29, 2013). Code of Federal Regulations, 7-1-2023 Edition. <https://www.govinfo.gov/content/pkg/CFR-2023-title40-vol23/pdf/CFR-2023-title40-vol23-part98-subpartRR.pdf>. Incorporated in section 95125
- California Energy Commission (CEC). (April 2017). *Renewables Portfolio Standard Eligibility Guidebook, Ninth Edition Revised*. Available at: <https://efiling.energy.ca.gov/getdocument.aspx?tn=217317>
- California Independent Systems Operator (CAISO). (May 01, 2026). CAISO Fifth Replacement Tariff, Section 33 - Extended Day Ahead Market as of May 01, 2026. <https://www.caiso.com/documents/section-33-extended-day-ahead-market-as-of-may-1-2026.pdf>

These documents were incorporated by reference because it would be cumbersome, unduly expensive, and otherwise impractical to publish them in the California Code of Regulations. In addition, some of the documents are copyrighted, and cannot be reprinted or distributed without violating the licensing agreements. The documents are lengthy and highly technical test methods and engineering documents that would add unnecessary additional volume to the regulation. Distribution to all recipients of the California Code of Regulations is not needed because the interested audience for these documents is limited to the technical staff at a portion of reporting facilities, most of whom are already familiar with these methods and documents. Also, the incorporated documents were made available by CARB upon request during the rulemaking action and will continue to be available in the future. The documents are also available from college and public libraries, or may be purchased directly from the publishers.

IV. Summary of Comments and Agency Response

Written comments were received during the 45-day comment period, 15-day comment period, and in response to the May 28-29, 2026, public hearing. Written and oral comments were presented at the Board Hearing.

CARB received 332 letters on the proposed amendments during the 45-day comment period or at the Board hearing (see Table 1). CARB received 127 letters on the proposed amendments during the 15-day comment period (see Table 2). In addition, 204 commenters gave oral testimony, and CARB received five written comments at the May 28, 2026, Board hearing (see Table 3). Many of these comments were outside the scope of the rulemaking because they were in reference to a separate rulemaking. For comments outside the scope of the rulemaking, not submitted during the comment period, unrelated to changes made, or not specifically directed at CARB's proposed action or procedures followed in proposing amendments of the MRR regulation, CARB is not required to respond, but has included them for completeness.

The individually submitted comment letters for the 45-day comment period and 15-day comment period are available here:

<https://carb.commentinput.com/comment/extra?id=5PhdbGHfs>. This rulemaking is for amendments to the CARB Greenhouse Gas Mandatory Reporting Regulation. However,

comments were also submitted to this rulemaking which relate to the separately noticed Cap-and-Invest Program rulemaking, which is outside the scope of the proposals identified in the Staff Report, Notices of Modified Regulatory Text, and this FSOR. CARB staff have responded to reporting-related comments submitted to the Cap-and-Invest Regulation docket in this FSOR. Note that some comments were scanned or otherwise electronically transferred, so they may include minor typographical errors or formatting that is not consistent with the originally submitted comments. However, all content reflects the submitted comments. All originally submitted comments are available here: <https://carb.commentinput.com/comment/extra?id=5PhdbGHfs>. The transcript for any verbal testimony presented during the first Board hearing is available here: <https://ww2.arb.ca.gov/sites/default/files/barcu/board/mt/2026/mt052826.pdf> and <https://ww2.arb.ca.gov/sites/default/files/barcu/board/mt/2026/mt052926.pdf>.

Table 3 provides a list of the oral comments that were received at the board hearing that are relevant to the MRR regulation, as well as all written comments that were submitted on the day of the hearing. Additional oral comments were received at the board hearing but were relevant to the Cap-and-Invest Regulation and therefore out of scope for this MRR rulemaking. Nonetheless, CARB has included these out-of-scope comments in the MRR FSOR for completeness. For a complete list of commenters that provided oral comments at the board hearing, as well as their comments please see Appendix A to this FSOR. Responses to these comments can be found in the Cap-and-Invest FSOR available here <https://ww2.arb.ca.gov/rulemaking/2026/cap-and-invest2026>.

Table 4 provides a list of commenters that submitted written comments to the Cap-and-Invest Rulemaking docket but refer to Proposed Amendments for the MRR Rulemaking. For completeness CARB has provided responses to those comments in this FSOR.

The following notes about the comments and responses are provided to aid with understanding how the comments and responses are structured and labeled:

- Each comment has a unique code, as identified in the tables below. Each code indicates the comment period or context of the submission, followed a number. For example, comment “45d-001” shows it is a comment received during the 45-Day comment period and “15d-001” is a comment received during the 15-Day comment period.
- Comments are grouped thematically by section and subsection. Each individual comment excerpt is preceded by “Comment:” and followed by its comment identification code, allowing readers to distinguish among individual comment excerpts.
- Comments are excerpted verbatim unless otherwise noted. In verbatim comment excerpts, CARB has not corrected or noted errors in the original submissions (for example, by adding “[sic]”). Comment excerpts’ formatting may differ from the formatting of the original comment. CARB has not corrected or made footnotes in these comments complete or correct either.

A. List of Commenters

Table 1. Written Comments Received During the 45-Day Comment Period

Commenter Code	Commenter	Affiliation	Submittal Date
45d-001	Vincent Caboara	No Affiliation	2/1/2026
45d-002	Vincent Caboara	No Affiliation	2/1/2026
45d-003	Sarah Pollo Moo	No Affiliation	2/9/2026
45d-004	Konstantin Parkhomenko	National Technology & Engineering Solutions of Sandia, LLC	2/10/2026
45d-005	Maryn Pitt	Manufacturers Council of the Central Valley	2/10/2026
45d-006	Quinn Rickert	No Affiliation	2/13/2026
45d-007	John Shideler	Omnex Safe Secure Sustain LLC dba OmnexFuturepast	2/18/2026
45d-008	Kimberly Burr	No Affiliation	2/27/2026
45d-009	Tim Williams	No Affiliation	3/5/2026
45d-010	Brian Rohmer	No Affiliation	3/6/2026
45d-011	Cynthia Gabaldon	No Affiliation	3/6/2026
45d-012	Jamie Zivney	No Affiliation	3/6/2026
45d-013	Lindsey Frey	No Affiliation	3/6/2026
45d-014	Nicholas Burki	Anaheim Public Utilities	3/6/2026
45d-015	Allan Rasmusson	No Affiliation	3/6/2026
45d-016	Brian Lambrechts	No Affiliation	3/6/2026
45d-017	James Lynch	No Affiliation	3/6/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-018	John Hamblin	No Affiliation	3/6/2026
45d-019	Justice Knight	No Affiliation	3/6/2026
45d-020	Andrew Davenport	No Affiliation	3/6/2026
45d-021	Coleen Minnick	No Affiliation	3/6/2026
45d-022	Eric Halsey	No Affiliation	3/6/2026
45d-023	Douglas Brummett	No Affiliation	3/6/2026
45d-024	Rebecca Thompson	No Affiliation	3/6/2026
45d-025	Lori Mariani	No Affiliation	3/6/2026
45d-026	Jennifer Coalson-Perez	No Affiliation	3/6/2026
45d-027	Sally Temple	No Affiliation	3/6/2026
45d-028	Travis Perez	Elite Construction and Remodeling	3/6/2026
45d-029	Vineeta Gupta	No Affiliation	3/6/2026
45d-030	Heather Derenzo	No Affiliation	3/6/2026
45d-031	Jodi Cook	No Affiliation	3/6/2026
45d-032	Thelma Alexander	No Affiliation	3/6/2026
45d-033	Greg Varra	No Affiliation	3/6/2026
45d-034	Drew Shorkey	No Affiliation	3/6/2026
45d-035	Julia Valdovinos	No Affiliation	3/6/2026
45d-036	Christian Prenter	No Affiliation	3/6/2026
45d-037	Gale Heinrich	No Affiliation	3/6/2026
45d-038	Michelle States	No Affiliation	3/6/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-039	Arlene Gillo	No Affiliation	3/6/2026
45d-040	Gilbert Breitenstein	No Affiliation	3/6/2026
45d-041	Ray Parry	No Affiliation	3/6/2026
45d-042	Kelly Silversmith	No Affiliation	3/6/2026
45d-043	Max Peeler	No Affiliation	3/6/2026
45d-044	Laura Koval	No Affiliation	3/6/2026
45d-045	Christine Riley	No Affiliation	3/6/2026
45d-046	Laura Giles	No Affiliation	3/6/2026
45d-047	Kelly Vickers	No Affiliation	3/6/2026
45d-048	Philip Dellin	No Affiliation	3/6/2026
45d-049	Frank Mancini	No Affiliation	3/6/2026
45d-050	Lezlie Puglia	No Affiliation	3/6/2026
45d-051	Frank Princi	No Affiliation	3/6/2026
45d-052	Erik Cruz	No Affiliation	3/6/2026
45d-053	Herbert Tay	No Affiliation	3/6/2026
45d-054	Kathy Wagner	No Affiliation	3/6/2026
45d-055	Colin Donohue	No Affiliation	3/6/2026
45d-056	Carol Morris	No Affiliation	3/6/2026
45d-057	Maria Reynaga	No Affiliation	3/6/2026
45d-058	Darwin Velasquez	No Affiliation	3/6/2026
45d-059	Kelli Chavez	No Affiliation	3/6/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-060	Michelle Royal	No Affiliation	3/6/2026
45d-061	George Chavez II	No Affiliation	3/6/2026
45d-062	Carlie Attebury	No Affiliation	3/6/2026
45d-063	George Chavez III	No Affiliation	3/6/2026
45d-064	Terry Lynch	No Affiliation	3/6/2026
45d-065	Kevin Potter	No Affiliation	3/6/2026
45d-066	Kevin Carothers	No Affiliation	3/6/2026
45d-067	Johnathan Johnson	No Affiliation	3/6/2026
45d-068	Tracey Jacobsen	No Affiliation	3/6/2026
45d-069	Karen Hook	No Affiliation	3/6/2026
45d-070	Mary Jo Miggins	No Affiliation	3/6/2026
45d-071	Wayne Morris	No Affiliation	3/6/2026
45d-072	Francisco Aguirre	No Affiliation	3/6/2026
45d-073	Sam Toh	No Affiliation	3/6/2026
45d-074	Andrea Greene	No Affiliation	3/6/2026
45d-075	Brad Simpson	No Affiliation	3/6/2026
45d-076	Ron Goldgruber	No Affiliation	3/6/2026
45d-077	Paul Lemay	No Affiliation	3/6/2026
45d-078	Paul Maxwell	No Affiliation	3/6/2026
45d-079	David Duffey	No Affiliation	3/6/2026
45d-080	Molly Powers	No Affiliation	3/6/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-081	Robert Nelson	No Affiliation	3/6/2026
45d-082	Jeffery Carlton	No Affiliation	3/6/2026
45d-083	Gina Heck	No Affiliation	3/6/2026
45d-084	Betty Wood	No Affiliation	3/6/2026
45d-085	Luisa Flores	No Affiliation	3/6/2026
45d-086	Michael Gonzales	No Affiliation	3/6/2026
45d-087	Robert Belloni	No Affiliation	3/6/2026
45d-088	Stephanie Powell	No Affiliation	3/6/2026
45d-089	Zijian Zhang	No Affiliation	3/6/2026
45d-090	Joseph Walters	No Affiliation	3/6/2026
45d-091	Reiss Blanchard Becker	No Affiliation	3/6/2026
45d-092	Brad Daniels	No Affiliation	3/6/2026
45d-093	Aaron Borrowman	No Affiliation	3/6/2026
45d-094	Gregory Poole	No Affiliation	3/6/2026
45d-095	Harry Mason	No Affiliation	3/6/2026
45d-096	Christopher Schwab	No Affiliation	3/6/2026
45d-097	Phoebe Lucker	No Affiliation	3/6/2026
45d-098	Terri Hernandez	No Affiliation	3/6/2026
45d-099	Melissa Lovejoy	No Affiliation	3/6/2026
45d-100	Carrie Jenkins	No Affiliation	3/6/2026
45d-101	Fernando Contreras	No Affiliation	3/6/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-102	Paula Biela	No Affiliation	3/6/2026
45d-103	Melody Irwin	No Affiliation	3/6/2026
45d-104	Billie Gengler	No Affiliation	3/6/2026
45d-105	Karen Andrrson	No Affiliation	3/6/2026
45d-106	Bruce Carswell Jr	No Affiliation	3/6/2026
45d-107	Lisa Branscum	No Affiliation	3/6/2026
45d-108	Joao Roxo	No Affiliation	3/6/2026
45d-109	Laurie Myers	No Affiliation	3/6/2026
45d-110	Tamera Bastiaans	No Affiliation	3/6/2026
45d-111	Donna Basail	No Affiliation	3/6/2026
45d-112	Matthew Munson	No Affiliation	3/6/2026
45d-113	Kipperty Lafave	No Affiliation	3/6/2026
45d-114	Jarrold Harden	No Affiliation	3/6/2026
45d-115	Lorie Weinroth	No Affiliation	3/6/2026
45d-116	Beverly Hall	No Affiliation	3/6/2026
45d-117	Guy Adams	No Affiliation	3/6/2026
45d-118	The ins Le	No Affiliation	3/6/2026
45d-119	J Kane	No Affiliation	3/6/2026
45d-120	Nathan Gaulke	No Affiliation	3/6/2026
45d-121	Gayle Turner	No Affiliation	3/6/2026
45d-122	Laura Grenrock	No Affiliation	3/6/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-123	Jonathan Roberts	No Affiliation	3/6/2026
45d-124	Linda Semmelmayr	No Affiliation	3/6/2026
45d-125	Van anh Phan	No Affiliation	3/6/2026
45d-126	Jill Mattingley	No Affiliation	3/6/2026
45d-127	Doreen Shaw	No Affiliation	3/6/2026
45d-128	Emily Bartley	No Affiliation	3/6/2026
45d-129	Angela Griffiths	No Affiliation	3/6/2026
45d-130	Robert Kosch	No Affiliation	3/6/2026
45d-131	Suzanne Marshall	No Affiliation	3/6/2026
45d-132	Dave Dussault	No Affiliation	3/6/2026
45d-133	James Haney	No Affiliation	3/6/2026
45d-134	Megan Durham	No Affiliation	3/6/2026
45d-135	Ann Baker	No Affiliation	3/6/2026
45d-136	Mary Leahy	No Affiliation	3/6/2026
45d-137	Thomas Neavill	No Affiliation	3/6/2026
45d-138	Armando Nambo	No Affiliation	3/7/2026
45d-139	Sandy Adams	No Affiliation	3/7/2026
45d-140	Dennis Arce	No Affiliation	3/7/2026
45d-141	Konstantinos Arvanitakis	No Affiliation	3/7/2026
45d-142	Grace Garcia	No Affiliation	3/7/2026
45d-143	Kathryn Eehn	No Affiliation	3/7/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-144	Cary Rego	No Affiliation	3/7/2026
45d-145	Kristi Enigl	No Affiliation	3/7/2026
45d-146	Travis Zivney	No Affiliation	3/7/2026
45d-147	Janna Wong	No Affiliation	3/7/2026
45d-148	Aurora Heitman	No Affiliation	3/7/2026
45d-149	Brian Uribe	No Affiliation	3/7/2026
45d-150	Paul Taylor	No Affiliation	3/7/2026
45d-151	Kenny Ruiz	Kern County Oilfield Workers	3/7/2026
45d-152	Larry Bennett	No Affiliation	3/7/2026
45d-153	Rory Thomas	No Affiliation	3/7/2026
45d-154	Dennis Kluender	No Affiliation	3/7/2026
45d-155	David Burris	No Affiliation	3/7/2026
45d-156	Claire Dias	No Affiliation	3/7/2026
45d-157	Paul Harford	No Affiliation	3/7/2026
45d-158	Luis Sota	No Affiliation	3/7/2026
45d-159	Greg Large	No Affiliation	3/7/2026
45d-160	Gerald Sumner	No Affiliation	3/7/2026
45d-161	Donna Alejandro	No Affiliation	3/7/2026
45d-162	Linda Flaminio	No Affiliation	3/7/2026
45d-163	Andrea Luna	No Affiliation	3/7/2026
45d-164	Rick Ingram	No Affiliation	3/7/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-165	Brian Conner	No Affiliation	3/7/2026
45d-166	George Walsh	No Affiliation	3/7/2026
45d-167	Bobbi Crann	No Affiliation	3/7/2026
45d-168	Melissa Gussow	No Affiliation	3/7/2026
45d-169	Mark Piper	No Affiliation	3/7/2026
45d-170	Arturo Garcia	No Affiliation	3/7/2026
45d-171	Carolina Garcia	No Affiliation	3/7/2026
45d-172	Heidi Gallegos	No Affiliation	3/7/2026
45d-173	Jenny Tran	No Affiliation	3/7/2026
45d-174	Patrick Morris	No Affiliation	3/7/2026
45d-175	Joe Taxpayer	No Affiliation	3/7/2026
45d-176	Dale Nicol	No Affiliation	3/7/2026
45d-177	Miguel Ramirez	No Affiliation	3/7/2026
45d-178	Serra Blaine	No Affiliation	3/7/2026
45d-179	Betty Estep	No Affiliation	3/7/2026
45d-180	Jeff Christensen	No Affiliation	3/7/2026
45d-181	Lisa Burns	No Affiliation	3/7/2026
45d-182	Luis Marquez	No Affiliation	3/7/2026
45d-183	Aimee Harris	No Affiliation	3/7/2026
45d-184	Dylan Morales-Dacy	No Affiliation	3/7/2026
45d-185	Sharyl Dennison	No Affiliation	3/7/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-186	Ryan Gorman	No Affiliation	3/7/2026
45d-187	Ledora Reynolds	No Affiliation	3/7/2026
45d-188	John De Los Reyes	No Affiliation	3/7/2026
45d-189	Tiffany Parsons	No Affiliation	3/7/2026
45d-190	Rose Comstock	No Affiliation	3/7/2026
45d-191	Randee Roberts	No Affiliation	3/7/2026
45d-192	Lauren Blake	No Affiliation	3/7/2026
45d-193	Dan Martin	No Affiliation	3/7/2026
45d-194	Denise Pennell	No Affiliation	3/7/2026
45d-195	Andrea Basile	No Affiliation	3/7/2026
45d-196	Wayne Sheldon	No Affiliation	3/7/2026
45d-197	Stephanie Fernandez	No Affiliation	3/7/2026
45d-198	Esperanza Maciel	No Affiliation	3/7/2026
45d-199	Nhuong Nguyen	No Affiliation	3/7/2026
45d-200	Christie Borchin	No Affiliation	3/7/2026
45d-201	Arnout ter Schure	No Affiliation	3/7/2026
45d-202	Rachelle Truong	No Affiliation	3/7/2026
45d-203	Jacob Stover	No Affiliation	3/7/2026
45d-204	Serena Aiden	No Affiliation	3/7/2026
45d-205	Erica Howell	No Affiliation	3/7/2026
45d-206	Chris Johnston	No Affiliation	3/7/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-207	Ryan Mullins	No Affiliation	3/7/2026
45d-208	Denise Payne	No Affiliation	3/7/2026
45d-209	Susan Pratt	No Affiliation	3/8/2026
45d-210	Brett DeMott	No Affiliation	3/8/2026
45d-211	Orland Rogers	No Affiliation	3/8/2026
45d-212	Cheryl Street	No Affiliation	3/8/2026
45d-213	Shayn Peller	No Affiliation	3/8/2026
45d-214	Shelly Cramer	No Affiliation	3/8/2026
45d-215	Garegin Kalajian	No Affiliation	3/8/2026
45d-216	Andrea Messenger	No Affiliation	3/8/2026
45d-217	Sarah Garc	No Affiliation	3/8/2026
45d-218	Steven Tomasik	No Affiliation	3/8/2026
45d-219	Timmie Pollock	No Affiliation	3/8/2026
45d-220	Asim Rustamov	No Affiliation	3/8/2026
45d-221	Christine Price	No Affiliation	3/8/2026
45d-222	Robert Gallegos	No Affiliation	3/8/2026
45d-223	James Burke	No Affiliation	3/8/2026
45d-224	Diana Snyder	No Affiliation	3/8/2026
45d-225	Kim Engeseth	No Affiliation	3/8/2026
45d-226	Jeff Kowalishen	No Affiliation	3/8/2026
45d-227	Robert Wing	No Affiliation	3/8/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-228	Steven Perryman	No Affiliation	3/8/2026
45d-229	David Saint-Amand	No Affiliation	3/8/2026
45d-230	Dianna Snow	No Affiliation	3/8/2026
45d-231	Alex Chang	No Affiliation	3/8/2026
45d-232	Morales Vanessa	No Affiliation	3/8/2026
45d-233	Carlos Morales	No Affiliation	3/8/2026
45d-234	Anthony Ibarra	No Affiliation	3/8/2026
45d-235	Benjamin Gogna	No Affiliation	3/9/2026
45d-236	Karen Nalos	No Affiliation	3/9/2026
45d-237	Fred Johnson	No Affiliation	3/9/2026
45d-238	Joseph Stancato	No Affiliation	3/9/2026
45d-239	Jamie Kelley	No Affiliation	3/9/2026
45d-240	Joel Frantz	No Affiliation	3/9/2026
45d-241	Lola Green	No Affiliation	3/9/2026
45d-242	Laura Peterson	Union of Concerned Scientists	3/9/2026
45d-243	Dolores Roberts	No Affiliation	3/9/2026
45d-244	Toby Proescher	No Affiliation	3/9/2026
45d-245	Shannon Jean	No Affiliation	3/9/2026
45d-246	Allen Wilson	No Affiliation	3/9/2026
45d-247	Antoinette Gebauer	No Affiliation	3/9/2026
45d-248	Fred Fong	No Affiliation	3/9/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-249	Michael Kean	No Affiliation	3/9/2026
45d-250	Michelle Lindley	No Affiliation	3/9/2026
45d-251	John Lee	No Affiliation	3/9/2026
45d-252	Lisa Disbrow	No Affiliation	3/9/2026
45d-253	Daniel Drennan	No Affiliation	3/9/2026
45d-254	Rebecca Del Monte	No Affiliation	3/9/2026
45d-255	Michael Sullivan	PacifiCorp	3/9/2026
45d-256	Christina Walsh	No Affiliation	3/9/2026
45d-257	Jon Costantino	RPMG	3/9/2026
45d-258	Dorothy Plummer	No Affiliation	3/9/2026
45d-259	Gergana K	No Affiliation	3/9/2026
45d-260	Greg Walker	No Affiliation	3/9/2026
45d-261	Bria Ganai	No Affiliation	3/9/2026
45d-262	Megan Martin	Salt River Project	3/9/2026
45d-263	Kevin Wildman	No Affiliation	3/9/2026
45d-264	Alisa Kaseweter	Bonneville Power Administration	3/9/2026
45d-265	Chris Shimoda	California Council for Environmental and Economic Balance (CCEEB)	3/9/2026
45d-266	Brendan Radich Sr	No Affiliation	3/9/2026
45d-267	Carolyn Wetmore	No Affiliation	3/9/2026
45d-268	Robin Welch	No Affiliation	3/9/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-269	Benjamin Dhover	No Affiliation	3/9/2026
45d-270	Clyde Houle	No Affiliation	3/9/2026
45d-271	Lisa Carson	No Affiliation	3/9/2026
45d-272	Lorraine Garpner	No Affiliation	3/9/2026
45d-273	Sarah Lee	Southern California Edison Company	3/9/2026
45d-274	K Newlon	No Affiliation	3/9/2026
45d-275	Staci Lopez	No Affiliation	3/9/2026
45d-276	Staci Lopez	No Affiliation	3/9/2026
45d-277	Clare Breidenich	Western Power Trading Forum	3/9/2026
45d-278	Ryan Alba	No Affiliation	3/9/2026
45d-279	Erin Thompson	No Affiliation	3/9/2026
45d-280	Jessica Skakalska	UKS space	3/9/2026
45d-281	Glenn Fant	No Affiliation	3/9/2026
45d-282	Harry Segal	No Affiliation	3/9/2026
45d-283	Miles Heller	Air Products	3/9/2026
45d-284	Jennifer Weingarten	No Affiliation	3/9/2026
45d-285	Steve Coppinger	Coalition for Sustainable Cement Manufacturing & Environment (CSCME)	3/9/2026
45d-286	Tom McDougall	No Affiliation	3/9/2026
45d-287	Joshua Grenrock	No Affiliation	3/9/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-288	Dominic Bullene	No Affiliation	3/9/2026
45d-289	Elisabeth de Jong	Southern California Public Power Authority	3/9/2026
45d-290	Dann Myers	No Affiliation	3/9/2026
45d-291	Bodo Parady	No Affiliation	3/9/2026
45d-292	Nikkole Hughes	Public Generating Pool	3/9/2026
45d-293	Cassandra Farrant	Amp Americas	3/9/2026
45d-294	Connie Rodgers	No Affiliation	3/9/2026
45d-295	David Shields	No Affiliation	3/9/2026
45d-296	John Silva	No Affiliation	3/9/2026
45d-297	Kassandra Gough	Constellation Energy Generation LLC	3/9/2026
45d-298	Andrew Peterson	No Affiliation	3/9/2026
45d-299	Sara Christian	SMUD	3/9/2026
45d-300	Chris Cockream	No Affiliation	3/9/2026
45d-301	Josh Vieira	No Affiliation	3/9/2026
45d-302	Christopher Johnson	No Affiliation	3/9/2026
45d-303	Michael Ziegenmeyer	No Affiliation	3/9/2026
45d-304	Cynthia Johnson	No Affiliation	3/9/2026
45d-305	Ronald Banducci	No Affiliation	3/9/2026
45d-306	Sam Wade	RNG Coalition	3/9/2026
45d-307	Teri Ernandes	No Affiliation	3/9/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-308	Joseph Ernandes	No Affiliation	3/9/2026
45d-309	Terence De Ruyter	No Affiliation	3/9/2026
45d-310	Erk Freer	Endaris Inc.	3/9/2026
45d-311	Donald Wilson	No Affiliation	3/9/2026
45d-312	Robyn Hauck	No Affiliation	3/9/2026
45d-313	Dallas Gerber	Growth Energy	3/9/2026
45d-314	Toni Harvey	No Affiliation	3/9/2026
45d-315	David Davi	No Affiliation	3/9/2026
45d-316	Kevin Harvey	No Affiliation	3/9/2026
45d-317	Krysta Wanner	Western Propane Gas Association	3/9/2026
45d-318	Deborah Fogarty	No Affiliation	3/9/2026
45d-319	Mary Ann	Mary Ann Foster Ranch LP	3/9/2026
45d-320	David Frizzell	No Affiliation	3/9/2026
45d-321	Randall Roberts	No Affiliation	3/9/2026
45d-322	BreeAna Coward	No Affiliation	3/9/2026
45d-323	Justin Rodriguez	No Affiliation	3/9/2026
45d-324	Lauren Gallagher	Communities for a Better Environment	3/9/2026
45d-325	Michele Cooper	No Affiliation	3/9/2026
45d-326	Jennifer Landrum	No Affiliation	3/9/2026

Commenter Code	Commenter	Affiliation	Submittal Date
45d-327	Cindy Parsons	Los Angeles Department of Water and Power	3/9/2026
45d-328	Jon Dearing	National Cement Company of California	3/9/2026
45d-329	Dana Renshaw	No Affiliation	3/9/2026
45d-330	Timothy Harrison	No Affiliation	3/9/2026
45d-331	Herbert Stillwell	No Affiliation	3/9/2026
45d-332	Eileen ONeill	No Affiliation	3/9/2026

Table 2. Written Comment Received During the 15-Day Comment Period

Commenter Code	Commenter	Affiliation	Submittal Date
15d-001	Karen Frost	No Affiliation	4/14/2026
15d-002	Suzanne Perez	No Affiliation	4/14/2026
15d-003	Sheng Su	No Affiliation	4/15/2026
15d-004	Richard Tippitt	No Affiliation	4/28/2026
15d-005	Brian Handy	No Affiliation	4/28/2026
15d-006	Peter Mensing	No Affiliation	4/29/2026
15d-007	Aug Mil	No Affiliation	4/29/2026
15d-008	Elisabeth de Jong	Southern California Public Power Authority	4/29/2026
15d-009	Mary Elizabeth	No Affiliation	5/1/2026
15d-010	David Atkinson	No Affiliation	5/1/2026
15d-011	Joe Nowakowski	No Affiliation	5/1/2026

Commenter Code	Commenter	Affiliation	Submittal Date
15d-012	Eric Shields	No Affiliation	5/1/2026
15d-013	Max Lovus	No Affiliation	5/1/2026
15d-014	Lynn Miller	No Affiliation	5/1/2026
15d-015	Lukas Hartwich	No Affiliation	5/1/2026
15d-016	Roman Vilensky	No Affiliation	5/1/2026
15d-017	Terry Edwards	No Affiliation	5/1/2026
15d-018	Jeff Buckingham	No Affiliation	5/1/2026
15d-019	Jarod Egon	No Affiliation	5/1/2026
15d-020	Frank Wiley	No Affiliation	5/1/2026
15d-021	Phillip Nguyen	No Affiliation	5/1/2026
15d-022	Grant Reynolds	No Affiliation	5/1/2026
15d-023	Phuong Tran	No Affiliation	5/1/2026
15d-024	James Rueff	No Affiliation	5/1/2026
15d-025	Stephen Yun	No Affiliation	5/1/2026
15d-026	Linda Stock	No Affiliation	5/1/2026
15d-027	Stephen Richmeier	No Affiliation	5/2/2026
15d-028	John Martin	No Affiliation	5/2/2026
15d-029	Nicole Dutton	No Affiliation	5/2/2026
15d-030	William Zylstra	No Affiliation	5/2/2026
15d-031	Laurie Saine	No Affiliation	5/2/2026
15d-032	Stephen Parks	No Affiliation	5/2/2026

Commenter Code	Commenter	Affiliation	Submittal Date
15d-033	Douglas Bauder	No Affiliation	5/2/2026
15d-034	Gerald Campagna	No Affiliation	5/2/2026
15d-035	Pamela Pace	No Affiliation	5/2/2026
15d-036	Jacquelyn Landreth	No Affiliation	5/2/2026
15d-037	Michael Heil	No Affiliation	5/2/2026
15d-038	Thomas Hall	No Affiliation	5/2/2026
15d-039	Jill Pajaud	No Affiliation	5/2/2026
15d-040	Markq Lanphere	No Affiliation	5/2/2026
15d-041	Kris Allshouse	No Affiliation	5/2/2026
15d-042	Donna Farrell	No Affiliation	5/2/2026
15d-043	Thomas Garza	No Affiliation	5/2/2026
15d-044	Elizabeth Broedlow	No Affiliation	5/2/2026
15d-045	Kristy Grimm	No Affiliation	5/2/2026
15d-046	Ryan Escamilla	No Affiliation	5/2/2026
15d-047	James Wethe	No Affiliation	5/2/2026
15d-048	Greg Burtch	No Affiliation	5/2/2026
15d-049	Joy Elaine Dees	No Affiliation	5/2/2026
15d-050	Andy Messina	No Affiliation	5/2/2026
15d-051	Jacqueline Gleason	No Affiliation	5/2/2026
15d-052	Janet French	No Affiliation	5/2/2026
15d-053	Marco Guardi	No Affiliation	5/2/2026

Commenter Code	Commenter	Affiliation	Submittal Date
15d-054	Paul Newman	No Affiliation	5/2/2026
15d-055	Ronald Kirkpatrick	No Affiliation	5/2/2026
15d-056	David Walters	No Affiliation	5/2/2026
15d-057	Sheng Su	Sustain You	5/2/2026
15d-058	Eleanor Bolick	No Affiliation	5/2/2026
15d-059	Clarence Costa	No Affiliation	5/2/2026
15d-060	Alex Gima	No Affiliation	5/2/2026
15d-061	Mark Daggett	No Affiliation	5/2/2026
15d-062	Christine Earl	No Affiliation	5/2/2026
15d-063	Peter Anderson	No Affiliation	5/2/2026
15d-064	Lucille Freer	No Affiliation	5/2/2026
15d-065	Doug Moore	No Affiliation	5/2/2026
15d-066	Glen MacLeod	No Affiliation	5/2/2026
15d-067	Jo Berbiglia	No Affiliation	5/2/2026
15d-068	Enid Eckert	No Affiliation	5/2/2026
15d-069	Laura Dreschler	No Affiliation	5/2/2026
15d-070	Scott Hunt	No Affiliation	5/2/2026
15d-071	Larry D Mueller	No Affiliation	5/2/2026
15d-072	Brian Mulholland	No Affiliation	5/2/2026
15d-073	Cheryl Mulholland	No Affiliation	5/2/2026
15d-074	John Haw	No Affiliation	5/2/2026

Commenter Code	Commenter	Affiliation	Submittal Date
15d-075	Ty Beaudette	No Affiliation	5/3/2026
15d-076	MaryPat Gonzalez	No Affiliation	5/3/2026
15d-077	Brenda Low	No Affiliation	5/3/2026
15d-078	Stephenstop Making Life and Bu Bova	No Affiliation	5/3/2026
15d-079	Joshua Weaver	No Affiliation	5/3/2026
15d-080	Paul Taylor	No Affiliation	5/3/2026
15d-081	A McGarigle	No Affiliation	5/3/2026
15d-082	Norman Lawson	No Affiliation	5/3/2026
15d-083	Robert Sinclair II	No Affiliation	5/3/2026
15d-084	Joan Mayeaux	No Affiliation	5/3/2026
15d-085	Peter Godlewski	No Affiliation	5/3/2026
15d-086	L. McMillan	No Affiliation	5/3/2026
15d-087	Monica Boran	No Affiliation	5/3/2026
15d-088	George Maurer	No Affiliation	5/3/2026
15d-089	Deidre Taylor	No Affiliation	5/3/2026
15d-090	Pam Mcmillan	No Affiliation	5/3/2026
15d-091	Henry Pritchett	No Affiliation	5/3/2026
15d-092	Mary Ellen Bobp	No Affiliation	5/3/2026
15d-093	An Lee	No Affiliation	5/3/2026
15d-094	Alan Wiles	No Affiliation	5/3/2026
15d-095	Gabor Nemeth	No Affiliation	5/4/2026

Commenter Code	Commenter	Affiliation	Submittal Date
15d-096	David Orozco	No Affiliation	5/4/2026
15d-097	Michelle Savage	XBRL US	5/4/2026
15d-098	Joshua Goodlink	No Affiliation	5/4/2026
15d-099	Brian Kelley	No Affiliation	5/4/2026
15d-100	Barbara Andries	No Affiliation	5/4/2026
15d-101	Alisa Kaseweter	Bonneville Power Administration	5/4/2026
15d-102	Lucas Grimes	Center for Resource Solutions	5/4/2026
15d-103	Michael Sullivan	PacifiCorp	5/4/2026
15d-104	Rita Lopez	No Affiliation	5/4/2026
15d-105	Rick Ingram	No Affiliation	5/4/2026
15d-106	Katie Little	California League of Food Producers	5/4/2026
15d-107	Terry Hudgins	No Affiliation	5/4/2026
15d-108	Benjamin Kling	Beta Analytic LLC	5/4/2026
15d-109	Helen Limburg	No Affiliation	5/4/2026
15d-110	Shawn-Dai Linderman	California Community Choice Association	5/4/2026
15d-111	Scott Cox	Electric Vehicle Charging Association	5/4/2026
15d-112	Scott Cox	ValleyCAN	5/4/2026
15d-113	Lindsey Pratt	Sierra Harvest	5/4/2026

Commenter Code	Commenter	Affiliation	Submittal Date
15d-114	Elizabeth Esquivel	California Manufacturers & Technology Association	5/4/2026
15d-115	Terri Nguyen	No Affiliation	5/4/2026
15d-116	Norman Wohkittel	No Affiliation	5/4/2026
15d-117	Sara Christian	Sacramento Municipal Utility District (SMUD)	5/4/2026
15d-118	Martha Fuchs	No Affiliation	5/4/2026
15d-119	Megan Cleveland	The Nature Conservancy	5/4/2026
15d-120	Steve Coppinger	No Affiliation	5/4/2026
15d-121	Todd Snyder	No Affiliation	5/4/2026
15d-122	Cindy Parsons	Los Angeles Department of Water and Power	5/4/2026
15d-123	Chelsea Gazillo	American Farmland Trust	5/4/2026
15d-124	Jon Dearing	National Cement Company of California (NCC)	5/4/2026
15d-125	Jennifer Jordan	No Affiliation	5/4/2026
15d-126	Chris Shimoda	Supply Chain Federation	4/29/2026
15d-127	Michael Lewis	Construction Industry Air Quality Coalition	4/29/2026

Table 3. Oral and Written Comments Presented at the Board Hearing¹

Commenter Code	Commenter	Affiliation	Submittal Date
BH-001, Oral	Krysta Wanner	Western Propane Gas Association	5/28/2026
BH-002, Written	William Mancilla	No Affiliation	5/28/2026
BH-003, Written	Jessica Hay	AFSCME	5/28/2026
BH-004, Written	Rosie Fei	No Affiliation	5/28/2026
BH-005, Written	Evie Maher	SanDiego350	5/28/2026
BH-006, Written	Derrick Gaffney	Jamboree Housing Corporation	5/28/2026

Table 4. Written Comments Submitted to Cap-and-Invest Docket

Commenter Code	Commenter	Affiliation	Submittal Date
45d-CUSAI-296	Henry Perea	Chevron USA Inc	3/9/2026
45d-Vidal-233	David Vidal	Vidal	3/9/2026
45d-CSCME-352	Steve Coppinger	Coalition for	3/9/2026
45d-WSPA-381	Jodie Muller	Western States Petroleum Association	3/9/2026
45d-PG&E-445	Fariya Ali	Pacific Gas & Electric	3/13/2026
45d-EI-403	Erik Freer	Endaris Inc.	3/9/2026
45d-ABC-406	Jonathan Harding	American Biogas Council	3/9/2026
45d-POET-308	Paul Townsend	POET LLC	3/9/2026

¹ Please refer to Appendix A for the oral comments received at the board hearing related to the Cap-and-Invest Regulation.

Commenter Code	Commenter	Affiliation	Submittal Date
45d-RFA-438	Neil Koehler	Renewable Fuels Association	3/9/2026
45d-CMUA-368	Jessica Melms	California Municipal Utilities Association	3/9/2026
45d-JUG-404	Susie Berlin	Joint Utility Group	3/9/2026
45d-LADWP-408	Cindy Parsons	Los Angeles Department of Water and Power	3/9/2026
45d-CRC-379	Jason Marshall	California Resources Corporation (CRC)	3/9/2026
15d-CAISO-127	Sarah Kozal	California Independent System Operator Corporation	5/4/2026
15d-CCEEB-165	Chris Shimoda	California Council for Environmental and Economic Balance	5/4/2026
15d-PG&E-199	Fariya Ali	Pacific Gas & Electric	5/8/2026
45d-CAISO-393	Sarah Kozal	California Independent System Operator Corporation	3/9/2026
15d-WSPA-164	Jodie Muller	Western States Petroleum Association	5/4/2026
15d-BAC-61	Julian Lake	Bay Area Council	5/4/2026
15d-CRC-161	Andrew Cochran	California Resources Corporation	5/4/2026

B. General Comments

B-1. Multiple Comments: Streamline MRR Requirements

Comment: Streamline monitoring, reporting, and Mandatory Reporting Regulation (MRR) and allowance related reporting requirements by aligning with federal GHG reporting frameworks, eliminating duplicative LCFS reporting, and providing appropriate flexibility for fuels, trades, and hydrogen related emissions reporting to reduce unnecessary administrative burden. (45d-CUSAI-296)

Comment: CARB should ensure that MRR remains aligned with federal reporting requirements. WSPA urges CARB to maintain the MRR's alignment with the federal Greenhouse Gas Reporting Program at 40 Code of Federal Regulations (CFR) Part 98 to the greatest extent practicable and to reconsider the provisions in the Proposed Amendments that could introduce conflicts or inconsistencies between the two programs. California reporting entities have spent more than a decade developing sophisticated compliance systems for internal operation and external reporting that are fundamentally based on federal reporting methodologies. Departing from these established frameworks would be highly disruptive and costly, requiring companies to redesign data collection and reporting systems that are deeply embedded in day-to-day operations.

WSPA recognizes the significant uncertainty currently surrounding the federal program, based on the U.S. Environmental Protection Agency's proposal to rescind GHG reporting requirements for a large number of source categories. However, even if federal GHG reporting requirements are reduced or eliminated, CARB should continue to rely on the existing federal technical methodologies as the foundation for the MRR. Doing so would preserve data continuity and integrity, maintain consistency with historical reporting, and avoid imposing unnecessary administrative burden associated with developing and implementing entirely new, state-specific methodologies during a period of regulatory uncertainty. (45d-WSPA-381)

Response: No changes were made in response to these comments. MRR is aligned with federal GHG reporting requirements to the extent possible given California's unique legislative mandates. Reported data under MRR is used to support various programs at CARB including the Cap-and-Invest Program, the statewide GHG emissions inventory and the Cost of Implementation Fee Regulation. Therefore, the data collected under MRR is necessary for the implementation of these programs, ensures no double-counting, and cannot be scaled back or aligned fully with other CARB programs or external programs.

B-2. Multiple Comments: Align MRR with Other CARB Programs

Comment: Ensure alignment between reporting frameworks and regulations

ABC urges CARB to ensure alignment between reporting requirements under the MRR, LCFS, and emerging reporting frameworks under the California Energy Commission to avoid duplicative or inconsistent data collection requirements. Where possible, CARB should leverage LCFS reporting infrastructure and data streams to obtain necessary

information from RNG suppliers rather than establishing parallel reporting obligations. (45d-ABC-406)

Comment: Align Reporting Between Cap-and-Invest and Low Carbon Fuel Standard Data

As discussed in previous C&I workshop comments,² we believe that much of the RNG used in California—including for natural gas vehicles and voluntary buyers—is not correctly recognized by the C&I and MRR current framework. In the LCFS, gas deployed into natural gas vehicles is reported downstream of the utility, usually through collaborative reporting between the RNG project and the company running the natural gas dispensing stations. Many fueling stations do not meet the reporting threshold for inclusion under MRR and have no direct C&I compliance obligation, which creates a disconnect between LCFS and C&I/MRR data. Similarly, we expect entities to procure increasing amounts of RNG under corporate GHG accounting frameworks for facilities not directly covered in C&I/MRR.³

This means that, in practice, RNG in the gas utilities system is often reported as fossil gas by the utility under the C&I/MRR. We reiterate that this can, and should, be corrected in this rulemaking, either through improved internal coordination between groups at CARB (who have access to multiple datasets and can map voluntary actors and CNG stations using RNG to utility service territories) or through a holistic fix that could be used across all programs (e.g., use of a centralized registry for RNG ownership that could be accessed by all programs).

For voluntary customers, as CARB gathers data for such corporate reporting under SB 253 requirements, there should be a way for utility C&I obligations to be reduced to recognize these purchases. In the absence of such accounting alignment, renewable gas use will be counted as conventional gas and thus create unnecessary duplicative C&I burden for California utility ratepayers—even those directly paying to procure RNG.

The program specific data from CARB's websites shows this clearly. The major gas utilities MRR fuel supplier data is as follows, showing very little RNG use:

ARB ID	Facility Name	Report Year	Fuel Supplier CO2e from Non-Biogenic Fuels and CH4	Fuel Supplier CO2 from Biogenic	Fuel Supplier CO2 from Non-Exempt Biogenic Fuels
104024	Pacific Gas and Electric Company (PG&E) - Supplier of Natural Gas	2024	39,021,107	0	0

² For example, see our comments on the October 29, 2025, Workshop on Potential Amendments to the Cap and-Invest Program, https://ww2.arb.ca.gov/approved-comments?entity_id=46521 and the May 31, 2024, Cap-and-Trade Workshop, https://ww2.arb.ca.gov/approved-comments?entity_id=36751

³ CARB, CARB Approves Climate-Transparency Regulations for Entities Doing Business in California (Feb. 26, 20260, <https://ww2.arb.ca.gov/news/carb-approves-climate-transparency-regulation-entities-doing-business-california>

104085	San Diego Gas and Electric (SDG&E) - Local Distribution	2024	4,894,652	0	0
5002	Southern California Gas Company - End User Emissions	2024	38,527,955	61,143	771
5013	Southwest Gas Distribution Facilities	2024	796,902		7,787

The MRR data shows approximately 70,000 metric tons of biogenic CO₂ being reported by utilities. Adding in other non-utility natural gas fuel suppliers, annual biogenic CO₂ is 315,134 metric tons in 2024. However, the LCFS data in 2024 has 218,681,746 diesel gallon equivalents of RNG reported across all vehicle fuel use. This should produce ~1.5 million metric tons tailpipe biogenic CO₂ per year.⁴ Meaning that MRR is likely overcounting fossil CO₂ from NGVs by more than a million metric tons CO₂ per year.

This lack of recognition in C&I/MRR for RNG creates skewed incentives relative to other renewable transportation fuels. For example, we believe most of the ethanol, biodiesel, and renewable diesel volume is correctly accounted for in an aligned way across LCFS and C&I/MRR.

Renewable natural gas is a reliable, immediately available, and scalable decarbonization tool suitable for use in a wide variety of sources covered by the Cap-and-Invest program. California aligning the reporting in C&I/MRR to fully recognize the benefits of RNG projects would strengthen its leadership in the clean energy transition while delivering climate, economic, and equity benefits statewide. (45d-306)

Response: No changes were made in response to these comments. Natural gas utilities maintain the option to report delivered RNG as exempt biomethane in MRR when the customer makes them aware of the procurement of biomethane and provides the information and documentation during verification necessary to substantiate that the biomethane meets the exemption criteria specified in the Cap-and-Invest Regulation. Furthermore, the data reported to LCFS does not contain information necessary to determine whether Cap-and-Invest exemption criteria are met in all cases. MRR staff will continue to monitor how other programs and agencies implement RNG program requirements and will adjust if needed in future rulemakings.

B-3. Comment: Applicability Threshold

Comment: Thank you for the opportunity to provide comments regarding the proposed amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR). I am writing to express deep concern regarding several of the stricter provisions introduced in this regulatory package.

By expanding the scope of reporting to early-stage green technologies, heightening administrative burdens through stricter verification rules, eliminating minimum reporting

⁴ 218,681,746 diesel gallon equivalents is equal to 27,877,015 mmBtu. Assuming an emission factor of 53.06 kg CO₂/mmBtu for natural gas, this amount of RNG should produce 1,479,154 metric tons of biogenic CO₂

thresholds, and imposing rigid default loss factors on energy storage systems, CARB risks inadvertently stifling the very clean-energy innovation it seeks to promote. Academic literature repeatedly demonstrates that excessive administrative complexity acts as a major bottleneck to the diffusion of renewable energy technologies. I respectfully urge the Board to reconsider the following stringent elements of the proposed MRR amendments.

Expanding Applicability to Emerging Green Technologies

The proposed amendments significantly broaden the MRR's applicability by encompassing biorefineries regardless of their emission levels, as well as importers and producers of electrolytic hydrogen at a low 500-metric-ton threshold. Subjecting these nascent clean energy sectors to the same rigorous compliance frameworks as established legacy fossil fuel operations risks creating insurmountable barriers to entry.

Imposing heavy administrative protocols on early-stage clean energy technologies can significantly deter their adoption. Research demonstrates that the administrative weight of environmental regulations increases initial project expenses and introduces delays, which is especially detrimental to new initiatives and organizations lacking extensive compliance experience (Newkirk, Watson, & Robinson, 2022). For the green hydrogen sector specifically, researchers caution that multi-layered certification schemes and broad carbon accounting boundaries carry substantial operational costs related to data collection, auditing, and trading fees, which can be particularly damaging to smaller hydrogen producers (Abad & Dodds, 2020; White et al., 2021).

Furthermore, applying strict carbon limitations and associated administrative risks to biorefineries can negatively affect their production planning and overall financial viability (Cheng & Anderson, 2016). Extended registration timelines and complex regulatory procedures are known to restrict the scalability and success of clean energy startups (Podosynnikov, Kolotilina, & Kochnieva, 2024). Instead of imposing fragmented and burdensome regulations that stall the transition to a low-carbon hydrogen economy and advanced biofuels (Drespel, 2025; Nurdawati & Urban, 2022), CARB should pursue simplified compliance pathways that have been empirically shown to accelerate the growth of sustainable energy ventures (Halynskiy, Lytiuha, & Telizhenko, 2024).

California must ensure its regulatory frameworks remain flexible, pragmatic, and conducive to innovation. The proposed stricter amendments to the MRR lean too heavily toward administrative rigidity. By over-regulating emerging hydrogen and biofuel markets, shrinking the auditor pool, removing practical reporting thresholds, and financially penalizing energy storage, CARB risks stifling innovation.

I strongly urge the Board to revise these provisions to reduce the administrative burden on reporting entities and foster an environment that rewards, rather than restricts. Thank you for your time and consideration of these comments. (45d-006)

Response: No changes were made in response to this comment. MRR is fundamentally a reporting regulation, not a control regulation. GHG emissions data supports the Cap-and-Invest Program, statewide GHG inventory, and other climate programs. Inclusion within MRR does not automatically subject an entity

to Cap-and-Invest compliance obligations, allowance surrender requirements, or emission limits. Unless otherwise specified, facilities below the 25,000-metric-ton (MT) covered emission threshold would remain outside the Cap-and-Invest program.

Regarding biorefining, all major in-state biorefineries already participate in the program under NAICS code: 325199 (All Other Basic Organic Chemical Manufacturing). The proposed MRR amendments support existing biorefineries that already report under MRR, and improves the way they report, enhancing clarity, consistency, and data integrity without expanding unnecessary administrative burdens.

With respect to imported and electrolytic hydrogen, the proposed threshold of 500 MT represents the approximate quantity of hydrogen produced by an in-state steam methane reformer (SMR) unit per 10,000 MT CO₂e, based on the average statewide emissions intensity derived by staff from data reported to MRR by operators of SMR hydrogen production units in California. To minimize burden on this emerging technology, MRR is initially excluding hydrogen importers and producers of electrolytic hydrogen from verification requirements, and there is no proposed compliance obligation for these emissions under the Cap-and-Invest Regulation.

Collectively, these proposed updates are designed to be minimally burdensome and are necessary to strengthen future decision-making and improve alignment across CARB programs.

B-4. Comment: Biological Decomposition Processes

Comment: Introduction & Organizational Standing

Sustain You strongly supports CARB's 15-Day Proposed Amendments, particularly the efforts to align the Cap-and-Invest Regulation with SB 32 and SB 1383 goals. As a provider of circular economy infrastructure, we emphasize that achieving California's 2030 and 2045 climate targets requires a fundamental transition—from treating organic waste as a disposal liability to managing it as a stabilized, recoverable resource.

California's climate leadership is built on this shift in perspective: organic waste is a recoverable resource capable of generating economic value and supporting community-level services. This approach aligns environmental protection with economic development while reducing emissions and strengthening local resilience. Critically, because CARB regulates emissions—not materials—our focus on managing biological decomposition processes at the source directly supports this regulatory intent.

II. Core Implementation Gap & Technical Principle

A. The "Prevention vs. Mitigation" Framework

The current 15-day modifications focus heavily on accounting for emissions post-generation. While the existing regulatory system effectively measures emissions after they occur, CARB may consider developing complementary mechanisms to intervene in

the emission generation process itself. Bridging this gap could meaningfully close the persistent disconnect between policy intent and on-the-ground emissions reduction.

Key implementation challenges include:

- The time lag between emissions generation and regulatory reporting
- Limited visibility of transportation-related emissions in centralized systems
- The continued classification of organic waste as a liability rather than a recoverable resource

B. Technical Principle: Controlling Decomposition at the Source

Emissions result from uncontrolled biological decomposition processes. By managing decomposition at the point of generation, we can systematically prevent the uncontrolled anaerobic conditions that produce methane (CH₄). Applying controlled, closed-loop systems at the point of waste generation allows these processes to be stabilized, managed, and significantly reduced before methane and other greenhouse gases are formed. Furthermore, on-site processing eliminates the carbon-intensive transportation and handling burden associated with centralized disposal routes.

III. Specific Policy Recommendations & Technical Alignment

1. Recognition of Distributed Execution Layers (Cap-and-Invest Alignment)

Distributed, on-site processing (DOP) systems can serve as a complementary execution layer within the current regulatory framework. CARB may explore how the modified Regulation could facilitate recognition of DOP as a valid compliance-support pathway.

Implementation Pathway for Consideration: Within the scope of “Market-Based Compliance Mechanisms,” consider recognizing entities that reduce their carbon footprint through on-site organic stabilization as contributing to the overall reduction of the statewide cap.

Technical Benefit: Such systems can prevent significant methane formation at the source and provide predictable, verifiable, and auditable outcomes.

2. Data-Driven Compliance under MRR (Real-Time Data Integration)

The 15-day amendments discuss increased precision in emissions reporting. Distributed systems offer a unique advantage through digital transparency and real-time operational visibility.

Recommendation: Consider allowing a “Tier 3” or “Alternative Method” reporting pathway under MRR for facilities using IoT-monitored, closed-loop systems. Verifiable operational data (e.g., temperature, oxygen levels, mass balance) could support emissions accounting by:

- Improving the accuracy of emissions estimation through real-time, continuous data
- Providing verifiable evidence of minimized methane generation at the source
- Enabling precise alignment between on-site reduction activities and compliance reporting obligations

3. Pilot Programs and Decentralized Infrastructure Investment

In light of the Senate Environmental Quality Committee's interest in cost-effective climate solutions, CARB could explore supporting pilot-scale implementation to evaluate the emissions and data integration outcomes of distributed systems.

Funding Prioritization: Consider directing Cap-and-Invest funding toward decentralized infrastructure to reduce reliance on aging centralized systems and avoid stranded asset risks. This approach supports rapid, modular deployment across urban, industrial, and resource-constrained environments.

IV. Addressing California's Triple Bottom Line

Methane Reduction (SB 1383 Alignment)

Our approach provides a scalable, near-term pathway to meet the 75% organic waste diversion goal without requiring the lengthy permitting timelines associated with new centralized facilities.

Transportation Emissions Reduction (Mobile Source Strategy)

Distributed processing meaningfully reduces Class 8 truck Vehicle Miles Traveled (VMT) by eliminating the need to haul heavy organic waste to remote centralized facilities, in direct support of CARB's Mobile Source Strategy.

Workforce Development & Green Innovation

Developing a skilled local workforce to operate and maintain distributed systems strengthens implementation capacity in communities such as Solano County, while contributing to the creation of "Green-Collar" jobs aligned with California's economic equity goals.

V. Conclusion: Toward a Structural Circular Economy Transition

The transition to a circular economy is a structural economic evolution—not a compliance exercise. By integrating distributed resource recovery pathways into both the MRR and Cap-and-Invest regulations, CARB can bridge the critical gap between "reporting a problem" and "executing a solution."

We urge CARB to include language in the Final Statement of Reasons (FSOR) that encourages the pilot-scale integration of verifiable, source-level data from closed-loop systems into the state's greenhouse gas inventory. This would represent a meaningful step toward outcome-based, infrastructure-supported climate governance. (15d-057)

Response: No changes were made in response to this comment. CARB appreciates the commenter's support for the proposed amendments and interest in advancing innovative approaches to reducing emissions from organic waste management systems. The recommendations provided, including distributed processing systems, decentralized infrastructure, pilot program development, and broader circular economy implementation strategies, are outside the scope of the 15-Day Notice, which is focused on specific updates to MRR as noticed.

CARB notes that additional information regarding the specific technology, operational design, emissions profile, and monitoring capabilities described by the commenter would be necessary to evaluate potential applicability under existing or future reporting requirements.

B-5. Comment: Importer Applicability

Comment: The inclusion of [Hydrogen/Cement] importers under the MRR creates significant market uncertainty. Specifically, the proposed amendments fail to account for the administrative overhead required for entities that have not historically been part of the Cap-and-Trade ecosystem. This expansion threatens to increase costs for [Industry/Sector] without a proportional benefit to emissions transparency. (45d-Vidal-233)

Response: No changes were made in response to this comment. CARB understands some additional time will be spent by importers to comply with MRR. However, the data is not subject to third-party verification and the amount of time required to report imports is minimal. The inclusion of emissions reporting requirements for importers of cement and hydrogen support the broader decarbonization efforts outlined in the 2022 Scoping Plan and the SB 596 Cement Net-zero Emissions Strategy by ensuring policy decisions are supported by consistent and transparent emissions reporting for these technologies.

B-6. Multiple Comments: Methane Slip Reporting

Comment: We strongly support CARB's efforts to expand and improve greenhouse gas data collection and offer the following recommendations regarding an important and currently underreported emission source: methane slip from lean-burn natural gas reciprocating engines operating at data centers, stationary power generation facilities, combined heat and power (CHP) plants, and other applicable market segments.

Addressing methane slip from these sources is one of the most cost-effective climate interventions available today — and, without explicit MRR reporting requirements, it remains one of the most overlooked.

Background: The Methane Slip Problem

Natural gas-fueled lean-burn reciprocating engines are increasingly deployed across California for data center power, commercial and industrial CHP, and distributed generation. These engines provide grid resilience and efficiency benefits, but they also emit a significant fraction of their fuel as unburned methane — a phenomenon known as "methane slip."

The scientific literature documents methane slip rates of 1–5% of fuel input for lean-burn engines, including lean-burn spark ignition (LBSI) engines that are common in stationary power applications. This slip occurs because the lean-burn combustion regime optimized to reduce NOx emissions produces exhaust temperatures that are insufficient to fully oxidize methane in conventional aftertreatment systems.

Methane slip is not a marginal emission. Because methane has a global warming potential (GWP) approximately 82 times that of CO2 over a 20-year time horizon

(GWP20 per IPCC AR5) and 28 times that of CO₂ over 100 years (GWP100), methane slip can represent:

- Approximately 50% of the total CO₂e footprint of a lean-burn engine over a 20-year horizon, and
- Approximately 25% of the total CO₂e footprint over a 100-year horizon.

These figures are not theoretical. They reflect real-world operational data corroborated by multiple independent assessments of lean-burn engine emissions profiles.

The Scale of the Emerging Problem in California

The deployment of lean-burn natural gas engines is accelerating, driven significantly by data center growth. The rapid expansion of AI workloads is driving explosive electricity demand growth, and grid constraints are pushing data center operators toward on-site natural gas generation. Reciprocating engine gensets — often lean-burn — are proliferating because gas turbines face multi-year lead times and cannot be procured quickly enough to meet demand.

Relevant scale indicators for California include:

- U.S. data center electricity consumption is projected to grow from 183 TWh in 2024 to over 426 TWh by 2030 — a 133% increase — with California hosting a share of this capacity.
- Natural gas is projected to supply over 60% of electricity for U.S. data centers by 2030, much of it from on-site reciprocating engines (behind-the-meter power).
- Beyond data centers, universities, hospitals, and CHP facilities throughout California operate lean-burn natural gas engines.
- The U.S. operates approximately 2.5 million miles of natural gas pipelines with ~650 compression stations, a significant fraction of which use lean-burn reciprocating engines.

Methane slip from these sources is estimated to total approximately 850 million metric tons CO₂e per year nationally in 2025 and is growing. Without reporting requirements, this emissions stream will continue to grow invisibly, eroding California's climate progress.

Current Gap in MRR Reporting

Under current MRR requirements, facilities must report CO₂, CH₄, and N₂O from stationary fuel combustion sources. However, for natural gas combustion, the methane emissions reported typically represent only combustion byproducts — not unburned methane slip from incomplete combustion in lean-burn engines. The default emission factors used in Subpart C methodologies assume nearly complete combustion and do not capture the 1–5% methane slip characteristic of LBSI and similar lean-burn architectures.

As a result:

- Facilities with lean-burn natural gas engines are systematically underreporting their methane — and thus their total CO₂e — emissions.

- CARB's statewide GHG inventory likely understates the methane contribution from this growing source category.
- California's Cap-and-Invest program may not be adequately capturing compliance obligations associated with these emissions.

Policy and Regulatory Basis

These recommendations are consistent with and supportive of:

- California's AB 1279 and SB 32 targets for carbon neutrality by 2045 and 85% reduction in GHGs below 1990 levels, which require a complete and accurate picture of all significant emission streams.
- CARB's own stated purpose for the 2026 MRR amendments: to collect emissions data from fuels and sectors not currently included in MRR reporting to give a more complete picture of GHG emissions in the State.
- The scientific consensus that methane slip from lean-burn engines is a material and growing source of GHG emissions that current monitoring frameworks do not adequately capture.

With the federal EPA considering rollback of the national GHG Reporting Program, California's MRR is increasingly the primary regulatory mechanism for ensuring comprehensive facility-level GHG transparency. Strengthening MRR's treatment of methane slip is therefore both timely and essential.

Renewable Natural Gas

(A) How Methane Slip Negates the CO₂e Benefit of RNG — the quantitative case: 3% slip at GWP100 adds ~50% to CO₂e footprint the RNG is offsetting; at GWP20 it's ~100% (equaling the RNG benefit).

(B) The Net-Zero Implication — RNG cannot deliver its promised lifecycle reductions if slip goes unmeasured. California's RNG policy investment is generating phantom reductions: the upstream LCFS credit assumes complete combustion, but the methane escaping the exhaust is never counted. RNG has identical combustion chemistry to fossil gas — slip rates are the same.

(C) Specific Recommendation — link RNG reporting to point-of-use methane slip measurement; condition LCFS pathway credits on measured slip performance; and flag that net-zero designations for RNG-using facilities are invalid without verified slip accounting.

Require Measurement-Based Methane Slip Quantification

CARB should require that methane slip be quantified using measurement-based methods rather than relying solely on default emission factors derived from complete combustion assumptions. Options include:

- Continuous exhaust methane monitoring (e.g., flame ionization detectors or NDIR-based analyzers) for larger facilities or new installations above a defined threshold.

- Periodic source testing (e.g., annual stack tests) using EPA Method 25A or equivalent for methane in lean exhaust streams.
- Manufacturer-validated emission factors specific to engine model, load profile, and fuel composition — with disclosure of which engine-specific factors are used.

Default emission factors calibrated for conventional combustion sources are not adequate for lean-burn engines and should not be the sole permissible quantification method for these sources.

Add Lean-Burn Natural Gas Engine Methane Slip as a Reportable Emission Source

We recommend that CARB amend the MRR to explicitly identify lean-burn reciprocating natural gas engines (including LBSI, two-stroke lean-burn, and low-pressure dual-fuel engines) as a distinct emission source category requiring separate methane emissions quantification. This should apply to:

- Stationary power generation facilities (including data center power gensets)
- CHP and cogeneration facilities
- Compressor stations and pipeline operations using lean-burn engines

Any facility that operates lean-burn natural gas engines above a defined aggregate capacity threshold (e.g., 1 MW total installed capacity or 10,000 MT CO₂e/year threshold) (45d-310)

Comment: I. Background: Methane Slip and Its Climate Significance

Lean-burn natural gas reciprocating engines — including lean-burn spark ignition (LBSI) engines widely used in data centers, combined heat and power (CHP) facilities, stationary power generation, and pipeline compression — emit 1–5% of their fuel input as unburned methane through their exhaust, a phenomenon known as "methane slip." This occurs because the lean-burn combustion regime optimized to minimize NO_x produces exhaust temperatures too low for conventional aftertreatment systems to fully oxidize methane.

The climate implications of methane slip are substantial:

- Methane has a global warming potential (GWP) of 86–87 g CO₂e/g CH₄ over 20 years (GWP20) and 36 g CO₂e/g CH₄ over 100 years (GWP100), per IPCC AR5.
- At a 2% slip rate and using GWP100, methane slip adds approximately 25% to the total CO₂e footprint of a lean-burn engine beyond its direct CO₂ combustion emissions. At GWP20, this rises to approximately 50% of total CO₂e.
- At a 5% slip rate — documented in high-slip LBSI engines — methane slip can exceed CO₂ combustion emissions on a GWP20 basis.

These are not marginal or speculative emission rates. They are well-documented in peer-reviewed literature and operational data across multiple engine types and applications. Yet the Cap-and-Invest regulation's compliance obligation calculations — which rely on combustion emission factors calibrated for near-complete combustion — systematically fail to capture them.

II. The Growing Scale of the Problem in California

The deployment of lean-burn natural gas engines in California is accelerating, driven primarily by explosive demand for data center power. As AI workloads drive electricity demand, grid constraints are pushing data center operators toward on-site natural gas generation. Reciprocating lean-burn engine gensets are proliferating because gas turbines have multi-year lead times. This is not a future risk — it is happening today.

Relevant scale considerations for California:

- U.S. data center electricity consumption is projected to grow from 183 TWh in 2024 to over 426 TWh by 2030 — a 133% increase — with significant California capacity in this growth.
- Natural gas is projected to supply over 60% of electricity for U.S. data centers by 2030, much of it from on-site lean-burn reciprocating engines.
- Stationary engine applications beyond data centers — CHP facilities, universities, hospitals, industrial sites, and midstream compression — represent a large installed base of lean-burn engines across the state.
- Nationally, methane slip from lean-burn engines is estimated to total approximately 850 million metric tons CO₂e annually in 2025 and growing.

The scale problem is compounded by the accelerating adoption of renewable natural gas (RNG) as a fuel source for these engines. California policy — through the Low Carbon Fuel Standard, Self-Generation Incentive Program, and utility procurement mandates — is actively encouraging RNG substitution for fossil natural gas in stationary engines on the premise that RNG combustion delivers near-zero or negative lifecycle CO₂e. That premise is only valid if the methane is actually combusted. When lean-burn engines slip 1–5% of fuel as unburned methane, the upstream RNG carbon credit is partially or entirely consumed by downstream exhaust losses. The molecular composition and combustion chemistry of RNG are identical to fossil natural gas once in the pipeline; slip rates are the same regardless of fuel origin. California is therefore deploying growing volumes of RNG into an engine fleet that is silently and systematically negating a material share of RNG's climate value — with no regulatory mechanism to detect or quantify this.

As California tightens its cap for 2027–2030 and beyond, and as the regulation extends through 2045, the failure to capture these emissions in compliance obligations becomes an increasingly significant source of environmental non-integrity and competitive inequity between covered entities that do capture all their GHG emissions and those operating lean-burn engines with unaccounted methane slip.

Compliance obligations for natural gas combustion under Section 95852 are calculated using emission factors that assume substantially complete combustion. These factors are derived from approaches aligned with EPA's GHG Reporting Program (40 CFR Part 98, Subpart C), which similarly apply general combustion emission factors to stationary natural gas combustion without distinguishing lean-burn engine architectures.

For lean-burn engines, this approach systematically and materially undercounts actual methane emissions.

We are concerned that methane slip from lean-burn engine exhaust could be characterized or treated as falling within these or related exemption categories, either inadvertently or through regulatory ambiguity.

Methane slip from exhaust is neither a vented emission nor a fugitive emission in the traditional sense — it is an incomplete combustion byproduct emitted through a point source. It should be unambiguously subject to a compliance obligation as a combustion emission. We recommend that CARB:

- Explicitly clarify in Section 95852.2 that methane slip from engine exhaust is classified as a combustion emission subject to a full compliance obligation, and is not eligible for treatment as a vented or fugitive emission or any other exemption category.
- Add a definition or cross-reference in the definitions section (Section 95802) that distinguishes combustion methane slip from vented and fugitive methane, ensuring consistent treatment across the regulation. (45d-EI-403)

Response: No changes were made in response to these comments. Staff agree this is a topic for future research and information gathering. Currently methane slip is only addressed in the petroleum and natural gas sector and is applicable to the combustion of associated gas from all oil and gas sector equipment types. For common fuels, including natural gas, a single emission factor is applicable irrespective of the type of equipment (with the exception of flares). Adding complexity when estimating emissions would only be considered if methane slip was identified by CARB as a significant source of additional methane emissions and would require a separate rulemaking process. The comments applicable to the Cap-and-Invest Regulation are out of scope of the MRR rulemaking. See Agency Response to comments T-18.1a, Q-3.1, Q-3.2, Y-3.11 and Y-3.16 in the Cap-and-Invest FSOR.

B-7. Multiple Comments: Global Warming Potential for Methane

Comment: Report Methane Separately from CO₂, Using Both GWP20 and GWP100

We recommend that CARB require that methane slip emissions be reported as a separate line item — not aggregated into total CO₂e only — so that the magnitude and character of the emission is transparent. Additionally, we recommend that reported totals be expressed under both:

- GWP100 (100-year global warming potential, per IPCC AR5): 36 g CO₂e/g CH₄
- GWP20 (20-year global warming potential, per IPCC AR5): 86–87 g CO₂e/g CH₄

This dual-horizon reporting approach is consistent with leading scientific guidance (Balcombe et al., 2018, Environmental Science: Processes & Impacts) and reflects the fact that methane's near-term climate forcing — which manifests within California's planning horizons of 2030 and 2045 — is dramatically higher than the GWP100 value alone would suggest. Reporting solely on GWP100 may cause operators, regulators,

and the public to significantly underestimate the near-term climate impact of methane slip. (45d-310)

Comment: GWP Values Applied to Methane Compliance Obligations

The Cap-and-Invest regulation currently uses GWP100 values from IPCC AR4 (GWP = 25 for methane, including climate-carbon feedbacks and oxidation) to convert methane emissions to CO₂ equivalents for compliance purposes. While GWP100 is the established standard for cap-and-trade programs globally, we recommend that CARB take two complementary steps:

- Update the GWP values used in the regulation to reflect the most current IPCC science. The IPCC AR6 (2021) values for methane are higher: GWP100 of approximately 29.8 (fossil methane, without climate-carbon feedback) to 82.5 (with feedbacks over 20 years). CARB should evaluate whether updated AR6 values should be incorporated, particularly as the program extends through 2045.
- Require or encourage reporting of methane emissions under both GWP20 and GWP100 to ensure transparency about near-term climate forcing. As CARB's own 2022 Scoping Plan Update emphasizes near-term methane reductions as a critical pathway to meeting 2030 targets, reporting under GWP20 provides the regulatory signal most aligned with those near-term goals.

The scientific literature is clear that the choice of time horizon has large implications for the apparent climate impact of methane (Balcombe et al., 2018, *Environmental Science: Processes & Impacts*). For a program extending to 2045 with interim 2030 targets, using only GWP100 may understate the near-term urgency of methane mitigation and create perverse incentives to defer action.

California would not be breaking new ground in adopting GWP20 for methane compliance purposes — it would be joining New York, which has already taken this step under a statutory mandate. The New York Climate Leadership and Community Protection Act (CLCPA), enacted in 2019, requires that New York's statewide greenhouse gas emission limits and reporting be expressed using GWP integrated over a 20-year time horizon. New York's Department of Environmental Conservation codified GWP20 values from IPCC AR5 into 6 NYCRR Part 496 in 2020, and all subsequent New York State GHG inventory reports, cap-and-invest program design documents, and compliance regulations have applied GWP20 as the primary metric for methane. New York's rationale, as stated in its regulatory impact statement, is that GWP20 is necessary to assess GHG emissions over the near-term time frame relevant to its 2030 and 2050 emissions targets — precisely the same logic that applies to California's 2030 and 2045 targets under AB 1207 and SB 840.

California and New York together represent the two most significant state-level carbon pricing programs in the United States. If both programs adopt GWP20 as the primary or co-primary metric for methane compliance, they would collectively establish a national standard for near-term methane accountability — one grounded in science, aligned with near-term climate targets, and consistent across the two largest subnational carbon markets. We urge CARB to formally evaluate GWP20 adoption in the 2026

amendments and, at minimum, require dual-horizon (GWP20 and GWP100) reporting for methane so that the compliance record reflects both the near-term and long-term climate significance of methane slip emissions from lean-burn engines. (45d-EI-403)

Response: No changes were made in response to these comments. Staff agree this is a topic for future research and information gathering. Adding complexity when estimating emissions for different equipment types would only be considered if methane slip was identified by CARB as a significant source of additional methane emissions and would require a separate rulemaking process. Any changes to Global Warming Potential (GWP) values in MRR would have to be carefully coordinated with the Cap-and-Invest program, and would require a separate rulemaking process. The comments applicable to the Cap-and-Invest Regulation are out of scope of the MRR rulemaking. See Agency Response to comments T-18.1a, Q-3.1, Q-3.2, Y-3.11 and Y-3.16 in the Cap-and-Invest FSOR.

B-8. Comment: Data Center Reporting

Comment: Include Data Centers as a Covered Sector for On-Site Generation Emissions

Data centers with on-site natural gas generation should be explicitly covered under MRR as a distinct reporting category, ensuring that both prime-power and load-balancing generation are captured regardless of whether the data center is primarily classified as a commercial or industrial facility. The rapid growth of on-site generation at hyperscale and edge data centers represents a new and growing source of uncontrolled methane emissions that does not fit cleanly into existing MRR sector definitions. (45d-310)

Response: No changes were made in response to this comment. Data centers are already included in MRR if they meet or exceed the applicability threshold. If emissions from data centers become larger staff may consider categorizing them separately from other emissions sources, which would require a separate rulemaking process.

B-9. Comment: Biomethane Tracking

Comment: The MRR Program Should Allow Use of an Electronic Registry to Help Demonstrate RNG Ownership

California's agencies should move to harmonize reporting rules across programs and regional markets to ensure consistent GHG reduction and renewable gas use claims. We continue to recommend one centralized electronic registry to address any possibility of double claims or double payments by compliance entities.

Digital infrastructure designed to support renewable gas claims already exists and is ready to be paired with North America's C&I programs. Such systems are proven in

Europe⁵ and are designed to replace the necessity of tracking of “paper” records between a wide variety of counterparties involved in a high number of transactions. Clean Counts⁶ (formerly MRETS) is a renewable energy credit and renewable thermal credit platform which is currently tracking RNG volumes, including as an optional tool in California’s renewable gas standard and for voluntary RNG procurement, and will likely be used in other similar programs.

We suggest that CARB allow the use of the Clean Counts system for renewable gas volumes procured for compliance under the C&I program to standardize RNG tracking while eliminating concerns related to double counting, ensuring transparency in volume origination, and allowing integration with other programs and markets. (45d-306)

Response: No changes were made in response to this comment. CARB staff agree this is a topic for future research and information gathering. Currently, CARB staff believe the information tracked by Clean Counts would not be sufficient to track the contract-related documentation that is necessary to demonstrate that the RNG meets biomethane exemption criteria specified under the Cap-and-Invest Regulation.

B-10. Multiple Comments: Book-and-Claim Biomethane

Comment: Clarify “Importer of Fuel” Definition under Mandatory Reporting Regulation and Inapplicability to Book-and-Claimed RNG

If alignment with LCFS accounting for RNG (and/or use of an electronic registry for RNG) cannot be addressed in this rulemaking, we urge CARB to clarify that the definition of “importer of fuel” under MRR does not apply to transactions involving book-and-claim accounting of biomethane, where the flow of gas molecules cannot always be proven to cross California’s border. As currently written, the definition could be interpreted to apply whenever ownership of fuel attributes transfers to a California end user or market participant inside the state.

Under that interpretation, a book-and-claim biomethane transaction—where environmental attributes associated with biomethane produced outside the state are contractually transferred to a California purchaser—could be double counted if always treated as a fuel import under MRR. This outcome would be inconsistent with existing MRR reporting structures.

As described above, the physical end use of compressed or liquified natural gas associated with these transactions is usually already reported under the program by

⁵ European Renewable Gas Registry, <https://www.ergar.org/about-us/>; S&P Global Commodity Insights CI Consulting, Renewable Gas Tracking Systems – Value of Biomethane/RNG Certificates, Final Report (Oct. 2024), <https://static1.squarespace.com/static/53a09c47e4b050b5ad5bf4f5/t/6734fb7601771749d4c174d4/1731525495807/FINAL+Value+of+Biomethane+Certificates+Study+Complete+White+Paper+FINAL+for+Publishing+20241021+V1.pdf>

⁶ Clean Counts, Building Pathways to a Decarbonized Economy, <https://www.mrets.org/>

natural gas utilities (primarily reporting natural gas vehicle fueling),⁷ meaning that treating the contractual transfer of biomethane attributes as a separate import would risk double counting the same underlying gas volumes under MRR. To avoid double counting, CARB should clarify that the importer definition explicitly excludes book-and-claim accounting for RNG where the underlying gas volume is already captured through existing reporting pathways. (45d-306)

Comment: Clarify “Importer of Fuel” Definition under Mandatory Reporting Regulation

If alignment with LCFS accounting for RNG cannot be addressed in this rulemaking, we urge CARB to clarify that the definition of “importer of fuel” under MRR does not apply to transactions involving book-and-claim accounting of biomethane, where the flow of specific gas molecules cannot always be proven to cross California’s border. As currently written, the definition could be interpreted to apply whenever ownership of fuel transfers to a California end user or market participant inside the state. Under that interpretation, a book-and-claim biomethane transaction—where environmental attributes associated with biomethane produced outside the state are contractually transferred to a California purchaser—could be double counted if always treated as a fuel import. This outcome would be inconsistent with existing MRR reporting structures.

The physical end use of natural gas associated with these transactions is usually already reported under the program by natural gas utilities (primarily reporting natural gas vehicle fueling), meaning that treating the contractual transfer of biomethane attributes as an separate import would risk double counting the same underlying gas volumes under MRR. In order to avoid double counting, CARB should clarify that the importer definition explicitly excludes book-and-claim accounting where the underlying gas volume is already captured through existing reporting pathways. (45d-293)

Comment: CARB’s proposed updates to the Mandatory Reporting Regulation (MRR) expand who is considered a “fuel importer.” Under book-and-claim accounting systems, this change could unintentionally include RNG developers or marketers even when no physical fuel enters California. This raises the risk that RNG suppliers could be required to report emissions for fuel delivered into California either physically or through book-and-claim transactions associated with the LCFS, potentially triggering Cap-and-Invest compliance obligations even for low-carbon biogenic gas. (45d-ABC-406)

Response: Changes were made in response to these comments. Staff revised the definition of “importer of fuel” in section 95102(a) to clarify that it was only applicable to importers of Liquefied Petroleum Gas, Liquefied Natural Gas, and Compressed Natural Gas.

⁷ While CARB takes no position on analogous issues for imported conventional gas, it may also exist. Conceptually, it is difficult to avoid double counting when the point of reporting is at two different portions of the supply chain (at both importer and midstream utility points). As a reminder, natural gas is a highly flexible fuel that can be transferred between liquid (tanked), compressed (tanked), and pipeline-injected forms.

B-11. Multiple Comments: Biomethane Applicability

Comment: Ensure eligibility for biomethane as an exempt biomass-derived fuel

Page 31 of Appendix A-1 of the Proposed Amendments states that “Non-exempt Biomass derived CO₂ means CO₂ emissions resulting from the combustion of fuel not listed under section 95852.2(a), or that is not verifiable under section 95131(i) of the MRR.”

ABC urges CARB to ensure that the eligibility criteria for biomethane as an exempt biomass-derived fuel are workable for contract-based RNG transactions. These transactions reflect how biomethane is currently supplied and tracked in existing markets, including book-and-claim accounting systems used under the Renewable Fuel Standard (RFS) and Low Carbon Fuel Standard (LCFS).

Without clear recognition of these established accounting approaches, the proposed rule risks unintentionally treating emissions from biomethane as covered fossil emissions requiring allowance purchases, even though the same fuel is incentivized under the LCFS due to its low carbon intensity. Clarify eligibility of claiming and recognizing full value of biomethane benefits.

ABC requests clarification that biogenic CO₂ emissions associated with qualified biomethane remain eligible for exemption under the Cap-and-Invest framework when properly documented through contractual delivery pathways and recognized fuel tracking systems. Clear treatment of biogenic carbon is essential to avoid inconsistent accounting of the same fuel across California climate programs.

Biomethane projects deliver multiple greenhouse gas (GHG) benefits, including CO₂ benefits from displacing fossil natural gas as well as significant methane (CH₄) reduction benefits from capturing and utilizing waste methane. ABC requests confirmation that the MRR and Cap-and-Invest framework will continue to recognize the full suite of climate benefits associated with biomethane production and use and will not inadvertently limit the ability of projects to participate in other legitimate environmental markets or crediting programs.

ABC notes that the proposed amendments appropriately recognize biomethane’s GHG benefits when the fuel is used in the transportation sector or to generate renewable electricity. However, the framework does not appear to provide equivalent recognition of biomethane’s full climate benefits when the fuel is used in other sectors, such as for industrial decarbonization or to reduce emissions within the natural gas system.

This distinction may create unintended barriers to broader deployment of biomethane across sectors. California has identified expanding the use of biomethane beyond transportation as a priority in the Scoping Plan and in the Initial Statement of Reasons (ISOR) for these proposed amendments. To support that transition, the Cap-and-Invest program should ensure consistent recognition of biomethane’s CO₂ and CH₄ benefits regardless of end use.

ABC therefore supports clarifying amendments to §95852.1 to ensure that emerging crediting approaches for industrial decarbonization, gas system decarbonization, carbon

removal, and other applications are treated consistently with existing programs such as the Low Carbon Fuel Standard (LCFS) and the Renewable Portfolio Standard (RPS). (45d-ABC-406)

Comment: Eliminate Unnecessary Complexity by Striking § 95852.1.1

We appreciate proposed amendments to clarify biomethane eligibility and the ability for covered entities to claim the associated biogenic CO₂ benefit. These changes provide important regulatory certainty and help ensure that biomethane used in California is appropriately recognized as a biomass-derived fuel under the program.

However, we have concerns with implementation of the provisions in § 95852.1.1, especially the proposed amendments in § 95852.1.1(a)(2)(C), which would limit eligibility for biomethane injected into a common carrier pipeline based on the annual average amount of fuel delivered to California over the previous 36 months. Tying eligibility to a fixed three-year historical average is arbitrary and creates practical implementation challenges that do not reflect how biomethane markets and production operate in practice.

Biomethane production volumes fluctuate over time due to operational factors that are largely outside a producer's control, including feedstock variability, digester maintenance cycles, pipeline outages, and seasonal production patterns. A three-year historical baseline could therefore under-represent a facility's actual available production in any given year and artificially limit eligible volumes.

Additionally, the provision would restrict market flexibility for producers whose gas may be delivered to different jurisdictions over time. For example, a project that routed volumes to another Clean Fuel Program market (e.g., Oregon or Washington) in one year could be prevented from directing biomethane into California in a subsequent year, because the three-year historical average would cap eligible volumes below actual production. This constraint could unintentionally discourage participation in California markets and create unnecessary administrative complexity for projects operating in interconnected North American gas markets.

Finally, we note that the same 36-month historical averaging concept appears in the proposed manufacturing decarbonization incentive allocation provisions, which could create parallel implementation problems across multiple program elements and compound compliance uncertainty.

We agree with the RNG Coalition that the whole of § 95852.1.1 is unnecessary and adds administrative burden and complexity that is unwarranted based on market conditions and industry practice. We support striking § 95852.1.1 in its entirety. This would simplify implementation and improve consistency with the way biomethane markets function.

If nothing else, we urge changes to the 36-month average reporting requirements in § 95852.1.1(a)(2)(C) to allow a facility's eligible share of biomethane to be determined based on the percentage of its total production delivered to California in the prior year, applied to the facility's actual production going forward. Using a prior-year percentage would allow the program to accommodate natural production variability, operational

disruptions, and stored or banked gas volumes without locking projects into an outdated baseline.

Ensure All Environmental Benefits of Biomethane are Appropriately and Consistently Valued

As described in the RNG Coalition letter, biomethane provides a wide array of GHG benefits, including CO₂ benefits from replacing fossil natural gas, as well as significant methane (CH₄) reduction benefits. It is critical that the Cap-and-Invest program recognizes the wide array of GHG benefits from biomethane production and use, allowing crediting opportunities for both CO₂ and CH₄ benefits, and consistently accounts for those benefits across sectors and biomethane end uses.

The proposed amendments appropriately account for biomethane's GHG benefits if the fuel is used in the transportation sector or to produce renewable electricity, but do not similarly account for biomethane's full array of GHG benefits if the fuel is used in another sector, to decarbonize the gas system or industry, for example. CARB has identified shifting biomethane from the transportation sector to other sectors as a priority in the Scoping Plan, and in the Initial Statement of Reasons ("ISOR") for these proposed Cap-and-Invest amendments itself.¹

In order to support that transition, Cap-and-Invest must provide consistent value for both CO₂ and CH₄ benefits for biomethane across all end uses. We reinforce RNG Coalition's suggested amendments to § 95852.1, in order to ensure that any crediting regimes for industrial end uses, decarbonizing the gas system, carbon removal, or potential other uses that may emerge to support the state's priorities are treated similarly to the LCFS or Renewable Portfolio Standard under the program. Specifically, we urge the following changes to § 95852.1(c)(2)(C):

...An entity claiming use of an exempt biomass-derived fuel must have sole ownership or contract rights to the biomass-derived fuel and any associated biogenic carbon

dioxide emissions exemption or emissions reductions attributed to the use of the fuel for purposes of compliance with this subarticle, such that no other entity may claim an emissions exemption to reduce a Cap-and-Invest Regulation compliance obligation or otherwise claim a reduction in emissions associated with the use of the biomass-derived fuel. Exempt biomass-derived fuels may be associated with the generation of ARB Offset Credits, recognition in Renewable Gas Standard biomethane procurement, Renewable Identification Numbers, Renewable Energy Credits, or Low Carbon Fuel Standard Credits, or other approved crediting programs and protocols that support the state's building decarbonization, cement or other industrial decarbonization, carbon removal or other climate goals.

Thank you again for the opportunity to comment on the proposed amendments to the Cap-and-Invest Program and MRR. We support CARB in its efforts to maintain a strong Cap-and-Invest program to achieve the State's GHG goals, including more targeted efforts to decarbonize industry and enable biomethane to decarbonize stationary

sources. We look forward to continuing to work with you through this process and other related efforts to achieve these outcomes. (45d-293)

Response: No changes were made in response to these comments. CARB staff did not propose any changes to the documentation or verification requirements for reporters of RNG fuel (reported in MRR as biomethane). Furthermore, there are no limitations on which sectors are eligible to report and verify biomethane used as a fuel or feedstock.

The comments related to Cap-and-Invest Regulation provisions are out of scope for the MRR rulemaking. See Agency Response to comments O-8.1, O-8.4a, O-8.18a, O-8.25, R-2.1, R-2.2, R-2.3a, S-1.1a, S-2.1, Y-3.1 and Y-3.3a in the Cap-and-Invest FSOR.

B-12. Comment: Verification of Biomass-Derived Fuel

Comment: The proposed requirements for biomass-derived fuels are premature. Until CARB provides clear, simplified pathways for verifying the carbon intensity of diverse biomass feedstocks, these reporting mandates will result in inconsistent data and excessive third-party verification costs.

We urge CARB to align biomass reporting with existing federal (EPA) standards to reduce duplicative reporting burdens. (45d-Vidal-233)

Response: No changes were made in response to this comment. Existing requirements specific to verifying biogenic fuels/feedstocks are unchanged in this rulemaking and are necessary for confirming that reported biogenic emissions meet the compliance obligation exemption criteria specified in the Cap-and-Invest Regulation. Changes to reporting requirements related to biomass fuels are necessary to provide a pathway for suppliers to report newer biogenic fuels that are already being delivered into the market, and to ensure complete and accurate data is collected to support the Cap-and-Invest Program and other climate change programs. As clarification, carbon intensity is applicable to CARB's Low Carbon Fuel Standard and not part of this regulation, which is outside the scope of this rulemaking.

B-13. Comment: Biomass Combustion Reporting

Comment: Biomass combustion along with other renewable energy projects for electricity, process use, and/or chemical conversions must be required to report greenhouse gas emissions. These greenhouse gas producers have long experienced "subsidies" and don't have the same reporting requirements as other greenhouse gas producers. I live in Stockton within San Joaquin County and near the Port of Stockton where co-pollutants from "renewable energy" projects harm nearby neighborhoods. Even now, the Stockton MSA taking lead from CARB and the CEC are not including the greenhouse gases produced by these facilities at the same time as taking tax revenues. Uncounted greenhouse gas emissions continue to slow progress to reduce global warming and harmful associated effects. These omissions in GHG emission accounting represents one more way that full accounting of environmental hazards can be discounted and "Findings of Overriding Significance" continue as commonplace

allowing new pollution additions to legacy pollution sources. When our governmental agencies which are supposed to be neutral fails to fully account for impacts of income generating processes, these agencies are putting the money first at the expense of those that continue to be harmed. These omissions do not build trust or community cooperation needed for the true behavioral changes that will reduce use of energy. Additionally, efforts to pair these polluting GHG with other processes further erodes the ability of the public to learn the true impacts. Only through full emission accounting can the public begin to trust that our decision-makers are going to have access to the true costs of their decisions and can be held accountable. Emissions omissions continue the historic harms to nearby communities with poor air quality and continued inequality. As I included in comments 4.30.2026 to the City of Stockton without full accounting of emissions generated in our community, we will not be able assess how successful future mitigation measures will be to really make a difference reducing our community's greenhouse gas emissions. Biomass combustion is dirty even if renewable and low carbon fuels made from with long train or marine transportation are bad for the environment and a money making scheme that harms communities. Full greenhouse gas emission accounting is needed now. Thank you for your efforts to improve air quality - more efforts are still needed. (15d-009)

Response: No changes were made in response to this comment. MRR already requires that the emissions from biomass fuel combustion be reported in the same manner as other non-biomass fuels. Facilities that combust biomass or partial-biomass fuels are already subject to the same reporting and verification thresholds as facilities that combust fossil fuels; therefore, no changes are needed at this time.

B-14. Comment: Reporting Obligation for Homeowners

Comment: I am submitting this comment in strong opposition to the California Air Resources Board's (CARB) proposed amendments to the Mandatory Reporting of Greenhouse Gas (GHG) Emissions regulation. While I support responsible environmental stewardship, these amendments expand the scope of the MRR program in ways that unfairly burden homeowners, increase costs, and extend CARB's regulatory reach far beyond the program's original intent.

1. The amendments create indirect reporting obligations that fall on homeowners

Although the proposal does not explicitly list homeowners as regulated entities, the expanded definitions and new data collection requirements effectively shift compliance responsibilities onto private residents. Homeowners would be forced to rely on contractors, installers, and service providers who must now gather and report emissions related data for routine residential projects. This creates a de facto reporting burden on homeowners who have no expertise in emissions accounting and no practical way to verify the accuracy of the information being collected in their name.

2. The amendments will increase the cost of homeownership and essential home projects

Any new reporting, documentation, or verification requirement imposed on contractors or small businesses will be passed directly to homeowners through higher prices. This includes:

Home renovations

HVAC replacements

Solar or battery installations

Landscaping and outdoor construction

Routine maintenance requiring licensed professionals

California homeowners already face some of the highest housing, insurance, and utility costs in the nation. CARB's proposal adds yet another layer of cost without providing any measurable benefit to residential consumers.

3. The proposal introduces compliance risks and legal uncertainty for homeowners

The amendments rely on broad, ambiguous definitions that create uncertainty about when emissions related data must be collected, who is responsible for reporting it, and what penalties may apply for incomplete or inaccurate information. This exposes homeowners to:

Disputes with contractors

Delays in home projects

Unexpected compliance obligations

Potential liability for reporting errors they cannot control

Regulations that carry penalties must be clear, narrowly tailored, and predictable. These amendments fail to meet that standard.

4. CARB is expanding the MRR program beyond its statutory purpose

The Mandatory Reporting Regulation was designed for large industrial emitters, not private residences or smallscale home projects. The proposed amendments represent a significant expansion of CARB's authority into areas that were never intended to fall under industrial emissions reporting. This type of regulatory creep undermines public trust and imposes burdens on Californians who are not major contributors to statewide emissions.

5. Environmental goals can be met without imposing new burdens on homeowners

If CARB seeks more accurate emissions data, it should focus on:

Improving reporting requirements for large emitters

Enhancing utility level data collection

Supporting technological improvements in industrial monitoring Offering incentives—not mandates—for residential efficiency upgrades California can pursue climate goals without creating new administrative, financial, and legal burdens for homeowners.

Conclusion

For these reasons, I urge CARB to withdraw or substantially revise the proposed amendments. The current proposal imposes unnecessary costs, creates compliance uncertainty, and expands regulatory authority in ways that negatively affect homeowners who are already struggling with California's high cost of living. Any changes to the MRR program must be transparent, narrowly targeted, and designed to avoid unintended consequences for ordinary residents. (15d-019)

Response: No changes were made in response to this comment. MRR is fundamentally a reporting regulation that collects data from the largest sources of emissions, as specified in applicability requirements in section of the MRR. There is no compliance uncertainty or legal risk for homeowners—the regulation does not apply to them. There are no provisions in the MRR that regulate individual homeowners or require direct or indirect reporting or verification by individual homeowners or private residences, or that place requirements or limitations on home projects. Also, no definitions were expanded that would impose reporting or verification requirements related to individual homeowners or home renovation projects. For example, section 95101 identifies that the regulation applies to “Operators of facilities located in California with source categories. . .” and lists source categories (A) through (H).

CARB respectfully disagrees that the definitions are ambiguous. All definitions are specified in California Code of Regulations, title 17, section 95102. The commenter fails to identify which definition it believes is ambiguous or what language within any of the definitions it believes is ambiguous. Given the lack of clarity, CARB is unable to respond. Please note, the purpose of each definition added is identified in the Initial Statement of Reasons.

Furthermore, CARB respectfully disagrees that the MRR amendments go beyond CARB's authority. As CARB identifies, its authorities are sections 38510, 38530, 39600, 39601, 39607, 39607.4, and 41511, of the Health and Safety Code. Section 39600 says CARB is authorized to take such acts as necessary to carry out its duties. Additionally, section 41511 says “[f]or the purpose of carrying out the duties imposed upon the state board or any district, the state board or the district, as the case may be, may adopt rules and regulations to require the owner or the operator of any air pollution emission source to take such action as the state board or the district may determine to be reasonable for the determination of the amount of such emission from such source.” Last, Health and Safety Code section 38530 says CARB shall “shall adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program.”

CARB also respectfully disagrees with the Commenter that there is any ambiguity in what emissions-related data must be submitted. Section 95103

specifies what emissions related data must be collected and who is responsible for reporting it. Specifically, it says “The facilities, suppliers, and entities specified in section 95101 must monitor emissions and submit emissions data reports following the requirements specified in 40 CFR §98.3 and §98.4...” The deadlines for submission of the data are identified in section 95103(e). Section 95104 explains the contents and mechanisms for the emissions data report. The recordkeeping requirements are laid out in section 95105.

Section 95103(g) specifies what may occur if there is a failure of submission. For example, “[w]hen a reporting entity subject to verification fails to submit an emissions data report or fails to obtain a positive emissions data verification statement or qualified positive emissions data verification statement by the applicable deadline, the Executive Officer shall develop an assigned emissions level for the reporting entity as set forth in section 95131(c)(5)(A)-(C).”

Regulated entities are also subject to penalties for failing to comply with the regulatory requirements. Section 95107 identifies that section 38580 of the Health and Safety Code is the authority for assessing penalty amounts, and that each failure to measure, collect, or preserve information is a separate violation. Section 38580 cross references the penalty statutes in Health and Safety Code Division 26. Where violations occur, CARB has an Enforcement Policy that it utilizes. As mentioned above, this does not apply to homeowners, only regulated entities.

C. Electric Power Entities

EPE General Comments

C-1. Comment: Resource Registration

Comment: PacifiCorp supports MRR resource registration modifications

PacifiCorp appreciates CARB’s proposed revisions to streamline resource registration under the MRR. PacifiCorp manages hundreds of resources across its system with additional facilities added each year. Simplified resource registration will significantly reduce administrative burden. For example, net generation data are not finalized prior to the resource registration deadline, requiring the Company to compile incomplete information prior to the data collection for the Company’s Federal Energy Regulatory Commission Form 1 submission. In addition, compiling details such as operational control, ownership, net nameplate capacity, and commercial operation dates requires reviewing many lengthy contracts - an effort that does not materially impact emissions reporting.

PacifiCorp offers one additional recommendation. The current resource registration reporting template requires reporting facilities’ longitude and latitude, which is time-consuming to look up and does not affect emissions calculations. A facility’s location within or outside California does impact MJRP workbook calculations, but this can be determined using the physical address already included in the registration materials. The Company recommended Washington Department of Ecology also remove

longitude and latitude in recent comments⁸ and recommends CARB consider the change as well. (45d-255)

Response: No changes were made in response to this comment. MRR only requires latitude and longitude with specified source registration during the first year of registering the source, and it is data required specifically (rather than just physical address) to determine exactly where the source is in relation to the California state border because property lines associated with an address can be large and/or cross the state border in some instances. CARB agrees with the commenter that a facility's location within or outside California impacts Multi-jurisdictional retail provider (MJRP) workbook calculations; therefore, this requirement is necessary to ensure location information is assessed accurately in all cases.

C-2. Comment: Retail Sales Definition

Comment: PacifiCorp's Comments on CARB's 15-Day Notice on Cap-and-Invest Program and Mandatory Reporting Rule Changes

PacifiCorp d/b/a Pacific Power (PacifiCorp or company) respectfully submits the following comments in response to the California Air Resources Board's (CARB) 15-Day Notice for the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms and Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions.

I. Background and unique characteristics of PacifiCorp

PacifiCorp serves approximately two million customers in six western states (California, Idaho, Oregon, Utah, Washington, and Wyoming), including approximately 49,000 retail customers in California. CARB distributes no-cost allowances to PacifiCorp commensurate with the company's service of California retail electric customers. PacifiCorp is a covered entity under the Cap-and-Invest program as a California investor-owned electric utility and as an importer into the state through the Energy Imbalance Market (EIM). PacifiCorp is a committed participant in the California Independent System Operator's (CAISO) Extended Day-Ahead Market (EDAM), with a go-live date scheduled for May 1, 2026.

II. PacifiCorp appreciates CARB's revisions to PacifiCorp's allocation methodology

PacifiCorp appreciates CARB's modifications to the allowance calculation, which more accurately forecast the company's expected allowance obligation and reduce costs to retail electricity customers.

⁸ See PacifiCorp's Informal Comments on Ecology's February 5, 2026, Centralized Electricity Markets and Electricity Import Topics, dated February 20, 2026, at 5. https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid100/did200118/pid_210619/assets/merged/rf09i4pfcfm_document.pdf?v=42478

III. CARB should allow multijurisdictional utilities to report residential retail sales or detail how multijurisdictional utility residential retail sales will be calculated

CARB's 15-Day notice updates Section 95111(c)(1) of the Mandatory Reporting Regulation (MRR) to require retail providers to report total and residential retail sales, the latter of which will be used to calculate natural gas allowances transferred to electric distribution utilities. However, multijurisdictional retail providers report under Section 95111(d), which has not been updated to include the residential retail sales addition. PacifiCorp recommends CARB either modify Section 95111(d)(4) to read "Total and residential retail sales (MWh) to California customers served in California's portion of the service territory" or clarify how CARB will source residential retail sales data for multijurisdictional utilities. (15d-103)

Response: No changes were made in response to this comment. The proposed definition update to retail sales was done to clarify reporting under section 95111(c)(1) and does not affect or change the reporting requirements for MJRPs under 95111(d); therefore, the suggested changes are not needed.

C-3. Comment: Dynamic Tag Definitions

Comment: *Dynamic tag:* WPTF supports inclusion of a definitions to provide more clarity around the existing provision that exclude dynamically tagged deliveries from being subject to the lesser-of analysis. However, we suggest revision of the dynamic tag definition for better consistency with the definitions used by NERC and CAISO, as shown below.

~~"Dynamic transfer tag" or "dynamically tagged power" or "dynamic schedule" or "dynamic interchange schedule" means a telemetered reading or value that is updated in real time and used to schedule to reflect the specified transmission of electric power from a generation source in a balancing authority area outside California into a California balancing authority area an interval on a on a NERC e-Tag.~~

"Dynamic tag" means a NERC e-tag that shows a dynamic transfer (45d-277)

Response: No changes were made in response to this comment. For the purposes of MRR, CARB does not require the definition of dynamic tagging to include its use in scheduling, or to reflect a relationship between balancing authority areas.

C-4. Comment: Fleet Emission Factor

Comment: *Fleet Emission Factor.* Staff have proposed a new definition of Fleet Emission Factor, which is used for the calculation of emissions for importers and producer of hydrogen utilizing electricity. WPTF notes that the MRR contains two provisions for calculation of 'system' emission factors for EPEs – asset controlling suppliers and multijurisdictional retail provider. We are concerned about inclusion of a new concept for calculation emissions associated with electricity systems that is not also available to electricity importers. We therefore recommend deletion.

~~"Fleet emission factor" means an electricity generation emission factor calculated by the Executive Officer pursuant to section 95111(b)(2)(D) of this article.~~

Pseudo-tie: WPTF recommends that the pseud-tie definition be modified for better consistency with the NERC and CAISO definitions, and to recognize that pseudo-ties may be arranged into other California Balancing Area Authority, not only the CAISO.

“Pseudo-tie” means a transfer of electricity from a generating facility located outside of California that is controlled by a scheduling coordinator or facility operator that serves load in California balancing authority and is modelled, for electricity transaction purposes, as an in-state California resource. Pseudo-tied Resources that have a pseudo-tie arrangement into California are considered out-of-state resources pursuant to this article.”

Changes to Electric Power Entity (EPE) Reporting

Aggregated zero-emission generation sources: WPTF supports the addition of provisions to enable aggregation of non-emitting sources into single specified source. However, we believe that additional clarification is needed around this section. First, the regulation should clearly state whether this is an annual or permanent election. Second, the language in sub-paragraph (d) stating “(t)he seller warranty is maintained pursuant to section 95111(a)(4) to claim each source in the aggregate as a specified source” seems inappropriate given that once aggregated, the individual sources cannot be sold or tagged to serve load. We suggest that language be deleted or modified. Lastly, the term “GPE” in subparagraph (e) is inappropriate. The regulation defines GPE as an importer or exporter. The owner or operator of the aggregated generation source may not be the electricity importer. Therefore “GPE” should be changed to “Owner or operator” of the aggregated generation source.

Lesser-of-analysis: Staff have modified the requirement to perform a lesser-of analysis for all zero emission and RPS eligible resources to include imports via the CAISO markets, and electricity used to charge an ESS that is not metered. WPTF supports additional clarification, but does not agree that this requirement should apply non zero emitting and RPS eligible resources that are dispatched by the WEIM or EDAM. Any amount deemed to California by resources that participate in those markets will be based on the actual metered (and settled) output of the resources. However, the provision should apply to resources interchange imports that are deemed to California by these markets. Because those resources do not participate in the markets, CAISO will not necessarily have access to the metered output. (Currently, EDAM only allows for dynamic transfers and pseudo-tied resources to be deemed to California. However, if CAISO changes its tariff to enable other external resources to offer specified electricity for attribution to California, the lesser of analysis would be necessary.)

Registration of Specified Sources: WPTF supports the staff proposal to simplify and reduce the information required for registration of specified sources as well as the requirement to indicate whether imported electricity has passed through an ESS. (45d-277)

Response: Changes were made in response to the comment. CARB recognizes the benefit of uniform definitions where possible and has proposed changes in accordance with the suggestion to bring the definition of pseudo-tie in line with the market.

No further changes were made in response to the rest of the comment. The Fleet Emissions Factor is not a new concept and is not representative of a system emission factor. The Fleet Emission Factor is used narrowly in MRR as described in Section 95111(b)(2)(D) and for estimation of emissions from imported hydrogen and hydrogen produced utilizing electricity.

The definition of GPE has several qualifying options, however the requirement that the GPE also be an importer is only applicable for exclusive marketers, otherwise other qualifying means do not require the entity in question to be an importer.

WEIM deemed deliveries have shown to require the need for lesser of analysis for accurate accounting, and therefore CARB will continue to require the lesser of analysis but may consider removing the requirement in a future rulemaking if data supports that it is not needed for accurate accounting of emissions.

C-5. Comment: Multijurisdictional Cost Allocation Methodology

Comment: PacifiCorp recommends CARB update language pertaining to multijurisdictional utility cost allocation

PacifiCorp reports emissions associated with serving California retail customers as a multijurisdictional retail provider under Section 95111(b)(4) of the MRR. Per the regulation, multijurisdictional retail providers report under this section “pursuant to a cost allocation methodology approved by the California Public Utilities Commission (CPUC) and the utility regulatory commission of at least one additional state in which the multijurisdictional retail provider provides retail electric service.”

Prior to 2026, PacifiCorp submitted a shared cost allocation methodology to its six states. However, PacifiCorp’s fifth multi-state allocation agreement, referred to as the “2020 Protocol”, expired December 31, 2025. PacifiCorp and its six states have not yet approved a new multi-state allocation methodology, so the Company is submitting individual cost allocation methodologies to each state’s public utility commission. As a result, PacifiCorp’s next cost allocation methodology may only be approved by the CPUC – thereby leaving the Company without an approved methodology approved by the CPUC and at least one other state. A single state allocation is not unprecedented; in December 2025, the Washington Utilities and Transportation Commission approved a cost allocation methodology that includes resource allocations only for Washington.⁹

Other California agencies have altered their regulations to prepare for this potential outcome. The California Energy Commission recently adjusted Power Source

⁹ Wash. Utils. & Transp. Comm’n, Final Order 08, Rejecting Tariff Sheets; Granting Petition in Part, Subject to Conditions; Authorizing and Requiring Compliance Filing, Docket UE-250224 (Dec. 22, 2025)

Disclosure reporting requirements to recognize this potential outcome and specifically allows reporting using a cost allocation methodology approved only by the CPUC.¹⁰

PacifiCorp recommends CARB modify the MRR requirements by striking "and the utility regulatory commission of at least one additional state in which the multi-jurisdictional retail provider provides retail electric service" from all references to multi-jurisdictional retail providers to ensure PacifiCorp can continue to comply with MRR rules. (45d-255)

Response: No changes were made in response to this comment. No change to the MJRP cost allocation reporting methodology was included in the Proposed Regulation Order or 45-Day Notice, nor in the 15-Day Notice. It is therefore beyond the scope of the current rulemaking and CARB is not required to respond.

C-6. Multiple Comments: CAISO Sales Reporting

Comment: Retain Flexible Emissions Factor for In-State Resources

As currently proposed, Section 95111(a)(12)(A)(2)(i) eliminates the ability to use a resource-specific emissions factor ("EF") calculated using known emissions and generation data for in-state electric generation resources reported as CAISO Sales. In some instances, POUs are positioned to provide more accurate in-state facility emissions data when they act as the reporting entity for an electric distribution utility ("EDU") and an in-state covered electric generation facility. This allows the POU to utilize the most recent data when reporting emissions associated with CAISO Sales. SCPPA requests that, instead of removing this ability, CARB consider amending the language to use a resource-specific EF when the EDU reporting CAISO Sales is also the reporting entity for the resource using the resource-specific EF. (45d-289)

Comment: As a member of the Southern California Public Power Authority ("SCPPA"), California Municipal Utilities Association ("CMUA"), and Joint Utility Group ("JUG"), APU has closely collaborated in the development of comments submitted to the California Air Resources Board ("CARB"). SCPPA and CMUA represent publicly-owned utilities ("POUs") in Southern California and statewide, respectively, while the JUG is a collaboration of electric utilities that serve California ratepayers. APU supports the comments submitted by SCPPA, CMUA, and JUG, and offers the following comments in addition to those submitted by these organizations for CARB staff consideration when determining its 15-day package:

Section 95111(a)(12)(A)(2)(i) – CARB has proposed eliminating an Electric Distribution Utility's ("EDU") ability to use a resource-specific emissions factor ("EF") calculated using known emissions and generation data for in-state electric generation resources reported as CAISO Sales. According to the Initial Statement of Reasons ("ISOR"), CARB is confident that it can calculate the appropriate EFs for all in-state generation

¹⁰ California Energy Commission 21-OIR-01, February 13, 2025 Adoption Order, December 9, 2024 Proposed Revisions to the Rulemaking to Amend Regulations Governing the Power Source Disclosure Program, p. 29, <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=21-OIR-01>

resources and that this proposed change is a formality and consolidation of current language.

Using a CARB-provided EF for in-state resources may make MRR reporting, verification, and subsequent CARB quality assurance checks simpler for verifiers and CARB staff. However, it seems not all situations necessitating the use of a resource-specific EF for reporting CAISO Sales associated with in-state generation resources are being considered. One example specific to APU, and likely other EDUs, involves the CAISO Sales emissions from APU's in-territory natural gas facility, for which APU is the operator and MRR reporter. This facility's emissions are reported and verified annually alongside APU's Electric Power Entity ("EPE") reporting. Because of this, APU has historically used the MRR verified emissions and generation values for this facility to calculate a resource-specific EF that more accurately reflects emissions associated with CAISO Sales from this resource. Whereas the alternative would be for CARB to use the most recent data available to them, which would be derived from the previous year's reported data or other sources.

Indeed, there are situations where a CARB-provided EF can be advantageous for CARB, as well as the reporting EDU, in determining emissions associated with CAISO Sales. There are also situations when better, more accurate data is available for use in determining EDU emissions associated with CAISO Sales, while simultaneously streamlining the regulation and reducing the verification burden for verifiers and CARB staff. APU requests that EDUs be allowed to use a resource-specific EF for reporting CAISO Sales when the EDU also acts as the reporting entity for a facility under MRR. (45d-014)

Response: No changes were made in response to these comments. While CARB recognizes that entities might have access to their own datasets for the calculation of in-state generation source EFs for use in CAISO Sales reporting, historically, many entities reporting the same generation source do not have access to this data, nor is the calculation consistent with other EF calculations under MRR, and the data has required additional reporting and verification steps. As such, CARB staff proposed this update for consistency across reporting entities.

C-7. Comment: California Balancing Authority Area Definition

Comment: IV. CARB should define "California balancing authority area" as part of the pseudo-tie definition update

CARB's 15-Day notice updates the definition of "pseudo-tie" in Section 95102(a) of the MRR. The new definition includes the term "California balancing authority area", which is not defined elsewhere. The terms "California balancing authority" and "balancing authority area" are defined but "California balancing authority area" is not. PacifiCorp recommends CARB define "California balancing authority area" to ensure multijurisdictional utility resources continue to not be considered pseudo-tied resources.

PacifiCorp appreciates the comment opportunity and looks forward to continued engagement in the CARB's rulemaking. (15d-103)

Response: No changes were made in response to this comment. CARB understands pseudo-ties to occur when generation sources are in different balancing authority areas. The definition begins by applying only to generation sources that are located outside the State of California; therefore, the definition is internally consistent in that a California Balancing Authority area is one that serves any load in California. Pseudo-tie is also an industry term with a broader definition, of which our definition is a subset to clarify applicability of import reporting requirements. The definition does not affect the current consideration of MJRP's own generation within their balancing authority area footprint as pseudo-tied.

Energy Storage Systems

C-8. Comment: Energy Storage Deployment

Comment: Punitive Default Loss Factors Will Discourage Energy Storage Deployment

Finally, the amendments propose strict default efficiency loss factors (ELF) for Energy Storage Systems (ESS), applying a 1.18 multiplier to battery storage and a 3.00 multiplier to electrolytic hydrogen storage to account for efficiency losses.

While it is a physical reality that energy storage systems experience efficiency losses during charging and discharging—with lithium-ion grid batteries typically demonstrating round-trip efficiencies of 75 to 80 percent (Faunce, Prest, Su, Hearne, & Iacopi, 2018)—embedding rigid penalties for these mechanical losses into the regulatory framework threatens to discourage the deployment of critical grid infrastructure. Inefficiencies in storage can indeed be a source of emissions if the stored energy is fossil-generated (Revesz & Unel, 2018). However, stringent renewable energy policies do not automatically spur innovation in complementary technologies like energy storage; they must be actively supported by targeted mechanisms rather than mere penalties (Stevens, Tang, & Hittinger, 2023).

When regulations strictly penalize the inherent inefficiencies of storage without offering complementary value streams that reward storage for enabling broader grid decarbonization, they risk making multi-purpose battery systems entirely uneconomical (Müller et al., 2017; Bilich, Spiller, & Fine, 2019). Legal and regulatory obstacles that hinder the operation of energy storage must be reformed to encourage open market access and investment, rather than punishing their operation with blunt multipliers (Bhatnagar, Currier, Hernandez, Ma, & Kirby, 2013; Nouri et al., 2022). (45d-006)

Response: No changes were made in response to this comment. MRR has a legislative mandate under AB 32 to accurately account for all emissions covered under the regulation. The proposed language was written specifically not to penalize or be overly stringent, while also minimizing administrative burden, and balancing the need for accurate emissions accounting to prevent emissions leakage. The proposed ESS framework incentivizes the storage of excess renewable power for later discharge to displace peaking fossil power. Please see response to comment B-14 for discussion of penalties.

C-9. Comment: Accounting for Energy Storage System Losses

Comment: Second, SRP's experience with utility-scale batteries suggests that many batteries may be more efficient than the 2021 NREL estimated 85% Round Trip Efficiency (RTE), with some technologies capable of reliably meeting 90% RTE. SRP requests that CARB undertake a more robust evaluation of battery efficiency which includes consideration of recent generations of the technology, before finalizing the proposed emission loss factor. SRP appreciates CARB's inclusion of a process for site-specific RTE calculations but believes that a higher initial assumption to reflect current industry performance would reduce the reporting burden associated with the custom data collection and submission process.

Finally, as SRP and others regularly buy and sell power to provide reliable, efficient power for our region, SRP requests guidance on how CARB anticipates batteries to be incorporated in calculated emissions factors for Asset-Controlling Suppliers with energy storage as a part of their portfolio. SRP requests confirmation that a regionwide increase in battery dispatch will not increase the unspecified emissions factor or any other average-based emissions factors, all else held equal. (45d-262)

Response: No changes were made in response to this comment. While CARB understands the losses associated with a variety of ESS technologies can vary greatly and have a wide range of efficiencies, administratively it was deemed necessary to prescribe a single loss factor that captures the majority of technology types, while also allowing for the option to calculate a site-specific loss factor as described in section 95111(i). CARB will continue to evaluate the progress of energy storage solutions and adjust any factors as deemed necessary.

Under the current proposal, ESS are not considered generation sources and therefore will not factor into the calculation of ACS own-generation emission accounting. Power discharged from an ACS ESS within its footprint could be claimed at the ACS rate, and the loss factor would apply for transmission to load outside the ACS.

Likewise, the proposed ESS reporting requirements are not expected to have an impact on the current unspecified emission factor rate.

C-10. Comment: Energy Storage Systems Emissions Quantification

Comment: Energy storage systems

CARB's proposed rule amendments detail how ESSs can be used to claim specified source imports. PacifiCorp uses or plans to use ESS devices paired with renewable energy resources, and as stand-alone grid-only devices. These systems support several functions, including frequency regulation, grid stabilization, transmission loss reduction, and renewable energy smoothing.

PacifiCorp generally supports CARB's proposal, including the ability to voluntarily report specified and unspecified sources that charge the ESS and a unique ESS loss factor.

This allows reporting entities to supply more accurate energy and emissions information, which encourages more efficient ESS management and technologies and allows regulators to have an accurate understanding of the energy and emissions serving the state.

For purposes of MJRP greenhouse gas reporting, stand-alone grid-only ESSs do not generate or consume energy (excluding losses); rather, they move energy - and the emissions already reported by the MJRP template - to different points in time.

Accordingly, these ESSs should be excluded from MJRP reporting unless the ESS is imported into a state as a specified resource. While ESSs experience storage and discharge losses, those losses are inherently reflected in the additional generation required to serve system load, which is already reported within the MJRP framework and therefore fully accounted for.

PacifiCorp requests further discussions with the California Air Resources Board regarding the appropriate method for calculating emissions associated with a battery charged from an MJRP system and subsequently imported as a specified source into a greenhouse gas zone. Stakeholders will need to balance two objectives: (1) maintaining incentives for the use of ESSs, which is typically charged during periods of abundant renewable energy generation – and (2) ensuring accurate emissions accounting, which requires detailed information to allow for use of a specified emission factor. For example, a battery imported at an unspecified rate would get an 18% loss factor and could incur a higher greenhouse gas emission obligation than a natural gas generation facility, despite the battery likely having been charged during a time of abundant solar resources. CARB put forth a detailed analysis showing that the marginal emissions rate has been largely unchanged since the 2010 analysis. However, batteries are flexible load. So, while the marginal emission rate may not have changed, the grid makeup when batteries charge is different compared to when batteries discharge. This could be recognized with a different unspecified emission factor for ESSs that are not charged with specified electricity. (45d-255)

Response: No changes were made in response to this comment. Under the current proposal, ESS are not considered generation sources and therefore will not factor into the calculation of MJRP own-generation emission accounting. Power discharged from an MJRP ESS within its footprint could be claimed at the MJRP rate, and the loss factor would only then apply for transmission to load outside the MJRP Balancing Area Authority.

While CARB is aware that ESSs can facilitate the smoothing of renewable power, there would not be one default factor that CARB could apply, and multiple would not be administratively feasible. New section 95111(i) was added to address this: where energy storage may primarily be used to facilitate renewable power supplies, reporters have the option to have those claims reported and verified and a more accurate emissions factor applied for all imports in the following year.

C-11. Comment: Energy Storage System Definition

Comment: *Energy Storage System:* WPTF supports inclusion of a new definition for energy storage system to give effect to new provisions for calculation of GHG emissions

associated with imports from electricity that has passed through a storage resource. We suggest that this definition be modified in two ways. First, rather than refer to electric potential, the definition should simply refer to storage and discharge of energy. Second, we suggest that staff clarify that the definition of an ESS for purposes of the EPE reporting applies to resources located outside of California. This eliminates the need to mention electricity imports, which is not appropriate because not all discharged energy will be imported. Lastly, staff should delete the reference to hybrid and stand-alone storage. These additional details may be confusing as they do not align with CAISO terminology and are unnecessary as the terms are only used in the section on “Additional Requirements for Energy Storage System Registrants.”

“Energy storage system” or “ESS” or “secondary generation source” means a device, structure, or operation located outside California that is designed and used to store and discharge electricity potential from electric generation power that discharges electric power as imports or CAISO Sales into California. Energy storage systems can be either integrated as part of a primary generation source (integrated energy storage system, ISS) called a hybrid resource by the CAISO, or a stand-alone energy storage system (SASS). All ESS, unless registered with a reported and verified emissions factor under section 95111(i), are not specified sources. (45d-277)

Response: No changes were made in response to this comment. CARB recognizes that energy storage systems can have intermediary storage products that are not electricity, and in and of themselves valuable products, such as hydrogen, and tailored this definition to encompass a broader range of potential storage types. In addition, for the purposes of CAISO sales reporting under MRR, sources need not be solely outside of CA. The distinction between ISS and SASS type ESS is necessary to clarify the application of the regulation, though there is no difference in the regulatory requirements.

C-12. Comment: *Energy Storage System Specified Source Registration*

Comment: *Registration of ESS as Specified Sources.* WPTF support the basic framework to enable an ESS to register as a specified source and calculate resource-specific emission factors or loss factors. This is a clever approach, which will accommodate the various different business models for energy storage, and represents a significant improvement over the status quo that would treating all energy that passes through an ESS as unspecified. However, we remain concerned that even with these provisions, requiring an ESS to use a retroactively-calculated and static emission factor for reporting imports from an ESS could significantly reduce the financial benefits and incentives for these resources to charge when energy prices and emissions are low. For this reason, we urge staff to make two changes. First, ESS registrants should be able to calculate, and have verified, an emission factor based on charging and discharging in the previous year and use that emission factor for reporting on the previous year import transactions. This would more accurately reflect emissions associated with those import transactions. More importantly it would ensure that the incentive for storage to charge when emissions are low is not diluted.

Additionally, we urge staff to allow ESS registrants to use emission factors that are more granular and accurate than the default unspecified emission factor during periods

when they grid-charge, when better emission factors are available. Such options could include the residual emission factors that will be calculated and reported by CAISO for EDAM, or a balancing area specific emission factor for utilities that operate storage. (45d-277)

Response: Changes were made in response to this comment. CARB recognizes the validity of the commenter's scenario and has proposed changes to address the need for an ESS EF for oncoming resources in section 95111(i).

Introducing new and variable emissions factors to account for residual power on the grid or time-of-charging will introduce more administrative reporting requirements and oversight that is disproportionate to any expected increase in accuracy or benefit. The purpose of the default emissions factor is both to streamline reporting and facilitate the direct contracting of power with renewable energy producers.

C-13. Comment: Typographical Error

Comment: PacifiCorp recommends fixing the typo "stand-along" on page 154 of the MRR Proposed Regulation Order.

Lastly, PacifiCorp would like to thank CARB for its work and consideration of all stakeholders in their rulemaking. While the Company does not serve a large portion of the state's retail customers, CARB gives thoughtful and appropriate consideration to issues the Company and its customers face. PacifiCorp appreciates the comment opportunity and looks forward to continued engagement in the CARB's rulemaking. (45d-255)

Response: Changes were made in response to this comment. Thank you for identifying the error. The typo was addressed.

Unspecified Source Default Emissions Factor

C-14. Multiple Comments: Default Emissions Factor

Comment: Request Consideration and Updates to the Default Emissions Factor

SCPPA appreciates CARB staff's review and summary of reasons for not updating the default emissions factor at this time. SCPPA, as well as other entities participating in the Cap-and-Invest program, have expressed concern that other California regulatory agencies, including the California Energy Commission ("CEC") may be using the default emissions factor for applications and purposes not intended or originally contemplated by CARB. For example, the CEC has concluded that the default emissions factor is the best available value for describing in-state emissions in its recently amended Power Source Disclosure regulation.

As such, SCPPA requests that CARB make public the underlying data and analyses used to support its conclusions in Appendix B of the rulemaking package. (45d-289)

Comment: SCPPA reiterates the prior comments¹¹ submitted March 9, 2026 and continues to request that CARB address the issues raised in its earlier letter, including preserving flexibility in reporting by allowing the use of resource-specific emissions factors where more accurate data are available, and that CARB make public the underlying data and analyses supporting its conclusions regarding the default emissions factor. Most importantly, SCPPA urges CARB to establish a mechanism for correcting Outstanding Emissions data when errors are identified and cannot be corrected prior to verification. (15d-008)

Response: No changes were made in response to these comments. The details of the UEF analysis are described in Appendix B. The commenter's recommendations in the comment to the 15-Day Notice are beyond the scope of the current rulemaking. The appendix was included for informational purposes. Refer to the Agency response to comment C-6 in this FSOR regarding the use of resource-specific emissions factors.

Western Energy Imbalance Market (WEIM)/Extended Day Ahead Market (EDAM)

C-15. Multiple Comments: WEIM/EDAM Definitions

Comment: WPTF generally supports the proposed changes to the regulation for electric power entities (EPEs), but have a number of concerns. Our comments below are presented in the order they appear in the regulatory text.

Definitions:

Committed Capacity: Staff have added a new definition of committed capacity to give effect to the Extended Day-Ahead Market (EDAM) rules related to counterfactual reference scenario, and to the calculation of Outstanding CAISO Markets Emissions (i.e. emission leakage). WPTF notes that the proposed definitions is much narrower than that used by the CAISO to identify resources/electricity that will bypass the counterfactual reference scenario. Staff's proposed definitions would also likely submit significant volumes of clean energy that is not considered eligible Resource Adequacy capacity (such as RPS contracts) to the counterfactual, thus making that energy unavailable to be attributed to California, despite the fact that the energy is owned by or contracted to California load. We therefore recommend that CARB revise the definition of "committed capacity" as follows.

"Committed capacity" means electricity generation from an electricity generation source located outside the state of California that is committed via a contract ~~to meet a resource adequacy obligation for California load that meets the Resource Adequacy Program requirements in California Public Utilities Code section 380 or the resource adequacy requirements of a local publicly owned electric utility (POU)~~ (45d-277)

¹¹ [https://scs-public.s3-us-gov-west-](https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid377/did200184/pid_213313/assets/attachments/81856/x90ci9y6hat_document.pdf?v=302)

[1.amazonaws.com/env_production/oid377/did200184/pid_213313/assets/attachments/81856/x90ci9y6hat_document.pdf?v=302](https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid377/did200184/pid_213313/assets/attachments/81856/x90ci9y6hat_document.pdf?v=302) 45

Comment: To address recent developments in the centralized electricity markets operated by the CAISO, CARB Staff are proposing to update the definitions and treatment of these electricity markets in MRR. While PGP does not take a position on the broader treatment of CAISO Markets in MRR at this time, PGP is cognizant that there may be future interest in aligning definitions across the California and Washington programs. PGP therefore respectfully offers comment on CARB Staff's proposed definition of "committed capacity" as it relates to the proposed updates to the Calculation of CAISO Markets Outstanding Emissions:

"Committed capacity" means electricity generation from an electricity generation source located outside the state of California that is committed via a contract to meet a resource adequacy obligation for California load that meets the Resource Adequacy Program requirements in California Public Utilities Code section 380 or the resource adequacy requirements of a local publicly owned electric utility (POU).

While "committed capacity" is not currently a defined term in the Extended Day-Ahead Market (EDAM) tariff approved by the Federal Energy Regulatory Commission, PGP observes that under CAISO's Business Requirements Specification for EDAM,¹² section 5.1 lists Business Feature ID# EDAM-BRQ-02142: Define GHG contractual MW and compliance obligation for resources outside a GHG regulation area to serve demand in the GHG regulation area as including both resource adequacy (RA) and non-RA contractual MW obligations. CAISO's approach assumes that any energy that is contractually committed to serve load in California should not effectively be treated by the market design as if it is committed to serve load outside California. This aligns with PGP's understanding that "committed capacity," as included in EDAM's GHG design, includes any contractual resource, whether specifically needed to meet a California RA obligation for California load or not. The Calculation of CAISO Markets Outstanding Emissions should align with how the CAISO is defining contractual commitments. For this reason, PGP recommends that CARB Staff work with the CAISO in developing an appropriate regulatory definition of "committed capacity."

Conclusion

PGP appreciates the opportunity to offer feedback on the Proposed Amendments to the Cap-and-Invest Regulation and MRR. (45d-292)

Comment: The Bonneville Power Administration (BPA) provides these comments in response to the California Air Resource Board's (CARB) solicitation for comments on its Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. BPA is a federal Power Marketing Administration (PMA) within the Department of Energy and located in the Pacific Northwest. BPA markets power across the West, including to California entities, and is a participant in the California Independent System Operator's Western Energy Imbalance Market. BPA is an Asset Controlling Supplier under CARB's program, marketing power from a system comprised

¹² California Independent System Operator. Business Requirements Specification: Extended Day Ahead Market, dated 1/27/2026. Retrieved from: <https://www.caiso.com/documents/business-requirements-specification-extended-day-ahead-market.pdf>.

of 31 federal hydroelectric projects located in the Columbia River basin, one nuclear plant, and some other small nonfederal power plants.

BPA provides comments on CARB's proposed definition for committed capacity as it relates to CAISO markets and the outstanding emissions calculation. BPA believes the current definition of committed capacity in § 95102 too narrowly defines committed capacity as electricity generation outside California contracted solely to meet resource adequacy obligations under specific California Public Utilities Code or local publicly owned electric utility requirements. The narrow scope created by the definition is unduly restrictive and overlooks other legitimate contractual commitments between power marketers and utilities that have historically been used to meet load in California and covered under the cap-and-invest program without leakage penalties. For example, BPA provides firm power to Surprise Valley Electrification Corp. under a long-term contract pursuant to federal statute. While this contract is for firm power deliveries from BPA's system, it is not technically "committed via a contract to meet a resource adequacy obligation for California load"

The implication that only capacity contracted for Resource Adequacy purposes would be excluded from the CAISO Outstanding Emissions Calculation does not reflect the broader reality of energy markets. Both CAISO's Western Energy Imbalance Market (WEIM) and its proposed Enhanced Day-Ahead Market (EDAM), as well as the Southwest Power Pool's Markets+, recognize contractual pathways for GHG zone attribution whether or not entered into explicitly for meeting Resource Adequacy mandates. CARB's current definition seems to suggest that emissions leakage occurs if a contract is not specifically entered into for Resource Adequacy purposes, an assumption not applied to bilateral market transactions today as CARB's current approach honors these contracts without imposing leakage penalties.

Therefore, BPA strongly recommends that CARB broaden the definition of "committed capacity" to encompass contracts for power purchases more generally. If CARB is more holistically concerned with leakage in the context of contracted for energy, it should revisit this in the broader context of both bilateral and organized markets and not just focus on CAISO markets. (45d-264)

Response: Changes were made in response to these comments. CARB recognizes the benefit of uniform definitions where possible and has proposed changes in accordance with the suggestion to update the MRR definition of committed capacity to refer specifically to sources registered as committed capacity pursuant to section 33.32.2.3 of the CAISO Fifth Replacement Tariff.

C-16. Comment: EDAM Participation

Comment: The Salt River Project Agricultural Improvement and Power District (SRP) appreciates the opportunity to provide comments to the California Air Resources Board's (CARB) Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (GHG Mandatory Reporting Rule). As a participant in the California Independent System Operator (CAISO) Energy Imbalance Market (EIM), these proposed regulatory changes have an impact on SRP reporting requirements.

SRP is a community-based, not-for-profit public power utility and the largest electricity provider in the greater Phoenix metropolitan area, serving approximately 1.1 million residential, commercial, industrial, agricultural and mining customers in Arizona. SRP also provides water to about half of the Valley's residents, delivering more than 244 billion gallons of water (750,000 acre-feet) each year, and manages a 13,000-square-mile watershed that includes an extensive system of reservoirs, wells, canals and irrigation laterals. SRP meets its electric generation needs with a mix of resources, including coal-and natural gas-fired power plants as well as hydrogeneration, solar, wind, geothermal and battery storage.

The Phoenix metropolitan area continues to rank high in population growth nationally. For SRP, this means more customers, rapidly increasing energy demand and higher peak demand. Demand has increased by 1.7% per year during the last decade, and this trend is expected to continue. While the SRP service territory experienced extraordinary residential growth in the early 2000's, SRP is now experiencing unprecedented growth in the commercial and industrial sectors, including high-energy users such as semiconductor manufacturing, data centers and other high-tech industries. Additionally, customers' energy usage and needs continue to evolve and change as the digital economy drives a shift in how and when customers use power. These new customers not only have around-the-clock power needs but also have specific power quality needs and an increased need for reliable power delivery.

Given these extraordinary growth pressures and highlighting the realities facing rapidly growing utilities like SRP, it is critical for SRP to not only continue to provide reliable, affordable and sustainable power to its existing customers but to support the growing development in Arizona as well. SRP is working to more than double the capacity of its power system in the next 10 years while maintaining reliability and affordability and making continued progress toward our sustainability goals. SRP will accomplish this through an "all of the above" approach that plans to add natural gas, renewable, and storage resources. It is with this in mind that SRP offers three suggestions and clarifications for consideration.

First, SRP has a battery generation portfolio of over 1,000 MW and growing, including both owned and contracted resources. As a participant in the CAISO EIM, we have elected to not provide greenhouse gas offers for our battery resources due to lack of clarity for allowance obligations if these resources receive a greenhouse gas award. SRP would strongly recommend that CARB work with CAISO to provide clarity on how and whether the proposed action would relate to market participant activity, including whether the reported greenhouse gas emissions for energy storage resources are indicative of allowance obligations. (45d-262)

Response: No changes were made in response to this comment. CARB continues to work with CAISO to facilitate reporting of emissions from California's electricity markets and will work with CAISO to address any needs that may arise from the introduction of this language.

C-17. Multiple Comments: Calculation of WEIM/EDAM Emissions in MRR

Comment: Emissions Leakage from Western Electricity Markets

SMUD supports the proposed changes to improve the accuracy of outstanding emissions associated with Western Energy Imbalance Market participation.

CARB's proposed amendments to MRR § 95111 (h) revise the formula to estimate "outstanding emissions"¹³ from the Western Energy Imbalance Market (WEIM). SMUD's understanding is that, under the current MRR, WEIM outstanding emissions are calculated as total WEIM imports at the default emission factor (currently 0.428 metric tonnes CO₂e/MWh) less emissions reported by WEIM importers (at specified rates).

These total outstanding emissions are apportioned among the EDUs that participate in the WEIM and receive Cap-and-Invest allowance allocations. The CARB Executive Officer then withholds and retires a proportional share of each EDU's allowance allocation, as specified in Cap-and-Invest § 95852 (l)(1).

SMUD understands that the revised formula in MRR § 95111 (h) would limit the scope of potential leakage to only those imports into California that are below participating resources' base schedules (i.e., not surplus) and therefore have a higher likelihood of being backfilled by a higher emitting out-of-state resource. SMUD believes CARB's proposed changes will improve the accuracy of the outstanding emissions calculation and supports their inclusion in the MRR.

However, SMUD requests additional clarification of several terms used in the outstanding emissions calculation. First, SMUD suggests that the definition of "committed capacity" in MRR § 95102 (a) should include any resource contracted to serve California load, not just those contracted to meet a resource adequacy obligation. Resources contracted to serve California load do not pose a leakage risk because they never intended to serve native balancing authority load. These resources therefore should be excluded from the outstanding emissions calculation. Additionally, SMUD requests that CARB clarify the meaning of "MWh of WEIM imports used to serve California load that were below participating resources' base schedules" (emphasis added) within MRR § 95111 (h), to ensure a common understanding and avoid the potential for confusion.

SMUD additionally agrees with the recommendation of the JUG with respect to incorporating the Extended Day-Ahead Market (EDAM) into the outstanding emissions calculation. As noted by the JUG, EDAM has not yet launched, and there may be a need to iterate on implementation. Therefore, CARB should seriously consider the JUG's recommendation to defer EDAM's inclusion in outstanding emissions until after EDAM launches, data pathways are validated, and a formal error correction process is in place, the last of which is detailed below.

SMUD recommends adding a mechanism for ex post revisions of outstanding emissions and allowance withholding to address calculation errors.

¹³ SMUD understands that "outstanding emissions" generally refers to the potential for emissions leakage from market participation that is not otherwise captured in reporting (e.g., dispatch of higher-emitting out-of-state resources to backfill for lower-emitting imports to California).

Currently, neither the MRR nor Cap-and-Invest regulations includes a mechanism to enable after-the-fact updates to outstanding emissions or the corresponding quantity of allowances withheld from EDUs. This is a problem that presents material harm to ratepayers when errors in outstanding emissions calculations occur.

For example, the California Independent System Operator (CAISO) identified an issue with the real-time WEIM transfers serving California load that occurred from April 2021 to January 2022.¹⁴ During this period, the market incorrectly included transfers within LADWP's base schedule in the calculation of WEIM imports to California. This error resulted in an artificially high assumption of WEIM imports, and accordingly, an artificially high estimate of outstanding emissions and an artificially high withholding of allowances from EDUs.

While the error was recognized and communicated to utilities, there were neither opportunities nor regulatory mechanisms available to CARB to correct the error (e.g., by reallocating withheld allowances to utilities) after CAISO identified it. SMUD therefore recommends that CARB amend both MRR and Cap-and-Invest to enable ex post updates to respond to and rectify the impacts of accounting errors. (45d-299)

Comment: CAISO Market Outstanding Emissions: EIM Updates and EDAM Inclusion

PG&E supports CARB's proposed updates to the outstanding emissions calculation for the Western Energy Imbalance Market (EIM) as it improves accounting accuracy and reduces the risk of overstating California compliance for imports and increasing customer costs unnecessarily. However, PG&E strongly recommends a delay to the inclusion of the Extended Day-Ahead Market (EDAM) into Cap-and-Invest until 2027, with the 2026 EDAM-related outstanding emissions being trued-up after the EDAM data can be validated. California Independent System Operator (CAISO) market implementations have historically required iterative corrections. Without a tested error-correction mechanism, there is a heightened risk of mis-accounting that could translate into incorrect EDU compliance obligations and unwarranted customer costs that cannot be recovered due to the lack of such a mechanism. We support the JUG's recommendation to defer EDAM inclusion until (1) EDAM operations commence, (2) data pathways are validated, and (3) a formal error-correction process is in place. (45d-PG&E-445)

Comment: CAISO Market Accounting EIM and EDAM Outstanding Emissions

Western Energy Imbalance Market (EIM)

CMUA supports CARB's proposed updates to the outstanding emissions calculation for the Western Energy Imbalance Market (EIM). More accurate emissions accounting in organized markets is important to ensure California compliance obligations are properly assigned and not overstated for imported electricity. Accurate accounting also helps protect customers from bearing costs associated with emissions they did not cause.

¹⁴ 24 See CAISO, Market Issues Bulletin: Incorrect Inclusion of Base Energy Transfers in Greenhouse Gas Attributions, revised July 24, 2023.

Extended Day-Ahead Market (EDAM)

CMUA urges CARB to proceed carefully with respect to incorporating the Extended Day-Ahead Market (EDAM) into the outstanding emissions framework at this stage. EDAM has not yet begun operations, and CAISO market implementation processes have historically required refinement and correction after launch. In the absence of a tested error-correction process, incorporating EDAM now could create a high risk of emissions mis-accounting, which in turn could result in inaccurate outstanding emission compliance obligations and unnecessary customer costs. CMUA aligns our comments with the Joint Utilities Group's (JUG) letter that recommends deferring EDAM inclusion until (1) EDAM operations commence, (2) data pathways are validated, and (3) a formal error-correction process is in place. (45d-CMUA-368)

Comment: CAISO Market Accounting: WEIM and EDAM Outstanding Emissions

Western Energy Imbalance Market (WEIM)

The JUG supports CARB's proposed refinements to the outstanding emissions calculation for the WEIM in the MRR. Improving accounting accuracy in organized markets reduces the risk of overstating California compliance for imports and helps ensure customers are not paying for emissions they did not cause.

Extended Day-Ahead Market (EDAM)

The JUG urges caution on incorporating EDAM into the outstanding emissions framework at this time. EDAM has not yet launched, and CAISO market implementations have historically required iterative corrections. In addition, CARB's regulations do not include a mechanism for correcting any accounting errors. For example, CAISO previously identified a problem with the calculation of the real-time WEIM transfers serving California load. From the period of April 2021 to January 2022, the market incorrectly included transfers within LADWP's base schedule as WEIM imports serving California load, which led to an erroneous assumption of outstanding emissions and withholding of allowances from EDUs.¹⁵ This error was identified and communicated to EDUs, but there was no process in the MRR or Cap-and-Invest to revise the outstanding emissions calculation or the corresponding number of allowances that are withheld, even in the event of an error. This, in turn, has implications for California electricity ratepayers, as EDU allowances are directly used for ratepayer benefits. The JUG therefore recommends that CARB include an error-correction process in both the MRR and Cap-and-Invest regulation to address potential future accounting errors. Moreover, without a tested error-correction mechanism, there is a heightened risk of mis-accounting that could translate into incorrect reductions in EDU allowance allocations and unwarranted customer costs. The JUG therefore recommends deferring EDAM inclusion until (1) EDAM operations commence, (2) data

¹⁵ From April 2021-January 2022, the real-time market incorrectly attributed EIM import transfers to EIM participating resources serving demand in California for GHG attribution:
<https://www.caiso.com/documents/marketissuesbulletinincorrectinclusionofbaseenergytransfersingreenhousegasattributions.pdf>

pathways are validated, and (3) a formal error-correction process is in place. (45d-JUG-404)

Response: No changes were made in response to these comments. CARB is unable to delay inclusion of EDAM in the MRR as EDAM went live this year, and CARB is directed by AB 32 to account for emissions from electricity imports into California.

CARB has been informed by CAISO that due to the complexity of the WEIM, and EDAM, it is not possible to rerun the electricity market algorithm after the fact to understand what would have happened in the market in the absence of such errors. Without this data, CARB does not have information it can use to make after-the-fact corrections to EDU allocation should an error occur. To date, no commenters have provided specific suggestions on what data CARB could rely on to correct such errors. CARB welcomes ongoing discussions and feedback about possible mechanisms and data sources that could be used to address these issues for consideration in future rulemakings. Regarding SMUD's comments on definitions, CARB recognizes the benefit of uniform definitions where possible and has proposed changes in accordance with the suggestion to update the MRR definition of committed capacity to refer specifically to sources registered as committed capacity pursuant to section 33.32.2.3 of the CAISO Fifth Replacement Tariff.

C-18. Multiple Comments: Inclusion of WEIM/EDAM in MRR

Comment: In addition, CCEEB shares concerns regarding the proposed treatment of outstanding emissions in relation to the Extended Day-Ahead Market (EDAM). CARB should delay EDAM inclusion until 2027 and true-up any 2026 EDAM-related outstanding emissions only after EDAM data can be validated. This sequencing would better protect customers from incorrect bill impacts while ensuring the integrity of the program's emissions accounting. (15d-CCEEB-165)

Comment: Similarly, PG&E remains concerned over the potential impact of including Extended Day-Ahead Market (EDAM) outstanding emissions (which will be covered by removing allowances from EDU allocations) prior to the program's launch and appropriate data validation, or the adoption of an error-correction mechanism. If CARB moves forward with a second round of 15-Day Changes, PG&E recommends a delay to the inclusion of EDAM into Cap-and-Invest until 2027, with the 2026 EDAM-related outstanding emissions being trued-up after the EDAM data can be validated. (15d-PG&E-199)

Response: No changes were made in response to these comments. CARB is unable to delay inclusion of EDAM in the MRR as EDAM went live this year, and CARB is directed by AB 32 to account for emissions from electricity imports into California.

C-19. Multiple Comments: Calculation of WEIM/EDAM Emissions in MRR

Comment: Add Mechanism to Correct Outstanding Emissions Data

Outstanding Emissions, a provision intended to account for emissions leakage associate with Energy Imbalance Market (“EIM”) imports to serve load in California, are calculated pursuant to section 95111(h)(1). In the event that data on electricity imported to California via the EIM is incorrect, the MRR should include a provision enabling CARB to true-up or recalculate the Outstanding Emissions after-the-fact using corrected or estimated data. In addition, since CARB withholds and retires allowances from EDUs that purchase electricity from the EIM, if too many allowances are withheld and retired due to an error, CARB should withhold fewer allowances in the next cycle to adjust for the error and make the EDUs whole.

From April 2021 through January 2022, the EIM incorrectly included transfers that were part of LADWP’s base schedules as part of the real-time imbalance energy transfers attributed to out-of-state EIM participating resources serving California demand. Despite the market operator identifying and announcing this error prior to the 2021 GHG emissions data report verification deadline, the erroneous data was not corrected since the market operator could not provide better data at that time and CARB’s regulations did not contain a mechanism to correct the data after verification. As a result, the erroneous data was accepted and verified and used to calculate the Outstanding Emissions, resulting in too many allowances being withheld. The regulations should support rectifying erroneous data and require accurate data or a reasonable estimate be used when determining Outstanding Emissions and quantity of allowances to be withheld and retired from the EDU allocations under the Cap-and-Invest program. SCPPA requests CARB to add such a mechanism to the regulations to rectify errors in data used to calculate the EIM, and someday EDAM Outstanding Emissions.

Conclusion

SCPPA appreciates this opportunity to provide feedback to CARB regarding the proposed amendments to the MRR, posted January 20, 2026. We stand ready to discuss these comments with staff as you finalize changes. (45d-289)

Comment: Add a Mechanism to Correct Data

SCPPA continues to urge CARB to adopt a mechanism that allows corrected or reasonably estimated data, including electricity-import data to be used when calculating Outstanding Emissions, if the original data is later shown to be inaccurate. Even if this cannot be addressed in the current rulemaking, SCPPA respectfully requests that CARB do so in the next rulemaking, which is anticipated to happen soon.

From April 2021 through January 2022, the Western Energy Imbalance Market (“WEIM”) deemed delivered imports to California data incorrectly included transfers that were part of LADWP’s base schedules as part of the real-time imbalance energy transfers attributed to out-of-state WEIM participating resources serving California demand. Although the error was identified before the 2021 emissions data verification deadline, the data could not be corrected, so erroneous data was used to calculate the WEIM Outstanding Emissions due to lack of a true-up mechanism under the existing MRR. SCPPA therefore requests that CARB add a correction or true-up mechanism to the MRR so that erroneous data can be corrected after the fact, along with correcting

any subsequent WEIM and EDAM Outstanding Emissions and CAISO Markets Purchaser Emissions calculations.

As SCPPA explained in the March 9, 2026 comments, Outstanding Emissions are intended to account for emissions leakage associated with “WEIM” imports serving California load. If the underlying data are incorrect, the regulation should allow CARB to true-up the calculation after the fact, using corrected data or a reasonable estimate. Furthermore, conducting accurate Greenhouse Gas (“GHG”) emissions accounting in the state is one of CARB’s primary purposes when implementing the MRR and Cap-and-Invest regulations as part of achieving the state’s climate goals. This is necessary to ensure that allowance retirement, compliance obligations, and GHG accounting are accurate to achieve the core missions behind the purpose of these regulations. (15d-008)

Response: No changes were made in response to these comments. CARB has been informed by CAISO that due to the complexity of the WEIM, and EDAM, it is not possible to rerun the electricity market algorithm after the fact to understand what would have happened in the market in the absence of such errors. Without this data, CARB does not have information it can use to make after-the-fact corrections to EDU allocation should an error occur. To date, no commenters have provided specific suggestions on what data CARB could rely on to correct such errors. CARB welcomes ongoing discussions and feedback about possible mechanisms and data sources that could be used to address these issues for consideration in future rulemakings.

C-20. Comment: Calculation of WEIM/EDAM Emissions in MRR

Comment: Avoid the introduction of the Extended Day Ahead Market (EDAM) into the Outstanding Emissions calculation until further data can be obtained to support the proposed EDAM methodology.

Delay Adding the Extended Day Ahead Market to the Calculation of Outstanding Emissions

The MRR and the Cap-and-Invest Initial Statement of Reasons (ISORs) signal CARB’s intent to incorporate the EDAM into the calculation of outstanding emissions from the CAISO markets. For example, in both the MRR ISOR and the Cap-and-Invest ISOR, CARB notes that “[i]n December of 2023, FERC approved the relevant portions of CAISO’s EDAM tariff (FERC 2023) setting the stage for an expected EDAM to launch in 2026. In this rulemaking, the Proposed Amendments updates the Regulation and MRR to reflect EDAM and the changes and improvements that are being planned for the [Western Energy Imbalance Market (WEIM)]. The proposed changes ensure coverage of all imported electricity emissions and help ensure CARB is appropriately addressing GHG emissions leakage in these markets [emphasis added].”¹⁶

¹⁶ California Air Resources Board. (2026). Staff report: Initial statement of reasons for proposed amendments to the California Cap-and-Invest regulation (p. 57). See California Air Resources Board.

It is premature for CARB to begin accounting for the EDAM given that EDAM has yet to be implemented and data on its operations is not yet available. There is therefore a lack of a factual record to make reasonable decisions on how to address the potential for these emissions. Acting prematurely could reduce the number of allowances for IOU EDUs, harming customers by reducing the revenue available for the Climate Credit.

Under the current regulation, CARB's Executive Officer directly retires the equivalent amount of outstanding emissions from the WEIM from the EDU allowances used for Climate Credit.¹⁷ In both the MRR and the Cap-and-Invest ISORs, CARB proposes to: 1) deduct the equivalent amount of outstanding emissions from the CAISO Markets, which now includes the EDAM and the WEIM; and 2) to expand the calculation of outstanding emissions to include both the EDAM and the WEIM.¹⁸ If the impact of EDAM is improperly quantified in this methodology, which cannot be known at this time due to lack of EDAM data, this could create the negative and unintended consequence of unnecessarily reducing the Climate Credit Californians could receive.

SCE recommends that CARB does not include the EDAM in the calculation of outstanding emissions in this rulemaking, which is slated to be voted on in May 2026 (the same month that the EDAM goes live), and instead pursue the issue through a later rulemaking where we collectively will have a better sense of the scale of these emissions and can engage in an informed discussion about how to cover emissions in the program while keeping electric affordability and the benefits of regional markets in mind.

I. Technical Clarification to the Proposed Regulation.

SCE observed an error in the EDAM calculation in the MRR that mistakenly references the WEIM instead of the EDAM. The reference to WEIM should be replaced with EDAM within EDAM-specific calculations. SCE provides redline edits to the regulation in

(2026). Staff report: Initial statement of reasons for the proposed amendments to the regulation for the mandatory reporting of greenhouse gas emissions (pp. 21–22).

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/mrr/isor.pdf>

¹⁷ California Air Resources Board. (2021). Regulation for the California cap on greenhouse gas emissions and market-based compliance mechanisms (§ 95852(l)(3)) [Unofficial electronic version].

https://ww2.arb.ca.gov/sites/default/files/2021-02/ct_reg_unofficial.pdf

¹⁸ California Air Resources Board. (2026). Staff report: Initial statement of reasons for proposed amendments to the California Cap and Invest regulation.

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_isor.pdf; California Air

Resources Board. (2026). Staff report: Initial statement of reasons for the proposed amendments to the regulation for the mandatory reporting of greenhouse gas emissions.

<https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/mrr/isor.pdf>; California Air Resources Board.

(2026). Appendix A-1: Proposed regulation order—Proposed amendments to the regulation for the California cap on greenhouse gas emissions and market-based compliance mechanisms.

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_app%20a-1.pdf; ; California Air

Resources Board. (2026). Appendix A-1: Proposed regulation order—Proposed amendments to the regulation for the mandatory reporting of greenhouse gas emissions.

https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/mrr/app_a-1.pdf

Appendix A on this matter. As noted earlier, however, SCE does not support incorporation of the EDAM into the outstanding emissions calculation at this time.

SCE appreciates CARB's consideration of its comments on the MRR Rulemaking.

Appendix A - Redline Edits to MRR Proposed Regulation Order

SCE recommends CARB make the following correction to § 95111(h)(1)(B) regarding the EDAM emissions calculation on p. 152 of the MRR Proposed Regulation Order:

(B) Total California EDAM Emissions as calculated by CARB. Annually, based on each day-ahead interval, CARB will calculate the CO₂ equivalent mass emissions associated with imported electricity in EDAM using the following equation:

$$\text{CO}_2\text{eEDAM} = \text{MWh below GHG counterfactual} \times \text{EFunsp} \times \text{TL}$$

Where:

CO₂eEDAM = CO₂ equivalent mass emissions from Total California EDAM electricity (MT of CO₂e).

MWhbelow GHG counterfactual = Megawatt-hours of WEIMEDAM imports used to serve California load that were below participating resources' EDAM GHG counterfactuals adjusted for net export constraints and electricity imports from committed capacity.

EFunsp = Default emission factor for unspecified electricity imports in 95111(b)(1).

EFunsp = 0.428 MT of CO₂e/MWh. TL = 1.02 (transmission loss correction factor) in 95111(b)(1). (45d-273)

Response: Changes were made in response to this comment. CARB is unable to delay inclusion of EDAM in the MRR as EDAM went live this year, and CARB is directed by AB 32 to account for emissions from electricity imports into California. EDAM transactions are settled in the WEIM, so there was not an error in the EDAM Outstanding Emissions (OE) equation. However, staff have updated the language in both the EDAM definition and the EDAM OE equation to indicate that the WEIM MWh that will be used are EDAM transactions settled in the WEIM.

C-21. Multiple Comments: Calculation of WEIM/EDAM Emissions in MRR

Comment: The Los Angeles Department of Water (LADWP) appreciates the opportunity to provide input regarding the California Air Resources Board's (CARB's) Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR).

While this comment is beyond the scope of the current rule amendments, LADWP encourages CARB to include within the scope of the next rulemaking a mechanism to adjust for errors in data used to calculate the Outstanding Emissions.

In LADWP's comments on the proposed 45-day amendments to the Cap-and-Invest regulation, LADWP recommended that CARB include in the regulations a mechanism to enable the Outstanding Emissions calculation to be adjusted in the event of incorrect

data for electricity imported to California via the California Independent System Operator's (CAISO) Western Energy Imbalance Market (WEIM) and Enhanced Day Ahead Market (EDAM). LADWP would like to reiterate this comment for the MRR.

In 2021, a WEIM software programming error resulted in the deemed delivered imports to California being inflated by 1,097,129 MWh, which also inflated the Outstanding Emissions by an estimated 478,963 metric tons of GHG emissions, resulting in CARB withholding and retiring too many allowances from California electrical distribution utilities that purchased electricity from the market. The erroneous data was not corrected, and CARB did not have a mechanism to adjust the Outstanding Emissions calculation and allowances withheld from the California electrical distribution utilities.

Since CARB requires that reported GHG emission data be accurate, LADWP encourages CARB to include a mechanism in the MRR to adjust the Outstanding Emissions calculation using a reasonable estimate in the event of a WEIM and/or EDAM GHG emission accounting error. Equally important is for the Cap-and-Invest regulation to include a mechanism to restore or back fill allowances that were withheld and retired in error. Having the ability to correct GHG accounting errors is important given the significant increase in volume of electricity transacted in the EDAM market. LADWP encourages CARB to include this within the scope of the next rulemaking. (15d-122)

Comment: Add Mechanism to Adjust for Errors

For EDUs that purchase electricity through the California Independent System Operator's (CAISO) Western Energy Imbalance Market (WEIM) and future Enhanced Day Ahead Market (EDAM), CARB withholds allowances from the EDU's annual allocation to cover the EDU's share of the Outstanding Emissions. Currently, CARB's rules do not have any mechanism to adjust for allowances withheld in error. In 2021, a programming error resulted in WEIM deemed delivered imports to California being inflated by 1,097,129 MWh, which inflated the Outstanding Emissions by an estimated 478,963 metric tons of GHG emissions, resulting in CARB withholding and retiring too many allowances from the EDUs. LADWP recommends that CARB add a mechanism to the regulations to enable adjustments in the event of a market GHG emission accounting error and restore or back fill allowances that were withheld and retired in error.

Outstanding Emissions from Participation in WEIM and EDAM

The wholesale electricity markets have changed significantly since the default GHG emission factor was adopted in 2010. The types and use of electricity generating resources within the western interconnected electric grid have changed, and bilateral electricity transactions have largely been replaced by organized electricity markets. New and existing renewable generating resources are now selling directly into the market --in contrast, the default GHG emission factor calculation methodology excluded all renewable and hydroelectric resources.

CARB created the Outstanding Emissions calculation to account for estimated emissions leakage associated with WEIM electricity imports to serve load in California.

The Outstanding Emissions is calculated by multiplying the total WEIM imported megawatt-hours by CARB's default GHG emission factor. Then CARB withholds and retires allocated allowances from the California EDUs that purchase electricity from the WEIM. The result is a Cap-and-Invest compliance obligation for WEIM imports based on the default emission factor which reflects the GHG emission profile of a natural gas-fueled generating resource, that does not adjust to reflect the participation of cleaner generating resources in the market.

LADWP requests that CARB re-evaluate this approach in light of the changes in the resources supplying electricity in the WEIM. While LADWP appreciates CARB's proposed amendments to the Outstanding Emissions calculation, which are a significant improvement, LADWP is still concerned about the potential magnitude of the total Outstanding Emissions for EDUs such as LADWP that will participate in both the WEIM and the EDAM electricity markets.

The question should be asked if the market operator can provide comprehensive accounting of GHG emissions associated with the WEIM electricity imports to better address CARB's leakage concern. If so, the comprehensive accounting could be used in lieu of the Outstanding Emissions calculation.

LADWP requests that CARB collaborate with CAISO to address this question as a potential future improvement to the Cap-and-Invest program.

Outstanding Emissions Accounting: Intended to be a Bridge Solution

The default GHG emission factor was reconsidered seven years ago during the 2018 rulemaking. In the December 2018 Final Statement of Reasons for the Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions, CARB states "Until future modifications to the EIM algorithm allow direct identification of the complete emissions supporting EIM transfers at the time of dispatch, the default emissions factor is the best identification of the emissions rate of these marginal plants and should supplement the emissions reported directly through the current deeming algorithm."

As the market operator, CAISO has detailed data on which generating resources are ramping up to sell electricity into California. Over the past two years, CAISO held 18 GHG Coordination Working Group meetings to discuss how to improve GHG emission accounting and reporting and posted the final Accounting and Reporting proposal on October 15, 2025.

Now that this deep dive into the GHG emissions accounting for the WEIM and EDAM is complete, the question is can the market operator provide comprehensive accounting of GHG emissions associated with WEIM electricity imports into California, including any secondary dispatch emissions, to satisfy CARB's concerns about leakage.

If the market operator can provide this comprehensive emissions accounting, LADWP recommends that the electricity importer be responsible for the total emissions compliance obligation such that the Outstanding Emissions calculation and additional compliance obligation on the California Purchaser are no longer needed.

Alternately, if the market operator cannot provide comprehensive emissions accounting to CARB's satisfaction, replacing the default emission factor in the Outstanding Emissions calculation with an appropriate market-based emission factor would more accurately represent the GHG emissions associated with market electricity imports into California. (45d-LADWP-408)

Response: No changes were made in response to these comments. CARB has been informed by CAISO that due to the complexity of the WEIM and EDAM, it is not possible to rerun the electricity market algorithm after the fact to understand what would have happened in the market in the absence of such errors. Without this data, CARB does not have information it can use to make after-the-fact corrections to EDU allocation should an error occur. To date, no commenters have provided specific suggestions on what data CARB could rely on to correct such errors. CARB welcomes ongoing discussions and feedback about possible mechanisms and data sources that could be used to address these issues for consideration in future rulemakings.

The default emissions factor in the OE calculation, as described in Appendix B to the Initial Statement of Reasons, represents the total net generation of all marginal sources. As stated in Appendix B, while "renewable generation has increased significantly across the WECC... those resources generate based on meteorological conditions and cannot be described as 'marginal.'"

CARB continues to work with CAISO to meet the requirements of AB 32, to ensure reporting is as accurate, and that requirements are consistent as possible while mitigating emissions leakage concerns.

C-22. Comment: Calculation of WEIM/EDAM Emissions in MRR

Comment: In MRR section 95111(h)(1)(B) Calculation of CAISO Markets Outstanding Emissions, Total California EDAM Emissions on page 152, there appears to be a typo in the description of "MWh below GHG counterfactual". Rather than "Megawatt-hours of *WEIM imports* used to serve California load that were below participating resources' EDAM GHG counterfactuals..." it should probably show "Megawatt-hours of *EDAM imports* used to serve California load that were below participating resources' EDAM GHG counterfactuals..."

(B) Total California EDAM Emissions as calculated by CARB. Annually, based on each day-ahead interval, CARB will calculate the CO₂ equivalent mass emissions associated with imported electricity in EDAM using the following equation:

$$CO_2e_{EDAM} = MWh_{below\ GHG\ counterfactual} \times EF_{unsp} \times TL$$

Where:

CO₂e_{EDAM} = CO₂ equivalent mass emissions from Total California EDAM electricity (MT of CO₂e).

MWh_{below GHG counterfactual} = Megawatt-hours of WEIM imports used to serve California load that were below participating resources' EDAM GHG counterfactuals adjusted for net export constraints and electricity imports from committed capacity.

EF_{unsp} = Default emission factor for unspecified electricity imports in 95111(b)(1).

EF_{unsp} = 0.428 MT of CO₂e/MWh.

TL = 1.02 (transmission loss correction factor) in 95111(b)(1).

(45d-327)

Response: Changes were made in response to this comment. EDAM transactions are settled in the WEIM, so there was not an error in the EDAM Outstanding Emissions equation. However, staff have updated the language in both the EDAM definition and the EDAM OE equation to indicate that the WEIM MWh that will be used are EDAM transactions settled in the WEIM.

C-23. Comment: WEIM/EDAM Definitions

Comment: Definitions

The CAISO recommends revising the definition of “Western Energy Imbalance Market” to include real-time transactions for the Extended Day-Ahead Market (EDAM) footprint. EDAM participating entities must also participate in the real-time market. At EDAM go-live, the real-time footprint will be larger than the EDAM footprint, as it includes more participants. The CAISO suggests CARB update the definition of EDAM and WEIM to clarify that EDAM entities participate in both the CAISO’s day-ahead and real-time markets as follows:

“Extended Day-Ahead Market” or “EDAM” means the CAISO’s day-ahead market to manage transmission congestion and optimize procurement of energy to balance supply and demand for the combined CAISO and EDAM footprint.

EDAM entities participate in both the CAISO’s day-ahead and real-time markets.

“Western Energy Imbalance Market” or “WEIM” means the operation of the CAISO’s real-time market to manage transmission congestion and optimize procurement of

energy to balance supply and demand for the combined CAISO, EDAM, and WEIM footprint. EDAM entities participate in both the CAISO's day-ahead and real-time markets.

Use of EDAM/WEIM and the Outstanding Emissions Calculator

Proposed regulations Section 95111(h)(1) describes the calculation of CAISO markets outstanding emissions. The CAISO supports the proposed revisions to CARB's outstanding emission calculation as a positive evolution.

The CAISO's markets use a counterfactual approach to identify and minimize the potential for secondary dispatch when market transfers are attributed to a GHG regulation area. Attributing resources to a GHG regulation area creates the potential for secondary dispatch where resources outside of a GHG regulation area attributed to serve demand within a GHG regulation area are backfilled by higher emitting resources. The CAISO uses a counterfactual to approximate how a resource would be dispatched to serve load outside a GHG area. The counterfactual for entities that only participate in the WEIM is a self-submitted base schedule. EDAM will introduce a special market run in the day-ahead market—the GHG reference pass—to create a reference schedule for resources economically participating in the day-ahead market. This reference schedule will serve as a resource's day-ahead GHG counterfactual.

As proposed, the outstanding emissions calculation relies on evaluating GHG attributions below each WEIM/EDAM participating resource's counterfactual schedule. The CAISO understands that the emissions calculation is intended to cover outstanding emissions associated with electricity imports into the state of California that occur through real-time market transfers. In the context of the proposed regulations, and to improve clarity, the CAISO recommends minor adjustments to the terminology used in the regulations to more clearly identify if the use of WEIM/EDAM refers to real-time/day-ahead transactions or WEIM-only/EDAM participating balancing authorities.

For example, as part of the regulations related to the outstanding emissions calculator (Proposed Section 95111(h)(1)), CARB will calculate the outstanding emissions for imported electricity in "the WEIM and EDAM." The regulations are not clear as to whether this means that all scheduling coordinators in the market footprint must report both day-ahead and real-time transactions. The CAISO recommends CARB clarify that WEIM and EDAM participating entities need only report their real-time market transfers to serve California.

Similarly, the outstanding emissions calculator includes two calculations, one for Total California WEIM Emissions (Proposed Section 95111(h)(1)(A)) and one for Total California EDAM Emissions (Proposed Section 95111(h)(1)(A)). As explained above, EDAM participants must participate in the WEIM, and thus separating out these two calculations may inadvertently capture EDAM participants in both the WEIM and EDAM. If CARB prefers to categorize these participants separately, the CAISO suggests clarifying that subsections A and B are applicable to WEIM-only and EDAM participants respectively. (45d-CAISO-393)

Response: Changes were made in response to these comments. CARB has made the proposed edit to the EDAM definition but referring to WEIM and EDAM by name instead of as “CAISO’s day-ahead and real-time markets.” CARB did not make the proposed edit to the WEIM definition as it only refers to the WEIM, and there is not a need to refer to EDAM in the WEIM definition.

Regarding the proposed changes to the Outstanding Emissions calculation, CARB did not make the change to the WEIM portion of the calculation because the “MWh below base” term definition already indicates that only WEIM imports are used in the equation. In the EDAM portion of the calculation, CARB updated the “MWh below GHG counterfactual” term definition to state that “real-time megawatt-hours of WEIM imports settled from EDAM day-ahead schedules” are used in the equation. This approach prevents double counting EDAM imports in both the EDAM and WEIM outstanding emissions calculations by clarifying that EDAM imports will be the only MWh included in the EDAM portion of the equation and will not be included in the WEIM portion.

C-24. Multiple Comments: Support for WEIM/EDAM in MRR

Comment: The Bonneville Power Administration (BPA) provides these comments in response to the California Air Resource Board’s (CARB) 15-day solicitation for comments on its modified text of the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. BPA is a federal Power Marketing Administration within the Department of Energy and located in the Pacific Northwest. BPA markets power across the West, including to California entities, and is a participant in the California Independent System Operator’s (CAISO) Western

Energy Imbalance Market. BPA is an Asset Controlling Supplier under CARB’s program, marketing power from a system comprised of 31 federal hydroelectric projects located in the Columbia River basin, one nuclear plant, and some other small nonfederal power plants.

BPA provided written comments to CARB on March 9, 2026, that included concerns over the proposed definition of committed capacity in § 95102. Specifically, the originally proposed definition too narrowly defined committed capacity as electricity generation outside California contracted solely to meet resource adequacy obligations under specific California Public Utilities Code or local publicly owned electric utility requirements. BPA supports CARB modifying this definition to holistically include any energy contracted to California load that is registered as committed capacity with CAISO. The definition as modified appropriately acknowledges the variety of legitimate reasons for entering into a contract for procurement of energy. (15d-101)

Comment: SMUD supports the changes to “committed capacity” in MRR, which will enable better estimation of outstanding emissions.

The MRR 15-day amendments update the definition of “committed capacity,” which is used in the calculation to estimate emissions leakage associated with energy market participation. SMUD’s understanding is that the new definition of committed capacity will encompass all electricity generation resources under contract to serve California load,

not just those that qualify for resource adequacy. This change will improve the accuracy of estimated leakage and minimize the risk that EDUs are assigned emissions for leakage that did not actually occur.

SMUD supports the changes to “committed capacity” in MRR, which will enable better estimation of outstanding emissions. (15d-117)

Comment: The California Independent System Operator Corporation (CAISO) submits these comments on the modifications to the proposed amendments to the California Air Resources Board’s (CARB) regulations related to the California Cap on Greenhouse Gas Emissions and Market Based Compliance Mechanisms (15-Day Changes). The CAISO supports updates made in the 15-Day Changes and confirms its commitment to coordinate with CARB and CAISO market participants to provide data necessary to support applicable reporting requirements.

The updates that CARB has proposed in the 15-Day Changes respond in part to CAISO’s comments submitted Mar 9, 2026. The CAISO supports the updated outstanding emissions calculation in proposed regulations Section 95111(h)(1). The proposed updates are consistent with data the CAISO provides in support of existing reporting practices, and will ensure continuity with the successful launch of the Extended Day Ahead Market (EDAM) that occurred on May 1, 2026.

The outstanding emissions calculation for CAISO Market Purchaser’s Retail Sales, proposed regulation Section 95111(h)(2), accounts for emissions from settled, real-time market results. Entities participating in the Extended Day Ahead Market (EDAM) will report their real-time market transfers to serve California load, consistent with existing and continuing data reporting practices for the Western Energy Imbalance Market (WEIM). By maintaining this practice, the CAISO expects minimal disruption to reporting entities’ processes after the EDAM launch.

The updated methodology recognizes the role of the Greenhouse Gas (GHG) counterfactual, a tool the CAISO currently uses in the WEIM to improve GHG accounting accuracy and transparency. CARB’s proposed outstanding emissions calculation for WEIM-only participants reflects the CAISO’s on-going practice of using each WEIM resource’s base schedule as its GHG counterfactual. CARB proposes a separate calculation for EDAM entities that uses a resource’s day-ahead GHG counterfactual schedule in lieu of a base schedule. This update is necessary for continuity because, now that EDAM is live, day-ahead participating entities no longer submit base schedules.

Where the regulations call for new data arising from the implementation of EDAM, the CAISO commits to provide this data subject to applicable nondisclosure requirements to support CARB’s program. The CAISO also commits to work with its market participants to address any questions regarding what CAISO market data informs any reporting obligation they may have under CARB’s program. (15d-CAISO-127)

Response: No changes were made in response to these comments. CARB thanks the commenters for their support of the Proposed Amendments.

D. Refineries and Hydrogen Plants

D-1. Comment: Oil and Energy Sector Reporting

Comment: I am writing to respectfully request that the proposed amendments to California's Mandatory Reporting Regulation for Greenhouse Gas Emissions be reconsidered and resent for further evaluation.

While I recognize the importance of accurate greenhouse gas reporting and California's leadership in climate policy, it is equally important that regulatory changes fully consider their economic and operational impacts on key industries within the state, including the oil and energy sector.

California's oil industry continues to play a critical role in supporting the state's energy reliability, workforce, and tax base. Regulatory adjustments that increase reporting complexity or administrative burden should be carefully evaluated to ensure they do not unintentionally disadvantage in-state producers compared to out-of-state or imported energy sources. Policies that encourage responsible domestic production while maintaining strong environmental standards can better balance environmental goals with economic stability.

For these reasons, I respectfully ask that the state revisit the current proposal and consider revisions that recognize the positive contributions of the oil and energy sector, including technological improvements in emissions management, operational efficiency, and investments in lower-carbon fuel strategies.

Thank you for your time and consideration. I appreciate the opportunity for public input on this important regulatory process. (45d-160)

Response: No changes were made in response to this comment. CARB thanks the commenter for acknowledging the importance of both accurate greenhouse gas reporting and California's economic stability. The proposed amendments to MRR are primarily technical adjustments to reporting requirements designed to improve reporting accuracy, transparency, and consistency while reflecting changes in industry operations and regulatory needs.

Stakeholder concerns about administrative burden, competitiveness, and operational impacts were carefully considered during this public rulemaking, and CARB staff appreciates the commenter's input and participation.

D-2. Multiple Comments: Biogenic Emissions from Coprocessing

Comment: Section 95113(n) – Additional Requirements for Reporting Biogenic Emissions from Processing or Coprocessing of Biomass-Derived Feedstocks

Include in proposed regulation Carbon-14 testing (ASTM D6866-22 Method B and/or ASTM D8473-22) as an approved method. Facilities already have Carbon-14 testing as an approved alternate method from CARB for coprocessing. Inclusion would simplify process for MRR by not needing to obtain approval for an alternative method. (45d-265)

Comment: This comment is intended to recommend the use of the Carbon-14 testing method to determine the share of biogenic carbon content of any heterogenous feedstocks, fuels and emissions under California's mandatory reporting of GHG emissions and emissions cap program. Biogenic content measurements following methods such as ASTM D6866 Method B currently provide critical value to leading emissions cap and reporting program's, including California's.

Our recommendation is that CARB should uphold and re-affirm direct biogenic content testing requirements following the ASTM D6866 Method B standard to verify the renewable (biogenic) content of any heterogenous emissions. Direct biogenic testing requirements are the only reliable method of incentivizing the use of biomass-derived content and guaranteeing compliance in mixed bio- and fossil streams. In addition to the provisions for co-processing and waste incineration included in this rule, we recommend extending biogenic requirements to the following applications. (15d-108)

Response: No changes were made in response to these comments. CARB acknowledges that Carbon-14 testing can be an appropriate component of determining biogenic content for certain coprocessing applications. Because accurate reporting may require additional facility-specific information beyond Carbon-14 test results alone, submission and approval of an alternative methodology for facilities seeking to use Carbon-14 testing remains necessary to ensure completeness and accuracy. The alternative methodology provisions provide flexibility and ensure reporting methods are accurate and verifiable.

D-3. Comment: Removal of Minimum Reporting Thresholds for Flaring

Comment: Under the proposed rules, CARB is eliminating previous flow-rate exemptions for startup, shutdown, and malfunction (SSM) flare events, requiring facilities to log and report every single instance, no matter how negligible the volume of gas.

Eliminating *de minimis* reporting thresholds creates an outsized administrative burden that yields diminishing returns for actual environmental oversight. When establishing emissions accounting schemes, it is crucial for policymakers to balance the desire for absolute precision against the real-world financial costs of continuous data capture and compliance (Abad & Dodds, 2020). If reporting thresholds are entirely removed, the resulting hyper-granular reporting requirements can lead to unwelcome operational and economic consequences without proportionately benefiting the climate (Lodhia & Martin, 2011). Forcing facilities to track microscopic emission events diverts valuable operational resources away from actual decarbonization efforts and toward paperwork, ultimately delaying the practical implementation of new, innovative energy systems (Jørgensen, 2005). (45d-006)

Response: No changes were made in response to this comment. The proposed amendments are necessary to ensure consistency and completeness of emissions reporting from flaring events at refineries. Most flares are already reported as *de minimis*, which allows for a reasonable emissions estimate to be made without meeting the +/-5% accuracy requirement. Therefore, *de minimis* reporting provisions are likely applicable for refinery operators for both larger

flare events as well as small flow flare events. Flare emissions have dropped by 50% during the past decade, and large flare events are only reported by a small number of refineries. CARB is confident refinery operators are already minimizing flaring and that there is no significant administrative burden to reporting small flare events if not already being reported by the facility.

Hydrogen Production Reporting

D-4. Comment: Low Carbon Content Feedstocks

Comment: Finally, CARB should align with EPA methodology for reporting GHG emissions for hydrogen production from low carbon content feedstocks. EPA included this revised methodology in the 2024 Final Rule which can help encourage the use of novel feedstocks for hydrogen production.¹⁹ CARB should align with EPA and allow hydrogen producers to use product specifications annually for gaseous feedstocks with carbon content ≤ 0.00002 kg carbon per kg of gaseous fuel or feedstock or liquid feedstocks with carbon content ≤ 0.00006 kg carbon per gallon of liquid fuel or feedstock. This would allow reporters the use of modifications of methods for sampling/analysis for carbon content if relevant compounds cannot be detected, if a method is not technically feasible, or if use of a method is unsafe. These fuels and feedstocks have very limited GHG emissions potential and are an insignificant contribution to the GHG emissions from hydrogen production. (45d-CUSAI-296)

Response: No changes were made in response to this comment. For very small sources of process emissions from low-carbon feedstocks, the producer may report emissions as de minimis using a reasonable method which is not subject to accuracy requirements. This addresses the claims of administrative burden of reporting very small quantities of emissions while preserving the overall accuracy of the facility's annual emissions report. Please note, the commenter cites to the informal U.S. EPA publication. U.S. EPA has finalized the rule in the Federal Register. Please see 89 Fed. Reg. 31802 (Apr. 25, 2024), <https://www.govinfo.gov/content/pkg/FR-2024-04-25/pdf/2024-07413.pdf>.

D-5. Multiple Comments: Hydrogen Process Vents

Comment: CARB should specify reportable process vents for hydrogen production. WSPA agrees with CARB's intent to require all hydrogen production facilities, whether integrated within a refinery or operating as a standalone hydrogen production facility, to be held to the same GHG emissions reporting requirements. However, CARB needs to add significant language to specify which process vents are required to be reported. CARB should include the same language as in § 95113 (Refineries) that excludes process vents for which the concentration of CO₂, N₂O, and CH₄ are determined to be below the thresholds in 40 CFR § 98.253(j). CARB should also align with EPA reporting

¹⁹ Revisions and Confidentiality Determinations for Data Elements Under the Greenhouse Gas Reporting Rule – April 3, 2024 - <https://www.epa.gov/system/files/documents/2024-04/ghgrp-final-preamble-and-rule-april-2024.pdf>

requirements and include in the regulation language allowing quantification of vent flows using measurement data (if available), process knowledge, or engineering estimates, as provided in 40 CFR § 98.253(j). Lastly, CARB should specify in its regulations how to account for double-counted emissions from hydrogen production to ensure consistency across all data reporters. (45d-WSPA-381)

Comment: Section 95114 – Hydrogen Production

We request that CARB include language similar to that included in Section 95113 that excludes process vents for which the concentration of CO₂, N₂O and CH₄ are determined to be below the thresholds in 40 CFR §98.253(j). We also request that CARB ensure the MRR allows for quantifying vent flows using measurement data, process knowledge, or engineering estimate as in 40 CFR §98.253(j) and has clear guidance on quantifying double counting emissions from process vents.

We also ask that CARB include a revision for section (e), regarding fuel and feedstock contents aligning with the EPA on the following to decrease reporting complexity:

- 40 CFR 98.164(b)(2): [https://www.ecfr.gov/current/title-40/part-98/subpart-P#p-98.164\(b\)\(2\)](https://www.ecfr.gov/current/title-40/part-98/subpart-P#p-98.164(b)(2)) and [https://www.ecfr.gov/current/title-40/part-98/subpart-P#p-98.164\(b\)\(5\)\(xix\)](https://www.ecfr.gov/current/title-40/part-98/subpart-P#p-98.164(b)(5)(xix))
 - See EPA Preamble : [2024-07413.pdf](#) (Page 31838, “Revisions To Streamline and Improve Implementation for Subpart P”)
 - Allows for hydrogen producers to use product specification annually for gaseous feedstocks with carbon content ≤20 ppmw or liquid feedstocks with carbon content ≤ 0.00006 kg carbon per gallon of liquid fuel or feedstock. Also allows for use of modifications of methods for sampling/analysis for carbon content if relevant compounds cannot be detected, not technically feasible, or use of method is unsafe. (45d-265)

Response: Changes were made in response to these comments. CARB staff agree with the commenter and made changes in the 15-Day Changes to align standalone hydrogen facility process vent reporting with the thresholds specified in section 95113 for excluding small process vents. Staff also made changes in the 15-Day Changes to align with the specified U.S. EPA methods. Regarding the potential for double-counting emissions, current MRR methods already ensure that emissions from hydrogen production are not double counted with refinery emissions, so no further changes are needed.

E. Imports of Hydrogen and Producers of Hydrogen Utilizing Electricity

E.1. Comment: Importers of Hydrogen and Producers of Hydrogen Utilizing Electricity Reporting Requirements

Comment: Section 95127 – Importers of Hydrogen and Producers of Hydrogen Utilizing Electricity

CCEB supports proposed language stating that “GHG emissions data reported under this section are not considered covered emissions” and the methodology for calculation of emissions for imported hydrogen in (b)(1)(A).

We also request that CARB remove section (d) – Additional Data Reporting Requirements. Similar to comments on 95121, this section requires the reporting of LCFS pathway codes and creates additional administrative burdens for importers of hydrogen. (45d-265)

Response: Changes were made based on this comment. CARB appreciates the support of the proposed amendment in subsection (b). CARB agrees with the commenter and removed the amendment in subsection (d) that required reporting of LCFS data as part of 15-day Notice.

F. Petroleum and Natural Gas Systems

F-1. Comment: Blowdown Emissions

Comment: PG&E Requests Clarification for Natural Gas Fugitive Emissions Verification

CARB’s Proposed Amendments include revisions to the categories of emissions from the natural gas system that are exempt for purposes of C&I compliance. PG&E largely agrees with Staff’s assessment in the ISOR that the inclusion of transmission blowdowns and compressor station venting moving forward will add relatively minimal emissions to our overall natural gas compliance obligation. However, PG&E’s data for these emission categories are calculated based on best available data or engineering estimates to some degree, rather than direct continuous flow measurement, similar to other categories that are exempt for this reason. While PG&E provides transmission blowdown emissions to the EPA, the EPA’s reporting requirements on data quality are very different than those necessary for emissions that are subject to a C&I compliance obligation. PG&E requests clarification and guidance from CARB that transmission blowdown and compressor station venting emissions will still be subject to the same verification and reporting requirements as prior years, allowing PG&E to continue using existing methodologies and data quality standards for verification of these newly covered emission categories. (45d-PG&E-445)

Response: No changes were made in response to this comment. Natural gas transmission pipeline blowdowns are newly subject to reporting, and natural gas utilities can continue to use the same method to estimate blowdown emissions from this new category just like existing reporting of blowdowns from other equipment types. The Cap-and-Invest Regulation Proposed Amendments will treat blowdowns as newly covered emissions for the four natural gas distribution facilities. However, because blowdowns are a relatively small source of emissions, reporting these emissions as de minimis is acceptable.

G. Geologic Sequestration

G-1. Comment: Carbon Capture and Sequestration

Comment: *Carbon capture and sequestration retrofits of electricity generating facilities can support state carbon neutrality goals but require regulatory certainty.*

Carbon capture and sequestration (CCS) is a promising and well-positioned emerging technology to support the near-term decarbonization of California's power supply, which is a key component of the state's economywide GHG reduction goals. Critically, CCS technology will allow electric utilities to significantly reduce GHG emissions while supporting affordability and reliability—two essential features of a resilient grid that will further encourage electrification of transportation, buildings, industry, and other end-uses. It has been widely acknowledged that CCS will be necessary to reach carbon neutrality by 2045, and recent CEC modeling shows that CCS has the potential to achieve significant cost savings for the electricity sector as a clean, firm resource.^{20,21} CCS's ability to deliver significant, immediate emissions reductions is especially important as other emerging technologies, like green hydrogen and seasonal long-duration storage, are still under development and have not yet reached commercial maturation. It is imperative that all options for reducing electricity sector emissions remain on the table to continue and accelerate progress toward the state's decarbonization goals.

But for CCS to truly succeed in California, the electricity sector urgently requires regulatory support and certainty. Specifically, CARB must ensure that atmospheric emissions from a given electricity generating facility are the basis for attribution under the MRR and compliance obligations under the Cap-and-Invest program. To ensure complete and accurate emissions reporting, accounting, and compliance obligations, both regulations should clearly delineate roles and responsibilities at each stage of the CCS process – capture at electricity generating facilities, pipeline transport, and geologic sequestration.

The MRR is the foundation for the state's GHG emissions data and is therefore the appropriate venue to address emissions accounting for CCS. Because other agencies, regulations, and programs look to the MRR to determine facility-specific emissions factors, MRR must accurately attribute emissions; if a gas-powered facility with CCS is emitting 95 percent less than a facility situated elsewhere, that gas-powered facility should have an emissions factor reflecting its actual emissions. Gases that are not released into the atmosphere—e.g., those that are captured, transported, and SMUD appreciates that additional important work regarding financial responsibility, monitoring, and development of a voluntary unified permit application for CCS facilities will be

²⁰ For example, AB 1279 (Muratsuchi, stats. 2022, ch. 337) directs CARB to identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California to complement emissions reductions and achieve [the state's emission reduction goals]" (as detailed in HSC, §38562.2). CARB's 2022 Scoping Plan Update highlights the need for CCS and other carbon removal technologies in reducing emissions in hard-to-decarbonize sectors, including power generation (see p. 86)

²¹ See CEC, [2025 Senate Bill \(SB\) 100: Draft Modeling Results Workshop](#) presentation, dated February 19, 2026, at slide 45

established in the SB 905 rulemaking process, along with strategies to minimize environmental and local air quality impacts associated with CCS project development.²² But these revisions to the MRR need not and should not wait for that process to be complete; utilities across California, including SMUD, are evaluating and pursuing potential CCS projects today, and further delay and regulatory uncertainty will unnecessarily interrupt those carbon-reducing efforts.

California must take steps to ensure its policies, programs, and regulations support the entire ecosystem of decarbonization opportunities, including CCS. At this important juncture, CARB has a unique opportunity to pave the way for a promising tool that will deliver near-term, reliable, affordable decarbonization within the state. Accordingly, SMUD strongly urges CARB to integrate the concepts set forth below into 15-Day language for MRR and Cap-and-Invest.

MRR and Cap-and-Invest should clearly differentiate the roles and responsibilities of electricity generating facilities, CO2 transportation pipelines, and geologic sequestration facilities.

To ensure complete and accurate emissions reporting and accounting at each step of the CCS process, the MRR should clearly differentiate between electricity generating facilities, geologic sequestration facilities, and CO2 transportation pipelines. This is necessary because different entities may own and control one or more of these facilities. The current MRR does not define “geologic sequestration facility” or “CO2 transportation pipeline,” but relies instead on a broad definition of “carbon dioxide supplier”²³ in § 95102 (a):

(a) “Carbon dioxide supplier” means: (a) facilities with production process units, located in the State of California that capture a CO2 stream for purposes of supplying CO2 to another entity or facility or that capture the CO2 stream in order to utilize it for geologic sequestration where capture refers to the initial separation and removal of CO2 from a manufacturing process or any other process, (b) facilities with CO2 production wells located in the State of California that extract or produce a CO2 stream for purposes of supplying CO2 for commercial applications or that extract a CO2 stream in order to utilize it for geologic sequestration, (c) exporters (out of the State of California) of bulk CO2 that export CO2 for the purpose of geologic sequestration, (d) exporters (out of the State of California) of bulk CO2 that export for purposes other than geologic sequestration, and (e) importers (into the State of California) of bulk CO2. This source category is focused on upstream supply and is not intended to place duplicative compliance obligations on CO2 already covered upstream. The source category does not include transportation or distribution of CO2,

²² SB 905 (Caballero, stats. 2022, ch. 359) requires CARB to create a Carbon Capture, Removal, Utilization, and Storage program to evaluate, demonstrate, and regulate financial responsibility and environmental monitoring of CCS and carbon dioxide removal projects, among other requirements

²³ The same definition is incorporated in Cap-and-Invest § 95802

purification, compression or processing of CO₂, or on-site use of CO₂ captured on-site.

SMUD is concerned that this definition lacks the precision needed to clearly and accurately address the scenario in which an electricity generating facility is equipped with CCS but subsequently transfers the captured carbon to another entity for sequestration. For example, category (a) of the above definition appears to cover electricity generating facilities equipped with CCS (“facilities with production process units ... that capture a CO₂ stream for purposes of supplying CO₂ to another entity”), but not the entity that *receives* the CO₂ for purposes of geologic sequestration. The entity(ies) that receive the captured CO₂ (e.g., for transportation and sequestration) also do not appear to fall within the additional categories of the definition (production wells, exporters, importers). However, it is the entity(ies) *receiving* CO₂ for ultimate disposition, not the entity capturing and transferring the CO₂, that should be responsible for reporting emissions that occur after that entity takes custody of the gas (e.g., to account for the quantity of transferred and sequestered emissions as well as any fugitive emissions).

SMUD therefore recommends that CARB amend definitions within both MRR and Cap-and-Invest to differentiate between these distinct roles. SMUD believes this could be accomplished by adding individual definitions for “CO₂ transportation pipeline” and “geologic sequestration facility”, or by revising the definition of “carbon dioxide supplier” as follows:

(a)“Carbon dioxide supplier” means: (a) facilities with production process units, excluding electricity generating units and cogeneration units, located in the State of California that capture a CO₂ stream for purposes of supplying CO₂ to another entity or facility or that receive, transport or capture the CO₂ stream in order to utilize it for geologic sequestration where capture refers to the initial separation and removal of CO₂ from a manufacturing process or any other process, ...

This change would make clear that entities *receiving* a CO₂ stream for purposes of sequestration or utilization are covered under the definition of carbon dioxide supplier, but electricity generating facilities that transfer responsibility for captured CO₂ to another entity are not. It would also ensure that entities receiving captured CO₂ for sequestration are covered by and subject to MRR requirements, which SMUD anticipates may be necessary for complete and accurate accounting of CO₂ emissions. SMUD additionally recommends conforming changes to the definition in Cap-and-Invest § 95802 for consistency and to enable accurate attribution of Cap-and-Invest compliance obligations. These changes can be accomplished now and will be necessary regardless of the outcome of the SB 905 process.

CARB should amend MRR § 95112 (b) to expressly clarify that captured and sequestered CO₂ is excluded from an electricity generating facility’s MRR report.

Under the current MRR, electricity generating facilities are generally required to report emissions using the methodologies specified in Subparts C and D of 40 CFR Part 98 or Subpart D of Part 75. SMUD’s understanding is that none of the current calculation methodologies expressly address carbon capture and sequestration. While the Tier 4

calculation methodology (i.e., calculating CO₂ mass emissions using continuous emissions monitoring systems) would implicitly account for the effects of CCS, as emissions would be measured after the absorber, SMUD understands that other methodologies, such as Tier 3, would not. The scenario could therefore arise where two identical electricity generating facilities are both retrofitted with CCS with a 95 percent capture rate and each produce 100,000 MT CO₂, but one facility reports 5,000 MT CO₂ using the Tier 4 methodology, and the other facility reports 100,000 MT CO₂ using the Tier 3 methodology. This would be an illogical outcome and would result in inaccurate data regarding the latter facility's emissions factor.

To ensure consistent and accurate accounting, CARB should amend the MRR to clearly address the effect of CCS on electricity generating facility emissions, regardless of which calculation tier methodology is used. As described above, only CO₂ that is actually emitted into the atmosphere at the time of generation should be attributed to the electricity generating facility. Reports regarding CO₂ that is captured and transported to another entity for sequestration should be the obligation of the entity(ies) responsible for such transport and sequestration.

SMUD therefore recommends that CARB add a subparagraph (9) to MRR § 95112 (b) to ensure accurate accounting for reported emissions when CO₂ emissions are geologically sequestered:

(b)(9) Capture, transportation and geological sequestration of CO₂ either on-site or off-site. The total reported emissions for any electricity generation unit or cogeneration unit that captures carbon dioxide shall only include quantities of gases that are released into the atmosphere and are not transferred to any entity or entities responsible for the transportation, sequestration, or use of those gases, including a Carbon Dioxide Supplier, as defined in Section 95852(g).

(A) Notwithstanding the foregoing, if the owner or operator of an electricity generation unit or cogeneration unit is also a Carbon Dioxide Supplier, or otherwise geologically sequesters CO₂ produced by the facility, the owner or operator shall separately report the CO₂ geologically sequestered, consistent with the requirements of Section 95123 or Section 95125, as applicable.

(B) If the owner or operator of any electricity generation unit or cogeneration unit that captures CO₂ and transfers the captured CO₂ to a separate entity or entities, such as a Carbon Dioxide Supplier, for purposes of sequestration or use by that separate entity, the owner or operator of the electricity generation unit or cogeneration unit shall report the quantity of CO₂ captured and transferred to such entity. The quantity of CO₂ captured, transferred and sequestered shall not be considered an "emission" from the electricity generating unit or cogeneration unit.

(C) Carbon Dioxide Suppliers responsible for the transportation, sequestration, or use of Carbon Dioxide shall be independently responsible for reporting surface leakage and other emissions of CO₂ received from electricity generation and cogeneration units, consistent with the requirements of Section 95123 or 95125, as applicable.

(D) For all electricity generation and cogeneration units utilizing carbon capture or transferring CO₂ to a Carbon Dioxide Supplier, the Executive Officer shall publish emissions levels for those units that reflect only those greenhouse gases emitted into the atmosphere at the facility during the reporting period, and consistent with this section, shall exclude any quantity of greenhouse gases captured, sequestered, transported, or otherwise stored by a Carbon Dioxide Supplier. (45d-299)

Response: No changes were made in response to these comments. Incorporating carbon capture and sequestration as a means to avoid a compliance obligation will require a separate Board action and applies to the Cap-and-Invest Regulation, not MRR, and therefore is out of scope of the MRR rulemaking. MRR staff continue to coordinate closely with stakeholders, Cap-and-Invest staff, and staff implementing the Senate Bill (SB) 905 Carbon Capture, Removal, Utilization, and Storage (CCUS) Program on any future rulemaking activities related to SB 905. See Agency Response to comments S-3.1a and S-5.2 in the Cap-and-Invest FSOR for further responses to this comment.

G-2. Multiple Comments: Carbon Capture and Storage Accounting

Comment: *SMUD urges CARB to provide certainty in both MRR and Cap-and-Invest regarding CCS emissions accounting, which is necessary to enable near-term decisions on CCS investments.*

SMUD is disappointed that neither the MRR nor Cap-and-Invest 15-Day amendments clarify the emissions accounting framework for power plants equipped with CCS. The state has widely recognized the role that CCS will play in achieving decarbonization goals. For electric utilities, this technology has the potential to significantly reduce GHG emissions while supporting affordability and reliability—two essential features of a resilient grid that will further encourage electrification of transportation, buildings, industry, and other end-uses.

CCS is closer to market-readiness than ever, and regulatory certainty and acknowledgement of its importance to a clean, reliable grid is a priority for SMUD. Together with several other publicly owned utilities and the Balancing Authority of Northern California, SMUD is actively exploring near-term opportunities to procure electricity from plants equipped with CCS. However, without clarity from CARB, via changes to the MRR and Cap and Invest regulations, it is unclear how emissions from such plants will be counted. This is critically important to electric utilities like SMUD that are subject to the CEC's Power Source Disclosure regulations. Those regulations incorporate CARB's data regarding facilities' emissions in MRR, which are ultimately used to populate the utility's Power Content Label and relay information about the utility's emissions to customers.

SMUD's understanding is that, under the status quo, facilities equipped with CCS will report—and be responsible for—both atmospheric emissions *and* captured CO₂. It is unclear, however, whether CARB will attribute only atmospheric emissions to that facility or *all* emissions—including those captured and geologically sequestered.

SMUD recognizes that important work regarding monitoring, financial responsibility, and leakage protection requirements is yet to be completed in CARB's SB 905 rulemaking, but utilities and other members of the energy industry who are eager to deploy firm, low- and zero-carbon resources require greater certainty in the near term, so as not to delay or derail these important projects. SMUD urges CARB to provide this clarity in a second round of 15-day amendments. At a minimum, however, CARB should clarify in the Final Statement of Reasons that only atmospheric emissions will be attributed to the facility and reported to the CEC for purposes of the Power Source Disclosure program.

Separate from matters pertaining to electric utility allowance allocations, SMUD urges CARB to provide critical certainty within the MRR and Cap-and-Invest regulations for utilities and project developers assessing carbon capture and sequestration (CCS) retrofits for power plants. As set forth in greater detail below, a clear understanding of how CCS will affect emissions accounting in the MRR, and by extension, the emissions factors used in the CEC's Power Source Disclosure program, is necessary to allow utilities and other stakeholders to make decisions about whether to invest in CCS (15d-117)

Comment: Carbon Capture and Sequestration (CCS)

CARB has identified that sequestering carbon is a necessary tool for achieving the State's 2045 carbon neutrality goal, and multiple CCS projects are already under development. In turn, project developers and offtakers need clear, durable rules to ensure compliance obligations are commensurate with actual emissions by these projects, in order to justify continued investment and long-term offtake commitments. To ensure consistency and accuracy, CMUA recommends that CARB amend the Mandatory Reporting Regulations to clarify that electric generation facilities equipped with CCS will be attributed only emissions to the atmosphere from the facility and do not include any gases that are captured, sequestered, and/or utilized; the entities that receive and sequester captured emissions should be responsible for any associated emissions that occur during those later, distinct processes.

CMUA supports the proposed amendments in Cap-and-Invest regulations, which clarify that CCS will reduce the compliance obligation of a carbon dioxide supplier, but recommends against deferring this effect until after a subsequent Cap-and-Invest rulemaking, given the importance of ensuring certainty for utilities and other stakeholders who are investing in this important technology in the near term. (45d-CMUA-368)

Comment: Ensure that carbon capture, utilization, and storage (CCUS) and carbon dioxide removal (CDR) projects are eligible to reduce covered emissions and are reflected in Mandatory Reporting Regulation (MRR) net emissions reporting

Similarly, the MRR cannot remain unchanged in connection with any future treatment of CCUS and CDR under Cap-and-Invest. It must be updated to expressly permit reporting of net GHG emissions that reflect verified reductions from CCUS and CDR projects. Without this alignment between the MRR and Cap-and-Invest regulations, entities are unable to consistently report emissions outcomes that CARB itself has identified as critical to achieving carbon neutrality, and the program continues to lack the basic

accounting coherence necessary for transparent and verifiable implementation. (15d-WSPA-164)

Comment: Ensure that carbon capture, utilization, and storage (CCUS) and carbon dioxide removal (CDR) projects are eligible to reduce covered emissions and are reflected in MRR net emissions reporting. (15d-BAC-61)

Comment: CARB has proposed adopting 40 C.F.R. Part 98, Subpart RR into the Mandatory Reporting Regulation (MRR), building on its prior adoption of Subpart PP. Together, Subparts PP and RR provide comprehensive accounting of Scope 1 greenhouse gas emissions associated with CCUS projects. CARB should designate Subpart RR as the approved quantification methodology for purposes of the Cap-and-Invest Program in this rulemaking. Adoption of Subpart RR for C&I purposes would provide immediate regulatory clarity, harmonize state and federal requirements, avoid duplicative rulemakings, and maintain environmental integrity consistent with Health and Safety Code § 39741.1. Failure to designate a defined methodology in this rulemaking will delay CCUS deployment. (15d-CRC-161)

Response: No changes were made in response to these comments. Subpart RR was incorporated into a new section 95125 in MRR, which provides a method for operators of geologic sequestration facilities to comply with GHG reporting specified in section 95101(a)(1)(A)(6). However, the submitted comments are applicable to the Cap-and-Invest Regulation which specifies which emissions are covered and which are exempt from a compliance obligation, which is out of scope for this MRR rulemaking. MRR staff will continue to coordinate closely with stakeholders, Cap-and-Invest staff, and staff implementing the Senate Bill 905 Carbon Capture, Removal, Utilization, and Storage (CCUS) Program on any future rulemaking activities. See Agency Response to comments O-8.32, S-3.1b, S-4.2b, S-4.3b, S-4.4b, S-5.1b, S-5.3 in the Cap-and-Invest FSOR for further responses to this comment.

G-3. Multiple Comments: Carbon Capture Utilization and Storage

Comment: Strong Support for Incorporating CCUS and Additional Utilization and Storage Protocols

We strongly support proposed amendments to incorporate CCUS into the Cap-and-Invest program. CARB has identified CCUS and carbon removal as critical strategies to achieve the state's climate goals, and formally incorporating them into Cap-and-Invest is a necessary step to help scale deployment of these important strategies. We especially support removal of references to geologic sequestration, in order to allow a wider array of CCUS strategies to participate in the program and support California's climate goals. We look forward to working with CARB through the SB 905 process and ongoing implementation of Cap-and-Invest and other programs to more fully flesh out the CCUS framework for California, ensure eligibility and appropriate crediting for CCUS coupled with biomethane and bioenergy, and quickly develop a wide array of new utilization and storage protocols to most quickly scale this important set of technologies. (45d-293)

Comment: Support incorporating CCUS and additional utilization and storage protocols

ABC supports the proposed amendments to incorporate carbon capture, utilization, and storage (CCUS) into the Cap-and-Invest program. CARB has identified CCUS and carbon removal as critical strategies for achieving the state's long-term climate goals and formally integrating these approaches into the framework represents an important step toward scaling deployment of these technologies.

ABC also supports the proposal to remove references limiting eligibility to geologic sequestration, which would allow a broader range of CCUS strategies to participate in the program and better support California's climate objectives. This work should include ensuring appropriate eligibility and crediting for CCUS systems coupled with biomethane and bioenergy pathways, as well as the timely development of additional utilization and storage protocols needed to accelerate deployment of these technologies. (45d-ABC-406)

Comment: Recognize CCUS as a means for avoided emissions and associated compliance obligations, and recognize that CCUS of biogenic emissions is carbon negative.

We support CARB's proposed recognition of carbon capture, utilization, and storage (CCUS) as a means to avoid compliance obligations, contingent on CARB's adoption of a standard to ensure that the emissions reductions are real, permanent, quantifiable, verifiable, and enforceable. (Cap-and-Invest Proposed Regulation, Appendix A, p. 131-132)

We further recommend CARB formally recognize that CCUS used in tandem with biogenic emissions is a net carbon negative outcome. Without this recognition, there is no economic incentive to capture CO₂ resulting from biogenic sources, which would represent a missed opportunity as California drives toward net carbon neutrality. (45d-328)

Comment: CARB should clarify that Cap-and-Invest compliance obligations align with atmospheric emissions and incorporate flexibility to support near-term deployment of CCS technology.

SMUD appreciates the intent of the proposed amendments in Cap-and-Invest § 95852.3 (a), which clarify that CO₂ that is verified to be sequestered or utilized through use of a Board-approved CCS methodology will be excluded from an entity's Cap-and-Invest compliance obligation. However, the amendments also defer the effect of CCS in reducing compliance obligations until after a subsequent Cap-and-Invest rulemaking incorporates the Board-approved CCS procedure.

SMUD is concerned that deferring CCS's ability to reduce Cap-and-Invest compliance obligations until after the completion of three successive rulemakings—the current Cap-and-Invest rulemaking, the as-yet-uninitiated SB 905 rulemaking, and a subsequent Cap-and-Invest rulemaking—could add substantial and unnecessary delays. Rather than deferring to a subsequent Cap-and-Invest rulemaking, CARB should clarify that CCS will reduce compliance obligations only for those facilities that satisfy the Board-approved methodology.

SMUD accordingly suggests the following amendments to Cap-and-Invest § 95825.3:

~~An entity~~ A carbon dioxide supplier has an aggregated compliance obligation for every MT of CO₂ captured from a CO₂ stream, except for CO₂ that is verified to be sequestered or utilized through use of a Board-approved carbon capture, utilization, and sequestration quantification methodology that ensures that the emissions reductions are real, permanent to at least a 100-year permanence standard, quantifiable, verifiable, and enforceable. Any methodology must be consistent with Section 39741.1 of the Health and Safety Code. The CO₂ supplier must meet the requirements of the ~~The Board-approved quantification methodology must be incorporated into the Cap-and-Invest Regulation~~ before sequestered or utilized carbon it can be used to reduce a CO₂ supplier's compliance obligation. The compliance obligation for an electricity generating facility equipped with carbon capture technology shall be based on its atmospheric emissions reported in MRR.

IV. Conclusion

SMUD appreciates the opportunity to provide comments and reiterates the important roles of Cap-and-Invest and MRR in advancing achievement of the state's emissions reduction goals, encouraging voluntary GHG reductions, supporting electricity affordability, and enabling complete and accurate emissions accounting. To that end, SMUD urges CARB to revisit its proposal to reduce the 2027-2030 EDU allocation schedule in Cap-and-Invest, which would challenge the ability of utilities like SMUD to maintain affordable rates while reducing GHG emissions, and address complete and accurate emissions accounting in both regulations for electricity generating facilities equipped with CCS. (45d-299)

Comment: Adopt CCUS Permanence Requirements in This Rulemaking

CARB appears to anticipate adopting additional requirements to ensure permanence and compliance of CCUS projects. CRC does not object to the development of regulations implementing these statutory requirements. CARB should, however, adopt those requirements in the current rulemaking to provide regulatory certainty. Adoption of Subpart RR within the MRR, together with clear permanence and compliance provisions, would give CARB the elements it needs to designate a Board-approved quantification methodology and allow CCUS projects to reduce C&I compliance obligations.

CCUS projects require enormous capital investment. Companies will not proceed without assurance that stored CO₂ will reduce compliance obligations in a predictable and timely manner. If CARB will not finalize an approved methodology in this rulemaking, it should complete that rulemaking as soon as possible. The CARB 2022 Scoping Plan targets California to achieve 20 million metric tons of annual sequestration by 2030. CRC alone has sought permits for 9 Class VI injection projects across CA, with a total annual sequestration capacity of over 16 million metric tons per year. With development lead times of over 4 years from the point of final investment decision, we need to have regulatory certainty within the next 9 to 12 months if we are to achieve the 2022 sequestration targets. (15d-CRC-161)

Comment: CARB has proposed adopting 40 C.F.R. Part 98, Subpart RR into the Mandatory Reporting Regulation (MRR), building on its prior adoption of Subpart PP.

Together, Subparts PP and RR provide comprehensive accounting of Scope 1 greenhouse gas emissions associated with CCUS projects. CARB should designate Subpart RR as the approved quantification methodology for purposes of the Cap-and-Invest Program in this rulemaking. Adoption of Subpart RR for C&I purposes would Provide immediate regulatory clarity, Harmonize state and federal requirements, Avoid duplicative rulemakings, and Maintain environmental integrity consistent with Health and Safety Code § 39741.1.4. Failure to designate a defined methodology in this rulemaking will materially delay CCUS deployment.

Adopt CCUS Permanence Requirements in this Rulemaking

CARB appears to anticipate adopting additional requirements to ensure permanence and compliance of CCUS projects. CRC does not object to the development of regulations implementing these statutory requirements. However, those requirements should be adopted in the current rulemaking to provide regulatory certainty.

Adoption of Subpart RR within the MRR, together with clear permanence and compliance provisions, would provide the necessary elements for CARB to designate a Board-approved quantification methodology allowing CCUS projects to reduce C&I compliance obligations.

CCUS projects require enormous capital investment. Companies are unlikely to proceed without assurance that stored CO₂ will reduce compliance obligations in a predictable and timely manner. If CARB is not prepared to finalize an approved methodology in this rulemaking, it should proceed with all deliberate speed to complete that rulemaking as soon as possible. There is no time to waste if the CCUS deployment levels assumed in the 2022 Scoping Plan are to be achieved. (45d-CRC-379)

Response: No changes were made in response to these comments. Incorporating carbon capture, utilization, and storage as a means to avoid a compliance obligation will require a separate Board action and applies to the Cap-and-Invest Regulation and not MRR and therefore is out of scope. MRR staff will continue to coordinate closely with stakeholders, Cap-and-Invest staff, and staff implementing the Senate Bill 905 Carbon Capture, Removal, Utilization, and Storage (CCUS) Program on any future rulemaking activities. See Agency Response to comments O-8.31a, O-8.32, S-1.1a, S-2.1, S-3.1a, S-3.2, S-4.2a, S-4.2b, S-4.4a, S-4.4b, S-4.5, S-5.1a, S-5.1b and S-5.2 in the Cap-and-Invest FSOR for further responses to this comment.

G-4. Comment: Carbon Capture and Storage Definitions and Assignment of Compliance Obligation

Comment: CARB's proposed regulatory updates address the California Legislature's 2025 passage of two bills to extend and update the Cap-and-Invest Program. Assembly Bill ("AB") 1207 (Chapter 117, Statutes of 2025) extended the Program to 2045 and

requires some technical changes.²⁴ Senate Bill (“SB”) 840 (Chapter 121, Statutes of 2025) directed review of existing compliance offset protocols and made changes to the Greenhouse Gas Reduction Fund. These two bills also require CARB to align the Program’s emission reduction targets with AB 1279, the California Climate Crisis Act (Chapter 337, Statutes of 2022), which declared the policy of the state to reduce anthropogenic greenhouse gas (“GHG”) emissions to 85 percent below 1990 levels by 2045, to achieve net zero GHG emissions no later than 2045, and to maintain net negative GHG emissions thereafter.²⁵

Constellation is the largest private-sector power producer in the world and the United States’s largest producer of clean and reliable energy, with approximately 55 gigawatts of capacity from nuclear, natural gas, geothermal, hydro, wind and solar facilities. Constellation’s business unit, Calpine LLC (“Calpine”), operates the largest fleet of natural gas combined-cycle and combined heat and power (“CHP”) facilities in the United States. In California, the company is developing multiple pathbreaking carbon capture and storage (“CCS”) projects. The Sutter Decarbonization Project is expected to capture up to 1.75 million metric tons of carbon dioxide (“CO₂”) each year from the Sutter Energy Center near Yuba City, California.²⁶

The company also contributed to a Front-End Engineering Design (“FEED”) study sponsored by the Department of Energy (“DOE”) at Delta Energy Center in Pittsburg, California. Another FEED study has also commenced in cooperation with DOE to retrofit the Pastoria Energy Facility in Kern County with a modern carbon capture system. The company also hosts a pilot project at Los Medanos Energy Center, a CHP plant in Pittsburg, California, where it has set up a learning center to disseminate information about CCS technology. Full-scale CCS retrofits are at various stages of development at several other Constellation-owned plants across the country.

Constellation supports amendments to the Cap-and-Invest Regulation that will encourage the construction of CCS projects essential to achieving the state’s climate goals, while also protecting public health and the reliability of the grid. CCS technologies are key to achieving the state’s 2045 emission-reduction targets.²⁷ Indeed, CARB’s 2022 Scoping Plan specifically emphasized the need for significant deployment of CCS

²⁴ See AB-1207 Climate change: market-based compliance mechanism: extension, https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=202520260AB1207

²⁵ Cal. Health & Saf. Code § 38562.2(c)

²⁶ Calpine, *Press Release: Calpine Announces Execution of Full-Scale CCS Demonstration Project Cost Sharing Agreement with the Department of Energy for Sutter Decarbonization Project* (Aug. 7, 2024), <https://www.calpine.com/calpine-announces-execution-of-full-scale-ccs-demonstration-project-cost-sharing-agreement-with-the-department-of-energy-for-sutter-decarbonization-project/>

²⁷ The Legislature double-joined AB 1279 with SB 905 (Chapter 359, Statutes of 2022), the bill that authorized regulations to enable the deployment of CCS projects. This meant that the state’s ambitious 2045 emission-reduction targets could not go into effect unless a CCS legal framework did as well. Also see generally Calpine, *Comments on the Cap-and-Invest Program Workshop* (Nov. 12, 2025), <https://ww2.arb.ca.gov/form/public-comments/submissions/54421>

on electricity generation facilities, which will be needed to maintain critical grid reliability as California moves toward AB 1279's targets.²⁸

The existing regulations acknowledge that the compliance obligations of entities conducting CO₂ capture ("carbon dioxide suppliers") will be reduced to reflect sequestered CO₂. However, both the existing regulations and proposed amendments defer key methodological decisions needed to catalyze development of this critical technology. Constellation encourages CARB to propose further targeted amendments in a 15-day package this spring, to provide the clarity that will ultimately be needed to scale-up CCS and meet California's statutory climate goals.

Constellation offers the following comments:

- To provide regulatory certainty for CCS developers, CARB should clarify in the Cap-and-Invest Regulation how "aggregated compliance obligations" are calculated, and CARB should do so now rather than deferring to a future Board-approved quantification methodology.
- CARB should clarify that a geologic sequestration facility is a covered entity, with a compliance obligation that includes surface leakage of CO₂.
- CARB should finalize its proposed amendments requiring geologic sequestration facilities to report under Subpart RR of the Greenhouse Gas Reporting Program ("GHGRP").
- To ensure the accuracy of power content label disclosures to consumers, CARB should amend the MRR to reduce a facility's reported emissions to the extent that its CO₂ emissions are geologically sequestered.

Constellation looks forward to continued engagement with CARB on its proposed amendments to support development of CCS projects.

I. To provide regulatory certainty for CCS developers, CARB should clarify in the Cap-and-Invest Regulation how "aggregated compliance obligations" of carbon dioxide suppliers are calculated, and CARB should do so now rather than deferring to a future Board-approved quantification methodology.

The current Cap-and-Invest Regulation does not provide clarity for CCS developers on how aggregated compliance obligations are calculated. In a placeholder provision in Section 95852(g), it provides in a general way that a covered source (e.g., a gas-fired power plant that is a "first deliverer of electricity") capturing and permanently sequestering CO₂ (as a "carbon dioxide supplier") will have an "aggregate" compliance obligation, reduced to reflected captured and sequestered CO₂.²⁹ But it provides few details and requires only that reporting and verification adhere to "a Board-approved

²⁸ Cal. Air Res. Bd., 2022 Scoping Plan for Achieving Carbon Neutrality, at 86, <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>.

²⁹ 17 C.C.R. § 95852(g).

carbon capture, utilization, and sequestration quantification methodology” that “must be incorporated into the Cap-and-Invest Regulation before it can be used.”³⁰

CARB’s proposed amendments provide no further clarification. The proposed amendments would retain Section 95832(g), but relocate the language quoted above to a new Section 95852.3 entitled “Compliance Obligations for Sequestered or Utilized Captured Carbon Dioxide.”³¹ They also would add a statement that any “Board-approved carbon capture, utilization, and sequestration quantification methodology” to be adopted in the future will also have to meet the requirements of SB 905.³²

CCS projects are being developed for facilities subject to the Cap-and-Invest Program today, and developers need clear ground rules on how their aggregated compliance obligations will ultimately be calculated. If CARB waits until future rulemaking to adopt such rules, CCS project developers and their commercial partners – those transporting CO₂ in a pipeline meeting requirements adopted by the Office of State Fire Marshal pursuant to SB 614, those conducting sequestration within a permitted Class VI Underground Injection Control (“UIC”) well, and those purchasing the near-zero-emission electricity generated by CCS-equipped power plants to serve their customers – will not have the clarity needed to ensure permanent sequestration of the sequestered CO₂ and allocate responsibility among themselves.

This could slow down and ultimately impede the development of projects essential to achieving the state’s climate goals.

Constellation encourages CARB to propose further amendments to the Cap-and-Invest Regulation as part of a 15-day package to explain how a carbon dioxide supplier’s “aggregated compliance obligation” is calculated. The starting point for the “aggregated compliance obligation” calculation should be the total CO₂ reported with respect to upstream manufacturing processes, other processes, and/or production wells from which the carbon dioxide supplier captures, extracts, or otherwise produces a CO₂ stream. The regulations should then clearly provide that the “aggregated compliance obligation” subtracts all CO₂ verified to be geologically sequestered as reported under section 95125 (i.e., CARB’s newly proposed provision for reporting geologic sequestration under the MRR), in compliance with other applicable laws and regulations, including SB 905.³³ It is essential that CARB provide a clear accounting roadmap for CCS developers in calculating their aggregated compliance obligations under the Cap-and-Invest Program.

³⁰ *Id.*

³¹ See Cap-and-Invest Proposed Regulation Order at 121 (updated text of § 95852(g)); *id.* at 131–32 (new text for “§ 95852.3”).

³² *Id.*

³³ Constellation would encourage CARB to move forward in adopting the methodology for permanent sequestration in Class VI wells today and leave utilization for a future rulemaking, given the greater methodological challenges associated with quantifying reductions from CO₂ utilization and assumptions about end-of-life of utilization products.

CARB should clarify that a geologic sequestration facility is a covered entity, with a compliance obligation that includes surface leakage of CO₂.

As noted above, the existing Cap-and-Invest Regulation and proposed amendments provide that carbon dioxide suppliers (i.e., entities that capture emissions) are covered entities. However, the Regulation does not currently provide that entities engaged in geologic sequestration are also covered entities. CARB should propose additional amendments in a 15-day package to close this gap as part of this rulemaking.

To accomplish this, CARB should add “geologic sequestration facilities” to the list of covered entities and specify an inclusion threshold for such facilities, which likely should be 0 MTCO₂e. CARB should also add a subsection providing that “geologic sequestration facilities” have a compliance obligation for the total quantity of “surface leakage” of CO₂.

These additional amendments will provide default rules around which the parties involved in the chain of custody for captured and sequestered CO₂ may contract, and in so doing, will facilitate the development of risk-allocation tools to ensure the permanence of sequestered CO₂.

CARB should finalize its proposed amendment to the MRR requiring geologic sequestration facilities to report under Subpart RR of the GHGRP.

The MRR already includes a definition for “geologic sequestration,” which means “the process of injecting CO₂ captured from an emissions source into deep subsurface rock formations for permanent storage.”³⁴ It also provides that operators of facilities within the “source categor[y]” of “geologic sequestration of carbon dioxide” are subject to reporting under the MRR.³⁵ However, the MRR did not previously explain *how* operators of facilities engaged in geologic sequestration were to report.

In its proposed regulation, CARB has included a new Section 95125, which clarifies that such operators must report under the version of Subpart RR of the GHGRP in effect on November 29, 2013.³⁶ CARB should finalize this proposed amendment to the MRR. In addition to confirming that reporting by geologic sequestration facilities must conform to Subpart RR, this proposed amendment fills two important gaps in the existing MRR, which arguably does not incorporate Subpart RR by reference at all (because it only adopts GHGRP rules that were promulgated on other dates)³⁷ and does not provide a

³⁴ 17 C.C.R. § 95102

³⁵ *Id.* § 95101(a)(1)(A)(6)

³⁶ MRR Proposed Regulation Order at 208

³⁷ See 17 C.C.R. § 95100(c) (providing that the MRR incorporates “various provisions” of the GHGRP, and that, “[u]nless otherwise specified,” it adopts the GHGRP regulations promulgated in rules published in the Federal Register on “October 30, 2009, July 12, 2010, September 22, 2010, October 28, 2010, November 30, 2010, December 17, 2010, and April 25, 2011”). None of the rules promulgated on those dates included Subpart RR, and there was no specification elsewhere in MRR that did so

definition for “surface leakage,”³⁸ which is critical to ensure permanence of sequestered CO₂.

- To ensure the accuracy of power content label disclosures to consumers, CARB should amend the MRR to reduce a facility’s reported emissions to the extent that its CO₂ emissions are geologically sequestered.

CARB should propose amendments to the MRR to establish that, when an electricity generating unit or cogeneration unit’s CO₂ emissions are sequestered, that quantity of CO₂ is not considered an “emission” from the electricity generating unit or cogeneration unit.

The California Energy Commission (“CEC”) imposes power content disclosure requirements on retail suppliers to ensure that consumers have accurate information on the emissions associated with their power. Because CEC regulations base the Power Content Label on a facility’s reported emissions under the MRR,³⁹ the MRR should facilitate reporting that supports accurate power content disclosures for facilities whose emissions are geologically sequestered at a Class VI UIC facility. Specifically, the MRR should report an electricity generating facility’s total emissions as its net emissions, after accounting for sequestered CO₂.

This amendment will ensure that commercial counterparties to CCS projects can rely upon the emission reductions achieved by CCS in conveying to their customers the carbon content of delivered electricity.

* * * *

Constellation urges CARB to use the current rulemakings for the Cap-and-Invest Regulation and the MRR to provide much-needed clarity on the substantive rules for reporting emissions and determining aggregated compliance obligations. This regulatory certainty is essential for CCS project developers to move forward with the investment and deployment that will help the state meet AB 1279’s emission-reduction and carbon-neutrality targets. (45d-297)

Response: No changes were made as a result of these comments. After further discussion with the commenter, CARB staff agreed a new definition for “surface leakage” is in fact not needed and therefore no further changes to the MRR were made. The submitted comments that are applicable to the Cap-and-Invest Regulation, which specify which emissions are covered and which are exempt from a compliance obligation, are out of scope for this MRR rulemaking. See

³⁸ 40 CFR § 98.449

³⁹ 20 C.C.R. § 1392(a)(2) (“A retail supplier’s purchases of the specified system power from an asset-controlling supplier shall use the GHG emissions intensity assigned to the asset-controlling supplier by the CARB for the corresponding data year used for data reporting to CARB pursuant to section 95111(b)(3) of the MRR.”)

Agency Response to comments S-2.2, S-3.1a, S-5.1a and S-5.2 in the Cap-and-Invest FSOR for further responses to this comment.

H. Suppliers of Natural Gas and Natural Gas Liquids

Importer of Fuel Definition

H-1. Multiple Comments: LPG Importer Definition

Comment: PROPOSED CHANGE TO LPG IMPORTER DEFINITION IN DRAFT AMENDMENTS

WPGA appreciates CARB staff's effort to address inconsistencies in the reporting of imported LPG. The Initial Statement of Reasons (ISOR) indicates that the proposed amendments seek to resolve circumstances in which the current "importer of fuel" point of regulation can be implemented in more than one way, leading to situations where imported LPG may be reported twice or not reported at all.⁴⁰

WPGA agrees that these ambiguities should be corrected. At the same time, the proposed remedy, shifting the reporting entity from the importer of fuel to the operator of an LPG receiving facility with at least 30,000 gallons of storage capacity and eliminating the reporting threshold for imported LPG suppliers, raises structural concerns. Particularly, it may move the point of regulation away from the commercial actor responsible for importing LPG into California commerce and toward downstream storage facilities that do not necessarily control the import transaction itself.

CARB states that the amendments are intended to clarify reporting responsibility rather than expand emissions coverage for this sector.⁴¹ If that is the objective, then the most direct solution is to preserve the importer-based framework while clarifying responsibility through affiliated-entity aggregation and designation of a responsible reporting entity.

CARB's rationale reflects a legitimate administrative concern. The ISOR explains that imported LPG transactions sometimes involve multiple contractual actors and varying transfer-of-title arrangements, which can lead to inconsistent reporting.⁴²

Yet, the proposed solution shifts the regulatory anchor from the entity responsible for importing LPG into California commerce to the operator of a storage facility defined by a 30,000-gallon tank threshold. This threshold may exclude very small tanks, but it still captures facilities that function as local distribution or midstream storage nodes rather than upstream fuel suppliers. CARB's broader regulatory framework already contains tools to resolve such ambiguity. The MRR defines "supplier" to include entities under common ownership or common control and treats such entities as a single reporting

⁴⁰ California Air Resources Board. (2026). *Initial Statement of Reasons: Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions*, pp. 96-98

⁴¹ California Air Resources Board. (2026). *Initial Statement of Reasons: Proposed Amendments to the Cap-and-Invest Regulation*, p. 137

⁴² CARB. ISOR, pp. 97-98

entity.⁴³ Applying that same principle to imported LPG would address the underlying concern while maintaining a consistent regulatory structure.

WPGA requests that CARB amend cross-references to the updated definition of “Liquefied petroleum gas receiving facility” as defined in MRR and C&I. The CARB draft language would, if placed into effect, have significant harm to small businesses and consumers across the state. Setting a LPG receiving facility to anyone with greater than 30,000 gallons of storage on-site would affect literally thousands of businesses, including those outside the propane industry.

To meet the goals of the proposed amendments, WPGA suggests adopting some form of the following language. It would minimize harm to businesses and consumers, maximize compliance with both MRR and C&I, and ease reporting for reportable entities:

Mandatory Reporting Regulation (MRR) on GHG Emissions § 95122(a)(6) – Importer Common Ownership Aggregation "For purposes of determining whether an importer of fuel, as defined in section 95102(a), meets the reporting threshold under section 95101(c) or the compliance threshold under the Cap-and-Invest Regulation (title 17, CCR, section 95801 et seq.), all GHG emissions from fuel imported into California by any entity under common ownership, common control, or a common primary parent company shall be aggregated and considered part of a single supplier. For purposes of this subdivision, 'common primary parent company' means any entity that, directly or indirectly, holds a majority ownership interest in, exercises operational control over, or is under common management with the importer of fuel. An importer of fuel that is part of an affiliated group shall designate a single entity within that group to fulfill all reporting and compliance obligations on behalf of the group." (45d-317)

Comment: Establish a higher reporting threshold (de minimis) to protect small importers (45d-Vidal-233)

Comment: CARB should clarify the type of operations that would be included under a liquefied petroleum gas receiving facility or “LPG receiving facility.” The 30,000-gallon reporting threshold is equivalent to a single rail car of LPG. When railcars enter California, they may sit idle at a rail yard until the tracks are aligned to ship the rail car to its destination. CARB’s current definition of an LPG receiving facility is unclear. WSPA recommends that CARB clarify this definition to identify that the 30,000 gallons is associated with offloaded LPG. Additionally, if the use of the offloaded LPG is captured in a Cap-and-Invest program covered entities MRR offloaded LPG volume reporting is not required to prevent the double counting of emissions. (45d-WSPA-381)

Response: Changes were made in response to these comments. In the 15-Day Notice, staff amended language to reestablish the "importer of fuel" as the point of regulation (POR) for imported liquefied petroleum gas (LPG), retracting the 45-day package proposal that placed the POR on the "operator of the LPG receiving facility." Staff also further amended the definition of "importer of fuel" to clarify

⁴³ CARB. ISOR, p. 17.

that an "upstream supplier" would be considered the "importer of fuel" when fuel is imported to California from within the United States. In addition, staff added language to assert that an entity which owns a majority interest in, or exercises operational control over, other importer entities must aggregate the imported volumes and report as the "importer of fuel" for the aggregated volume of fuel imported by those entities. Collectively these changes address stakeholder concerns by reverting to the previous POR for imported LPG while also strengthening definitions through use of improved terminology and additional language to prevent entities from structuring businesses to avoid relevant reporting and Cap-and-Invest thresholds.

H-2. Comment: Supplier Definitions

Comment: Okay. Thank you. Krysta Wanner with the Western Propane Gas Association. I'd like to thank CARB staff for taking time to meet with WPGA and our consultants to discuss our initial concerns and working together to resolve them with the changes made in the 15-day language. Specifically, the definition changes now proposed for adoption today will help protect small businesses from potential harms associated with compliance costs and penalties. WPGA supports the continued efforts of the Cap-and-Invest Program as the most effective tool to reduce greenhouse gases across the state's businesses, while protecting consumers from significant cost impacts.

We look forward to further productive collaboration with CARB and I thank you for allowing this time for comment. (BH-001, Oral)

Response: Changes were made in response to this comment. In the 15-Day Notice, staff amended language to reestablish the "importer of fuel" as the point of regulation (POR) for imported liquefied petroleum gas (LPG), retracting the 45-day package proposal that placed the POR on the "operator of the LPG receiving facility." Staff also further amended the definition of "importer of fuel" to clarify that an "upstream supplier" would be considered the "importer of fuel" when fuel is imported to California from within the United States. In addition, staff added language to assert that an entity which owns a majority interest in, or exercises operational control over, other importer entities must aggregate the imported volumes and report as the "importer of fuel" for the aggregated volume of fuel imported by those entities. Collectively these changes address stakeholder concerns by reverting to the previous POR for imported LPG while also strengthening definitions through use of improved terminology and additional language to prevent entities from structuring businesses to avoid relevant reporting and Cap-and-Invest thresholds.

H-3. Comment: Supplier Definitions

Comment: UPSTREAM/DOWNSTREAM SUPPLIER DEFINITIONS

WPGA appreciates the efforts of CARB staff to protect small businesses from potential harms associated with compliance costs or penalties associated with MRR and C&I. WPGA suggests that CARB use the following terms to further clarify which providers serve which markets:

UPSTREAM These are suppliers who sell fuel in bulk quantities to large end-users as well as local retailers. Such industry terms referring to these parties include: producers, wholesale suppliers, upstream, midstream, brokers, multistate distributors, or other bulk suppliers.

DOWNSTREAM These are suppliers who purchase bulk fuel and sell or distribute fuel in significantly smaller quantities to residential, commercial, agricultural, or industrial customers. Such industry terms referring to these parties include: marketers, retailers, or dispensers. (45d-317)

Response: Changes were made in response to this comment. In the 15-Day Notice, staff reversed the revisions that were proposed in the 45-day package that shifted the point of regulation from the "importer of fuel" to the "operator of an LPG receiving facility." Staff updated the definition of "importer of fuel" by utilizing terminology consistent with that used in the LPG supply industry. Staff also removed the proposed definitions for "supplier of imported liquefied petroleum gas" and "liquefied petroleum gas receiving facility."

CARB staff considered the definitions for upstream and downstream suppliers that the commenter provided. As a result, staff added definitions for "upstream suppliers" and "local retail suppliers."

H-4. Multiple Comments: Importer of Fuel Definition

Comment: Clarify "Importer of Fuel" Definition under Mandatory Reporting Regulation (MRR). ABC urges CARB to clarify that the definition of "importer of fuel" under MRR does not apply to transactions involving book-and-claim accounting of biomethane where no physical fuel crosses California's border. As currently written, the definition could be interpreted to apply whenever ownership of fuel transfers to a California end user or market participant located in the state.

Under that interpretation, a book-and-claim biomethane transaction, where environmental attributes associated with biomethane produced outside the state are contractually transferred to a California purchaser while the physical gas remains in the originating pipeline system, could be construed as a fuel import. This outcome would not reflect the physical movement of fuel and would be inconsistent with existing MRR reporting structures.

The physical natural gas associated with these transactions is already reported under the program. Treating the contractual transfer of biomethane attributes as an additional fuel import would therefore risk double counting the same underlying gas volumes under MRR. To avoid double counting, CARB should clarify that the importer definition applies only to physical imports of fuel transported into California and explicitly exclude book-and-claim accounting where the underlying gas volume is already captured through existing reporting pathways. (45d-ABC-406)

Comment: CARB should clarify the definition of "importer of fuel" in the proposed MRR amendments.

WSPA requests that CARB clarify the definitional changes to “Importer of fuel.” “Fuel” has a broad definition in the MRR and includes solid, liquid, or gaseous combustible material. WSPA requests that CARB confirm that an importer of liquid transportation fuel, such as reformulated blendstock for oxygenate blending (RBOB) (and RBOB blending components) or diesel, is not required to report imported volumes in MRR, as that may create double counting of volumes and emissions given that fuels sold into California are also required to be reported under a supplier’s MRR report. (15d-WSPA-164)

Response: Changes were made in response to these comments. The “importer of fuel” definition was not intended to apply to biomethane transactions. The “importer of fuel” definition was also not intended to apply to reformulated blendstock for oxygenate blending (RBOB and RBOB blending components) or diesel transactions. In the 15-Day Notice, further revisions clarified that only importers of liquefied petroleum gas, compressed natural gas, and liquefied natural gas are subject to reporting as an importer of fuel.

I. Transportation Fuel Suppliers

Liquefied Petroleum Gas Default Emissions Factor

I-1. Multiple Comments: LPG Default Emissions Factor

Comment: Section 95121 – Suppliers of Transportation Fuels

CCEEB requests that CARB include in 95121(b)(2), as it proposes in 95122(b)(9), ability for fuel supplier to report Liquefied Petroleum Gas (LPG) emissions using default LPG factor rather than LPG components. The existing requirement is often burdensome for suppliers to implement and provides little to no additional precision in emissions reporting. (45d-265)

Comment: CARB should allow fuel suppliers to choose to report emissions from liquid petroleum gas (LPG) using a default emission factor. CARB should reduce the reporting complexity for emissions from LPG fuel to remove the requirement to report the emissions from the individual components of fossil or biomass-derived liquified petroleum gas. CARB is allowing importers of LPG in § 95122(b)(9) the ability to use a default LPG factor, stating the modification is needed to allow suppliers of imported LPG in all cases to report imported LPG volumes as “LPG” rather than LPG components. CARB should add similar language to fuel suppliers in § 95121 for the same reasons: to simplify emissions reporting. The existing requirement is often burdensome for suppliers to implement and provides little additional precision in emissions reporting.⁴⁴ (45d-CUSAI-296)

⁴⁴ Appendix A-1 Proposed Regulation Order Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions - Date of release: January 20, 2026 - https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/mrr/app_a-1.pdf

Comment: Fuel suppliers should be allowed to report LPG emissions using a default emission factor. CARB should reduce the reporting complexity for emissions from LPG fuel by removing the requirement to report the emissions from the individual components of fossil or biomass-derived liquefied petroleum gas. CARB is allowing importers of liquid petroleum gas in § 95122(b)(9) the ability to use a default LPG factor, stating that the modification is needed to allow suppliers of imported LPG in all cases to report imported LPG volumes as “LPG” rather than LPG components. CARB should add similar language to fuel suppliers in Section 95121 for the same reasons: to simplify emissions reporting, which under the existing requirement is often burdensome for suppliers to implement and provides little additional precision in emissions reporting. (45d-WSPA-381)

Response: No changes were made in response to these comments. Under subsection 95122(d)(9), importers of liquefied petroleum gas (LPG) can elect to report emissions of imported LPG by the LPG product as a whole or by each individual component. This is because the LPG importer is often importing fuel of a certain grade that may contain a mix of fuels produced at various locations and/or at various times. The constituent analysis of each shipment of fuel is not typically included in the documentation and is not industry standard.

Whereas refiners, as the producers of fossil or biomass-derived liquefied petroleum gas (LPG), typically perform component analysis of produced fuels as part of industry standard documentation. Refiners have reported LPG by component since fuel supplier requirements were added to MRR in the 2010 rulemaking and have successfully reported as specified using Calculation Method 1 of 40 CFR 98.393(f)(1), which requires reporting by component. For these reasons, CARB staff have elected to keep reporting requirements the same for producers of LPG and biomass-derived LPG fuels in order to ensure consistency and the highest degree of accuracy of reported data.

I-2. Multiple Comments: Biomass-Derived Fuels

Comment: For biomass-derived blendstocks, CARB should consistently provide separate emission factors and allow entities the option to use those factors, rather than requiring the use of the same factor as fossil blendstocks. While biodiesel and renewable diesel are treated differently from distillates, bionaphtha is currently assigned the same emissions factor as fossil blendstocks. Consistently providing separate emission factors for biomass-derived blendstocks, and allowing entities the option to use them, ensures that GHG accounting accurately reflects the carbon content of bio-based fuels while enabling regulated entities to select the most appropriate factor for reporting. (45d-CUSAI-296)

Comment: For biomass-derived blendstocks, CARB should consistently provide separate GHG emission factors and allow entities the option to use those factors rather than requiring the use of the same factor as fossil blendstocks. WSPA observed that while biodiesel and renewable diesel are treated differently from distillates, bionaphtha is currently assigned the same emissions factor as fossil blendstocks. Consistently providing separate emission factors for biomass-derived blendstocks and allowing entities the option to use them ensures that GHG accounting accurately reflects the

carbon content of bio-based fuels while enabling regulated entities to select the most appropriate factor for reporting. (45d-WSPA-381)

Response: No changes were made in response to these comments. Staff added definitions for biomass-derived LPG and biomass-derived California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB or RBOB) and modified existing reporting requirements in section 95121 to apply to their biomass-derived equivalent fuel. Biomass replacement fuels should be chemically equivalent to the fossil equivalent. Therefore, the emission factors for the biomass-derived fuel are based on the emission factor for the fossil equivalent fuel presented in Table MM-1. as specified in Equation MM-1 of 40 CFR 98.393(a)(1).

I-3. Multiple Comments: Cap-and-Invest Inclusion of Biomass-Derived Fuels

Comment: RENEWABLE PROPANE ALIGNMENT WITH OTHER BIOGENIC ENERGY RESOURCES

As stated in our previous submissions (October 26, 2023; June 21, 2024; November 12, 2025), WPGA has requested that renewable propane and other biogenic energy resources developed as liquefied petroleum gas (LPG) fuels be explicitly exempted under 17 CCR § 95852.2 “Emissions without a Compliance Obligation.”

We are deeply grateful that CARB has responded to our previous comment letters and recognized the need to update this code section to bring it into alignment with other carbon market compliance mechanisms across North America. The inclusion of § 95852.2(a)(7)

“biomass-derived gases” and § 95852.2(a)(9) “biogenic fraction of a fuel that is a co-product of the production of an exempt biomass-derived liquid hydrocarbon fuel” adequately addresses this longstanding omission of equitable treatment of biogenic energy resources.

This language, if adopted, would directly reduce the cost of compliance under C&I for renewable propane – decreasing the costs to both consumers and propane retailers while increasing the displacement of conventional propane for renewable forms in the non-transportation market. (45d-317)

Comment: Maintain Full Exemption for Biofuels

As CARB knows, bioethanol and other exempt biofuels make up the bulk of the credits generated under the state’s Low Carbon Fuel Standard (LCFS) and have been pillars on which the program’s GHG emissions reductions have been built. California has the potential to further reduce GHG emissions by 1.9M tons per year with the approval of E15 alongside the continued growth in the use of E85.^{45,46} We believe the appropriate

⁴⁵ Air Improvement Resources, “GHG Benefits of E15 Fuel in the United States”, Nov. 30, 2020, [National E15 Analysis Final \(airimprovement.com\)](https://airimprovement.com/E15-Analysis-Final)

⁴⁶ CARB Annual E85 Volumes: [Alternative Fuels: Annual E85 Volumes | California Air Resources Board](#)

regulatory authority for bioethanol remains the LCFS, and ARB should maintain bioethanol's exemption in the Cap-and-Trade program. This allows California to continue maximizing bioethanol as driver of GHG reductions.

Additionally, in the absence of an exemption the increased costs to an ethanol producer, which would not be the reporting party or the obligated covered entity, would outweigh the potential benefits of obligation and coverage by the cap. These increased costs could impact the entire supply chain, with increases in costs for anything from data collection and reporting to verification.

Finally, we believe proposed sections 95852.1 and 95852.1.1 require some clarification. While section 95852.1.1 appears to have previously applied only to biogas and biomethane, ambiguous language in proposed section 95852.1 could be interpreted to apply to all biomass-derived fuels. Additionally, language in the Initial Statement of Reasons makes it apparent that 95852.1 applies only to biogas and biomethane. Assuming 95852.1 and 95852.1.1 does apply only to biogas and biomethane, we recommend CARB adjust language in section 95852.1 to clarify that the section and its requirements only apply to biogas and biomethane. (45d-313)

Comment: In addition, the proposed exemption criteria, including the three-year historical output test, may be difficult to apply to new projects or facilities with natural year-to-year production variability. These provisions also do not clearly account for existing contractual and accounting frameworks used under the LCFS and RFS. While the rule includes an industrial decarbonization incentive allocation, it does not fully address the operational complexities or compliance risks faced by RNG suppliers. Clarifying these provisions will help maintain alignment with existing low-carbon fuel programs and avoid unintended consequences

Reduce complexity in eligibility determination and clarify historical use requirement

ABC would like to express concern with the proposed eligibility framework detailed in section 95852.2 and 95131(i) of the MRR, with particular attention to the criteria detailed in §95852.1.1. As written, the framework introduces unnecessary complexity and may create unintended barriers to the use of biomass-derived fuels in California. In particular, the provision tying eligibility to the “annual average amount of fuel used in California over the previous three years” raises practical questions for suppliers whose fuel may serve multiple markets over time.

The proposal's reliance on a 36-month historical period for determining eligibility could create uncertainty for projects whose offtake arrangements change over time, including shifts in operational performance and between California transportation markets and other end uses. Biomethane production volumes fluctuate over time due to operational factors that are largely outside a producer's control, including feedstock variability, digester maintenance cycles, pipeline outages, and seasonal production patterns. A three-year historical baseline could therefore under-represent a facility's actual available production in any given year and artificially limit eligible volumes. In addition, by linking eligibility for exempt biomass treatment to historical fuel use within California specifically, the proposed framework may unintentionally disadvantage projects that previously served other markets, or end uses but later contract to deliver fuel into

California. In practice, this approach could limit the ability of suppliers to respond to changing market conditions and may discourage participation in California programs if doing so creates additional compliance uncertainty. Finally, ABC notes that the same 36-month historical averaging concept appears in the proposed manufacturing decarbonization incentive allocation provisions, which could create parallel implementation problems across multiple program elements and compound compliance uncertainty.

ABC recommends that CARB clarify the intent of this provision or striking § 95852.1.1 in its entirety and consider whether eligibility for exempt biomass treatment should focus on the characteristics of the fuel and the project producing it, rather than the geographic location or end use of the fuel during a prior historical period. This would simplify implementation and improve consistency with the way biomethane markets function. If nothing else, ABC recommends changes to the 36-month average reporting requirements in § 95852.1.1(a)(2)(C) to allow a facility's eligible share of biomethane to be determined based on the percentage of its total production delivered to California in the prior year, applied to the facility's actual production going forward. Using a prior-year percentage would allow the program to accommodate natural production variability, operational disruptions, and stored or banked gas volumes without locking projects into an outdated baseline. (45d-ABC-406)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments A-1.1b, O-2.2a, O-4.1b, O-5.1a, O-6.4b, O-6.5, O-6.6b, O-6.7, O-6.8, O-8.18a, O-8.25, O-8.3b, O-8.22, O-8.4a, O-8.43b, R-1.6a, R-2.1, R-2.3a, S-1.1a, S-2.1, Y-1.1a, Y-3.1, Y-3.14, Y-3.3a and Y-3.5a in the Cap-and-Invest FSOR.

Low Carbon Fuel Standard (LCFS) Pathway Code

I-4. Multiple Comments: LCFS Pathway Code

Comment: Also, CCEEB strongly urges CARB to remove new section 95121(d)(10), which proposes to require the volume of biomass-derived fuel associated with each unique combination of Low Carbon Fuel Standard (LCFS) pathway code, fuel type, and point of regulation. Current reporting already defines point of regulation and ensures protection against double counting. MRR should not include LCFS data as the two regulations are separate. Pathways associated with biomass-derived fuels are already reported as part of the quarterly and annual LCFS reports. Fuel pathway codes are fully reconciled with counterparties or subject to third party verification (depending on the transaction type). Removing this impractical requirement to provide CARB with duplicative data from a separate regulation will eliminate an unnecessary administrative burden for reporting entities. (45d-265)

Comment: Another key mechanism for reporting that may result in duplicative reporting is § 95121 (d)(10) that requires fuel suppliers to report LCFS information. This section of the proposed amendments is unnecessary because fuel suppliers have reported all of that information under the LCFS program and this section in the MRR is requiring them

to report the same information CARB can access internally. CARB should avoid duplicative reporting. (45d-257)

Comment: CARB should eliminate MRR requirements that duplicate LCFS-specific data already reported under separate regulatory programs. We request removal of § 95121(d)(10), which would require reporting biomass-derived fuel volumes for each unique combination of LCFS pathway code, fuel type, and point of regulation.⁴⁷ Existing MRR reporting already defines points of regulation and ensures no double counting, and LCFS pathway data is separately reported in quarterly and annual LCFS submissions, with fuel pathway codes fully reconciled with counterparties or, depending on the transaction type, subject to third-party verification. Requiring this level of detail in MRR duplicates LCFS reporting, increases administrative burden, and does not improve the accuracy of GHG emissions reporting. (45d-CUSAI-296)

Comment: CARB should eliminate MRR requirements that duplicate LCFS reporting. WSPA requests removal of § 95121(d)(10), which would require reporting biomass-derived fuel volumes for each unique combination of LCFS pathway code, fuel type, and point of regulation. Existing MRR reporting already defines points of regulation and ensures no double-counting, and LCFS pathway data is separately reported in quarterly and annual LCFS submissions, with fuel pathway codes fully reconciled with counterparties or, depending on the transaction type, subject to third-party verification. In addition, biomass-derived fuels may be mixed in common tankage, making it impossible to identify which LCFS pathway code is associated with each reported volume. A fuel supplier, at best, could report all LCFS pathway codes of biomass-derived fuels purchased and/or produced in a year. The supplier would not be able to identify the LCFS fuel pathway code for specific volumes sold at California terminal racks. Requiring this level of detail in MRR duplicates LCFS reporting, increases administrative burden, and does not improve the accuracy of GHG emissions reporting. (45d-WSPA-381)

Comment: Eliminate MRR requirements that duplicate California's Low Carbon Fuel Standard (LCFS)-specific data already reported under existing programs. (15d-BAC-61)

Response: Changes were made in response to these comments. In the 15-Day Notice, CARB removed the requirement in subsection 95121(d)(10) to report LCFS related non-emissions data to MRR to streamline reporting requirements for transportation fuel suppliers across various CARB programs.

Denaturant and E85 Reporting

I-5. Multiple Comments: Denaturant and E85 Reporting

Comment: As CARB is aware, for tax purposes biofuel producers are required to use denaturant in all ethanol sold as fuel, per 40 C.F.R. § 80.2.3 Furthermore, the vast majority of denaturant uses natural gasoline. Yet the MRR proposal requires fossil

⁴⁷ Appendix A-1 Proposed Regulation Order Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions - Date of release: January 20, 2026 - https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/mrr/app_a-1.pdf

denaturants to be reported as RBOB. If CARB maintains the current proposal as it relates to reporting and obligation of fuel ethanol denaturants, CARB should either clarify whether natural gasoline should be categorized as RBOB or add natural gasoline as an option for reporting denaturant.

Therefore, we respectfully request CARB reconsider obligating the denaturant used in fuel ethanol entering California under the cap and invest program. If CARB continues the rulemaking process with the obligation for denaturant intact, we request CARB consider a delay in enforcement, providing ethanol producers and its partners in the supply chain time to adjust to this new obligation, its costs, and its ramifications. (45d-313)

Comment: RPMG Inc. (RPMG) appreciates the opportunity to provide written comment on both of the Initial Statement of Reason packages for the Cap-and-Invest (C&I) and Mandatory Reporting Regulation (MRR) released on January 20, 2026. RPMG is a biofuel marketing company supplying low-carbon ethanol to the California gasoline market and inedible Distillers Corn Oil (DCO) feedstock to the biodiesel and renewable diesel refining sector. As a fuel and feedstock supplier, we hold an interest in understanding the C&I and MRR compliance frameworks. Our comment in this letter are focused on the potential inclusion of ethanol denaturant as an obligated fuel under C&I, and a separately reported component under MRR.

RPMG would like to initially provide support for CARB's various amendments recognizing the changing nature of the fuels industry with respect to renewable liquid fuels, in general, and biorefining and Renewable Diesel specifically. These changes will allow those facilities who have invested in transitioning to biofuel production the ability to no longer have a carbon obligation for renewable fuels. These key technical changes are needed to support the State's continued reliance on renewable liquid fuels to help meet its statutory climate goals.

Cap-and-Invest. We reiterate our opposition to including ethanol denaturant as an obligated liquid fuel under the Cap-and-Invest umbrella.⁴⁸ RPMG is not currently an obligated or reporting party under C&I or MRR, and won't be given the point of obligation/reporting isn't changing in this amendment package. However, we believe this change is not a cost-effective GHG emissions effort. It is important for CARB to recognize that classifying standard ethanol denaturant creates a multitude of costs, potentially through the entire supply chain.⁴⁹ This proposed change will increase costs for reporting, verification, transactions, personnel time and IT infrastructure, and other business-related costs.

While we would like to in the future integrate biomass-based denaturants into our supply chain, there are various regulatory hurdles outside of California that prevent full integration and use, as renewable denaturants are not certified in all regulatory programs. Even if the industry could fully replace fossil denaturant with a biomass

⁴⁸ RPMG's May 31, 2024 written comments

⁴⁹ Today's industry standard denaturant is Natural Gasoline and not RBOB as stated in the regulatory packages

component, most likely Renewable Naphtha, the GHG emissions reduction potential, do not justify the added regulatory costs and complexity. Assessing this quantitatively, there is very minimal impact on GHG reduction in play. Replacing a quarter of traditional denaturant with Renewable Naphtha, a very optimistic goal, would only result in an approximate 57 thousand metric ton reduction, or 0.02 percent of the 2026 Program Budget (the 'Cap').

The ethanol industry is currently required to denature. An activity that does nothing to enhance the properties of ethanol in fuel applications, it simply renders it unfit for consumption. Therefore it is important to recognize that future requirements for denaturing fuel ethanol may be removed altogether. 3 We urge CARB to recognize that including denaturant as an obligated fuel under the Program imposes far too many costs for very little benefit and little GHG emission reductions, and therefore should be struck from the final adopted rule.

While we remain in opposition to including denaturant in these Programs, there are some components of the proposed amendments that must be clarified if CARB opts to pursue this as a policy option.

It is important to distinguish RBOB from Natural Gasoline. The industry standard for denaturant is Natural Gasoline, which is already defined in MRR. RPMG recommends the regulation be updated to allow for Natural Gasoline to be reported as the default denaturant.

RPMG maintains its position to oppose classifying denaturant as an obligated and reported fuel in the Cap-and-Invest and MRR Programs. We recommend reverting these specific amendments from the regulatory proposals.

Regarding E85 reporting in Section 95121(b)(1), the proposed amendments do not clearly specify if CARB considers E85 to be two reportable components (Pure Ethanol and the remaining volume) or three components (Pure ethanol, denaturant, and the remaining volume). Clarity should be provided so that reporting requirements are clear. (45d-257)

Comment: RFA opposes the inclusion of fossil denaturant in ethanol as an obligated fuel under the proposed amendments. The costs to ethanol producers, consumers and the entire supply chain to obligate fossil denaturant in the C&I program far outweigh the negligible GHG benefits from such a requirement. With the declining production of gasoline in California and rising costs of fuels to California consumers, CARB should encourage the increased supply of lower cost, lower emitting ethanol.

Ethanol producers are required by federal law to add two percent denaturant to pure ethanol to render it unfit for human consumption. This is an antiquated regulation dating back to the days of Prohibition. There are better, lower cost methods of ensuring that ethanol stays out of the beverage ethanol supply.

Rather than unnecessarily penalizing ethanol producers and consumers with added costs of compliance under the C&I program, RFA encourages CARB join the ethanol industry in petitioning the federal government to remove the denaturant requirement for

ethanol fuel, further increasing the supply of lower cost, cleaner burning renewable fuels to California,

We look forward to continuing to work with CARB in meeting California's climate goals. (45d-RFA-438)

Comment: CARB should maintain the exemption for bioethanol denaturant in the Cap-and-Invest program.

POET is concerned by the removal of the bioethanol denaturant exemption in the Proposed Amendments, which will not lead to meaningful carbon reductions and may actually hinder California's sustainability goals by increasing the cost of low-CI bioethanol. In the Initial Statement of Reasons ("ISOR"), CARB explains that the "exemption for the fossil denaturant is deleted from the Regulation" so that the treatment of denaturant—which is added to bioethanol for compliance with federal alcohol fuel tax regulations—is "[c]onsistent with the Program's treatment of other supplied fossil fuels."¹ But denaturant—a small volume of fossil fuel added to bioethanol for federal alcohol tax compliance purposes—is a *de minimis* contributor to transportation emissions in California. To put it in perspective, assuming full adoption of E10 in California and 2% fossil denaturant in bioethanol, fossil denaturant would comprise approximately 0.2% of a gallon of gasoline at the pump compared to the 90% petroleum fuel would comprise. That is about 450 times more petroleum fuel in a gallon of E10 gasoline compared to the denaturant.² Expanding the cap and invest program to apply to this tiny increment of fossil fuel emissions achieves little and ultimately serves only to expand reporting requirements and increase the cost of bioethanol shipped to California, which will now reflect an increased economic cost of compliance.

CARB's cost-raising proposal comes at the same time California is trying to boost bioethanol volumes and cut gasoline prices following the passage of AB 30, which approved the statewide sale of E15. Moreover, the Proposed Amendments fail to provide a meaningful incentive to encourage biofuel producers to use alternative denaturant products such as renewable naphtha, which is currently prohibitively expensive despite existing incentives.³

Finally, CARB's LCFS program already accounts for denaturant as part of the lifecycle emissions of biofuels. Fossil denaturant added to a gallon of bioethanol increases the biofuel's carbon intensity and reduces its LCFS credit value. CARB should maintain its oversight of biofuels, including associated fossil denaturants, through the comprehensive LCFS program and avoid policies conflicting with the state's E15 goals. POET therefore urges CARB to reconsider the Proposed Amendment and maintain the fossil denaturant exemption. (45d-POET-308)

Response: Changes were made in response to these comments. In the 15-Day Notice, CARB revised section 95121 requirements to require reporting denaturant as pentanes plus, which is also referred to as natural gasoline, instead of Reformulated Blendstock for Oxygenated Blending (RBOB). This change will ensure that emissions from denaturant, which is commonly pentanes plus, are captured more accurately in an entity's total emissions and covered emissions. For purposes of reporting E85 fuel to MRR, CARB considers E85 to

consist of two components (pure ethanol, with the remaining volume assumed to be RBOB unless a biomass equivalent fuel can be demonstrated). The requirements in section 95121(b)(1) specify to report E85 as two components.

The comments related to the Cap-and-Invest Regulation are out of scope for the MRR rulemaking. See Agency Response to comments A-1.1b, O-4.1b, O-6.4b, O-6.5, O-6.6b, O-6.7, O-6.8, O-8.3b, O-8.22, O-8.43b, R-1.1, R-2.6a and Y-3.12 in the Cap-and-Invest FSOR for responses to these comments.

Definition of Fuel Supplier

I-6. Comment: Fuel Supplier Definitions

Comment: CARB appreciates the opportunity to comment. We write to express our opposition to the proposed expansion of "supplier" definitions and the new biomass

We urge CARB to Delay the inclusion of new "supplier" categories until a comprehensive economic impact study is conducted. (45d-Vidal-233)

Response: No changes were made in response to this comment. To reflect the evolving fuels supply sector, CARB determined that it was necessary to add biomass-derived Blendstock and biomass-derived LPG to MRR as regulated transportation fuels in order to provide a pathway for fuel suppliers to report emission from these novel biomass fuels. In order to ensure complete and accurate reporting of supplied biomass fuels, it is also necessary to apply supplier reporting requirements to suppliers of biomass-derived fuels delivered outside of the bulk terminal system. Economic impacts of the proposed regulatory amendments are summarized in the Initial Staff Proposal (ISOR).

J. Cement

Cement Related Definitions

J-1. Multiple Comments: Definition of “Supplementary Cementitious Materials” or “SCMs”

Comment: The Definition of “Supplementary Cementitious Materials”

The C&I and MRR Proposed Amendments define SCMs as:

*“Supplementary Cementitious Materials” or “SCMs” are materials that are added to and contribute to the properties of a cementitious mixture through hydraulic or pozzolanic activity, or both, such as fly ash, ground granulated blast furnace slag, silica fume, natural pozzolan, calcined clay, and glass pozzolan.*⁵⁰

CSCME has no comments on the SCM definition, which recognizes the diverse range of SCMs that are currently available and may be developed in the future. (45d-285)

⁵⁰ See C&I Proposed Amendments § 95802(a); MRR Proposed Amendments § 95102(b)

Comment: The Definition of “Supplementary Cementitious Materials”

The C&I and MRR Proposed Amendments define SCMs as:

“Supplementary Cementitious Materials” or “SCMs” are materials that are added to and contribute to the properties of a cementitious mixture through hydraulic or pozzolanic activity, or both, such as fly ash, ground granulated blast furnace slag, silica fume, natural pozzolan, calcined clay, and glass pozzolan.⁵¹

CSCME has no comments on the SCM definition, which recognizes the diverse range of SCMs that are currently available and may be developed in the near future.

That being said, CSCME notes that the treatment of SCM producers under the allocation framework raises separate and distinct issues that are addressed in Section 7 of these comments. CSCME's support for the definition of SCMs should not be construed as support for extending industrial allowance allocation to SCM producers themselves, which we believe is both counter to the essential purpose of industrial allowance allocation and undermines the incentive to increase the production of blended cements that the expansion of the definition of cement is intended to support. (45d-CSCME-352)

Response: No changes were made in response to these comments. Thank you for the support for the definition of SCM in MRR. Comments related to the definition of Cement related to allowance allocation in the Cap-and-Invest Regulation are out-of-scope for this MRR rulemaking. See Agency Response to comments O-2.2a, O-4.1a, O-5.6a, O-6.2, O-6.3, O-6.4a, O-6.6a, O-7.2a, O-8.3a, O-8.11, O-8.13, O-8.15a, O-8.17a, O-8.19, O-8.31a, R-2.3a, S-3.1a, S-3.2, Y-3.4 and Y-3.15 in the Cap-and-Invest FSOR .

J-2. Multiple Comments: Definition of “Importer of Cement” or “Cement Importer”

Comment: The MRR Proposed Amendments define an “importer of cement” or “cement importer” as:

*the owner or operator of a cement terminal receiving imported cement or clinker if the terminal owner/operator owns the imported cement or clinker being received. If the terminal owner or operator does not own the imported cement or clinker or clinker being received, then the importer of cement is the first entity that owns and receives the imported cement or clinker in California, such as the owner of the concrete batch plant purchasing the imported cement or clinker for consumption.*⁵²

The definition of "importer of cement" requires clarification. The proposed definition identifies the reporting entity as the owner or operator of a cement terminal receiving imported cement or clinker (if the terminal owner/operator owns the product), or the first entity that owns and receives the imported cement or clinker in California (if the terminal owner/operator does not own the product). This definition may be workable in most

⁵¹ See C&I Proposed Amendments § 95802(a); MRR Proposed Amendments § 95102(b)

⁵² See MRR Proposed Amendments § 95102(a)

cases, but it also creates ambiguity in situations involving, for example, intermediate ownership transfers, consignment arrangements, or other complex logistics or supply chain situations.

CSCME proposes that CARB revise the definition of “importer of cement” or “cement importer” to align with the current definition of “Enterer” under Section 95802(a) of the C&I Regulation, which is applied to imports under the Low Carbon Fuel Standard, as follows:

“Importer of cement” or “cement importer” means an entity that imports cement or clinker into California and who is the importer of record under federal customs law or the owner of the cement or clinker upon import into California, if the cement or clinker is not subject to federal customs law.

CSCME recommends that CARB work with industry stakeholders to further clarify the definition and, where necessary, develop guidance on how the reporting obligation applies in common but potentially ambiguous transaction structures. The goal should be to ensure that the definition effectively captures import volumes consumed in California and provides clarity regarding the reporting obligations for those entities that are importing cement into California. (45d-285)

Comment: Clarify the definition of “importer of cement” to address potential ambiguities involving intermediate ownership transfers, consignment arrangements, and downstream purchasers who may not be well-positioned to report upstream manufacturing data.

The definition of “importer of cement” requires clarification. The proposed definition identifies the reporting entity as the owner or operator of a cement terminal receiving imported cement or clinker (if the terminal owner/operator owns the product), or the first entity that owns and receives the imported cement or clinker in California (if the terminal owner/operator does not own the product). This definition is workable in most cases, but it may create ambiguity in situations involving intermediate ownership transfers, consignment arrangements, or cases where the first California recipient is a ready-mix concrete producer or other downstream entity that may not have the technical capacity to calculate and report GHG emissions from the upstream manufacturing facility.

CSCME recommends that CARB work with industry stakeholders to clarify the definition and, where necessary, develop guidance on how the reporting obligation applies in common but potentially ambiguous transaction structures. The goal should be to ensure that the definition captures the vast majority of import volumes without creating compliance confusion for entities that are not well-positioned to report upstream manufacturing data. (45d-CSCME-352)

Response: Changes were made in response to these comments. Staff incorporated the suggestions in the 15-Day notice and amended the definition of “importer of cement” to include reference to the “importer of record under federal customs law” to clarify which entity is subject to reporting. Staff also added text to require aggregation of emissions from import activities based on common ownership or common control. CARB will continue to work with stakeholders that

may have to ensure consistency of application of this definition and to assess if future changes to the “importer of cement” definition are necessary, although CARB believes the definition as currently structured will work in the manner intended.

J-3. Comment: Definition of “Importer of Cement” or “Cement Importer”

Comment: Section 5: Cement Import Reporting Requirements

The 15-Day Amendments include two changes to the import reporting framework that CSCME acknowledges as improvements. First, the revised definition of “cement importer”, including the clarification that majority owned or controlled importing entities should be aggregated for reporting purposes, provides greater clarity and closes gaps that could have allowed importers to structure their supply chains to avoid reporting obligations. Second, the new requirement to report cement and clinker that is subsequently re-exported provides visibility over cement flows that was previously absent. These are sensible refinements, but CSCME has further comments on the definition of “cement importer” and on the overall import reporting framework.

Definition of “Importer of Cement” or “Cement Importer”

CSCME requests that CARB clarify the definition of “importer of cement” or “cement importer” under MRR Section 95102(a). In the 15-Day Proposed Amendments, CARB refines the definition and incorporates language to ensure that all entities that are majority owned or controlled are aggregated for purposes of assessing whether reporting obligations apply. CSCME recommends the following:

- Move the language regarding aggregate ownership or control to the end of the definition to clarify that all entities are subject to the aggregation provisions, whether defined as the importer of record under federal customs law or whether defined based on being the first entity that owns and receives the imported cement or clinker; and
- Revise the language applicable to instances where the terminal owner or operator does not own the imported cement or where the imported cement is not subject to federal customs law. This proposed change will ensure that importers of cement that is sourced from production in other U.S. states or that is diverted to the California market from ports of entry in U.S. states outside California are covered under the definition.

The proposed revised definition would be the following:

“Importer of cement” or “cement importer” means the owner or operator who is the importer of record under federal customs law of a cement terminal receiving imported cement or clinker if the terminal owner/operator owns the imported cement or clinker being received. If the terminal owner or operator does not own the imported cement or clinker. Any entity which owns a majority interest in, or exercises operational control over, two or more importers must aggregate the cement imported by those importers, and such entity shall be considered, or shall designate one of the importers as, the “importer of cement” of, and the single reporting entity for, such aggregated quantity of

cement for purposes of section 95101(a)(1)(H). If the terminal owner or operator does not own the imported cement or clinker being received or if the cement or clinker is not subject to federal customs law, then the importer of cement is the first entity that owns and receives the imported cement or clinker in California who is the importer of record under federal customs law, such as the owner of the concrete batch plant purchasing the imported cement or clinker for consumption. Any entity which owns a majority interest in, or exercises operational control over, two or more importers must aggregate the cement imported by those importers, and such entity shall be considered, or shall designate one of the importers as, the “importer of cement” of, and the single reporting entity for, such aggregated quantity of cement for purposes of section 95101(a)(1)(H).

Alternatively, CSCME supports adopting a similar definition that is used to define “Enterer”, as supplemented with the aggregation provision, as follows:

“Importer of Cement” or “Cement Importer” means an entity that imports into California clinker or cement and who is the importer of record under federal customs law or the owner of the clinker or cement upon import into California if the clinker or cement is not subject to federal customs law. Any entity which owns a majority interest in, or exercises operational control over, two or more importers must aggregate the cement imported by those importers, and such entity shall be considered, or shall designate one of the importers as, the “importer of cement” of, and the single reporting entity for, such aggregated quantity of cement for purposes of section 95101(a)(1)(H). (15d-120)

Response: No changes were made in response to this comment. CARB will continue evaluating these elements to determine if future changes to the “importer of cement” definition are necessary, although CARB believes the definition as currently structured will work in the manner intended.

J-4. Multiple Comments: Definition of Cement

Comment: *The Definition of “Cement”*

The C&I and MRR Proposed Amendments define “cement” as:

“Cement” means a manufactured material that meets the specification standards for Portland cement (such as ASTM C150 (2022), which is incorporated by reference herein) or hydraulic blended cements (such as ASTM C595 (2023), which is incorporated by reference herein), or that meets performance-based standards for functional equivalents of Portland or hydraulic blended cements (such as ASTM C1157 (2023), which is incorporated by reference herein). Cement is used to make concrete, masonry cement, plastic (stucco) cement, and mortar cement.⁵³

CSCME proposes that CARB modify the definition of “cement” to delete the reference to the year of the ASTM standard (i.e., “ASTM C150 (2022)). ASTM requires standards to be reviewed at least once every 5 years, and many standards are revised on a more frequent basis. For example, C595 is currently undergoing a major revision that allows for greater clinker substitution than the 2023 definition. The inclusion of the year of the

⁵³ C&I Proposed Amendments § 95802(a); MRR Proposed Amendments § 95102(a)

ASTM will result in an overly limited definition of “cement,” which undermines the purpose of expanding the definition, creates uncertainty for the cement industry, and will require additional CARB administrative oversight and action to ensure that the ASTM standard referenced in the definition reflects the year of the most recent change. (45d-CSCME-352)

Comment: The Definition of “Cement”

The C&I and MRR Proposed Amendments define “cement” as:

“Cement” means a manufactured material that meets the specification standards for Portland cement (such as ASTM C150 (2022), which is incorporated by reference herein) or hydraulic blended cements (such as ASTM C595 (2023), which is incorporated by reference herein), or that meets performance-based standards for functional equivalents of Portland or hydraulic blended cements (such as ASTM C1157 (2023), which is incorporated by reference herein). Cement is used to make concrete, masonry cement, plastic (stucco) cement, and mortar cement.⁵⁴

CSCME proposes that CARB modify the definition of “cement” to delete the reference to the year of the ASTM standard (*i.e.*, “ASTM C150 (2022)). ASTM requires standards to be reviewed at least once every 5 years, and many standards are revised on a more frequent basis. For example, C595 is currently undergoing a major revision that allows for greater clinker substitution than the 2023 definition. The inclusion of the year of the ASTM will result in an overly limited definition of “cement,” which undermines the purpose of expanding the definition, creates uncertainty for the cement industry, and will require additional CARB administrative oversight and action to ensure that the ASTM standard referenced in the definition reflects the year of the most recent change. (45d-285)

Comment: Adopt the modified definition of *cement*, with minor additional modifications.

CARB’s present definition of *cement* does not recognize the integration of materials beyond limestone in finished cement, thereby excluding Supplementary Cementitious Materials (SCMs) that can be blended into finished cement as a substitute for clinker.

Adopting the ASTM standard definitions proposed by CARB is the right solution. However, CARB should delete the year of the standard – ie, “ASTM C150 (2022)”

Including the year of the ASTM standard will create identical issues as we have presently with an overly limited definition.

ASTM requires standards to be reviewed at least once every 5 years. Many are revised more frequently than 5 years. For example, ASTM C595 is undergoing a major revision presently that allows for greater clinker substitution than the 2023 definition. (45d-328)

Response: No changes were made in response to these comments. No changes are needed to the reference date of the ASTM standard. CARB references the year of the ASTM standard in the definition because it is widely

⁵⁴ C&I Proposed Amendments § 95802(a); MRR Proposed Amendments § 95102(a)

used in the industry. CARB incorporated the year 2022 in the definition because that is the version of the standard that is available. CARB cannot reference materials that are in progress or that are changing. Future updates to the ASTM standard may be incorporated as warranted in future rulemakings.

J-5. Multiple Comments: Definition of Cement

Comment: Moreover, CSCME recommends using “portland cement” rather than “Portland cement” as normally used in the industry and the ASTM standards. The corresponding change should be made to the definition of “Portland cement” in the MRR Proposed Amendments.⁵⁵ (45d-285)

Comment: Moreover, CSCME recommends using “portland cement” rather than “Portland cement” as normally used in the industry and the ASTM standards. The corresponding change should be made to the definition of “Portland cement” in the MRR Proposed Amendments.⁵⁶ (45d-CSCME-352)

Comment: CARB proposes to update the definition of cement output, which will recognize and incentivize investments by California cement plants to reduce GHG emissions through increased SCM blending. CSCME strongly supports the updated definition of cement output, though we also request technical revisions to resolve potential ambiguities and ensure that it is implemented efficiently and as intended.

Section 1: Updated Definition of Cement Output

The Proposed Amendments update the definition of cement output to include a wide range of SCMs, including fly ash, ground granulated blast furnace slag, silica fume, natural pozzolan, calcined clay, and glass pozzolan.^{57,58} These alternative materials can be blended with clinker to produce lower-carbon cement while maintaining or even enhancing product performance. CSCME fully supports this update, and we appreciate CARB’s efforts to begin unlocking this essential decarbonization pathway for the California cement industry. (15d-120)

Response: Changes were made in response to these comments. The definition of Cement was revised to change “Portland cement” to “portland cement.”

Reporting Requirements for Cement Importers

J-6. Comment: GHG Intensity Factor

Comment: CARB proposes to adopt a reporting framework for cement imports that is unlikely to result in reliable and insightful data and will only serve to delay the design and implementation of a mechanism to level the playing field between domestic and imported cement. CSCME urges CARB to strengthen the reporting framework by requiring clinker-based GHG intensity calculations, adopting a more analytically

⁵⁵ MRR Proposed Amendments § 95102(a)

⁵⁶ MRR Proposed Amendments § 95102(a)

⁵⁷ See CARB 15-Day C&I Notice at Attachment A-1, 161 (§95891(b))

⁵⁸ See CARB 15-Day C&I Notice at Attachment A-1, 45 (§95802(a))

defensible default factor, and requiring importers to report the country or U.S. state of origin.

Import Reporting Framework

The overall framework for import reporting remains fundamentally deficient in ways that CSCME raised in its initial comment letter and that the 15-Day Amendments do not address. These deficiencies are not minor technical quibbles — they go to the heart of whether the data collected under this framework will be useful for the purpose for which it is ostensibly being gathered: providing the foundation for a data-driven mechanism to level the carbon playing field with imported cement.

CSCME raises these concerns now, while there is still an opportunity to correct them, because the cost of inaction is not merely a suboptimal first year of data. It is a multi-year delay in leveling the playing field that California cement producers and the state's climate goals cannot afford. Importers will first report 2027 data in calendar year 2028. By the time that CARB has collected, reviewed, and extracted meaningful insights from that data, it will likely be 2029. And if that data does not provide reliable or actionable insights because the reporting structure was not set up correctly, CARB will then need to refine the reporting requirements, amend the regulation, and initiate another full cycle of collection, analysis, and interpretation before it has the reliable and actionable data needed to support the design and implementation of a mechanism to level the playing field, which will likely take several more years.

In short, a material “misfire” in this first data collection cycle could easily result in unnecessarily delaying the implementation of a mechanism to level the playing field for several years. With that in mind, CSCME urges CARB to consider the following concerns.

Accurately Calculating the GHG Intensity of Imported Cement

MRR Section 95126(b) requires importers to calculate and report the GHG emissions associated with imported cement based on a manufacturing facility's annual average GHG intensity of cement produced at that facility.

This approach is fundamentally flawed in that it effectively assumes that the GHG intensity of the cement that a plant exports to California is similar to the GHG intensity of all of the cement that it produces over the course of a year. This assumption is unlikely to hold for plants that serve different markets with very different building standards. For instance, the same plant might export a high-quality cement with a 90-95% clinker ratio (i.e., Ordinary Portland Cement) to the California market while also producing a lower-quality cement with a 75% clinker ratio for a different market that has much lower building standards than California. In that instance, averaging across the plant's full product mix will substantially and systematically understate the GHG intensity of the higher-clinker product imported into the state.

Fortunately, this issue is easily corrected by slightly shifting the basis of reporting. Specifically, CARB should require importers to report the plant's annual GHG intensity per unit of clinker (not cement) produced and then adjusting it to account for the actual clinker content of the imported product, which should be readily known by the importer.

This approach is more accurate, more consistent with how California producers report their own emissions under the MRR, and better suited to capturing the actual GHG intensity of products entering the California market.

With those considerations in mind, CSCME recommends that CARB amend the equation in MRR Section 95126(b)(1) to include a term for the clinker ratio of the imported product and the equation in 95126(b)(2) to measure a plant's annual GHG intensity on a clinker basis.

The Proposed Default Factor

For importers who do not provide facility-specific data, CARB proposes to apply a default factor of 0.758 MT CO₂ per short ton ("ST") of cement. This approach is problematic for several reasons.

As a threshold matter, there are several reasons to conclude that the proposed default factor is likely to be substantially lower than the GHG intensity of cement imported into California, which would only disincentivize importers from collecting and reporting actual data. For instance, the European Union Emissions Trading System ("EU ETS"), which has invested considerable analytical effort in establishing defensible default factors to support the implementation of its Carbon Border Adjustment Mechanism ("CBAM") for cement, recently published default factors by country — all of which are considerably higher than the default factor proposed by CARB.⁵⁹

In addition, CARB's proposed default is based on data from the Global Cement and Concrete Association ("GCCA") database. That data does not align with CARB's emissions calculation methodology, is voluntarily reported by GCCA members, is not independently verified, and is not necessarily representative of global production as a whole. The dataset covers a small minority of global clinker production, and that coverage is heavily skewed toward large, sophisticated, Western producers that have the systems and incentives to report.⁶⁰ Accordingly, using GCCA data as the basis for default values, especially without extensive testing for self-selection bias and representativeness, is an analytically unsound approach that undermines the credibility of the reporting framework.

Even if the GCCA data accurately reflected average global production, that average is unlikely to be representative of the cement imported into California. As documented in CSCME's initial comment letter, the vast majority of cement imported into California over the past decade originated in Vietnam and China, which are not included in the GCCA data.⁶¹ The inability to scope the GCCA data to align with the most likely sources

⁵⁹ Commission Implementing Regulation EU 2025/2621, Laying Down Rules for the Application of Regulation (EU) 2023/956 of the European Parliament and the Council as Regards the Establishment of Default Values, Official Journal of the European Union (December 16, 2025)

⁶⁰ See Global Cement & Concrete Association, GNR 2.0 at gccassociation.org/gnr (login required) and "List of Countries and Regions Covered by GNR" at gccassociation.org/list-of-countries-and-regions-covered-by-gnr

⁶¹ *Id.*

of imports into California only further undermines the credibility of the proposed default factor and the reporting framework in general.

Ultimately, however, there is no need to rely on voluntarily reported, unverified, and under-scoped data to establish a credible default GHG intensity factor. As outlined in CSCME's initial comment letter, a components-based approach that is grounded in physical chemistry, established engineering parameters, and publicly available data can produce a more reliable and defensible default factor without significantly expanding reporting requirements.⁶²

Cement Country/State of Origin

Finally, CSCME requests that CARB revise Section 95126 to require importers to provide country or U.S. state where the cement or clinker was produced. This is basic information that is readily available to importers and would enhance the scope of data available to CARB in developing its level the playing field measures. For example, CARB could revise Section 95126(c)(4) as follows:

(4) The cement importer must report the country or U.S. state of cement or clinker production. If known, the cement importer must report the name and address of the facility where the imported cement or clinker was produced. (15d-120)

Response: No changes were made in response to this comment. CARB recognizes the complexity associated with cement GHG reporting. Combustion of raw materials to produce clinker is the largest GHG emissions source in cement production, which can be lowered by using other lower-carbon materials or energy. While it is ideal to collect data on production and associated emissions for each component and each production stage to fully understand the GHG emissions associated with cement production, the Proposed Amendments for cement importers are aimed at ensuring that the reporting requirements are administratively feasible.

First, proposed section 95126(b) requires cement importers to report facility-wide emissions and total amount of products. This data supports the overall GHG emissions associated with manufacturing facilities that produced cement imported to California. To complement this requirement, proposed section 95126(c) requires additional information, using best available data, on the mass of each component including clinker, gypsum, limestone, other mineral additives, and specific types of SCMs used to make cement by manufacturing facility. Assuming that facility-wide GHG emissions are largely attributable to clinker production, this data will enable CARB to estimate clinker-to-cement ratio associated with imported cement and clinker or cement product emissions intensity. Further, proposed section 95126(c) requires data sources and methods used to obtain facility's annual GHG emissions, which will allow CARB to gauge the accuracy of provided data.

⁶² See CSCME 45-Day C&I Comments at Section 8

Proposed section 95126(b) also includes the default emissions factor calculated based on publicly available data. The default will be used when cement importers do not have sufficient data on source manufacturing facility's GHG emissions intensity to fulfill the requirements set forth in this proposed MRR amendments. The data collected from cement importers during initial years will be used to understand the extent of data availability and their accuracy. Based on this data, these requirements, including the default factor, will be evaluated for potential refinement in a future rulemaking.

In response to the comment to proposed section 95126(c)(4) about Cement Country/ State of Origin, no changes were made because the proposed language already requires cement importers to report the name and address of the facility where the imported cement or clinker was produced. The address includes the state and the country of origin.

J-7. Multiple Comments: Default Value for Cement Import Reporting

Comment: Default Reporting for Cement Import Reporting

CARB's current proposal to rely on a single default GHG intensity factor of 0.758 MT CO₂e per short ton of cement is a substantial design flaw, as it does not differentiate between when importers might override the default because they have actual data readily available on a particular aspect of the product's GHG intensity.⁶³

CSCME recommends that CARB adopt a components-based default method in the final MRR amendments, as discussed below.

Guiding Principles

It is essential that the implementation of an incremental BCA be grounded in a small number of clear and consistent principles that create a fair, transparent, and defensible system that supports California's climate goals, including minimizing the risk of emissions leakage and creating the conditions necessary to support long-term investments in deep decarbonization.

Similar Standards: Cement consumed in California — whether produced inside or outside the state — should be held to similar environmental standards. Policies that impose carbon costs on in-state producers but exempt imported product distort the market, increase leakage risk, and ultimately undermine the effectiveness of the C&I Program.

^{63 21} CSCME also has significant concerns about the calculation of the default GHG intensity factor of 0.758 MT CO₂e per short ton of cement. They include but are not limited to the nature of the data used, the representativeness of that data, the lack of scoping to make the data more relevant to the current context, the methodology employed to compute the factor, and the exclusion of transportation emissions. Given that CSCME is proposing a fundamentally different analytical framework and an approach that seems more fit-for-purpose on its face, we elected not to elaborate on those concerns in this comment letter. However, in the event that CARB rejects this alternative and chooses to maintain its current approach, we would welcome the opportunity to submit an addendum to these comments that documents the conceptual and methodological flaws that underpin the proposed default GHG intensity factor

Consistent Methodologies: The methodology for measuring GHG emissions should be as similar as possible for in-state and out-of-state cement. Wherever feasible, emissions should be calculated using comparable scopes, boundary conditions, and reporting and verification protocols. This ensures a level playing field and reduces the potential for regulatory gamesmanship or arbitrage.

Credible Data Sources: All data used to quantify GHG emissions — including emissions factors, fuel mixes, energy consumption, and transportation distances — should be drawn from credible, transparent, and verifiable sources. Where possible, CARB should prioritize peer-reviewed, jurisdiction-neutral, and independently vetted datasets.

Conservative Default Values: In cases where importers are unable or unwilling to provide data that meets standards similar to those applied to in-state producers, CARB should apply default emission values that rely on reasonable but conservative assumptions — thereby maintaining the integrity of the program and creating an incentive for data transparency.

The following sections outline an interim approach that aligns with these guiding principles.

CARB's Proposed Default Framework

The proposed language requires importers to calculate emissions by multiplying the volume of cement or clinker received from a given foreign facility by that facility's average annual GHG intensity and then aggregating across facilities.⁶⁴ CARB's approach is significantly flawed for several reasons.

First, a single default factor unnecessarily collapses several distinct sources of GHG emissions (process emissions, kiln combustion emissions, non-kiln combustion emissions, electricity-related emissions, and transportation-related emissions) into a single number. While this approach has the virtue of simplicity, it does not allow CARB to distinguish between the components of an imported product's GHG footprint that are more or less amenable to reporting and verification. Process emissions, for example, are driven by well-understood chemistry and can be estimated with reasonable confidence based on clinker content alone. Kiln combustion emissions, by contrast, are a function of plant-specific kiln efficiency and fuel mix — variables that differ substantially across facilities and countries. A single aggregated default cannot capture these differences and establishes an “all-or-nothing” standard for importers to demonstrate that their actual emissions profile differs from the default.

Second, the single default factor does not include transportation-related GHG emissions, which represent a material component of the total GHG footprint of imported cement. California cement producers effectively incur zero transportation-related GHG costs for delivering product to the California market (their product “enters” the market at the plant gate). Imported cement, by contrast, must be shipped, typically by ocean-

⁶⁴ MRR Proposed Amendments § 95126

going vessel over thousands of miles. Excluding transportation emissions from the reporting framework understates the true GHG footprint of imported cement and creates a gap in the data that will need to be addressed if and when import reporting transitions to a compliance framework.

Third, the proposed default factor appears to be based on a methodology that approximates the GHG intensity of a representative cement plant but does not account for the fact that the plants actually exporting to California may have materially different emissions profiles. The MRR ISOR indicates that the methods used to calculate the default factor are provided in the Technical Support Document, but the relationship between the default and the actual emissions of the primary exporting countries (Vietnam, Thailand, Mexico) is not transparent in the regulatory record.⁶⁵

Proposed Enhancement to Default Framework

There are five primary sources of GHG emissions associated with cement imports:

- Process GHG Emissions
- Kiln Combustion GHG Emissions
- Non-Kiln Combustion GHG Emissions
- Electricity-Related GHG Emissions
- Transportation-Related GHG Emissions⁶⁶

The scope of an incremental BCA should include all five sources, given that:

- California cement manufacturers directly incur carbon costs associated with the first three factors via the C&I program.
- California cement manufacturers indirectly incur carbon costs associated with electricity consumption.
- The transportation-related GHG emissions associated with delivering finished cement to the California market represent a significant and material portion of an imported product's total GHG footprint.

The GHG intensity of imported cement can vary based on several factors, including but not limited to the amount of clinker in the finished product, the energy efficiency of the kiln, the types of fuels used in the kiln, the GHG intensity of the electric power grid in the region the cement was produced, the modes of transportation used to deliver the

⁶⁵ CSCME also requests that CARB incorporate into the default the amount of additional costs faced by California cement producers under the AB 32 Cost of Implementation Fee Regulation, pending extension of the application of this regulation to importers of cement

⁶⁶ These are GHG emissions associated with transporting imported product from the plant to the point at which it enters the California market (e.g., a port). Accordingly, transportation-related GHG emissions are effectively zero for California cement producers, as the product enters the market when it passes through the producing plant's gate

finished product to the California market, and the distance traveled to the California market.

- There are several real-world factors that have the potential to greatly simplify the design and implementation of an interim approach:
- The amount of clinker in imported cement is almost always known within reasonable margins, as it is a key variable in using the product in a safe and effective fashion.
- It is highly likely that an exporting plant utilizes modern pre-heater, pre-calciner kiln technology, which makes it possible to estimate its energy efficiency with a reasonable degree of confidence.
- The vast majority of cement is currently imported from countries that do not have strict environmental regulations or climate commitments, and therefore, it is reasonable to assume that they use coal as a primary kiln fuel.
- There are credible estimates of the GHG intensity of the electric power grid in various countries and sub-national regions that can be used to estimate the GHG emissions associated with electric power consumption.
- The vast majority of cement currently imported into California is via maritime transportation, as opposed to rail or truck.

CARB can leverage these real-world factors to establish an interim framework that uses conservative default values based on credible, real-world assumptions to estimate the GHG intensity of imported cement while providing importers with an option to secure a more favorable GHG intensity by submitting product or plant-specific data that meets California's high standard for data reporting, consistent with what is required of domestic cement manufacturers.

Analytical Framework for Determining Default Emissions Factors

The total GHG intensity of imported product (MT of GHG emissions per MT of cement) can be expressed as the product of the clinker ratio of the product (MT of clinker per MT of cement) and the sum of individual GHG intensity factors (all expressed as GHG emissions per MT of clinker) associated with the five primary sources. Specifically:

Total GHG Intensity = C x (P + K + N + E + T) Where,

C = The clinker ratio (MT clinker per MT cement)

P = The process emissions GHG intensity factor (MT GHG emissions per MT of clinker)

K = The kiln combustion GHG intensity factor (MT GHG emissions per MT of clinker)

N = The non-kiln combustion GHG intensity factor (MT GHG emissions per MT of clinker)

E = The electricity GHG intensity factor (MT GHG emissions per MT of clinker)

T = The transportation GHG intensity factor (MT GHG emission per MT of clinker)

Given a reasonable estimate for the total GHG intensity of the imported product, an importer's obligations can then be calculated by multiplying the quantity of cement imported by the incremental GHG intensity of the product (*i.e.*, the difference between the year's allowance allocation rate for California producers and the imported product's total GHG intensity).

Clinker Ratio

The clinker ratio represents the volume of clinker relative to the volume of cement. Currently, the vast majority of cement imported into California meets the ASTM C150 specifications, which calls for clinker to represent 90%-95% of the total content, with the variance primarily depending on the amount of gypsum or limestone blended into the product. As a general matter, the clinker ratio of imported cement should be documented and known by the importer, as such information is essential to using cement in a safe and effective manner. That said, in the event that the importer does not report product-specific data regarding the clinker ratio, CSCME recommends that CARB assume that any imported cement meets ASTM C150 specifications and assign it a default clinker factor of 95%.

Process Emissions

Process emissions are the result of a chemical reaction associated with converting limestone into cement clinker. Therefore, a reasonable default process emissions factor can be estimated based on a combination of physical quantities and well-established chemical formulas.

With respect to physical quantities, the primary variable is the amount of clinker in the finished product, which can be easily calculated based on the volume of cement imported and the clinker ratio (as described above).

With respect to factors related to the chemical transformation of limestone, CSCME recommends a default process emissions factor of 0.547 metric tons of GHG emissions per metric ton of clinker. This recommendation is based on three observations:

- The factor is consistent with the CSI protocol, which is a widely accepted and often-used methodology for calculating GHG emissions throughout the global cement industry.⁶⁷

⁶⁷ Cement Sustainability Initiative (CSI). CO₂ accounting and reporting standard for the cement industry, version 2.0 (2005). See also: Shen et al. Factory-level measurements on CO₂ emission factors of cement production in China. *Renewable and Sustainable Energy Reviews* (June 2014), which states: "In the absence of specific data, CSI (2005) thus recommends a default emission factor of 0.525 t CO₂/t clinker with correction for calcination of MgCO₃, and 0.547 t CO₂/t clinker with the default raw meal-to-clinker ratio 1.55 and default total organic carbon (TOC) content in raw meal of 2 kg carbon/t raw meal"

- The factor accounts for all three sources of process emissions (*i.e.*, calcium carbonate, magnesium carbonate, and organic carbon), which ensures that the GHG accounting framework is as complete as possible.
- The factor is consistent with the scope of GHG emissions obligations imposed on California cement producers, which are required to use continuous emission monitoring systems (CEMS) that account for all GHG emissions released from the kiln, including all process-related emissions, regardless of their source.

To illustrate this approach, imagine that 10,000 metric tons of cement are imported into California, but no product-specific data is provided to CARB. In that instance, CARB would multiply the default process emissions factor of 0.547 MT of GHG emissions per MT of clinker by an assumed clinker ratio (*i.e.*, MT of clinker / MT of cement) of 95% — resulting in a GHG emissions intensity of 0.5197 MT of GHG emission per MT of cement associated with process emissions.

To be clear, CARB could also develop alternative default factors for other types of cement that could conceivably be imported into California in meaningful quantities over the next few years, such as Portland Limestone Cement or other blended cements. That said, starting with an assumed 95% clinker share and allowing importers to provide additional data to override that default assumption is likely to be the quickest path to implementing an incremental BCA, while still providing importers with a reasonable pathway to submit product-specific data.

Kiln Combustion Emissions

Kiln combustion emissions result from the use of fuels during the pyro-processing stage. These emissions are primarily a function of two factors: (1) the energy efficiency of the kiln (*e.g.*, MMBtu consumed per metric ton of clinker output) and (2) the GHG intensity of the fuel mix (*e.g.*, metric tons of CO₂-e per MMBtu consumed).

Kiln Energy Efficiency

For the purpose of setting default GHG emissions factors for imported cement, CSCME recommends that CARB assume that imported cement is produced using pre-heater, pre-calciner technology. Although it is possible that imported cement is produced using a less efficient technology, we believe this is a reasonable assumption for plants that are economically competitive enough to export to the California market.

In the absence of verified plant-level data, CSCME recommends that CARB apply a default kiln efficiency of 3.3 MMBtu per metric ton of clinker, which reflects the Environmental Protection Agency's estimate of the energy use for modern pre-heater, pre-calciner kilns.⁶⁸ This assumption is technically reasonable and appropriately conservative in light of the regulatory asymmetry and lack of transparency associated with imported cement.

⁶⁸ U.S. EPA, Alternative Control Techniques Document Update – NO_x Emissions from New Cement Kilns, Table 3-3 (November 2007)

GHG Intensity of Fuel Mix

The GHG intensity of the kiln fuel mix is a function of two components: (1) the composition of the fuels consumed and (2) the GHG emissions rate associated with each fuel. Coal is typically the primary fuel used in cement kilns, although a range of other fuels may also be used in varying proportions, including petroleum coke, natural gas, tires, biomass, and certain alternative fuels. The fuel mix used in any particular kiln is likely to depend on local market conditions — namely, the availability and price of each fuel. In addition, the use of alternative fuels can be dictated by non-market factors, such as technical limitations, emission regulations, and political/permitting constraints.

In the absence of verified plant-level data, CSCME recommends that CARB apply a default fuel GHG intensity that assumes that coal was the exclusive fuel used to produce the clinker, which is the most likely scenario for cement plants currently exporting to the California market. That default factor could be based on fuel emission factors published by the EPA or another credible source. For instance, according to the EPA's GHG Emission Factor Hub, the emissions factor for bituminous coal (a widely used type of coal in cement plants in Asia) is approximately 94 kg CO₂-e per MMBtu.⁶⁹

Total Kiln Combustion Emissions Factor

Given the assumptions outlined above, CSCME recommends that CARB apply a default kiln combustion GHG emissions factor of 0.31 MT GHG per MT of clinker (3.3 MMBtu per metric ton of clinker x 94 kg CO₂-e per MMBtu) / 1000) to imported cement, provided that the importer does not provide verified plant-level data to the contrary. This default factor would then be applied to the clinker content to determine the kiln combustion emissions factor for a particular metric ton of cement. For instance, cement that conformed to the ASTM C150 standard and, therefore, would be assumed to have a 95% clinker content would receive a default kiln combustion emissions factor of 0.294 (0.312 x 0.95).

Non-Kiln Combustion Emissions

Non-kiln combustion emissions result from the burning of fossil fuels outside of pyro-processing. Sources of non-kiln combustion emissions may include: on-site equipment; room heating and cooling; on-site power generation; and drying of raw materials and mineral components. The drying of raw materials and mineral components, in particular, can be a significant source of emissions outside of the kiln.

CSCME has not identified a credible third-party source for establishing a default GHG emissions factor for non-kiln combustion emissions. Accordingly, for the purpose of establishing an interim framework, we recommend that CARB use MRR data to calculate the average ratio between non-kiln and kiln combustion fuels in the California cement industry and apply that same ratio to imported cement as a default assumption. Again, cement importers will have the option to submit plant-specific data in the event

⁶⁹ U.S. EPA, GHG Emission Factor Hub, Emission Factors for GHG Inventories (Last Updated January 2025). The emission factor includes CO₂, CH₄, and N₂O, which is consistent with the scope of GHG reporting in California

that this default assumption does not apply to the plant at which the cement was produced.

Transportation-Related Emissions

Indirect transportation emissions primarily result from shipping finished product from the producer to the California market. In theory, clinker or cement could be shipped into the California market by truck, rail, ocean-going vessel, or a combination of these methods. Additional transportation-related emissions can result from the loading and unloading of product. As a practical matter, however, clinker or cement is rarely shipped by land over long distances. In contrast, historical experience indicates that large amounts of cement (and less frequently clinker) can be (and has been) economically shipped by sea over long distances.

Conceptually, the transportation emissions associated with importing a unit of product into the California market can be decomposed into two components: (1) the GHG emissions rate associated with the mode of transportation (metric tons of GHGs per ton-mile) and (2) the distance traveled.

For the purpose of establishing an interim framework, CSCME recommends that CARB establish a default GHG emissions rate for cement imported by sea. Specifically, CSCME recommend that CARB adopt the International Maritime Organization's Energy Efficiency Operational Indicator default emissions factor for GHG emissions per ton-mile for a "Handymax" dry bulk carrier, which is the most common vessel for transporting imported cement.⁷⁰ In the absence of the cement importer submitting credible data regarding the GHG emissions rate associated with ocean transportation, that factor would then be multiplied by the distance between ports, as published by the U.S. National Geospatial-Intelligence Agency.⁷¹

Summary

We recommend that CARB adopt a components-based default methodology that decomposes the GHG footprint of imported cement into process emissions, kiln combustion emissions, non-kiln combustion emissions, electricity-related emissions, and transportation-related emissions, with separate default factors for each component. We estimate that this approach will result in an aggregate default factor (i.e., the default factor that would apply if an importer does not submit any data to overcome any one of the default components) in the range of 0.90-0.95, depending on the source of imports. This approach produces more useful data, creates a natural pathway for importers to provide actual data, and aligns the reporting framework with the eventual implementation of a BCA. (45d-285)

Comment: Adopt a components-based approach to apply reporting requirements on cement importers, rather than a single default value of carbon-intensity.

⁷⁰ Fourth Greenhouse Gas Study, International Maritime Organization (2020)

⁷¹ Distances Between Ports (Pub. 151), The National Geospatial-Intelligence Agency (2001)

CARB's proposal to apply reporting requirements on the carbon-intensity of imported cement is positive development toward leveling the playing field.

However, CARB's proposal to use a single Cement GHG Emissions Intensity of 0.758 MT CO₂e/short ton of cement, in the absence of facility-specific data, is problematic. (MRR Regulation, Appendix A-1, pages 208-210)

Adopt a components-based default methodology that decomposes the GHG footprint of imported cement into process emissions, kiln combustion emissions, non-kiln combustion emissions, electricity-related emissions, and transportation-related emissions, with separate default factors for each component that an importer can override by submitting credible actual emissions data to CARB. It is unclear how this methodology is derived, and it ignores a components-based approach accounting for each significant factor of cement production. CARB has this data available via CSCME's current and prior submissions, and as documented in CARB's Draft SB 596 Net-Zero Cement Strategy published in 2025. (45d-328)

Comment: Inadequate import reporting requirements and inconsistency with CARB's SB 596 Strategy

CARB's proposal to apply reporting requirements on the carbon-intensity of imported cement is positive development toward leveling the playing field.

However, CARB's proposal to use a single Cement GHG Emissions Intensity of 0.758 MT CO₂e/short ton of cement, in the absence of facility-specific data, is problematic. (15-Day Amendments to MRR Regulation, Appendix A-1, pages 198-201)

It is unclear how this methodology is derived, and it ignores a components-based approach accounting for each significant factor of cement production. CARB has this data available via CSCME's current and prior submissions, and as documented in CARB's Draft SB 596 Net-Zero Cement Strategy published in 2025.

For detailed rationale and recommendations on improving the importer requirements, please see the CSCME comment letter submitted in response to the 15-Day Amendments. (15d-124)

Comment: Import Reporting Requirements

Expanded import reporting is an important step toward transparency and future border adjustment design. However, if the framework is to support a future BCA, definitions and methodologies must be carefully crafted and precise, similar to the verification process required under the Mandatory Reporting Regulation ("MRR"). If the data collected today are to serve as the basis for compliance-grade policy tomorrow, the structure must be rigorous from inception. Ambiguity or misalignment will undermine future implementation and can put domestic cement at risk for leakage.

- Adopt a components-based default methodology that decomposes the GHG footprint of imported cement into process emissions, kiln combustion emissions, non-kiln combustion emissions, electricity-related emissions, and transportation-related emissions, with separate default factors for each component.

First, a single default factor collapses several distinct sources of GHG emissions (process emissions, kiln combustion emissions, non-kiln combustion emissions, electricity-related emissions, and transportation-related emissions) into a single number. While this approach has the virtue of simplicity, it does not allow CARB to distinguish between the components of an imported product's GHG footprint that are amenable to reporting and verification and those that are not. Process emissions, for example, are driven by well-understood chemistry and can be estimated with reasonable confidence based on clinker content alone. Kiln combustion emissions, by contrast, are a function of plant-specific kiln efficiency and fuel mix — variables that differ substantially across facilities and countries. A single aggregated default cannot capture these differences and provides no pathway for importers to demonstrate that their actual emissions profile differs from the default.

Third, the proposed default factor appears to be based on a methodology that approximates the GHG intensity of a representative cement plant but does not account for the fact that the plants actually exporting to California may have materially different emissions profiles. The MRR ISOR indicates that the methods used to calculate the default factor are provided in the Technical Support Document, but the relationship between the default and the actual emissions of the primary exporting countries (e.g., China, Vietnam, Thailand, Mexico) over the past several years is not transparent in the regulatory record.

Include transportation-related emissions in the reporting scope by requiring importers to report the port of origin and mode of transportation for all cement and clinker imports.

Establish a data quality assurance mechanism for facility-specific CEI reporting that, at a minimum, requires supporting documentation and attestation and provides CARB with the authority to review and challenge reported values. (45d-CSCME-352)

Response: No changes were made in response to these comments. Based on the available information, these provisions are necessary to achieve the purpose of CARB's statutes. CARB will evaluate information and data collected from cement importers during initial years of implementation to understand the extent of data availability and data accuracy and will consider amending requirements in a future rulemaking if necessary.

For transportation-related emissions, no changes were made. Transportation-related emissions are not included to limit the claimed burden and complexity for quantification, and to recognize the scope of emissions covered by the Cap-and-Invest Program and MRR is limited to scope 1 and scope 2 emissions.

For coordination with SB 596 Cement Net-zero Emissions Strategy, please refer to the Cap-and-Invest Regulation FSOR. See Agency Response to comment O-6.9 in the Cap-and-Invest FSOR.

CARB recognizes the complexity associated with cement GHG reporting: combustion of raw materials to produce clinker is the largest GHG emissions source in cement production, which can be lowered by using other lower-carbon materials or energy. While it is ideal to collect data on production and associated

emissions for each component and each production stage to fully understand the GHG emissions associated with cement production, the Proposed Amendments for cement importers are aimed at ensuring that the reporting requirements are administratively feasible.

First, proposed section 95126(b) requires cement importers to report facility-wide emissions and total amount of products. This data supports the overall GHG emissions associated with manufacturing facilities that produced cement imported to California. To complement this requirement, proposed section 95126(c) requires additional information, using best available data, on the mass of each component including clinker, gypsum, limestone, other mineral additives, and specific types of SCMs used to make cement by manufacturing facility. Assuming that facility-wide GHG emissions are largely attributable to clinker production, this data will enable CARB to estimate clinker-to-cement ratio associated with imported cement and clinker or cement product emissions intensity. Further, proposed section 95126(c) requires data sources and methods used to obtain facility's annual GHG emissions, which will allow CARB to gauge the accuracy of provided data.

J-8. Comment: Electricity-Related Emissions

Comment: The grinding of raw materials and finished product are the primary drivers of indirect electricity emissions, though plant lighting and on-site electric motors also contribute to a plant's electricity consumption footprint.

Conceptually, electricity emissions per unit of output can be decomposed into two factors:

- (1) A plant-specific electricity efficiency factor (kWh per MT clinker).
- (2) A grid-specific GHG intensity factor (GHGs per kWh).

For the purpose of establishing an interim framework, CSCME recommends that CARB establish a default electricity efficiency factor based on the electricity consumption data reported by California plants in MRR reports. In the absence of the cement importer submitting credible data regarding the producing plant's electricity efficiency, that factor would then be multiplied by the GHG intensity factor for the grid in the region or country in which the plant is located.⁷² (45d-285)

Response: Changes were made in response to this comment. Staff incorporated these suggestions in the 15-Day changes and amended section 95126(c) to include additional requirements to report information on indirect emissions associated with electricity used to make cement.

⁷² The International Energy Association (IEA) retains a robust database of grid electricity factors by country. IEA's annual dataset is not publicly available but can be purchased. The Institute for Global Environmental Strategies, a public interest incorporated foundation in Japan, also maintains a publicly accessible dataset of country and region-specific grid electricity emissions factors

J-9. Comment: Cement Production Reporting, Section 95110(d)

Comment: That said, the implementing language in both the C&I and MRR regulations is imprecise and ambiguous in certain respects, and we encourage CARB to resolve those technical issues to ensure this critical update is implemented as intended and as efficiently as possible. For instance, the Proposed Amendments to the MRR regulation appear to require cement producers to only report SCMs purchased from in-state producers who have opted into the C&I program, as opposed to all SCMs blended.⁶ If the MRR system does not capture data on all SCMs blended by a California cement plant, the allocation formula cannot function as intended and the incentive to produce lower-carbon blended cement will be substantially undermined.

Accordingly, CSCME requests that CARB make the following technical correction to the reporting of SCMs under MRR Section 95110(d):

Annual quantity of SCMs consumed for blending (short tons) **that is received from SCM manufacturers that are opt-in or covered entities in the Cap-and-Invest Program**, by SCM type (e.g., fly ash, ground granulated blast furnace slag, silica fume), and SCM manufacturer, **and whether the SCM manufacturer is an opt-in or covered entity in the Cap-and-Invest Program**.

Alternatively, in the event that the Proposed Amendments are advanced to the Board without revisions, we urge CARB to ensure that California cement manufacturers have the option to report third-party verified data on SCM use through the MRR system so that CARB may use that data to properly calculate allowance allocations and fully account for associated GHG reductions. (15d-120)

Response: No changes were made in response to this comment. Proposed section 95110(d)(4) added cement kiln dust and grind aids as reportable materials as they were previously used by covered cement plants. If covered cement plants start blending other materials that are not subject to 95110(d)(4) or (5), they may report them on a voluntary basis.

General Cement Comments

J-10. Comment: Cement Threshold

Comment: Coverage

In Section 95101(a)(1)(H) of the MRR Proposed Amendments, CARB applies the annual GHG reporting requirements to importers of cement whose total annual emissions from imported cement or clinker equal or exceed 10,000 MT CO₂e, as calculated pursuant to Section 95126(b)(3) of the MRR Proposed Amendments.⁷³ CSCME has concerns that this provision, including when read with other MRR provisions, may not provide sufficient protection from potential attempts to evade or circumvent reporting obligations.

⁷³ See MRR Proposed Amendments § 95101(a)(1)(H) and ISOR at 30

First, CSCME considers that the 10,000 MT CO₂e threshold may be too high to ensure that sufficient imports are covered by the reporting obligation and any subsequent BCA obligation. CARB should closely monitor the efficacy of the threshold, including an assessment of the number of reporting entities, other data on California consumption, and import volumes to assess whether this threshold is causing evasion actions to avoid reporting of material volumes of cement imports. Moreover, before implementing a BCA, CARB should consider lowering the threshold if necessary to address potential evasion.

Second, the primary exporting countries of cement to California are Asian countries (e.g., Vietnam, Thailand, China), which have a longstanding history of setting up various importing affiliates and deploying other corporate structures to evade or circumvent U.S. trade measures. Cement importers sourcing from these countries could establish similar schemes to evade or circumvent the MRR import reporting requirements.

The MRR currently incorporates concepts of reporting based on common ownership or common control, and in the MRR Proposed Amendments, CARB revised the definition of “supplier” to cover “an entity, or multiple entities held under common ownership or common control that is ...an importer of cement....” However, it is not clear whether and how this would apply to assessing whether an importer of cement is required to calculate emissions for purposes of meeting the 10,000 MT CO₂e threshold by aggregating the emissions for all entities under common ownership or common control.

To ensure that all entities owned or controlled by the same entity are part of the same total annual emissions calculation for purposes of applying any threshold under Section 95101(a)(1)(H), CARB should clarify or confirm that all entities subject to common ownership or common control and that are cement importers must aggregate emissions for purposes of determining the applicability of the cement importer reporting requirements. Moreover, to facilitate administration and enforcement, CARB should require cement importers to report all direct and indirect corporate associations similar to the requirements in Section 95830 (Registration with ARB) and Section 95833 (Disclosure of Corporate Associations).

Monitor the efficacy of the import reporting threshold and develop additional protections from potential evasion and circumvention of reporting obligations by importers of cement. (45d-285)

Response: Changes were made in response to these comments. The 10,000 MT reporting applicability threshold is standard in the MRR regulation. Regarding the 95101(a)(1)(H) comment, the definition of “importer of cement” was further amended in the 15-Day Notice to address this concern and ensure that all entities subject to common ownership or common control have to aggregate emissions for purposes of determining the applicability of the cement importer reporting requirements. No changes were made at this time to directly require reporting of direct or indirect corporate associations in MRR because requiring aggregation of emissions from entities subject to common ownership or common control is sufficient to facilitate administration and enforcement of MRR’s requirements. MRR does require reporting of corporate parent information.

J-11. Comment: Exported Cement

Comment: Scope of Reporting: Treatment of Re-Exports

Section 95126 of the MRR Proposed Amendments allows cement importers to exclude re-exports entirely from reporting⁷⁴. However, allowing entire categories of transactions to disappear from the dataset undermines visibility at precisely the stage when CARB claims to be testing data availability and reporting mechanics. Moreover, such additional reporting will enable CARB to reconcile various data sources to monitor compliance and identify distortions or anomalies in data that could indicate potential evasion or circumvention of reporting requirements. CARB should instead require that cement importers report these transactions and identify them as re-exports. (45d-285)

Response: Changes were made in response to this comment in section 95126 to require reporting of information associated with cement or clinker imported into California and then re-exported.

J-12. Multiple Comments: Imported Cement Data Verification**Comment:** Verification of Cement Importer Data

The MRR Proposed Amendments provide that the cement importer data will not be subject to verification.⁷⁵ The absence of third-party verification creates a data reliability gap. CARB proposes that cement importer data should be exempted from verification because the data is "based on best available data and not subject to a Cap-and-Invest Program compliance obligation."⁷⁶ CSCME understands CARB's rationale: verification requirements are typically tied to compliance obligations, and imposing verification on a reporting-only framework could be seen as disproportionate. However, the practical consequence is that the data collected under Section 95126 will be self-reported, unverified, and of uncertain reliability, which will limit its usefulness both for policy analysis and as a foundation for a future BCA.

This concern is particularly acute with respect to the facility-specific CEI calculation. Under the proposed framework, to the extent all or almost all importers do not just select the default to avoid any reporting burden, an importer who claims to know the annual GHG emissions and production of a foreign manufacturing facility can calculate and report a facility-specific CEI with no external check on the accuracy of that claim. The incentive structure is clear: importers who report a lower-than-default CEI face no consequences for inaccuracy, while importers who cannot or do not report facility-specific data are assigned the default. Without some form of data quality assurance — whether through full third-party verification, a simplified attestation process, or CARB

⁷⁴ "Cement importers may elect to exclude any cement or clinker that is known to be imported into California and then exported for use outside of California from data reported under this section." See MRR Proposed Amendments § 95126

⁷⁵ MRR Proposed Amendments § 95103(f)

⁷⁶ MRR Initial Statement of Reasons at 26-27

staff's review of reported methodologies — the facility-specific pathway is vulnerable to systematic underreporting.

CSCME is not suggesting that CARB immediately impose the same rigorous verification standards that apply to California cement producers. We recognize that requiring third-party verification of foreign plant data would be impractical in the near term in the absence of applying compliance obligations. But there is a middle ground between no verification and full verification, and finding that middle ground is essential if the data is to serve as the foundation for a credible BCA. Therefore, CSCME urges CARB to consider a phase-in verification requirement.

One potential option would mirror the EU's phased-in verification requirements for its Carbon Border Adjustment Mechanism ("CBAM"). For the implementation of the CBAM, the EU established a clearly defined transition period (2023-2025) in which importers of covered CBAM products were required to report a set of data on a quarterly basis, including emissions embedded in their goods, without a requirement of third-party verification. However, when the CBAM fully entered into force in January 2026, third-party verification of such data became mandatory.⁷⁷ Moreover, the European Commission and the national authorities of EU Member States continuously monitored reported emissions and corresponding trade to identify practices of circumvention and non-compliance with the CBAM Regulation.⁷⁸ In addition, the Commission would communicate to the competent national authority a list of incomplete or "suspicious reports" (*i.e.*, where the Commission had reason to believe that the reports failed to comply with the CBAM Regulation), and the national authorities could subsequently initiate a review or a potential correction procedure, which could lead to penalties.⁷⁹ This approach allowed the EU to collect and assess the necessary data from importers, while providing importers time to build their reporting and compliance programs and adjust to new monitoring and reporting rules that would become subject to verification.

Importantly, although importers were not subject to mandatory verification during the transition period, as explained above, the EU could impose penalties on importers (*e.g.*, for failing to submit the required quarterly CBAM reports or for submitting incomplete or suspicious reports).⁸⁰ Similarly, the MRR Proposed Amendments should make clear that, even without a verification requirement, all data provided to CARB is subject to applicable penalties for false statements and may be subject to future verification if necessary to address potential concerns regarding accuracy, completeness, etc.

⁷⁷ "Carbon Border Adjustment Mechanism (CBAM) Questions and Answers," Taxation and Customs Union (last updated December 17, 2024), available at: https://taxation-customs.ec.europa.eu/document/download/013fa763-5dce-4726-a204-69fec04d5ce2_en; "Carbon Border Adjustment Mechanism (CBAM) Questions and Answers," Taxation and Customs Union (last updated December 22, 2023), available at: https://taxation-customs.ec.europa.eu/system/files/2023-11/CBAM%20Frequently%20Asked%20Questions_November%202023.pdf

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

Immediately introduce a requirement to submit data on imports of cement, including re-exports, with a phasing-in of the verification requirement to align with verification requirements for in-state cement plants.

Establish review procedures to identify suspicious or incomplete cement import reporting and impose penalties for missing, incorrect, incomplete, and fraudulent reporting. (45d-285)

Comment: The absence of third-party verification creates a data reliability gap. CARB proposes that cement importer data not be subject to verification because the data is "based on best available data and not subject to a Cap-and-Invest Program compliance obligation." CSCME understands CARB's rationale: verification requirements are typically tied to compliance obligations, and imposing verification on a reporting-only framework could be seen as disproportionate. However, the practical consequence is that the data collected under Section 95126 will be self-reported, unverified, and of uncertain reliability, which will limit its usefulness both for policy analysis and as a foundation for a future BCA.

This concern is particularly acute with respect to the facility-specific CEI calculation. Under the proposed framework, an importer who claims to know the annual GHG emissions and production of a foreign manufacturing facility can calculate and report a facility-specific CEI with no external check on the accuracy of that claim. The incentive structure is clear: importers who report a lower-than-default CEI face no consequences for inaccuracy, while importers who cannot or do not report facility-specific data are assigned the default. Without some form of data quality assurance — whether through full third-party verification, a simplified attestation process, or CARB staff review of reported methodologies — the facility-specific pathway is vulnerable to systematic underreporting.

CSCME is not suggesting that CARB impose the same rigorous verification standards that apply to California cement producers. We recognize that requiring third-party verification of foreign plant data would be impractical in the near term in the absence of applying compliance obligations. But there is a middle ground between no verification and full verification. Finding that middle ground is essential if the data is to serve as the foundation for a credible BCA.

Establish a Data Quality Assurance Mechanism for Facility-Specific CEI Reporting

As discussed above, the absence of any verification or quality assurance for facility-specific CEI data creates a reliability gap that will undermine the usefulness of the data collected. CSCME recommends that CARB implement a tiered data quality assurance approach.

At a minimum, importers who report a facility-specific CEI below the default should be required to provide supporting documentation that identifies the data sources and quantification methodologies used, along with an attestation that the reported data is accurate and complete to the best of the reporter's knowledge. CARB staff should have the authority to review and challenge reported values that appear inconsistent with known emissions profiles for the relevant region and kiln technology.

Over time, as the reporting framework matures and the transition to a compliance-based BCA approaches, CARB should consider establishing more rigorous data quality tiers that provide importers with graduated incentives to submit higher-quality data. For example, data that has been verified by an accredited third party could qualify for a more favorable treatment under the BCA, while unverified data would be subject to the default assumptions. This structure mirrors the approach CARB has successfully employed in other program contexts and would create a self-reinforcing dynamic in which data quality improves as the compliance stakes increase. (45d-CSCME-352)

Response: No changes were made in response to these comments. Based on the available information, these provisions are necessary to achieve the purpose of AB 32. CARB will evaluate information and data collected from cement importers during initial years of implementation to better understand data availability and data accuracy for purposes of considering the addition of verification requirements at a later date, which would require a separate MRR rulemaking.

J-13. Multiple Comments: Support for Imported Cement Provisions

Comment: As a general matter and despite some substantive concerns, CSCME supports the timely adoption of amended C&I and MRR regulations at the next Board meeting. (15d-120)

Comment: All cement plants operating in California are covered by the Mandatory Reporting Regulation (“MRR”), which requires California cement producers to report annual GHG emissions, electricity consumption, and cement production to CARB. CSCME appreciates that CARB’s MRR Proposed Amendments include new MRR reporting requirements for cement importers. Establishing import reporting is a constructive and necessary first step toward transparency in implementing a BCA. However, definitions and methodologies must be carefully crafted and precise if the framework is to support a future BCA. If the data collected today are to serve as the basis for compliance-grade policy tomorrow, the structure must be rigorous from inception.

The MRR Proposed Amendments and the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (“C&I Proposed Amendments”) also expand the definition of cement output to include supplementary cementitious material (“SCMs”). CSCME strongly supports expanding the scope of the output measure for covered cement plants to include SCMs, as increasing the production and consumption of blended cements will be a critical pathway for reducing the industry’s GHG footprint and achieving net carbon neutrality by 2045.

We look forward to continuing to work with CARB to strengthen the C&I program and close the gap between the state’s climate ambitions and the practical realities associated with achieving net carbon neutrality in hard-to-decarbonize industries, such as cement.

Section 2. Expanding the MRR to Cover Reporting by Cement Importers

The MRR Proposed Amendments establish new MRR reporting requirements for cement importers that take effect with data year 2027.⁸¹ Specifically, importers will be required to report the annual GHG emissions associated with imported cement and clinker from each manufacturing facility, calculated as the product of the quantity imported and the facility's cement GHG emissions intensity ("CEI").

CSCME supports CARB's proposal to establish new MRR reporting requirements for cement importers. The collection of data on the volume, origin, and GHG emissions associated with imported cement is a constructive and necessary first step — both for informing the design and implementation of a BCA, as discussed in Section 1, and for fulfilling the legislative mandate of SB 596 to develop a strategy for achieving net-zero emissions from all cement consumed in California, including imported cement.

This section assesses the proposed approach and identifies specific enhancements to the MRR Proposed Amendments. (45d-285)

Comment: CSCME supports CARB's proposal to establish new MRR reporting requirements for cement importers. The collection of data on the volume, origin, and GHG emissions associated with imported cement is a constructive and necessary first step — both for informing the design and implementation of a border carbon adjustment, as discussed in Section 3, and for fulfilling the legislative mandate of SB 596 to develop a strategy for achieving net-zero emissions from all cement consumed in California, including imported cement. (45d-CSCME-352)

Response: No changes were made in response to these comments. CARB staff thank the commenter for the support regarding the regulation changes for imported cement.

K. Verification

K-1. Multiple Comments: Conflict of Interest Provisions

Comment: Stricter Verification and Conflict of Interest (COI) Rules

The proposed amendments seek to tighten the rules surrounding third-party verification by capping a verification body's services to six consecutive *verifications* for a given entity (in addition to the existing six-year limit) and expanding the definition of a "high" conflict of interest to exclude verifiers who provided Low Carbon Fuel Standard (LCFS) consulting within the past five years.

These strict limitations will artificially shrink the pool of qualified, specialized environmental auditors, leading to increased compliance costs and logistical bottlenecks for reporting entities. Inflexible and excessive regulatory frameworks are widely recognized as primary obstacles to the widespread deployment of renewable energy technologies (Juszczyk, Juszczyk, Juszczyk, & Takala, 2022; Obuseh, Eyenubo, Alele, Okpare, & Oghogho, 2025). Stakeholders in other mandatory greenhouse gas reporting

⁸¹ See MRR Proposed Amendments § 95101(a)(1)(H), § 95102, § 95103(f), and § 95126

programs have highlighted how heavy administrative demands and strict reporting rules can disproportionately harm smaller enterprises (Lodhia & Martin, 2011). Furthermore, introducing regulatory uncertainty and highly burdensome administrative procedures often works against government climate objectives by deterring necessary investments (Brown & Chandler, 2008). Streamlining environmental auditing and assessment procedures, rather than complicating them with exclusionary COI rules, is essential to facilitate clean energy development while minimizing bureaucratic friction (Schumacher, 2017). (45d-006)

Comment: Section 95133 – Conflict of Interest Requirements for Verification Bodies

CCEEB urges CARB to reconsider new Section (b)(5) which proposes to deem conflict of interest risk high when a verifier has provided compliance services for the LCFS. Both State and Federal verification requirements are increasing and the pool of eligible verifiers is limited. (45d-265)

Response: Changes were made in response to this comment. CARB modified the text in subsection 95133(b)(5) to remove the letter "a" in the phrase "to a reporting entity" and replaced it with "the". This change is consistent with the previous regulation language in the same section and will restrict the limitation of verification bodies who have provided consulting services to LCFS reporting entities to only those reporting entities and not all reporting entities.

K-2. Comment: Material Misstatement Equation

Comment: Modify the "Material Misstatement Assessment" equations in 95131(b)(12).

There has been an inherent logical flaw in the "material misstatement assessment" equations since its publication in the initial regulation. The numerator of this equation is based on data sampled for discrepancies, omissions and misreporting. Thus, the numerator is usually a subset of total emissions reported, especially when verifiers are verifying data from larger organizations. However, the denominator of the equation is "total covered emissions." Thus, in every case where a verifier does not sample 100% of the reported emissions, the result of working this equation will understate the percentage of material misstatements found in the sample.

The obvious fix to this problem is to redefine the denominator as "Total reported covered emissions [or product data] included in the sample". (45d-007)

Response: No changes were made based on this comment. The existing language is appropriate for a robust review of covered emissions by verifiers, while still allowing the flexibility of risk-based sampling. The intention is to ensure that verifiers are reviewing the covered emissions data reporting for conformance with MRR, such as ensuring that all reported emissions data meet regulatory requirements and that the reporting entity is measuring and reporting those emissions using appropriate methodologies. CARB still expects that, in many cases, verifiers will seek to gain reasonable assurance that no material misstatement is present by reviewing a risk-based sample of reported covered emissions in additional detail.

K-3. Comment: Verification Definitions

Comment: Requested Change: Update “verification statement” to “verification opinion” throughout the MRR.

The term “verification statement” in the initial regulation may have been adopted from the initial edition of ISO 14064-3 (2006), Greenhouse gases — Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions. However, the second edition of this standard, ISO 14064-3 (2019), Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements, updated this term to “verification opinion”.

This change occurred for two reasons. First, the working group that maintains ISO 14064-3 decided that the term “statement” should refer to the ensemble of individual responsible party assertions that comprise the organization’s (or facility’s) greenhouse gas emissions report.

The second reason was that the financial auditing community issues “opinions” on the reasonable assurance of their clients’ financial statements, and that it is best practice for the greenhouse gas and financial auditing communities to use the same vocabulary to the extent possible. This is particularly important as jurisdictions increasingly move towards integrated reporting regimes where climate-related financial disclosures are made using such standards as the Task Force on Climate-related Financial Disclosures (TCFD). TCFD was a primary influence on the standards published by the International Sustainability Standards Board (ISSB) in 2023 as S1 and S2. The ISSB by the way is part of the International Financial Reporting Standards (IFRS) Board. IFRS standards are used by nearly all major companies around the world except those based in the United States which use very similar financial reporting standards called “Generally Accepted Accounting Principles” (GAAP).

California’s new Climate-Related Financial Risk Disclosure Program is implementing Senate bills 253, 261, and 219 which emphasize the connection between financial reporting and climate risk reporting. One of the main purposes of Senate bills 253, 261, and 219 is to provide decision-useful information to investors and to the public. It is therefore advantageous for the Industrial Strategies Division to align its regulatory language with common practice in financial and climate disclosure. Adopting this proposed change to vocabulary will avoid unnecessary confusion by the intended users of financial disclosure verification opinions.

We note that CARB’s definition of “material misstatement” supports this change. The definition reads in part ““Material misstatement” means any discrepancy, omission, or misreporting, or aggregation of the three, identified in the course of verification services that leads a verification team to believe that the total reported covered emissions (metric tons of CO₂e) or reported covered product data contains errors greater than 5%, as applicable, in an emissions data report” (emphasis added). We maintain that a “belief” should result in an “opinion” rather than a “statement.” This position is further reinforced in CARB’s definition of “reasonable assurance,” which reads: “Reasonable assurance” means a high degree of confidence that submitted data and statements are valid (emphasis added). This definition of reasonable assurance, which is consistent with

financial reporting standards and ISO's international standard on greenhouse gas validation and verification, stops short of promising "absolute" assurance.

Requested Change: Delete the definition of "verification statement" and add a new definition for "verification opinion. New definition for verification opinion: "Verification opinion means a formal written declaration issued by a verification body that provides confidence that a reporting entity's emissions data is free from material misstatement and conforms to the requirements of this article. This definition applies to an emissions data verification opinion and to a product data verification opinion." (45d-007)

Response: No changes were made in response to these comments. The submitted comments are not related to the proposed MRR amendments but are included here for completeness. Since these comments are out of scope, no response is required.

K-4. Comment: Support for Verification Provisions

Comment: Air Products is pleased to provide comments regarding the proposed amendments to the California Air Resources Board's (CARB) rulemaking for the Mandatory Reporting Regulation (MRR). This regulation is an important complement to the Cap & Invest regulation which is also proposed for amendment. We have separately commented on that regulation.

Air Products is the only U.S.-based global industrial gas company and the world's largest hydrogen producer and supplier for use in numerous markets. Within California, the company safely operates 9 hydrogen production facilities covered by the current MRR regulation, approximately 30 miles of hydrogen pipeline and currently supplies and operates a network of hydrogen fueling stations in support of the state's zero-emission transportation goals.

Air Products welcomes the verification simplifications provided in the proposed amendments to §95130 and in particular, the clarity that the changes to §95130(a)(2) bring with regards to consecutive verifications and the alignment with the Low Carbon Fuel Standard verification program. These simplifications reduce the administrative burden for both CARB and the obligated parties.

We also appreciate the clarification to §95131(b)(12) that a material misstatement is not applicable when entities report zero covered emissions or zero product data. This will help prevent confusion during verification. (45d-283)

Response: No changes were made in response to these comments. CARB is grateful for the support for the proposed amendments.

L. Cap-and-Invest Regulation

L-1. Multiple Comments: Cap-and-Invest Regulation

Comment: I am writing as a concerned California resident to submit this public comment in strong opposition to the proposed amendments to the Cap-and-Invest program, which would tighten emissions caps and further reduce free allowances for

refiners starting in 2026. These changes, while framed as steps toward climate goals, will impose devastating economic burdens on working families, small businesses, and communities already struggling with the highest gas prices in the nation—averaging over \$5 per gallon according to AAA data. I urge you to reject these amendments in their current form and prioritize affordable energy solutions that don't punish everyday Californians.

First, the proposed reductions in free allowances for oil refiners will inevitably drive up gasoline and diesel prices by 47 cents to \$1.20 per gallon as early as next year, according to analyses from the Western States Petroleum Association and independent economic models. This isn't speculation; it's basic supply-chain economics. With refineries like Phillips 66's Los Angeles facility set to close by late 2025—eliminating 10% of our state's refining capacity—these amendments will exacerbate fuel shortages and volatility. Families in rural areas like Kern County, where I have ties through community and economic impacts, will be hit hardest. A single parent commuting 30 miles to work could see their monthly fuel costs rise by \$100 or more, forcing impossible choices between groceries, rent, and transportation. How does this advance equity or environmental justice when it disproportionately harms low- and middle-income households?

Second, these changes threaten thousands of good-paying jobs in California's oil and gas sector, which supports over 200,000 direct and indirect positions statewide, many in underserved communities of color. The program's extension to 2045 without adequate transition support ignores the human cost: shuttered refineries mean lost livelihoods, reduced local tax revenues for schools and infrastructure, and a ripple effect on suppliers from trucking to manufacturing. CARB's own documents acknowledge the need for "decarbonization," but rushing these caps without proven alternatives—like scalable biofuels or hydrogen infrastructure—risks energy insecurity. We've seen this playbook before with premature EV mandates that left rural charging deserts in place. Why accelerate pain now when global markets still rely on California-produced fuels?

Environmental protection is vital, and I support California's leadership on climate. But Cap-and-Invest, rebranded or not, has already failed to deliver promised benefits without the pain. Emissions haven't dropped as aggressively as projected, yet household costs have soared. These amendments double down on a flawed approach that prioritizes abstract targets over real-world affordability. Instead, CARB should:

- Delay implementation until independent audits confirm no net price spikes above 20 cents per gallon.
- Invest in workforce retraining and just-transition funds for affected workers, funded by program revenues rather than new burdens.
- Explore market-based incentives for cleaner fuels that don't dismantle our refining backbone overnight.

California deserves bold climate action that unites us, not divides us through regressive costs. I implore you to listen to the voices of impacted residents and vote down these

harmful amendments. Our state's innovation can lead the world in clean energy—without bankrupting its people.

Thank you for considering this comment. I look forward to a more balanced path forward. (45d-191)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2a in the Cap-and-Invest FSOR.

Comment: Please consider that increased Cap-and-Invest Regulations will likely cripple our state's oil industry and add another \$ 1 per gallon to gasoline prices, hitting working families hardest when prices are already sky-high.

Please protect our energy independence, jobs, and wallets! CA already imports 70% of its oil via pollution-causing tankers, increasing the risk of catastrophic oil spills, despite high demand. Most of this oil could be produced locally, for less, and more cleanly, but some now comes from abroad and out of state, where environmental protections for oil production are less strict. Chevron now warns that a future vote in favor could be the final straw that causes the state's oil industry to collapse. It would lead to economic breakdown and chaos. Just ask any A.I. what \$10-per-gallon gas will do for CA's economy.

The cost of that, from a human suffering and environmental POV, is beyond anything we can imagine. At \$10/gallon, gasoline will become a hot commodity. A 15-gallon tank will be worth \$150. Most thieves steal for much less. And it's an easy target. Cars are all lined up. From a national security standpoint, our military defense also depends on refined fuels. Our defense capability could be severely compromised if we switch to a purely electric system, as it could be vulnerable to supply shortages that can't meet demand.

Please focus on taking a practical and unified approach to maintain, and ideally expand, our energy production capabilities, as demand has increased over the year. Doing this makes us more resilient as a society by creating larger buffers that can absorb external shocks.

Neither does CA have a commercial vehicle fleet with the electric capability to fully supply our communities. Therefore, consumer prices will need to increase to offset the higher transportation costs.

The idea of reducing air pollution by eliminating fossil fuels is noble at best; it has its place, but it should never become an ideological end-all, be-all. Ideology always leads to blind tyranny, which is what we are facing now.

Besides, even if CA were to cut ALL its carbon emissions, it wouldn't matter much on a global scale, since CA's CO₂ emissions are only 0.95% of total global anthropogenic emissions. That would translate to roughly 0.015 °C of avoided global warming by the end of the century. A tiny, unmeasurable (!) fraction, especially compared to the projected warming of 2 °C, which itself is already an overestimate based on the latest

data and calculations. Thus, such a sacrificial reduction would have negligible detectable effects on global temperatures but would cause immeasurable human suffering.

Besides, what are people supposed to do? Drive less? People still need to go to work, take their kids to school, participate in activities, shop for groceries, visit family, and so on. Or start driving electric cars? There aren't enough electric cars to begin with, nor is there enough infrastructure to support such a sudden switch. There aren't enough charging stations; our failing electric grid can't handle the increased demand, and so on. It will take years or even decades to make this switch possible. What are people supposed to do in the meantime? Flee California?

Please vote no to ensure Californians can afford to drive, live, and thrive. (45d-201)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2a in the Cap-and-Invest FSOR.

Comment: I am writing as a concerned California resident to formally voice my strong opposition to the proposed amendments to the Cap-and-Invest (Cap-and-Trade) Regulation and the Low Carbon Fuel Standard (LCFS) currently under consideration.

While I understand the state's climate goals, the current trajectory of these policies—combined with the impending closure of major state refineries—is creating an unsustainable financial burden on everyday Californians. I'm a working musician and I must drive my car to offer my services. My primary concerns are as follows:

- **Fuel Affordability:** Reliable economic forecasts suggest these regulatory updates could trigger significant immediate price

hikes at the pump. In a state already facing a high cost of living, these increases act as a regressive tax that disproportionately affects middle- and low-income families who rely on personal vehicles for work and daily life.

- **Refinery Stability:** The regulatory environment is currently incentivizing the closure of California's refining capacity without a viable, immediate alternative for the state's fuel supply. This risks not only higher prices but also potential supply shortages and increased reliance on foreign oil imports.

- **Transparency:** I request greater transparency regarding the "cost-pass-through" impact of these regulations on consumers. The public deserves a clear, unvarnished look at how these administrative decisions will affect their household budgets.

I urge the Board to postpone the implementation of these price-increasing amendments and instead focus on policies that prioritize energy reliability and cost-containment for California consumers.

I request that these comments be included in the official administrative record for the March 26–27 Board Meeting. (45d-238)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2a in the Cap-and-Invest FSOR.

Comment: The Gas crisis in California is frightening to say the Least. While I agree we can treat our climate better, YOUR Group needs to do better. The Cap-and-Invest Program in 2026 is potentially going to add another \$1.00 per gallon to gas that is already the highest priced gas in the nation. Then CA wants to follow up with a proposed mileage tax between .3-.9 cents per mile. The costs are astronomical. That will additionally increase the prices for all goods coming in to CA. If you do not save Chevron and Valero, lost jobs, furthering economic loss and continued exodus of CA will continue. The fact that we are already shipping gas into this state from countries that do not follow any sort of climate protection is hypocrisy at its finest. PLEASE DO NOT GO THROUGH WITH THE CAP-AND-INVEST PROGRAM. (45d-256)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2a in the Cap-and-Invest FSOR.

Comment: Completely disagree with proposed Cap and Invest. Californians need economic relief from policies and rules increasing the cost of living. Enough already. Show taxpayers an efficient use of tax dollars first. We have not seen anything near, it's just tax increases and more tax increases. For what?? (45d-320)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2a in the Cap-and-Invest FSOR.

Comment: Cap and Invest, as well as the thousands of regulations on California residents, businesses and manufacturers is making it impossible to stay and live a good life here. We need to be competitive in order to maintain local production in our state. Our families deserve to thrive, not to be burdened with more environmental taxes. Please consider dialing back regulations instead of creating even more unnecessary ways to tax us. Creating more regulations burdens each and every one of us. (15d-031)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: Please do not change the Cap-and-Invest program. Leave it as is. (15d-048)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: The high cost of living and doing business in California continues to fuel outward migration of residents. CARB is in a position to reverse escalating costs by eliminating all fees stemming from Cap and Trade arrangements. (15d-053)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: Please revise your cap-and-invest proposal to protect in-state energy infrastructure by avoiding massive new costs for fuel producers. Especially with the high gasoline prices of today, rushing through a proposal to hit an arbitrary emissions reduction target is reckless, with real consequences for working and elderly Californians who can least afford it.

Californians are hurting, struggling to get by under the high energy costs that have become a hallmark of life in our state – the highest in the nation.

And rather than bring down costs, your proposal is going to make things even worse.

Our state is at a turning point. Drivers here pay the highest gas prices in the country by a huge margin. Even before the war in Iran prices at the pump were soaring, jumping 40 cents a gallon in February.

In the past six months, P66 shut down their Los Angeles refinery and Valero is in the final stages of shutting down their Benecia refinery. The closures eliminate another 20% of California's refining capacity and deepen our reliance on imported foreign fuel.

Your proposed changes would result in California's few remaining refineries facing up to \$9 billion in new compliance costs. This cost is unsustainable and surviving refiners cannot or will not take it on. With energy companies already leaving the state, this added cost burden could cause massive damage to our remaining energy infrastructure.

California needs gasoline, diesel, and jet fuel. If our policies push refineries out of business, forcing California to get fuel from somewhere else no matter what the cost.

Relying on imports also leaves us vulnerable to geopolitical disruptions and other factors outside our control. California depends on Asian refineries to produce our special blend of fuel. As those refineries decide to limit exports, the decision to allow foreign control of our fuel supply looks foolish.

With sky-high gas prices, refineries shutting down, and problems relying on imports highlighted by war in the Middle East, California cannot get this wrong.

Consequently, we Californians must pay the fuel production costs for foreign companies, who operate overseas refineries that produce greater pollution than California's refineries. That fuel is shipped on tankers that pump out carbon during around-the-world trips to our ports.

When gas gets too expensive, working families are forced to cut back on groceries, straining family budgets and pushing the California dream further out of reach.

Finally, local refineries and related businesses are bedrocks of their communities, employing hundreds if not thousands of workers in good-paying jobs, paying millions in property taxes, contributing to local civic organizations and boosting the economy. When they shut down, those benefits disappear.

California's regulations and tax structure place a huge burden on all Californians and all businesses operating in California. Please make life in California easier and less expensive – revise your proposal to preserve California energy infrastructure. (15d-061)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: I am writing to express serious concerns regarding the California Air Resources Board's proposed amendments to the Mandatory Reporting of Greenhouse Gas Emissions. According to CARB's own analysis, the proposal is expected to impose approximately \$124 billion in costs, which will ultimately be borne by taxpayers and consumers. At the same time, CARB asserts that these costs will be offset by roughly \$123 billion in projected medical savings. This near one-to-one offset raises significant questions about the underlying assumptions and analytical rigor used to justify the rule. Given the scale of the economic burden, it is essential that both the cost estimates and the claimed benefits be supported by transparent, credible, and independently verifiable evidence.

There is reason to approach these projections with caution. California has a well-documented history of large-scale infrastructure cost estimates proving to be significantly understated. For example, the California High-Speed Rail Authority initially presented cost projections for the state's high-speed rail project that have since grown multiple-fold as the project advanced. This precedent underscores the risk that the current \$124 billion estimate may likewise be understated, especially given the complexity and long time horizon of the proposed regulatory changes. If costs are underestimated, the financial burden on households and businesses could be substantially greater than currently acknowledged.

Equally concerning is the assertion of \$123 billion in medical benefits. CARB's proposal does not appear to cite sufficient peer-reviewed scientific research to substantiate benefits of this magnitude, nor does it clearly establish a direct causal link between the specific reporting amendments and the projected health outcomes. Without rigorous, independently validated evidence, these claimed benefits remain speculative. Public policy decisions of this scale should not rely on optimistic or unverified projections, particularly when they are used to justify imposing significant economic costs on the public.

For these reasons, I urge CARB to revisit its cost-benefit analysis with greater transparency and methodological rigor. At a minimum, the Board should provide detailed documentation of its assumptions, subject its projections to independent peer review, and fully account for the risk of cost overruns. Until such analysis is completed

and validated, proceeding with the proposed amendments would place an unjustified and potentially substantial burden on California residents and businesses. (15d-066)

Response: No changes were made in response to these comments. These comments refer to the economic analysis conducted for the Proposed Amendments to the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment U-2.5 in the Cap-and-Invest FSOR.

Comment: Do not implement any new or change any existing regulations, cap and trade included. (15d-071)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: California families are suffering economically due to over regulation by CARB. I urge CARB to immediate pause any new changes to its CAP and Trade regulations. CARN must bring immediate cost and tax burden relief to California families and businesses. Thank you (15d-125)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: I understand that the California Air Resources Board will consider major changes to its Cap-and-Invest program that could increase the cost of gasoline and electricity for California families. At a time when gas prices have reached \$6.06 or more per gallon of unleaded gasoline, Californians are already feeling the strain. Please do not make changes that will further add to the economic pressure that most Californians are under! (15d-084)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: I am very concerned about the about the proposed amendments concerning cap & trade. At a time when California gas is more than \$6 per gallon at the pump, it is inconceivable that California would be considering additional regulation that will hurt what is left of our state's refinery capacity and make us all the more dependent on the importation of gas from overseas sources (where the refining of such gas has an even larger carbon footprint. (15d-099)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: It is time for all Californians to stand up and say ENOUGH of the self-destructive policies being promoted by CARB via the "cap-and-invest" program. It is insanity for our state to continue pushing policies that drive UP the cost of fuel while also driving OUT the companies responsible for providing thousands of good-paying jobs and fuel products our state so desperately need. Californians pay among the highest gasoline prices and electricity prices in the nation. The state demands a unique formulation for gasoline that can only be refined by a very small number of refineries. As the CARB policies push refineries out of the state we will see rationing and a deeper impact on all Californians but especially to those who can least afford the impacts of higher fuel costs. The current CARB policies are wrongheaded while also being MORE destructive to the environment via importation of both crude petroleum and refined fuels from other states and nations. It makes NO environmental or economic sense to import a single drop of petroleum into a state that has literally TRILLIONS of barrels of petroleum under its feet.

To quote recent California legislators: "California's climate leadership cannot come at the cost of destabilizing our energy markets and burdening those least able to bear it."

Stop the insanity! Cap the cap-and-invest program. No further greenhouse gas restrictions. Stop regulating refineries out of the state. (15d-105)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: I strongly implore the California Air Resources Board to reject the proposed changes to its Cap-and-Invest program. Californians are already severely burdened by energy costs that are greater than in any other state in the continental U.S. These high energy costs unfairly impact middle-income and low-income residents in our state. (15d-116)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment B-1.2b in the Cap-and-Invest FSOR.

Comment: INDUSTRIAL ALLOWANCE ALLOCATIONS AND LEAKAGE PROTECTION

The Cap-and-Invest workshop highlighted the need to maintain adequate industrial allocations through 2030 and beyond to minimize emissions leakage and preserve California's manufacturing base. Propane users, including households, food processors, metal fabricators, agriculture operations, warehousing, and rural industrial sites, are directly affected by changes in allowance allocations, as propane is often their sole fuel for process heat and backup power.

WPGA supports CARB's intent to keep 100% assistance factors through 2030, as mandated by AB 1207, and to design a post-2030 allocation methodology that minimizes leakage risk and maintains affordability. We recommend CARB continue to

work with affected stakeholders on the CAF schedule to avoid further tightening industrial allocations in the context of reduced overall budgets. A proportional reduction would shift additional cost burdens to propane end-users and create competitive disadvantages for California businesses already facing high energy costs.

POTENTIAL MULTI-PARTY LINKAGE OF C&I

One final item that WPGA wishes to comment upon is the possibility of linkage with both the U.S. state of Washington and the Canadian province of Québec.

While WPGA appreciates finding alignment in statutory and regulatory language across jurisdictions to ease compliance amongst parties that may simultaneously operate in different political jurisdictions, there remain significant challenges from any near-term linkage of carbon trading mechanisms. We would request that CARB refrain from any activities that would inextricably link California's functional market to those of its neighbors until such time as a multi-party convening can be made to address inconsistencies or pitfalls from linkage. (45d-317)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-2.2a, O-5.1a, R-1.6a, Y-1.1a, Y-3.5a and Y-3.14 in the Cap-and-Invest FSOR.

Comment: Communities for a Better Environment ("CBE") writes to raise significant concerns and questions regarding the Proposed 2026 Cap-and-Invest Regulation (hereinafter "the Proposal"). CBE is an Environmental Justice organization, representing communities in East Oakland, Wilmington, Richmond and Southeast Los Angeles that are heavily impacted by fossil fuel pollution from mobile sources, oil refineries and drilling operations, power plants, and many other industrial and polluting sources. The frontline environmental justice communities that CBE organizes in bear the brunt of climate change impacts, suffering two-fold as they are disproportionately burdened by air pollution from GHG emissions and co-pollutants.

CBE supports the recommendations provided to CARB by the Environmental Justice Advisory Committee ("EJAC") in August 2025. CBE uplifts EJAC members concerns that more direct insights on the Proposal could not be gathered because CARB is not currently convening the EJAC. CBE reemphasizes the important space that EJAC holds for often-overlooked and silenced environmental justice community representatives and supports calls for the EJAC to be consulted regarding the current proposal.

CBE submits this letter in addition to the concerns raised in the Environmental Justice letter submitted to this rulemaking by a variety of concerned environmental justice advocates across the state.¹ CBE supports the salient concerns raised there and underscores that environmental justice communities across California deserve and demand more ambition from this program. This letter details the following additional concerns and suggested proposal adjustments:

- I. CARB must reduce allowances at a greater rate than the proposed amendments.

- II. CARB must act to reduce industry assistance for refining and extraction and eliminate harmful exemptions for biofuels and unproven CCUS.
- III. Focus on Affordability by maximizing the Climate Credit.
- IV. Draft Environmental Analysis must be corrected because it fails to satisfy CEQA requirements.
- I. CARB must reduce allowances at a greater rate than the proposed amendments.

The Proposal fails to meet the State's greenhouse gas reduction goals. While CARB asserts that over time the Proposal achieves the same total number of allowances in the SRIA Proposed Scenarios, CARB does not acknowledge the likelihood of failing to meet near-term goals established in the 2022 Scoping Plan. In order to meet the State's climate goals, CARB must act ambitiously now to increase stringency by reducing the number of allowances in the near term.

CARB's own findings in the SRIA indicated that the proposed removal of 118 million allowances through 2030 fails to meet State thresholds and that "additional reductions are needed before 2030 to be on a course with a high likelihood of meeting 2045 statutory targets." Despite this, CARB fails to provide analysis that supports the Proposal's lower stringency approach and gives short shrift to previously discussed leading proposals and alternatives that favor higher stringency.

There is an urgent climate and environmental justice need for GHGs and co-pollutants to be reduced – we are not close to attaining our 2030 target under SB 32 – without sending a strong signal to covered entities that compliance is coming, there will continue to be low incentive for real emissions reductions in lieu of abundantly available allowances and offsets.⁸² We are also concerned that low near-term stringency will simply forestall the next wave of emissions reductions, resulting in deferred action on more manageable transitions infringing on the runway and resources of the most hard to electrify sectors. Given that CARB is trusting a market mechanism to achieve California's climate protections, CARB must send the correct market signals to achieve necessary reductions – the statutorily required goals for 2030 and 2045 will not happen otherwise. To correct course, CBE asks that CARB amend its proposal to increase stringency and reduce allowances to more ambitious levels that meet the state's climate goals as discussed in the other proposed SRIA options.

- a. Allowance removal should prioritize actual emission reductions and ratepayer benefits.

⁸² See CalEPA, California Climate Dashboard, March 6, 2026, <https://calepa.ca.gov/climate-dashboard/>; Christian Lessmann et al., The effect of cap-and-trade on sectoral emissions: Evidence from California, May 2024, <https://www.sciencedirect.com/science/article/pii/S0301421524000867>; Danny Cullenward et al., Structural oversupply and credibility in California's carbon market, June 2016, <https://www.sciencedirect.com/science/article/abs/pii/S1040619016300707>; Danny Cullenward, Ambition and Affordability, February 2025, at slide 4 <https://theclimatecenter.org/wp-content/uploads/2025/02/Danny-Cullenward.pdf> indicating that historically the program has regulated less emissions than the net supply of allowances and offsets

CARB's analysis in the SRIA identifies a more stringent, effective path forward by balancing greater emissions reductions and the value of avoided health and climate impacts against cost considerations and revenue impacts. Yet the ISOR does not provide comparable analysis of these essential considerations and fails to identify how reducing program ambitions affects this balance.

CBE advocates for analysis and decision making that clearly identifies the Proposal's ability to achieve climate goals in the near term to benefit disadvantaged communities as well as real analysis of cost impacts of the Program. As noted above, this analysis is feasible and likely to favor a more stringent program.

The California Climate Credit is an essential affordability tool to balance the cost of the Program to consumers and should be iteratively adjusted and invested in to reflect its role in offsetting a more ambitious program that garners actual emissions reductions while considering costs.

II. CARB must act to reduce industry assistance for refining and extraction and eliminate harmful exemptions for biofuels and unproven CCUS.

CARB's proposal does not meaningfully adjust industry assistance in order to address ongoing harms to environmental justice communities from GHG and co-pollutant emissions. In fact, the proposal retains an unwarranted 100% leakage adjustment factor until 2035 without justification.

AB 32 requires CARB to feasibly ensure that Cap and Invest compliance does not disproportionately impact low-income communities. CARB's own environmental assessment correctly acknowledges that there is a wide gap in emissions reductions in disadvantaged communities. CalEPA's definition and CalEnviroScreen mapping of disadvantaged communities considers socioeconomic factors and indicates that industrial activities, refining, and extraction are overrepresented in disadvantaged communities.⁸³ As CARB's own SRIA analysis acknowledges the cost of health impacts from pollution is significant. Yet CARB fails to adopt measures needed to address the emissions reductions gap. Leakage assistance is one of the significant CARB decisions that supports the reductions gap. CARB should reduce leakage assistance and use the tools of the program to pursue real emissions reductions as intended by AB 32.

a. CBE vehemently rejects compliance exemptions for biomass-derived fuels and biomethane.

Crop-based biofuels refining is known to pose particular and significant harms to environmental justice communities across California and the world -- from the indirect land use change implications of fuel stocks to refinery greenhouse gas and co-pollutant emissions and concerning levels of local air pollution from combustion at the tail pipe.⁸⁴

⁸³ OEHHA, SB 535 Disadvantaged Communities, last visited March 6, 2026, <https://oehha.ca.gov/calenviroscreen/sb535>

⁸⁴ Vincent Bregman et al., Farm to Fumes: Hazardous Air Pollution from Biofuel Production, Environmental Integrity Project, June 12, 2024, <https://www.wri.org/insights/increased-biofuel-production->

These fuels are already overrepresented in the Low Carbon Fuel Standard, and Federal Renewable Fuels Standard.⁸⁵ Adding support for these fuels in the Cap & Invest Program undermines both our climate goals and local air pollution reduction planning and harms Californians.

Additionally, we echo concerns raised in the Environmental Justice comment on this Proposal regarding the detrimental impacts of enhanced special treatment of livestock pollution on communities near dairies.

b. CCUS exemption should not precede SB 905 rulemaking.

CBE echoes the concerns of environmental justice advocates and objects to CARB's preemptive approval of CCUS. CARB has an obligation to complete SB 905 (2022) rulemaking, and the discussion and advocacy under this process is essential to making programmatic changes regarding CCUS. CBE calls on CARB to remove exemptions for CCUS.

III. Focus on Affordability by maximizing the Climate Credit.

CBE values the Climate Credit as an essential tool to combat the real affordability-related concerns faced by Californians, which is particularly severe in low-income households in the communities where we organize. CBE encourages CARB to amend the proposal to expediently transfer the gas credit to electric utilities while concurrently aiding the transition away from natural gas to clean electricity usage in hard to electrify areas.

CBE supports the reporting and transparency requirements for the California Climate Credit to better facilitate a Climate Credit that effectively maximizes ratepayer benefits for low-income Californians. CBE joins a variety of environmental justice, environmental, and utility advocacy organizations in calling on CARB to direct the CPUC to focus policies on addressing affordability concerns and electrification accessibility concerns for low-income Californians, particularly in regions that incur high energy burdens. We encourage CARB to emphasize that such policy decisions should be made with public participation, and that that public participation requires clear and accessible access to data and insights on credit distribution.

IV. Draft Environmental Analysis must be corrected because it fails to satisfy CEQA requirements.

impacts-climate-change-farmers; Angela Scafidi, Increased Biofuel Production in the US Midwest May Harm Farmers and the Climate, World Resources Institute, June 10, 2025, <https://www.wri.org/insights/increased-biofuel-production-impacts-climate-change-farmers>. Low Emission Diesel (LED) Study: Biodiesel and Renewable Diesel Emissions in Legacy and New Technology Diesel Engines, November 2021, https://ww2.arb.ca.gov/sites/default/files/2021-12/Low_Emission_Diesel_Study_Final_Report_12-29-21.pdf

⁸⁵ See Jeremy Martin, Biofuels Incentives in Flux: Interactions Between Federal and California Policy, The Equation, (February 3, 2026) <https://blog.ucs.org/jeremy-martin/biofuel-incentives-in-flux-interactions-between-federal-and-california-policy/>

The California Environmental Quality Act (“CEQA”) is about transparency and informed decision making, CEQA requires agencies like CARB to inform decision makers and the public about the potential effects of proposed activities and disclose reasoning for agency decisions.⁸⁶ As outlined below, by failing to adequately evaluate the Proposal’s baseline, alternatives, impacts, mitigations, and cumulative impacts the Draft Environmental Impact Analysis (“DEIA”) has failed to meet this key standard for informed decision making and transparency.

a. Baseline

Under CEQA, the “baseline” typically describes the existing environmental conditions to measure changes against. CARB describes the baseline simply as the 2023 environmental setting. This simple description fails to clearly identify relevant baseline conditions such as ongoing and increasing impacts of climate change, air pollution, and specific programmatic setting considerations such as the fact that as it existed in 2023 the program was not structured to meet even the nearest term 2030 greenhouse gas emissions established under SB 32 (2016).

Without acknowledging this, we question whether CARB has accurately captured the existing setting and baseline of comparison.

b. Alternatives

CARB fails to satisfy requirements under CEQA to discuss a range of feasible alternatives to the proposed project thereby providing inadequate background for decision-makers. In 2011, parties including CBE sued CARB for failing to meet this exact requirement. In that case, Association of Irrigated Residents et al. contended CARB failed to consider alternatives in its prior iteration of Cap-and-Trade. There the Court found that CARB’s analysis failed to adequately describe and analyze alternatives sufficient for informed decision-making and public review.⁸⁷ The Court emphasized that CARB must provide “clear indication based on factual analysis” as to why a programmatic proposal was taken in lieu of alternatives.

The proposal before us raises just two alternatives: 1) no project alternative and 2) facility specific requirements while summarily rejecting other recently favored proposals in the SRIA. Each of these sections are vaguely explored in just a few paragraphs, with little to no supporting analysis or factual findings. In the ISOR and DEIA CARB identifies the urgent need to increase the stringency of the program to align with ambitious targets under AB 1279 (2022) and that “despite reductions in local air pollution, a wide gap in air quality exists between disadvantaged communities and other communities.” Yet CARB’s alternatives analysis of only no project or facility specific requirements does not clearly identify why a lower stringency that does not directly address acute environmental stress from climate pollutants was selected or the methodology for

⁸⁶ Cal. Code Regs. tit. 14 §15002 (a), 15021. *City of Arcadia v. State Water Resources Control Bd.* (2006) 135 Cal.App.4th 1392, 1422 stating that “a certified regulatory program is subject to the broad policy goals and substantive standards of CEQA”

⁸⁷ *Ass’n of Irrigated Residents v. California Air Resources Bd.*, 2011 WL 991534, (Cal. Super.)

balancing those interests outright against vaguely asserted economic interests. Nor do these sections robustly analyze facility specific requirements outside of cursory conclusions regarding market effectiveness, as opposed to discrete GHG reduction efficacy.

Further underscoring this inconsistency, CARB's alternatives analysis summarily rejects the higher stringency alternatives of reducing 55% relative to 1990 levels by 2030 because they claim that this "may produce negative economic consequences." CARB provides no support for this assertion, in fact CARB's own analysis in the SRIA favored the balance of economic interests and GHG reductions outcomes in a more stringent program than the proposal. As stated above, the conclusion CARB reaches is dubious and unsupported.

Here, as in 2011, we are concerned that CARB is relying on bare conclusions to justify the latest iteration of Cap and Trade, by using unexplained, unclear, and unsupported justifications for why vague descriptions of alternatives that support a stronger more direct path to achieving the state's goals were rejected. We would assert as the court did in 2011, that this proposal "does not provide basic information necessary for ARB and the public to be informed about this alternative and its place in California's massive effort to improve the environment pursuant to legislative mandate." (Id.)

In light of the urgency of inaction on climate, and the outsize role of Cap & Invest in the State's climate regulation, inaction could drastically limit the effectiveness of the program. With sprawling climate change effects at our doorstep, CARB must effectively analyze a more stringent program alternative so that the board can make an informed decision as to the future of California's climate policy.

c. Impacts and Mitigations

The DEIA must discuss the environmental impacts of the Proposal, adverse or beneficial, and include a sufficient degree of analysis to provide the Board with the information needed to make a fact-based decision, considering the project as a whole in good faith.⁸⁸ Again, the core underpinnings of CEQA are transparency and providing sufficient information for an informed decision.

The DEIA sections that consider impacts and mitigation focus deeply on potential project impacts and mitigations outside of the jurisdictional control of CARB. For example, the impacts of project development and local land use decisions. The DEA does not, however, accurately describe project impacts and mitigation within CARB's control, such as potential air quality and greenhouse gas adverse impacts or benefits from more nuanced proposal alternatives such as increased stringency. Failing to identify the discrete impacts of programmatic decisions, such as higher stringency and more targeted leakage assistance leaves the Board without vital information when deciding whether to adopt the proposal.

⁸⁸ Cal. Code Regs., tit. 17 § 60004.2 (a) (3); Cal. Code Regs., tit. 17, § 60005 (b); Napa Citizens for Honest Gov't v Napa County Bd. of Supervisors (2001) 91 CA4th 342, 356; Laurel Heights Improvement Ass'n v Regents of Univ. of Cal. (1988) 47 C3d 376, 392.

Furthermore, CARB makes several generalizations about the impacts of zoning and land use decision making including that areas zoned industrial are not likely to be located near sensitive receptors. This is unsupported and untrue. The history of environmental injustice in California has resulted in low-income communities and communities of color being disproportionately burdened by pollution, including from sources on industrially zoned land.⁸⁹ An analysis of industrial emitters impacts on sensitive receptors should be essential to accurately understanding leakage assistance, yet it is missing from this DEIA which is analyzing a proposal to set leakage assistance at 100% until 2035. CARB must correct this foundational mischaracterization and related findings so that the DEIA analyzes pollution impacts accurately. Further, a logical extension of such analysis would include reducing leakage assistance as a mitigation or alternative.

d. Cumulative Impacts

Under CEQA, cumulative impacts analysis typically includes individual effects that when considered together compound or increase environmental impacts. CARB has already linked the Cap and Invest program with Quebec, and for some time has been in discussion about linkage with Washington's similarly named program. The Proposal and concurrent analysis should therefore afford careful consideration to the potential compounding or increased environmental impacts and/or challenges to the program if linked with Washington. If proposed changes such as offset decision making or stringency adjustments were made to better facilitate linkage such considerations should undoubtedly be discussed here to better understand its cumulative impacts.

Furthermore, piecemealing to reduce the scope or analysis is prohibited under CEQA. Attempted linkage with Washington is a serious consideration for the program and has been discussed at length and publicly for some time, with particularly concrete steps taken as recently as March 4, 2026.⁹⁰ We question why such a significant additional amendment to the program would not be introduced and explored as part of this robust proposal.

In conclusion, CBE calls on CARB to carve out an ambitious program that realizes the promises of emissions reductions not yet realized by Cap-and-Invest by increasing stringency, meaningfully reducing industry assistance, uplifting ratepayer assistance, and supporting outcomes with real analysis to support transparency in decision making. (45d-324)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are

⁸⁹ California Department of Justice, Best Practices for Implementing SB 1000, <https://oag.ca.gov/system/files/media/sb-1000-best-practices-en.pdf> "...many of the disproportionate pollution burdens that exist today are due to a legacy of discriminatory land use planning across the state, including redlining and racially restrictive covenants, exclusionary zoning, and decisions to site polluting industries in politically disenfranchised low-income communities and communities of color"

⁹⁰ Camille Von Kaenel, Newsom's carbon club gets bigger, Politico, March 4, 2026, <https://www.politico.com/newsletters/california-climate/2026/03/04/newsoms-carbon-club-gets-bigger-00813541>

therefore out-of-scope for this MRR rulemaking. See Agency Response to comments I-2.1, C-1.2a, O-2.1a, R-1.3a, S-4.3a, V-3.3, V-3.4, V-3.5, V-3.6 and V-3.7 in the Cap-and-Invest FSOR.

Comment: Center for Resource Solutions (CRS) appreciates this opportunity to submit comments in response to the proposed amendments to the Cap-and-Invest Regulation. Our comments pertain specifically to reinstating the allocation of allowances to the Voluntary Renewable Electricity Program (VREP).

Background on CRS and Green-E ®

CRS is a 501(c)(3) nonprofit organization that creates policy and market solutions to advance sustainable energy and has been providing renewable energy and carbon policy analysis and technical assistance to policymakers and other stakeholders in California for over 20 years. CRS also administers the Green-e® programs. For over 25 years, Green-e® has been the leading independent certification for voluntary renewable electricity products in North America. In 2024, Green-e® certified retail sales of nearly 143 million megawatt-hours (MWh), serving nearly 1 million retail purchasers of Green-e® certified renewable energy, including approximately 80,000 businesses.⁹¹

I. Primary Recommendation

CRS recommends that CARB incorporate into final regulatory text a bounded, cost-controlled set-aside of 5.5 million allowances from the 2025–2030 annual budgets to replenish the Voluntary Renewable Electricity (VRE) Reserve Account.

The VREP was established to ensure that voluntary renewable electricity purchases could deliver emissions reductions under California’s mass-based cap. The current proposal does not replenish the VRE Reserve Account. As the existing reserve is depleted, the mechanism designed to preserve the emissions impact of voluntary procurement will no longer function. Restoring this structural feature would be consistent with the foundational regulatory design and longstanding operational practice and is necessary to maintain the integrity of voluntary climate action within the Cap-and-Invest framework.

II. Structural Role of the VREP Under a Mass-Based Cap

The VREP was established as a structural feature of California’s mass-based Cap-and-Invest program to address a core design dynamic: under a fixed cap, voluntary renewable generation displaces emitting resources at the facility level but does not reduce aggregate emissions unless associated allowances are retired.

CARB recognized this at program inception and created the VRE Reserve Account to ensure that voluntary renewable electricity procurement could result in allowance retirement and corresponding reductions under the cap. The VREP is therefore not a

⁹¹ For more information, the 2025 (2024 Data) Green-e® Verification Report will be available here soon: <https://www.green-e.org/verification-reports>

discretionary allocation mechanism; it is an environmental integrity safeguard embedded in the original regulatory design.

The program's documentation, REC retirement, and attestation requirements were deliberately structured to ensure that allowance retirement reflects verified, exclusive renewable generation and prevents double counting.

Absent a functioning VRE Reserve Account, voluntary renewable procurement is simply absorbed within the cap, and voluntary buyers cannot ensure their actions produce incremental reductions beyond compliance obligations. Eliminating the VREP does not strengthen the integrity of the cap; it removes the mechanism specifically designed to allow voluntary actors to reduce emissions below the cap through allowance retirement.

While the cap determines aggregate emissions, the relevant policy question before the Board is whether voluntary renewable electricity purchases should continue to reduce emissions under the cap or simply free allowances for compliance use by covered entities.

Without allowance retirement:

- Voluntary renewable electricity displaces fossil generation;
- Emissions decline at specific facilities;
- Unused allowances remain available for compliance use elsewhere.

With allowance retirement:

- Voluntary renewable electricity displaces fossil generation;
- Corresponding allowances are retired;
- The number of allowances available for compliance declines, and the emissions reductions associated with voluntary renewable electricity remain permanent.

The cap constrains maximum emissions. The VREP determines whether voluntary renewable electricity procurement reduces the number of allowances available to emitters or is simply absorbed within the cap.

III. Recommended Set-Aside: Structure and Scale

CRS recommends a fixed total set-aside of 5.5 million allowances over the 2025–2030 period.

This amount reflects staff's previously analyzed concept described in the Standardized Regulatory Impact Assessment (SRIA)⁹² and related discussions.

⁹² California Air Resources Board. Appendix C: Standardized Regulatory Impact Assessment (SRIA), Department of Finance Comments, and CARB Responses – Proposed Amendments to the Cap-and-Invest Regulation. 2026 Rulemaking Record. Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc-Appendix%20C%20-%20SRIA,%20DOF%20Comments,%20CARB%20Responses.pdf

The proposed allocation is:

- Bounded and predictable;
- Limited in scale relative to overall allowance budget;
- Sufficient to preserve voluntary renewable electricity impact during the current budget period; and
- Consistent with the historical design of the VREP.

At approximately 1.1 million allowances per year, the proposed allocation represents a small share of annual allowance budgets during this period. It restores program functionality and voluntary market impact without creating open-ended exposure or automatic expansion tied to future voluntary demand.

IV. Cost and Auction Revenue Considerations

While allowances retired for the VREP could otherwise be auctioned, generating revenue for the Greenhouse Gas Reduction Fund (GGRF), an increase in auction volume does not necessarily translate one-for-one into increased revenue because allowance prices adjust in response to changes in supply and demand.

The VREP affects both sides of the allowance market:

- The proposed set-aside reduces allowance supply available for auction;
- Voluntary renewable electricity purchases reduce allowance demand by displacing covered emissions that would otherwise require compliance allowances.

These effects offset one another. The proposed 5.5 million allowance set-aside represents a small share of total allowance budgets over the 2025–2030 period. Any revenue impact must therefore be understood within the context of equilibrium price adjustments across the broader allowance market. The VREP reallocates who funds emissions reductions — voluntary purchasers or compliance entities — but does not weaken the cap and does not necessarily reduce total auction proceeds.

Framing the VREP as a tradeoff between allowance retirement and funding for emissions reduction programs can therefore be misleading. In practice, both pathways result in emissions reductions: allowances retired through the VREP reduce emissions directly by lowering the number of allowances available under the cap, while auction revenue supports programs intended to reduce emissions through public investments. The relevant distinction is not whether emissions reductions occur, but how they are achieved and financed. Allowance retirement through voluntary renewable electricity procurement delivers verified reductions funded by voluntary market participants, complementing rather than substituting for publicly funded climate programs.

V. Affordability and Budget Constraints

The recommended 5.5 million allowance set-aside is modest relative to total budget volumes over 2025–2030 and was previously characterized as having only a small

indirect compliance cost effect. Because the proposal is capped at a fixed total amount, it provides cost certainty and avoids open-ended fiscal exposure.

Voluntary renewable electricity procurement has historically complemented California's clean energy policies by supporting project development, accelerating renewable deployment, and enabling leadership beyond regulatory mandates. Preserving this complementary role strengthens long-term climate ambition without weakening the integrity of the cap.

VI. Conclusion

The VREP was designed and implemented to ensure that voluntary renewable electricity purchases could reduce emissions under California's Cap-and-Invest program. The current proposal does not maintain that mechanism. A fixed 5.5 million allowance set-aside for 2025–2030 represents a measured, cost-controlled, and environmentally necessary correction. It restores a core structural feature of the program, preserves environmental integrity, and maintains confidence in voluntary climate action.

CRS respectfully urges CARB to incorporate this bounded set-aside into the final regulation.

Monday, May 4, 2026

California Air Resources Board 1001 I Street

Sacramento, CA 95814

Re: Preserving the Emissions Impact of Voluntary Renewable Electricity under the Cap-and-Invest Program

Dear Chairman Sanchez and Members of the Board:

The undersigned organizations write to express concern that the proposed amendments to California's Cap-and-Invest Regulation would eliminate the ability of voluntary renewable electricity purchases to reduce emissions under the cap.

For voluntary renewable electricity markets, delivering real and additional emissions reductions is a widely recognized measure of impact and a core expectation of buyers, consumers, and program participants. Under a mass-based cap, this impact is preserved only when voluntary renewable electricity procurement is accompanied by allowance retirement or an equivalent mechanism. Absent such a mechanism, voluntary purchases are absorbed as surplus and no longer reduce total emissions.

We are concerned that the proposed amendments do not provide additional allowances to the Voluntary Renewable Electricity (VRE) Reserve Account or otherwise maintain a pathway for voluntary renewable electricity to deliver emissions reductions under the cap. As a result, voluntary renewable purchases in California risk losing their environmental impact and credibility, discouraging voluntary investment that has historically complemented California's clean energy policies.

We recognize that CARB is balancing important considerations in this rulemaking, including a shrinking allowance budget and affordability concerns. In that context, we respectfully recommend that CARB adopt the approach previously analyzed by staff: a modest, bounded set-aside of approximately 5.5 million allowances over the 2025–2030 period for voluntary renewable electricity.

This approach would:

- Provide cost control and budget certainty by establishing a clear, limited allowance amount;
- Be sufficient to cover anticipated voluntary renewable electricity activity during the current budget period; and
- Preserve the emissions impact and integrity of voluntary renewable electricity without materially undermining the cap or affordability objectives.

We respectfully urge CARB to incorporate this limited set-aside into the final regulation to ensure that voluntary renewable electricity continues to deliver meaningful emissions reductions and to maintain confidence in California’s clean energy leadership. (15d-102)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments N-1.3b and N-1.1b in the Cap-and-Invest FSOR.

Comment: The California Community Choice Association (CalCCA)⁹³ appreciates the opportunity to provide comments on the California Air Resources Board’s (CARB) proposed 15-Day Amendments to the California Cap on Greenhouse Emissions and Market-Based Compliance Mechanisms (15-Day Amendments).⁹⁴ CalCCA’s community choice aggregator (CCA) members are local, not-for-profit load-serving entities (LSE) that procure energy on behalf of their communities.⁹⁵ Collectively, CCAs serve more than 15 million Californians and play a critical role in the State’s greenhouse gas reduction and clean energy goals.

⁹³ California Community Choice Association represents the interests of 24 community choice electricity providers in California: Apple Valley Choice Energy, Ava Community Energy, Central Coast Community Energy, Clean Energy Alliance, Clean Power Alliance of Southern California, CleanPowerSF, Desert Community Energy, Energy For Palmdale’s Independent Choice, Lancaster Energy, Marin Clean Energy, Orange County Power Authority, Peninsula Clean Energy, Pico Rivera Innovative Municipal Energy, Pioneer Community Energy, Pomona Choice Energy, Rancho Mirage Energy Authority, Redwood Coast Energy Authority, San Diego Community Power, San Jacinto Power, San José Clean Energy, Santa Barbara Clean Energy, Silicon Valley Clean Energy, Sonoma Clean Power, and Valley Clean Energy

⁹⁴ See CARB Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information, Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (Apr. 14, 2026), Attachment A-1; see also CARB Notice of Comment Period Extension (Apr. 28, 2026) (extending comment period to May 4, 2026)

⁹⁵ While the CCA procures electricity on behalf of its customers, the region’s existing investor-owned utility (IOU) continues to deliver the power to customers

CalCCA respectfully requests that if CARB adopts the 15-Day Amendments, it carve out an exemption to allow continued use of the Renewables Portfolio Standard (RPS) Adjustment through December 31, 2030, for Portfolio Content Category (PCC) -2 transactions in which the importer can demonstrate that the underlying contract was executed prior to the 15-Day Amendments.⁹⁶ The 15-Day Amendments revise Section 95852(b)(4)(F) to accelerate the sunset of eligibility for PCC-2 transactions to use the RPS Adjustment from December 31, 2030, to December 31, 2026.⁹⁷ This accelerated timeline represents a significant and abrupt departure from the framework set forth in the original 45-Day Amendments, which provide for the 2030 sunset. As CARB recognized in its Initial Statement of Reasons, providing regulated entities with “certainty and time to respond” to changes in eligibility for the RPS Adjustment is essential.⁹⁸ This change risks adversely affecting contracts executed in good faith prior to the 15-Day Amendments. These contracts may have been structured with the expectation that PCC-2 transactions would remain eligible for the RPS Adjustment. Accelerating the sunset to 2026 would retroactively alter the value and compliance treatment of these transactions, creating regulatory uncertainty and undermining contract stability.

To address these concerns, CalCCA recommends that if CARB adopts the 15-Day Amendments, it carve out an exemption to allow continued use of the RPS Adjustment through December 31, 2030, for PCC-2 transactions in which the importer can demonstrate that the underlying contract was executed prior to the 15-day Amendments. This limited exemption will protect reasonable reliance interests and contractual expectations. (15d-110)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment L-1.4b in the Cap-and-Invest FSOR.

Comment: The Nature Conservancy (TNC) writes to provide comments on the 15-day Amendments to the Regulations for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms.

⁹⁶ The importer can make such a demonstration by providing a contract dated within the eligibility window, with an attestation at the first RPS Adjustment claim

⁹⁷ Subsection (F) states that “RECs representing electricity generated during January 1, 2013 through December 31, 2030 [proposed to be changed to 2026 in the 15-Day Amendments], are eligible to be used towards the RPS adjustment. RECs representing electricity generated after December 31, 2030 [proposed to be changed to 2026 in the 15-day Amendments], must meet the requirements of California Public Utilities Code section 399.16(d) and if applicable section 399.30(c)(3) to be eligible for the RPS adjustment.” California Public Utilities Code section 399.16(d) refers to legacy contracts executed prior to June 1, 2010, known as PCC-0s. PCC-2 contracts (“firmed and shaped” transactions, or renewable electricity generated out of state with substitute unspecified imports delivered into California) currently are eligible for the RPS Adjustment. The 15-Day Amendments remove that eligibility, earlier than previously proposed (*i.e.*, now 2026 instead of 2030)

⁹⁸ CARB, *Staff Report: Initial Statement of Reasons* (Jan. 20, 2026), at 54

TNC is a science-based organization that works worldwide to deliver conservation solutions that benefit both people and nature. Our mission is to conserve the lands and waters upon which all life depends, and climate change is a leading threat to this mission. For the past two decades, we have been applying our science, policy, and economic expertise to advance nature as a climate solution. We have been working on the Cap-and-Invest Program (formerly known as the Cap-and-Trade Program) since its inception and have engaged in public processes to provide our policy and scientific expertise in support of the Program. Last year, we advocated for the reauthorization of the Cap-and-Invest Program and engaged with the Administration and Legislature to ensure the extension of this important Program. We strongly support the State's ambitious 2030 and 2045 climate goals and believe that the Cap-and-Invest Program is a crucial tool to meet them.

With this in mind, we offer the following constructive comments in response to the California Air Resource Board's (CARB) 15-Day Amendments to the Program:

TNC supports the suggested changes in the sequestration offset provisions for clarity and suggests guidance be developed in the future to clarify how liability may be assigned among forest owners

TNC appreciates CARB's efforts to provide further clarifications to the sequestration offset provisions. Overall, they provide the direction needed in areas that were confusing or inconsistent. The adjustments to the language in section 95975.1(c) that clarify that liability for lack of adherence to the notice and disclosure requirements applies to forest project owner(s), and not just Offset Project Operators, highlights the need and opportunity for additional guidance on how forest owners may assign liability for offset responsibilities when there is more than one forest owner currently or in the future. We encourage CARB to consider including this kind of guidance in future regulatory proceedings and updates to the offset protocols.

TNC requests that CARB fully consider options to ensure that the Manufacturing Decarbonization Incentive (MDI) does not compromise the cap and attainment of the State's 2030 greenhouse gas reduction goal

TNC supports the Cap-and-Invest Program as a market-based approach and tool to reduce greenhouse gas emissions (GHG) cost effectively, and we appreciate CARB's adherence to this principle. The legislative package enacted in 2025 to reauthorize the Cap-and-Invest Program includes direction to CARB to update the Program to ensure that it reduces greenhouse gas emissions, prioritizes affordability, maximizes cost effectiveness, mitigates emissions leakage, and avoids adverse impacts on industrial competitiveness. We acknowledge the complexity of this task, particularly amidst federal uncertainty and volatile market conditions, and we appreciate CARB staff's efforts to balance these priorities.

We recognize that the intent of the Manufacturing Decarbonization Incentive (MDI) is to serve as a tool to support cost effectiveness and encourage covered entities to invest in decarbonization technologies and activities to accelerate emission reductions. At the

same time, recent analyses⁹⁹ of the MDI by the Environmental Market Lab at University of California Santa Barbara suggest that this mechanism, if fully utilized, could undermine the State's 2030 goals by adding additional emissions allowances beyond the 2030 cap, and could significantly reduce Cap-and-Invest auction revenue that could fund important activities, such as nature-based solutions and wildfire resilience, through the Greenhouse Gas Reduction Fund. A range of suggestions have been offered to address this issue, including the addition of a requirement that utilization of the MDI be contingent on achievement of verified GHG reductions.¹⁰⁰ We ask CARB to consider these options fully to ensure that the Cap-and-Invest Program remains an effective backstop for achieving the State's GHG goals and continues to provide funding to support investments in wildfire resilience.

Additionally, we acknowledge CARB's commitment to monitor, evaluate, and report publicly on the use of the proposed MDI and statewide emissions trends to ensure that the State remains on track to achieve our climate targets.¹⁰¹ If the regulatory amendments ultimately include the use of the MDI and should usage of the MDI approach a level that could compromise California's achievement of our 2030 GHG goals, we urge CARB to make regulatory adjustments to the Cap-and-Invest Program to ensure the State meets our 2030 goal. (15d-119)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-8.38a and T-3.6 in the Cap-and-Invest FSOR.

Comment: On behalf of American Farmland Trust (AFT), California Farmland Trust (CFT), and California Farm Bureau (CAFB), we write regarding the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms, released by the California Air Resources Board (CARB) on April 14, 2026. We understand the Proposed Amendments will be considered at CARB's May 28–29, 2026 meeting, and we have concerns with how they are currently drafted.

We respectfully urge CARB to revise the Proposed Amendments and pause further action on changes of this scale. Any revisions to the Proposed Amendments should remain consistent with the legislative intent and parameters established in SB 840, including preserving stable, reliable funding for the Sustainable Agricultural Lands Conservation (SALC) Program, which has historically been supported through the

⁹⁹ Meng, Kyle and Wingenroth, Jordan. "Potential Lost Cap-and-Invest Revenue Under the Manufacturing Decarbonization Incentive" Environmental Markets Lab, UC Santa Barbara April 2026, [https://emlab.ucsb.edu/sites/default/files](https://emlab.ucsb.edu/sites/default/files/documents/2026_capinvest_manufacturing_decarbonization_incentive.pdf)

[documents/2026_capinvest_manufacturing_decarbonization_incentive.pdf](https://emlab.ucsb.edu/sites/default/files/documents/2026_capinvest_manufacturing_decarbonization_incentive.pdf)

¹⁰⁰ Fowlie, Meredith. "A Stress Test for California Carbon Pricing" Energy Institute Blog, April 27, 2026, <https://energyathaas.wordpress.com/2026/04/27/a-stress-test-for-california-carbon-pricing/>

¹⁰¹ CARB (2026). "Manufacturing Decarbonization Incentive Fund – Frequently Asked Questions". https://ww2.arb.ca.gov/sites/default/files/2026-04/nc-MDIF%20FAQ_April%202026.pdf

Strategic Growth Council's Affordable Housing and Sustainable Communities (AHSC) Program.

Together, these programs represent a coordinated approach to managing smart growth, strengthening local economies, and supporting both rural and urban communities.

The SALC program is the third most cost-effective greenhouse gas reduction program in the state, out of 115 programs funded through GGRF. SALC is responsible for 15% of the GGRF's total emission reductions despite historically receiving only 2% of its funding. SALC is a cornerstone investment in rural economic stability. By funding agricultural conservation easements, fee acquisitions, local planning, and land protection strategies, SALC helps keep farmers and ranchers on the land and supports the long-term viability of California agriculture. These investments:

- Sustain agricultural production and the jobs that depend on it
- Provide landowners with financial tools to remain in business
- Support land trusts and local governments working to protect working lands
- Reduce pressure for scattered development that increases infrastructure costs for counties

Since 2015, the SALC Program has received 10% of funding from the AHSC account to help meet one of AHSC's statutory goals of protecting agricultural lands in support of infill and compact development. In 2025, California enacted SB 840, which allocated \$800 million to the AHSC account at the Strategic Growth Council; under the prior agreement, this would have allocated \$80 million to SALC. However, SALC funding remains subject to annual uncertainty, which limits participation and long-term planning. The success of AHSC is directly connected to SALC's ability to prevent farmland and ranchland conversion at the urban edge, ensuring that housing growth occurs in a more coordinated and cost effective manner.

The SALC Program continues to be oversubscribed: in 2025 alone, the program invested more than \$130 million to support 47 projects statewide. With more than \$212 million in applications submitted, demand continues to far outpace available funding. The amount of SALC funding needed to meet demand will continue to increase as farm real estate prices around many of the state's urban and peri urban centers experience rapid appreciation, outpacing the ability of farmers and conservation programs to compete.

We are concerned that elements of the Proposed Amendments—particularly provisions that may rapidly reduce available revenues, including the proposed Manufacturing Decarbonization Credit (MDI)—will erode the long-term stability of funding for essential GGRF programs that support agriculture and working lands, such as the SALC Program. Without a clear commitment to ongoing investment, the state risks constraining affordable housing projects and limiting long-term planning for agriculture in California's rural communities.

For rural communities, inconsistent SALC funding creates real challenges: landowners are less likely to pursue conservation projects, local governments face uncertainty in planning, and land trusts are unable to build long-term pipelines of projects.

On behalf of AFT, CFT, and CAFB, we urge CARB to revise the Proposed Amendments and respectfully request that the Board consider changes aligned with the legislative scope outlined in SB 840, including actions to:

- Ensure stable, continuous funding for SALC
- Recognize the role of working lands conservation as a key component of the state's overall land use and economic strategy
- Avoid changes that would diminish the reliability of funding for this proven program

Thank you for your consideration and for your leadership in ensuring that the SALC program and the agricultural sector receive stable, reliable GGRF funding so that farmers and ranchers can remain in agricultural production. (15d-123)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3b in the Cap-and-Invest FSOR.

Comment: PacifiCorp d/b/a Pacific Power (PacifiCorp or Company) respectfully submits the following comments in response to the California Air Resources Board's (CARB) Initial Statement of Reasons (ISOR) for the Proposed 2026 Amendments to the Cap-and-Invest Regulation and Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions.

I. Background and unique characteristics of PacifiCorp

PacifiCorp serves approximately two million customers in six western states (California, Idaho, Oregon, Utah, Washington, and Wyoming), including approximately 49,000 retail customers in California. CARB distributes no-cost allowances to PacifiCorp commensurate with the Company's service of California retail electric customers. PacifiCorp is a covered entity under the Cap-and-Invest program as a California investor-owned electric utility and as an importer into the state through the Energy Imbalance Market (EIM). PacifiCorp is a committed participant in the California Independent System Operator's (CAISO) Extended Day-Ahead Market (EDAM), with a go-live date scheduled for May 1, 2026.

II. PacifiCorp encourages CARB to use an allocation methodology for PacifiCorp that recognizes its unique circumstances and compliance obligations as a small, multistate utility

PacifiCorp strongly encourages CARB to modify the allowance calculation to more accurately forecast the Company's expected allowance obligation and minimize – if not eliminate – costs to retail electricity customers. The ISOR's proposed 2027-2030 allocation adjusts PacifiCorp's allowance calculation methodology, and the new

methodology ignores the unique circumstances and compliance obligations of multistate utilities serving load in California - like PacifiCorp.

CARB's electric distribution utility (EDU) allocation methodology document notes that PacifiCorp's proposed allocation calculation now follows the same methodology as all other EDUs, but did not provide a reason for the change away from PacifiCorp's unique allocation methodology.¹⁰² PacifiCorp's unique methodology exists – and should continue to exist – due to the unique circumstances and compliance obligations of the Company, none of which have changed since the 2016 allocation.

PacifiCorp presents the following three recommendations to CARB to modify the Company's allowance calculation to properly reflect PacifiCorp's future compliance obligation. PacifiCorp strongly recommends the adoption of all three proposals.

a. Utilize PacifiCorp's most recent Integrated Resource Plan

PacifiCorp appreciates CARB's continued recognition of PacifiCorp's differing procurement processes by utilizing the Company's Integrated Resource Plan (IRP) as the basis for its allowance calculation. However, CARB should use the Company's IRP released in 2025 ("2025 IRP") or the forthcoming update ("2025 IRP Update") as the basis for the Company's allowance allocation as they are the most recent – and accurate – information available on PacifiCorp's forecasted generation mix.

Every two years, PacifiCorp produces a single IRP for its six-state system that determines resource and system needs for the planning horizon that satisfies the requirements of each of its state utility commissions. The full IRP planning process is completed every two years with an IRP Update completed in years the Company does not produce a full IRP. The Company's IRP is no simple exercise; the IRP is a constant operation to compile, analyze, and update inputs that includes a robust opportunity for stakeholders to submit data requests, ask questions, and attend public workshops.

In the proposed allowance allocation table, CARB utilized the Company's 2023 IRP Update released in 2024 ("2023 IRP Update") to calculate the Company's future allowance allocation. Data in this IRP is more than three years old and is a less reliable forecast than the Company's 2025 IRP or forthcoming 2025 IRP Update. The 2025 IRP includes a revised generation mix for all states, including California, that significantly deviates from the 2023 IRP Update's projected energy mix. The 2025 IRP was filed at the California Public Utility Commission (CPUC) last year and has been the basis for the Company's CPUC compliance requirements,¹⁰³ including the Commission's IRP filing requirements and forecasted RPS compliance (detailed further below).¹⁰⁴ Compared to the 2023 IRP Update, the 2025 IRP includes changes to the Company's resource fleet, which in turn impact the Company's Cap-and-Invest emissions obligation. The 2025 IRP

¹⁰² Appendix D-1, Updated 2027-2030 and Post-2030 Allowance Allocation to Electrical Distribution Utilities, p. 5

¹⁰³ R.24-01-017, PacifiCorp 2025 Integrated Resource Plan, April 1, 2025, <https://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=560829356>

¹⁰⁴ R.24-01-017, 2025 On-Year Supplement To Its 2025 Integrated Resource Plan, January 26, 2026, <https://docs.cpuc.ca.gov/SearchRes.aspx?DocFormat=ALL&DocID=560829356>

is a more accurate and current reflection of the resources PacifiCorp expects to serve its retail customers in 2027 and beyond.

PacifiCorp expects to file a 2025 IRP Update on March 31, 2026, which will provide a revised forecasted resource mix. However, given the current rulemaking timeline, PacifiCorp recognizes that it may not be feasible for CARB to incorporate the 2025 IRP Update into an updated allocation.

CARB's electric distribution utility (EDU) methodology document notes that the agency relied on the "most recent" information from the California Energy Commission and industrial covered entities to calculate the allowance allocations¹⁰⁵ It is only logical that CARB would use the most recent information to calculate PacifiCorp's allocation as well, which further supports using the 2025 IRP or 2025 IRP Update over the 2023 IRP Update.

Lastly, CARB's reliance on the 2023 IRP Update over the 2025 IRP and 2025 IRP Update will result in a significantly lower allowance allocation for PacifiCorp's customers, which directly raises costs. CARB should utilize the 2025 IRP or 2025 IRP Update to ensure customers do not pay the price of relying on outdated data.

CARB should use the 2025 IRP or 2025 IRP Update as the basis for the Company's allowance allocation as that is the most recent – and accurate – information available on PacifiCorp's forecasted generation mix, creating a more accurate allowance allocation that more closely resembles the expected compliance obligation the Company will face to serve its retail customers.

b. Recognize modified reporting requirements for small and multistate utilities under the Renewable Portfolio Standard

CARB should adjust PacifiCorp's Renewable Portfolio Standard (RPS) Adjustment Factor Applied to Sales to accurately reflect the resources and emissions PacifiCorp expects to serve its California retail load with.

In the EDU Allocation Methodology, CARB states that "for each year during 2021-2030, 5% was subtracted from that year's expected RPS procurement to represent other electricity used to 'firm and shape' zero-emissions electricity."¹⁰⁶ Further, the Post-2030 allocation also includes this 5% non-zero emission reduction as part of the maximum electricity generated by natural gas. However, both the 2027-2030 and post-2030 methodology fail to account for all ways EDUs comply with the RPS, some of which carry emission obligations.

The ISOR notes the importance of recognizing the emissions associated with RPS compliance and, "the costs associated with RPS Program compliance for importers of

¹⁰⁵ Appendix D-1, Updated 2027-2030 and Post-2030 Allowance Allocation to Electrical Distribution Utilities, p. 4

¹⁰⁶ Appendix D-1, Updated 2027-2030 and Post-2030 Allowance Allocation to Electrical Distribution Utilities, p. 4

electricity.”¹⁰⁷ However, this recognition does not translate to the allowance allocation methodology for all EDUs. The ISOR does not reference or deliberate the importance of PCC-3 unbundled RECs for small or multistate utilities.

Public Utilities Code Section 399.17(b) allows small and multistate utilities like PacifiCorp to meet RPS procurement requirements “notwithstanding any procurement content limitation in Section 399.16.” Section 399.17(b) was confirmed by the CPUC in D.11-12-052, where the Commission concluded that PacifiCorp is “not subject to the requirements and limitations [on] the use of procurement in each portfolio content category.”¹⁰⁸ PacifiCorp can satisfy the entirety of its RPS procurement requirements using any Portfolio Content Category (“PCC”) category, including PCC-3, which allows the use of unbundled renewable energy credits (“RECs”). However, when PacifiCorp uses PCC-3 unbundled RECs to meet its RPS compliance obligation, the underlying electricity serving customers will typically carry an emission obligation. CARB did not recognize this unique compliance pathway for PacifiCorp’s in the ISOR or the allocation methodology appendix.

PacifiCorp appreciates the complexity around the RPS Adjustment and CARB’s aim to allocate an accurate number of no cost allowances. In spite of that, the Company does not use the RPS Adjustment because PacifiCorp serves its California customers with energy from its Balancing Area Authority, allocates energy and resources based on a cost-allocation methodology, and does not operate its system in a way that meets CARB’s definition of “directly delivered electricity.”¹⁰⁹ PCC-3 RECs do not present the implementation challenges associated with the RPS Adjustment identified in the ISOR.¹¹⁰ PacifiCorp retires its PCC-3 RECs before submitting its annual RPS compliance report to the CPUC, ensuring the Company cannot claim PCC-3 REC usage without completing corresponding retirements. Further, PCC-3 RECs are subject to long-term procurement requirements to ensure a utility is appropriately planning its RPS compliance. Therefore, PacifiCorp’s use of PCC-3 RECs for RPS compliance, subject to long-term procurement requirements, provides the CPUC, and CARB, with a level of certainty regarding PacifiCorp’s planned reliance on PCC-3 RECs as a RPS compliance pathway.

Per PacifiCorp’s most recent RPS compliance report, 36% of RECs retired for 2021-2024 RPS compliance were unbundled RECs and 30% of RECs expected to be retired for 2025-2027 RPS compliance will be unbundled RECs.¹¹¹ The updated EDU allocation methodology provides a 5% reduction in the RPS Factor, but PacifiCorp would need this reduction to be increased to 15% to match the unbundled PCC-3 RECs the Company used for RPS Compliance Period 4 and forecasts to use for Compliance Period 5.

¹⁰⁷ ISOR, p. 54

¹⁰⁸ D.11-12-052, p. 63; see also Conclusion of Law 23 and Ordering Paragraph 16

¹⁰⁹ California Air Resources Board, *Reporting and Verification Guidance for RPS Adjustment Claims for California’s Mandatory GHG Reporting Program* (Mar. 15, 2019)

¹¹⁰ ISOR, p. 54-55

¹¹¹ R. 24-01-017, PacifiCorp 2024 Preliminary Annual RPS Compliance Report Redacted, p. 19

Further, CARB's Post-2030 allocation calculation assumes that all zero-carbon trajectory resources will be met with zero-emission electricity. However, this is not certain as the CPUC has not determined Reliable and Clean Power Procurement Program (RCPPP) compliance, which may or may not include a Clean Energy Standard on top of the RPS. PacifiCorp and others filed comments requesting RPS procurement requirements enshrined in Public Utilities Code Section 399.17(b) also apply to the RCPPP.¹¹² While it is impossible to know the outcome at this time, the prudent approach would be for CARB not to assume all these obligations will be met with zero-emission energy and allocate allowances to better protect customers in small service areas that could see large cost swings based on the outcome of the RCPPP.

PacifiCorp has three potential remedies to correct this issue: 1) adjust PacifiCorp's RPS Factor Applied to Sales to mimic PacifiCorp's actual renewable energy procurement forecast in its 2025 IRP; 2) use the existing allocation methodology, which relies on IRP data for expected renewable energy used to serve customers or 3) increase the RPS Factor Applied to Sales reduction from 5% to 15% to better reflect PacifiCorp's expected emissions obligation using the Company's most recent RPS Forecast.

PacifiCorp also supports a fourth remedy proposed by the California Joint Utilities Group, which proposes CARB maintains the existing 2027-2030 allocation with some adjustments that includes increasing the 5% non-zero emission reduction.

c. Utilize emission factors for resources that actually serve PacifiCorp's California customers

CARB's EDU methodology document uses static emission factors to calculate expected obligations from coal and natural gas emissions. However, PacifiCorp serves its six-state system and customers with its own coal and natural gas generation and those resources may have higher emission factors than those listed in the methodology document.

For example, CARB uses Intermountain Power Plant's (IPP) emissions factor to calculate anticipated coal emissions, and thus allowances, in the allowance calculation spreadsheet. PacifiCorp does not purchase specified coal generation from IPP and PacifiCorp's owned coal generation emission factors are significantly higher than CARB's calculated IPP emission factor. Eight of PacifiCorp's 10 coal generation facilities that served California customers in 2024 had higher emission factors than IPP emission factor,¹¹³ some with emission factors 30% higher.

PacifiCorp understands the value of the simplicity of CARB's approach in applying a static emission factor. However, out of the 54 EDUs allocated no cost allowances in the proposed allocation table, PacifiCorp is one of only two entities forecasting coal generation in its fleet and the other entity has one-tenth the retail sales in comparison.

¹¹² CPUC RM 20-05-003, Joint Comments of Liberty Utilities (CalPeco Electric) LLC (U 933 E) And PacifiCorp (U 901 E) on the Reliable and Clean Power Procurement Program Staff Proposal, July 15, 2025

¹¹³ See emission factors for Colstrip, Craig, Dave Johnston, Gadsby, Hayden, Hunter, Huntington, Jim Bridger, Naughton, Wyodak. 2024 MRR, Workbook ONE, EF List Tab

Therefore, PacifiCorp is the most impacted by this static emission factor and CARB should choose an emission factor that most closely mirrors the resources expected to serve California customers, especially given the negligible impact it would have on other EDU allocations. PacifiCorp does not believe customers should have their allowance allocation shortchanged because static emission factors were not adjusted to reflect the actual resources PacifiCorp uses to serve its customers.

CARB should adjust PacifiCorp's coal emission factors in the Company's allowance allocation to match the Company's coal emission factors. A simple average of PacifiCorp's fleet is the most straightforward approach, or the Company can supply IRP data on how much energy from each facility the Company expects to serve California customers, which allows CARB to create a more accurate weighted average.

III. PacifiCorp supports CARB's approach to transition allowances from natural gas allowances to EDUs.

PacifiCorp supports CARB's approach to transition natural gas allowances to EDUs starting with vintage 2029 allowances. As mentioned in prior comments,¹¹⁴ PacifiCorp has many customers reliant on fossil fuels like propane or oil to heat their homes. This allowance transition would help lower the cost of electricity and further incentivize electrification for customers to heat their homes with heat pumps or drive electric vehicles. PacifiCorp also appreciates the straightforward distribution approach to spread allowances to all EDUs. While there could be benefits to evaluating different distribution criteria, this straightforward approach allows CARB to begin the transition with vintage 2029 allowances, speeding up electric investments that otherwise may be delayed due to a lengthy re-allocation process.

V. PacifiCorp supports CARB's corporate association trigger rules, but recommends modifying the officer attestation to simplify compliance

PacifiCorp appreciates that CARB's new corporate association trigger (CAG) rules include an exemption for consultants or advisors who have neither legally binding authority over a registered entity nor decision making authority over an entity's specific market position. PacifiCorp and its many direct affiliates use their own consultants and advisors as the Cap-and-Invest program is a complex regulation. Covered entities regularly need assistance from consultants or advisors to help interpret rules and guidance, evaluate compliance instrument transactions, or assist with third-party verification. These consultants or advisors often help with the services listed in 95979(2)(b), including offset procurement, greenhouse gas emissions factors, or legal services, without knowing the entity's market position. This exemption allows covered entities to continue using their existing consultants or advisors that meet the proposed criteria while still maintaining program integrity and market efficiency.

The proposed rule requires the entity to apply for an exemption and submit an officer attestation that the consultant or advisor meets the qualifying criteria. PacifiCorp

¹¹⁴ PacifiCorp's Comments on CARB's October 29, 2025, Cap-and-Invest Program Workshop, November 12, 2025

recommends modifying the attestation to be an account representative attestation rather than an officer attestation. Account representatives are already trusted with attestations like the corporate association disclosure, and downgrading the officer attestation will reduce administrative burden. (45d-255)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments H-1.4, M-1.9, H-1.5, H-1.6, H-1.7, I-1.3, M-1.10, M-1.2, M-1.1 and H-17 in the Cap-and-Invest FSOR.

Comment: On January 20, 2026, Staff at the California Air Resources Board (CARB) released Notices of Public Hearing and Initial Statements of Reasons for proposed changes to CARB's Cap-and-Invest (previously Cap-and-Trade) Regulation and Regulation for the Mandatory Reporting of Greenhouse Gas (GHG) Emissions (also known as the Mandatory Reporting Regulation or MRR). The Public Generating Pool (PGP) is a trade association representing eight consumer-owned electric utilities in Washington and one in Oregon that own and operate their own generating resources, most notably hydroelectric generation facilities. Of PGP's member utilities, six are currently covered entities under Washington's Cap-and-Invest Program, and two are currently participating in the California Independent System Operator's (CAISO) Western Energy Imbalance Market (WEIM). PGP member utilities also make sales of electricity into California through the bilateral market. PGP appreciates the opportunity to offer public comment on the Proposed Amendments.

General Comments

PGP supported the passage of Washington's Climate Commitment Act (CCA) in 2021 and has been deeply engaged in the Department of Ecology's (Ecology) subsequent rulemakings implementing the Cap-and-Invest Program. PGP has long supported linkage of Washington's Cap-and-Invest Program with the linked California-Québec market on the basis that it is expected to: (1) Allow Washington to meet its statutory GHG emissions reduction targets at a lower cost to covered entities and their customers, and (2) create one shared, rather than two divergent, GHG price signals in both existing and developing Western energy markets. In the absence of linkage, there are scenarios under which Washington participants in Western energy markets face duplicative GHG compliance costs from both Washington and California for the same unit of energy.

Washington's program has been specifically designed to facilitate linkage, as directed by both the original text of the CCA and Ecology's 2024 agency-request linkage legislation, SB 6058. Ecology is currently in the process of developing rules under its Cap-and-Invest Program Updates and Linkage Rulemaking to further facilitate linkage. It is through the lens of linkage with the California-Québec market and PGP members' participation in Western energy markets that PGP respectfully offers the following comments.

Cap-and-Invest Regulation

Under CARB's existing Cap-and-Invest Regulation, compliance periods for the program are set for a period of three calendar years from 2020 onward. CARB Staff's Proposed Amendments change the duration of the compliance periods to align with California's statutory GHG emission reduction target years and are aligned with Québec's target years, as follows:

Compliance Period	Compliance Period Duration
6th Compliance Period	January 1, 2027 – December 31, 2028 (2 years)
7th Compliance Period	January 1, 2029 – December 31, 2030 (2 years)
8th Compliance Period	January 1, 2031 – December 31, 2033 (3 years)
9th Compliance Period	January 1, 2034 – December 31, 2035 (2 years)
10th Compliance Period	January 1, 2036 – December 31, 2038 (3 years)
11th Compliance Period	January 1, 2039 – December 31, 2040 (2 years)
12th Compliance Period	January 1, 2041 – December 31, 2043 (3 years)
13th Compliance Period	January 1, 2044 – December 31, 2045 (2 years)

In considering the proposed changes to compliance period duration, PGP urges CARB to consider alternative approaches that avoid the need for two-year compliance periods in order to preserve the expected benefits of linkage for Washington's electric utilities who are covered entities. Instead of pursuing compliance periods that alternate between two and three years, PGP recommends that CARB maintain the current three-year compliance period approach, consistent with the Western Climate Initiative's (WCI) 2009 Design Recommendations for the WCI Regional Cap-and-Trade Program, of which both California and Washington State are signatories.¹¹⁵

Currently, Washington's Cap-and-Invest Program is organized by four-year compliance periods beginning January 1, 2023. As provided under SB 6058, if Ecology enters into a linkage agreement and the linked jurisdictions do not amend their rules to synchronize with Washington's compliance periods, then Ecology must amend its own rules to synchronize Washington's compliance periods with those of the linked jurisdictions. While PGP understands CARB's interest in aligning forthcoming compliance periods with California's statutory GHG emissions reduction target years, PGP finds that the

¹¹⁵ Western Climate Initiative. March 2009. Design Recommendations for the WCI Regional Cap-and-Trade Program. Retrieved from: <https://wcitestbucket.s3.us-east-2.amazonaws.com/amazon-s3-bucket/documents/en/wci-program-design-archive/WCI-DesignRecommendations-20090313-EN.pdf>

two-year compliance periods proposed by CARB could potentially eliminate one of the core benefits to Washington's current four-year approach: smoothing out the emissions and compliance costs associated with hydropower variability.

Because of Washington's rich hydropower landscape, electric utilities' compliance costs under the CCA are inversely correlated with the availability of water resources—i.e., low water years yield increased emissions associated with in-state emitting generation and unspecified market imports, thereby increasing compliance costs, while high water years yield reduced emissions associated with in-state emitting generation and unspecified market imports, thereby reducing compliance costs. A longer compliance period ensures that Washington electric utilities and their customers are not unduly “penalized” by back-to-back low water years. Should CARB decide to adopt Staff's proposal for compliance period sequencing, PGP strongly urges CARB to consult with Ecology, covered entities, and other stakeholders to identify alternative programmatic approaches that can enable linkage without ultimately requiring Washington to forego the benefits of its adopted compliance period structure, which was specifically designed to address the unique characteristics of hydropower variability in the Northwest. (45d-292)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments K-1.2 and G-1.2 in the Cap-and-Invest FSOR.

Comment: The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the California Air Resource Board's (CARB) proposed amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Invest) and the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR).¹¹⁶ SMUD is a local publicly owned electric utility (POU) serving approximately 673,000 customer meters, or a population of about 1.5 million, in Sacramento County and small adjoining portions of Yolo and Placer Counties. SMUD has established an ambitious goal of removing all greenhouse gas (GHG) emissions from its power supply by 2030, working within the guardrails of ensuring reliable and affordable electric service.

SMUD supports effective market-based compliance programs, such as Cap-and-Invest. Over the last decade, SMUD has reduced GHG emissions and reinvested millions of dollars in Cap-and-Invest allowance value into clean energy and GHG-reducing programs in its local region. With these comments, on behalf of its customers and community, SMUD raises serious concerns regarding the rescission of approximately 2.3 million allowances—valued between roughly \$75 million and \$150 million—from SMUD's current allocation. This rescission could have material impacts on SMUD's efforts to achieve carbon free power supply while maintaining affordable electric rates.

¹¹⁶ These comments address proposed revisions to both the MRR and Cap-and-Invest regulations and are filed concurrently in each docket

Because of the interrelated nature of the Cap-and-Invest and MRR programs, these comments respond to the proposed amendments to both regulations. SMUD's recommendations specific to Cap-and-Invest include:

- Preserving the 2027-2030 allocation for electric utilities to protect customers and avoid undermining the program's voluntary incentive structure.
- Support for continuing POU's ability to either deposit allowances for compliance or use allowance proceeds for GHG-reducing projects benefiting their customers.
- Using more accurate renewables portfolio standard (RPS) emissions assumptions to calculate 2031-2035 allowance allocations.
- Shortening the duration of the transition of natural gas allowances to electric utilities and support for CARB's proposal to provide implementation lead time for POU's.

SMUD also recommends changes that pertain to both MRR and Cap-and-Invest, including:

- Support for revisions to the outstanding emissions calculation, with additional clarification.
- Adding a mechanism for ex post revisions to outstanding emissions in response to accounting errors.
- Providing greater regulatory certainty for the treatment of carbon capture and sequestration (CCS) technology, including complete and accurate emissions accounting and attribution to electricity generating facilities and sequestration facilities.

These recommendations are detailed in the following pages.

I. Electric Distribution Utility (EDU) Allowance Allocations

EDU allocations have provided critical benefits for electricity ratepayers.

SMUD has long supported the Cap-and-Invest program as an important tool for reducing GHG emissions while protecting electric customers from program costs and supporting additional decarbonization efforts throughout the state. The existing program design allocates allowances to electric distribution utilities (EDUs) based on estimated future compliance needs. CARB intentionally designed a fixed 10-year allowance allocation schedule for EDUs in order to enable planning and provide an incentive for voluntary additional GHG reductions.¹¹⁷

¹¹⁷ See, for example, p. 39 of the [Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms, Final Statement of Reasons](#), dated August 2017, which explains: "Staff supports utilities' taking voluntary action to reduce GHG emissions from electricity generation. Given that EDU allowance allocation is based on cost burden, this is one of the reasons that ARB has opted to set fixed EDU allowance allocations for 2021-2030. *Any changes that utilities make to reduce GHG emissions will reduce their GHG costs while not changing their allocations, thus resulting in a net benefit.* This incentive is inherent to the Cap-and-Trade Program and applies in all sectors that see costs from the Program." (emphasis added)

For POU's like SMUD, allowances may be deposited for compliance—the costs of which would otherwise be borne by customers—or monetized and reinvested in renewable energy and GHG-reducing projects that benefit their customers. This design has been highly effective and has helped SMUD keep its rates low while increasing clean energy in its portfolio. SMUD estimates that, from 2021 to 2025, over \$400 million of Cap-and-Invest allowance value has directly benefited its customers. SMUD estimates its current 2027-2030 allocation will provide an additional value of approximately \$687 million for its customers by reducing costs of compliance and clean energy investments.

Maintaining affordable electricity rates is critical both for the wellbeing of Californians and to advance progress toward the state's economywide decarbonization goals – the chief strategy for which hinges on electrification. The Legislature clearly recognized the importance of electricity affordability, and preserving the Cap-and-Invest structures that support it, when reauthorizing the program. In Assembly Bill (AB) 1207 (Irwin, stats. 2025, ch. 117), the Legislature declared its intent for CARB to design the program in a manner that “maintains a safe, clean, affordable, and reliable electric system” and “continues elements of the current program that protect state utility ratepayers, encourages decarbonization of the state's economic sectors, and further enables Californians to affordably decarbonize and power their end uses.”¹¹⁸

The fixed EDU allocation schedule, along with POU's flexibility to optimize the allocation value for the benefit of their customers, has a direct impact on electricity affordability. At a time when costs are rising and many households and businesses struggle to afford energy bills, Cap-and-Invest presents the rare opportunity to provide downward pressure on electricity rates while also driving GHG emissions reductions – but only if regulatory changes do not erode these benefits.

SMUD opposes the proposed reduction of 2027-2030 EDU allocations, which would harm electricity affordability and undermine the program's market-based incentives.

CARB's proposed amendments to the Cap-and-Invest regulation would recalculate the EDU allocation midstream, and at significant cost to electric utility customers. For SMUD alone, the recalculated allocation schedule results in a cumulative loss of approximately 2.3 million allowances, or an estimated value of \$75 million to \$175 million,¹¹⁹ between 2027 and 2030 – value that SMUD will no longer have available to offset costs of compliance or renewable energy investments for its customers. SMUD estimates that the average annual impact of this change is equivalent to a 1 to

2.5 percent rate increase each year over the four-year period, challenging SMUD's ability to maintain affordable rates while further reducing GHG emissions.

SMUD opposes CARB's proposed updates to the electricity supply and demand forecasts used to calculate the EDU allocation. The Cap-and-Invest Initial Statement of

¹¹⁸ California Health and Safety Code (HSC), § 38501(b)(3)-(4)

¹¹⁹ This low end of this range assumes floor prices, and the high end is derived based on the “mid-range” price from Dr. Danny Cullenward's [May 8, 2025 presentation](#) to the Senate Environmental Quality Committee and Budget Subcommittee No. 2 on Resources, Environmental Protection, and Energy

Reasons (ISOR) justifies this change by noting that “[r]ecent information from the California Energy Commission indicates that the existing total 2027-2030 EDU allocation may provide more allocation relative to the Program cost burden but leave some utilities that have seen increases in demand with fewer allowances than they need to address Program cost burden.”¹²⁰

However, as described above, establishing a fixed 10-year allocation schedule based on forecasted future compliance costs was a policy decision to provide EDUs planning certainty and incentives for voluntary additional GHG reductions. Changing course before 2030 would effectively punish customers of utilities that made additional GHG reductions, increase regulatory uncertainty, and erode future confidence that incentives for voluntary action are reliable. Moreover, it would contravene the legislative direction in AB 1207 that CARB design the regulations in a manner that “encourages early action to reduce greenhouse gas emissions” and “continues elements of the current program design that protect state utility ratepayers, encourages decarbonization of the state’s economic sector, and further enables Californians to affordably decarbonize and power their end uses.”^{121,122} To the extent that CARB is concerned that some individual utilities with unexpected and significant load growth (e.g., due to data centers or significant transportation electrification) may be under-allocated, CARB should consider updates for just those individual utilities – without wholesale revisions to the allocation schedule that would harm customers of other utilities.

CARB confronted a similar issue during the 2016 Cap-and-Invest rulemaking, observing that, when allowances are allocated in advance based on projected load and resulting cost burden, there is a risk that allocations will be too high or low.¹²³ However, CARB elected to leave the 2013-2020 allocation schedule intact and incorporate updated forecast data into only the prospective 2021-2030 allowance allocation. SMUD urges CARB to take a similar approach within this rulemaking: retain the existing 2015 forecast data used to calculate the 2021-2030 allocation schedule for the remainder of the 2027-2030 period and incorporate the California Energy Commission’s (CEC) 2024 Integrated Energy Policy Report (IEPR) forecasts into the 2031-2035 allocation. While, as the 2026 Cap-and-Invest ISOR notes, CARB previously indicated its desire to revisit data to incorporate the effects of transportation electrification, the proposed wholesale revision of the IEPR supply and demand forecast data is broader than that original scope.¹²⁴ Moreover, notice of potential future action—which SMUD and the Joint Utilities

¹²⁰ See CARB, [Staff Report: Initial Statement of Reasons](#) (2026 Cap-and-Invest ISOR), dated January 20, 2026, at p. 50

¹²¹ HSC, § 38562(b)(1)(A)

¹²² HSC, § 38501(b)(4)

¹²³ See CARB, Attachment C, First Notice of Public Availability of 15-Day Amendment Text, Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation, 2021-2030 Allowance Allocation to Electrical Distribution Utilities, dated December 21, 2016, at p. 3. CARB reiterates this logic in the 2026 Cap-and-Invest ISOR, p. 50

¹²⁴ See 2026 Cap-and-Invest ISOR at p. 50

Group (JUG) have been advocating against for years—does not obviate the harm to ratepayers that may be caused by this action.¹²⁵

SMUD recognizes that limited updates to the EDU allocation may be warranted – for example, revising the Renewables Portfolio Standard (RPS) targets that are built into the cost burden calculation.¹²⁶ However, CARB can accomplish this update and mitigate impacts on electricity affordability by better aligning its calculation assumptions with RPS program requirements. While many RPS resources are GHG-free, some do have associated emissions (e.g., firmed-and-shaped imports from out of state). EDUs may therefore incur Cap-and-Invest compliance obligations for some RPS-compliant resources.

Currently, the allocation calculation assumes that EDUs must meet increasing RPS targets that culminate in 50 percent of retail sales by 2030, but then adjusts that assumption downward by 5 percent—resulting in an “effective” RPS of 45 percent. A 45 percent effective RPS implies that up to 10 percent of an EDU’s RPS-compliant generation may have associated emissions.¹²⁷ Use of an effective RPS enables EDUs to receive allowances to cover Cap-and-Invest compliance obligations for RPS-compliant resources. However, under RPS program requirements, up to 25 percent of RPS-compliant generation may have associated emissions – significantly higher than the current 10 percent assumption.¹²⁸ SMUD recommends, therefore, that when CARB updates the RPS targets used in the EDU allocation calculation, it should also recognize that 25 percent of RPS resources may have associated emissions and make conforming updates to the “effective” RPS (for example, adjusting from 60 percent in 2030 to 45 percent in 2030).¹²⁹ This, in turn, ensures that EDUs are allocated allowances to cover the full cost burden attributable to Cap-and-Invest.

SMUD recognizes that some firmed-and-shaped resources today use CARB’s RPS adjustment, an after-the-fact true-up for firmed-and-shaped imports, to address the partial misalignment between Cap-and-Invest emissions and RPS requirements.

¹²⁵ See, for example, the comments of the Joint Utilities Group (JUG) dated July 7, 2023; August 17, 2023; October 26, 2023; December 15, 2023; June 21, 2024; and November 25, 2025. See also SMUD comments dated August 17, 2023; June 21, 2024; and November 12, 2025

¹²⁶ The EDU allocation was designed based on forecasted compliance costs that are attributable to the Cap-and-Invest program (e.g., emissions reductions beyond those driven by the RPS). When CARB established the allocation schedule, Senate Bill (SB) 350 (De León, stats. 2015, ch. 547) had established RPS targets culminating in 50 percent of all retail sales by 2030; however, SB 100 (De León, stats. 2018, ch. 312) subsequently increased and accelerated those targets to 60 percent by 2030 and in three-year compliance periods thereafter

¹²⁷ 10 percent of the 50 percent RPS requirement translates to 5 percent of the utility’s total retail sales, leading to an “effective” RPS of 45 percent

¹²⁸ Public Utilities Code § 399.16 establishes the portfolio balance requirements, which specifies that at least 75 percent of RPS procurement must be interconnected in or directly delivered to California balancing authority areas. The remainder of RPS procurement may be satisfied by firmed-and-shaped resources (or up to 10 percent may come from unbundled resources). These statutory requirements are incorporated in the CEC’s RPS implementation for POU’s and the California Public Utilities Commission’s implementation for investor-owned utilities

¹²⁹ 25 percent of a 60 percent RPS requirement translates to 15 percent of the utility’s total retail sales.

CARB's proposed Cap-and-Invest amendments would eliminate the RPS adjustment in 2030, citing ongoing implementation challenges.¹³⁰ Nonetheless, to avoid any potential risk of double benefits between the RPS adjustment and updated RPS assumptions in the 2027-2030 EDU allocation, SMUD recommends that CARB eliminate the RPS adjustment in 2027. Together, these changes would better align the EDU allocation with the RPS program—which is especially needed as increasing RPS requirements and challenging market conditions make the targets harder to achieve—and resolve CARB's ongoing RPS adjustment challenges.¹³¹ Most importantly, these changes would mitigate electricity affordability impacts, responding to the direction of AB 1207 to consider the impacts of the regulations on affordability.¹³²

SMUD strongly supports POUs' continued ability to deposit allowances for compliance or use allowance value for GHG-reducing projects and programs.

Under the existing Cap-and-Invest regulation, POUs like SMUD are able to determine whether to retire allowances for compliance and/or consign allowances to auction and use proceeds on GHG-reducing projects and programs that benefit their ratepayers. This regulatory framework ensures that SMUD and other public, locally governed utilities can optimize their allowance allocation to best serve their customers. In line with this framework, on an annual basis, SMUD evaluates the specific needs of its community and customers and right-sizes its strategy accordingly.

SMUD therefore supports CARB's proposed Cap-and-Invest amendments that preserve POUs' ability to either deposit allowances for compliance or use allowance value for GHG-reducing projects and programs that directly benefit their customers. While SMUD's use of Cap-and-Invest allowances has varied over time, depending on its local community's specific priorities, the value derived from these allowances has always directly supported SMUD's customers and GHG emissions reductions.

SMUD appreciates the continuation of post-2030 EDU allocations but recommends revisions to assumptions about emissions from RPS resources.

SMUD appreciates CARB's continuation of EDU allocations after 2030 for the benefit of electric ratepayers. SMUD believes it is reasonable for CARB to use updated data from the CEC's 2024 IEPR forecasts to calculate prospective allocations for the 2031-2035 period. SMUD cautions against incorporating the CEC's 2025 IEPR data, as the utility- and balancing authority area- specific forms were released only recently, with limited time for review and vetting. Moreover, the joint decision¹³³ by the CEC, CPUC, and CAISO to rely on the 2024 IEPR for integrated resource planning and transmission planning underscores some uncertainties associated with the 2025 IEPR.

¹³⁰ See 2026 Cap-and-Invest ISOR at pp. 54-55

¹³¹ However, if CARB declines to incorporate the "effective" RPS into the 2027-2030 or 2031-2035 compliance periods, CARB must continue the RPS adjustment for PCC 2 through and after 2030, because the RPS program—and its statutorily authorized flexibilities—also continue past 2030

¹³² HSC, § 38562(b)(7)

¹³³ See the *Single Forecast Agreement* at

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=268288&DocumentContentId=105461>

However, CARB’s proposed methodology for calculating the allocations assumes just a 5 percent adjustment to the RPS target (a 55 percent effective RPS).¹³⁴ As described above, the RPS program requirements—which continue past 2030—allow up to 25 percent of RPS-compliant procurement to have associated emissions. CARB should therefore use the same “effective” RPS of 45 percent to calculate EDU allocations after 2030.

SMUD appreciates the proposed transition of natural gas corporation allowances to electric utilities to provide additional support for electricity affordability.

SMUD appreciates the Legislature’s additional actions to support electric ratepayers by transitioning allowances from natural gas corporations.¹³⁵ SMUD understands that the transitioned allocations cannot—and are not intended to—offset the harm to electric ratepayers that would be caused by reducing the 2027-2030 EDU allocation. However, these transitioned allowances can provide California households with important additional relief on electricity bills.

SMUD recommends that CARB consider accelerating the pace of the transition—starting in 2029 and ending in 2031, rather than the current proposal of 2037—to align with the statutory direction to transition support from gas corporations to electric utilities by 2031.¹³⁶ SMUD additionally believes that careful implementation is needed to seamlessly and effectively transition allowance value to electric customers and therefore supports CARB’s proposed three-year implementation runway. This proposal will allow POUs that do not currently provide Cap-and-Invest credits to determine the most impactful delivery for their residential customers, update billing and IT systems, and perform customer outreach and education.¹³⁷ At the same time, it provides flexibility for individual POUs to return the value sooner. (45d-299)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments H-1.1a, H-1.2a, H-1.4, H-2.5, H-4.2, I-1.2a, J-1.11, K-1.3a, L-1.2, M-1.3a, M-1.5, M-1.6a, S-3.1a and S-5.2 in the Cap-and-Invest FSOR.

Comment: We appreciate CARB’s attention to renewable gas topics. RNG remains an important greenhouse gas (GHG) abatement strategy that can assist in meeting the goals in the Cap-and-Invest (C&I) Program. We also welcome related improvements in how the Mandatory Reporting Regulation (MRR) and offset protocols quantify the GHG reduction benefits of RNG.¹³⁸ Holistic enhancement of incentives for RNG in the C&I Program has the potential to allow California to reach its near-term methane reduction goals.

¹³⁴ 2026 Cap-and-Invest ISOR, p. 50

¹³⁵ HSC, § 38562 (b)(1)(B)(i)

¹³⁶ HSC, § 38562 (b)(1)(B)(i)

¹³⁷ 2026 Cap-and-Invest ISOR, pp. 51-52

¹³⁸ Some of our comments are relevant to the *Proposed 2026 Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions* and will be filed in that process as well.

We Support Increased Ambition in Cap and Invest Targets

RNG Coalition continues to support the most ambitious C&I allowance budget reduction schedule that CARB deems to be feasible, given technological and economic constraints. Higher programmatic ambition should facilitate higher allowance prices critical to drive improved economics of all greenhouse gas abatement projects, both emerging and fully commercialized.

Technologies like RNG—which are commercially available and technically proven, but still higher cost than fossil counterparts—will only be fully incentivized by carbon pricing alone if the carbon price reaches levels closer to the social cost of carbon.

Leading researchers estimate the social cost of carbon to be on the order of \$185/metric ton¹³⁹—a range at which more RNG project would be competitive with conventional gas (if methane reduction benefits are also properly recognized).

CARB should continue to improve program stringency so that the program's carbon price can approach the social cost of carbon in the long run. In the near term, assuming allowance prices remain below this societally optimal level, we encourage CARB to think carefully about how the C&I incentive “stacks” with other programs that promote RNG use.

C&I Must Properly Recognize the GHG Benefits of RNG Projects

RNG provides one of the most important opportunities to simultaneously displace fossil carbon dioxide (CO₂) and reduce organic waste methane (CH₄) emissions in the near term. Both CO₂ and CH₄ benefits can be achieved through all forms of RNG production occurring commercially today—anaerobic digestion (AD) of material gathered from organic waste diversion, wastewater, or manure, and enhanced gas capture at landfills.

For RNG projects to be properly incentivized, it is critical that both the CO₂ and CH₄ benefits be properly recognized and that consistent accounting exist in C&I to align claims for these GHG reductions across all programmatic end uses. Section 95852.1 of the Proposed Amendments includes modified text which might unintentionally prohibit a company from making clear and consistent claims. The Draft Rule text states:

An entity claiming use of an exempt biomass-derived fuel must have sole ownership or contract rights to the biomass-derived fuel and any associated emissions exemption or emissions reductions attributed to the use of the fuel such that no other entity may claim an emissions exemption to reduce a compliance obligation or otherwise claim a reduction in emissions associated with the use of the biomass-derived fuel. Exempt biomass-derived fuels may be associated with the generation of Renewable Energy Credits or Low Carbon Fuel Standard Credits.

This language creates a significant barrier to RNG projects from being able to sell RNG to end uses that CARB's Scoping Plan has stated are important but are not explicitly

¹³⁹ <https://www.nature.com/articles/s41586-022-05224-9>

recognized in the text above, for example into California's Renewable Gas Standard for utility procurement.¹⁴⁰

We recommend the following modifications to the Draft Rule to better clarify how this alignment in claims should proceed:

An entity claiming use of an exempt biomass-derived fuel must have sole ownership or contract rights to the biomass-derived fuel and any associated ~~biogenic carbon dioxide~~ emissions exemption ~~or emissions reductions~~ attributed to the use of the fuel for purposes of compliance with this subarticle, such that no other entity may claim an emissions exemption to reduce a ~~Cap-and-Invest Regulation~~ compliance obligation ~~or otherwise claim a reduction in emissions~~ associated with the use of the biomass-derived fuel. Exempt biomass-derived fuels may be associated with the generation of ~~ARB Offset Credits, recognition in Renewable Gas Standard biomethane procurement, Renewable Identification Numbers, Renewable Energy Credits, or Low Carbon Fuel Standard Credits, or other approved crediting programs and protocols that support the state's building decarbonization, cement or other industrial decarbonization, carbon removal or other climate goals.~~

Additional Offset Protocols Should be Added to Capture All RNG Methane Benefits

Currently, the C&I program framework does not have offset protocols that cover all methane benefits associated with RNG projects. Methane reduction through manure management at dairy and swine RNG operations is well accounted for in the Livestock Compliance Offset Protocol, however, methane reductions from organic waste systems are not currently represented.

The following types of offset protocols should be recognized in C&I:

- **Organic Waste Digestion in the United States and Canada.** A C&I compliance protocol should be approved to recognize the benefits of organic waste anaerobic digestion (e.g., food waste digesters). This could be done by updating and improving CAR's U.S. Organic Waste Digestion Protocol,¹⁴¹ which has not seen much use in the voluntary market, in part due to overly stringent additionality assumptions. The United States Environmental Protection Agency's calculator on the methane benefits of landfill diversion of food waste could also be a helpful starting point.¹⁴² Other jurisdictions have created general AD protocols that incorporated both manure and other feedstocks (e.g., food

¹⁴⁰ https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB1440

¹⁴¹ <https://climateactionreserve.org/how/protocols/waste/organic-waste-digestion/>

¹⁴² <https://www.epa.gov/system/files/documents/2024-12/avoided-landfilled-food-waste-methane-emissions-calculator.xlsx>

waste).¹⁴³ Therefore, addition of other AD feedstocks could also theoretically be accomplished through an update to the Livestock Compliance Offset Protocol.

- **Enhanced Gas Capture at Landfills in the United States and Canada.** A C&I compliance protocol for enhanced gas capture at landfills could be adapted from ACR's Methodology for the Quantification, Monitoring, Reporting, and Verification of Greenhouse Gas Emission Reductions and Removals from Landfill Gas Destruction and Beneficial Use Projects.¹⁴⁴ CARB has recognized¹⁴⁵ that continuous wellhead monitoring systems, often paired with automated wellhead tuning systems, can improve gas collection rates and/or the quality of the collected gas. Recognition in C&I/MRR of these methane reductions would help make RNG projects from this enhanced methane capture viable.

Just as the Livestock Compliance Offset Protocol provides the required methods to measure, report, and verify GHG emission reductions from RNG projects that control methane from manure produced from cattle and swine operations, the above protocol ideas would allow methane captured from non-manure organic waste to have proper quantification tools in the C&I system.

Other Policies are Not Currently Strong Enough to Reach California's Methane Reduction Goals, C&I Needs to Provide a Reinforcing Signal

Historically California's strongest support for RNG has been in the transportation sector, where RNG used in natural gas vehicles (NGVs) receives credit under the California Low Carbon Fuel Standard (LCFS). This sector has seen significant RNG uptake since the start of the LCFS.¹⁴⁶ To achieve this success RNG project developers have had to stack the value of LCFS credits, federal Renewable Fuel Standard credits, tax credits and/or direct grant monies to make projects financially viable.

Lower LCFS prices plus market saturation of the existing vehicle fleet is limiting further RNG adoption in transport currently. If LCFS prices do not rebound to the level that can incent both additional NGV adoption and RNG deployment, California's transport sector will not be able to contribute further toward reaching statutory goals¹⁴⁷ for methane reduction from organic wastes.

California has also tried to incent RNG use by utilities to serve core customer demand for natural gas. The California Public Utilities Commission (CPUC) set a 2025 Renewable Gas Standard (RGS) goal at ~3% of 2020 core bundled demand (17.6

¹⁴³ https://www2.gov.bc.ca/assets/gov/environment/climate-change/ind/protocol/methane_from_organic_waste_protocol.pdf

¹⁴⁴ <https://acrcarbon.org/methodology/landfill-gas-destruction-and-beneficial-use-projects/>

¹⁴⁵ See CARB's *Proposed Amendments to the Regulation on Methane Emissions from Municipal Solid Waste Landfills* <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2025/LMR/isor.pdf>

¹⁴⁶ In Q1 2011, RNG was 1% of fuel used in NGVs in California. In Q2 2025, 98% of fuel used in NGVs was RNG

https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/dashboard/quarterlysummary/quarterlysummary_Q22025.xlsx

¹⁴⁷ https://ww2.arb.ca.gov/sites/default/files/2020-07/SLCP_Appendix_B.pdf

Bcf/year)¹⁴⁸ and initially targeted only food waste RNG. However, due to delays in feedstock collection, contract approval at the CPUC, affordability concerns, and other issues, the RGS did not hit the 2025 target. The enabling statute for the RGS, Senate Bill 1440 (Hueso, 2018) was passed more than seven years ago. The governing CPUC decision setting the framework for the RGS has existed for more than four years.¹⁴⁹ However, thus far, no operating RNG project has been able to cover their costs with revenues received under the Renewable Gas Standard.

Other key tools promoting methane capture from organic waste to electricity production are also being removed or degraded. For example, the CPUC is sunsetting the BioMAT program.¹⁵⁰ Federal tax credits, such as the Investment Tax Credit and Production Tax Credit, that have historically promoted renewable power projects, including biogas power, are no longer available.^{151,152}

Manufacturing Decarbonization Incentive Allocation Framework Would Benefit from More Transparency

We agree with CARB staff's position in the Initial Statement of Reasons that, "the cost of a number of manufacturing decarbonization activities continues to be greater than the allowance price."¹⁵³ This is certainly true for manufacturing facilities considering RNG use, therefore, we support updating the C&I framework to provide a stronger reinforcing signal for RNG use and other decarbonization activities at these facilities.

Specifically, we support the Manufacturing Decarbonization Incentive (MDI) Allocation concept in the Draft Rule. We believe that the general MDI concept is sound—allocating a greater number of allowances to industrial actors to create a pool of value that can fund manufacturing decarbonization projects. We also support covering ongoing costs for procuring low-carbon fuels, such as RNG, as one of the eligible activities in the MDI.

However, our members are currently unclear on how to assess the details of the proposed framework on a facility-by-facility basis. We request CARB provide additional clarity so that RNG producers can estimate the amount of value available per year to each manufacturing party that opts in. Under the current proposal, unless an actor is party to the details of the allocation for the eligible manufacturing source, they cannot ascertain the number of additional allowances a source receives annually if they elect to participate.

Providing more transparency to parties beyond the manufacturing actor receiving the MDI allocation would allow RNG producers (and other parties supplying decarbonization

¹⁴⁸ The medium-term RGS target for 2030 is RNG achieving 12.2% of total bundled core customer consumption. This 2030 target also seems to be out of reach given current incentives.

¹⁴⁹ Decision 22-02-025 from February 24, 2022.

¹⁵⁰ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M454/K335/454335009.PDF>

¹⁵¹ <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M586/K161/586161556.PDF>

¹⁵² <https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy>

¹⁵³ <https://warrenaverett.com/insights/one-big-beautiful-bill-energy-tax-credits/>

¹⁵³ ISOR page 175

tools) the opportunity to better understand the magnitude of total incentive available from this new concept, increase the supply-side competition to serve each actor receiving this incentive, and therefore maximize the cost-effectiveness of this concept.

Phase Down of Natural Gas Utility Allowance Value Should Not Preclude Near-Term Use of Allowance Value for RNG Interconnection Incentives

We support better use of natural gas utility allowance value to promote interconnection of RNG facilities to the gas grid. CARB and the California Public Utilities Commission (CPUC) have historically overseen allowance value given to natural gas utilities to fund California's residential climate credit, building electrification pilot projects, and RNG interconnections.

The Biomethane Monetary Incentive Program (BMIP) has historically proven to be a helpful tool to lower customer costs of RNG interconnection. The BMIP was funded, in part,¹⁵⁴ through gas utility allowance value. We believe that, even if the pool of gas utility allocation declines to transition support from gas corporations to electrical distribution utilities, CARB should be more prescriptive in the use of the near-term natural gas utility value to support RNG deployment.

CARB should require the use of some natural gas allowance value for RNG interconnection. The Draft Rule should be amended to explicitly direct the CPUC to use more near-term gas utility allowance value for this purpose. Alternatively, the state could allow utility rate basing of such interconnection costs.¹⁵⁵

Providing support for RNG interconnection continues to be important for project developers and end-users as interconnection costs in California average >2.6x that of projects in other states.¹⁵⁶ The direct use of allowance value for RNG interconnection promotes in-state RNG production in line with California's climate goals in the waste and energy sectors. We urge CARB and CPUC to coordinate closely on this issue.

Eliminate Unnecessary Complexity in Determining C&I RNG Eligibility

As explained above, the C&I program has not yet served as a significant incentive for new RNG development or use, primarily due to the low level of the carbon price in the program relative to the GHG abatement cost for RNG projects and misaligned accounting ignoring some of the key benefits.

However, another significant barrier to RNG use in the program has been the unnecessary complexity of the eligibility requirement language now found in section 95852.1.1(a)(1)-(5) of the Draft Rule. The ISOR summarizes this problem appropriately when it states that, "Due to uncertainty expressed by covered entities, implementation of section 95852.1.1(a) has required substantial staff time to ensure the provisions are

¹⁵⁴ <https://www.cpuc.ca.gov/industries-and-topics/natural-gas/renewable-gas>

¹⁵⁵ Assembly Bill 3187 (Grayson, 2018) required CPUC to consider allowing gas utilities to rate base the cost of RNG interconnection to core and non-core customers. However, seven years later, the CPUC has only recently begun exploring this topic. [Senate Bill 919](#), being discussed this year, may also help address either of these opportunities to lower interconnection costs

¹⁵⁶ <https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M584/K702/584702473.PDF>

consistently implemented. Clarifications are proposed throughout section 95852.1.1(a) based on implementation experience and aim to provide certainty for entities regarding eligibility for emissions exemptions and to reduce administrative burden.”¹⁵⁷

We recommend that, if CARB truly wants to eliminate administrative burden and unnecessary complexity, the entire section 95852.1.1 should be struck. There is no need to retain this section for the following reasons:

- CARB is actively looking for RNG producers to be nimble and to shift RNG between end uses over time to the sectors that are hardest to electrify.¹⁵⁸ Requiring a period of non-production before any such shift is simply impossible for RNG facilities, which are not financially viable without ongoing revenues for the sale of their gas and associated recognition of environmental benefits.
- Empirically, there is no demonstrated problem with non-additional RNG supply being available in significant quantities to divert/shuffle toward C&I end uses, especially at low carbon prices.
- No other renewable fuel or greenhouse gas abatement strategy is subject to the same tests in the C&I program, even though the same theoretical arguments could be made about many other strategies that reduce compliance obligations in C&I.¹⁵⁹
- Three-years (and/or 36 months) is an arbitrary and capricious standard not well justified by the ISOR or historical regulatory precedent. No RNG project will ever cease operation intentionally just to become eligible to receive C&I incentives, it has always been very unclear as to why a three-year period hypothetically helps eliminate any perverse fuel reshuffling incentives.

If this unnecessary complexity in this section can be eliminated it more likely that consumers of gas will explore RNG as a compliance option and CARB’s strategy to shift the RNG resource between hard-to-electrify end uses over time is more likely to be achieved. (45d-306)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to

¹⁵⁷ 28 ISOR page 74

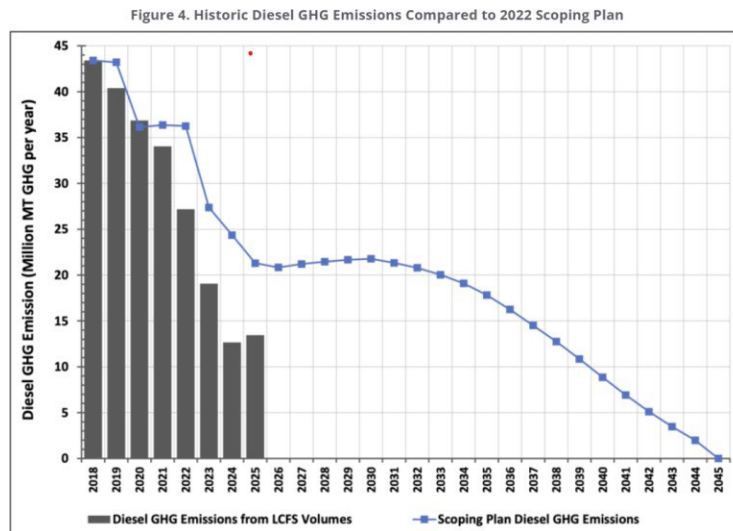
¹⁵⁸ The ISOR states that, “Enabling covered entities to appropriately claim exempt biomethane is aligned with the 2022 Scoping Plan, which indicated that biomethane currently used in California’s transportation section will largely be needed for hard-to-decarbonize sectors long-term.” Ibid

¹⁵⁹ A few examples of other abatement strategies that could, in theory, generate reshuffling/non-additional concerns in C&I include: liquid biofuel plants that existed prior to the start of the C&I program, zero emission vehicles deployed due to historical federal incentives or vehicle manufacturer mandates, renewable power supported by federal tax credits displacing natural gas power production, etc. The reality is that additionality concerns for most of these activities are minimized (as they certainly are for RNG) because, at the margin, these activities are not cost effective without public policy support, and penetration of these activities benefit from additional support derived from appropriate C&I recognition

comments C-1.2a, J-2.5a, O-8.25, R-2.1, R-2.3a, T-18.1a, Y-3.1 and Y-3.3a in the Cap-and-Invest FSOR.

Comment: Thank you for the opportunity to comment on the proposed amendments to the Cap and Invest Program. The Supply Chain Federation (SCF) is a national organization representing industrial developers, ports, trucking, shipping, unions and other links in the logistics and supply chain industries.

California's supply chain industry has been an environmental success story, reducing criteria pollutant emissions by over 90% while also achieving significant reductions in



greenhouse gas (GHG) emissions. According to a recently published analysis by Stillwater Associates, renewable fuels – largely produced by in-state refiners – have reduced the GHGs from diesel fueled equipment by approximately 60% in just the last seven years, beating CARB's scoping plan forecasts.

However, disruptions in the global energy supply chain have created unprecedented economic shocks to California's transportation fuel sector. As you know, a third of California's economy and jobs rely on the goods movement sector which requires a reliable and affordable supply of fuel and electricity. Recent events have exposed California's vulnerability to geopolitical disruptions to the global energy supply chain.

From an April 24th Fortune article :

California must compete internationally for more expensive and increasingly scarce fuel imports from Asia. The state leans on South Korea, Singapore, Japan, India, and the Middle East for more of its oil and fuel.

"The risk is California has to compete on price to get those barrels, and what's an already expensive market becomes really expensive," said oil forecaster Dan Pickering, founder of Pickering Energy Partners consulting and research firm.

While the rest of the country is worried about fuel prices and not physical shortages, California is a “different animal,” Pickering said. “The risk in California is both its price and its availability. And because availability is tough, the price goes up even more.”

Already, California’s gasoline prices are 45% above the national average. The national average on April 23 for a gallon of regular unleaded was \$4.03; meanwhile, it’s a U.S.-leading \$5.85 in California. And there’s a \$2 gap between diesel prices in California compared with the national average: \$7.49 per gallon versus \$5.47.

Analysts indicate that both diesel and jet fuel are most vulnerable to supply disruptions, which is disastrous for California’s supply chain given it’s heavy reliance on diesel fueled equipment. This is also an issue of national significance as the Ports of Los Angeles and Long Beach, alone, account for 31% of all the United States’ containerized trade.

Accordingly, the SCF joins with many of our colleagues in California’s business community in urging California Air Resources Board (CARB) to do everything it can to avoid further disruptions to California’s in-state refining capacity. CARB must send the sector long-term signals that it intends to take action to mitigate further leakage.

Existing programs have proven to be successful in reducing both criteria and GHG emissions. This success story risks being undone if transportation fuel supply disruptions upset California’s critical goods movement and supply chain industries, which would impact sectors as varied as agriculture/food, medicine, manufacturing, housing, retail and more. (15d-126)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment O-1.1b in the Cap-and-Invest FSOR.

Comment: On behalf of the Construction Industry Air Quality Coalition (CIAQC) we would like to express our concerns with the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (Proposed Amendments), released by the California Air Resources Board (CARB) on April 14, 2026, and scheduled for consideration at the May 28, 2026 Board meeting.

Our Coalition represents construction firms responsible for building the state’s critical transportation infrastructure, commercial and residential buildings, and energy systems. Our members are committed to helping California meet reasonable climate and air quality goals and have supported policies that provide stable, predictable funding for programs that reduce emissions while supporting economic growth and job creation.

We supported the extension of the Cap-and-Trade program because of its role in funding essential infrastructure and climate investments through the Green-house Gas Reduction Fund (GGRF). These investments have been instrumental in advancing transit-oriented development, expanding public transportation, and supporting projects that both reduce emissions and create high-quality construction jobs across the state.

However, we are concerned that the Proposed Amendments would significantly reduce GGRF revenues by increasing allowances to utilities to fund an enhanced Climate Credit. While intended to address affordability, this approach would divert billions of dollars annually away from critical state programs that support housing, transportation, and infrastructure development. It would do nothing in the long run to reduce or control the cost of electricity in California.

From the construction industry's perspective, reduced GGRF funding directly translates into fewer projects, delays in critical infrastructure, and lost opportunities to build the housing and transportation systems California urgently needs. Programs supported by the GGRF have been a reliable pipeline of work that enables contractors to invest in their workforce, equipment, and innovation. Weakening these funding streams creates uncertainty and undermines the state's ability to deliver on its climate and economic goals.

Without an investment in more power generation, storage, transmission and distribution, California will never be able to stabilize the cost of electricity or meet the surging demand for electricity in the state. Rebates to customers may provide temporary relief but without those investments the need for larger and larger rebates will eventually consume the cap and invest funding.

We also urge CARB to take a broader view of affordability. For our industry and the communities, we serve, affordability is not limited to utility bills; it includes access to housing, reliable transportation, and good-paying jobs. Investments in infrastructure and construction projects funded through the GGRF are a key part of that equation, helping reduce overall costs of living while supporting economic mobility.

We recognize the challenge CARB faces in balancing climate policy, affordability, and economic impacts. However, we respectfully urge the Board to reconsider the Proposed Amendments to ensure that GGRF funding remains robust and continues to support the construction of critical infrastructure and housing projects that are essential to California's future. (15d-127)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3b in the Cap-and-Invest FSOR.

Comment: The California League of Food Producers (CLFP) appreciates the opportunity to provide comments on the California Air Resource Board's (CARB) April 14, 2026 revisions to the January 20, 2026 proposed amendments to the Cap-and-Invest Program (Program) regulations. CLFP is a statewide association representing the interests of food processors and beverage producers throughout the state, including companies covered by the Program. These comments are intended to supplement and build on the CLFP's March 9, 2026 comments on CARB's initial proposal.

Leakage Risk Through 2030

CLFP supports CARB's proposals aimed at reducing the risk of emissions leakage through 2030, including CARB's proposal to maintain the 100 percent assistance factor

for all sectors and to modify the Cap Adjustment Factor (CAF) to reduce the rate of cap decline for California manufacturers. These changes are important improvements that help to keep food processing facilities, and the jobs and economic benefits they provide, in the state.

CLFP also supports CARB's modified proposal to provide a manufacturing decarbonization incentive (MDI) allocation to mitigate emissions leakage risk while simultaneously accelerating GHG emissions at covered facilities by incentivizing long-term emissions reductions that facilities could not implement without additional financial support. We also support CARB's proposal to fund the MDI allocation through a new Manufacturing Decarbonization Incentive Fund (Fund) that is funded with 118.3 million allowances removed from the total Program budget. This is a significant improvement to the 45-day proposal to draw MDI allowances from future vintage years. This modified proposal allows CARB use available allowances to further increase near-term GHG emissions reductions and reduce emissions leakage risk, while still increasing the stringency of the Program by reducing the total Program budget. We question, however, the reasoning for and utility of CARB's proposal to retire an MDI allowances that are returned to CARB because the allowance value did not achieve GHG emissions reductions.

Retirement of returned MDI allowances unnecessarily reduces the ability of the MDI to accelerate GHG emissions reductions by reducing the available incentive pool. We ask CARB to consider amending the proposal to instead return those allowances to the Fund to make them available to incentivize and accelerate other decarbonization projects.

We appreciate CARB's expansion of the eligible project types to include carbon capture, utilization, and storage (CCUS) projects, and the proposal to allow the MDI allocation value to be used for not just capital costs for several project types (electrified equipment, renewable electricity generation or storage, solar thermal or geothermal generation, and CCUS), but also for costs of design, engineering, and permitting. We also appreciate CARB's clarification that the MDI allocation value may be used to cover capital costs to enable the use of exempt biomass-derived fuel, and we encourage CARB to similarly clarify that the value of MDI allocations may to be used to cover capital costs to enable the use of low-carbon hydrogen.

CLFP remains concerned that the proposed MDI, even with the improvements CARB made in the April 14 proposal, is still insufficient to effectively incentivize the transition of many natural gas-powered processes in food production facilities to electricity or alternative fuels. The ability of the proposed MDI allocation to minimize emissions leakage risk and to accelerate GHG emissions reductions depends on the ability of covered facilities to cost-effectively implement one or more of the eligible project types. Among other things, this requires facilities to have the physical space needed for renewable power generation, alternative fuel generation and storage, or electricity-powered equipment that is often larger than the natural gas-powered equipment it replaces (for example, high capacity electric boilers and the related components require a bigger footprint than their natural gas counterparts). Many food processing facilities have space constraints that limit their ability to implement the proposed eligible project

types, including facilities located in more densely populated areas.¹⁶⁰ Implementation of the proposed MDI projects also requires facilities to have access to a reliable supply of affordable electricity or alternative fuels. As explained in our March 9, 2026 comment letter, because the state's utilities are not yet able to ensure the availability of a reliable supply of cost-effective electricity or alternative fuels, the ability of food production facilities to reduce their natural gas usage is limited.

In this transitional period while the state's utilities expand electrical energy and alternative fuel infrastructure and supply, CLFP strongly recommends that CARB expand its focus from projects that fully eliminate usage of natural gas and consider the ability of fuel efficiency improvements to achieve meaningful, near term GHG emissions reductions. For hard-to-decarbonize food processing facilities, revising the eligible project types to include projects intended to decrease natural gas consumption by increasing the energy efficiency of natural gas-powered processes would provide a way for the state to achieve GHG emissions reductions that would otherwise not be realized. We understand that CARB may be hesitant to incentivize projects that assume the continued use of natural gas and suggest that CARB narrowly tailor the fuel-efficiency project type to limit its use to facilities that have limited ability to cost-effectively implement other eligible project types, such as facilities located in areas of the state that lack the infrastructure and reliable supply needed to cost-effectively convert natural gas-powered operations to electricity or alternative fuels. CLFP would welcome an opportunity to meet with CARB staff to further discuss this recommendation.

Leakage Risk Post-2030

CLFP supports CARB's decision to further analyze emissions leakage risk for covered facilities and to propose additional updates to the Program regulations to minimize emissions leakage, including post-2030 allowance allocation, based on current and accurate information. Updated sector-specific and facility-specific leakage risk data and analyses are necessary for CARB to design future Program updates that satisfy the directive in AB 1207 (Irwin, 2025) to "distribute industrial sector allowances in a manner that minimizes emissions leakage risk to cost-effectively achieve" the state's greenhouse gas (GHG) reduction goals. (Health & Saf. Code, § 38562(c)(2)(G).)

We urge CARB to share information and to engage with stakeholders and subject matter experts early and often through a transparent process designed to inform CARB's further evaluation of emissions leakage risks, including regarding the scope of further leakage risk assessments and research methodologies performed or funded by CARB, preliminary results of that research, and interpretation and application of leakage study findings. CARB can and should take advantage of stakeholder expertise and

¹⁶⁰ See CLFP's March 9, 2026 Comments on Proposed Changes to the Cap-and-Invest Program Regulations for additional information on the significant space that would be required to for to generate sufficient power from solar, wind, biofuel, and hydrogen to power processing operations at a single tomato processing facility

information to help CARB navigate these complex tasks and efficiently accomplish the directives in AB 1207. (15d-106)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-5.9, O-8.9b, O-8.15b, O-13.5 in the Cap-and-Invest FSOR.

Comment: The Electric Vehicle Charging Association (EVCA) is a trade association representing companies across the electric vehicle charging industry, including charging network operators, equipment manufacturers, and service providers. Our 18 members are working to deploy the reliable, accessible charging infrastructure that California's zero-emission vehicle transition requires, in homes, workplaces, public spaces, and the communities that need it most.

EVCA strongly supports the Cap-and-Invest Program and the Board's work to implement the requirements of AB 1207 (Irwin) in a timely fashion, assuring linkage with Washington and Quebec's markets. Cap-and-Invest is a cornerstone of California's climate policy and a critical source of investment in the clean transportation infrastructure our members build and operate. We appreciate CARB's continued stewardship of this program, particularly as California navigates significant ambiguity about the future of federal energy and transportation policy, and we remain committed partners in its success.

We thank CARB staff for the additional days to review the amendments. Given their scope and complexity, this additional time for public review enables more complete stakeholder engagement before final adoption. With the number of priorities that rely on the Cap and Invest program, and the benefits the state has and stands to realize from it, it is crucial to get this right.

We urge the Board to carefully evaluate the proposed amendments' potential effects on Greenhouse Gas Reduction Fund revenues. GGRF is the primary public funding source for California's EV charging infrastructure build-out — supporting programs that put chargers in low-income communities, along freight corridors, and drive the scale of deployment needed to meet the State's clean transportation transition milestones. Early analysis suggests the proposed amendments could result in rapid near-term reductions in GGRF proceeds, potentially of significant magnitude, driven in part by the structure of the new Manufacturing Decarbonization Incentive and, to a lesser extent, by proposed changes to utility climate credits. Any reduction would put at risk the sustained public investment that California's charging infrastructure market depends on, particularly as federal infrastructure funding faces growing uncertainty.

Should the MDI be retained as a program feature, CARB should revert the MDI to the structure proposed in the January ISOR, which funded the MDI by allocating allowances from future budget years.

The GGRF Expenditure Plan established by SB 840 (Limon) represents a hard-won framework for directing Cap-and-Invest revenues to California's most critical climate priorities, including the clean transportation and charging infrastructure investments that

will define the next decade of EV growth. EVCA urges the Board to ensure that any amendments maintain GGRF revenue stability and consistency, sufficient to support the premise, promise, and provisions of SB 840. While revenue decline is an aspect of program design, the decline seen in early analysis is misaligned with the current stage of the clean energy and transportation transition.

EVCA looks forward to continued engagement with CARB on these issues and remains a committed partner in California's clean transportation future. (15d-111)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments W-1.3b and Y-1.1b in the Cap-and-Invest FSOR.

Comment: Valley CAN is a 501(c)(3) public charity committed to quantifiably reducing air emissions in California's San Joaquin Valley, a region with among the worst air quality in the United States. We seek to improve public health and quality of life in disadvantaged communities by qualifying low-income residents for multiple incentive-based programs. We primarily focus on vehicle repair and replacement programs, which aim to reduce air pollution, address climate issues, and reduce transportation costs.

Ongoing support from the Legislature, starting with the passage of SB 459 and SB 1275 in 2014, enabled the creation of Clean Cars 4 All which is a uniquely effective use of Greenhouse Gas Reduction Funds (GGRF) to improve transportation affordability for working families. Clean Cars 4 All scraps the dirtiest, least efficient cars on the road and replaces them with more affordable and reliable used electric vehicles. More than 30,000 low-income drivers statewide have benefitted from significant savings on fuel costs over the past decade thanks to the Legislature's leadership on Clean Cars 4 All.

Valley CAN supported last year's extension of the carbon cap-and-invest program because we've seen how effective GGRF revenues can be for making life more affordable and convenient for low-income residents of the communities with the greatest economic and environmental challenges. We believe in GGRF because we've seen it work.

We are concerned with the recent proposal to reallocate carbon credits due to the likely impact this will have on anticipated Tier 2 revenue under the terms of last year's agreement codified in SB 840 to extend the cap-and-invest program. Without sufficient discretionary revenue from GGRF, it is difficult to see how Clean Cars 4 All would have funding to continue past the end of CY 2026.

We respectfully urge the Legislature to work toward realizing the intent of the terms of last year's agreement on cap-and-invest, and retain the GGRF revenue needed to support affordability solutions for the working families that most need the help. Thank you for your consideration. (15d-112)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3b in the Cap-and-Invest FSOR.

Comment: On behalf of the undersigned agricultural organizations, we write to express our strong support for California's Cap-and-Invest program and its continued role in supporting the state's agricultural sector and rural communities.

Nearly half of the country's vegetables and over three-quarters of the country's fruits and nuts are grown in California, with export values increasing by hundreds of millions each year.

However, California's agricultural producers are facing increasing challenges, including rising energy and input costs, ongoing water constraints, and intensifying impacts from wildfires, extreme heat, and air pollution. These pressures affect farm productivity, worker safety, and the economic stability of rural regions across the state. Farmers, ranchers, and agricultural businesses are working to remain productive and competitive in an increasingly difficult operating environment where long-term investment and policy certainty are essential.

We are concerned that recently proposed changes to the program risk undermining support for the agricultural operations and rural communities that form the backbone of California's food system, to the benefit of large oil companies and other incumbent fossil fuel interests. California agriculture depends on stable, practical investments and a competitive environment, and the strength of rural economies depends on policies that reinforce this balance rather than shift resources toward entrenched interests. These investments coming from the GGRF are not theoretical. They directly support on-farm efficiency, water management, and cost relief, and weakening them risks further destabilizing an already strained sector at a critical moment.

Given the scale and importance of California agriculture, these growing issues require immediate, coordinated action and sustained investment, and California's Cap-and-Invest is a primary solution.

The Cap-and-Invest program provides a stable, market-based framework to reduce emissions while generating significant funding that is reinvested into programs that directly benefit agriculture. Since its inception, the program has generated nearly \$33 billion, with more than \$18 billion awarded and over \$12.8 billion supporting projects across California. For agricultural stakeholders, Cap-and-Invest delivers critical benefits:

- **Investments in Agricultural and Rural Communities:** Funding supports programs such as the Healthy Soils Program, State Water Efficiency and Enhancement Program, and Climate Smart Agriculture Technical Assistance Program, helping farmers improve soil health, water use efficiency, and on-farm sustainability while strengthening rural economies.
- **Support for On-Farm Efficiency and Modernization:** Greenhouse Gas Reduction Fund investments help producers upgrade equipment, improve energy efficiency, and adopt cleaner technologies, making necessary improvements more achievable.
- **Relief from Rising Energy Costs:** Utility bill credits and affordability programs help offset increasing energy costs for agricultural operations and rural households.

- **Protection from Climate Impacts:** Investments in water efficiency, wildfire prevention, and climate resilience help safeguard farmland, livestock, and agricultural workers.
- **Stable and Predictable Policy:** The program provides long-term certainty that supports planning and investment decisions essential to agricultural operations.
- **Healthier Communities and Workforce:** Reductions in harmful air pollution improve conditions for farmworkers and rural communities, supporting a healthier and more productive workforce.

Cap-and-Invest is a critical tool that both reduces emissions and reinvests in the long-term resilience and stability of California agriculture.

We urge you to continue supporting and strengthening this program to ensure it delivers sustained benefits for farmers, ranchers, farmworkers, and rural communities across the state. As you consider the future of Cap-and-Invest, it is essential to adopt strong rules that preserve the program's integrity, provide market certainty, and ensure it continues delivering meaningful benefits to the communities and industries that power California's economy, rather than concentrating advantages among large oil companies and other major emitters. (15d-113)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3b in the Cap-and-Invest FSOR.

Comment: The California Manufacturers & Technology Association (CMTA) appreciates the opportunity to provide comments on CARB's proposed 15-Day Amendments to the Cap-and-Invest Program. CMTA represents a broad spectrum of manufacturers across California, many of whom are energy-intensive and trade-exposed (EITE) and directly subject to the Program.

CMTA acknowledges CARB's continued efforts to refine the Cap-and-Invest framework and appreciate the recognition of challenges regulated entities face in meeting the State's climate goals while operating in an increasingly uncertain economic environment. However, several aspects of the proposed amendments continue to raise significant concerns regarding cost containment, market stability, administrative feasibility, and the preservation of effective leakage mitigation mechanisms that are foundational to the Program's success.

Leakage Mitigation and Industrial Allocation Design

CARB's prior analysis has consistently demonstrated that the output-based allocation system, paired with robust assistance factors, is essential to prevent emissions leakage. This remains especially important given current economic uncertainty, evolving federal policies, barriers to maintaining efficient in-state production, and the slower pace of carbon pricing adoption in competing jurisdictions than anticipated when the original regulation was adopted in 2011.

CMTA appreciates CARB's proposal to increase the 2027 Cap Adjustment Factor (CAF) for Standard Activities from 0.613 to 0.807 and to moderate subsequent declines. Continued recognition of the leakage risks facing California manufacturers in future amendments will remain critical.

CMTA respectfully requests clarification regarding the proposed CAF schedule. CARB's notice states that from 2028–2030, the standard and alternate CAFs decline at approximately one percent less annually; however, based on review, the published factors appear to decline by approximately three percent annually. We request confirmation of the intended trajectory.

In addition, CARB has not proposed CAF values and Assistance Factors beyond 2030. Manufacturers making long-term capital and operational decisions need greater certainty regarding future allocation assistance levels. CMTA encourages CARB to provide an early roadmap for post-2030 CAF and Assistance Factor treatment.

CMTA urges CARB to:

- Maintain robust assistance factors through 2030 and beyond unless updated, sector-specific leakage risk analysis demonstrates otherwise;
- Preserve the output-based allocation structure, which incentivizes efficiency and aligns compliance obligations with actual production levels; and
- Avoid policy changes that weaken leakage protections through accelerated allowance reductions or structural market changes.

Absent strong and durable leakage mitigation, California risks shifting production, and associated emissions, to jurisdictions with less stringent environmental standards.

Allocation Realignment from CPUC to CARB

CMTA remains concerned with the proposal to transfer the annual Cap-and-Invest electricity credit currently delivered to eligible facilities through CPUC-administered utility bill credits to CARB-administered annual allowance allocations.

As currently proposed, the amendment lacks sufficient detail for affected facilities to determine whether the transition preserves the economic value they receive under the existing CPUC credit structure.

CMTA respectfully requests that CARB publish a clear and transparent methodology explaining:

- How existing CPUC credit value will be translated into CARB allowance allocations;
- How fluctuations in allowance market prices will be accounted for;
- Whether facilities will receive equivalent annual value under the revised structure;
- How allocation amounts will be determined across sectors and facilities; and

- How regulated entities can accurately forecast future compliance costs under the new system.

Without this clarity, EITE facilities cannot effectively assess compliance exposure or make informed capital planning decisions.

Allowance Budget Adjustments and Market Stability

The proposed amendments continue to reflect significant tightening of allowance supply, including adjustments to the allowance budget and ongoing retirement mechanisms. While CMTA recognizes the importance of aligning the cap with emissions targets, the pace and structure of these changes raise concerns about market volatility.

To ensure a stable and functional market, CMTA recommends that CARB:

- Phase in allowance budget reductions gradually and transparently to avoid abrupt supply shocks;
- Provide updated modeling on cumulative impacts to allowance prices, particularly for EITE sectors;
- Ensure that any offset-related allowance retirements are smoothed across compliance periods to prevent sudden constraints in auction supply; and
- Maintain clear, predictable rules governing allowance availability to support long-term planning and capital investment.

Predictability in allowance supply is critical for manufacturers making long-term operational and decarbonization decisions.

Manufacturing Decarbonization Incentive Allocation

CMTA appreciates CARB's continued inclusion of a Manufacturing Decarbonization Incentive. Given the loss of federal funding opportunities and the high cost of industrial decarbonization technologies, this mechanism is increasingly important.

We note several constructive revisions in the 15-day package, including:

- Applicability to budget years 2028–2035;
- Replacement of the prior modifier schedule with an “up to 0.8” modifier;
- Clarification that modifiers apply only to initial allocations and not to true-ups;
- Expanded eligible activities, including methane reductions, exempt biomass-derived fuels, alternative materials that reduce process emissions, and carbon capture utilization or sequestration; and
- Revised application deadlines of June 1 of the preceding year.

CMTA particularly welcomes the inclusion of alternative materials projects, including investments to use new or increased amounts of lower-emission materials that reduce benchmark process emissions.

However, additional clarification and refinement are necessary. CMTA recommends that CARB:

- Establish transparent prioritization criteria if applications exceed available allowances;
- Clearly define how proration will occur if requests surpass available sector allowances;
- Provide detailed application guidance and sufficient lead time for compliance;
- Establish a mechanism for facilities to petition for inclusion of additional qualifying project categories on a case-by-case basis as technologies evolve; and
- Create a reasonable lookback period allowing qualifying capital projects already undertaken in good faith, and still on active depreciation schedules, to be eligible for consideration.

Program Design and Implementation Considerations

The 15-day amendments introduce additional complexity into an already highly technical program. As CARB finalizes these changes, it is critical to ensure implementation remains administratively feasible and does not create unintended compliance burdens.

CMTA encourages CARB to:

- Provide sufficient lead time and clear guidance for regulated entities to adapt to new requirements;
- Ensure that any new definitions, compliance mechanisms, or administrative processes are transparent and consistently applied; and
- Continue robust stakeholder engagement prior to finalizing significant structural changes.

CMTA appreciates CARB's ongoing work to strengthen the Cap-and-Invest Program. However, the proposed 15-Day Amendments should be further refined to ensure they do not undermine leakage mitigation, increase cost volatility, reduce transparency, or discourage industrial investment in California. (15d-114)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments C-1.1b, O-3.2b, O-5.4a, O-5.9, O-7.1b and O-8.49 in the Cap-and-Invest FSOR.

Comment: The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide comments on the California Air Resources Board's (CARB) proposed 15-day amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Invest) and the

Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR).¹⁶¹ SMUD is a local publicly owned electric utility (POU) serving approximately 673,000 customer meters, or a population of about 1.5 million, in Sacramento County and small adjoining portions of Yolo and Placer Counties. SMUD has established an ambitious goal of removing all greenhouse gas (GHG) emissions from its power supply by 2030, working within the guardrails of ensuring reliable and affordable electric service.

SMUD has long supported Cap-and-Invest as an important strategy for reducing GHG emissions that also incorporates ratepayer protections. SMUD greatly appreciates that the proposed 15-day amendments take important steps to protect electricity ratepayers from program compliance costs and mitigate the worst of the affordability impacts that would have resulted from the proposed 45-day amendments.¹⁶² Indeed, CARB's 15-day amendments notably reduce the direct losses to SMUD—estimated between \$75 million to \$175 million based on the 45-day amendments—to between \$15 million and \$36 million. While SMUD, on behalf of its customers, supports these important revisions, SMUD continues to urge CARB fully restore utility allocations to those set forth in the current regulation and further mitigate these impacts. Doing so would provide an even greater direct benefit to SMUD's customers and community and ensure the program's voluntary GHG reduction signals remain intact.

SMUD's feedback on the changes present in the 15-day Cap and Invest and MRR amendments is summarized below and detailed in the following pages:

- SMUD strongly supports CARB's incorporation of the "effective RPS" within Cap-and-Invest electric utility allocations, which is consistent with the program's cost containment framework and substantially mitigates harm to electricity ratepayers.
- SMUD recommends that CARB reverse the midstream changes to the forecast data for Cap-and-Invest utility allocations to preserve confidence in voluntary action incentives.
- SMUD urges CARB to provide certainty in both MRR and Cap-and-Invest regarding CCS emissions accounting, which is necessary to enable near-term decisions on CCS investments.
- SMUD supports the proposed changes in Cap-and-Invest that accelerate the pace of the natural gas allowance transition while maintaining implementation lead time for POUs.
- Near-term future rulemakings will be needed to resolve outstanding issues, including post-2030 utility allowance allocations, correction mechanisms for outstanding

¹⁶¹ These comments address proposed revisions to both the MRR and Cap-and-Invest regulations and are filed concurrently in each docket

¹⁶² See *Public Hearing to Consider the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms* (January 20, 2026), Staff Report: Initial Statement of Reasons, Appendix D-2, available at https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2026/cap_invest/nc_app%20d-2.xlsx

emissions, and CCS emissions accounting, if CARB does not address these in another round of 15-day amendments.

SMUD additionally supports the comments filed by the California Municipal Utilities Association.

SMUD strongly supports the incorporation of the “effective RPS” within 2027-2030 electric utility allocations.

The proposed 15-day amendments to the Cap-and-Invest regulations update the “[Renewables Portfolio Standard] RPS Factor Applied to Retail Sales” used in calculating the 2027-2030 EDU allocation. Specifically, the updated factor, or effective RPS, now accounts for the fact that up to 25 percent of RPS procurement may be from non-Portfolio Content Category 1 resources and therefore may incur Cap-and-Invest compliance obligations.

SMUD strongly supports this change, which is consistent with both the longstanding cost containment structure for EDU allowance allocations and the RPS statutory framework. Moreover, incorporating this more accurate effective RPS, in tandem with RPS updates from Senate Bill 100, substantially reduces the harm to electricity ratepayers that would have been caused by the 45-day changes to EDU allocations. Under that prior proposal, CARB’s recalculation of 2027-2030 EDU allocations would have reduced SMUD’s allocation by approximately 25 percent, a cumulative loss of \$75 million to \$175 million for SMUD’s ratepayers. The addition of the effective RPS substantially reduces those cuts to approximately 5 percent, or \$15 million to \$36 million in total.

SMUD recommends CARB reverse the midstream changes to forecast data used to calculate the 2027-2030 EDU allocation

SMUD remains concerned that updating the EDU allocation using new forecast data will undermine confidence that voluntary action incentives can be counted upon in the future. As detailed in SMUD’s comments on the 45-day amendments, adopting a 10-year fixed allocation schedule was intended to provide EDUs with planning certainty and encourage voluntary GHG reductions; changing the fixed allocation midstream increases uncertainty and erodes confidence that such incentives are reliable.

Moreover, by substituting in a new forecast midway through this allocation schedule, even with the more accurate “effective RPS” described above, CARB’s 15-day amendments will result in material losses for SMUD and its customers.

For those reasons, SMUD continues to recommend that CARB retain the original forecast, which would reaffirm the importance of voluntary action, restore the original allocation, reverse potential harm to electric utility customers across the state, and align with CARB’s policy of encouraging voluntary action to reduce GHG emissions.

Importantly, it would also be consistent with the Legislature's clear focus on promoting and protecting electricity affordability.¹⁶³

SMUD supports the proposed changes in Cap-and-Invest that accelerate the pace of the natural gas allowance transition while maintaining implementation lead time for POU's.

SMUD appreciates the accelerated timeline for completing the transition of natural gas allowances to electric utilities in Table 9-6A in section 95893 of the Cap-and-Invest regulation. This accelerated transition date is consistent with the direction of AB 1207.4 SMUD additionally appreciates that the 15-day amendments retain a three-year implementation runway, as set forth in section 95892 (d)(9), which allows time for POU's that do not currently provide direct customer credits to design, plan, and deliver them.

SMUD believes that CARB's proposal recognizes both the urgency of the transition and the importance of thoughtful implementation.

Near-term rulemakings will be needed to resolve outstanding issues.

While the 15-day amendments to Cap-and-Invest and MRR, respectively, provide many important updates and clarifications, there are additional issues left unresolved: post-2030 EDU allowance allocations, a correction mechanism for outstanding emissions and allowance withholding to address potential errors, and emissions accounting for facilities equipped with CCS. As described by SMUD, other electric utilities, the Joint Utility Group, and other industry associations and coalitions in prior comment letters, these issues are pressing, with the potential for material impacts on EDU ratepayers and EDU planning and investment decisions that are being contemplated now. If CARB does not address these issues within the current rulemakings, it will be critical to open, and complete, timely successor rulemakings well in advance of 2030.

Conclusion

SMUD appreciates the opportunity to provide comments and reiterates the important roles of Cap-and-Invest and MRR in advancing achievement of the state's emissions reduction goals, encouraging voluntary GHG reductions and reinvestment of allowance value in GHG-reducing activities, supporting electricity affordability, and enabling complete and accurate emissions accounting. To that end, SMUD strongly supports CARB's incorporation of the effective RPS within the 2027-2030 EDU allocation, which substantially reduces harm to electricity ratepayers, but recommends CARB reconsider its proposal to change underlying forecast data to preserve the allocations established for California utilities and their customers many years ago. SMUD additionally urges CARB to address complete and accurate emissions accounting in both regulations for electricity generating facilities equipped with CCS, and at a minimum, clarify in the MRR Final Statement of Reasons that only atmospheric emissions from power plants

¹⁶³ Assem. Bill No. 1207 (2025-2026 Reg. Sess.),
https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202520260AB1207

equipped with CCS will be attributed and reported to the CEC for purposes of the Power Source Disclosure program. (15d-117)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments H-1.1b, H-1.2b, H-2.15, K-1.3b and S-3.1b in the Cap-and-Invest FSOR.

Comment: On January 13, 2026, the California Air Resources Board (CARB) posted its 2026 Amendments to the Mandatory Reporting Regulation (MRR proposed amendments) for public comment. In the bulletin announcing the posting, CARB noted that the regulation would be updated “to reflect the direction and process in AB 1207.” Assembly Bill (AB) 1207 extends the program previously known as the Cap-and-Trade Program through 2045 and gives additional directions to CARB.¹⁶⁴ Southern California Edison Company (SCE) provides its response to the MRR proposed amendments below.

I. State and Legislative Mandates Direct CARB to Prioritize Electric Customer Affordability as a Core Objective of its Regulations

As an overarching matter, state and legislative mandates require that the CARB’s primary objective in amending its Cap-and-Invest program’s allowance revenue allocation strategy is to promote and prioritize electric utility customer affordability. To that end, SCE respectfully requests that CARB reconsider some of its proposed amendments to further mitigate the cost of Cap-and-Invest compliance and promote electric customer affordability.

In recent years, California has moved from general affordability goals to more explicit statutory mandates to improve electricity affordability and mitigate customer bill impacts associated with the clean energy transition. For example, AB 205 (2022)¹⁶⁵ required an income-graduated fixed charge and bill relief for low-income customers. This mandate was subsequently implemented through the California Public Utilities Commission (CPUC) Decision (D.)24-05-028, establishing tiered fixed charges and reducing volumetric rates to lower marginal electricity prices.¹⁶⁶

State mandates have also directed agencies to consider using the Climate Credit as a tool to promote utility customer affordability. Governor Newsom in 2024 issued Executive Order N-5-24 declaring it “essential that electric service remains affordable, reliable, and safe for all Californians during our clean energy transition” and calling out

¹⁶⁴ California Air Resources Board. (2026, January 12). Public Posting of Amendments to the Cap-and-Invest Program and Mandatory Greenhouse Gas Emissions Reporting. [GovDelivery bulletin]. <https://content.govdelivery.com/accounts/CARB/bulletins/40400d6>

¹⁶⁵ California Legislature. (2022). Assembly Bill No. 205 (2021–2022 Reg. Sess.) (Energy), available at: https://leginfo.ca.gov/faces/billTextClient.xhtml?bill_id=202120220AB205

¹⁶⁶ CPUC Decision 24-05-028 (addressing Assembly Bill 205 requirements for electric utilities in Rulemaking 22-07-005) <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M531/K686/531686019.PDF>

the California Climate Credit as a tool that can be used in providing affordability.¹⁶⁷ The order directed the CPUC and CARB to explore “options to maximize the effectiveness of California’s Climate Credit,”¹⁶⁸ recognizing that returning Cap-and-Invest revenues to customers can offset rising electricity costs and reduce upward pressure on rates. The CPUC’s response included an assessment of how the Climate Credit could be redistributed to customers that need it the most.¹⁶⁹

In 2025, the Legislature enacted AB 1207 requiring CARB to consider affordability when adopting or amending regulations under the reauthorized Cap-and-Invest Program¹⁷⁰ and linking program design choices to minimize ratepayer impacts while meeting emissions reduction goals,¹⁷¹ thus reflecting a determination that climate policy and customer affordability should advance together.

The statutes, executive orders, and mandates are clear that affordability is an important objective in the transition to clean energy, and that the Climate Credit should be utilized as a tool to promote affordability in furtherance of these objectives. Importantly, the Cap-and-Invest program can play a critical role in supporting affordability through the Climate Credit, and in advancing electrification. When electricity prices are more affordable and predictable, customers are more likely to invest in electric technologies that reduce emissions over the long term. In this way, Cap-and-Invest can help address near-term affordability challenges while simultaneously removing a key barrier to electrification and emissions reduction.

CARB’s proposed amendments, however, when viewed holistically, do not go far enough to advance these affordability objectives for investor-owned utility (IOU) customers. Instead, the proposed amendments would effectively reduce bill support, despite the IOUs’ customers incurring the overwhelming cost of early climate action and the IOU customers’ continuing commitment to carbon-reducing technologies and renewable energy. SCE requests that CARB reevaluate the proposed Cap-and-Invest amendments through the lens of electric customer affordability, as we believe the Legislature intended. SCE also requests that CARB reconsider aspects of its proposed

¹⁶⁷ Newsom, G. (2024, October 30). Executive Order N-5-24: Addressing rising electricity costs and protecting ratepayers during California’s clean energy transition. Office of Governor Gavin Newsom. <https://www.gov.ca.gov/wp-content/uploads/2024/10/energy-EO-10-30-24.pdf>

¹⁶⁸ Id

¹⁶⁹ California Public Utilities Commission. (2025, February 18). CPUC response to Executive Order N-5-24. <https://www.cpuc.ca.gov/-/media/cpuc-website/industries-and-topics/reports/cpuc-response-to-executive-order-n-5-24.pdf>

¹⁷⁰ Health & Safety Code § 38562 (b)(7) (amended by AB 1207 to direct CARB to “[c]onsider the effect of these regulations on affordability, cost effectiveness, minimization of leakage in California, and achieving the requirements of Sections 38562.2 and 38566 and the purposes of this division.”)

¹⁷¹ Health & Safety Code § 38562 (b)(1)(B)(i) (amended by AB 1207 to direct CARB to “[d]esign the regulations, including distribution of emissions allowances where appropriate, in a manner that transitions support from gas corporations to electrical distribution utilities, as defined in Section 95802 of Title 17 of the California Code of Regulations, on or before January 1, 2031, to minimize ratepayer impacts and achieve the purposes of this division.”)

regulation to ensure that the program can effectively reduce ratepayer impacts and support the State's electrification goals.

Specifically, SCE recommends that CARB make the following changes to the proposed amendments to preserve existing levels of Electric Distribution Utilities (EDU) allowances necessary to support electric affordability:

- Adopt the Joint Utility Group's (JUG) proposal for CARB to use the effective Renewable Portfolio Standard (RPS) in the EDU allowance allocation methodology;
- Use the 2024 Integrated Energy Policy Report (IEPR) data, instead of 2025 IEPR data, in alignment with other critical state energy plans such as California Independent System Operator's (CAISO's) Transmission Planning Process and the CPUC's Integrated Resources Plan.
- Avoid the introduction of the Extended Day Ahead Market (EDAM) into the Outstanding Emissions calculation until further data can be obtained to support the proposed EDAM methodology.
- In addition to the technical changes above, CARB should re-allocate state-owned allowances to EDUs above forecasted levels to further support electric customer affordability and encourage electrification.

All of SCE's recommendations to CARB can be found in SCE's comments on the proposed Cap-and-Invest amendments.¹⁷² SCE provides below its recommendation on the EDAM methodology, which is specifically addressed within the MRR proposed amendments. (45d-273)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments H-1.1a, H-1.2a, H-2.5, H-4.2, H-4.3, L-1.2, M-1.3a and M-1.6a in the Cap-and-Invest FSOR.

Comment: On behalf of Amp Americas ("Amp"), we appreciate the opportunity to provide feedback on the Proposed Amendments to the Cap-and-Invest regulation and MRR, and submit this letter into dockets for both rules. Amp supports MRR and Cap-and-Invest as an important element of the State's overarching climate change framework, and generally supports the proposed amendments to update the programs in line with legislative direction and to provide ongoing market certainty.

We support and align our comments with those of the Renewable Natural Gas Coalition ("RNG Coalition"), and specifically request minor clarifying changes to ensure the opportunity and accounting for biomethane and avoided methane is clear under the rules.

¹⁷² Southern California Edison Company. (2026, March 9). *Comments of Southern California Edison Company on the proposed amendments to the California Cap-and-Invest regulation* [Public comment letter submitted to the California Air Resources Board]

About Amp Americas

Founded in 2011, Amp develops and operates RNG facilities that convert dairy waste into carbon-negative renewable energy. Over our history, Amp's projects have prevented over 2.6 million metric tons of carbon equivalent emissions, and we plan to rapidly expand our impact over the next several years.

As a pioneer in the dairy RNG industry, Amp registered the first 5 dairy RNG-to-CNG pathways in California's Low Carbon Fuel Standard ("LCFS"), and was the RNG supplier for the first 11 dairy RNG-to-hydrogen pathways. Our experience developing, operating, and reporting on these and other assets gives us a unique perspective on the impact CARB policy has on development of projects to reduce greenhouse gas ("GHG") emissions. Our projects and resulting methane and CO₂ reductions have been made possible by CARB's leadership in decarbonizing transportation, and we encourage CARB to continue to support the policy decisions that have made it so successful and build from them to reach other sectors covered under the Cap-and-Invest program.

Provide Additional Clarity and Expand the Manufacturing Decarbonization Incentive Allocation to All Hard-to-Abate Sectors in the Cap-and-Invest Program

We strongly support the proposed amendments to add a manufacturing decarbonization incentive allocation to the program, and specifically support inclusion of biomethane as an eligible technology. As identified in the ISOR, the cost to decarbonize many industrial facilities remains higher than allowance prices under the program.¹⁷³ An additional allocation to support industrial decarbonization will help develop and deploy strategies needed to decarbonize these sectors, including biomethane projects, become economically viable and be deployed more rapidly to support California's environmental goals.

We believe the proposal would benefit from further clarification and transparency around the allocation, so that biomethane or other low carbon fuel providers have greater insight into the potential value of the incremental allocation to support project development. Further, the strategies supported under the program are the same that are needed to decarbonize other hard-to-abate sectors, including refineries, hydrogen other fuel production facilities, power plants, and others. We urge CARB to expand the program to all hard-to-abate sectors and facilities covered under the program, in order to accelerate GHG reductions in the state and support more rapid development and scale of the strategies needed to support California's climate goals. (45d-293)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-8.1, O-8.4a, O-8.25, R-2.1, R-2.2, R-2.3a and S-1.1a in the Cap-and-Invest FSOR.

¹⁷³ See page 175 of ISOR

Comment: The Coalition for Sustainable Cement Manufacturing & Environment (“CSCME”) offers these comments on the January 20, 2026, California Air Resources Board’s (“CARB”) Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (“Proposed Amendments”).

CSCME is a coalition of all five cement manufacturers in California.¹⁷⁴ As described in the industry’s roadmap to net carbon neutrality, we support the state’s greenhouse gas (“GHG”) reduction goals and are committed to achieving carbon neutrality by 2045.¹⁷⁵ That commitment is backed by nearly two decades of working cooperatively and constructively with legislators and regulators to develop policies that advance the state’s climate goals and promote the technologically feasible and cost-effective reduction of GHG emissions while minimizing the risk of economic and emissions leakage. Those efforts include:

- Working with CARB on the design and implementation of the Cap-and-Invest (“C&I”) program.
- Supporting the passage of AB 398, which extended the program to 2030.
- Supporting the passage of AB 1207, which extended the program to 2045.

CSCME also worked closely with the legislature, environmental advocacy groups, and other interested stakeholders to develop and support the passage of SB 596. Supported by supermajorities in both the Assembly and the Senate, SB 596 recognized the unique challenges associated with achieving carbon neutrality in the California cement industry and established a statutory basis for enacting cement-specific tools within the C&I program that remove barriers to deep decarbonization and minimize the risk of leakage, including a border carbon adjustment.¹⁷⁶

Moreover, CARB should explicitly commit to a clear implementation timeline for an incremental BCA applied to imports and specifically designed to equalize the carbon compliance burden for all cement consumed in California. Such action is necessary to close the “carbon loophole” that favors imports and shifts production and investment outside the state’s climate policy frameworks, which not only harms the California cement industry but also directly undermines California’s decarbonization efforts.

Commit to and establish a timeline for implementation of an incremental BCA. Make clear in the regulatory record that import reporting is a precursor to a compliance-based

¹⁷⁴ The Coalition includes CalPortland Company, Cemex, Inc., Mitsubishi Cement Corporation, National Cement Company of California Inc., and UNACEM North America. There are seven cement plants currently in operation in California with locations in Lebec, Lucerne Valley, Mojave, Oro Grande, Redding, Tehachapi, and Victorville

¹⁷⁵ California Nevada Cement Association (July 2023). Achieving Carbon Neutrality in the California Cement Industry: Key Barriers & Policy Solutions. Second Edition. Available at <https://www.cncement.org/resource-library/achieving-carbon-neutrality-for-california-cement-producers>

¹⁷⁶ SB 596 was sponsored by Senator Becker, passed the legislature with a supermajority in both chambers, and was supported by a diverse coalition of industry and environmental stakeholders

BCA and commit to a general timeline for transitioning from reporting to compliance obligations.

Commit to and establish a timeline for implementation of an incremental BCA. Make clear in the regulatory record that import reporting is a precursor to a compliance-based BCA and commit to a general timeline for transitioning from reporting to compliance obligations.

Section 1. Border Carbon Adjustment

The California cement industry is widely recognized as both difficult to decarbonize and highly exposed to the risk of leakage from imported cement as California producers bear carbon costs that imported cement does not. As allowance allocations decline in the absence of a functional BCA mechanism, this asymmetry intensifies. These challenges heighten the urgency of creating a policy and regulatory environment that ensures that local cement producers are not placed at a competitive disadvantage to imports that are not held to a similar environmental standard.

Import reporting is an important first step toward a BCA. However, reporting alone does not address the immediate and increasing competitive imbalance. The cement industry has consistently advocated for a BCA that levels the competitive playing field and ensures that leakage protection does not erode faster than border measures are implemented.

The State of the California Cement Industry

As described in detail in our companion comment letter on the C&I Proposed Amendments, the California cement industry is recognized as hard-to-decarbonize and is highly exposed to leakage due to a variety of factors, including the following:

- **Exceptionally High GHG Emissions Intensity.** The cement industry has one of the highest GHG intensities of any California industry, as measured by GHG emissions per dollar of economic value added. This GHG intensity is multiple times greater than any other major California industry and results in the cement industry facing a higher compliance burden associated with carbon pricing mechanisms. For an emissions-intensive industry like cement, even small increases in carbon costs, whether due to increases in carbon price or other regulatory measures, can have a devastating effect on a producer's economic viability.
- **A Dominant Share of Process Emissions.** Cement production entails a significant amount of process emissions – that is, GHG emissions that result from the chemical transformation of limestone into clinker, as opposed to fuel combustion. Process emissions represent roughly two-thirds of the industry's GHG footprint.
- **Extreme Exposure to Import Competition.** The cement industry is extremely vulnerable to imports because:
 - Cement is a fungible, globally traded commodity that is purchased primarily based on price.

- The vast majority of California cement demand is within a short distance of the coast, and therefore, demand can be easily met by imports from outside California with less stringent environmental regulations, including from sources located vast distances from the California market.
- California has the infrastructure capacity (*i.e.*, terminals) to readily accommodate a rapid expansion of imports.

The California cement industry's extreme exposure to import competition is compounded by the fact that California cement manufacturers are required to surrender C&I allowances for the GHG emissions associated with their products — a requirement that does not apply to cement importers. This regulatory asymmetry creates a "carbon loophole" that gives a competitive advantage to cement sourced from outside California and undermines the state's climate objectives by amplifying the risk of economic and emissions leakage and by preventing long-term investments in deep decarbonization within the California cement industry.

An incremental BCA would close the carbon loophole for imports by ensuring that similar carbon costs are imposed on all cement consumed in California, regardless of where it is produced. Such a measure is essential to both minimize leakage and strengthen the overall integrity of California's climate programs.

The Need & Rationale for an Incremental BCA

From the cement industry's perspective, the most tailored and least disruptive measure to level the carbon playing field between California producers and imports, while minimizing the impact on affordability, is to adopt an incremental BCA. Under an incremental BCA:

- California producers would continue to receive allowance allocations at a per unit rate each year, which would continue to decline each year according to the cement industry's cap adjustment factor ("CAF").
- Cement importers would incur costs for the GHG emissions associated with their products consumed in California, but only on the portion that exceeds the per-unit allocation rate applied to California producers.

This design ensures that imports are held to comparable standards, preserves the incentive for domestic producers to reduce the GHG intensity of their products, and minimizes the price impacts associated with a full carbon cost adjustment for downstream users of cement.

An incremental BCA would add a modest carbon cost to imported cement equal to the net cost that the product would incur if it were produced in California. This approach provides a wide range of important benefits, including:

- Continuing to provide California cement manufacturers with a clear, consistent incentive to reduce their GHG intensity.
- Ensuring that imported cement is held to similar standards and reducing the risk that deep decarbonization investments will be undermined by imports that are not held to similar standards.

- Allowing domestic producers to recover a portion of the costs associated with deep decarbonization investments via the market while minimizing the negative impact on affordability due to its incremental nature. Effectively closing California's carbon accounting loophole by ensuring the state holds itself responsible for the GHG emissions associated with its cement consumption — not just those that are produced within its borders.

Statutory & Policy Mandates

CARB has long acknowledged the importance of border adjustments as a leakage-minimization tool. In its foundational leakage analysis (Appendix K) published in 2010, CARB recognized that border adjustments are a first-choice mechanism for addressing leakage risk.¹⁷⁷ In December 2010, CARB adopted Resolution 10-42, which found that:

*The high emissions intensity of cement production relative to the value of the product produced makes the cement sector particularly well-suited as a pilot project for the development and consideration of a border adjustment approach to addressing the potential for leakage that could result from increases in cement importation.*¹⁷⁸

Accordingly, the Board directed the Executive Officer to:

*review the technical and legal issues related to implementation of a border adjustment to impose obligations on importers of cement that are equivalent to those faced by California cement manufacturers under the cap-and-trade regulation, and to implement such a provision (either as part of the 15-day modifications, if it is feasible, or as part of another process) if it is necessary to avoid leakage in the cement sector.*¹⁷⁹

The California legislative record also points in a clear direction. AB 32 requires CARB to "minimize leakage" in designing emissions reduction regulations.¹⁸⁰ AB 398, which extended the C&I program to 2030, required CARB to report to the Legislature on program progress and recommend necessary statutory changes to reduce emissions leakage, including the potential for a border carbon adjustment.¹⁸¹ SB 596, which was supported by supermajorities in both chambers, explicitly directs CARB to develop a comprehensive strategy for the state's cement sector, including:

provisions to minimize and mitigate potential leakage and account for embedded emissions of greenhouse gases in imported cement in a similar manner to emissions of

¹⁷⁷ CARB (Oct 2010). Proposed Regulation to Implement the California Cap-and-Trade Program. Appendix K. Leakage Analysis. Page 33

¹⁷⁸ CARB (Dec 2010). California Cap-and-Trade Program. Resolution 10-42. Page 4

¹⁷⁹ CARB (Dec 2010). California Cap-and-Trade Program. Resolution 10-42. Page 11

¹⁸⁰ AB 32 (Núñez and Pavley, Chapter 488, Statutes of 2006). Codified at California Health & Safety Code §38562(b)(8)

¹⁸¹ AB 398 (Garcia, Chapter 135, Statutes of 2017), as codified at California Health & Safety Code §38591.2(c) (requiring CARB to report to the Legislature by December 31, 2025, on program progress and to "recommend necessary statutory changes to the program to reduce emissions leakage" including "the potential for a border carbon adjustment")

*greenhouse gases for cement produced in the state, such as through a border carbon adjustment mechanism.*¹⁸²

The cement industry has consistently advocated for such a measure across more than a decade of regulatory proceedings. The policy rationale for an incremental approach has remained consistent throughout: by limiting the importer's compliance obligation to the difference between the GHG intensity of the imported product and the per-unit allocation rate received by California producers, an incremental BCA levels the competitive playing field while minimizing the impact on affordability for California customers. This design ensures that imports are held to comparable standards, preserves the incentive for both domestic producers and importers to reduce the GHG intensity of their products, and minimizes the price impacts associated with a full carbon cost adjustment for downstream users of cement.

In summary, the regulatory record, legislative record, and policy rationale all point in the same direction: California should implement an incremental border carbon adjustment for imported cement. The question is not whether such a mechanism is warranted — it is how quickly CARB can bring it to fruition.

CARB Should Establish a Timeline to Implement an Incremental BCA

The ISOR provides the following rationale for the proposed new reporting requirements for cement importers:

*SB 596 (Greenhouse gases: cement sector: net-zero emissions strategy, 2021-2022) establishes a target of net-zero GHG emissions for the cement sector in California by 2045 and requires emissions reductions from all cement used in California, including imported cement. This amendment is necessary to collect the data needed to track and analyze GHG emissions associated with imported cement used in California to support implementation of SB 596.*¹⁸³

As explained above, SB 596 also directs CARB to consider a BCA to minimize carbon leakage and account for GHG emissions embedded in imported cement in a similar manner as GHG emissions from cement produced in California. The cement industry supports CARB's actions to adopt a BCA, which are aligned with CARB's mandate in SB 596. However, CARB has not provided a timeline for implementation for the BCA, which creates uncertainty for the California cement industry. The ability to underwrite decarbonization investments depends on expectations of a functional BCA – without a credible timeline, capital deployment is likely to stall.

In addition, CARB has made no commitment to interim protection during the implementation of a BCA, such as a freeze of the CAF. Due to a combination of a declining CAF and escalating allowance prices, the carbon cost differential between

¹⁸² AB 398 (Garcia, Chapter 135, Statutes of 2017), as codified at California Health & Safety Code §38591.2(c) (requiring CARB to report to the Legislature by December 31, 2025, on program progress and to "recommend necessary statutory changes to the program to reduce emissions leakage" including "the potential for a border carbon adjustment")

¹⁸³ See Staff Report: Initial Statement of Reasons ("ISOR") at 30

California producers and importers has reached an unsustainable level. California's cement plants already operate under some of the world's most stringent emissions standards, air quality regulations, and environmental requirements, and since the passage of AB 32, the California manufacturing footprint contracted from eleven plants to seven, with no closures reversed. Until an effective BCA is in place, continuing to tighten the CAF will simply worsen the situation for the cement industry and stifle the necessary conditions for significant decarbonization investments. A temporary pause would give both the cement industry and CARB the time to transition to an effective BCA without losing ground on climate progress.

Pause the decline in the alternate CAF for the cement industry until a credible BCA mechanism is operational, at which point the CAF decline should resume on a trajectory that converges with the currently proposed schedule.

Section 3. Proposed Revisions to MRR Reporting in the Cement Sector

The C&I Proposed Amendments modify the definition of output for cement from "Adjusted Clinker and Mineral Additives" to "Finished Cement," which expands the scope from ordinary portland cement ("OPC") and limestone portland cement ("PLC") to also include blended cements that incorporate SCMs. The C&I Proposed Amendments also expand the definition of "Cement" to include all types of cement that meet specification standards for, or demonstrate functional equivalence to, conventional cement types under, for example, ASTM C150, ASTM C595, and ASTM C1157.

CSCME strongly supports expanding the definition of output and the corresponding changes to the product-based allocation methodology. The changes are sound in principle and align the allocation framework with the direction in which the cement industry and the broader construction industry are moving. Blended cements that incorporate SCMs are a proven and immediately deployable pathway for reducing the GHG intensity of cement. By expanding the benchmark to include SCMs used to make finished cement, CARB creates a direct incentive for cement producers to increase their use. This is exactly the type of market-based decarbonization signal that the C&I program should be sending.

That being said, CSCME notes that the treatment of SCM producers under the allocation framework raises separate and distinct issues, as discussed further below. CSCME's support for the expanded cement definition should not be construed as support for extending industrial allowance allocation to SCM producers themselves, which we believe is both counter to the essential purpose of industrial allowance allocation and undermines the incentive to increase the production of blended cements that the expansion of the definition of cement is intended to support.

The comments below address the extension of allowance allocation to SCM producers under the C&I Proposed Amendments, related definitions and reporting obligations under the MRR Proposed Amendments, and definitions under both the C&I Proposed Amendments and the MRR Proposed Amendments.

Industrial Allowance Allocation for SCM Producers

CARB's C&I Proposed Amendments would extend industrial allowance allocation to certain producers of SCMs. CARB's approach is based on the premise that SCMs are the "functional equivalent" of cement when used to produce blended products. CSCME respectfully notes that this approach is in conflict with the foundational principles of industrial allocation under the C&I program, undermines the incentive that CARB seeks to create by expanding the definition of cement to include SCMs, and increases the risk of leakage in the California cement industry.

Assessment of CARB's Proposed Approach

SCMs Are Not the Functional Equivalent of Cement

SCMs are, by definition, supplementary. They *partially* substitute for clinker in blended cement formulations, and they are not stand-alone binders that can perform the structural and chemical function of clinker-based cement in isolation.

Clinker-based cement is the primary hydraulic binder in concrete. It is the component that drives the chemical hydration process that gives concrete strength and durability. SCMs displace a portion of clinker in blended formulations, but they rely on the presence of clinker to activate their performance characteristics. They do not constitute a complete or independent product equivalent to cement.

Treating SCMs as the "functional equivalent" of cement for purposes of allocation collapses a critical distinction in the cement-concrete supply chain. Cement is manufactured at emissions-intensive, trade-exposed industrial facilities operating kilns with significant process emissions. In contrast, SCM producers are neither manufacturers of finished cement nor emissions intensive operations. The same applies to concrete batch plants, which produce concrete by "batching" cement, SCMs, aggregates, and water.

Blurring these distinctions for allocation purposes creates a conceptual mismatch between regulatory constructs and industrial reality. The industrial allocation framework is product-based and benchmark-driven. It is not designed to treat upstream clinker production and downstream material blending as interchangeable activities.

Free Allocation Is Intended to Minimize Leakage in Exposed Industries

Under the C&I program, industrial allocation is explicitly justified as a leakage-minimization mechanism for emissions-intensive, trade-exposed sectors. Section 95891 establishes product-based benchmarks and cap adjustment factors ("CAFs") for industrial sectors in order to mitigate the risk that carbon costs imposed in California will shift production and associated emissions to jurisdictions without comparable constraints. The policy rationale is clear: free allocation is not a general industrial incentive. It is a targeted tool to address leakage risk in sectors that are both

(1) emissions-intensive and (2) exposed to interstate or international trade. SCM production does not meet these criteria:

- SCM production is not process-emissions intensive.

- Many SCMs are industrial byproducts (e.g., fly ash, slag) or low-process materials.
- There is no demonstration in the regulatory record that SCM producers face material leakage risk due to allowance compliance costs.
- The ISOR accompanying the proposed amendments does not provide an assessment of leakage exposure for SCM producers.

Absent such an analysis, extending allocation to SCM producers represents a departure from the program's own leakage-based logic.

Moreover, even if CARB were to conduct such an assessment, it is difficult to see how SCM production would qualify as emissions-intensive or meaningfully trade-exposed due to carbon costs. The very premise of SCM use is that it lowers the carbon intensity of cementitious materials. Extending leakage protection to industries not at risk of leakage will undermine the policy rationale for allocation and inviting broader challenges to the structure of the program.

Allocation to SCM Producers Undermines the Incentive to Expand Blended Cements

CARB has appropriately identified the expansion of blended cement as a critical near-term decarbonization pathway. SB 596 directs CARB to evaluate and implement measures to reduce the greenhouse gas intensity of cement used in California and to support market demand for lower-carbon cementitious products.

We understand that CARB's objective in this context is to ensure that the incentive to produce blended cement is not sensitive to where blending occurs in the supply chain. However, industrial allowance allocation is not the appropriate mechanism to achieve downstream demand incentives.

Under the proposed approach, if SCM producers receive allocation when selling to concrete batch plants or other downstream entities, allowance value effectively shifts away from clinker manufacturing facilities and toward activities that are neither emissions-intensive nor leakage-exposed. This does not strengthen the decarbonization signal for cement producers. It weakens it.

The core purpose of expanding the definition of cement is to ensure that cement manufacturers can receive allocation based on lower-clinker blended products. That objective can be accomplished within the cement benchmark framework, without extending allocation to non-cement producers. Providing allocation to SCM producers creates a workaround that:

- Diverts allowance value away from clinker facilities that face genuine leakage risk;
- Complicates benchmark administration and product accounting; and
- Undermines the integrity of the product-based allocation structure.

In effect, the proposal attempts to use a leakage-mitigation tool to solve a downstream demand problem. Those are distinct policy challenges that warrant distinct policy instruments.

Industrial Allocation Is Not the Proper Tool to Drive Downstream Market Demand

If CARB's objective is to accelerate the adoption of blended cement in the concrete market, there are more direct and transparent tools available. These include:

- Procurement standards and performance-based specifications;
- Carbon intensity disclosure requirements (e.g., EPD-based policies);
- Advanced market commitments or targeted demand-side incentives; and
- Implementation of SB 596's directive to support low-GHG cement demand.

Industrial allowance allocation is designed to minimize leakage, not to subsidize input materials or restructure supply-chain incentives.

Summary of CSCME Recommendations

For these reasons, we urge CARB to:

- Refrain from extending industrial allocation to SCM producers.¹⁸⁴
- Explore alternative, demand-side mechanisms to increase blended cement adoption downstream in lieu of industrial allowance allocation.

This approach would preserve the integrity of the leakage-protection framework, avoid definitional distortions in the cement-concrete supply chain, and more cleanly align policy instruments with policy objectives.

Remove the application of the C&I allowance allocation program to SCM producers and implement corresponding revisions to applicable provisions and definitions under the C&I and MRR Proposed Amendments.

The Definition of "Finished Cement" (i.e., Output)

Under the C&I Proposed Amendments, CARB seeks to ensure equivalent treatment of SCM use regardless of where blending occurs in the supply chain. To accomplish this, the amendments propose a definition of "finished cement," which means "cement that includes adjusted clinker, mineral additives, and SCMs produced by a covered or opt-in covered entity."¹⁸⁵

The proposed approach generally reflects several sound policy instincts. It explicitly recognizes the use of SCMs as a critical near-term pathway for reducing clinker-related

¹⁸⁴ CSCME also requests corresponding changes to the C&I and MRR Proposed Amendments, including, but not limited to the following: (1) remove the proposed revision in Section 95891 of the C&I Proposed Amendments to the variable Oa, t-2; (2) remove the rows in Table 8-1 of the C&I Proposed Amendments for "Mining (except oil and gas) for Supplementary Cementitious Materials" and "Nonmetallic Mineral Product Manufacturing for Supplementary Cementitious Materials"; (3) remove the rows in Table 9-1 of the C&I Proposed Amendments in the Cement Manufacturing NAICS Sector Definition for "Mining (except oil and gas) for Supplementary Cementitious Materials" and "Nonmetallic Mineral Product Manufacturing for Supplementary Cementitious Materials"; (4) delete the proposed Section 95110(5) and insert: "Annual quantity of SCMs consumed for blending (short tons) by SCM type."; and (5) delete Section 95115(22) of the MRR Proposed Amendments

¹⁸⁵ C&I Proposed Amendments § 95802(a)

emissions. By expanding the benchmark to include SCMs used to make finished cement, CARB creates a direct incentive for cement producers to increase their use. This is exactly the type of market-based decarbonization signal that the C&I program should be sending. As CARB acknowledges:

*As California transitions to a decarbonized economy, it is important (1) to support increased use of low-carbon materials to make cement, and (2) to treat conventional and low-carbon cements on an equivalent basis when providing leakage protection if a low-carbon cement can be demonstrated to be functionally equivalent to conventional cement.*¹⁸⁶ CSCME's supports CARB's proposals to change the definition of cement output from "Adjusted Clinker and Mineral Additives Produced" to "Finished Cement" and broaden the scope of output to include SCMs. However, as done with the prior output metric, we strongly recommend that CARB specify the components and calculation of "Finished Cement" for clarity. Specifically, we recommend that "Finished Cement" be defined as follows:

"Finished cement" means cement that includes adjusted clinker, mineral additives, and SCMs produced by a covered or opt-in covered entity the annual amount of clinker, limestone, gypsum, baghouse dust, grind aids, and SCM output derived by using the following metric: Finished cement = clinker produced x (1 + (limestone, gypsum, baghouse dust, grind aids, and SCMs consumed)/clinker consumed)).

In addition, given that the prior output metric of "Adjusted Clinker and Mineral Additives Produced" no longer clearly serves a functional purpose, we recommend that CARB delete that definition in its entirety to avoid confusion in the future. (45d-285)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-2.2a, O-4.1a, O-5.6a, O-6.2, O-6.3, O-6.4a, O-6.6a, O-7.2a, O-8.3a, O-8.11, O-8.13, O-8.15a, O-8.17a, O-8.19, O-8.31a, S-3.1a and S-3.2 in the Cap-and-Invest FSOR.

Comment: CSCME appreciates CARB's continued efforts to refine the C&I program to meet the state's climate objectives while remaining responsive to changing economic conditions, abrupt shifts in federal policy, and the evolving needs of hard-to-decarbonize industries. We also recognize that CARB must balance a wide range of competing objectives, including the difficult task of allocating scarce allowance value in a manner that both advances climate policy goals and mitigates the program's adverse economic impacts on California consumers and businesses.

The consequences of that balancing act are critically important for the California cement industry, which CARB has repeatedly and explicitly recognized as both high leakage risk and hard-to-decarbonize. Failure to provide adequate leakage protection or unlock decarbonization pathways for the cement industry does not merely exact an economic

¹⁸⁶ C&I ISOR at 63

cost. It results in plant closures and the relocation of GHG emissions to other jurisdictions, which undermines the very climate objectives that the program aims to achieve.

These are not abstract concerns. They are the real-world consequences of design choices that CARB has an opportunity to get right during this regulatory cycle. As documented in our comments to the initial package of Proposed Amendments ("45-Day Amendments"), the California cement industry is in a critical condition, struggling under the weight of ever higher regulatory costs and increasing competition from unregulated imports. There were eleven cement plants in California when AB 32 was passed in 2006. Only seven plants are operational today. At the same time, cement imports have grown from virtually zero at the start of the C&I program in 2013 to more than a quarter of the market in 2025.¹⁸⁷ And less than a month ago, CalPortland announced a significant reduction in the workforce at its Redding plant. That decision was driven in part by increased energy and environmental costs that place it at a competitive disadvantage to imports in northern California, which is particularly noteworthy given that Redding is the only cement plant located in the northern California market. The choices that CARB makes during this regulatory cycle will determine whether this unfortunate event proves to be a temporary, isolated incident or signals the continuing decline of California's capability to produce the cement necessary for its own housing and critical infrastructure.

These industry trends were driven in no small part by the regulatory costs that the C&I program imposes on domestic producers but not on their foreign competitors. That cost asymmetry is not incidental to the program's design. It is a deep structural flaw that will only intensify as allowance allocations decline, carbon prices rise, and imports remain unregulated. It is compounded by the fact that roughly two-thirds of the industry's direct GHG emissions are due to the unavoidable chemical reaction required to produce clinker, which severely limits the industry's ability to cost-effectively decarbonize through fuel switching or electrification alone. And it has been amplified by the recent onset of broad-based economic uncertainty, rapid increases in energy prices, and the loss of federal funding for decarbonization investments. The C&I program cannot solve all of the industry's current challenges, but it can and should avoid making them even worse.

The stakes of getting it right extend well beyond the cement industry. Cement is an essential ingredient to virtually every type of California construction: housing, roads, water systems, schools, and the climate-resilient infrastructure in which the state is actively investing to meet its long-term resilience and affordability goals. The cost of cement flows directly into the cost of those projects, and therefore, the availability of affordable cement is a matter of significant public interest. Any measures that further exacerbate the significantly higher regulatory cost burden faced by California manufacturers actively thwart that interest by shifting demand to more carbon-intensive

¹⁸⁷ See Coalition for Sustainable Cement Manufacturing & Environment, *The California Cement Industry's Comments on Proposed Amendments to the California Cap-and-Invest Program* (March 9, 2026) ("CSCME 45-Day C&I Comments") at 16-29 (providing a detailed description of the state of the California cement industry and how it has fared under the C&I program)

imports without materially reducing costs for consumers. AB 1207 directs CARB to take affordability seriously. Doing so requires maintaining a competitive California cement industry — not merely tolerating and overseeing its decline.

From a cement industry perspective, the Proposed Amendments must be viewed against this backdrop of declining production, increasing imports, elevated energy prices, and escalating compliance costs. Time is of the essence, and positive policy changes are needed now. Economic and emissions leakage is happening today, and further delay will only exacerbate it. We believe that, on balance, the Proposed Amendments meaningfully move the needle in a positive direction for the cement industry, especially the updated definition of cement output and the creation of the Manufacturing Decarbonization Incentive (“MDI”). Accordingly, CSCME supports timely adoption, and we urge the Board to approve a package of amended C&I and MRR regulations at its next meeting.

At the same time, CSCME recognizes that no regulation emerges without open questions, and this one is no exception. As detailed in this comment letter, there are substantive issues in the Proposed Amendments that are problematic from the cement industry’s perspective. But we do not believe that they justify delay, and we look forward to working with CARB to resolve them at the earliest possible opportunity through staff implementation and subsequent regulatory actions.

CARB proposes to continue to reduce the industry’s leakage protection in the face of increasing allowance prices and in the absence of a level playing field. CSCME urges CARB to consider, as part of a future rulemaking, pausing alternative CAFs for the cement industry until it is able to level the playing field with imports.

CARB proposes to provide industrial allowance allocations to SCM producers that divert their limited supply to concrete plants, despite the fact that SCM producers are not exposed to leakage risk and warnings that the approach will undermine SCM blending within the cement industry. CSCME urges CARB to remove SCM producers from the list of activities eligible for leakage assistance until it has conducted analysis that demonstrates that: (a) SCM production is a leakage-exposed activity as defined by the analytical framework CARB applies to all other industries that receive industrial allocations and (b) providing allowance allocations to SCM producers will not undermine the cement industry’s ability to decarbonize.

CARB proposes several revisions to the MDI that will significantly improve its accessibility and usability from the cement industry’s perspective. CSCME strongly supports the adoption of the MDI in light of those changes, and we urge CARB to implement it in a timely fashion so that it can begin catalyzing large-scale decarbonization projects in the cement industry without any undue delay.

Section 2: MDI Refinements

CSCME's initial comment letter raised significant concerns about the MDI.¹⁸⁸ Those concerns centered on the program's accessibility, usability, and the counterintuitive decision to direct weaker modifier support toward the industries that CARB has identified as hard to decarbonize.

The 15-Day Amendments address those concerns in a meaningful and substantive way. By replacing the differentiated and front-loaded modifier schedule with a flat modifier of 0.8 applied consistently across all eligible sectors and all budget years, CARB has substantially increased the total MDI value available to hard-to-decarbonize industries like cement. The shift to a flat modifier; the expansion of eligible expenditures to include biomass capital costs, SCM-related capital costs, and Carbon Capture, Utilization, and Storage (“CCUS”) investments; and the extension of the usability window to two compliance periods represent genuine and material improvements in the program's potential to support decarbonization investment in the cement sector. We appreciate CARB’s responsiveness to the industry’s concerns, and we believe that the

proposed modifications achieve the goal of making the program substantially more accessible and usable for the cement industry and other potential participants.

That said, we offer two refinements that would further improve the program's effectiveness.

The Usability Window

The 15-Day Amendments extend the spending window to the end of two compliance periods following the compliance period of the MDI allowance budget year — a practical timeline of six to seven years depending on compliance period length.¹⁸⁹ This is a meaningful improvement over the five-year deadline in the 45-Day Amendments. However, six to seven years is still likely to be insufficient to support the cement industry’s most consequential decarbonization investments (e.g., CCUS or other investments that may be encumbered by permitting delays).

As documented in CSCME’s initial comment letter and in the record developed under SB 596, CCUS projects at cement facilities require a minimum of eight to ten years from initial planning through permitting, financing, construction, and commissioning before the first ton of CO₂ is captured. A facility that applies for MDI allocation in the first compliance period and immediately begins project development may still face project timelines that exceed the spending window due to permitting delays or other matters that are well outside its control.

In addition, the section on spending deadlines and the return of unused allowances includes new language that suggests that facilities must “achieve” GHG emission reductions by the relevant deadline.⁹ On the one hand, CSCME understands CARB’s interest in ensuring that MDI allowances are used to create meaningful GHG reductions. On the other hand, we caution that language requiring emissions reductions before an

¹⁸⁸ *Id.* at Section 6

¹⁸⁹ CARB 15-Day C&I Notice at Attachment A-1, 209 (§95891(g)(8))

arbitrary regulatory deadline could inadvertently discourage the use of MDI allowance value to make the long-term systemic reductions necessary to meet net carbon neutrality targets. CCUS projects offer obvious examples, but even shorter-term projects could be deterred if there is any uncertainty about whether they will be operational and generating GHG reductions before the applicable deadline.

Accordingly, CSCME urges CARB to: (1) extend the spending window to three compliance periods so that it better aligns the actual investment timelines of the projects it is designed to support and (2) modify the language to avoid deterring investments that will clearly achieve meaningful GHG emission reductions, as determined by CARB, even if they are expected to be completed after the applicable deadline

Treatment of Partially Biogenic Fuels

The 15-Day Amendments cap biomass operating expense eligibility at 50% and exclude fuels that are only partially biogenic from the eligible expenditure category entirely.¹⁹⁰ CSCME views the 50% cap on fuel expenditures as a reasonable alternative to the previously proposed approach of establishing an updating biomass fuel baseline, and we appreciate CARB's efforts to reduce the penalty for early adopters while still providing an incentive for expanding future use.

However, the 15-Day Amendments introduce a new condition under which expenditures for partially biogenic fuels cannot be credited against the 50% cap.¹⁹¹ This creates an artificial and arbitrary cliff effect that is difficult to justify on environmental grounds. Many of the alternative fuels most accessible to California cement kilns are engineered fuels and blended fuel streams that are partially biogenic. These fuels still meaningfully reduce net GHG emissions relative to fully fossil alternatives, and the extent of that reduction is directly proportional to their biogenic content. To use an extreme example, under CARB's proposed approach, a fuel that is 100% biogenic will receive full credit while a fuel that is 99% biogenic will receive none — an outcome that is neither analytically defensible nor consistent with the program's stated goal of incentivizing emissions reductions.

CSCME urges CARB to credit biogenic fuel operating expenses in proportion to actual biogenic content. This approach would preserve the cost-sharing logic of the 50% cap, while eliminating the cliff effect and more accurately reflecting the GHG benefit of partially biogenic fuels.

Section 3: Reduced Leakage Protection

The Cap Adjustment Factor ("CAF") is the single most important variable in the allowance allocation framework. It determines the rate at which the cement industry's free allocations decline over time and, therefore, determines the pace at which leakage protection is withdrawn. In the absence of a mechanism to level the playing field with imported cement, a declining allowance allocation rate combined with increasing

¹⁹⁰ CARB 15-Day C&I Notice at Attachment A-1, 201 (§95891(g)(2)(A))

¹⁹¹ *Id*

allowance prices will, by construction, result in increased leakage risk in the California cement industry.

In our initial comment letter, CSCME requested that CARB pause the decline in the alternate CAFs to prevent this inevitable erosion of leakage protection.¹⁹² Specifically, we recommended that CARB pause the CAF decline until it is able to implement a mechanism to level the carbon playing field, at which point the CAF decline would resume on a trajectory that gradually converges with the schedule contemplated under the Proposed Amendments. The rationale is straightforward: if CARB is unable to provide the cement industry with the long-term regulatory clarity it needs to justify the capital-intensive investments required for deep decarbonization, CARB can at least provide a general assurance that the level of leakage protection will not continue to diminish before imports are held to a comparable standard.

To be clear, by suggesting a pause in alternative CAFs, CSCME is not suggesting that CARB abandon the concept of CAF declines or that the cement industry should be permanently insulated from the cost of carbon. What we are suggesting is that the cement industry's level of leakage protection should account for both rising allowance prices and the continuing absence of any mechanism to hold imports to a comparable standard. As allocation declines and carbon prices rise, the net compliance cost imposed on California cement producers relative to their unregulated foreign competitors will increase each year — a structural dynamic that CARB's own leakage risk framework implicitly recognizes but that the proposed CAF schedule fails to address.

With those considerations in mind, as part of a future rulemaking, CSCME urges CARB to pause alternative CAFs for the cement industry until it is able to level the playing field with imports. The rationale behind such an approach has only been strengthened by CARB's proposal to only specify CAFs out to 2030, which provides little long-term clarity regarding the industry's allowance allocation rate and, therefore, the financial and competitive impacts associated with investing in decarbonization projects. A contingent pause in alternative CAFs will provide cement and other hard-to-decarbonize industries with assurances that any such investments will not simply be undermined and devalued by imports that do not bear similar costs.

Section 4: Extending Leakage Assistance to SCM Producers

CARB proposes to provide industrial allowance allocations to SCM producers for output that is sold directly to concrete plants that mix it with finished cement to produce concrete. In our initial comment letter, CSCME raised two key concerns about the proposed approach.¹⁹³

- It is fundamentally inconsistent with the purpose of the industrial allowance allocation system as documented across almost two decades of rulemakings, which is to reduce leakage risk.

¹⁹² See CSCME 45-Day C&I Comments at Sections 3 and 5.3

¹⁹³ See CSCME 45-Day C&I Comments at Section 7

- It affirmatively undermines the basic rationale behind and potential impact of updating the definition of cement output, as it disincentivizes SCM producers from selling their products to cement manufacturers to produce blended cement.

The 15-Day Amendments fail to address either of these concerns. CARB's sole revision was to clarify that out-of-state SCM producers are not eligible to receive leakage assistance, which seemed self-evident and was not the crux of CSCME's concerns.

SCM Producers Do not Merit Leakage Protection

According to CARB, industrial allowance allocation exists for the sole purpose of mitigating leakage risk. This policy rationale is clearly documented in almost two decades of rulemakings, including workshops, regulations, and scoping plans. As just one of many examples, the Initial Statement of Reasons ("ISOR") for this rulemaking, CARB clear states that:

*"Product-based industrial allocation within the Regulation is designed to minimize the risk of emissions leakage, per AB 32 and AB 398."*¹⁹⁴

Elsewhere in the ISOR, CARB provides a more elaborate description of the drivers of emissions leakage and how the industrial allowance allocation system is designed to minimize it:

*"The carbon price imparted by the Program is California's primary policy tool to incentivize decarbonization of in-state industrial facilities. However, the carbon price imparted by the Program may also increase the risk of emissions leakage, defined by AB 32 as a decrease in GHG emissions in-state that is offset by an increase in out-of-state GHG emissions. Emissions leakage can occur when compliance costs faced by regulated businesses are not shared by competitors outside the regulated jurisdiction. Pursuant to AB 32 and AB 1207, CARB is mandated to minimize emissions leakage risk and designed output-based allowance allocation to industrial entities to minimize leakage risk by creating an incentive for emissions-efficient in-state production."*¹⁹⁵

The implications are clear: (a) industrial allowance allocation is intended to minimize leakage risk and (b) leakage risk is ultimately a function of the increased costs associated with exposure to the carbon price. Put differently, if an entity is not exposed to material carbon costs, it is not at risk of leakage and, therefore, should not receive industrial allowance allocations.

In proposing to provide industrial allowance allocations to SCM producers, CARB has defied its own program logic and undermined its long-standing policy rationale. SCM producers do not make carbon-intensive products, which is the value in using them to reduce the GHG emissions associated with cement. In fact, the Proposed Amendments

¹⁹⁴ California Air Resources Board, Public Hearing to Consider the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms, Staff Report: Initial Statement of Reasons ("CARB 45-Day C&I ISOR")(January 20, 2026) at 343

¹⁹⁵ CARB 45-Day C&I ISOR at 58

require SCM producers to opt-in to the program to receive allowance allocations, as their GHG footprints are so small that they do not automatically qualify as a covered entity.

Simply put, SCM producers do not have a material exposure to the carbon price imparted by the C&I program and, therefore, do not merit leakage protection. SCMs are either carbon-intensive products that potentially merit leakage protection, or they are not carbon-intensive products that have the potential to reduce the GHG emissions associated with cement production and consumption. But they cannot be both.

CARB's decision to extend leakage assistance to SCM producers is also procedurally deficient in a way that has no precedent in the program's history. CARB has effectively declared SCMs as high leakage risk without conducting any documented analysis of GHG emissions intensity and trade exposure, which is a methodology that dates to the program's original design and serves as the analytical foundation on which the program's leakage classifications rest. As a result, CARB has not demonstrated that in-state SCM producers are likely to experience material compliance cost burdens that will place them at a disadvantage to out-of-state producers. It has simply added SCM producers to Table 8-1. That is not a defensible basis for allocating scarce allowance value, and it is precisely the kind of procedural shortcut that, if left uncorrected, will erode the credibility of CARB's approach to leakage minimization in general.

The addition of SCM producers to Table 8-1 suggests that CARB views SCMs as sufficiently similar to cement to merit comparable leakage protection, but that view is also misguided. Cement and SCMs are not functionally equivalent — technically or economically. The word "supplemental" is not incidental: SCMs are, by definition, a supplement to cement, not a substitute for it. A contractor cannot build a structure with pozzolan, fly ash, or slag alone. SCMs derive their value almost entirely from their use in combination with cement, and they have little or no independent utility in its absence. Concrete cannot be made without cement, but it can be made without SCMs and is done so regularly.

To be clear, CSCME understands CARB's desire to incentivize SCM use in general, and we support that goal. More can and should be done to encourage the demand for lower-carbon cement. But industrial allocation is an inappropriate instrument for doing so, and it opens the door to using scarce allowance value to subsidize a wide range of industrial activities that have no clear nexus to leakage risk. Accordingly, CARB should explore other policy tools for stimulating the market.

SCM Producer Allocation Undermines Blending Incentives

The expanded definition of cement output is designed to encourage cement producers to blend SCMs into their finished product by crediting that blending in the allocation formula. However, when SCM producers receive their own leakage assistance allocation tied to supplying concrete producers, they have a significantly reduced incentive to sell their product to cement producers. Instead, they are encouraged to sell directly to concrete plants, capture their own allowance allocation, and leave cement producers without the local SCM supply needed to take full advantage of the expanded output definition. The result is that two provisions of the same regulation are at cross-

purpose with each other: one creates an incentive for cement producers to blend SCMs, while the other diminishes the supply of SCMs available for that blending.

The proposed amendments are internally contradictory in ways that are difficult to reconcile with any coherent policy rationale.¹⁹⁶ In Table 9-1, CARB proposes to include the in-state mining of SCMs and the manufacturing of SCMs as activities associated with cement manufacturing and assign them benchmark values associated with producing “finished cement”, which would serve as the basis of industrial allocation if an SCM producer sells their product to a concrete plant. But SCM producers do not actually make finished cement — they make SCMs. And concrete plants also do not make finished cement — they make concrete. To produce a finished cement that includes SCMs, an entity must inter-grind the SCM with clinker, gypsum, limestone, and other materials. It is the inter-grinding process that creates a blended cement product that meets certain specifications, such as those cited in the definition of “cement” in the C&I regulation.¹⁹⁷

This is not merely a distinction without a difference. There are legitimate technical and economic reasons to prefer that SCMs be inter-ground with cement at a small number of cement plants rather than batched and mixed across hundreds of concrete plants. For instance, inter-grinding produces a homogeneous blended cement that results in consistent particle size distribution, reactivity, and performance characteristics that batching at a concrete plant cannot reliably replicate. In addition, the rapid scaling up of SCM usage will require significant capital investment in dedicated storage silos, material handling systems, and related infrastructure — investments that cement plants are far better positioned to make given their site infrastructure, operational expertise, permitting capacity, and access to capital. Finally, if SCMs are primarily channeled downstream to concrete plants, their use remains a “batch-by-batch” decision. But if they are primarily blended upstream at cement plants, they are automatically incorporated into every downstream job and, therefore, deliver greater and more broad-based GHG emission reductions.

The implication is straightforward. If CARB wants to accelerate the adoption of blended cement in California, it should direct its incentive structure toward the entities best positioned to produce blended cement at scale, not away from them. The expanded definition of cement output represents a meaningful step forward, but providing allowances to SCM producers represents two steps back. CARB cannot incentivize cement producers to blend SCMs while also incentivizing SCM producers to sell their products elsewhere, and it certainly should not fund that incentive using scarce allowance value. The net effect is to dilute the very blending incentive that CARB has worked to create. Accordingly, CSCME reiterates its recommendation that CARB

¹⁹⁶ The MRR regulation also suffers from similar issues, which suggests a fundamental misunderstanding of the cement-concrete supply chain. For instance, the 15-Day Amendments suggest striking “finished” from “finished cement” when discussing what SCM producers must report. CARB explains this edit as, “clarification of terminology because cement is finished at cement or concrete plants.” CARB 15-Day MRR Notice at 5. CARB’s explanation is confusing, as concrete plants do not finish cement — they simply mix finished cement with other materials to produce concrete

¹⁹⁷ CARB 15-Day C&I Notice at 9

remove SCM producer allocation from the program and allow the expanded definition of cement output to function as intended.

Summary

CARB can resolve the complications and contradictions identified above with a simple step: remove SCMs from the list of activities eligible for leakage assistance unless and until it has conducted sufficient analysis to determine that SCM production is a leakage exposed activity independent of cement manufacturing. Such action will preserve the intent of the regulatory changes to the definition of cement and provide the necessary incentives for cement producers to expand SCM usage.

Conclusion

CSCME remains committed to working constructively with CARB to advance California's climate goals while maintaining a viable and competitive cement industry. The recommendations in this letter are specific, actionable, and in several cases directly analogous to approaches that CARB has already proposed for other industries and other program elements. They ask that CARB apply its own analytical frameworks consistently, correct internal contradictions before they become entrenched, and lay the groundwork for an import reporting framework that will ultimately be needed to level the carbon playing field. These changes are essential to creating a regulatory environment that supports the capital-intensive, long-lived investment that will be required to achieve deep decarbonization in the cement industry. We urge CARB to adopt amended C&I and MRR regulations at the next Board meeting, and we look forward to continuing to engage on the path ahead. (15d-120)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-4.1b, O-6.4b, O-6.5, O-6.6b, O-6.7, O-6.8, O-8.3b, O-8.22 and O-8.43b in the Cap-and-Invest FSOR.

Comment: National Cement Company of California (NCC) appreciates the opportunity to provide comments on CARB's two rulemakings regarding Cap-and-Invest. Given the shared overlap, this letter addresses both together: 1) *Proposed Amendments to the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation*, and 2) *Mandatory Reporting of Greenhouse Gas Emissions*.

As background, NCC operates a cement plant in Lebec, California, in southern Kern County. NCC has produced cement at this location for over 60 years. Cement produced at Lebec is shipped to concrete customers throughout California – from the Central Valley to Southern California. Our customer base includes our own concrete division, as well as third-party concrete producers, which use our cement to support housing development, new infrastructure, and commercial development of all kinds.

NCC is leading the California cement industry toward carbon neutrality. We have the highest usage of alternatives to fossil fuels, the highest usage of substitutes for clinker (the carbon-intensive raw material in cement), and, to address remaining emissions, we are in predevelopment for a first-of-a-kind carbon capture project.

We provide these comments in addition to the comments we have submitted via the Coalition for Sustainable Cement Manufacturing & Environment (CSCME), which represents all five cement producers located in California.

Our comments hereafter are grouped in two categories. First, in the context of Lebec Net-Zero, our first-of-kind project for the cement industry. Then, to emphasize key issues affecting NCC and the entire California cement industry.

Lebec Net-Zero, a critical demonstration project for the cement sector

In April 2024, NCC was awarded \$500 million from the U.S. Department of Energy (DOE) to develop the Lebec Net-Zero (LNZ) project. To support this first-of-a-kind project, the grant award is structured as a public-private partnership with a matching funds requirement for NCC.

By reducing both process and fuel emissions and capturing residual emissions, LNZ would become one of the first net-zero cement plants in the world and would demonstrate the path to carbon neutrality in the cement industry. LNZ has a three-pronged approach:

1. Replace clinker with lower-carbon alternative raw materials (calcined clays) to produce limestone calcined clay cement (LC3).

The Lebec plant currently produces Portland Limestone Cement (PLC, also known as Type II) which uses up to 15% limestone as a substitute for clinker. LC3 cement can deliver multiple times more clinker reduction than PLC.

NCC has secured initial market interest for LC3 cement.

2. Replace fossil fuel with locally sourced biomass fuel from agricultural waste.

The project aims to use 70% alternative fuels by its completion.

3. Capture and sequester the plants remaining GHG emissions.

CO₂ will be captured on-site and transported to an off-site geological sequestration site in Kern County.

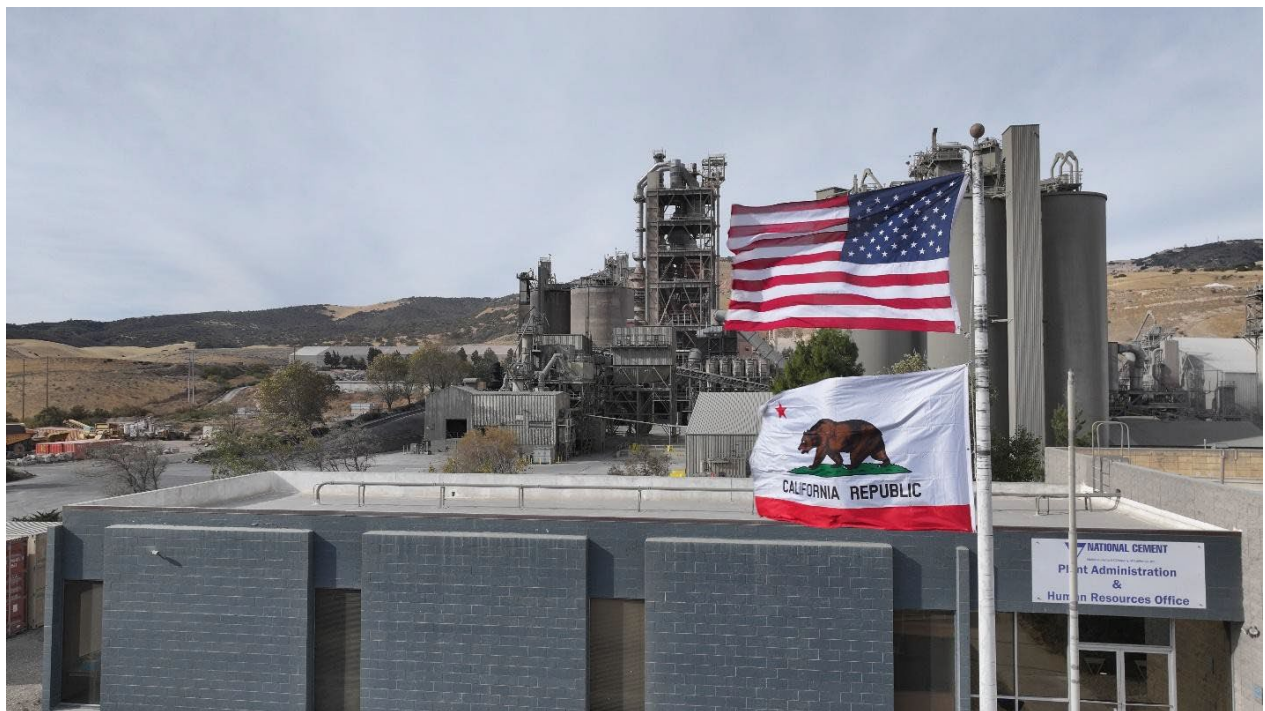
Carbon capture is a significant share of the overall project budget, and the DOE funding is critical to de-risk the project and build economies of scale for the broader cement sector. Importantly, the adoption of a Border Carbon Adjustment (BCA) in California is a condition of the funding agreement, as the project's economics would be undermined by the absence of a level playing field.

In December 2024, the award was finalized into a funding agreement executed between NCC and DOE. In May 2025, however, DOE informed NCC of an intent to terminate the funding agreement. Although this has created uncertainty on the timing and path forward for the LNZ project, the need for a BCA remains. If federal funding does get restored, the project will be unable to proceed in the absence of both federal funding and a BCA.

The LNZ experience is highly relevant to this rulemaking process. It demonstrates that the California cement industry is committed to reaching net carbon neutrality, but CARB must create the conditions necessary to support large-scale, capital-intensive investments in deep decarbonization. Those conditions include:

- Implementing a BCA to close the carbon loophole with imports.
- Ensuring that policies do not cause capital to flow out of the cement industry at precisely the moment it is needed to support deep decarbonization investments.
- Co-investing in deep decarbonization projects on terms that align with the realities of the cement industry.

Ultimately, predictable and supportive policies backed by durable commitments will be essential to achieving net carbon neutrality in the California cement industry.



National Cement Company's cement plant in Lebec, CA, home of the LNZ demonstration project.

Essential recommendations for CARB to address

Commit to implementation of a Border Carbon Adjustment for the cement sector, with a specific timeline.

Fundamentally, each year moving forward under Cap-and-Invest without an incremental BCA makes NCC and the California industry even less competitive against imports. It is unfair that our Cap Adjustment Factor (CAF) continues to decline while this fairness gap continues to widen. It is impossible for NCC and the California industry to commit to meaningful step-change investments without protection against imports via a BCA. We

urge CARB to commit to specific timelines to implement a BCA for the cement sector. For extensive supporting detail and rationale, please see the CSCME comment letter.

Recognize re-carbonation (carbon uptake) by concrete as a carbon sink.

Re-carbonation is a well-documented chemical process by which hardened concrete gradually reabsorbs CO₂ from the atmosphere over its service life. This phenomenon is not speculative; it is intrinsic to cement chemistry and has been observed and quantified across a wide range of structures and climates.

As noted by CARB in the Draft SB 596 Strategy:

“At final use, cement is mixed with aggregate, admixtures, and water to create concrete. Concrete is the most common building material in the world and theoretically can be a carbon sink and a source of permanent sequestration.” (page 56)

For the California cement industry, re-carbonation is not a substitute for deep process-emissions reductions, but it is a material component of a net-zero framework. The Draft SB 596 Cement Strategy explicitly recognizes the need to account for emissions and removals across the life cycle of cement used in California. Because carbonation constitutes a measurable downstream sink associated with cement use, it is directly relevant to how greenhouse gas intensity baselines and reduction trajectories are defined under SB 596.

For CARB and other stakeholders, the policy question is not whether carbonation occurs, but how to account for it rigorously. The California cement industry is currently working with leading academic researchers on this issue to quantify the re-carbonation effect under California-specific conditions and to develop a technically robust basis for recognizing the cement in concrete as a measurable carbon sink. This effort is intended to ground future policy discussions in empirical data so that any recognition of re-carbonation within California’s climate framework, including its GHG inventory and the Cap-and-Invest program, reflects defensible science rather than generalized assumptions.

Remove eligibility for SCM producers to receive industrial allowance allocations.

CARB’s proposed amendments would extend industrial allowance allocation to certain producers of SCMs. CARB’s approach is based on the premise that SCMs are the “functional equivalent” of cement when used to produce blended products. NCC and CSCME note that this approach conflicts with the foundational principles of industrial allocation under the Cap-and-Invest program, undermines the incentive that CARB seeks to create by expanding the definition of cement to include SCMs, and increases the risk of leakage in the California cement industry.

Under the Cap-and-Invest program, industrial allocation is explicitly justified as a leakage-minimization mechanism for emissions-intensive, trade-exposed sectors. SCM does not meet these criteria.

For these reasons, we urge CARB to:

- Decline to extend industrial allocation to SCM producers.

- Maintain the product-based cement benchmark framework within the cement manufacturing sector.
- Explore alternative, demand-side mechanisms to increase blended cement adoption downstream.

This approach would preserve the integrity of the leakage-protection framework, avoid definitional distortions in the cement-concrete supply chain, and more cleanly align policy instruments with policy objectives.

Ensure the shift of indirect emissions allowances from CPUC to CARB for Energy-Intensive Trade-Exposed (EITE) sectors is clear and transparent.

Similar to comments provided by the California Large Energy Consumers Association (CLECA), we urge CARB to provide transparency with the transition of indirect emissions allowances from the California Public Utilities Commission (CPUC) to CARB.

Presently, the beneficiaries of the indirect emissions allowances (such as NCC) receive a rebate directly from utilities, but without the full detail of how the value is calculated. The proposal to shift the value from CPUC (in the form of a rebate on utility bills) to CARB (in the form of allowances of equivalent value) must be transparent to the beneficiaries.

Expand eligibility of the Manufacturer Decarbonization Incentive (MDI) Program MDI, as proposed, is a great start for supporting deep decarbonization technologies and investments.

To maximize the benefits of MDI, CARB should: 1) expand the project types to address carbon capture, and 2) expand eligibility to project development (capital expenditures) and procurement (operational expenditures) consistently across all categories.

Carbon capture, utilization, and storage (CCUS) is a key investment category for cement. Even as related CCUS protocols may be in development by CARB, it is essential that CARB make this rulemaking, and the establishment of MDI, sufficiently forward-looking with the inclusion of CCUS as eligible in MDI.

Modify eligibility of biomass fuel in MDI, to avoid penalizing early adopters and rewarding late adopters, by deleting the eligibility restriction on historical use.

Of the six categories proposed as eligible for MDI funding, biomass is the only category that has additional restrictions on eligibility for funding procurement. (Cap-and-Invest Proposed Regulation, Appendix A-1, pages 210-212)

The current language says MDI will only reimburse biomass procurement for incremental consumption above a historical baseline. This means that over the life of MDI (12 years), a producer starting from zero will be able to capture much more value than a producer who already has meaningful consumption of biomass fuels.

The practical impact of this design is that it penalizes early adopters and rewards late adopters. This is not good policy.

NCC is already a large consumer of biomass fuel. We have invested into our plant and the biomass supply chain as an early adopter in California. As a result, CARB's proposal on biomass fuel procurement under MDI has an adverse and unfair effect on our business compared to others in the industry.

The alternative that we, and CSCME, propose is to simply delete the historical baseline requirement, to make it consistent with other categories currently listed in MDI. (45d-328)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-4.1a, O-6.1, O-6.3, O-6.4a, O-6.6a, O-7.1a, O-8.19, O-8.31a, S-3.2 and S-4.5 in the Cap-and-Invest FSOR.

Comment: While the amendments do have constructive elements, we remain concerned about the long-term economic viability of the California cement industry based on items not addressed from our prior comments. If the Board adopts the regulations as proposed, we urge CARB to address these remaining items with urgency at the earliest possible rulemaking opportunity.

Absence of a Border Carbon Adjustment (BCA) to achieve carbon cost parity with imports

Each year moving forward under Cap-and-Invest without a BCA makes NCC and the California industry even less competitive against imports. It is unfair that our CAF continues to decline while this fairness gap continues to widen. It is impossible for NCC and the California industry to commit to meaningful step-change investments without protection against imports via a BCA.

We urge CARB to commit to specific timelines to implement a BCA for the cement sector. For extensive supporting detail and rationale, please see the initial NCC and CSCME comment letters submitted in response to the 45-Day Amendments.

Support for changes to Manufacturers Decarbonization Incentive (MDI) Program

We support the changes in the 15-Day Amendments to broaden eligibility for MDI uses to include: 1) biomass capital costs, 2) biomass procurement capped at 50% of usage, 3) process emissions capital costs, and 3) carbon capture, utilization and storage (CCUS) capital costs. We appreciate CARB's recognition of these project types as essential for the cement sector's decarbonization roadmap.

We further support the increase in the spending window to the end of two compliance periods following the compliance period of the MDI allowance budget year – translating to a timeline of six to seven years.

Opposition of SCM incentives that are counterproductive to SCM adoption in the cement sector

As noted in the initial NCC and CSCME comment letters, the allocation of allowances to producers of supplementary cementitious materials (SCMs) is inconsistent with the

established purpose of leakage assistance. Leakage assistance is based on increased costs associated with a mandated carbon price. Entities that are not exposed to material carbon costs are not at risk of leakage and therefore should not receive increasingly scarce industrial allowance allocations that are designed to mitigate such risk.

As proposed, if SCM producers receive their own leakage assistance allocation tied to supplying concrete producers, they have a significantly reduced incentive to sell their product to cement producers. Instead, they would be encouraged to sell directly to concrete plants, capture their own allowance allocation, and leave cement producers without the SCM supply needed to take advantage of the expanded definition of cement output as proposed in the MRR Regulation. The result is that two provisions of the same regulation are at cross-purpose with each other: one creates an incentive for cement producers to blend SCMs, while the other diminishes the supply of SCMs available for that blending.

We further note an inconsistency in the design of the new code language. Section 95891 of the Cap-and-Invest Regulation specifies that output for SCM producers is measured according to “the quantity of SCMs reported by the SCM producer.” However, Table 9-1 specifies that SCM producers are measured according to their output of “Finished Cement” and receive a corresponding benchmark allowance identical to Cement Manufacturers for output of Finished Cement. Critically, SCMs and Finished Cement are not identical products, and they have significant differences in their carbon intensity.

This position is not intended to undermine the usage of SCMs in cement. NCC remains firmly committed to producing blended cements. We are the leading blended cement producer in California via Type 1L / Portland Limestone Cement. And we are introducing the next generation of blended cement, Type 1P / Limestone Calcined Clay Cement (LC3), into the market presently.

For a detailed rationale on opposing the allocation of allowances to SCM producers, please see the CSCME comment letter submitted in response to the 15-Day Amendments. (15d-124)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comments O-4.1b, O-6.4a, O-6.6a and O-8-1b in the Cap-and-Invest FSOR.

Comment: The American Federation of State, County and Municipal Employees, AFL-CIO (AFSCME) represents approximately 400,000 public service workers and retirees across California. We are writing to voice our concerns with the Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms (Proposed Amendments), released by the California Air Resources Board (CARB) on April 14, 2026. The Proposed Amendments are expected to be considered by CARB at its May 28-29, 2026, monthly meeting.

We are gravely concerned with CARB’s proposed direction in these amendments. Specifically, we strongly object to handing over nearly \$2 billion a year in allowances to

utility companies to fund an enhanced Climate Credit. While that credit might sound good on paper, it will gut the Greenhouse Gas Reduction Fund (GGRF) by that same amount. In the coming fiscal years, this move will completely wipe out the hard-fought funding our communities and public services rely on—including Affordable Housing and Sustainable Communities (AHSC), Transit and Intercity Rail Capital Program (TIRCP), Low Carbon Transit Operations Program (LCTOP), and Assembly Bill 617 (Chapter 136, Statutes of 2017).

Since 2015, this funding has been the absolute backbone of California's climate strategy. It does far more than just cut emissions; it builds affordable housing near transit, keeps major transit projects moving forward, deploys zero-emission fleets, funds free and discounted transit passes, and cleans up the air in our most vulnerable neighborhoods. These are the projects that support working families and create good union jobs. Starving these programs threatens the very public services our members provide every day. Over the last decade, CARB's own data shows exactly what these programs have delivered:

- AHSC:
 - 6,632,693 MTCO₂e GHG emissions reduced
 - \$4.85 billion invested, with \$4.0 billion benefitting priority populations
 - 22,877 units of affordable housing funded
- TIRCP:
 - 23,369,888 MTCO₂e GHG emissions reduced
 - \$2.74 billion invested, with \$1.58 billion benefitting priority populations
 - 263 transit projects implemented
- LCTOP:
 - 7,446,600 MTCO₂e GHG emissions reduced
 - \$1.23 billion invested, with \$1.14 billion benefitting priority populations
 - 1,123 projects and services implemented
- AB 617:
 - 282,500 MTCO₂e
 - \$527 million invested, with \$442.68 million benefitting priority populations
 - 9,004 projects implemented

We understand CARB brought this proposal forward to answer calls from some legislators and stakeholders to address the crushing affordability crisis Californians are facing. Let us be very clear: we absolutely agree that these amendments must tackle affordability. But for the working-class families and public service workers we represent, affordability means a lot more than just a slight break on a monthly utility bill.

True affordability means having a good-paying, life-sustaining union job. It means having access to affordable housing near transit, and public transportation that gets you where you need to go without eating up hours of your day. It means breathing clean air so your family isn't burdened with costly health issues.

Furthermore, our local transit agencies cannot plan for the future in a vacuum. To build out reliable routes and transition to green fleets, these agencies need to know exactly what their stable, long-term funding looks like. Injecting this massive level of uncertainty

into the GGRF completely disrupts their ability to plan capital projects and schedule operations.

When funding is unpredictable, it is the frontline transit workers who bear the brunt. Budget uncertainty triggers immediate anxieties about potential service cuts, scheduling instabilities, and threats to job security. It hurts worker morale, worsens retention crises, and makes it difficult for agencies to recruit the skilled workforce needed to run these expanded systems safely.

Unfortunately, this proposal fails on all of these fronts. It trades away real, lasting affordability—like housing units, reliable public transit, and healthier communities—by gutting key climate programs just to shave a few dollars off a utility bill. We urge the state to reconsider and protect robust GGRF funding for AHSC, TIRCP, LCTOP, and AB 617.

We know CARB is trying to balance a lot of competing priorities, and we respect the work being done to meet our climate goals while helping everyday Californians. But as you move forward with these amendments, we ask you to recognize that the programs funded by the GGRF are essential to true community affordability and workforce stability. We look forward to working with you to ensure the final regulation reflects this reality and protects the public services our members provide. (BH-003, Written)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3c in the Cap-and-Invest FSOR.

Comment: My name is Rosie Fei, and I am an El Cerrito resident in California, and have been living in California since 2008. I am commenting to urge that CARB does not adopt the proposed regulations and ask that you remove the MDI, while keeping funding for the GGRF.

As someone who has been proud of California's leadership on reducing carbon emissions and making sure we are making decisions based on scientific, climate change research, going forward with the MDI goes makes me concerned with the direction California is heading towards, especially as investment towards oil and gas companies harm our marginalized communities the most.

I am especially concerned because the 100 biggest oil and gas companies have collectively raked in an extra \$30 million per hour since the war on Iran began. I am outraged that California's air quality regulators are proposing to eliminate critical funding for clean air, clean water, public transit, and affordable housing just to give even more money to Big Oil!

I would like to continue to see California prioritize clean air, climate justice, and inspire other states to follow our lead: this means removing the MDP and funding the GGRF. Thank you. (BH-004, Written)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are

therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3c in the Cap-and-Invest FSOR.

Comment: My name is Evie Maher and I am a volunteer with SanDiego350, a grassroots nonprofit working to prevent the worst impacts of climate change. I am commenting on item 26-3-3: Public Hearing to Consider Proposed Amendments to the Regulation for the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms.

I am writing to urge the Board to reject the proposed 15-day changes.

CARB is creating 118 million new allowances to pollute outside the emissions cap. Independent modeling confirmed by CARB's own analysis finds this would reduce auction revenues by up to \$4 billion over the next four years and ensure California will fall short of our 2030 climate goals, as set by state law.

This would gut funding for public transit, affordable housing, and environmental justice programs. As a student with no car I rely exclusively on public transit, which is already limited and becoming more expensive as the city redirects vital resources to surveillance FLOCK technology and its bloated police budget. Without these programs I would be unable to attend school or work. I take the bus for my future and the future of the world. Environmental measures are no longer optional or cute, they are our only opportunity to mitigate the damage wrought on this planet by overconsumption and overdevelopment.

I urge you: reject new allowances for pollution. (BH-005, Written)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3c in the Cap-and-Invest FSOR.

Comment: Good afternoon board members. My name is Derrick Gaffney. I am the Government Affairs Manager for Jamboree Housing Corporation. Jamboree is one of California's largest nonprofit affordable housing developers. We have over 11,000 units of affordable housing throughout 50 California cities and approximately 24,000 low-income Californians call a Jamboree property home.

That includes the 177 residents who live at West Gateway Place in West Sacramento, one of the first housing developments to receive funding from the Affordable Housing and Sustainable Communities program.

I'm here today to ask that you reject the proposed Cap-and-Invest amendments (specifically the MDI) that, according to LAO analysis, would effectively zero out funding for the AHSC program.

AHSC is one of California's most effective tools to reduce the emissions driving climate change. AHSC has already delivered 6.6 million metric tons of GHG reductions while funding nearly 23,000 units of affordable transit-oriented housing.

This program is California's only dedicated funding source that recognizes housing policy must be at the forefront of our climate strategy. For developers like us, AHSC is often the financial linchpin that makes a TOD project pencil.

If AHSC funding disappears, the pipeline of affordable transit-oriented housing dries up. Several projects in Jamboree's own pipeline rely on AHSC as a critical component of their capital stacks. Without it, those projects probably don't get built. That will lead to more cars on the road, more VMT, and more greenhouse gas emissions — the exact opposite of what this Board is trying to achieve.

If the proposal in front of you is passed as is, the Board would be making an active choice to shift allowances away from GGRF toward industry. And, without any plan from the State to backfill these losses, important programs like AHSC would collapse. I respectfully urge the Board to reject the MDI proposal and ensure AHSC continues to deliver affordable, transit-connected homes.

Thank you so much for your time and for your ongoing public service. (BH-006, Written)

Response: No changes were made in response to these comments. These comments refer to provisions under the Cap-and-Invest Regulation and are therefore out-of-scope for this MRR rulemaking. See Agency Response to comment W-1.3c in the Cap-and-Invest FSOR.

M. Miscellaneous Comments

M. MISCELLANEOUS COMMENTS

M-1. Multiple Comments: CARB Regulations and Fuel Prices

Comment: We are facing uncertainty with our energy supply. Putting unneeded strain on our refining capabilities leads to a plethora of problems. We Can Not Afford anymore Obstacles to obtain affordability concerning transportation costs. Please lean towards a practical, concerted effort to maintain and even expand our energy production capabilities. By doing this, we number one fend off shortfalls. We preserve costs for the consumers. Hugely, we preserve a defense capability, because if we opt for a straight electric system, we would open ourselves up to a system short circuit as supplies would not be able to sustain the demand. Please look deeper. We do not have commercial vehicles with electric capability. Our defense department likewise relies on refined fuels. The theory to reduce air pollution by eliminating fossil fuels is noble at best, it has its place, but it's not the end all. If you want my humble opinion, hydrogen is the logical choice. Again, it's not ready to take the place of oil, so we can work towards it, but please help create a good working environment for these refiners now. You have done well to reduce pollution, please don't jeopardize our livelihoods with hasty decisions. Thank you for your consideration (45d-009)

Comment: Please stop killing California with excessive regulation. (45d-010)

Comment: Please do NOT add ANY MORE REGULATIONS!!! THE GAS PRICES ARE YOUR FAULT. VOTE NO!! (45d-011)

Comment: I am writing to oppose regulations that could significantly increase gasoline prices in California. My family is a single-income household, and my husband commutes to work every day. Fuel costs are already a major burden for us, and even a small increase in gas prices would have a real impact on our ability to cover basic expenses.

Many working families like mine are already struggling with the high cost of living in California. Policies that could add additional costs at the pump risk placing even more strain on households that are barely making ends meet.

I respectfully ask the California Air Resources Board to carefully consider the economic impact on everyday families when making decisions. Please pursue solutions that balance environmental goals with affordability for working Californians. (45d-012)

Comment: No more gas hikes, this is not sustainable for businesses or working families in our state. Enough is enough. Please reconsider passing this. (45d-013)

Comment: The proposed changes will increase gasoline cost which is already twice the national average. Oil producers are leaving the state which will increase cost already and the proposed bill would further increase cost. (45d-015)

Comment: Stop The madness and the price hikes that are ruining this state. Enough is enough, everyone I know is moving out because of it. (45d-016)

Comment: I am against any additional taxes or revenue increases or regulations that would make it even harder to afford to live here (45d-017)

Comment: This is just another way to increase prices in California and drive out oil companies. You people are a bunch of fucking psychopaths who should be in a rubber room. STOP IT ALREADY! (45d-018)

Comment: Just STOP!!!!!!!!!!!!!! Our gas prices are high enough and you fools want to make it worse!!!! (45d-019)

Comment: I'm a California resident, and I strongly oppose any new CARB regulations that would make gasoline even more expensive. Families in this state are already stretched thin by high costs for gas, groceries, housing, and basic necessities. Piling on policies that could raise fuel prices even more would hurt working people, commuters, and small businesses the most. (45d-020)

Comment: The average working class citizen can not afford to pay for the increases in production costs of goods due to the stricter carb restrictions. Working class citizens also cannot afford electric vehicles, we have difficulty paying for are older vehicles and we can't have a \$1000. Monthly payment for an electric or even a hybrid vehicle. Already the State of CA has the toughest and most expensive regulations in the Country- please don't add to these already burdensome regulations. (45d-021)

Comment: Please don't do this you are killing us at the pump. Do you want everyone to continue to leave California??? (45d-022)

Comment: To whom it may concern, I wholly oppose any additional taxes or fees on petroleum products. I find it truly ludicrous that California, the state which pulls the

highest taxes/fees/penalties on fuel, is considering adding to this burden on their citizens, tourists, and shipping companies. There is no excuse for this level of burden on the people who happen to need fuel in the state of California. (45d-023)

Comment: Our family cannot afford anymore regulations strangling our lives and affordability to survive in the State of California. Please, we have had enough regulations on our air, water and gas to date with the only outcome being unaffordable living and no positive results for our residents. You are crushing the future of California and our families. (45d-024)

Comment: Please do not put more stress on California businesses and families. We need you to protect our energy independence, jobs, and wallets! (45d-025)

Comment: I live in rural California. My child's school is 6 miles away. The grocery store and gas stations are 10 miles away. I take care of my elderly parents who live 61 miles away. I drive approximately 20,000 miles per year- and that is essential driving. Millions of rural Californians are in the same position I am in. Please give California drivers some relief and do not implement any further regulations on the oil and gas companies. (45d-026)

Comment: I STRONGLY oppose the proposed admendments to the regulation for the mandatory reporting of greenhouse gas emissions. While I believe that Californians should have the ability to breathe clean air, it must be done in a way that is affordable for your average Californian. Adding even more to the cost of gasoline will make it very difficult, particularly for those that live rurally or commute for a job. I'm on the fence about taking my tax producing income and moving out of state. Your amendment may be the nail in the coffin for my move. (45d-027)

Comment: I am a contractor serving El Dorado, Sacramento and Placer Counties. I drive 25,000 miles per year to check on my job sites and deliver materials. Any increase to gas or diesel prices get passed along to my clients and exacerbates the hostile housing market. Please do protect California's energy independence and the thousands of business that rely on fuel to operate. (45d-028)

Comment: Oil and gas are essential for transportation and manufacturing and the economy prserving many jobs and industries including most of agricuture, food and hospitality. We canot lose energy independence. Might as well be indentured slaves otherwise. Please protect our enery independence, jobs, industry and mobility and way of existence itself. (45d-029)

Comment: I want you to stop making our lives miserable by making our gas prices so much higher than any other state. Why is that? Because your Board, with the help of Gov. Newsom, keep jacking up the prices of gas and electricity, with your green new deal junk science nonsense, that's not worth anything, and green new deals do not have any way to sustain our needs-now or in the future. You all need to get off your high horse, come back to reality, and do the right things for Californians for once in your lives. Respectfully submitted, Heather Derenzo, a life long Californian born and raised. (45d-030)

Comment: Protect our energy independence, our jobs, and our wallets! Stop the gas hike! Support California oil! Affordable energy! (45d-031)

Comment: ARB/CARB must stop the absurd regulations that are strangling Californians. Since working with this agency for over 10 yrs. I'm all for shutting this corrupt agency down. The unbelievable rules has literally crippled many industries in California. But the gas industry is the most effected, hence the oil companies are packing up and leaving. WE MUST PRAY CALIFORNIA GOES 100% RED TO STOP THIS INSANITY. (45d-032)

Comment: I am a lifelong native Californian who is now retired and on a fixed income. Every turn of the way, Californians are being fleeced and decisions are being made without our input or consent. Energy in California has skyrocketed to unaffordable conditions. For example, natural gas used to cost me \$25.00 per month in the winter and \$5.00 in the summer. Now, I pay \$95.00 per month in the winter and \$25.00 in the summer. I spent \$10's of thousands of dollars for rooftop solar, but the government is dimming the sun with geoengineering. My solar production has suffered and my electric bill has increased. The price of gas for my transportation continues to climb while the rest of the nation enjoys lower gas prices. We are already paying an additional average of \$1.65 per gallon in state taxes and now your board is considering doubling that, making gas unaffordable for average Californians especially those of us who live on a fixed income, spending our savings or credit cards to make ends meet. Why do you not consider this before arbitrarily taxing us to death? (45d-033)

Comment: The regulations have done little to impact emissions, hurt local everything, and raise prices for everyone. Just repeal all these cost increasing policies, stop regulations that shutter our refineries, and let the people have a normal cost of living.

California has oil fields and should be able to pump, refine, and use our own oil here, yet we're now importing it from the Bahamas, India, Korea, ect. How does that help emissions? It is killing CA and forcing everyday people to flee.

I am against this, and all other anti-oil policies that hurt everyday Californians. (45d-034)

Comment: As a family of 8, with mounting bills, this will hurt us even more. (45d-035)

Comment: I strongly oppose CARB raising the gas tax. You Democrats are actively destroying the state's energy infrastructure and making life unaffordable for California residents. You are crazy. Just stop! We have already lost 2 refineries this year. Would you have them all close and instead import oil from the Middle East? (45d-036)

Comment: Enough of this ridiculous CARB. Californians need relief in their wallet not more regulations on oil and gas. (45d-037)

Comment: Californians cannot afford the regulations you have imposed. The over regulation by this board and the Democrat majority are driving California to economic ruin. (45d-038)

Comment: I'm opposed to another gas tax increase. We Californians already pay the highest in gas. There is no climate change. It's a scam to get taxpayers to pay more taxes. Californians are sick of it because we don't see any improvements in our lives,

crime rates are rising, inflation continues to increase, infrastructure is crumbling, etc. We need to cut taxes and have government reduce their spending. (45d-039)

Comment: Please don't support legislation that would increase gasoline prices for average Californians!!! We already have some of the highest gasoline prices in the country. (45d-040)

Comment: No on new amendment for greenhouse gas. Keep fuel prices low no more regulation (45d-041)

Comment: California is the most extreme regulated state in the Union. Californians need relief from all the super majority Democrat over reach. Please reconsider any new regulations and taxes on struggling Californians. Thank you (45d-042)

Comment: You guys are making it very hard and ridiculous for middle and lower class people to get ahead. Your laws are not making a positive impact on the citizens and only cause us to be more impacted by the fees. Please stop with these unnecessary regulations and take a step back. (45d-043)

Comment: California's climate goals are noble, but people across the state consistently say the same thing: we need solutions that are practical, affordable, and grounded in real-world readiness, not policies that outpace infrastructure or burden working families.

Here are the facts that matter to anyone who wants both clean air and a functioning, affordable economy:

- EV mandates outpace affordability. Even with incentives, electric vehicles remain far more expensive upfront, and the used-EV market is still limited. Most EV buyers today are higher-income households.
- Charging access is uneven. CARB's own reports show that many regions — especially rural, inland, and working-class communities — lack reliable charging infrastructure.
- Transit alternatives aren't viable for most Californians. Long commutes, irregular work hours, and limited transit coverage mean personal vehicles remain essential for millions.
- Raising gasoline costs acts as a regressive tax. When fuel prices rise, lower- and middle-income families pay a larger share of their income — widening the affordability gap.
- Proposed CARB regulations could add up to \$1 per gallon, according to multiple analyses, at a time when California already has the highest fuel prices in the country.
- California's energy transition must be realistic. A 2035 all-EV mandate without the infrastructure, grid capacity, or funding to support it risks creating more inequality,

California can strive towards clean energy without policies that unintentionally punish the people who can least absorb the cost. (45d-044)

Comment: I am strongly against the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. CA gas prices are out of control and a driving factor to people leaving the state. This is not equitable for lower and

middle class families. If anything, taxes need to be lowered on our fuel prices, not raised. (45d-045)

Comment: Stop these ridiculous carb regulations !!! We are struggling to get to work and get our kids to school daily!!! Gas is under 3\$ per gallon in so many other states, please have some compassion and common sense! Stop forcing refineries to leave and spending more money importing gas and oil from other countries!!! (45d-046)

Comment: As a long term California resident who owns her business and makes what most would consider a decent wage, I am struggling to make ends meet. California wages are not keeping up with the cost of living in this state. Any additional regulations that would increase prices (gas tax increases cost of transportation which trickles down to the cost of items) would only make this worse. We need to put a stop to this ending gouging of California residents. We are at our breaking point. (45d-047)

Comment: Stop more rules that decimate our critical in-state oil and gas industry. They are essential for national security and the economic viability of all of us California residents. We already pay more per gallon of gas than anywhere in the US. You should be looking to boost our economy, especially for those with modest means. Bring our regulatory environment in line with most of the US please. (45d-048)

Comment: Please do not raise gas prices any more. Gas prices are hurting working families. Working families cannot afford any more. Taxes are too high across the board. Please do not implement your proposal. Do not make Californians endure even more pain at the pump. (45d-049)

Comment: Please stop adding regulations on CA businesses!!! Soon enough there won't be any businesses to regulate! (45d-050)

Comment: Strongly oppose any action as such. Residents need relief from constant increases in gas prices that hurt individuals and drive the cost of doing business up, thus hurting individuals again. (45d-051)

Comment: Stop adding more regulations to gas and oil! Whether you like it or not we are reliant on gas. A lot of Californians can't make the switch to electric cars. You see what regulations does to us. It just makes everything more expensive. I don't know how you can't see it. For the party that claims you are for working class people you sure do make it hard for us to live in that state controlled by democrats (45d-052)

Comment: I STRONGLY oppose the proposed amendments tightening emissions caps on refineries under the Cap-and-Invest program, as these changes will lead to devastating consequences for California families. Chevron estimates they could raise gas prices by over \$1 per gallon by 2030, adding hundreds of dollars yearly to household costs amid already the highest fuel prices in the nation. They also threaten over 500,000 energy-sector jobs and will likely force more refinery closures, further increasing reliance on imported fuels and risking supply shortages. These nonsensical caps prioritize extreme ideology-driven reductions without fully comprehending the economic burden on working Californians or the potential for shifting emissions overseas with absolutely no net global benefit. I ask you to reject the refinery-specific tightenings to protect affordability, jobs, and energy reliability. (45d-053)

Comment: I urge you to protect our energy independence, jobs, and costs. (45d-054)

Comment: I'm a 4th generation Californian. These policies hurt only the lower and middle classes. One day in the future, hopefully we will have fusion power. Forcing a large scale energy and/or transportation mandate is having a significant negative impact on lower and middle class working people. Please put aside the ideology and let us get to work and take roadtrips without hurting us economically any more than we already are. (45d-055)

Comment: We do not need new regulations that will increase our gas prices. We are already paying some of the highest prices, in the Country. Hardening working middle class people cannot afford our basic needs with these prices. Not to mention our ever increasing taxes, in general. (45d-056)

Comment: Dismantle CARB. Why are bureaucrats and worthless politicians making gas more expensive. Why do these worthless people think they can dictate energy policy. Taxpayers need to take back our power (45d-057)

Comment: I am currently one of the affected individuals who is losing his job due to these strict policies. They are in no way beneficial to your constituents. We rely on fossil fuels for most of our daily lives. Pushing green energy when the infrastructure is not even built is ludicrous! You are only hiring the communities by pushing these jobs away from our district. This hurts the overall economy of our state and taxes the state is receiving from these companies to do business here. (45d-058)

Comment: We can barely afford gas as it is, sometimes having to choose between food and gas, enough is enough (45d-061)

Comment: I can't afford to drive my car anymore (45d-063)

Comment: We can not afford a new tax, regulation, or whatever you want to call it to make is sound good to you. Californians say NO MORE! (45d-062)

Comment: Absolutely no amendments that will result in the increase price of gas or make gas, production or oil refining more costly for the companies that are still here. You need to revise regulations that will encourage the ones that love to come back. (45d-064)

Comment: Stop new regulations. Focus your attention on lowering my gas price and STOP adding new regulations, just be like a normal State like Florida or Texas. (45d-065)

Comment: I am writing to express that I do not support shutting down oil refining operations as proposed in the changes in the State's climate regulations. We are already paying almost two dollars more than the National average - Please be sensible and allow production to continue. It's not only a matter of economics, but oil industry jobs are good jobs for Californians. (45d-066)

Comment: Stop this crazy nonsense your ruining our great state think about it your putting your family and my family in the hot seat and they can't afford this because your making laws that don't, but know this, I will remember come voting time and I'm going to

remind everyone from Oakland Ca to Sacramento I talk to every day about I promise! (45d-067)

Comment: Your regulations and costly and oppressive, and doing little to help the environment or Californians. We are farmers and small business owners in the ag industry. Our costs have grown to the point that we had to pay to farm last year, and this year is looking as bad. Stop adding more and more regulation, strangling the ability of people to conduct business with a reasonable cost. (45d-068)

Comment: I urge You to please protect our energy independence, jobs & wallets. (45d-069)

Comment: Do not raise the gas tax. We are already losing tax paying citizens every minute and forty seconds, who are moving out of California. At this rate you will end up with no one to tax. (45d-071)

Comment: Please stop adding new rules and regulations to gasoline. We need gasoline for work and to survive. If you want people to take public transportation make it safer and add more of it. Too many stories of people getting stabbed on the bus or train to take public transportation. Many family members drive for uber or doordash and they are hurting from higher gas prices. Please help us. (45d-072)

Comment: Please stop passing legislations that will increase gas prices and drive American oil companies out of California and importing foreign oils to California. This is insane!! (45d-073)

Comment: Please do NOT PASS these regulations. We do not want fuel prices going up again. Less regulation, more energy independence. (45d-074)

Comment: Please do not pass this amendment. Oil is a vital resource for energy and lubricants. California already has one of the highest energy costs in the entire nation. Passing of this amendment will be detrimental to all Californians in increased costs and the loss of viable jobs. (45d-076)

Comment: I am writing in response to recent reporting about proposed climate-related regulations that, according to industry representatives, could significantly increase gasoline prices in our state. The article describes concerns from fuel producers that the new rules under consideration would add substantial costs to refining and distribution, and that these costs would ultimately be passed on to consumers. State Senator Suzette Martinez Valladares has also raised objections, noting that California families are already paying some of the highest fuel prices in the nation and that additional regulatory burdens would make daily life even more expensive for working people.

I share these concerns. Many Californians rely on their vehicles for work, school, and basic daily needs. When fuel prices rise, the impact is immediate and unavoidable. Higher transportation costs ripple through the entire economy, increasing the price of goods and services and placing the greatest strain on those with the least financial flexibility. Policies that further raise gasoline prices risk deepening this burden at a time when affordability is already a major challenge for households across the state.

I respectfully urge the Board to reconsider any new regulations that would add to California's already elevated fuel costs. Protecting the environment is important, but it must be balanced with the economic realities faced by working families. I ask that you pause or revise policies that would drive up gas prices and instead pursue approaches that reduce emissions without imposing additional financial hardship on Californians.

Thank you for your attention to this matter and for considering the real-world impact of these decisions on the people you serve. (45d-077)

Comment: As a Hollister resident struggling with high gas prices for commuting, family errands, and agricultural work in San Benito County, I strongly oppose further tightening of the Cap-and-Invest program through these proposed amendments. Industry analyses warn that stricter allowance caps could drive gasoline prices up by 15 cents per gallon or more in the near term, with risks of even higher increases long-term from refinery strain, potential closures, job losses, and greater dependence on imported fuels—exacerbating California's already volatile market driven by taxes, special blends, and global factors. While the program claims to fund ratepayer relief and clean investments, past experience shows limited direct offsets for working families facing immediate pump pain around \$4.40–\$4.50 per gallon locally, and added regulations will only compound affordability crises without delivering proportional benefits soon enough. CARB should reject or significantly scale back these changes to prioritize no more burdensome rules on energy and consumers right now. Please halt additional regulations that hit our wallets hardest. Thank you. (98 words) (45d-078)

Comment: No new regulations on mandatory greenhouse gas emissions reporting and taxes on gasoline. (45d-079)

Comment: People cannot afford to drive their kids to school. It's absolutely outrageous that this is even being considered at this time. (45d-080)

Comment: I do not support any amendment that will potentially raise the price of gasoline or diesel. Please protect our energy independence, jobs, and wallets! (45d-081)

Comment: NO MORE HIGH FUEL PRICES!!!! When is enough, enough?!!! Us working families are dying here! Almost \$1000 dollars a month in fuel. STOP IT! When we are more expensive than Hawaii, we need to take a look at ourselves. Stop taxing us to death!!!! (45d-082)

Comment: Please stop increasing CARB regulations and running oil companies out of California. These regulations don't change things enough. Having Mexico next door doesn't help ... there is no wall to keep out their pollution. It's ridiculous virtue signaling at the expense of Californians! (45d-083)

Comment: Californians are ROBBED ENOUGH. Instead of raising the gas prices so you can continue your illegal crimes and fund the invasion you all should be FIRED. You have destroyed this state for generations. ALL OF YOU ARE CROOKS.....ALL OF YOU. I hope to see each and every one of you in prison...(45d-084)

Comment: Members of the Board, it should be apparent that California is losing residents due to high cost of living, which is exacerbated by high cost of energy. If you want the best for our State, enact policies that will promote our energy INDEPENDENCE, and protect jobs, as well as make living here more affordable. Policies that will result in higher fuel prices will NOT help our citizens or our state. Think of the working families who are already struggling with all the costs associated with high energy prices. I urge you to use your power for good, not greed. (45d-085)

Comment: To whom it may concern, I don't know why I'm even having to write this m, but all the residents of CA are being financially suffocated. We're being taxed beyond means. Please figure out a different way to recover all the money the entire Democratic Party managed to squander away. (45d-086)

Comment: Go to any low income area in the state. Virtually no one has an electric car. Go to wealthy areas. People have an electric car and a gas car. Low income people can't afford to pay even more for gas. You are taxing poor people to pay for uneconomic energy sources that poor people then can't afford any way.

The refineries are going to continue closing because of these programs. The military won't have fuel for jets and trucks and ships. This is not a joke. You are jeopardizing our national security! (45d-087)

Comment: You dirty politicians Gas prices are highest in the country and ever and you want more money from working families for your political agenda. How about NO! (45d-089)

Comment: This amendment needs to be permanently postponed not only for relief from gasoline prices, but because it is based upon false science. With the U.S. EPA reversal of the "endangerment rule", thankfully CO2, and methane are no longer deemed as pollutants. Our very existence depends upon CO2. What CARB is attempting to do is unlawful. (45d-090)

Comment: Hello, My name is Reiss Becker and I'm a proud Californian and Angeleno. I'm writing today in strong opposition to any measure that would damage California's oil industry and raise prices for consumers at the pump.

I appreciate that CARB is concerned about climate change, but in practice these regulations harm consumers, damage domestic industry and scarcely impact global climate emissions. We are harming ourselves, our own communities and businesses, in order to live up to climate commitments that are rarely honored by other countries or states.

The ultimate effect is that we make California more expensive and less economically hospitable for ourselves and we don't even make a meaningful impact when it comes to fighting climate change. Please reconsider these new regulations and please cease any and all efforts that unnecessarily harm the oil and gas industry in service of abstract climate commitments.

Man cannot live on reductions in CO2 emissions, but man definitely lives on gasoline and fossil fuels. Your actions would make the lives of millions of people much more expensive and difficult. Please reconsider. Thank you for your time. (45d-091)

Comment: Trying to regulate green house gas (aka carbon dioxide as a pollutant) is pure folly to start. Reporting on something invisible and immeasurable except in lab conditions is a fools errand. California is drowning in ridiculous regulations like these and giving control to an unelected board who doesn't understand all the ramifications of their "do good" laws. We're about to lose another refinery with huge looming energy bills coming. Energy prices affect everything. Why is California so expensive? Because of retarded laws like the one being proposed. Wake up ! You're ruining our state! (45d-092)

Comment: As a concerned citizen of California I kindly ask that you do not make it any more difficult or expensive for oil and gas companies to operate in California. Gas is already too expensive and the proposed actions you are considering could have long term or even negative consequences for the affordability of gas and other energy in this state. That could make even more businesses and people move from the state. (45d-093)

Comment: California does not need anymore regulations created by the unelected bureaucrats at CARB. The cost of living in California continues to sky rocket because of over burdensome regulations. Make California affordable again by reducing the multitude of un-necessary regulations, enough is enough!!! (45d-094)

Comment: I don't ever remember voting for any member that sits on the CARB. How is it possible that your members are able to implement policies that directly results in increased gas prices in California? I appreciate clean air and can remember smog days in the Los Angeles basin as a child but making gas so expensive that people can't afford to drive anymore is not the way to get there. (45d-096)

Comment: It is of the highest importance to refrain from making policies or regulations that will further hurt the everyday lives of hardworking people. This morning I put gas in my car at \$4.13 a gallon, however, when I returned home from work the gas had risen to \$4.39 in just a few hours. Additionally, it's anticipated that Californians have not even started to realize the pain, monetarily, concerning the several oil companies that have left the state! This state imports most of our oil when we could easily create jobs and provide the working people affordable resources. By placing more restrictions, hard working people will have higher costs at the pump but also in the grocery stores or when purchasing everyday household goods. (45d-097)

Comment: The last thing we need is more regulation which raises the price of gasoline and hurts families and businesses in California. Please do not pass further legislation that destroys our economy and makes this state more unaffordable. We need cheaper gas prices! (45d-098)

Comment: Please don't add any more rules that would potentially increase the price per gallon of gas or close anymore refineries. The people that drive every day to work suffer the most. (45d-099)

Comment: I urge CARB to protect our energy independence, jobs, and wallets! Do not pass regulations that will raise gas prices. We Californians are already paying huge taxes and fees! (45d-100)

Comment: Please do not raise our gas prices!!!! Gas prices are already the highest in the nation and you guys are killing us. (45d-101)

Comment: Stop taxing or adding more money to an already broken California. Stop importing oil as we have oil here and plenty of it. No monies from the people. Just stop. Thank you. (45d-103)

Comment: I'm opposed to more regulations and restrictions that raise energy and gas prices (45d-104)

Comment: CARB board, We the people of California should not be subjected to your upcoming proposal that could increase the cost of a gallon of gas by yet another dollar. With the increase of oil prices due to the Iran War, this proposal will surely add insult to injury at the pump. Stop the insanity. Table this measure for now because otherwise you hurt the poor and middle class of this state the most. (45d-105)

Comment: As a 5th generation Californian and 28 year military veteran on a fixed pension, I find it shocking that anyone would consider any new policy change that would make any fuel in California more expensive. Do not do this. (45d-106)

Comment: If you guys add more taxes o. Our gas and oil industry I won't be able to make it financially. California has all ready taken me for everything I have financially, so pleas stop!!! (45d-107)

Comment: The existing C&I regulations and Proposed Amendments will effectively drive in-state refiners out of business while importers are completely shielded from these costs. The Proposed Amendments as written will only exacerbate the cost imbalance between California's refiners and importers.

If in-state refining becomes significantly impaired or infeasible, the catastrophe will go well beyond gasoline supply for consumers by also affecting military bases, jet fuel for California's airports, marine fuel for ports, plus crude oil production in the Central Valley, all of which would impact thousands of direct and indirect jobs throughout the state.

Despite claims the state is in mid-transition to EVs, more than 90% of registered vehicles, offroad construction and agricultural equipment, trains, boats, and planes, rely on liquid fuels.

Given this continuing demand, curtailing in-state production will jeopardize fuel availability and affordability by driving up costs for every Californian motorist, business, and government entity. (45d- 109)

Comment: No more regulations! CARB you are destroying our state and our livelihoods! NO MORE REGULATIONS! You need to start dialing back the over regulation on this state NOW. STOP adding more regulations. (45d-110)

Comment: Stop adding more regulations and costs to the taxpayers of California. We are struggling to afford to pay the outrageous costs you have mandated on to us now. We have had enough. No More! (45d-111)

Comment: CARB is so economically regressive, the rules your group makes cripples working families and small businesses. Making gasoline more expensive than Europe is a very regressive policy. Not all of us can afford electric cars. Californians deserve energy independence. With us having a low number of refineries and us outsourcing gasoline where it has to be traveled by barge (which is environmentally irresponsible) THAT is why gasoline is unaffordable in our state! (45d-112)

Comment: No more war on energy. We are at a breaking point on costs and you are not helping. End your folly now. (45d-113)

Comment: ENOUGH. You should be looking for ways to lower gas prices, not increasing them. Do you actually have cars that you drive and put gas in or does your job pay for your vehicle? I don't have the luxury of being reimbursed for my usage of a car to get to and from work, go to the store, visit family and friends. Must be nice for you not to have to worry about such things. ENOUGH ENOUGH ENOUGH. Try doing something to help the people of California, not make yourself more important or bring in more money for the "leadership" of the State to waste. This should not even be a discussion. When will common sense come back???? ENOUGH ENOUGH ENOUGH ENOUGH ENOUGH!!!!!!!!!!!!!!!!!!!!!! (45d-114)

Comment: This board is destroying the state of California that I was born in pretty soon. We're gonna have eight dollars a gallon of gas because of you people stop stabbing us in the back. You people are freaking morons when it comes to normal human beings and how they can afford to live this commission should never have been put into existence !!! you are destroying Californians that are living here!!! (45d-115)

Comment: I read you are considering another increase in gasoline prices. Do you know how much this will negatively impact poor and middle income folks? Does anybody care? What is the reason when we already pay the highest gas taxes of any state? (45d-116)

Comment: We already have the highest gas prices in the country, which hits the middle class and lower income people the hardest. Why is an un-elected board applying taxes to the working class people of California!!! Stop with the stupidity (45d-117)

Comment: We cannot afford paying higher gasoline where other state has cheaper gasoline. The cost of living due to inflation has already hurt millions of California residents. (45d-118)

Comment: Our state is being destroyed step-by-step by many of your policies. We have the most expensive gasoline in the country by at least \$1.00 per gallon and more. Why are we buying gasoline from foreign entities when we have our own crude oil? Why are refineries closing? Why continue down this path of destruction? My wife and neighbor are ardently in opposition to this proposal! How many more people have to leave California? I wish you would step back and look at ALL the science behind these proposals. Does any board member know how much carbon is in our atmosphere? Do

the board members know that carbon dioxide is vital to sustain life? Please stop! Thank you. (45d-119)

Comment: I am writing as a concerned California resident to firmly oppose any further regulations that impose additional cost on gasoline users. California's working families, small businesses, and everyday drivers are already crushed by the nation's highest fuel prices. These prices are largely driven by Sacramento's layering of environmental mandates, including the Low Carbon Fuel Standard credits, cap-and-invest allowances, and other CARB policies that have added dollars to a gallon of gasoline.

Recent updates to the LCFS and related programs have already contributed to higher pump prices. These burdens fall hardest on those who rely on gasoline for commuting, business operations, and family needs. No viable, affordable alternatives exist for most people.

Any more regulation will only compound this man-made disaster. It will drive prices higher, reduce fuel supply reliability, punish consumers without delivering proportional environmental gains, and accelerate economic hardship in a state already failing in affordability.

Stop piling on cost that Californians cannot bear. The recent refinery closures have already amplified this disaster. 20% of production has shut down and now California is now importing gasoline via tankers. Adding more layers of CARB regulation now will only accelerate this exodus, tighten the supply and drive prices at the pump up.

I also own an EV, powered by solar at home, and I support Californians freedom to choose their own transportation.

Everything I have stated above is true, because we are more than twice as much than the national average.

I urge you to reject these proposals and halt any new measures that increase gasoline expenses. (45d-120)

Comment: Until we have more viable alternatives, California still needs oil for commerce. Please do not cripple our economy with regulations that are premature. All prices will go up if transportation costs go up. Then more people will leave and no one who can pay taxes will remain. (45d-121)

Comment: I am opposed to any new regulations that will lead to higher gas prices in California which are already much too high. (45d-122)

Comment: At what point does this end? You've already raised gas prices from Carb within the last 2 years. This has drastically hurt my family. \$1 more dollar raise might be insignificant to the board but to my family this is highly Punitive. Please stop. Ask the real question. At what point does Carb say enough \$\$\$ financial pain to drivers. Create more refineries. Incentive car companies. Please don't punish regular working people like myself and my family. Please stop hiking gas prices. (45d-123)

Comment: Californians cannot afford to pay more for gas. We are already paying some of the highest costs in the country for electricity, water, insurance, housing and gas. The

fact that you've chased away most of our refineries and then buy gas from foreign countries that needs to be shipped on boats that pollute the air and come from countries that don't have the regulations and oversight that CA had is bad business and shows you have no regard for the environment. You just want more money. No one will be able to afford to live here. Come to your senses and stop this needless hike in gas prices. (45d-124)

Comment: We, Californians, are suffering from your regulations, which will include in an additional tax on each gallon of gas. We need affordable gas prices so that we can drive to work. Please do not impose another tax on us. We are barely surviving. Thank you. (45d-125)

Comment: Stop regulations that keep driving up the price of gas. We in California already pay some of the highest gas rates in the nation. (45d-126)

Comment: Please do not raise our gas taxes (45d-127)

Comment: Do not raise another single cent of our gas. It's bad enough you r*pe us financially with all your other BS. I will not comply. We are done with you. (45d-128)

Comment: Please stop running off oil industry and consumers (my neighbors and family) with your ridiculous regulations and heavy-handed taxes. We just can't continue to pay for this!!! (45d-129)

Comment: No more climate-scam regulations from this unelected cabal of left-wing political appointees! Californians are already paying the highest gas prices in the country, thanks to Democrat politicians (45d-130)

Comment: Vote No on any bill that will raise the price of gas. This is causing great distress on people already struggling with the very high cost to live in California because of the tax burden. Vote NO for the single mom, the struggling student, the young family, the elderly, and the average guy trying to make ends meet. (45d-131)

Comment: Stop adding regulations to our gas in California. They don't help with anything and just make life more expensive. (45d-132)

Comment: Stop the madness. We already pay the highest prices in the US. 50% higher than the national average. You are killing the average Californian. (45d-133)

Comment: This is insanity. You are crippling us at the pump and could care less. CARB needs to be abolished. (45d-134)

Comment: DO NOT pass any legislation that raises taxes or fees on gasoline. The price of gasoline is exorbitant in California. I reiterate, DO NOT do anything that further raises the cost of gasoline. Also, DO NOT hurt working families by doing anything that causes more refineries to close! (45d-135)

Comment: This is beyond ridiculous at this point since we already pay approximately \$1.78 per gallon if you tack this on that's \$2.78 per gallon in taxes when half of the country pays that much per gallon total! Completely corrupt if you pass this! There is absolutely no reason for this other than you are bought and paid for politicians! We are sick of it!!!! (45d-136)

Comment: Stop passing regulations that are hurting the states working class families. We are already hurting due to the states overbearing regulations, we can't take anymore! Do not pass another regulation, law or bill that would force the closure of another refinery. We can't afford this. (45d-137)

Comment: Please stop these taxes for clean air and insane gas prices. This is nothing to do with Iran. All states including Hawaii and less than CA and the Gov does nothing. We are not an ATM for politicians. Waste of our tax \$ putting this site up. No brainer (45d-138)

Comment: The CARB's insane regulations are killing California. Taxing the last of our refineries is a state and national emergency for oil prices (the people and our military bases and airports). Additionally, get rid of the ridiculous refrigerant policies and abide by EPA standards! You are HURTING businesses and homeowners because the lobbyists bought you! (45d-139)

Comment: Please stop the skyrocketing gasoline prices. Policies that continue increase gasoline prices will be detrimental. Please look at the current situation as urgent. Thank you for your time (45d-140)

Comment: Carb may have made sense when it was first created, but it's time to rethink the entire approach. People are already struggling with the cost of living, and they're not going to quietly accept policies that push it even higher. California needs solutions that reduce burdens, not more regulations that make life more expensive. If the goal is to maintain public support and avoid a political backlash, the current path needs to change. Enough is enough. (45d-141)

Comment: Be proactive and address these exorbitant gas prices. Enough with the CA environmental blend that prohibits Californians from ever feeling relief at the pump; rather, consistent pain at the wallet. (45d-142)

Comment: Please do not make gas prices any higher! And do not buy oil from foreign countries. Keep the refineries here for local jobs. This is the majority desire! Listen to your constituents!! (45d-143)

Comment: Please stop. Stop with the different blends. Stop the alcohol in the fuel. Stop fining the oil companies out of business here in California. Stop buying oil from outside the US. (45d-144)

Comment: Dear CARB, Please do not implemented any further restrictions on CA oil/gas industry. Our gas prices are the highest in the nation - due to you mainly - so for once, do the right thing for Californians and DO NOT raise taxes on gas with ANY more regulations or laws. In fact, please realize that climate change is a hoax. (45d-145)

Comment: We need less regulations not more you are killing the people of California. We can't afford what it is now!! (45d-146)

Comment: Stop your egregious decisions NOW. California citizens cannot live through your ridiculous policies. Do what's right. Kill all your powers and allow California residents to have the same low prices for gasoline as EVERY OTHER state (except Hawaii) in our nation. Please do this NOW. (45d-147)

Comment: Stop driving price of gas up. Stop hurting working families. Stop making California relying on foreign gas. Do NOT MOVE FORWARD with recommendations . . VOTE no. Breaking the backs of California via their wallets at the gas station (45d-148)

Comment: Greenhouse gases? What's the agreed upon definition of a greenhouse gas. The same people that want 0 coal use—0 fossil fuels are distorting reality again. We're not changing the weather or temperature through taxing Californians, stop. In the Antelope valley, I've never come across someone who ever uttered those words "greenhouse gases". We want the price of diesel to drop back to what it was. We want the price of gas to drop down to what it was. We want the electricity bill to drop down to what it was. Stop creating problems that make life harder for everyone just trying to get by. Stop telling us this issue is more important than it is, when it's not. We will not tax our way into paradise. We will not regulate our way into paradise. Accept that. (45d-149)

Comment: Note your continued regulatory overkill is completely at odds with our federal strategy and will likely fail, but only after an expensive legal defense. California has become so bad it likely is already compromising national security by killing oil and gas and it's way past time to stop wrecking the state and instead encourage more local production. I cannot wait until the state flips red and we begin to repair the damage you've done to our wonderful state. (45d-150)

Comment: To the California Air Resources Board,

We are the oilfield workers of Kern County — the men and women who wake up before sunrise, work long hours in the heat and cold, and take pride in producing the energy that keeps California moving.

For generations, our families have helped power this state. The fuel we produce helps farmers harvest crops, truck drivers deliver food, parents get to work, and businesses keep their doors open. These are not just jobs to us — they are livelihoods that support our families, our communities, and our future.

Today we are deeply concerned about new regulations being considered that could drive gas prices even higher while putting thousands of California energy jobs at risk.

When fuel prices go up, everything goes up. Groceries go up. Transportation costs go up. Small businesses struggle. Working families across California feel it immediately. And here in Kern County, where so many families depend on the oil and gas industry, the impact is even more personal.

California already has some of the strictest environmental standards in the world. Our workers take that responsibility seriously. We believe in protecting the environment because we live here too — our kids breathe the same air and our families drink the same water.

But policies that push energy production out of California won't reduce demand. They will only force our state to import more oil from foreign countries and other states with weaker environmental protections. That doesn't help the planet — and it certainly doesn't help California workers.

We are proud of the work we do. We are proud to power California.

All we ask is that our voices — the voices of the workers and families who depend on this industry — are heard before decisions are made that could hurt our livelihoods and make life even more expensive for Californians.

Please consider the real people behind this industry.

Respectfully,

Kern County Oilfield Workers (45d-151)

Comment: Stop increasing fuel prices with new taxes. We pay the highest taxes on fuel in the country. California has plenty of money, start using it for what it was intended. (45d-152)

Comment: Stop policies that drive up prices and hurt American families. (45d-153), (45d-163)

Comment: Enough regulations! Taxes are way too high as it is. This nonsense has to stop. (45d-154)

Comment: Please stop policies that continue to raise gas prices. It is devastating us all financially. (45d-155)

Comment: We don't need more rules and regulations. The price of gas is higher in CA than any other state. Gas companies have left the state. No more rules that raise the price of gas. (45d-156)

Comment: NO MORE GAS PRICE GOUGING.

California is too mismanaged to even consider imposing more fees and taxes on petroleum products. Trying to force California citizens out of their cars and into public transportation systems that are too unsafe for regular ridership should be viewed as a crime and an assault to personal freedoms. Imposing any additional costs to steer California citizens into 'commuter friendly', high density housing projects is a crock. We don't need gulags. Unless a serious audit uncovers where the F --- all of our money disappears too, why would anyone in their right mind agree to pay more money to an incompetent (at best) corrupt state government or a tyrannical state agency like CARB

Hoping for a California cleansing enema to flush out the redundant and costly agencies, bureaus and special interest insiders raping and pillaging what was once 'the Golden State' (45d-157)

Comment: Please stop policies that drive up gas prices. These hurt working Californians who are already struggling to survive. (45d-158)

Comment: Please just stop raising taxes on gasoline. You already divert the gas taxes from maintaining the roads and infrastructure. California does not have a tax problem, it has a spending problem. Your short term thinking has CRUSHED the California economy, the long term effect of your social engineering efforts will continue to bear poison fruit for decades already. (45d-159)

Comment: As a former truck driver since 1978, I have watched gas prices rise in Calif, and not in other states due to our regulations that are outlandish.....there s/b no smogs required after the EPA has said they cause no harm....yet Calif persists....Our roads are horrible compared to other states, so the money collected in taxes on gas are obviously not going to fix the roads....please loosen or renege on some of these regulations, we have 40 million drivers in Calif..we use the most gas and yet we pay the highest, when we have oil here..make it make sense!! Do your jobs for the people you represent and lower our prices to the average the rest of the states pay....respectfully submitted (45d-162)

Comment: California has the highest standards for clean air in the US and the world. The taxpayers of the state are footing the bill for this and are at a breaking point. Neither the people of the state, nor businesses, nor the state itself can afford more regulations that will raise fuel prices. Fuel prices directly impact energy prices, which in turn affect every person living in California. The poor, who are already often on state or federal assistance are the most negatively affected by fuel and energy price hikes. The price of ALL goods are affected by fuel and energy price hikes. I propose a 5-year moratorium on ANY new regulations or amendments that would in any way increase the fees, taxes, or fines placed on California residents and businesses based on CARB rulings. (45d-164)

Comment: Stop raising taxes on working CA voters. CARB is just a money grab, created and controlled by the idiot governor called "Newsome". Stop running oil companies out of CA. Use some common sense. Brian Conner Registered Legal CA Voter (45d-165)

Comment: We need to stop any further regulation for refineries in this emergency situation. California gas prices are already the highest in the nation, which disproportionally impacts people in disadvantaged communities. A couple of refineries have closed already. The current conflict in the Middle East will likely cause gas prices to go even higher. Do not increase any regulation at this time. Consider reducing some regulation as an emergency order, such as removing the Summer Winter blend requirement. This may help Californians who are struggling financially. (45d-166)

Comment: No more money added to our already inflated gas prices ! This is purely political and your strangling generations of Californian's everyday! We need new and sensible ideas from leadership in California. People who live and work in the state want refineries here and gas prices that are in line with the rest of the country ! Why do all you politicians feel that California should pay more ? Is it really that much of a privilege to live here, I'm guessing you all got that wrong by the sheer number of businesses, wealthy people and us regular folks leaving The Numbers Don't lie ! Stop draining our beautiful state and start working for the People ! Not Your Special Interests! (45d-168)

Comment: As a life long California, I am opposed to any new law adding additional excise taxes to gasoline. The reason is quite simple, the California State Legislature has proven that they cannot use the highest revenue efficiently, so why give them more? It is making the cost of living unbearable and the real possibility of having to leave the

state, with my business. Please make changes to government spending, stop fraud and then reassess the need. Help Californians first, not Sacramento politicians. (45d-169)

Comment: Please stop this regulations on refineries, you all are making it impossible for them to operate, and it's costing us more at the pumps. Refineries are bailing out because of all of this regulations and fines you impose on them. This will cripple California's economy (45d-170)

Comment: Please stop making harder on refineries to stay afloat, it's already unaffordable to go to work. And with your proposed regulations it will make it worse. (45d-171)

Comment: I oppose and urge you to pause the proposed amendments for mandatory reporting. This is not the time to pace additional hardships on Californians. With gas prices exceeding higher than other states, this could pose a substantial drain on the CA economy. (45d-172)

Comment: Please protects California from raising gas prices. (45d-173)

Comment: I am not in favor of rheae new proposed regulations. We need to move the other direction as we are over regulated and hurting. (45d-176)

Comment: To the members of the California Air Resources Board,

I am writing as a California resident who is increasingly concerned about the direction and real world impact of the policies being implemented by the California Air Resources Board.

CARB was created with an important mission. California once faced some of the worst air pollution in the country, and the purpose of this board was to study the problem and develop practical solutions to improve air quality and protect public health. That goal made sense and most Californians supported it.

Over time, however, the board appears to have evolved into a powerful regulatory body that is able to shape major economic and energy policy without being directly accountable to the people who are most affected by those decisions. Many residents now feel that the policies coming from this board are increasingly disconnected from the practical realities faced by working Californians.

One of the clearest examples is the approach toward petroleum production and refining within the state. California still relies heavily on petroleum products for transportation, manufacturing, agriculture, and the movement of goods. Reducing in state production and refining capacity does not eliminate demand. It simply forces California to import more fuel from outside the state and often from outside the country. That means additional shipping, additional transportation emissions, and higher costs for California consumers.

When fuel costs rise, the consequences extend far beyond the gas pump. Transportation is a core part of the cost of nearly every product sold in this state. When gasoline and diesel prices increase, the cost of moving food, construction materials, and everyday goods increases as well. Those costs are passed along to consumers in the

form of higher prices for groceries, housing, and services. Working families feel these increases immediately.

Fuel policy also affects aviation. Jet fuel is refined from the same petroleum supply chain that produces gasoline and diesel. When refinery capacity is restricted and fuel supply becomes tighter, the cost of jet fuel rises as well. Higher jet fuel prices directly increase airline operating costs, which then leads to higher ticket prices and higher costs for air cargo transportation. California depends heavily on aviation for business travel, tourism, and time sensitive freight. Increasing the cost of jet fuel ultimately raises transportation costs throughout the broader economy.

There is also growing confusion among the public about the long term direction of transportation policy. Californians are strongly encouraged to transition to electric vehicles. At the same time, state leaders have begun discussing the introduction of a mileage based tax to replace the gasoline tax revenue that will decline if more people drive electric vehicles. To many residents this feels like shifting the rules after the fact and it undermines public confidence in the policy direction being promoted.

The discussion around emissions also deserves honest evaluation. California has reported long term reductions in greenhouse gas emissions over the past two decades. At the same time, emissions have fluctuated in recent years. For example, statewide emissions increased after the unusually low levels recorded during the pandemic year of 2020 before declining again in later inventories. These fluctuations show that progress is complex and not always the direct result of any single policy.

Many factors contribute to emissions reductions, including technological improvements in engines, cleaner fuels, federal efficiency standards, and broader economic changes. It is important that CARB remain open to examining which policies are truly effective and which ones may be producing unintended economic consequences without delivering the environmental benefits that were originally expected.

Another concern is that policy discussions sometimes appear to dismiss or avoid perspectives from experts who disagree with the prevailing assumptions. Science and public policy both benefit from open debate. When dissenting views are excluded, it can create the impression that conclusions were decided before the evidence was fully considered.

Most Californians care deeply about clean air and a healthy environment. That commitment crosses political lines. At the same time, environmental policy must remain grounded in practicality, economic reality, and transparency.

I urge the members of this board to step outside of the internal policy echo chamber and listen carefully to the concerns being raised by residents, industry professionals, transportation experts, economists, and energy experts who experience the effects of these policies every day. A policy that sounds promising in theory should be reevaluated if it proves difficult to implement in the real world or creates unintended burdens for the people of this state.

California has long been a place that prides itself on innovation and problem solving. That spirit requires the ability to acknowledge when an approach needs adjustment.

Showing the willingness to reevaluate policies and correct course would demonstrate that California is capable of both environmental leadership and honest self reflection.

Californians deserve policies that improve air quality while also keeping energy reliable, transportation affordable, and the cost of living manageable for the people who call this state home. (45d-177)

Comment: Absolutely do not add one more cent to our gas tax/prices. It's already absurd and tyrannical. Not one more cent! (45d-178)

Comment: California residence have been taxed beyond what we can sustain. We pay way too much for California and then our state government spends wherever they think they want to spend it and not always on what it was originally designated. California needs to live within its means without pillaging its people. The green initiatives and the Democrat party is ruining the state do not vote for any more taxes! (45d-179)

Comment: Regarding the California air resource board, adding more fees or taxes to the gas in California is unacceptable and should not be done. Many families are already hurting. I just paid over four dollars a gallon yesterday and prices for groceries have gone up again. This is unsustainable for many families in California. Prices need to be brought down. Thank you. (45d-180)

Comment: Stop with the climate change. It is a hoax. You are doing more harm to our state. If you drive out the last refineries and don't open new ones, due to your over regulation, you will lose more residents and have no one left to tax. The homeless and illegals don't pay taxes. You are making California totally dependent on foreign imports for gas. (45d-181)

Comment: Adding another dollar or more to existing gas prices would absolutely be crushing to my finances. I am already living paycheck to paycheck and cannot afford to go electric. I have to commute to work each day and should not have to choose between food or gas in order to survive. It's appalling that this is even being considered when you people don't even take those of us already struggling into consideration. I shouldn't have to work myself to the bone just to be able to survive in this state. This will also affect grocery prices and goods which would be devastating for me. Please do not raise the taxes and fees on gas. Again this would be devastating for hard working families across the state (45d-183)

Comment: We can't afford any more price hikes. It is already hard enough to make ends meet the way things are going. I oppose an increase in price hikes (45d-185)

Comment: Continued hostility towards our California Energy companies has already forced the departure of most of them. Chevron and the other remaining companies directly support over 500,000 bay area jobs, community programs, tax income, and much more.

Moving forward with this resolution will guarantee me, my family, and thousands more will be left no other choice but to leave the state.

Please reconsider this short sided approach. It does nothing but force us to rely on other countries for our oil supply. Funny that these rule makers are not concerned with

the pollution and emissions foreign refineries generate, not to mention the carbon footprint of shipping the energy to us.

This measure is clearly another scam money grab and national security threat being dictated by unelected and entrenched bureaucrats. (45d-186)

Comment: If refineries are completely closed, no new refineries are opened, and gas prices continue to skyrocket, I WILL MOVE!! I am elderly, retired, and still a driver who cannot afford unnecessary price increases. (45d-187)

Comment: Stop raising gas prices! We can barely afford it as is, you're driving businesses away. Please Stop It! (45d-188)

Comment: CARB should be working to support every energy source available for all Californians. Our businesses, communities, counties & state government all rely on a secure and affordable energy source yet CARB continually obstructs efforts to provide affordable energy by over regulating that does the opposite of what our state needs! CARB is against the people of California & frankly should be dismantled if they are not going to support what is necessary for a thriving economy. Cap & trade fees, reporting of emissions far away of energy used to produce consumer products should be curtailed if not wholly banned. Unelected bureaucrats should not have authority to use regulatory penalties to deconstruct one of the largest economies in the nation! These proposed mandatory reporting requirements are designed to do exactly that & should not be unilaterally adopted. All proposed mandatory reporting rules should be withdrawn completely. (45d-190)

Comment: You need to stop with destroying our economy. All your regulations are too much. Shame on your stupid decisions. CARB should be done away with. (45d-192)

Comment: It's time for CARB to start following the will of the people instead of bending to Gavin Newsom's will. Newsom will be gone soon. The citizens of CA will still be here and we have long memories. CARB needs to cut regulations in order to reduce gas prices. The green scam has been exposed as just another political grift. The citizens of CA are tired of paying the price for failed liberal policies. Do the right thing and enact policies that bring the price of gas in CA in line with the other states. We need refineries here! (45d-193)

Comment: I am a native son who has served as a city manager in California for almost 40 years and my wife has held executive positions in both city and county governments for most of her adult life.

As proud residents of California, and public servants employed by local government, we have witnessed the profound effect of regulatory strangulation on public agencies and the people we have served. CARB's proposed Cap-and-Invest Regulation is another measure that will increase the price of gasoline for all of our citizens along with the price of diesel for our farmers around the State. The price of gas could be increased by \$1.21 per gallon! As residents of Kern County, we have witnessed the devastating closure of refineries and related layoffs of thousands of employees.

This increase in fuel cost will add more fuel to the fire (no pun intended) coupled with the announced closure of the Strait of Hormuz by the Iranian government. In addition to these global issues, closure of refineries and loss of employees in the energy industry negatively impacts general fund revenues for cities and counties combined with increased costs in unemployment assistance for employees who lose their jobs.

As private citizens, we urge you to reconsider and revise this proposed regulation before it causes lasting and irreversible harm to California. California has suffered enough. You have the capacity to make a positive difference. (45d-194)

Comment: I urge the board to protect Californians' energy independence and personal finances by NOT adding more costs at the fuel pumps. Instead evaluate the corporations who are actually contributing to green house gas emissions if you are TRULY concerned about environmental impact; don't penalize the everyday hard-working Californian. Protect families and their wallets by opening your eyes to what is a feasible solution; the solution is NOT increasing gas prices for drivers in our great state who are already paying an exorbitant amount at the pump. (45d-195)

Comment: Even with our current regulations California's air quality is no better than the rest of the country. The current excessive regulation in California is creating misery. Further regulations will not fix this issue. Electric cars will not fix the co2 issue, electricity is mostly produced by natural gas. The proposed regulations will do nothing but further destroy the private sector and our living standards in California. Regulators are creating more pain for the poor. More people will move out of state. Please stop excessive government regulations, the private sector will fix the co2 issue with technology improvements over time, as they have done for decades. Government regulations will not fix and cannot fix these issues. (45d-196)

Comment: Please consider not adding more fees and taxes to already very high gas prices. I oppose the amendments to the green house gas emissions. We already lost refineries due to the regulations already in place causing prices to soar. If you care about the middle class and the poor, you will not implement these amendments. But maybe you're not worried about it because you have plenty of money unlike the rest of us. (45d-197)

Comment: Californians want energy independence not bullshit green deals. Gas prices are extremely high and it's us working class who suffer. STOP WITH THE BULLSHIT AND START DRILLING HERE! It's safe and effective for California. (45d-198)

Comment: Please please reconsider your stance on the amendment for reporting greenhouse gases. Although I understand a clean environment, this is happening way too fast for companies to keep up. The people of CA can't afford this amendment. Thank you! (45d-200)

Comment: Passing the proposed amendments would just make it even more expensive to live in California. The people of California need a break financially right now not another hike! Thank you Rachelle (45d-202)

Comment: CARB should work with the oil and gas industry, not against them. We've lost 2 refineries in less than 6 months in California due to increased emissions scrutiny.

The state and national security are further threatened by this 1 dollar/gallon increase proposal. It is insanity to demand further emissions control compared to what is law already (e.g. Title 5). I would state CARB needs to work with the industry to get our critical oil and gas energy rebalanced so the state economy doesn't force future business out of California. We can have emissions control without excessive red tape and fines. (45d-203)

Comment: Raising gas prices hurts the most vulnerable. The wealthy are not affected, it's the lower and middle class. Many of which are immigrants that depend on their vehicles to get to their jobs. We can't just buy a new car, we are BROKE, we are drowning!! Housing costs, food, high taxes and outrageous gas prices are pushing us to make tough decisions like buying food over paying other bills. Please NO MORE gas regulations to raise prices! Help lower prices! (45d-204)

Comment: California is sitting on liquid gold! Stop driving out our refineries! If refineries close, it will be for good. This decision will impact generations to come. (45d-205)

Comment: PLEASE stop this insanity. The taxes and burdens in this state from your regulations are harming us mere citizens. By adding more burdens, presumably "only" to the corporations, you are still forcing taxes through higher prices everywhere.

Corporations, where we have our retirement funds invested have to maintain a profit to make sure the investor, the lowly taxpayer, the common man that may have a 401(k) will get paid as investors. But in the short-term, where we pay another fifty cents or a buck in gasoline taxes at the pump is immediate and painful.

An hour of reporting at \$50/hr winds up being \$150 or \$200 at retail. I know, i have to file ridiculous reports for my business. It consumes hours a month for a small guy with four employees.

Please - go easy on us little people - Or see more tax payers move out of state so the tax-takers are the only ones left behind. Just my two cents. (45d-206)

Comment: Regarding this proposal, we should all be concerned about the rise in gas prices; especially as a vast majority of the state is reliant on the few refineries we have. Surely there must be another solution other than to squeeze refineries out of the state. The resulting doom loop that will be oncoming would be catastrophic for all industries.

I am a strong environmentalist, but our remaining refineries should be supported in obtaining reachable standards rather than punishing them harshly. The technology we want will improve with time, not by rushing everything. If they do not want to work with us and solve real issues so be it; but we must be prepared to shift the State to be able to function without them- a place where we are not at yet AT ALL.

I also find it highly hypocritical for our lifestyles that a majority of our supply is from foreign countries, refined with less standards than how you impose our own, and shipped in from tankers that take up large footprints within the ocean. Infact, a vast majority of the Californian climate-friendly lifestyle is just offsetting the cost of pollution into other places.

Additionally, I find it horrifying that this proposal, and the public hearing page on this website is not well known or accessible among voters. It is not widely read or mentioned in the news, by mail, or on social media. These decisions get made behind the backs of Californians who will be extremely hurt by the decisions you make. I challenge each of you on this board to commute 1:30hr both ways for a week in an average vehicle and see how it impacts your wallet.

I'm only in my 20s. Do not make me or others in my generation have to pick up the pieces in when we get credibility and confidence to assume your positions. (45d-207)

Comment: I am a self employed event planner and I home school my son. I have some clients that I have to drive to plan and execute their event and I have field trips for my son. If gas continues to go up, I will not be able to afford gas. I urge you to stop the increase. You are hurting the people of CA. (45d-208)

Comment: Stop the gas tax hike. Support local drilling. (45d-209)

Comment: How is importing oil and refined gas better, when oil tankers burn 2500 gallons of fuel per hour? (45d-210)

Comment: Please stop and think about the people that live and work in California. Your rules are already crippling the working class and if this passes it will be the death blow beyond a doubt. (45d-212)

Comment: Stop voting on policies that raises the price per gallon for us here in California. Enough is enough. You are to blame for why we have per gallon prices \$2 more than most other states. California's gas price per gallon is more here than even in Hawaii, where it's ALL shipped in! You are not acting for the good of the people when you continue to do this. You are acting for the politicians in Sacramento. (45d-213)

Comment: To the board: California already has the highest state taxes on everything, including gas. Why would you purposely regulate more carb to raise the taxes even higher? With no refineries, all of our oil reserves sent to other countries (Biden) we have nothing to fall back on. The people of California already pay enough. Newsom is destroying our once beautiful state one policy at a time. This needs to STOP! (45d-214)

Comment: The damage done by CARB and the insane regulations it has imposed on the citizens of California is inexcusable. In the name of clean air, you have mandated systems on trucks that are constantly failing, shortening the usable life of the trucks, injecting acid into the exhaust. This is supposed to be good for the environment?

You have caused the price of energy to be so high it is punitive. And now you are driving the last few remaining refineries out of California. We now have to have fuel shipped from the other side of the world on tankers that burn crude oil! It's as if you are trying to destroy this once great state. STOP THIS INSANITY! (45d-215)

Comment: California is already one of the most expensive states to live in. Increasing gas prices will continue to make families choose between getting to work or paying their grocery bills! The state wonders why California has a mass exodus and this is one of the many reasons. (45d-216)

Comment: STOP THESE GAS HIKES!! (45d-217)

Comment: Please stop!!! Gas prices are insane! Stop policies that drive up gas prices and hurt our working families! We cannot afford it! We can't take it anymore. (45d-218)

Comment: Stop screwing up our economy. More for gas is unacceptable. Gas companies leaving California is not OK! (45d-219)

Comment: I am a working class immigrant living in CA. Please DO NOT pass these amendments. They are ANTI-WORKING CLASS, ANTI-IMMIGRANT and ANTI-PEOPLE OF COLOR, because the only outcome of these amendments will be making energy even more expensive than it already is and less accessible to these vulnerable communities. CARB has already inflated energy prices beyond reason and has made the life of California immigrants a living hell. These amendments will also result in more atmospheric pollution and damage to earth's biosphere, because California would be buying oil from overseas produced with less oversight and with a dirtier industrial process, shipped on diesel ships across the ocean. Thus these amendments will cause negative impact on climate and accelerate the climate catastrophe, result in suffering of the working class immigrant communities who can barely afford to pay their bills. (45d-220)

Comment: Stop policies that drive up gas prices, hurt working families and take away jobs. (45d-221)

Comment: I do not support this new tax! (45d-222)

Comment: With the day-to-day struggles that we have in the refineries closing, you need to figure out how to compensate for the loss you control what's going on instead of helping you're hurting I'm not saying remove try to figure out how to lighten it for the people (45d-223)

Comment: Dear Board Members, Please reject the proposed amendments for the Mandatory reporting of Greenhouse Gas Emissions. These proposals will further cripple our infrastructure and raise prices on California Citizens who already pay higher rates than the rest of the country. This is not in the best interest of our state! (45d-224)

Comment: In light of the recent conflict in the Middle East we are facing uncertainty with our energy supply. Putting unnecessary strain on our refining capabilities will create more economic hardship for California. Please consider a practical and realistic effort to maintain our oil refineries in California at this time. We should also consider looking into hydrogen. Thank you for your consideration. (45d-225)

Comment: No member of the Air Resources Board was ever voted by the taxpayers into office. Therefore, you have no ability to make laws or rules that require us to pay additional taxes. This is a fact. (45d-226)

Comment: I am 100% against additional gas price increases! We already pay the highest prices in the nation and there is no logical reason to increase them since Congress voided California's CAA Waiver for Greenhouse Gas Emissions. This lowers air quality regulations in the state and killed both the electric car and truck mandate. Only the rich can afford the outrageous current gas prices. California has a significant

poverty, homelessness and affordability crisis and higher gas prices will make them even worse! How about, for once, ruling in favor of the people and not for the Green New Deal which is nothing but a money grab. It's all or no one when it comes to controlling climate change. California cannot do it alone and those places that tried to go 100% green have failed. (45d-227)

Comment: Not that my opinion matters to CARB, but all this "climate change" which used to be called "global warming" which used to be called "global cooling" which used to be called "nuclear winter," is one big money siphoning scam to enrich the political elite, NGO's, and individuals like Al Gore and Bill Gates. Do you honestly care about my gas prices? People like you, who have no legislative authority, seem to think you can make regulations out of thin air based on climate lies. The climate constantly changes. Driving a gas engine cannot change the Polar Vortex winds above the Arctic Circle! Nor can it cause a high pressure ridge over the desert southwest during winter! But stupid people actually believe that, and California has plenty of ignorant people regarding our climate, starting with those that sit on the CARB board! (45d-228)

Comment: Increased fuel prices hit the poor the hardest. Please consider the impact on them, and on the State as a whole. Amend the regulations to promote California's energy independence, and protect our economy. (45d-229)

Comment: CARB must stop crippling the production of oil in California with its regulations. The energy grid of this State cannot support all electric vehicles, farm equipment, construction equipment, etc. California residents rely on gas to go to school, work and perform their jobs. Without transportation and fuel for our tractors we lose the ability to support our family. Until you can provide ALL electric vehicles for EVERY citizen and the power source to charge them you have a responsibility to keep fuel prices affordable for everyone. You are destroying this once great state without any consideration for the lives and livelihoods you are destroying with it. We need affordable fuel to survive and thrive! (45d-230)

Comment: Do not pass amendments that will drive California last refineries out of the state while gas is already \$6.00 a gallon. (45d-231, 45d-234)

Comment: Do not pass amendments that Will Drive California last refineries out of the state while gas is already \$6 a gallon. It will devastate my community. (45d-232)

Comment: Do Not pass amendments that Will Dr., California last refineries out of the state while gas is already at six dollars a gallon. It will create hardship throughout the community. (45d-233)

Comment: Do not pass amendments that will drive California's last gas company out of the state while gas is already at/above \$5.00 a gallon! Declare a state of emergency! Oppose these carb amendments! (45d-235)

Comment: I think most Californians have had enough of all this regulation going on that limits our ability to produce for our families. We want jobs, we want electricity, we want oil, not this new Green deal. Politicians just pad their pockets. I oppose this proposal. (45d-236)

Comment: How about considering the cost of your "regulations" to the residence of California before you pass any further laws that increase the cost of living in CA! (45d-237)

Comment: VOTE NO ON GAS PRICE INCREASES!!! Disband this false committee and stop holding California at gun point at the fuel pump. (45d-239)

Comment: Carb is not helping the environment or the economy at this point. There must be a reasonable expectation of what can be achieved without destroying our infrastructure and further harming our livelihood in what appears an overreaching blind numbers game. (45d-240)

Comment: As a resident of California, do NOT pass this amendment and harm the flow of gas to our state. This amendment harms the residents of California. NGOs and government must not be allowed to put these severe restrictions on our natural resources that serve the well being of Californians. (45d-241)

Comment: Dear Madam Chair and Members of the Board:

As a proud citizen of Stanislaus County, I am starting emphatically:

This increase in fuel cost will add more fuel to the fire coupled with the announced closure of the Strait of Hormuz by the Iranian government. In addition to these global issues, closure of refineries and loss of employees in the energy industry negatively impacts general fund revenues for cities and counties combined with increased costs in unemployment assistance for employees who lose their jobs.

As a private citizen, I urge you to reconsider and revise this proposed regulation before it causes lasting and irreversible harm to California. California has suffered enough. You have the capacity to make a positive difference. (45d-243)

Comment: No more gas tax hikes—affordability is at stake! Excessive taxes are burdening Californians, leading us straight to economic collapse and hardship. You have become the #1 obstacle for anyone living in California to achieve the American Dream. (45d-244)

Comment: I know you want to do the best for our State and our environment. It's commendable. However, I have a concern about the proposed amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. We want to keep our State attractive for young people and new small businesses. The cost increases for small businesses and families in California are unsustainable. We have the strictest regulations in the country, let's keep them where they are so we can continue to build a healthy and sustainable future for our State. Let's not add more that would make it harder for small businesses to survive and for families to live comfortably in California. Thank you. (45d-245)

Comment: Please UNDERSTAND Another gas tax hike will crush affordability for working families already struggling with high costs, pushing us toward economic collapse under excessive taxation. PLEASE PLEASE PLEASE CARB, stop the endless tax increases! Excessive taxation on gas makes life unaffordable and risks statewide economic collapse for businesses and residents. (45d-246)

Comment: • Another gas tax hike will crush affordability for working families already struggling with high costs, pushing us toward economic collapse under excessive taxation.

- CARB, stop the endless tax increases! Excessive taxation on gas makes life unaffordable and risks statewide economic collapse for businesses and residents.

- No more gas tax hikes—affordability is at stake! Excessive taxes are burdening Californians, leading us straight to economic collapse and hardship.

- California's current taxes on gas are way too expensive; they need to be cut. The most affordable states are around \$3.00 vs. California's \$4.60. (45d-247)

Comment: Stop more burdens on tax payers. Stop more green house related legislations that add to our living costs (45d-248)

Comment: This is crazy! Gas is \$2.50 / gallon in Nashville, Tn - but \$5.00 / gallon in Ca - Why? Electricity is \$0.40 - \$0.45 / kwh in Antioch CA It's only \$0.10 / kwh in Nashville - Why? There are not enough lanes or and/or adequate traffic flow control at major intersections (Bay Bridge, 680/24, Highway 4/WillowPass, etc, etc, etc.... why Another gas tax hike will crush affordability for working families already struggling with high costs, pushing us toward economic collapse under excessive taxation. (45d-249)

Comment: No more new taxes or fees on our gas prices. No more special blend fuel. No more climate scam. We did not vote for this! (45d-250)

Comment: California's gas prices are already \$2.00 more than the national average. Where does this end. The proposed addition hike will hurt family by not only driving up gas price, but it will drive up the cost of groceries, cost of all items that require transportation to move item from one locations to another. It will further drive away CA oil companies, making oil prices in a bad feedback loop to ever increasing gas prices. Please stop this dumb regulation. (45d-251)

Comment: Controlling carbon emissions is a hoax. It will punish hardworking employees who have a job in other communities. Increasing our gas prices when the State of California continues to run out our refineries and other businesses lays the burden for our huge government spending at the pocket books of average citizens who have witnessed enormous waste, fraud, abuse, incompetence that have cost Californians their lives, homes, retirement and forced them to leave their families for affordable living in other states. Stop using Californians for destructive dreams that line the pockets of others. (45d-252)

Comment: CARB, stop the endless tax increases! Excessive taxation on gas makes life unaffordable and risks statewide economic collapse for businesses and residents. (45d-253, 45d-267)

Comment: Stop with nonsense you people in Sacramento have closed All of our refineries in Martinez, the gas refineries, Pittsburg, Antioch people that live in the area of All lost their jobs. Generations worked at these plants. Now, Fairfield Anheuser Bush closing. You can't even fix this State you just let it run a muck. As far as the gasoline you want to raise the price per gallon. you can't even fix the roads that are deteriorated

all these fees for DMV, the tax on gas is to fix the roads. What the fuck is wrong with you the only greenhouse gas that's around is in your brains. (45d-254)

Comment: NO on more gas taxes. (45d-258)

Comment: Another gas tax hike will crush affordability for working families already struggling with high costs, pushing us toward economic collapse under excessive taxation. (45d-259, 45d-271, 45d-281, 45d-296, 45d-329)

Comment: No more gas taxes. we can't afford gas as it is. (45d-260)

Comment: Why do the democrats support the original republican ideal of "cap and trade" that the republicans first supported because it doesn't help the environment at all? Why has no refinery opened in California since the 70's? Why are we going to lose local jobs and rely more on out of state oil? Why is there a huge push to force people into electric cars without adding BILLIONS of dollars of infrastructure upgrades to of electrical grids as energy producing capabilities of solar and wind keep under-performing and continue to be less reliable? We don't need less refineries in our beautiful state, we need more until a true energy shift takes place. Cap and trade is a huge taxing scam; it isn't the answer. (45d-261)

Comment: It's time for CARB to start following the will of the people instead of bending to Gavin Newsom's will. Newsom will be gone soon. The citizens of CA will still be here and we have long memories.

CARB needs to cut regulations in order to reduce gas prices. The green scam has been exposed as just another political grift. The citizens of CA are tired of paying the price for failed liberal policies. Do the right thing and enact policies that bring the price of gas in CA in line with the other states. (45d-263)

Comment: Even with our current regulations California's air quality is no better than the rest of the country. The current excessive regulation in California is creating misery. Further regulations will not fix this issue. Electric cars will not fix the co2 issue, electricity is mostly produced by natural gas. The proposed regulations will do nothing but further destroy the private sector and our living standards in California. Regulators are creating more pain for the poor. More people will move out of state. Please stop excessive government regulations, the private sector will fix the co2 issue with technology improvements over time, as they have done for decades. More Government regulations will not fix these issues. (45d-266)

Comment: CARB must stop crippling the production of oil in California with its regulations. The energy grid of this State cannot support all electric vehicles, farm equipment, construction equipment, etc. California residents rely on gas to go to school, work and perform their jobs. Without transportation and fuel for our tractors we lose the ability to support our family. You have a responsibility to keep fuel prices affordable for everyone. You are destroying this once great state without any consideration for the lives and livelihoods you are destroying with it. We need affordable fuel to survive and thrive! Please understand you are holding the final death stake through the heart of California. Do not be the people history will show as responsible for the final demise of the California Dream (45d-268)

Comment: Another gas tax hike will crush affordability for working families already struggling with high costs, pushing us toward economic collapse under excessive taxation.

Government workers cannot afford to live where they work nor in many cases their jobs are not designed to be performed remotely. Please allow those who need to work, be able to afford to work.

Shuttering businesses and refineries willing to improve their facilities is not bettering public health or public policy. (45d-270)

Comment: Do not pass amendments which will drive the last oil refineries out of California. Thank you. (45d-272)

Comment: NO to adding another dollar charge to our gasoline. No matter what it is for! (45d-274)

Comment: Shipping fuel from outside sources to California will cost consumers more and is no better for the environment, that you claim to be so concerned about protecting with all the regulations you have in place and are trying to move forward with.

A 60,000 metric ton cargo fuel freighter from India in November 2025 took one month to reach Los Angeles. What happens if there is a storm? What happens if there is a leak? What happens if there are pirates that over take the cargo? All of these things are possible.

What is the carbon emissions from the cargo freighter bringing fuel from an outside source to California comparatively? It's worse, we all know. If the fuel is being driven into California from out of state the same answer will apply.

Consumers cannot afford to pay more for gas and we cannot afford to replace our vehicles just to accommodate the unrealistic expectations you place on the citizens in the state. Rising taxes. Rising costs from fuel means rising grocery costs. (45d-275, 45d-276)

Comment: Dear CARB,

Please do not implement yet ANOTHER gas tax increase. This will crush affordability for working families who can't afford a fire-prone, high-insurance cost EV. We are already struggling with high costs across the board, don't push us toward outward migration and economic collapse under excessive taxation. Thank you. (45d-278)

Comment: Another gas tax hike will continue to crush affordability for working families already struggling with high costs like my family. Commuting into the city for work is a minimum of \$15 a day! That comes out to around \$300 a month. For families like mine that are single income, this is a huge expense.

Additionally, California has led for 6 years in a row the largest migration of working families out of the state according to U-Haul data. Why do you want to force more families to leave? The more people who leave, the less people pay California taxes.

What you should do is stop wasting money so you wouldn't have to tax so much! Stop the support for fake charities. Audit government programs. Reduce your salaries! There are so many ways to save money so you don't have to increase taxes. But the reality is you don't care for the working people, and it shows. (45d-279)

Comment: I am writing to request that you do not pass amendments that will drive up the cost of gas in California and drive the last of CA state refineries to leave the state. Gas is already at an average of \$6.00 per gallon and you are forging regular working families to decide between gas to get to work and food and clothes for their children, including my family!

If you continue to allow amendments like these to pass my family, and many like my family will be forced to move out of state this year.

Do not kill the state of California! Do not kill the good and hardworking residents of California with these amendments and policies that we did not vote for and do not want! (45d-280)

Comment: California Air Resources Board,

Re: Gasoline Tax Increase Refinery Regulations

Dear Board Members,

Please do not increase the gasoline taxes. This will hurt workers and cause food prices will go up for the poor. Please do not increase regulations on refineries. (45d-282)

Comment: No more gas tax hikes—affordability is at stake! It would be burdening Californians unnecessarily. (45d-284)

Comment: Gas is already more expensive in Calif than anywhere else in the USA. due to running off the oil refineries. Don't make it worse by Y increasing the gas tax. Why don't you listen to reason now? I guess being appointed by Newsom makes you think you can do the progressives' dirty work, huh? (45d-286)

Comment: I am opposed to these amendments which will raise the already ridiculously high price of gasoline in California add to the burden of working families trying to make ends meet while doing nothing to actually have an impact on the climate. (45d-287)

Comment: You are making gas so expensive to force people into EV vehicles. Your regulations has caused ICE vehicles to become unreliable, and repairs expensive due to being CARB compliant. You have way to much power and that needs to change. CARB needs to be abolished, everybody needs to be fired and to never work in any public official office again. (45d-288)

Comment: Please no more gas price at the pump increases! I am a retired USPS employee and the gas prices are just to high here and not following the national reductions. Help us out! (45d-290)

Comment: The notion tha human provided "greenhouse gases" have any effect above nominal has not been proven. The disastrous German economy is proof that the cost of reducing greenhouse gas places falls on those who need jobs when companies lay

off workers, which in turns destroys the economic contribution those not working. The one dollar per gallon tax will narrow the range of opportunity for workers who need low cost housing far away from jobs. The one dollar tax is the road to ruin for families and retired who need medical transportation. The rich can afford the miniscule gas tax. The marginal will be bankrupted. (45d-291)

Comment: Gas taxes are killing us. Just stop! No more taxes. Fix our roads! This is INSANE. (45d-294)

Comment: Please do not enact any more fees, taxes, or regulations that will cause our cost of living to go up and refineries to shut down. We are overwhelmed with costs already to live in this state already. Please, give us a break. (45d-295)

Comment: It seems the goal here is to make it to expensive and difficult for refineries to operate in California. I'm already living paycheck to paycheck. I can't buy an electric vehicle or afford to pay higher prices at the pump. Please consider these ammendments carefully. (45d-298)

Comment: This has got to stop how can a foreign gas prices and make a living to raise our families? (45d-300)

Comment: Please do not do anything to raise CA's gas prices or electric prices!!!! (45d-301)

Comment: Hello, This is another example of regulatory overreach that hinders the economic growth of California. Rural areas bear the brunt of this type of regulation because of the greater distances necessary to commute for work, school, shopping, etc. The burden is greatest on those who have low income households. On behalf of Eastern California, I encourage the CARB to rescind this regulation. (45d-302)

Comment: I'm completely against carb adding more regulations (45d-303)

Comment: Another gas tax will crush affordability for working families already struggling with high costs. Affordability is at stake! Excessive taxation on gas makes life unaffordable and risks statewid economic collapse for business and residents. (45d-304)

Comment: I urge you NOT to pass a new gas tax that will further burden already economically stressed California residents. Another gas tax hike will crush affordability for working families already struggling with high costs, pushing us toward economic collapse under excessive taxation.

The policies of CARB and the Bay Area Air District have significantly increased the cost of gasoline in the Bay Area. Those policies have already motivated many California refineries to permanently shut down, the 2 largest of which have just shutdown in the past few months. These shutdowns have significantly constrained gasoline supply, which in turn has caused prices to dramatically increase. A new tax will only exacerbate this disturbing trend. Please, no new tax on gasoline. (45d-305)

Comment: Stop any additional fees on fuel! We have too much already! (45d-307)

Comment: As a farmer in multiple counties, my business cannot absorb yet another additional tax on fuel. This is a significant burden on taxpayers that are already maxed out on taxes and fees in this state. No more! (45d-308)

Comment: Please do not pass amendments that will force California's last remaining refineries out of our state. It is unconscionable with the cost of living and inflation to increase this burden on working families who are struggling. Thank you. (45d-309)

Comment: Sir my name is Donald Wilson im a single father of 4 boys and im asking you please do not raise the gas prices it is hard enough being a single dad raising 4 boys and it's hard getting by with how much gas is now so please dont raise the gas (45d-311)

Comment: No more raising gas prices! No No No! (45d-312)

Comment: CARB, stop the endless tax increases! Excessive taxation on gas makes life unaffordable and risks statewide economic collapse for businesses and residents. There is no good reason we pay over \$1.65 per gallon more than states that don't even refine their own gas. It's a giant money grab with no concern for citizens. (45d-314, 45d-316)

Comment: Your beliefs that extra taxes on gas can solve anything is crazy. We are taxed to death already in this State and extra taxes on gas kill the poorest people in state. (45d-315)

Comment: Please do not continue with gas price increases, I'm suffering greatly financially for these poor policies. (45d-318)

Comment: Objection to added furl taxation (45d-319)

Comment: Please stop with the failed policies that are driving the refineries out of this state. Your decision on pushing this agenda is crippling the working class , students, and elderly, everyone is negatively affected by this states failed leadership and your so called environmental protection of clean air. (45d-321)

Comment: Stop the increase we can't like this anymore!!! (45d-322)

Comment: No more! Stop raising our gas prices! (45d-323)

Comment: California's greenhouse gas regulations are placing an increasing financial burden on everyday Californians while delivering questionable environmental benefits. These policies drive up the cost of fuel, energy, housing, and transportation, disproportionately impacting working families, small businesses, and rural communities. Instead of imposing costly mandates that push jobs and industry out of the state, California should pursue balanced solutions that protect the environment while maintaining affordability, energy reliability, and economic opportunity for its residents. (45d-325)

Comment: I was born and raised in California and I would love to stay here. We are trying to stay in California but this state is really making it difficult for the working people in this state. We are at our limit and can't afford to keep getting taxed more and more. Enough is enough! (45d-326)

Comment: These proposed Regulation Amendments do little more than increase the collection, analysis, and reporting burden on California businesses. This increased cost and effort will drive some businesses to leave California and reduce supply of important products and services along with any tax revenue these businesses generate. The impacted products are still needed by Californians. Since the atmosphere does not have boundaries or walls, these carbon emissions will be generated elsewhere with no net improvement overall.

CARB's effort and California taxpayer dollars would be much better spent in research to develop better ways to make products and services with less environmental impact. This in turn would spur innovation and entrepreneurship to create new jobs and products while improving the environment. Instead, these amendments contribute to regulating & burdening businesses out of California which creates scarcity for Californians for critical items such as motor fuels and cement, and removes jobs and tax revenue from the state. (45d-330)

Comment: State of California needs to stay out of our pockets and out of our fuel tanks (45d-331)

Comment: CARB, stop the endless tax increases! Excessive taxation on gas makes life unaffordable and risks statewide economic collapse for businesses and already struggling families. The price of gas is already higher than any other state, thanks to the reckless policies of California decision makers. Don't make it worse and force even more businesses and families out of California. (45d-332)

Comment: Please do not pass anymore policies that restrict or limit energy production. Gas prices in CA are already \$2 more than the national average. This has got to stop. My family has been in CA generations. Energy used to drive our economy here. Stupid policies have destroyed that. (15d-001)

Comment: Stop the taxes on gas. We the people cannot afford anymore. (15d-002)

Comment: California has already achieved dramatic air quality improvements, and motorists have paid for it through decades of escalating mandates, higher fuel costs, and vehicle restrictions. Continuing to expand regulatory layers under the guise of "reporting" is not a neutral action—it is a precursor to more rules, more costs, and more control over energy and transportation.

At some point, responsible governance requires recognizing success and stopping. The air is clean by any reasonable historical standard. Pushing additional regulations now delivers diminishing returns while placing real economic harm on working Californians, small businesses, and anyone who depends on affordable mobility.

This proposal reflects regulatory inertia, not necessity. It expands bureaucracy without clear, measurable public benefit and continues a pattern of overreach that is already pricing residents out of this state.

I strongly oppose any further expansion of greenhouse gas reporting requirements or related regulatory mechanisms. California does not need more layers of control—it needs restraint, balance, and recognition that the job has already been done. (15d-006)

Comment: Please pause any increase to the carb tax. We're hurting out here with oil, gas, and electricity cost increases! (15d-010)

Comment: HOW MUCH DO YOU WANT TO BLEED THE PEOPLE OF CALIFORNIA? CAN'T YOU CUT SOME MONEY FROM ELSEWHERE INSTEAD OF RAISING TAXES AGAIN? (15d-011)

Comment: I will keep this short and simple, please discontinue the relentless pursuit of your climate agenda policies that end up costing the residents of this state millions with no benefit. I can no longer afford these additional expenses so the policy makers can feel virtuous, you are not saving the world, just destroying our livelihood. (15d-012)

Comment: I strongly oppose any amendments that are going to increase the already highest in the nation energy costs. CA energy is already clean enough. (15d-014)

Comment: Hello, thank you for taking my feedback into consideration. While good intentioned, I am worried this proposal will lead to higher prices, which will be borne by a population still reeling from the Covid-era inflation wave. I respectfully hope that CARB will refocus its attention on supporting important Californian energy infrastructure to limit cost increases and maintain this great state's resiliency. Thank you again for your time. (15d-015)

Comment: More regulations will make everyone's life more expensive. Reduce regulation if you care about our cost of living. (15d-016)

Comment: Quite simply any more proposals that would affect the cost of energy (gasoline, electricity, natural gas etc.) would be a further hardship on California residents. As a retired Air Force disabled veteran, I am already budgeting every dollar just to get by. If costs continue to rise I will be forced to consider leaving the state for a more resident friendly location. (15d-017)

Comment: Enough is enough. California has or is near the highest gas taxes in the nation. We pay over \$2 more per gallon of gas as the national average. The hard working people of this state can't afford another increase in taxes or regulatory burden that causes gas prices to increase. Over regulation has resulted in refineries closing and moving operations to other states. The policies California has pursued are crushing Californians and businesses. I implore the CARB board to not only abandon efforts to increase future prices of gasoline but to also roll back the regulations that have us in this bind. (15d-018)

Comment: You unelected bureaucrats are at it again! You are adding to the already highest gas prices in the nation and have chased most of the refining capacity away with regulations that are now known to be false. Yet you keep going down this road to destruction by continuing to chase companies and those who operate companies out of this state because of your inconsiderate and need for personal power. I understand that there is enough oil in Kern County, if it was pumped, to supply our needs. Except, that you have already made the cost so high for refiners with your regulations, that most have left.

With all the taxes and government regulations you participate in, California is a very sad place to live. (15d-020)

Comment: I am submitting this comment regarding the Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. I support practical environmental goals, but I strongly urge regulators to avoid amendments that would increase the cost of living for California residents and working families.

Any new reporting, compliance, administrative, or technology requirements placed on businesses are often passed down to consumers through higher prices. This can affect essentials such as electricity, gasoline, groceries, housing construction, transportation, and household goods. At a time when many residents are already struggling with affordability, policymakers should carefully consider the real-world financial impact of these amendments.

I respectfully request that the agency prioritize the following principles:

1. Minimize compliance costs for small and medium-sized businesses, which are least able to absorb new mandates without raising prices or reducing jobs.
2. Avoid duplicative reporting requirements where businesses are already submitting emissions data through other state or federal programs.
3. Provide flexible implementation timelines so companies can adapt without sudden cost increases.
4. Conduct a transparent cost-of-living impact analysis before adopting any amendments, especially impacts on utilities, fuel, food supply chains, and housing.
5. Exempt or streamline requirements for sectors that directly affect essential consumer goods and services.

Environmental accountability is important, but regulations should be balanced with affordability. Californians should not face even higher living costs due to policies that could be implemented more efficiently. I encourage the agency to revise the proposal in ways that reduce unnecessary costs while still meeting environmental objectives.

Thank you for considering my comment. (15d-021)

Comment: We must have financial relief NOW. !!! Bring gas cost back down to \$3.00 level or close too. California costs are causing people to loose their homes (15d-022)

Comment: You are already importing approximately 20% of the gas needed for California from S. Korea, Japan, and the Bahamas. Instead of thinking of being energy efficiency in the state, you are increasing the carbon foot print by importing instead of self producing in California. Also the summer and winter blend which you maintain, can you quantify the cost this is to Californian versus the the actual environmental impact it? Instead of increase the regulation to produce gas which has caused many refineries to leave which also reduces jobs, how about you take a moment to not make ideological changes and consider the real monetary and social impact you are causing with your regulations. (15d-023)

Comment: Please do not do anything to increase the costs of either gasoline or electricity. Affordability is a major issue for California right now with the highest gasoline prices in the United States and either the most or second-most expensive electricity rates. Enough is enough. (15d-024)

Comment: Energy cost too high. Stop the war. Gasoline price too high. California should use the same gas as other states. Californian should pay the same national average gas price. (15d-025)

Comment: Keep up your over regulating the oil companies, and eventually they will all leave! As will a lot of the citizens. (15d-028)

Comment: Affordability isn't a thing here in CA. As your policies continue to gut the middle and working classes, you continue to double down on your insane agenda. Just Stop! Vote No! (15d-029)

Comment: Just what working and retired people need. Higher gas prices. Nothing say affordability like that. (15d-032)

Comment: I can appreciate having rules to keep our environment clean, but there is a limit to what working people can afford. Rising prices for individual consumers, which is the result of the proposed action, just makes things worse for everyone. Can't legislators give us a break anywhere? (15d-035)

Comment: Do not pass these proposed Amendments. We cannot afford higher gas prices! (15d-036)

Comment: Californians do not need less refinery capacity, which will increase gas prices. (15d-037)

Comment: I believe that clean air is very important for life and support changes needed to continue to clean our environment. (15d-038)

Comment: I am writing to voice my opinion on proposed changes that will further increase the cost of gas and electricity in California. The current cost of gas is already straining so many budgets. My husband drives constantly for work and we have had to cut our expenses to absorb the cost increase. Our electricity cost has increased dramatically over the last year. We added solar to offset the cost of electricity a few years ago, but our cost is now similar to pre-solar charges. It is not sustainable and difficult for our household and many others. Please reconsider any cost increases and instead help Californians by finding a way to lower costs. (15d-039)

Comment: I strongly encourage CARB NOT to move forward with this amendment. There is no benefit to the consumer if this passes, adds costs to the highest cost gasoline in the USA, and burdens those who must do the reporting. A more balanced approach to managing this issue is required. (15d-040)

Comment: Please consider pausing any further regulatory action. Energy costs are becoming unbearable. Further government restrictions will strangle our economy causing palpable suffering by all of us. (15d-041)

Comment: Rather than pause the regulations, I would like to see a pause in the extra gas taxes. That would be the most helpful to both gas buyers and taxpayers!! (15d-042)

Comment: Energy costs are already too high. If they raise any more we are considering MOVING OUT OF THE STATE. Too many taxes and way too much fraud in California. My tax dollars are not being used correctly and now you want to silence free speech. This state is turning to crap! (15d-043)

Comment: We have all the resources needed to keep California producing energy.

Members of CARB should slow down and revise their proposal with a plan that protects the in-state energy infrastructure by avoiding massive new costs for fuel producers. Rushing through a proposal to hit an arbitrary emissions reduction target is reckless, with real consequences for working Californians who can least afford it.

This is another Democratic Newsom Driven plan to destroy California with reckless and senseless proposals. Look at Florida...thriving. Take a Lesson !!!!! (15d-044)

Comment: Please do not increase gas prices. Now is not the time they are already too high and safe transportation is needed from school and work (it's not a luxury or something we can avoid). California was unfortunately built on roads and freeways not public transport. My husband works from home and that has significantly increased our electric bill. Please do not raise it further. We open our windows and line dry when we can, but we cannot conserve everything with 3 young kids. My husband makes good money, but costs are very high and we cannot have costs continually going up! We have worked hard to get ahead, but the goal posts for "getting ahead" keep getting moved further and further. If it's tough for us there are others suffering much more significantly. (15d-045)

Comment: Comment on the Proposed 15-Day Amendments to the Mandatory Reporting of Greenhouse Gas Emissions (MRR) Regulation:

I urge CARB to reconsider these MRR amendments, which are designed to support the broader Cap-and-Invest program changes. While I support California's climate goals, now is not the time to impose additional regulatory burdens that will raise costs for the state's remaining refineries and California drivers.

* Record-high gas prices already burden families: California's average price is currently over \$6.00 per gallon — nearly \$1.70 above the national average. Working families, small businesses, and low-income households in Huntington Beach and across the state are struggling with these costs. Further compliance expenses passed through from refineries will only make this worse.

* Refining capacity is collapsing: California has already lost nearly 20% of its in-state refining capacity in the past year due to the closures of the Phillips 66 Los Angeles and Valero Benicia refineries. These MRR changes help enforce tighter Cap-and-Invest rules that industry warns will accelerate more closures, increasing our dangerous reliance on imported fuels and exposing us to greater price volatility and supply risks.

* New reporting requirements add real costs without immediate climate benefit: The expanded data demands (LPG importers, cement product data, electricity retail sales,

etc.) will raise administrative and compliance expenses for fuel suppliers and facilities already operating under some of the strictest rules in the nation. These costs ultimately flow to consumers at the pump.

* Energy security and affordability must come first: With global tensions driving oil prices higher and California already importing far more fuel than before, we should prioritize keeping our remaining refineries viable rather than layering on new requirements that could drive the industry toward zero in-state capacity.

California families cannot afford another round of price increases. I respectfully ask CARB to pause or significantly scale back these amendments until refinery stability and consumer affordability are secured. Thank you for considering this input. (15d-046)

Comment: Any regulation which will cause a further increase in energy/gas prices is ill advised and truly damaging to all of us in California. We already pay the highest gasoline prices in the country and further increases caused by misguided regulation will not be either helpful nor appreciated. Pay attention to the actual people who live and work in this state and defer any new regulatory effort. (15d-047)

Comment: Gasoline tax is supposed to pay for roads repairs which are not being done so you have a choice: either give us good roads or get rid of the tax. Since you aren't fixing the roads, where is the money going? Someone's pocket? Have those funds ever been audited? Any results to disclose? (15d-050)

Comment: We are paying too much for gasoline in CA. My husband paid \$6 a gallon a few days ago. Next time it will be higher. Most people cannot afford this. It feels like there is no relief in site. (15d-051)

Comment: When will California stop making it difficult doe businesses to operate? Businesses are leaving rh state along with jobs andrevenue.irs frustration that California keeps getting weaker and weaker in the competitive market and economy overall. You want people to stay when stop making California unhealthy. (15d-052)

Comment: We don't need to raise the cost of energy in California for any reason, we are already one of the highest in the country. Enough money is already added to gas prices for whatever, please use those funds more responsibly or readjust your current projects. (15d-054)

Comment: As a long-time homwowner I am totally opposed to any moves by the "unelected" CARB members to take any action that will cause the cost of utilities in our state to go even higher than they are right now. I also think it is horrible that some public/private utilities are allowed to pay board members outrageous raises for running a so-called "public utility". (15d-055)

Comment: I would like to see CARB seriously reduced in regard to them being able to saddle the public with more outrageous restrictions and insane costs!! (15d-056)

Comment: This is unnecessary and costly. We are already doing the most to manage "climate" in California. The CARB has continually diminished the quality of life for Californians by making everything more expensive--gas costs go up, everything else follows. California is already unaffordable for most working people. Young adults are not

starting families because they already cannot afford regular living expenses for themselves. This is unsustainable. Please do not allow more regulations from CARB. Californians cannot afford it! (15d-058)

Comment: California Air Resources Board, please do not increase the cost of gas and electricity. We are retired and on fixed income and do not want to be forced out of our home state by continual increases in our cost of living. Thank you. (15d-059)

Comment: Amending the current regulation will hurt the economy which is at a precepius of driving toward unwanted decisions to the taxpayer as myself. Please consider the limit and timing of adding an additional burden to the fragile status of the economy and mandatory decision limitation to the taxpayer. Thank you for your time and consideration to this matter. (15d-060)

Comment: Dear CARB,

Please halt any gas/electric tax increases! Soon, the average Californian won't be able to afford to fill their gas tank or pay their electric bill. Things are getting out of hand! Consider supporting what is in the best financial interest for low to middle income families here in California. Thank you, Christine Earl (15d-062)

Comment: Please stop implementing regulations that make life in my native California more expensive and drive oil refining businesses out of our state! (15d-063)

Comment: Pause the proposed amendment to the regulation for mandatory reporting of green house gas emissions. This new proposal will raise gas prices and electricity bills. You are killing Californians with your rules. We can't live with these constant price increases. You are not even elected official. You are just appointed friends of politicians. You should all be ashamed of yourselves. Hardworking Californians are suffering because of you. (15d-064)

Comment: I agree with state senator Strickland when he says any more increases to the cost of gasoline, and electricity is a bad idea that further burdens Californians. We cannot afford any more regulations that drive refineries out of state, and takes high paying jobs with them. It's time for government entities to actually put the state's residents first, and to quit thinking if them as a never closing cash register. (15d-065)

Comment: Stop regulations increasing our taxes. You need to reduce regulations, not increase them. Your greenhouse gas emmisions that you keep adding each year increases the cost of gas and electricity. this has got to stop!!! (15d-067)

Comment: California cannot continue to upgrade environmental requirements when the rest of the world is failing to meet their obligations. The expense on taxpayers is unconscionable under the circumstances. State government needs to audit where every tax penny is spent before adding an even heavier burden on us. The amount of careless waste and fraud needs to be exposed.

I object to all new laws that will increase taxes and/or that will drive more businesses out of the State. (15d-068)

Comment: At this time in history, when our air is already much cleaner than anywhere else, and our petroleum industry has almost entirely left the state, it is the wrong time to double down on make our restrictions even harder. We need some common sense to our state not a desert of defunct refineries. Please do not pursue the new guidelines. Thank you (15d-069)

Comment: I am writing as a California resident to express serious concern about the continued rise in electricity costs and the growing burden placed on consumers.

While I understand and support the importance of environmental stewardship and reducing emissions, the current trajectory of energy policy appears to be placing an unsustainable financial strain on households and small businesses. Many Californians are now facing utility bills that are increasingly difficult to manage, particularly those on fixed or moderate incomes.

It is concerning that the cumulative impact of regulatory decisions, infrastructure mandates, and program costs is not being balanced with affordability. Energy policy should not force residents to choose between basic necessities and keeping the lights on.

I respectfully urge the California Air Resources Board to:

- More fully consider the direct cost impact of regulations on consumers before implementation
- Increase transparency around how policy decisions affect utility rates
- Coordinate with other agencies and utilities to prioritize cost containment
- Explore practical pathways that achieve environmental goals without disproportionately burdening ratepayers

California has long been a leader in innovation and environmental responsibility. However, leadership should also include ensuring that policies remain economically sustainable for the people who live here. (15d-072)

Comment: I am writing to express deep frustration and growing outrage over the continued rise in electricity costs in California and the role regulatory decisions play in driving those increases.

At some point, the cost burden placed on residents has crossed from difficult to unreasonable. Families and small businesses are being forced to absorb relentless rate hikes while having little to no say in the policies that contribute to them. The reality is simple: electricity in California is becoming unaffordable for many of the very people your policies are supposed to serve.

While environmental goals are important, they cannot be pursued in a vacuum. The current approach appears disconnected from the financial realities facing everyday Californians. Ratepayers should not be treated as an unlimited funding source for layered programs, mandates, and long-term initiatives without clear accountability for cost control.

It is unacceptable that:

- Electricity rates continue to climb faster than inflation and income growth
- The full consumer cost of regulatory decisions is not clearly communicated upfront
- There is insufficient coordination to prevent overlapping policies from compounding costs

I urge CARB to take immediate, tangible steps to address this issue:

- Conduct and publish transparent, comprehensive cost-impact analyses before advancing new regulations
- Prioritize affordability as a core objective—not an afterthought
- Work with utilities and other agencies to identify and eliminate unnecessary cost drivers
- Reevaluate policies that disproportionately burden middle- and lower-income households

Californians deserve energy policies that are both environmentally responsible and economically realistic. Right now, that balance is not being achieved.

I expect CARB to acknowledge the severity of this issue and take meaningful action to ensure that essential energy remains accessible and affordable. (15d-073)

Comment: I would sure hope that the 'Mandatory Reporting of Greenhouse Gas Emissions could hold off, at least for another year, to avoid even higher gas prices. Ca is already well above the average price of gas, and to tack on more taxes is simply unfair to the average person who must drive in Ca. A little Common Sense would be great. (15d-074)

Comment: Members of CARB should slow down and revise their proposal with a plan that protects the in-state energy infrastructure by avoiding massive new costs for fuel producers. Rushing through a proposal to hit an arbitrary emissions reduction target is reckless, with real consequences for Californians who are already struggling to afford staggering energy costs. (15d-075)

Comment: My husband and I were born and raised in California, purchased 2 homes and I'm now retired, and he is getting close. All 3 of our adult children have moved out of state due to the unaffordability here. The cost of housing and taxes and GASOLINE need to come down!! We also need accountability across all of our leadership and stop writing blank checks. Run this state like a business! (15d-077)

Comment: STOP MAKING IT HARDER FOR BUSINESS IN CALIFORNIA !!!!!!! WE DON'T NEED ANY MORE REGULATIONS !!!! (15d-078)

Comment: As a tax payer of this state, these proposed increases will not only harm the business they are overseeing, but will harm everyday normal people like myself. We have already lost 2 refineries in the last few months and this proposal could cause the remaining to shut down, causing severe economic impact to all in the state. We already

pay the highest gas prices in the country in part because there are so few refineries left. Also the everyday products produced with byproducts of the refinery business affects everyone. And the good paying jobs not only for those directly employed but the contractors is in the thousands. The families that would be affected by the increase in the cap and trade program would be far and wide and we cannot afford for energy prices to continue to rise and for people to lose good paying jobs. (15d-079)

Comment: Dear CARB representatives, I cannot even understand what ammendments you are proposing. Maybe that's by design? Regardless, I couldn't be more disappointed with what's happened to California and strongly urge you to reverse course. Please recognize these simple facts and consider what you can do to make life better for average Californians.

Gasoline in our state is more expensive than anywhere, for no good reason.

Electricity in our state is more expensive than anywhere, for no good reason.

The two problems above significantly contribute to the cost of living in California being one of the highest in the nation. For no good reason.

People are leaving the state because of this malpractice and complete disregard for the damage your over regulation is causing.

Climate change is an obvious exaggeration and it's just not right to harm California for some alleged benefit that really doesn't seem to exist.

Backlash is growing. Please do what's right before it's too late. (15d-080)

Comment: I agree with Tony Strickland! CARB needs to put pause to this reckless pursuit Of a failed energy policy. Californians cannot afford it, and shouldn't have to. (15d-081)

Comment: I oppose new regulations that would increase costs of gas and other utilities. There is a reason that California has the highest costs of any state. Don't ignore the unintended cause of pollution caused by importing gas from other counties and areas. This does not "save" emissions by getting product from elsewhere. The contaminants travel world-wide. (15d-082)

Comment: Unfortunately, the State of CA (Dem controlled) has decimated the Oil exploration, extraction and refining industry as we knew it. The regulatory environment/regulatory branches, ex. EPA, OSHA have such unbridled power that the big oil companies have now chosen to take their marbles and move on to less regulated states. The quasi-forced closure of the remaining refineries in the State and the idiotic idea to import refined petroleum products into the State is only going to increase the price at the pump. By voting down the CARB initiative, just maybe that will help just a bit in terms of keeping the 2 or 3 remaining refineries functioning at full capacity in the State. Whether that will reduce prices of refined products or not, remains to be seen! (15d-083)

Comment: Many of the government policies driving up costs come from regulatory proposals issued by unelected boards such as the California Air Resources Board (CARB).

In May, the California Air Resources Board will consider major changes to its Cap-and-Invest program that would increase the cost of gasoline and electricity for California families. At a time when gas prices have reached \$6.06 or more per gallon of unleaded gasoline, Californians are already feeling the strain. That's why I demand CARB pause/reverse/cancel its proposed regulations. (15d-086)

Comment: The cost of living in California is out of control. I just retired and we're seriously considering leaving the state. If this passes, it just might be the last straw. (15d-088)

Comment: California already has the most expensive gas and electricity in the country. It is over regulated to the point of vital infrastructure, like refineries, having to close down! There is no evidence all this regulation is doing anything other than hurting California citizens. Long Beach harbor is filled with tankers from all over the world because we are not allowed to cleanly and efficiently produce our own oil and gas right here in California. This is not green or energy efficient or environmentally responsible. Get real, and let's stop with all the bureaucratic regulations and unleash our own resources which will generate jobs, taxes, and lower energy prices for all. (15d-089)

Comment: As a senior citizen, I am very concerned the continuing rising energy costs, especially because I am on a limited income. Please curtail the government policies that are driving up the costs: especially the regulatory proposals issued by CARB. Please see that CARB pause/reverse or cancel its proposed regulations for the sake of everyone like me who is strained enough as it is. Thank you very much for your attention to this important matter. (15d-090)

Comment: Way too many taxes already. We're considering moving to Idaho because of all of this. The cost of living is over the top in California. Pretty soon there won't be anyone left here. (15d-091)

Comment: As consumers and retirees, we ask that you not initiate anymore policies that would negatively affect gas prices. Everything that is delivered is dependent on fuel and affects all products, including travel. Past policies have turned California into an out-migration state and this trend is accelerating. Middle and lower income families can't afford to live here. CA gas already surpasses other states by more than \$2 per gallon. Ridiculous policies that limit access to gas are not working.

CA is already circling the drain with high income earners leaving, plus in an emergency, military and commercial demands on limited gas will cut the consumer out. Is this what you are aiming for because so far your policies have wreaked disaster on consumers? (15d-092)

Comment: Please do not make any changes that will adversely affect California's causing prices to rise. You need to make the necessary changes to low costs for us. Thank you (15d-094)

Comment: I urge CARB to pause, cancel, or reverse its proposed regulations due to rising energy costs. (15d-095)

Comment: Californian's do not need to pay more at the pump. It is already out of control. We don't need higher taxes. They are already too high. All these hidden costs are creating a poverty class in California. (15d-098)

Comment: I am against any proposal that will cause an increase in the price of gasoline and/or electricity. Surely you can manage your responsibilities without causing harm to the people of Long Beach who are suffering already from higher prices! (15d-100)

Comment: You need to pause these regulations which will add more cost when California is already sooo expensive. (15d-109)

Comment: California Air Resources Board I do NOT want you to increase the limits to cap and invest program. I do NOT want the cost of gasoline to increase. I do NOT want increased utility bills. I do NOT want an increase to any fuel costs. I do NOT want an increase to any energy costs. I DO want you to drop the 2045 carbon neutrality goals. (15d-118)

Response: No changes were made in response to these comments. MRR is fundamentally a reporting regulation, not a control regulation. MRR was required by law under Assembly Bill (AB) 32 and has been in place since 2008. The proposed MRR amendments mostly include refinements to ensure complete and accurate reporting for entities that are already subject to the regulation. CARB estimates that entities subject to MRR will either experience cost savings or very minimal costs under the proposed amendments that would not impact cost of living in California. To clarify, the MRR amendments are not a gas tax, not designed to raise the price of gasoline, and not an electric vehicle mandate. Nonetheless, CARB understands and appreciates the challenging and unprecedented economic conditions we are all facing from a number of factors, including those outside of California's control, notably changing tariff conditions, global energy supply chain disruptions, and the war with Iran, among others. At the same time, the climate crisis is rapidly worsening, which also has serious impacts on our health and economy, and the Legislature has directed CARB to reduce the state's GHG emissions to the levels set by the Legislature. The MRR supports the Cap-and-Invest Program, which continues to be the most cost-effective way to reduce GHG emissions among the covered entities in order for California to achieve its statutorily mandated climate targets, and the Cap-and-Invest Proposed Amendments minimize leakage for industry through allocation and consider and support affordability as part of implementing this Program. See Agency Response to comment B1.2a in the Cap-and-Invest FSOR.

Out of Scope Comments

M-2. Comment: Require ASTM D6866 Method B

Comment: Landfill Gas Combustion and Upgrading

ASTM D6866 Method B standard for any landfill gas combusted for flaring or energy generation, and for landfill gas captured to be upgraded to biogas/RNG fuels.

For reference, current requirements of quarterly biogenic testing following ASTM D6866 for landfill gas combustion under similar prominent programs include (please see specific rules hyperlinked):

- The US GHGRP currently requires quarterly routine direct testing following ASTM D6866 for biogenic emissions from co-firing and municipal solid waste (MSW) combustion.¹⁹⁸
- California's Cap-and-Trade requires quarterly routine direct testing following ASTM D6866 for biogenic emissions from co-firing and MSW combustion.¹⁹⁹
- Canada's GHGRP requires quarterly routine direct testing following ASTM D6866 for biogenic emissions from any renewable or biogenic fuels derived from biomass including landfill gas and biogas, as well as for any fuels or fuel mixtures containing an unknown biogenic component.²⁰⁰
- The EU's ETS requires quarterly routine direct testing for biogenic portions of obligated materials, fuels and emissions.²⁰¹

Biogenic testing requirements are also important to require for landfill gas captured for the production of biogas/RNG fuels. Current requirements of quarterly biogenic testing following ASTM D6866 for landfill upgraded to biogas/RNG fuels under similar prominent programs include (please see specific rules hyperlinked):

- The US RFS currently requires quarterly routine direct testing following ASTM D6866 for fuels produced from co-processing, municipal solid waste (MSW), biogas and renewable natural gas (RNG).²⁰²
- The EU's RED requires quarterly routine direct testing for any fuels produced from co-processing or biogas and renewable natural gas (RNG).²⁰³

This is particularly important because the EPA's recently published rule on the RFS for 2026-2027 significantly limited biogenic testing for this industry, scaling back testing frequency from annually to every three years, and from sampling at three points of production to one.²⁰⁴

¹⁹⁸ 2016. "40 CFR Part 98 Subpart C— General Stationary Fuel Combustion Sources." *National Archives Code of Federal Regulations*

¹⁹⁹ 2016. "40 CFR Part 98 Subpart C— General Stationary Fuel Combustion Sources." *California Air Resources Board*

²⁰⁰ 2022. "Canada's Greenhouse Gas Quantification Requirements." Environment and Climate Change Canada

²⁰¹ 2022. "Biomass issues in the EU ETS." European Commission

²⁰² 2023. "40 CFR Parts 80 and 1090— Renewable Fuel Standard (RFS) Program: Standards for 2023–2025 and Other Changes." EPA

²⁰³ 2023. "Renewable energy- method for calculating the share of renewables in the case of co-processing." European Commission

²⁰⁴ 2026. "Final Renewable Fuel Standards for 2026 and 2027." EPA

We also recommend reviewing Data/parameter table 2 of the UNFCCC Approved Consolidated Methodology (ACM) ACM0022 on “Alternative waste treatment processes” (pages 41-42). This protocol requires biogenic testing following ASTM D6866 to determine the biogenic and fossil fractions of MSW for any cases where the biogenic content of waste cannot be classified or is unknown, which is critical to quantifying the sustainability of landfill gas combustion.²⁰⁵

Biogenic Carbon Capture and Storage (BECCS) & Biomass-Based Carbon Dioxide Removal (CDR)

We also recommend incorporating biogenic testing requirements to recognize emissions reduction for any bioenergy carbon capture and storage (BECCS) and biomass-based carbon dioxide removals (CDR) projects credited under these regulations. Biogenic testing requirements should play a significant role in any California program crediting CO₂ captured and stored from bioenergy emissions. Direct testing using radiocarbon analysis is the only reliable way to guarantee that a given sample of CO₂ contains the biogenic content claimed. There is a long, successful track record of Carbon-14 testing requirements enabling emissions reduction programs, as well as clean fuel standards, to verify producers’ claims of biogenic content pre- and post-combustion.

Carbon-14 testing requirements for biogenic emissions have been the best practice for leading emissions reduction programs for over a decade, including the following, which are relevant to review when drafting a potential BECCS standard for Canada (please see specific rules hyperlinked):

- The US GHGRP currently requires routine direct testing following ASTM D6866 quarterly for emissions from the combustion of biogenic feedstocks.²⁰⁶ California’s Cap-and-Trade (AB 32)

requires routine direct testing following ASTM D6866 for emissions from the combustion of biogenic feedstocks.²⁰⁷

- California’s Cap-and-Trade requires quarterly testing following ASTM D6866 for biogenic emissions from co-firing and MSW combustion.²⁰⁸

- Canada’s GHGRP requires routine direct testing following ASTM D6866, “if combusted fuels or fuel mixtures contain a biomass fraction that is unknown or cannot be documented.”²⁰⁹

²⁰⁵ 2022. “Large-Scale Consolidated Methodology: Alternative Waste Treatment Version 3.0” UNFCCC

²⁰⁶ 2016. “40 CFR Part 98 Subpart C— General Stationary Fuel Combustion Sources.” *National Archives Code of Federal Regulations*

²⁰⁷ 2016. “40 CFR Part 98 Subpart C— General Stationary Fuel Combustion Sources.” *California Air Resources Board*

²⁰⁸ 2016. “40 CFR Part 98 Subpart C— General Stationary Fuel Combustion Sources.” *California Air Resources Board*

²⁰⁹ 2020. “Canada’s Greenhouse Gas Quantification Requirements.” *Environment and Climate Change Canada*

- Ontario's Emissions Performance Standards (EPS) requires quarterly testing following ASTM D6866 to report biogenic content in fuel combustion and petrochemical production.²¹⁰
- The EU's ETS requires routine direct testing following the European standard EN ISO 13833 for emissions claiming biogenic content, as well as EN ISO 21644 for any combusted biomass seeking an emissions factor of 0.²¹¹
- The UK's ETS requires routine direct testing following EN ISO 13833, ISO 18466, or ASTM D6866 for stationary source emissions claiming biogenic content.²¹²

All of these emission reduction programs rely on quarterly direct testing requirements to verify the biogenic portion of CO₂ emissions claimed as renewable. The US EPA's GHGRP is especially important to consider because it has successfully required mandatory quarterly testing and reporting of biogenic content using ASTM D6866 for over 12 years. Programs adopt these requirements because routine direct testing is the only way to verify claims of biogenic content in mixed stream emissions, which is the portion of those emissions that these programs intend to mandate or incentivize.

While CCUS regulations are in an early stage globally, there are already several programs requiring direct testing to verify biogenic CO₂ captured. One example is Alberta's draft TIERS Quantification Protocol for CO₂ Capture and Permanent Geological Storage.²¹³ Under the draft protocol published, direct C14 testing using the ASTM D6866 is required to report the biogenic content of CO₂ captured. Testing is required at least every 3 months if the biogenic CO₂ is within a mixed stream, or every 2 years if the biogenic CO₂ is not within a mixed stream.

Another key regulation to consider is the EU's Carbon Removal and Carbon Farming Regulation (CRCF), which specifically differentiates between biogenic and fossil CO₂ capture and relies on the ETS requirements and requires biomass to reflect the same sustainability criteria as the EU RED, the requirements for which are discussed above.²¹⁴ The CRCF further relies on the EU ETS requirements to quantify the biogenic portion of CO₂ captured, which lists C14 testing as one of the options to do so. The CRCF Regulation builds on the EU's Regulation 2022/996 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria. Article 14 of this regulation requires auditors to "verify that the estimate of emissions savings from capture and replacement of CO₂ is limited to emissions avoided through the capture of CO₂, of which the carbon originates from

²¹⁰ 2020. "Guideline for Quantification, Reporting and Verification of Greenhouse Gas Emissions." *Ontario MECP*

²¹¹ 2018. "Commission Implementing Regulation (EU) 2018/2066." *Official Journal of the European Union*

²¹² 2021. "UK ETS: Monitoring and Reporting Biomass in Installations." *UK Department for Business, Energy and Industrial Strategy*

²¹³ 2024. "Draft Quantification Protocol for CO₂ Capture and Permanent Geologic Sequestration." *Government of Alberta*

²¹⁴ 2024. "Certification for Carbon Removals and Carbon Farming." *European Commission*

biomass and which is used to replace fossil-derived CO₂.²¹⁵ Direct test results are included in the required information on the origin of the CO₂ that is captured and the origin of the CO₂ that is replaced by biomass. This is a strong example to consider in this rulemaking because it provides an existing model for biogenic CO₂ capture and storage, which also relies on routine testing to verify claims.

Another important rule to consider is the US EPA's standards for fossil-fired power plants passed in 2024, which included landmark requirements for CCUS as the best system of emissions reduction (BSER) for fossil-fired plants which plan on continuing to operate long-term.²¹⁶ Under this BSER any biogenic content involved in CCUS at these plants will be required to submit quarterly biogenic testing as evidence under the EPA's Greenhouse Gas Reporting Program (GHGRP). We recommend that California incorporate the same requirements for any biogenic CO₂ seeking recognition under a potential CCUS tax credit. The EPA has over a decade of experience with Carbon-14 testing requirements from the GHGRP and intentionally relied on this testing for a significant role in this major emissions reduction program, which would be its first attempt at regulating biogenic CO₂ for CCUS. While this program is among those targeted by the new administration's deregulation of the EPA, CARB's mandatory emissions reporting program is a great opportunity to take advantage of this strategy for facilities in California.

There are also several prominent third-party certification standards which have set the precedent for requiring direct Carbon-14 test results to claim the biogenic portion of captured emissions. First is Puro.Earth's Geologically Stored Carbon Standard, which requires C-14 results for any biogenic CO₂ claims.²¹⁷ Verra's VT0013 Standard on Differentiating Reductions and Removals in CCS Projects recently added C-14 testing for BECCS in an approach similar to Isometric's standard, providing the option to choose direct testing or calculations.²¹⁸ Isometric's BCCS v1.3 protocol follows the same approach as Verra for co-firing, allowing operators to report using C-14 results or calculations, but any biogenic content from waste feedstocks must be reported by direct C-14 testing.²¹⁹ One other major verifier to consider is CarbonDirect's High Quality Criteria for Bio-CDR Removals, which was created in partnership with Microsoft, currently the largest purchaser of biogenic removal credits.²²⁰ Their criteria include Carbon-14 testing as the best practice for reporting the biogenic portion of CO₂ under any relevant standards.

²¹⁵ 2022. "Commission Implementing Regulation (EU) 2022/996 of June 14, 2022 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land-use change-risk criteria." *Official Journal of the European Union*

²¹⁶ 2024. "40 CFR Part 60- New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units" *Environmental Protection Agency*

²¹⁷ 2024. "Geologically Stored Carbon: Methodology for CO₂ Removal." *Puro.Earth*

²¹⁸ 2025. "VT0013 Differentiating Reductions and Removals in CCS Projects." *Verra*

²¹⁹ 2025. "Biogenic Carbon Capture and Storage Protocol v1.3" *Isometric*

²²⁰ 2025. "Biomass Carbon Removal and Storage." *CarbonDirect*

For BECCS and biomass CDR projects, biogenic testing following ASTM D6866 should be required at least quarterly to demonstrate the renewable carbon reported. This is in line with the established requirements for emissions reporting and fuel decarbonization programs discussed above, notably including Alberta's protocol for bioenergy CCUS. In terms of costs, ASTM D6866 testing costs a one-time charge between \$300 and \$500, depending on your choice of laboratory, which has helped to make it an efficient tool for quarterly reporting under these established programs.

Never Rely Exclusively on Mass Balance for Quantification of Biogenic Content

It is critical that CARB continue to rely on direct measurements for biogenic content under this program, rather than recognize any mass balance calculations for biogenic claims. Producers and industry lobbying groups continue to promote calculation-based approaches such as mass balance because they enable facilities to make claims solely based on material inputs in production. These calculations allow producers to assume that all of their biomass inputs end up in their facilities' outputs, despite it being well understood in the industry that the input of renewable feedstocks is not the same as the output because performance varies and renewable feedstocks don't produce the same quantity of material as their fossil counterparts.²²¹ By basing their calculations solely on production inputs rather than outputs these methods systematically over-report the renewable share of fuels.

Calculation-based approaches also use a system of free allocation, meaning they do not have to guarantee that there is any renewable content in a given fuel. Producers prefer this because if 10% of their feedstocks are biogenic they can claim that 10% of their products are biogenic, even if that's not the case because biobased can go in different amounts to different products in the co-process. Even further, book and claim also allows them to claim that 10% of their products are 100% biogenic and the rest are 0%, even if all of the products should be 10% biogenic based on calculations (and would likely C14 test below that).²²²

These calculations' reliance on free allocation creates the potential for double counting of renewable content, leaving low-carbon fuel programs susceptible to a high risk of greenwashing and fraud. For example, this threat is highlighted by the recent mass balance fraud challenges faced by the ISCC regarding fraudulent biodiesel submissions from China which "caused a dramatic fall in biodiesel prices in European markets" in July 2023.²²³ In response to this situation, the EU quickly updated the RED's co-processing rules to uniformly require direct testing, including verifying the calculations of producers choosing to use calculation-based approaches.²²⁴

²²¹ 2006. "Determining the modern carbon content of biobased products using radiocarbon analysis." *Bioresource Technology*, 97(16), 2084-2090

²²² 2024. "The Mass Balance Approach." International Sustainability & Carbon Certification

²²³ 2023. "ISCC Press Release July 27, 2023." International Sustainability & Carbon Certification

²²⁴ 2023. "Renewable energy- method for calculating the share of renewables in the case of co-processing." European Commission

The importance of limiting the role of mass balance for reporting the biogenic content of fuels is articulated very well by a recent opinion of the Advocate General of the EU Court of Justice (CJEU) on the roles of mass balance and C-14 for reporting biogenic content in co-processing. The official opinion found that mass balance calculations are not intended to quantify the share of biogenic contained in a biofuel produced by co-processing.²²⁵ The opinion was reiterated in the final ruling of the case which differentiates between determining the sustainable criteria for biofuels (mass-balance) and determining the share of biogenic carbon (C14 testing).²²⁶ This judgment was issued in response to a case brought by BP France against the French government regarding a tax incentive requiring C-14 testing to verify claims of renewable content. BP is also notably a board member of the ISCC.²²⁷

Recently in the US issues with mass balance in the recycling industry have received increasing attention. A ProPublica investigation published in June 2024 that products advertised as 30% recycled through mass balance often contained less than 1% recycled content.²²⁸ Similar concerns were shown by the US EPA as early as 2023, which described the mass-balance methodology as deceptive and advised against promoting it. In August 2024, the US Environmental Protection Agency (EPA) launched a federal action against the mass-balance methodology used in the recycling sector.

In September 2024, California Attorney General Rob Bonta filed a lawsuit against ExxonMobil claiming that the oil major “deceptively” promoted chemical recycling as a solution to the plastic crisis, citing their use of mass balance calculations such as ISCC Plus.²²⁹ That lawsuit directly challenges the standard’s use of ISCC’s free allocation method as a system designed to enable greenwashing.²³⁰ The New York Times also recently published a relevant article on the challenges that mass balance presents to the recycling industry, which aligns with the challenges experienced in the renewable products industry.²³¹ Recently, the ACC dropped a separate lawsuit against the state of Colorado for limiting the use of mass balance in recycling reporting as well.²³²

It is in the best interest of India’s decarbonization goals not to allow any producers to report their biogenic content using mass balance calculations. However, if mass balance is used at all in this methodology, it is critical that these calculations be routinely verified by direct testing. The advantage of the updated RED protocol is that

²²⁵ 2024. “Opinion of Advocate General Campos Sánchez-Bordona Delivered on 11 January 2024: Case C-624/22.” Court of Justice of the European Union

²²⁶ 2024. “Judgement of the Court (Third Chamber) of 29 July 2024.” Court of Justice of the European Union

²²⁷ 2024. “Board Members of the ISCC Association.” International Sustainability & Carbon Certification

²²⁸ 2024. “Biden EPA Rejects Plastics Industry’s Fuzzy Math That Misleads Customers About Recycled Content.” ProPublica

²²⁹ 2024. “The People of the State of California v. Exxon Mobil Corporation.” *Superior Court of the State of California*

²³⁰ 2024. “ExxonMobil Accused of “Deceptively” Promoting Chemical Recycling as a Solution for the Plastics Crisis.” *ProPublica*

²³¹ 2024. “Is Your Water Bottle Really Made From Recycled Plastic?” *The New York Times*

²³² 2026. “Colorado Mass Balance Debate Underscores Industry Faultlines.” *Waste Dive*

producers can choose to use calculations internally, while the program still ensures the information reported is accurate through direct Carbon-14 analysis. This is the only way to mitigate the risk to the program introduced by these calculations.

Conclusion

The introduction of these draft methodologies for India's Carbon Credit Trading Scheme (CCTS) is a critical step in India's decarbonization journey. By implementing best practices for verification established by similar state, federal and international fuel decarbonization and emission reduction programs, India's Bureau of Energy Efficiency can best prepare this program to successfully achieve and measure its goals. Routine direct testing following ASTM D6866 Method B is the most effective way to incentivize and validate the use of biogenic content under this program. As India continues to develop programs to advance its decarbonization goals we recommend reviewing the use of biogenic testing in leading programs around the world.

What is Biogenic Testing (Carbon-14)?

Carbon-14 analysis is a reliable method used to distinguish the percentage of biobased carbon content in a given material. The radioactive isotope carbon-14 is present in all living organisms and recently expired material, whereas any fossil-based material that is more than 50,000 years old does not contain any carbon-14 content. Since Carbon-14 is radioactive, the amount of carbon-14 present in a given sample begins to gradually decay after the death of an organism until there is no carbon-14 left. Therefore, a radiocarbon dating laboratory can use carbon-14 analysis to quantify the carbon-14 content present in a sample, determining whether the sample is biomass-based, fossil fuel-derived, or a combination.

The analysis is based on standards such as ASTM D6866 and its international equivalents developed for specific end uses, such as ISO 13833. ASTM D6866 is an international standard developed for measuring the biobased carbon content of solid, liquid, and gaseous samples using radiocarbon dating.²³³ There are also many international standards based on the specific use of direct Carbon-14 testing, such as ISO 13833, which is an international standard developed for measuring the biogenic carbon content of stationary sources emissions.²³⁴

Carbon-14 analysis yields a result reported as % biobased carbon content. If the result is 100% biobased carbon, this indicates that the sample tested is completely sourced from biomass material such as plant or animal byproducts. A result of 0% biobased carbon means a sample is only fossil fuel-derived. A sample that is a mix of both biomass sources and fossil fuel sources will yield a result that ranges between 0% and 100% biobased carbon content. Carbon-14 testing has been incorporated into several

²³³2021. "Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis." *ASTM International (D6866-21)*

²³⁴ 2013. "ISO 13833:2013 Stationary source emissions: Determination of the ratio of biomass (biogenic) and fossil-derived carbon dioxide." *International Organization for Standardization*

regulations as the recommended or required method to quantify the biobased content of a given material.

ASTM D6866 Method B - The Most Reliable Method

Carbon-14 is a very well-established method which has been in use by many industries (including the fossil fuel industry) and academic researchers for several decades.

Carbon-14 measurements done by commercial third party testing is robust, consistent, and with quantifiable accuracy/precision of the carbon-14 amount under ASTM D6866 method B. The EN 16785 is the only standard that allows a variant of the Mass Balance (MB) method of 'carbon counting' under EN 16785-2. The EN 16785-1 requires that the biocarbon fraction be determined by the carbon-14 method. However, when incorporating this EN 16785 method, certification schemes like the "Single European

Bio-based Content Certification" only allow the use of EN 16785-1 due to its reliability and the value of a third-party certification. <http://www.biobasedcontent.eu/en/about-us/>

In ASTM D6866 method B, the carbon-14 result is provided as a single numerical result of carbon-14 activity, with graphical representation that is easily understood by regulators, policy makers, corporate officers, and more importantly, the public. The overwhelming advantage of carbon-14 is that it is an independent and standardized laboratory measurement of any carbon containing substance that produces highly accurate and precise values. In that regard, it can stand alone as a quantitative indicator of the presence of biobased vs. petroleum feedstocks. When carbon-14 test results are challenged, samples can be rapidly remeasured to verify the original reported values (unlike mass balance).

The quantification of the biobased content of a given product can be as low as 0.1% to 0.5% (1 relative standard deviation – RSD) based on Instrumental error for Method B (AMS). This error is exclusive of indeterminate sources of error in the origin of the biobased content, and manufacturing processes. As such a total error of +/-3% (absolute) has been assigned to the reported Biobased Content to account for determinate and indeterminate factors.²³⁵

It is also important that the program should always require ASTM D6866 Method B, rather than allow Method C for any use. Where ASTM D6866 Method B uses the AMS Instrument to measure ¹⁴C, Method C uses Liquid Scintillation Counting (LSC). In Method B, the AMS Instrument directly measures the ¹⁴C isotopes. However, in Method C, scintillation molecules indirectly absorb the beta molecules that release with the decay of ¹⁴C and convert the energy into photons which are measured proportionally to the amount of ¹⁴C in the sample. Since Method B directly measures the ¹⁴C isotopes and Method C measures them indirectly, Method B is significantly

²³⁵ 2021. Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis. *ASTM International (D6866-21)*. pp 1-19. doi: 10.1520/D6866-21

more precise and should be prioritized in regulations.²³⁶ LSC measurements, like those used in Method C, are commonly used as an internal testing tool when samples are limited and accuracy does not need to be extremely high.

About Beta Analytic

Beta Analytic was among the originators of the use of Accelerator Mass Spectrometry (AMS) for the ASTM D6866 biobased / biogenic testing standard using Carbon-14 to distinguish renewable carbon sources from petroleum sources. Beta began testing renewable content in 2003 at the request of United States Department of Agriculture (USDA) representatives who were interested in Beta's Carbon-14 capabilities for their BioPreferred® Program (www.biopREFERRED.gov). At their request, Beta joined ASTM under subcommittee D20.96. Beta's previous president, Darden Hood, was positioned as a technical contact for the USDA and within 3 months completed the ASTM D6866-04 standard. The Carbon-14 technique is now standardized in a host of international standards including ASTM D6866, CEN 16137, EN 16640, ISO 16620, ISO 19984, BS EN ISO 21644:2021, ISO 13833 and EN 16785. Carbon-14 analysis can be used on various types of samples (gas, liquids and solids). Beta Analytic continues to be a technical contact for ASTM D6866 with current president Ron Hatfield and is involved with all their latest ASTM D6866 versions.

The Carbon-14 standardized method is also incorporated in a variety of regulatory programs including the California AB32 program, US EPA GHG Protocol, US EPA Renewable Fuels Standard, United Nations Carbon Development Mechanism, Western Climate Initiative, Climate Registry's Greenhouse Gas Reporting Protocol and EU Emissions Trading Scheme.

We are currently technical experts on Carbon-14 in the following committees: ASTM D6866 (D20.96) Plastics and Biobased Products (Technical Advisor)

ASTM (D02.04) Petroleum Products, Liquid Fuels and Lubricants (Technical Advisor)
ASTM (061) US TAG to ISO/TC 61 Plastics (Technical Expert)

USDA BioPreferred Program TAC (Technical Advisor)

ISO/TC 61/SC14/WG1 Terminology, classifications, and general guidance (Technical Expert)
CEN/TC 411 Biobased Products

CEN/TC 411/WG 3 Biobased content

CEN/TC 61/SC 14/WG 1 Terminology, classifications, and general guidance (Technical Expert)

ISO/IEC 17025:2017 Accredited Laboratory

²³⁶ 2022. "Testing the methods for determination of radiocarbon content in liquid fuels in the Gliwice Radiocarbon and Mass Spectrometry Laboratory." *Radiocarbon*

To ensure the highest level of quality, laboratories performing ASTM D6866 testing should be ISO/IEC 17025:2017 accredited or higher. This accreditation is unbiased, third party awarded and supervised. It is unique to laboratories that not only have a quality management program conformant to the ISO 9001:2008 standard, but more importantly, have demonstrated to an outside third-party laboratory accreditation body that Beta Analytic has the technical competency necessary to consistently deliver technically valid test results. The ISO 17025 accreditation is specifically for natural level radiocarbon activity measurements including biobased analysis of consumer products and fuels, and for radiocarbon dating.

Required tracer-free facility for Carbon-14

For carbon-14 measurement to work, be accurate, and repeatable, the facility needs to be a tracer-free facility, which means artificial/labeled carbon-14 is not and has never been handled in that lab. Facilities that handle artificial carbon-14 use enormous levels relative to natural levels and it becomes ubiquitous in the facility and cross contamination within the facility, equipment and chemistry lines is unavoidable. Results from a facility that handles artificial carbon-14 would show elevated renewable contents (higher pMC, % Biobased / Biogenic values), making those results invalid. Because of this, Federal contracts and agency programs (such as the USDA BioPreferred Program) require that AMS laboratories must be ¹⁴C tracer-free facilities in order to be considered for participation in solicitations.

Areas where cross-contamination might occur include but are not limited to; biomedical or nuclear reactors, isotope enrichment / depletion columns, water, soil, plant, or air samples collected near or at biomedical / nuclear reactor sites, medical, industrial, or hazardous waste sites, samples specifically manipulated to study the uptake / fractionation of stable isotopes due to biological or metabolic processes. To learn more about the risks associated with testing natural levels Carbon-14 samples in a facility handling artificially enhanced isotopes please see the additional information provided after this comment.

Demand a Tracer-Free Laboratory for Radiocarbon Dating

As part of its commitment to provide high-quality results to its clients, ISO/IEC 17025-accredited Beta Analytic does not accept pharmaceutical samples with "tracer Carbon-14" or any other material containing artificial Carbon-14 (^{14}C) to eliminate the risk of cross-contamination. Moreover, the lab does not engage in "satellite dating" – the practice of preparing individual sample graphite in a remote chemistry lab and then subcontracting an AMS facility for the result.

High Risk of Cross-Contamination

Pharmaceutical companies evaluate drug metabolism by using a radiolabeled version of the drug under investigation. AMS biomedical laboratories use ^{14}C as a tracer because it can easily substitute ^{12}C atoms in the drug molecule, and it is relatively safe to handle. Tracer ^{14}C is a well-known transmittable contaminant to radiocarbon samples, both within the AMS equipment and within the chemistry lab.

Since the artificial ^{14}C used in these studies is phenomenally high (enormous) relative to natural levels, once used in an AMS laboratory it becomes ubiquitous. Cross-contamination within the AMS and the chemistry lines cannot be avoided. Although the levels of contamination are acceptable in a biomedical AMS facility, it is not acceptable in a radiocarbon dating facility.

Biomedical AMS facilities routinely measure tracer-level, labeled (Hot) ^{14}C samples that are hundreds to tens of thousands of times above the natural ^{14}C levels found in archaeological, geological, and hydrological samples. Because the ^{14}C content from the biomedical samples is so high, even sharing personnel will pose a contamination risk; "Persons from hot labs should not enter the natural labs and vice versa" (Zermeño et al. 2004, pg. 294). These two operations should be absolutely separate. Sharing personnel, machines, or chemistry lines run the risk of contaminating natural level ^{14}C archaeological, geological, and hydrological samples.

Avoid the Risks

Find out from the lab that you are planning to use that they have never in the past and will never in the future:

- accept, handle, graphitize or AMS count samples containing Tracer or Labeled (Hot) ^{14}C .
- share any laboratory space, equipment, or personnel with anyone preparing (pretreating, combusting, acidifying, or graphitizing) samples that contain Tracer or Labeled (Hot) ^{14}C .
- use AMS Counting Systems (including any and all beam-line components) for the measurement of samples that contain Tracer or Labeled (Hot) ^{14}C .

Tracer-Free Lab Required

Recently, federal contracts are beginning to specify that AMS laboratories must be ^{14}C tracer-free facilities in order to be considered for participation in solicitations.

A solicitation for the National Oceanic and Atmospheric Administration (NOAA) has indicated that "the AMS Facility utilized by the Contractor for the analysis of the micro-samples specified must be a ^{14}C tracer-level-free facility." (Solicitation Number: WE-133F-14-RQ-0827 - Agency: Department of Commerce)

As a natural level radiocarbon laboratory, we highly recommend that researchers require the AMS lab processing their samples to be Tracer-free.

No Exposure to Artificial Carbon-14

According to ASTM International, the ASTM D6866 standard is applicable to laboratories working without exposure to artificial carbon-14 routinely used in biomedical studies. Artificial carbon-14 can exist within the laboratory at levels 1,000 times or more than 100 % biobased materials and 100,000 times more than 1% biobased materials. Once in the laboratory, artificial ^{14}C can become undetectably ubiquitous on materials and other surfaces but which may randomly contaminate an unknown sample producing inaccurately high biobased results. Despite vigorous attempts to clean up contaminating artificial ^{14}C from a laboratory, isolation has proven to be the only successful method of avoidance. Completely separate chemical laboratories and extreme measures for detection validation are required from laboratories exposed to artificial ^{14}C . Accepted requirements are:

- (1) disclosure to clients that the laboratory working with their products and materials also works with artificial ^{14}C
- (2) chemical laboratories in separate buildings for the handling of artificial ^{14}C and biobased samples
- (3) separate personnel who do not enter the buildings of the other
- (4) no sharing of common areas such as lunch rooms and offices
- (5) no sharing of supplies or chemicals between the two
- (6) quasi-simultaneous quality assurance measurements within the detector validating the absence of contamination within the detector itself.

ASTM D6866-22 - Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis.



(15d-108)

Response: No changes were made in response to these comments. The MRR amendments did not include biogenic composition analysis of landfill gas. This

Useful Reference

1. Memory effects in an AMS system: Catastrophe and Recovery. J. S. Vogel, J.R. Southon, D.E. Nelson. Radiocarbon, Vol 32, No. 1, 1990, p. 81-83 doi:10.2458/azu_js_rc.32.1252 (Open Access)

"... we certainly do not advocate processing both labeled and natural samples in the same chemical laboratory." "The long term consequences are likely to be disastrous."

2. Recovery from tracer contamination in AMS sample preparation. A. J. T. Jull, D. J. Donahue, L. J. Toolin. Radiocarbon, Vol. 32, No.1, 1990, p. 84-85 doi:10.2458/azu_js_rc.32.1253 (Open Access)

"... tracer ^{14}C should not be allowed in a radiocarbon laboratory." "Despite vigorous recent efforts to clean up the room, the "blanks" we measured had ^{14}C contents equivalent to modern or even post-bomb levels."

3. Prevention and removal of elevated radiocarbon contamination in the LLNL/CAMS natural radiocarbon sample preparation laboratory. Zermeño, et. al. Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms Vol. 223-224, 2004, p. 293-297 doi: 10.1016/j.nimb.2004.04.058

"The presence of elevated ^{14}C contamination in a laboratory preparing samples for natural radiocarbon analysis is detrimental to the laboratory workspace as well as the research being conducted."

4. High level ^{14}C contamination and recovery at XIAN AMS center. Zhou, et. al. Radiocarbon, Vol 54, No. 2, 2012, p. 187-193 doi:10.2458/azu_js_rc.54.16045

"Samples that contain high concentrations of radiocarbon ("hot" samples) are a catastrophe for low background AMS laboratories." "In our case the ion source system was seriously contaminated, as were the preparation lines."



comment is therefore beyond the scope of the current rulemaking. Please see the response to “D-2. Multiple Comments: Biogenic Emissions from Coprocessing” in this FSOR for more information.

M-3. Multiple Comments: Out of Scope Comments

Comment: Mandatory reporting accuracy is fundamentally tied to the best available technology. This submission introduces the ACS (Arboreum Commercial Solutions) standard—a closed-loop carbon-negative, agri-waste pulping process—as the new benchmark for carbon-intensity (CI) reduction. By utilizing syngas and biochar as secondary outputs, the ACS process (see attached 12/17/25 filing receipt) demonstrates that current timber-based emission reporting likely reflects outdated industrial inefficiency rather than unavoidable environmental impact. I am notifying the Board that this standard is available for licensing to ensure reporting reflects true technical feasibility.



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Page 1 of 3
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APPLICATION #
19/424,106

RECEIPT DATE / TIME
12/17/2025 11:24:20 PM Z ET

ATTORNEY DOCKET #
1126P001

Title of Invention
INTEGRATED LIGNOCELLULOSIC WASTE PROCESSING

Application Information

APPLICATION TYPE
Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION #
2951

FILED BY
KATHY MOU

PATENT CENTER #
73649605

FILING DATE
-

CUSTOMER #
210830

FIRST NAMED
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Vincent Pietro Cabosera

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AUTHORIZED BY
MARK HAGLER

Documents

TOTAL DOCUMENTS: 14

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
1126P001 ADS.pdf	8	Application Data Sheet	2202 KB
1126P001 Declaration.pdf	2	Oath or Declaration filed	252 KB
1126P001 POA.pdf	2	Power of Attorney	391 KB
1126P001 Certification of Micro Entity Status.pdf	2	Certification of Micro Entity (Gross Income Basis)	159 KB
1126P001 IDS.pdf	5	Information Disclosure Statement (IDS) Form (SB08)	1315 KB
1126P001 Figures.pdf	3	Drawings-only black and white line drawings	148 KB
1126P001 Application- APP.TEXT.docx	16	Application body structured text document	56 KB

(45d-001)

Comment: Policy Recommendation on Integrating Distributed Circular Economy Data into the MRR Framework and Enabling Intelligent Management

To: California Air Resources Board (CARB)

Submitted by: Sheng Su, CEO, Sustain You

Date: April 2026

I. The Reality Check: MRR Is Missing the Real Battleground of Emissions Reduction
California's Mandatory Greenhouse Gas Emissions Reporting program (MRR) is a globally recognized regulatory benchmark. But a benchmark is not a destination. Since the implementation of SB 1383, a structural contradiction has become impossible to ignore: the current MRR framework excels at recording the outcomes of emissions, but cannot intervene in the process of reducing them. It is a precise ledger of what has already happened — when what California truly needs is a system capable of intervening before emissions occur.

This gap produces three concrete policy blind spots:

Blind Spot 1: Time Lag. Emissions data is captured only after the fact. Regulatory action is always one step behind, and critical reduction windows are lost repeatedly.

Blind Spot 2: The Systematic Invisibility of Logistics Emissions. The transportation-related emissions generated by centralized waste processing are almost entirely unquantified within the existing MRR data chain. The true value of distributed emissions reduction is being systematically underestimated as a result.

Blind Spot 3: The Absent Resource Identity of Organic Waste. Within the current data framework, organic waste is classified as a liability — not an asset. This fundamental mischaracterization distorts the entire policy incentive structure of California's circular economy.

Closing these three blind spots is the central task of CARB's next regulatory upgrade — and the foundation of this recommendation. II. Our Core Proposition: Rebuilding MRR Data Integrity with GaiareCycle-Link We propose the integration of a scalable, high-precision digital module — GaiareCycle-Link — into the existing MRR framework. This is not a patch on the current system. It is a fundamental transition from end-point recording to full-lifecycle auditing.

Layer One: Spatial Integrity Framework — A Hard Guarantee of Data Credibility The value of data depends entirely on its credibility. The greatest obstacle facing distributed emissions reduction data today is not collection difficulty — it is a crisis of trust. GaiareCycle-Link addresses this at the root through a Multi-Dimensional Cross-Validation Matrix. The system integrates high-precision coordinate verification, hardware operational fingerprinting, and proprietary multi-spectrum spatial sensing technology into a triple-layer verification mechanism. It does not merely know where a device is — it confirms, through active environmental scanning, whether that location is genuine. Emissions reduction data generated by a distributed node is granted regulatory validity only when the device is confirmed to be within its designated compliance zone and its environmental sensing parameters match the verified baseline model. We call this the Geo-Biometric Lock. Its existence eliminates fraudulent reporting at the technical level — not through after-the-fact audits, but by making false claims

structurally impossible. The direct policy implication is clear: regulators can substantially reduce costly on-site inspections while obtaining real-time data with significantly higher evidentiary weight. Administrative costs decrease. Regulatory coverage expands.

Layer Two: Transparent Resource Conversion Mapping — Turning "Waste" into a Data Asset GaiareCycle-Link extends the functional boundary of MRR from recording the disappearance of waste to tracking the creation of resources. The system provides real-time documentation of the dynamic ratios in which organic waste is converted into organic fertilizer, feed materials, and high-value industrial inputs — along with complete downstream traceability. More significantly, when agricultural or industrial sectors utilize these locally converted products, the MRR data infrastructure enables automatic cross-sector carbon credit offsets. This will give California a transparent, equitable framework for cross-industry carbon accounting — and repair the most critical broken link in the current value chain.

III. The AI Management Layer: From Scattered Nodes to a Coordinated System

The greatest potential of a distributed architecture lies in its collective performance exceeding the sum of its parts. Whether that potential is realized depends entirely on whether a sufficiently intelligent backbone exists to connect them.

We recommend the establishment of a statewide AI-driven central monitoring and dispatch system that integrates tens of thousands of distributed processing nodes into a unified, responsive organism:

Real-Time Adaptive Optimization: AI continuously monitors the operational load and environmental parameters of each node, dynamically optimizing conversion pathways to ensure that every kilogram of organic waste is processed at peak efficiency — keeping greenhouse gas emissions at their lowest achievable level.

Statewide Resource Heat Mapping and Policy Intelligence: By aggregating multi-dimensional spatial data at scale, the state will — for the first time — possess a genuine real-time panorama of California's circular economy. High-pressure emissions zones and resource conversion gaps will be precisely identifiable, providing data-driven guidance for infrastructure planning and policy investment rather than reliance on delayed statistical reports.

Proactive Compliance Alerting: The system automatically detects data anomalies and triggers preemptive intervention before potential emissions risks materialize. The regulatory model shifts from reactive accountability to active process management. This is not an incremental improvement — it is a fundamental upgrade in regulatory logic.

IV. Systemic Value: This Is Not Just a Data Project What we ask CARB to recognize is not merely the technical feasibility of GaiareCycle-Link — it is the scale of systemic transformation it enables.

On emissions performance: organic waste converted at the point of origin — before methane generation reaches its critical threshold — achieves the lowest possible Global Warming Potential (GWP). This is a decisive advantage at the level of timing itself.

On system resilience: distributed processing significantly reduces the burden of large-scale waste transportation on municipal infrastructure, lowers overall operational costs, and provides local agriculture and supply chains with a stable, reliable resource stream — creating a self-reinforcing positive cycle.

On data asset creation: the fragmented organic waste streams dispersed across communities and businesses will, within this framework, become quantifiable, traceable, and tradeable digital assets — injecting new levels of transparency and liquidity into California's carbon markets.

On global leadership: a next-generation MRR framework integrating satellite imagery, spatial scanning, and AI-driven management will cement California's position at the frontier of digital climate governance. This is an institutional and technological advantage that no other state or nation can replicate in the near term.

V. The Call to Action: Now Is the Moment to Launch the Pilot

California does not lack ambition. It does not lack legislation. What is missing is the infrastructure to close the gap between policy intent and operational execution.

We call on CARB to immediately initiate a Distributed Resource Recovery MRR Pilot Program, incorporating GaiareCycle-Link as the lead testing framework — validating its data precision, compliance cost profile, and emissions accounting capacity at a defined, manageable scale.

Every day of delay means more organic waste continuing to emit within regulatory blind spots. More distributed reduction value silently lost through statistical gaps.

This is not a technology proposal. It is an opportunity to redefine the standard for climate governance in California. We are ready.

Submitted by: Sheng Su CEO, Sustain You Sustain You is committed to reshaping the value chain of organic waste through modular, intelligent distributed systems — providing the hard technical infrastructure California needs to lead the next phase of its climate transition (15d-003)

Comment: We appreciate the opportunity to provide feedback to the California Air Resources Board (CARB) Proposed Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. We support the goals of the amendments to improve clarity for entities as to their reporting requirements, to enable complete and accurate GHG emissions estimates, to improve data transparency and allow for more robust analysis of the statewide greenhouse inventory program and other related programs.

In addition to the amendments outlined in the CARB proposal, we recommend that the Board also consider requiring the data to be reported in structured, standardized format using open data standards. An important aspect of understanding and addressing climate change involves data governance - the cost-effective management of climate data assets through a structured system of policies, roles, processes, and controls to ensure availability, usability, and integrity.

Implementing structured data standards to enable digital reporting is a proven approach that reduces costs, streamlines and speeds data processing, and generates better quality data for decision-making.

XBRL US is a nonprofit data standards organization, with a mission to improve the efficiency and quality of reporting in the U.S. by promoting the adoption of business reporting standards. Our organization is a jurisdiction of XBRL International, the nonprofit consortium responsible for developing and maintaining the technical specification for XBRL, which is a free and open data standard widely used around the world for reporting by public and private companies, as well as government agencies. XBRL is not a product or service, it is an open standard used to improve transparency and accessibility of information. Millions of public and private companies, banks, governments, and utilities report in XBRL today to regulators worldwide. Members of XBRL US include accounting firms, public companies, software, data, and service providers, and other nonprofits and standards organizations.

Environmental regulators like CARB can improve the accessibility and usability of climate datasets by establishing a semantic data model through a taxonomy or ontology, whereby reported data can be easily catalogued and shared. By collecting, or converting the data on receipt, into structured, standardized format following a single semantic data model (schema), data is rendered machine-readable and can be automatically consumed and analyzed. Structured data can be more easily validated when prepared and received, which increases data quality and usefulness as inconsistencies and errors can be quickly identified and resolved.

Furthermore, other state regulators including Washington State and more recently, New York State, also collect facilities level emissions data, and until 2024, the U.S. Environmental Protection Agency (EPA) collected facilities level data on GHG emissions. The ability to comingle and analyze these disparate datasets would be extremely valuable to assess climate impact nationwide, compare the usefulness of state programs to reduce climate impact, and to make meaningful strategic decisions. If regulators adhered to the same semantic data model for GHG emissions data that each agency collects, all data would be interoperable and usable without the need for complex and often error-prone data mapping and vetting. Regulators could continue to maintain their own datasets and process for data collection, but all regulatory datasets would be interoperable because they would be identically structured.

In addition, CARB will soon begin collecting GHG emissions data from corporate entities through SB 253, the Corporate Climate Accountability Act. Other states including New York and New Jersey have legislation that also calls for corporate reporting of GHG emissions. If this data were reported following the same semantic data model, it would also be fully interoperable and could be automatically extracted and analyzed, significantly enhancing the ability to perform robust, actionable analysis.

Interoperability means that regulators can share data and tools for querying, extraction, and analysis (thus reducing the cost of building and maintaining applications), and can perform more robust analysis. Analyzing information from thousands of entities requires the same effort and cost as analyzing data from one entity when datasets are interoperable.

In December 2025, we conducted research on the various state and federal collections of climate and environmental data which further explains this approach. We respectfully ask that CARB consider this paper, Digital data to combat climate change, as well as a blog and podcast prepared by the Data Foundation that addresses the same topic, The Case for Standardizing the Way We Report Climate and Environmental Data. The podcast featured Catherine Atkins, Senior Fellow with the Data Foundation's Climate Data Collaborative. (15d-097)

Response: No changes were made in response to these comments. These comments are out-of-scope for this MRR rulemaking as staff did not propose changes to these areas of the Regulation. CARB has included them in this FSOR for completeness.

M-4. Multiple Comments: Out of Scope Comments

Comment: ADDENDUM: Formal Legal Entity Clarification for ACS

Please note that previous submissions under the name 'ACS' refer to the legal entity Arboreum Commercial Solutions, LLC. All technical feasibility data remains as filed on 12/17/25. (45d-002)

Comment: Dear Board:

I so wanted to come by yesterday and comment of the priorities for 2026 but am under the weather. Please accept this comment:

Even selection logging is a serious climate consideration.

For example, a recent plan to log 1099 acres on the Russian River admits it will take 88 years to recoup the carbon sequestration lost in the logging. 1-25NTMP-0001-SON Berry's Knotfarm.

Two Ph. D. Climate scientists (Evans and O'Brien) agree that it will take at least that long and likely longer insofar as trees are already starting to grow slower. Even 88 years is an unmitigatable yet avoidable adverse cumulative impact. And a lot of logging is going on.

I look forward to hearing that you account for these cuts in your carbon Emissions and Sequestration models. To do less would be to sway the models in ways that underestimate our GHG equations. They won't be reliable. Thank you for your important work. (45d-008)

Comment: I am so tired of California politicians money grabbing for it's residents....stop, just stop (45d-059)

Comment: Stop these egregious policies! Your hurting the citizens of your state! (45d-060)

Comment: Please do not pass the Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions. (45d-070)

Comment: No. Please no more...(45d-075)

Comment: Stop stealing taxpayer money (45d-088)

Comment: Enough! You are strangling the residents of our beautiful State! (45d-095)

Comment: You people don't give one fucking iota of concern for how your socialist fucking green bullshit policies affect us working class Californians. I believe you are ALL corrupt as hell and it won't do a fucking bit of good to say I absolutely oppose your greedy and destructive taxes. I'm sure you all intend to burn the state down on your way out rather than try to repair the insurmountable damage your criminal actions and systemic theft of our sweat and blood soaked earnings have caused. Fuck the fuck off! I hope karma is a fucking BITCH! (45d-102)

Comment: Stop choking us with your INSANITY!!!! (45d-108)

Comment: Stop Pilfering my money! Californians are in dire straits. Don't you understand that?! This is nonsense. Why don't you stop cloud/chem-seeding instead? (45d-161)

Comment: Absolutely no! Why do you expect Californian's to pay for your mistakes? You continue to make our lives miserable. Why do you think so many people are leaving? (45d-167)

Comment: Please do not do this (45d-174)

Comment: Nothing you do deserves an ounce of support by the people that pay your salaries. You are RIPPING US ALL OFF with your FASCISTIC Heavy Handed edicts and making life difficult for Taxpayers that pay your bloated salaries. KNOCK IT OFF NOW! We all know that you are beholden to Environmentalist Whackos, Extremists, and Enviro-Nutters that say they want clean air, but it's more about the income redistribution and money laundering thru your signature Cap & FRAUD, or Cap & SCAM, or Cap & RIPOFF. There are zero actually measurable results from all your FASCIST edicts that you reign down like TERROR on Taxpaying Citizens. YOU ARE NOTHING MORE THAN A MONEY LAUNDERING SCAM FOR LEFT WING COMMUNIST CAUSES, INCOME REDISTRIBUTION, AND FAT CAT LIBERALS RAPING THE TAXPAYERS. CARB should be disbanded, defunded, and all of the employees brought up on Fraud charges and sent thru Nuremburg trials. That will make other left wing Charlatans and Grifters think twice about ripping off Taxpayers and putting undue, undeserved HARM on Taxpayers WHO PAY YOUR SALARIES. YOU SHOULD ALL BE ASHAMED OF THE HARM CARB CAUSES TO TAXPAYERS, THE ECONOMY, & SMALL BUSINESS. You can take your clean truck check for diesel small businesses and shove it way up your ARROGANT BLOATED ASSES. FUCK CARB, DEFUND CARB. As soon as the money is removed from CARB, all you RATS will go scurrying out of the ship like the RATS that you are. (45d-175)

Comment: We don't want this all you guys keep doing is taxing the middle class and then blaming Trump for it (45d-182)

Comment: Don't Pass this!! How much money are yall supposed to loose track of before you hold yourselves accountable!! This is idiocracy. (45d-184)

Comment: Killing the working middle class is no way to maintain this state's elite politician ruling class through fraud and scams. Please use the upper class for fraud plans instead. (45d-189)

Comment: We should sue CARB with their unlawful regulations. Remove them from controlling our lives. We didn't vote them in. (45d-199)

Comment: You criminals and traitors. Thanks for nothing. (45d-269)

Comment: Keep plan A. Plan B is a gift to oil and gas polluters. (15d-004)

Comment: Forgive any mistakes here, as I am in a bit of a rush, but I am quite distressed to hear that there might be cuts given to oil and gas companies which risk budgetary impacts to Metro projects and public transit. I fiercely advocate for more investing in public transit that will cut times for commuters and strengthen the California economy by increasing local tourism and support to small businesses. Less time in traffic means more productive hours. Please do not do more things that help the oil and automobile companies profit if it comes at the expense of funds that would otherwise go to public transit. I understand there is immense pressure on these subjects, but please know that this public stands with prioritizing public infrastructure investment. Thank you! (15d-005)

Comment: Cars ruin cities. Do not give a huge hand out to the oil and gas industry that could defund transit. (15d-007)

Comment: I am for more regulation i believe in this please continue and do not capitulate to oil companies who care only for shareholders (15d-013)

Comment: I am 80 years old, and I remember the "bad, old days " as a child when my eyes would burn from the smog and my lungs hurt if I ran. I remember my skin burning and having all our family get-togethers in our home in Long Beach because it had a good "breeze" instead of where my relatives lived where "smog gets hung up by the mountains and just stays there like a blanket." If you look at Kern County where now the most refining is done, you will see the statistical problems with respiration in factual data that has been collected.

Let's use wind, solar, and nuclear (only if necessary) instead of imperilling ourselves, our children, and our grandchildren. I want strong mandated reporting of greenhouse emotion and support steps to reduce them, rather than increase them. (15d-026)

Comment: Greetings. Rather than rushing through a proposal to meet an arbitrary emissions reduction target, this proposal needs thorough scrutiny to assess true total overall effectiveness and be revised accordingly.

It is strongly urged to conference with Clean Air Task Force (CATF) to assess this proposal and consider the most overall effective alternatives. Thank you for your consideration. (15d-027)

Comment: My biggest complaint about environmental impact and the increased of cost put on the consumer is one forest fire offsets all of the EPA for the state of California (offset)

As you go around and look at many of the fires and many of the pollution causing outside of Ca. (sources like China and India) and you spend millions on EPA and put those cost's on businesses. Those businesses are now leaving your state.

Going green, like the state of California is green from my wallet going to the bureaucracy of the state of California.

We can solve the problem, go nuclear, clean energy, and safe with modern technology. (15d-030)

Comment: WE are all sick and tired of agency rulership in CA, and that includes you, CARB. Along with the so to speak Coastal Commission and other agencies, you make rules in a vacuum. That's because you're not accountable, and because you serve a CA super-majority legislature and governor that is leaning so far left into people's lives that it makes us sick. Stop it (15d-033)

Comment: Please pause. (15d-034)

Comment: You are heading in the wrong direction. And about to run out of other people money. You need to look at ways to cut your spending like we are. (15d-049)

Comment: Quit wasting our money!!!!!! (15d-070)

Comment: Our environment should be our priority. Even if it costs more money. We are already seeing the damage done by climate change with fewer freezing days and more hot days. Alternative energy sources are the answer along with more convenient public transport. (15d-076)

Comment: Stop amendments to CARB and reduce the body's authority to measurement only. There are two reasons:

1. "Greenhouse gas" emissions have not been scientifically proven to produce "climate change" or "global warming". There are no studies with unanimous scientific accreditation that prove an increase in global temperature resulting solely from greenhouse gas emissions. Studies such as the "Karl Study" have been called into question for faulty and misleading data with minimal oversight prior to publication. Political Scientist Bjorn Lomborg has averred that government-driven initiatives like the Paris Accord in the major and CARB in the minor cost taxpayers trillions with no beneficial effect for the environment or for the people who live in it.

References

<https://science.house.gov/2017/2/former-noaa-scientist-confirms-colleagues-manipulated-climate-records>

<https://lomborg.com/false-alarm>

2. Any effort to control or reduce greenhouse gas emissions further by the state of California is irrelevant compared to greenhouse gas emissions by the rest of the world. According to the EPA, the US contributes 13% to all global greenhouse gas emissions and 2023 EIA data estimates California to produce 6% of all US emissions. This represents a total of 0.8% of global greenhouse gas emissions for the state of California

and less than 3% of the greenhouse gas emissions of China alone. Add to this that greenhouse gas emission estimates are only accurate to 5% per ESSD, California could stop all greenhouse gas emissions today and have 0 impact on global greenhouse gas emissions. California has restricted greenhouse gas emissions beyond the point of diminishing returns.

References:

<https://www.chooseenergy.com/data-center/carbon-dioxide-by-state/#:~:text=This%20guide%20is%20regularly%20updated,drastically%20less%20carbon%20dioxide%20emissions.>

<https://www.epa.gov/ghgemissions/global-greenhouse-gas-overview>

<https://essd.copernicus.org/articles/16/2669/2024/>

California by the numbers cannot lead any reduction in global greenhouse gas emissions, and in fact can increase emissions by a factor of two and still have no measurable impact on global greenhouse gas emissions just due to measurement error. Therefore, ANY additional costs borne by the taxpayers of California toward greenhouse gas regulation is wasted taxpayer money.

CARB can instead eliminate all self reporting, oversight and regulation (read sub-agencies and related costs) in favor of leading the way in objective measurement. Improving measurement accuracy of 5-10% in greenhouse gas emissions by objective means can be a world-leading goal worthy of California. (15d-085)

Comment: Please , stop raising prices! (15d-087)

Comment: Please stop cost increases for people in CA. (15d-093)

Comment: How about we defund C.A.R.B and funnel all that funding into our roads and highway overpasses. There should be a mandatory report of potholes on roadways rather than a report on magic hocus pocus. God forbid my pickup truck emits a little too much CO2; oh but Disney land can blow off a bunch of fireworks every night that seems to be okay. Who voted C.A.R.B into authority? Not I. - angry tax payer. (15d-096)

Comment: Stop making new policy to charge California taxpayers. We are done! The money is tapped out. Why not try canceling failed projects like Gavin Newsom's train to nowhere and the renovations to the state capitol. There is plenty of money being wasted there. All of you are just the lackeys of Soros, Getty, Brown, Newsom, and Pelosi AND IT SHOWS! (15d-104)

Comment: CARB is obviously teaming, once again, with radical environmental group to thwart the fossil fuels industry without scientific data or common sense. The collection of data is to come to a place with the California government is all of its left-wing glory to charge a price for the emission of CO2 from whatever source they can find. You have already sent major refineries packing, resulting in the severe questions about the supply chain of petroleum products, but reduced the capacity of the industry to meet existing and future needs. How does it now make sense to bring California oil supplies in by ship, which causes the immediate increase of green house gas emissions from the very

vessels coming to deliver our shortfall?? We know that with the collection of this data that you will now subject it to the hocus-pocus of energy modeling and environmental impacts that have no basis in reality in order to apply taxes and fees to every ton of emissions from every sector using fossil fuels. This is being done to increase the revenues to the state so that they can pay off all of the other bogus programs that now find us up to the eyeballs in debt. We have also seen of late that the County of Los Angeles intends to tax the number of square feet of solar panels on a residence because the solar programs are not paying for themselves and have become a drain on government funds. This is nothing by a giant Ponzi-scheme to rip off the citizens of this state once again. CARB needs to stop this fictional approach to collect data and break their association with the left-wing environmentalists that continue to want to destroy our economy and life in California as we know it. STOP!!!! (15d-107)

Comment: Comment left blank. (15d-115)

Comment: CARB should have local government agencies report their GHG emissions. Not including local governments will create undervalued GHG reporting that is active in California skies. We all have a active role to play and GHG emissions should be reported by all entities responsible for harmful emissions. (BH-002, Written)

Response: CARB made no changes in response to these comments. These comments were either outside the scope of the rulemaking, not submitted during the comment period, unrelated to changes made, or not specifically directed at CARB's proposed action or procedures followed in proposing amendments of the MRR regulation, so CARB is not required to respond. CARB has included them in this FSOR for completeness.

M-5. Multiple Comments: Comments Related to SB 253 Rulemaking

Comment: Dear Chair Sanchez and Members of the California Air Resources Board:

On behalf of manufacturers operating in the San Joaquin Valley and the members of the Manufacturers Council of the Central Valley (MCCV), we respectfully submit the following comments regarding the California Air Resources Board's (CARB) Proposed California Corporate Greenhouse Gas Reporting and Climate-Related Financial Risk Disclosure Initial Regulation.

Manufacturing is a cornerstone of the San Joaquin Valley economy, providing tens of thousands of direct jobs, supporting critical supply chains, and sustaining many disadvantaged and rural communities. MCCV members and Valley manufacturers are committed to improving environmental performance and have long partnered with state and local agencies to reduce emissions, increase efficiency, and comply with California's extensive environmental regulatory framework. However, the proposed regulations implementing the corporate greenhouse gas reporting and climate-related financial risk disclosure statutes raise serious concerns regarding feasibility, cost, and unintended economic consequences for manufacturers in the San Joaquin Valley.

Disproportionate Burden on Manufacturing

The proposed regulations would impose significant new reporting, verification, and compliance obligations that are particularly burdensome for manufacturers with complex operations, energy-intensive processes, and extended supply chains. Many San Joaquin Valley manufacturers operate on thin margins and face intense domestic and international competition. The cumulative cost of data collection, third-party assurance, legal review, and ongoing compliance would divert limited capital away from investments in actual emission reductions, modernization, and workforce development.

Many Valley manufacturers are mid-sized or family-owned enterprises that lack the internal resources to manage these requirements. The proposed one-size-fits-all framework fails to adequately account for these differences and risks accelerating consolidation or relocation of manufacturing activity out of California.

Supply Chain and Scope 3 Challenges

The proposed Scope 3 emissions reporting requirements present particularly acute challenges for manufacturers in the San Joaquin Valley. Manufacturers rely on global, national, and regional supply chains that include small businesses, agricultural producers, and vendors with limited capacity to collect or provide emissions data. The proposed regulations effectively compel manufacturers to obtain, estimate, or assume liability for data over which they have little control, creating significant uncertainty and exposure to enforcement risk.

These requirements are likely to strain supplier relationships, increase procurement costs, and disadvantage California-based manufacturers relative to out-of-state and international competitors that are not subject to comparable mandates.

Economic Impacts on Disadvantaged Communities

The San Joaquin Valley includes many communities already facing economic challenges. Manufacturing jobs in the Valley are often well-paying, provide benefits, and do not require advanced degrees.

Regulatory costs that reduce competitiveness or discourage investment directly threaten these jobs and undermine broader state goals related to equity, economic development, and community stability.

At a time when the state is seeking to expand domestic manufacturing, strengthen supply chain resilience, and grow clean technology industries, the proposed regulations risk producing the opposite effect by discouraging in-state manufacturing investment.

Need for Phasing, Flexibility, and Alignment

We respectfully urge CARB to reconsider the scope, timing, and structure of the proposed regulations, including:

- Meaningful phase-in periods that reflect operational realities;
- Safe harbors and liability protections, particularly for Scope 3 disclosures;
- Greater alignment with federal requirements and international standards to avoid duplicative and conflicting obligations; and

- Clear recognition of existing environmental reporting and compliance programs to prevent redundancy.

Without these adjustments, the proposed regulations will function less as a transparency tool and more as a punitive compliance regime that disproportionately harms manufacturers in regions like the San Joaquin Valley.

Conclusion

Manufacturers in the San Joaquin Valley, including our MCCV members support reasonable, workable policies that advance environmental objectives while preserving economic vitality and jobs. We respectfully request that CARB substantially revise the proposed regulations to ensure they are legally sound, economically feasible, and aligned with California's broader manufacturing, equity, and climate goals. (45d-005)

Comment: RE: CRA Response to Proposed California Corporate Greenhouse Gas Reporting and Climate Related Financial Risk Disclosure Initial Regulation (Notice), Staff Report (Initial Statement of Reasons), and Proposed Regulatory Text

The California Retailers Association (CRA) appreciates the opportunity to continue to provide comments on the rulemaking for Senate Bills 253 and 261, as Amended by SB 219, California's Corporate Greenhouse Gas (GHG) Reporting and Climate Related Financial Risk Disclosure Programs.

CRA is the only statewide trade association representing all segments of the retail industry including general merchandise, department stores, mass merchandisers, on-line marketplaces, restaurants, convenience stores, supermarkets and grocery stores, chain drug and specialty retail such as auto, vision, jewelry, hardware and home stores. The California Retailers Association works on behalf of California's retail industry, a driving force of California's economy, with over 400,000 retail establishments, an annual gross domestic product of \$330 billion and one fourth of California's total employment.

The retail industry is committed to the goals of SBs 253 and 261 as amended by SB 219 and has made investments in sustainability practices and appreciates the opportunity to participate in the rulemaking process for California's Corporate Climate Reporting Regulations.

Below are CRA's comments and concerns that remain following CARB's Proposed California Corporate GHG Reporting and Climate-Related Financial Risk Disclosure Initial Regulation, Staff Report and proposed regulatory text, which were sent to the California Office of Administrative Law (OAL) on December 9, 2025 and following OAL's subsequent publishing of the Notice on December 26, 2025, which initiated the current 45-day public comment period that these comments apply to.

We look forward to ongoing dialogue and are happy to make our subject matter experts available to answer specific questions or provide additional information that may be useful as CARB moves forward with finalizing California's Corporate Climate Reporting regulations.

New and Remaining Concerns and Requested Changes to the Regulations I. Gross Receipts Should Exclude Intercompany Transactions

§ 96072. (13) "Revenue" has the same meaning as "gross receipts" under section 25120(f)(2) of the California Revenue and Taxation Code. Gross receipts should exclude any intercompany transactions as defined under Cal. Code Regs. 25106.5-1(b)(1).

When intercompany sales are excluded, the scoping results will match the tax filing for taxpayers filing a California combined return (i.e. the entity and revenue total used for scoping would be the same as the revenue included in a company's tax filing), which is required pursuant to California tax law. If intercompany sales are included, there is a misalignment between which subsidiaries are doing business for California tax purposes.

For example, an entity may come into scope based on intercompany sales that is not listed in a company's tax filing or has a different revenue total on our tax filing where those sales are eliminated. If intercompany sales are included, CARB would not be able to verify reporting entity lists with the Franchise Tax Board records. Additionally, since partnerships are subject to the fee, any revenue flowing from the partnership to the partner/owners should be excluded to avoid double counting the revenue at entities that are subject to the fee.

II. Calculation of Fees

§ 96073. The current fee structure does not achieve the stated goal of the law because it assesses the fee based on corporate structure (i.e., allocates a fee to each entity or subsidiary that meets the criteria for reporting), not at the level of the organization where financial/investment and pollution abatement decisions are made (i.e., parent level for companies that report at the parent level).

III. Use of Definitions

The California Retailers Association recommends aligning key definitions in the regulation with widely accepted international reporting standards, for example:

- Using the GHG Protocol definitions for Scope 1 and Scope 2 emissions
- Defining "subsidiary" in line with International Financial Reporting Standards (IFRS) or Generally Accepted Accounting Principles (US GAAP), rather than relying on the concept of "influence"

CRA's view is that closer alignment with global frameworks would reduce the risk of differing interpretations and support better comparability across companies.

NOTE: This comment includes a 16-page attachment that is out of scope for this rulemaking, therefore, CARB has not included it in this FSOR. The attachment can be viewed at: https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid377/did200184/pid_213313/assets/merged/9m0ki2pil69_document.pdf?v=29342 (45d-003)

Comment: Sandia National Laboratories (Sandia) is a multimission federally funded research and development center (FFRDC) sponsored by the Department of Energy's (DOE) National Nuclear Security Administration (NNSA), dedicated to advancing

science, technology, and engineering solutions for the nation's most pressing security challenges, including national defense, nuclear deterrence, nonproliferation, energy security, AI, and cutting-edge industries. Thus, the labs perform many vital activities that help keep the nation safe. The labs are managed and operated by National Technology & Engineering Solutions of Sandia, LLC (NTESS) under a long-term management and operating (M&O) contract with the NNSA.

This relationship positions NTESS as a specialized contractor whose interactions with the federal government are integral and exclusive in purpose: put simply, NTESS exists solely to run Sandia on behalf of the NNSA, ensuring the labs fulfill their critical role in national security without the characteristics of typical private businesses. Unlike other private entities, NTESS does not solicit investors—in California or elsewhere—nor does it sell products or services to the public at large; its sole client is the federal government, with all operations funded and directed through this contractual framework. In the context of California's proposed implementation of climate-disclosure legislation under Senate Bills 253 and 261 — laws never intended to apply to governmental entities — the potential application to NTESS remains ambiguous. While NTESS is not formally part of the federal government, NTESS' activities are focused solely on its management of the Labs for the federal government.

PUBLIC COMMENTS

These comments are intended to assist the Board in ensuring that the final regulations are legally sound, administrable, and consistent with longstanding principles governing federal instrumentalities and national security operations. NTESS would emphasize the tremendous National Security importance of its mission, its unique legal and practical role as a steward of federal assets, and the corresponding urgent need to clarify the applicability of these rules to NTESS' operations.

CLARIFICATION IS NECESSARY TO AVOID UNINTENDED APPLICATION TO FEDERAL NATIONAL SECURITY FACILITIES

Federally funded national security laboratories, such as those operated under management and operations (M&O) contracts with the U.S. Department of Energy and the National Nuclear Security Administration, exist solely to carry out core federal missions. These laboratories operate as federally funded research and development centers (FFRDCs) and are subject to extensive federal oversight, direction, and security controls.

Absent a clear regulatory clarification, the current draft could be interpreted to apply disclosure obligations to entities whose assets are exclusively federal and whose operations are conducted exclusively or primarily pursuant to federal “M&O” contracts and under federal control. Such an interpretation would risk extending state regulatory requirements into areas traditionally and constitutionally reserved to the federal government.

Further, the proposed regulations could be interpreted as subjecting these entities, or their management and operating contractors, to reporting obligations notwithstanding the fact that their operations are conducted exclusively in furtherance of federal

missions. Such an outcome would extend the scope of the climate disclosure programs beyond their intended commercial focus. Thus, NTESS proposes, as reflected in Exhibit A, the following language be added to § 96071 (b):

“(6) A Federally Funded Research And Development Center (FFRDC), national laboratory, or similar entity that operates pursuant to a contract with the United States Department of Energy, the National Nuclear Security Administration, or another federal agency for purposes of national security, nuclear security, energy security, or classified research, including any management and operating contractor acting in furtherance of such federal mission.”

Exempting NTESS from reporting requirements under a federal actor exemption aligns with the express legislative intent of SB 253 and SB 261, which were designed from the beginning to target profit-oriented corporations contributing to climate impacts through commercial activities, not mission-driven federal extensions like FFRDCs. CARB’s proposed exemptions for non-profits, universities, and entities with minimal California footprints underscore a focus on commercial business enterprises and efforts, avoiding overreach, and NTESS fits this ethos - its presence in California is solely for federal research/national security purposes, not for the purposes of business expansion. Treating NTESS as a regular for-profit business could chill federal-state cooperation and invite costly litigation over preemption. But by classifying NTESS as a subcategory of federal government actor (solely and exclusively for the purposes of these proposed regulations) would ensure these regulations remain targeted at true private sector emitters without ensnaring vital public-interest operations.

THE DEFINITION OF “REPORTING ENTITY” AND “COVERED ENTITY” SHOULD BE MODIFIED TO EXCLUDE FEDERALLY FUNDED NATIONAL SECURITY LABORATORIES

As currently drafted, the proposed definitions of “reporting entity” and “covered entity” are broad and, absent clarification, could be interpreted to encompass federally funded national security laboratories and their management and operating contractors. The latter entities, Atomic Energy Act authorized management and operating contractors, while frequently organized as corporations or limited liability companies, do not operate as ordinary commercial actors. Rather, they perform exclusively or primarily federal mission functions under close federal direction and control, including activities in such critical areas as national security, nuclear deterrence, energy security, and classified research.

Accordingly, NTESS proposes, as reflected in the attached Exhibit A, the following language be added to § 96072:

“(5) Covered entity” means a corporation, partnership, limited liability company, or other business entity formed under the laws of the state, the laws of any other state of the United States or the District of Columbia, or under an act of the Congress of the United States with total annual revenues in excess of five hundred million United States dollars (\$500,000,000) and that does business in California, provided that said entity is not a federally funded research and development center, Federally Funded National Security Laboratory, or an entity operating primarily or exclusively pursuant to a federally funded

mission involving national security, nuclear security, energy security, or classified activities under the direction or control of the United States government. The entity's revenue amount shall be determined by the lesser of the entity's two previous fiscal years of revenue. "Covered entity" does not include a business entity that is subject to regulation by the Department of Insurance in this state, or that is in the business of insurance in any other state.

(9) "Federally Funded National Security Laboratory" (FFNSL) means a federally funded research and development center or another entity operating under contract with the United States Department of Energy, the National Nuclear Security Administration, or another federal agency whose mission includes national security, nuclear deterrence, or classified activities under the direction or control of the United States government.

(12) "Reporting entity" means a partnership, corporation, limited liability company, or other business entity formed under the laws of this state, the laws of any other state of the United States or the District of Columbia, or under an act of the Congress of the United States with total annual revenues in excess of one billion United States dollars (\$1,000,000,000) and that does business in California, provided that said entity is not a federally funded research and development center, Federally Funded National Security Laboratory, or a similar entity operating primarily or exclusively pursuant to a federally funded mission involving national security, nuclear security, energy security, or classified activities under the direction or control of the United States government. The entity's revenue amount shall be determined by the lesser of the entity's two previous fiscal years of revenue."

Modifying the above definitions to expressly exclude FFRDCs, FFNSLs, and their management and operating contractors acting pursuant to federal missions is necessary to align the regulations with constitutional principles of intergovernmental immunity. Without such an exclusion embedded in the definitional provisions themselves, the regulations could be construed to impose state disclosure requirements that directly regulate federal operations, creating legal uncertainty and potential conflicts with federal law and policy.

In addition, embedding this exclusion within the definitions promotes common sense, regulatory clarity, and administrative efficiency. It avoids the need for case-by-case determinations regarding federal mission scope, contractual structure, or operational control, and ensures that the climate disclosure programs remain focused on their intended targets: commercial entities whose disclosures are designed to inform investors and the public, rather than entities performing classified, federally controlled national security functions.

CONCLUSION

Clarifying that national laboratories such as Sandia and their management and operating contractors are excluded from the reporting requirements will:

- Provide certainty to regulated entities and CARB;
- Prevent unnecessary legal disputes in state and federal courts;

- Avoid costly and inefficient case-by-case determinations; and
- Ensure the regulations remain focused on their intended targets: commercial entities whose climate-related disclosures may advance transparency for investors and the public.

For these reasons, NTESS respectfully urges CARB to adopt revisions that clearly exclude FFNSLs, FFRDCs, and their management and operating contractors acting pursuant to federal missions from the California Climate Disclosures reporting requirements, as proposed in detail in Exhibit A. These clarifications are consistent with common sense, known statutory intent, constitutional principles, and sound administrative practices, and will strengthen the final regulations against possible legal challenges.

Thank you for your attention to this matter.

NOTE: This comment includes an exhibit with redline edits to the California Climate Disclosure regulation, which is out of scope for this rulemaking. Therefore, CARB has not included it in this FSOR. The exhibit can be viewed at: https://scs-public.s3-us-gov-west-1.amazonaws.com/env_production/oid377/did200184/pid_213313/assets/merged/x70ii7x5bq4_document.pdf?v=37025 (45d-004)

Comment: As a stakeholder, I demand the removal of the exemption for insurance companies that you added to the implementation of SB 253, before you send the final rule to the Office of Administrative Law.

This carveout weakens the rule and limits its effectiveness. Bill author Sen. Weiner has explained that SB 253 was designed to ensure that major corporations disclose their greenhouse gas emissions, providing transparency into climate-related financial risk, and that insurance companies are within the intended scope of the law.

Insurance companies insure fossil fuel projects and infrastructure and also invest heavily in carbon-intensive industries. Excluding them leaves out a major source of emissions-linked financial activity. Californians deserve to know if their insurance companies are driving up climate costs that affect their insurance premiums.

The public record reflects strong opposition to this exemption. Thousands of written comments and extensive public testimony at the February hearing called for full inclusion of insurers. Former California Insurance Commissioner Dave Jones also testified in support of including insurance companies in the regulation.

The current status quo of relying on voluntary disclosure from insurance companies has not produced consistent or reliable data and it is not a suitable replacement for SB 253 because participation remains uneven, and there are no enforceable standards to ensure compliance. Even if voluntary reporting were to improve, the law must still require emissions reporting to CARB to ensure proper review and enforcement from everyone.

Allowing this insurance industry carveout limits transparency, weakens accountability, and reduces the effectiveness of the law.

I urge you to reverse this decision, remove the insurance exemption, and finalize a rule that applies equally to all covered corporations. (15d-121)

Comment: I'm Laura Peterson, Senior Analyst for the Climate Accountability campaign at the Union of Concerned Scientists. UCS is a US-based membership organization with 39K active supporters in California that conducts research and organizes scientists in service of a healthy, safe, and just future.

UCS has backed the Climate Corporate Data Accountability Act and the Climate-Related Financial Risk Act since they were introduced in the Senate and continues to support their implementation. This must ensure the laws achieve their aim of providing standardized, reliable, and mandatory disclosure of carbon emissions to enable companies to make informed business decisions and provide critical information about the impact of a company's practices on California's economy. We continue to support the legislation's use of the Greenhouse Gas Protocol—the globally recognized emissions accounting and reporting standard—as the framework for corporate emissions accounting and reporting.

UCS does take issue, however, with the proposed regulation's exemption of insurance companies from SB 253 reporting. As stated in a February 9 letter to the Board signed by UCS along with 39 other public interest organizations with significant California membership, insurance companies are clearly corporate entities with reportable revenue that transact directly with California consumers. This exemption is inconsistent with the statute and allows a dangerous information asymmetry to persist between insurers, policymakers, and Californians that imperils both the state's long-term climate planning and jeopardizes homes and businesses in the nearer-term.

Records show the insurance industry has lobbied heavily against climate risk oversight in California and around the world. The industry's central role in driving the climate crisis through its underwriting of and investment in fossil fuels while abandoning markets hit by extreme weather, as in the Palisades and Eaton Fire, is further reason not to exempt this industry. If allowed, it will not only undermine the legislation's effectiveness but encourage other industries to pursue similar exemptions. Corporate accountability and the public safety it creates must remain the driving force behind these laws.

We appreciate CARB advancing these crucial regulations and look forward to working with you to ensure their effectiveness. Thank you. (45d-242)

Response: No changes were made in response to these comments. These comments are related to the SB 253 California Climate Disclosure Rulemaking and are out-of-scope for this MRR rulemaking. CARB has included them in this FSOR for completeness.

V. Peer Review

Health and Safety Code Section 57004 sets forth requirements for peer review of identified portions of rulemakings proposed by entities within the California Environmental Protection Agency, including CARB. Specifically, the scientific basis or scientific portion of a proposed rule may be subject to this peer review process.

CARB determined that the rulemaking does not contain a scientific basis or a scientific portion subject to peer review, and thus no peer review as set for in section 57004 was or needed to be performed.