

Public Hearing to Consider Amendments to the Low Carbon Fuel Standard

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

Public Hearing Date: November 8, 2024
Agenda Item No.: 24-6-2

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I. General

The Staff Report: Initial Statement of Reasons for Rulemaking (staff report or ISOR), entitled “Public Hearing to Consider Proposed Amendments to the Low Carbon Fuel Standard,” released December 19, 2023, is incorporated by reference herein. The staff report contained a description of the rationale for the proposed amendments. On December 19, 2023, all references relied upon and identified in the staff report were made available to the public.

California is in the midst of a rapid transition to cleaner fuels and carbon neutrality, with just over 20 years to transition from today’s significant fossil fuel usage to a future of clean fuels and technology. In 2022, CARB approved the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update), which charted a path to achieving carbon neutrality by 2045 and reducing greenhouse gas emissions 85% below 1990 levels by 2045. Meeting this goal will require the deployment of greenhouse gas emission reduction strategies at an unprecedented scale and pace. As transportation emissions, primarily from the use of fossil fuels, are California’s single biggest source of greenhouse gas emissions and contributor to poor air quality, the State is working to rapidly increase the numbers of zero-emission vehicles (ZEVs) on the road and deploy cleaner fuels to power them.

The Low Carbon Fuel Standard (LCFS) is a key part of California’s transportation decarbonization strategy and a successful one thus far. The LCFS provides the economic incentives to produce cleaner fuels like electricity, hydrogen, and biofuels that are needed to displace fossil fuels and reduce transportation sector emissions. The LCFS has supported the displacement of billions of gallons of petroleum fuels with lower carbon alternatives, and without these alternative fuels the State risks returning to higher levels of fossil fuel use and fewer climate and air quality benefits. With clear scientific consensus on the need to rapidly decarbonize and achieve carbon neutrality by mid-century, the significant health and economic benefits of phasing down fossil fuel use, and the introduction of federal funding for alternative fuels and clean energy, CARB staff proposed updates to the LCFS regulation.

The proposed amendments would increase both the pre- and post-2030 stringency of the LCFS carbon intensity (CI) benchmarks. The proposed amendments would require a 30% reduction in fuel CI by 2030 and a 90% reduction in fuel CI by 2045 from a 2010 baseline. To accommodate rapid advances in transportation fuel production and use, the proposed amendments also include a near-term step-down and an Automatic Acceleration Mechanism (AAM). The step-down is a one-time 9% reduction in the CI benchmark in 2025 that increases the stringency of the CI target. The AAM is another tool to increase the stringency of the CI benchmark but is activated only when specific regulatory conditions are met. The objective is to send clear, long-term market signals to support investment in low-carbon fuel production and technologies that are needed to achieve deep emissions reductions in the transportation sector while supporting the broader portfolio of zero-emission vehicle regulations and climate statutes. Another goal is to align the crediting opportunities in the LCFS with the fuel and technology pathways identified in the 2022 Scoping Plan Update. To encourage additional GHG reductions in key areas where decarbonization will be important to meet long-term climate goals, staff proposes to expand ZEV infrastructure crediting to the medium- and heavy-duty vehicle sector under the program. Staff are also proposing to incorporate strengthened sustainability guardrails to prevent potential future externalities associated with crop-based fuels. Given the need to quickly scale low-carbon fuel production in this decade and staff’s experience implementing the program for over a decade, staff also proposes to update and streamline several quantification methods and analysis tools to avoid slowing down the

investment in or availability of low-carbon fuels, and to potentially support reductions in administrative needs for other jurisdictions establishing similar programs.

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.

Three separate impacts related to the proposed amendments affect local government finances: revenue generated from the sale of LCFS credits from transit fleets that use low-CI fuels, increase in local tax revenues from increased purchases of alternative jet fuel and renewable diesel, and an increase in the expenditure on fuels for government fleets.

The proposed amendments are estimated to increase local government revenue by \$2.38 billion, with \$2.18 billion of the revenue from LCFS credit generation and the remaining \$199 million from fuel taxes. Local government diesel fuel costs increase by \$30.3 million. For the current fiscal year, 2024-2025, local government revenues are expected to increase by \$66.5 million and fuel costs are expected to increase by \$595,000. The expected revenue benefits to local governments from the Proposed Amendments far outweigh potential future costs associated with the Proposed Amendments.

The costs to local government are not reimbursable pursuant to Section 6 of Article XIII B of the California Constitution and Part 7 (commencing with Section 17500) of Division 4 of the Government Code. These costs are not reimbursable because the proposed amendments neither compel local agencies to provide new governmental functions (i.e., do not require such agencies to provide additional services to the public), nor do they impose requirements that apply only to local agencies or school districts. Fuel purchase costs and savings apply to all individuals and entities that own or operate vehicles. This proposed regulatory action also does not compel local agencies to increase the actual level or quality of services that they already provide the public. For the foregoing reasons, any costs incurred by local agencies to comply with this regulatory action are not reimbursable.

B. Consideration of Alternatives

For the reasons set forth in the staff report, in staff's comments and responses at the hearing, and in this Final Statement of Reasons (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 be as effective in carrying out the purposes of the regulatory action and that would lessen any adverse indirect impacts of the LCFS regulation on small business. Staff expects

that small businesses will see net benefits from the proposed amendments from increased crediting revenue, relative to the baseline.

II. Modifications Made to the Original Proposal

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

On December 19, 2023, 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 Proposed Amendments to the Low Carbon Fuel Standard,” for public review, and made all supporting references available to the public. The 45-Day Notice comment period began on January 5, 2024, and closed on February 20, 2024. On February 14, 2024, CARB issued a Notice of Postponement, postponing the originally noticed hearing date of March 21, 2024. CARB received a total of 398 written comments, in addition to 8,763 form letter comments, during the 45-Day Notice comment period. On May 20, 2024, CARB released a Notice of Public Hearing for November 8, 2024.

On August 12, 2024, CARB released a Notice of Public Availability of Modified Text and Availability of Additional Documents and Information (First 15-Day Notice). CARB received a total of 253 written comments during the comment period, which closed on August 27, 2024.

On August 16, 2024, CARB released a Recirculated Draft Environmental Impact Analysis. CARB received a total of 23 written comments during the comment period, which closed on September 30, 2024.

On October 1, 2024, CARB released a Notice of Public Availability of Modified Text and Availability of Additional Documents and Information (Second 15-Day Notice). CARB received a total of 307 written comments during the comment period, which closed on October 16, 2024.

On October 11, 2024, CARB posted an Errata to correct an error in the proposed regulatory text.

On November 8, 2024, CARB held a public hearing to consider approving the Proposed Amendments. After considering staff’s presentation of the Proposed Amendments and all public comments received, the Board approved Resolution 24-14, which approved the Proposed Amendments to the Low Carbon Fuel Standard regulations for adoption.

The list below summarizes changes made to the original proposal.

1. 2025 Carbon Intensity Benchmark Step-Down

The most important update to the proposal made in response to public comment was increasing the stringency of the 2025 carbon intensity benchmark to reflect a 9% step-down, an increase from the previously-proposed 5% step-down. Staff proposed to increase the near-term ambition of the carbon intensity benchmarks in consideration of the continued growth in the credit bank in recent quarters, as well as public feedback stating that a 5% step-down would not be adequate to balance credits and deficits in the market or reduce the size of the credit bank, which continues to increase over time. Staff proposed to maintain the initially proposed stringency of the 2030 carbon intensity benchmark for this scenario, due to the high levels of uncertainty in key modeling inputs.

2. Fossil Jet Fuel

Staff initially proposed to eliminate the exemption for intrastate fossil jet as a deficit-generating fuel. In consideration of public feedback, staff removed that initial proposal, restoring the previous exemption. CARB will prioritize developing effective means for expanding alternative jet fuel (AJF) use, and will continue to monitor the jet fuel market and work with the U.S. EPA and South Coast Air Quality Management District to reduce emissions from aircraft and airports.

3. Soy, Canola, and Sunflower Crediting Eligibility Limitation

Staff proposed to limit eligibility for credits for biomass-based diesel produced and/or imported from virgin soybean oil, canola oil, and sunflower oil to up to 20% of annual biomass-based diesel reported on a company-wide basis. Quantities of soybean, canola, or sunflower oil biomass-based diesel in excess of 20% would not generate credits.

4. Biomethane

Staff proposed modifications to biomethane-related policies to align with the 2022 Scoping Plan Update. These modifications include phasing out pathways for crediting biomethane used in compressed natural gas (CNG) vehicles after December 31, 2040 for projects that break ground after December 31, 2029; regulatory provisions related to avoided methane crediting for projects that break ground prior to January 1, 2030, and after January 1, 2030; new biomethane deliverability requirements; and the expansion of book-and-claim of biomethane to allow for electricity production used for EV charging, if the electricity is generated using fuel cells, and for production of hydrogen used as an input to fuel production.

5. Sustainability

Staff modified the proposal to add sustainability certification requirements for fuels from crop-based or forest-derived biomass to phase in the requirements over time, and incorporated other refinements to the concept.

6. Verification

Staff proposed to increase the threshold for verification deferral for hydrogen and electricity-based transactions from 6,000 credits to 10,000 credits. In response to public comments, this provision helps to reduce administration burden for annual verification by giving hydrogen and electricity reporting entities a higher threshold for deferring verification, given hydrogen and electricity transactions are more likely to have high numbers of smaller-volume entities than liquid fuel providers.

Staff additionally proposed to delay the implementation of the verification requirement for hydrogen and electricity-based transactions by one year. In response to public comment, this provision gives reporting entities additional time to obtain verification services.

Lastly, staff proposed to clarify the site visit requirement for verification services by explicitly stating that in order to verify a Quarterly Fuel Transactions Report, a verifier must visit the central records location annually, which may be the company headquarters. When necessary, verifiers are expected to conduct risk-based site visits to fueling supply equipment (FSE) or fuel dispensing facilities based on the verifiers' professional judgment, but in many cases will

only need to visit the central records facility. These clarifications will provide reporting entities with more flexibility while maintaining the integrity of the LCFS verification process. Verification is critical to maintaining the integrity of the LCFS program and provides a high level of confidence in reported data. While this proposed clarification provides additional flexibility for complying with the verification requirements, the requirement to obtain verification services for all fuels used in the program stands.

7. Modifying Crediting Potential for Fixed Guideway Systems in Operation prior to 2011

Staff proposed to remove the pre-2011/post-2010 delineation for Fixed Guideway System crediting. This creates additional credits in the market.

B. Updates to Analysis as a Result of Modifications

Due to the modifications included in the 15-Day packages, staff updated the emissions and economic impact analyses to reflect the costs and benefits of the updated rulemaking proposal. Largely due to the updated virgin and waste oil supply curves (and resulting increase in renewable diesel) and 2025 CI target step-down, the total direct costs of the proposed regulation over its 22-year lifetime to California businesses decreased to \$84.7 billion, or approximately 2 percent of California's current state annual \$3.9 trillion economy, and credit revenues generated decreased to \$68.7 billion, resulting in a net cost of \$16 billion.¹ Businesses expected to expand as a result of the LCFS program include those in electric power generation, transmission and distribution, and basic chemicals (ex. hydrogen). It is also likely that other existing businesses will expand, such as those related to the production of biofuel-based transportation fuels, electric vehicles and electric vehicle charging stations. Other businesses that may emerge or expand are infrastructure building businesses, including clean fuel stations beyond charging stations. Given modeling constraints, the estimates for industry impacts do not reflect new/emerging industries or businesses that do not exist today. CARB uses the CATS model to estimate future transportation fuel supply changes and the REMI model, which applies economic modeling to national and state level data to make these economic forecasts and is listed on the California Department of Finance website as an analysis tool. The REMI model is a useful tool, but has some constraints. For example, it can only consider existing businesses, industries and jobs – the model cannot calculate the economic benefits associated with new industries the LCFS program incentivizes such as hydrogen, carbon capture and storage, new clean transportation fuel providers, or infrastructure builders and station operators. The REMI model indicates 94 percent of the businesses impacted by the LCFS regulation are in the petroleum and coal product sector. Modeling constraints also result in dramatic underestimates for the impacts to businesses in electric power generation, transmission and distribution, and basic chemicals (ex. hydrogen) and sustainable aviation fuel producers; the REMI model estimates 1-5 percent of these businesses will be impacted over time. Under the proposed amendments, all fuel producers will have an increased incentive to innovate and deploy new methods that reduce the CI of their fuels under the proposed carbon intensity targets. With the potential for a modest higher price for LCFS credits, the proposed amendments will provide long term price stability for

¹ This includes sustainability costs, estimated to average \$4.7 million in costs per year to the industry.

LCFS credits, which is essential for low-CI fuel producers to make investments in long-term capital projects and research and development.

Because higher renewable diesel volumes occurred in both the updated baseline and the proposed regulation, GHG reductions declined slightly to 553 million metric tons reduced, resulting in a cost-effectiveness of \$29 per metric ton CO₂e reduced. Staff also updated the air quality modeling, with updated alternative jet fuel emission reduction values.² The revised analysis resulted in NO_x reductions increasing to 34,495 tons and PM_{2.5} reductions increasing to 9,107 tons. The total statewide health benefits derived from criteria emissions reductions is estimated to be approximately \$11.9 billion, with \$11.7 billion resulting from reduced premature cardiopulmonary mortality and \$209 million resulting the reductions in other adverse health impacts. In addition, Californians should expect to see an estimated 42% reduction in total fuel costs per mile by 2045 - translating to savings of over \$20 billion in fuel expenditures every year. For passenger cars, these fuel cost savings will be even more pronounced, cutting today's costs to Californians by more than 50%. The amount of LCFS proceeds invested in disadvantaged communities for clean fuel and transportation projects is estimated to be approximately \$4.8 billion over the next decade. The LCFS reduces dependence on petroleum and supplies cleaner fuels to meet consumer demand, thereby protecting consumers from the oil industry's associated supply and cost volatility while providing support for cleaner fuels. LCFS-related investments also make electric vehicles (light, medium and heavy duty) more affordable for the total cost of ownership and expand access to electric vehicle charging and hydrogen refueling infrastructure.

Overall, the costs declined while benefits increased as compared to those estimated in the ISOR. The REMI model estimates the total statewide benefits of this regulation to be ~\$81 billion over its 22-year lifetime. These benefits include monetized benefits of the reduced environmental and health impacts and fuel cost savings to California businesses and consumers.

- Monetized health benefits: \$11.9 billion
- Credit Revenue to CA Businesses: \$68.7 billion
- Total CA Benefits and Savings: \$80.6 billion (greater if the social cost of carbon were included).

The total CA benefits and savings number does not include the Social Cost of Carbon Benefit and underestimates the total benefit. Due to the range of Social Cost of Carbon estimates depending on the discount rate, those values are excluded from the total and are also not part of the REMI modeling outputs, but are included below to provide a more complete assessment of the total benefits the proposed regulation would provide:

- Social Cost of Carbon benefit: \$14.7 to \$61.2 billion
- Social Cost of Methane benefit: \$6.5 to \$16.2 billion
- Total social cost benefits (in addition to the \$80.6 billion): \$21.2 to 77.4 billion

The updated analysis does not alter the determinations that both alternatives should be rejected. The complete updated scenario modeling, GHG, and air quality modeling workbooks were all posted with the First 15-Day Notice.

² Staff updated the AJF NO_x and PM_{2.5} reduction percentages based on a recent synthesis of published studies evaluating the emissions benefits of AJF indicating that AJF reduces PM_{2.5} by 65% by mass during landing and takeoff, while not resulting in definitive NO_x reductions.

C. Non-Substantial Modifications

Subsequent to the two 15-Day public comment periods mentioned above, staff identified the following additional non-substantive changes to the regulation:

- Corrected/updated cross references, which do not change or point to new or different requirements, but rather may have been erroneously omitted in earlier versions, or changed as a result of 15-day changes, or were simply transcription errors:
 - Section 95481(a) “Credits” and “Deficits” definition: Added new sections 95486.3(a)(5) and (b)(5), 95486.4(a)(5) and (b)(5) to the definition since these new sections include how credits and deficits are calculated
 - Section 95481(a) “Temporary Method” definition: Corrected “section 95488(a)(1),” which is no longer about measurement accuracy, to the corresponding new “section 95491.2(a)(1)”
 - Section 95482(b): Corrected “sections 95484(b) through (d)” to the corresponding renumbered “sections 95484(d) through (f)”
 - Section 95483(c)(1)(A)5.b.: Corrected “section 95483(c)(1)(A)6.a., which does not exist, to “section 95483(c)(1)(A)5.a.”
 - Section 95483(c)(3): Corrected “sections 95491(d)(3)(A), paragraphs 3. through 5.,” which does not exist, to “section 95481(d)(3)(A)”
 - Section 95484(a), 95486(b): Added new sections “95486.2, 95486.3, 95486.4, and 95489” since these new sections include how credits and deficits are calculated
 - Section 95486.1(a)(1): Corrected “sections 95484(b), (c), and (d)” to the corresponding renumbered “sections 95484(d), (e), and (f)”
 - Sections 95486.2(a)(5), 95486.2(b)(5): Corrected “sections 95484(b)” to the corresponding renumbered “sections 95484(d)”
 - Section 95488.5(c): Corrected subsection “(F)”, which does not exist, to subsection “(E)”
 - Section 95488.8(c): Corrected “section 6254.7” with “section 7924.510”
 - Section 95488.9(g)(5)(C)2.: Corrected “section 95488.9(g)(1)(B)(10)” to the corresponding renumbered “section 95488.9(g)(5)(A)(10)”
 - Section 95488.9(g)(5)(H): Corrected “section 95488.9(g)(1)(B)” to the corresponding renumbered “section 95488.9(g)(5)(A)”
 - Sections 95491.1(c)(1)(K), 95489.1(c)(2)(E): Corrected “section 95488.8(j),” which is no longer about measurement accuracy, to the corresponding new “section 95491.2(a)”
- Sections 95481(a) “Avoided Cost Calculator” definition, 95488(c)(1), 95488.6(a)(1)(B): Deleted stray period
- Section 95481(a) “Break ground” definition: Corrected “digestor” to “digester”

- Sections 95481(a) “By-product” definition, “Wastewater Sludge” definition, 95488.7(a)(2)(A)8., 95489(c)(2)(C)3., 95489(c)(2)(C)4.: Hyphenated “Byproduct” for consistency throughout the regulation
- Sections 95481(a) “Clean Fuel Reward” definition, 95486.1(a) Table 5, 95486.1(g), 95488.3(a), 95488.3(b)(7), 95488.8(g)(1)(D), 95488.8(g)(1)(D)3.e., 95488.8(i)(1), 95488.9(b) Table 8, 95488.10(b), 95489(c)(3)(C), 95489(e)(4)(C), 95489(f)(2)(A), 95489(f)(2)(B), 95489(f)(4)(C), 95490(a)(2)(B), 95491(c)(1), 95501(b)(13)(A)3.: Deleted an extra space
- Section 95481(a): Moved definition of “Jet Fuel” to keep it in alphabetical order
- Section 95481(a) “Credits and “Deficits” definition, “Renewable Hydrogen” definition: Added a comma for improved punctuation
- Section 95481(a) “Distiller’s Grains and Solubles” definition: Hyphenated “coproduct” for consistency throughout the regulation
- Section 95481(a) “Electric Power for Ocean-going Vessel (eOGV)”: Hyphenated “ocean-going” for consistency throughout the regulation
- Section 95481(a) “Emission Factor” definition: Corrected “lifecycle” to “life cycle” for consistency throughout the regulation
- Section 95481(a) Transaction Type for “EV Charging-Grid” definition, Transaction Type for “EV Charging-Non-Grid” definition, Transaction Type for “EV Charging-Smart Charging” definition, Transaction Type for “Fuel Cell Vehicle (FCV) Fueling-Smart Electrolysis” definition: Deleted extra hyphen
- Section 95481(a) “Transaction Type” definition: Corrected the numbering of subsections (21) through (24)
- Section 95482(a): Corrected the numbering of subsections (11) through (13)
- Sections 95482(g), 95483(c)(1)(A)2., 95488(c)(2), 95488.8(i)(2)(B)1., 95488.8(i)(2)(D), 95489(e)(1)(A), 95500(e)(2): Added a comma after a date
- Section 95483(c)(1)(A): Lowercased “below”
- Section 95483(c)(1)(A)5.a.: Corrected “recognizes” to the past tense “recognized”
- Section 95483(c)(1)(A)5.a.viii.: Lowercased “electrification”
- Section 95483(c)(1): Corrected the numbering of subsections (B) through (F)
- Section 95483.2(c)(2): Corrected the numbering of subsections (C) through (E)
- Section 95484(a): Lowercased “sections”
- Section 95484(b)(1): Updated “four quarters” to “calendar year” and corrected “follow” to “follows”. As part of the Second 15-Day Notice, staff proposed to change the data evaluation period for the Automatic Acceleration Mechanism (AAM) to a rolling four quarter evaluation, rather than the previous compliance year. When proposing this change throughout section 95484(b), staff inadvertently modified the text in section 95484(b)(1) from “calendar year” to “four quarters”, in conflict with the trigger frequency specified in the initial rulemaking proposal and First 15-day Notice. The Second 15-day

Notice specified that the shift to a four-quarter rolling evaluation period would not affect the frequency of when the LCFS benchmarks would be adjusted, but instead would simply provide earlier notice to stakeholders of the AAM being triggered. As described in the Second 15-day Notice (pages 5-6): “If triggered, the benchmark schedules would still be adjusted on the same frequency and timing as previously proposed; however, basing the trigger on the most recent four quarters may provide earlier notice to stakeholders that the AAM has been triggered, providing further market certainty and lead time to LCFS participants.” Staff have corrected the transcription error in section 95484(b)(1) back to “calendar year”, rather than “four quarters”, consistent with all applicable Notice documents.

- Section 95485(a)(2)(B): Added “the” where grammatically appropriate
- Section 95485(c)(3)(C)1.: Hyphenated “pro-rata” for consistency throughout the regulation
- Section 95486(b): Corrected the first “section” to “sections” and deleted the second “section”
- Section 95486.1(a) Table 5: Corrected spelling of “Forklifts” and “lift”
- Section 95486.1(f)(1): Corrected “a carbon intensity for hydrogen found in the Lookup Table in section 95488.5, or a carbon intensity value certified through the Tier 2 pathway application process,” to “using a carbon intensity value certified through the Tier 1 or Tier 2 pathway application process” to align with updated hydrogen pathways
- Section 95486.2(b)(1): Corrected “designate” to “designee”
- Section 95488.1(b)(1): Corrected the numbering of subsections (C) through (E)
- Section 95486.2(b)(3): Corrected the numbering of subsections (A) through (G)
- Section 95488.3(b): Replaced a colon with a period
- Section 95488.3(b)(7): Added a space between “CI” and “Calculator”
- Section 95488.3(d): Corrected the numbering of subsections (1) through (2)
- Section 95488.7(a)(2)(G): Replaced dash with “through” for consistency throughout the regulation
- Section 95488.8(g)(1)(A): Corrected the numbering of subsections 3. through 6.
- Section 95488.9(f)(3)(A): Corrected “years” to “year”
- Section 95488.9(g)(5): Corrected the numbering of subsections (A) through (I)
- Section 95488.10: Corrected the numbering of subsection (b)
- Section 95488.10(b): Replaced a semicolon with a period
- Section 95489(a): Corrected “are” to “is”
- Section 95489(c)(1)(D): Corrected spelling of “joint”
- Section 95490(b)(8)(B): Deleted stray colon

- Section 95490(f)(1): Corrected spelling of “Reports”
- Section 95491(d)(3)(B)3.b.: Added “and”
- Section 95491(d)(3)(B)3.c.: Deleted “and”
- Section 95481.1(c)(2)(H): Deleted stranded forward slash
- Section 95500(b)(2)(B): Added “and” and deleted “for fuel transaction types identified in section 95500(c)(1)(A) through (C), or 10,000 or more credits for fuel transaction types identified in section 95500(c)(1)(D) through (E) and also does not result in”. As part of the Second 15-Day Notice³ modifications package, staff proposed to increase the verification deferral threshold from 6000 credits to 10,000 credits, for quarterly fuel transactions reporting verification. However, staff mistakenly applied this deferral threshold increase to the annual fuel pathway reporting text, section 95500(b)(2)(B), instead of to the quarterly fuel transactions reporting verification section 95500(c)(2)(B), which matches the Notice justification. Staff corrected this typographical error by moving the new text introduced in the Second 15-Day Notice into the correct and originally-intended section, 95500(c)(2)(B).
- Section 95500(c)(1)(A)7.: Deleted “and”
- Section 95500(c)(1)(D)2.: Added a period
- Section 95500(c)(2)(B): Added “for fuel transaction types identified in section 95500(c)(1)(A) through (C), or 10,000 or more credits for fuel transaction types identified in section 95500(c)(1)(D) through (E) and also does not result in” and deleted “and”. See explanation above for change to Section 95500(b)(2)(B).
- Section 95501(b)(4): Corrected the numbering of subsections (F) through (I)
- Section 95501(h): Corrected the numbering of subsection (4)
- Tier 1 CI Calculator for Hydrogen, Site-Specific Inputs Tab, Section 2.4: Changed “Low-CI electricity” option to “Direct Supply Low-CI Electricity” to improve the consistency of the input in the calculator with other proposed amendments in section 95488.8(i)(1).
- Tier 1 CI Calculator for Hydrogen: Corrected a macro error that caused the calculator to display the hydrogen CI results under book-and-claim of biomethane when both liquid and gaseous hydrogen production methods were selected
- Tier 1 CI Calculator for Hydroprocessed Ester and Fatty Acid (HEFA) Fuels, HEFA Production Inputs Tab, Section 6: Updated duplicate section number “6.5” to “6.6” and renumbered sections “6.6”, “6.7”, and “6.8” as “6.7”, “6.8”, and “6.9”, respectively

³ The Notice (on page 10) justification specifically described the modification in terms of transactions (emphasis added): “staff proposes to increase the threshold for verification deferral for hydrogen and electricity-based transactions from 6,000 credits to 10,000 credits. In response to public comments, this provision helps to reduce over administration burden for annual verification by giving hydrogen and electricity reporting entities a higher threshold for deferring verification, given hydrogen and electricity transactions are more likely to have high numbers of smaller volume entities than liquid fuel providers.”

- Tier 1 CI Calculator for Hydroprocessed Ester and Fatty Acid (HEFA) Fuels, CA-GREET4.0 Tab: Corrected the unit for Natural Gas from “MMBtu. LHV” to “gCO₂e/MMBtu, LHV”
- Tier 1 CI Calculator for Hydroprocessed Ester and Fatty Acid (HEFA) Fuels Instruction Manual: Corrected date of release from “September 27, 2024” to “October 1, 2024” to be consistent with intended date as explained in the Second 15-Day Changes.
- CA-GREET4.0 Supplemental Document, Section D: Updated the sources of tailpipe CH₄ and N₂O emissions data for biodiesel and renewable diesel to reflect updates made in the 15-Day Changes

The above-described modifications constitute non-substantial changes to the regulatory text or incorporated documents because they more accurately reflect the numbering of a section and correct spelling and grammatical errors, but do not materially alter the requirements or conditions of the proposed rulemaking action.

III. Documents Incorporated by Reference

The regulation adopted by the Executive Officer incorporates by reference the following documents:

- Hydrogen Fueling Capacity (HyCap) Model. September 16, 2024, section 95481(a)
- Oil Production Greenhouse gas Emissions Estimator Version 3.0b, May 14, 2022, section 95481(a)
- Lookup Table Pathways Technical Support Documentation, August 12, 2024, section 95488.1(b)
- California-modified Greenhouse Gases, Regulated Emissions, and Energy use in Transportation version 4.0 (CA-GREET4.0) model, August 12, 2024, section 95488.3(b)
- Tier 1 CI Calculator for Corn or Sorghum Ethanol, August 12, 2024, section 95488.3(b)(1)
- Tier 1 CI Calculator for Sugarcane Ethanol, August 12, 2024, section 95488.3(b)(2)
- Tier 1 CI Calculator for Biodiesel, August 12, 2024, section 95488.3(b)(3)
- Tier 1 CI Calculator for Hydroprocessed Ester and Fatty Acid (HEFA) Fuels, August 12, 2024, section 95488.3(b)(4)
- Tier 1 CI Calculator for Landfill Biomethane, August 12, 2024, section 95488.3(b)(5)
- Tier 1 CI Calculator for Wastewater Sludge Biomethane, August 12, 2024, section 95488.3(b)(6)
- Tier 1 CI Calculator for Dairy and Swine Manure Biomethane, August 12, 2024, section 95488.3(b)(7)
- Tier 1 CI Calculator for Organic Waste Biomethane, August 12, 2024, section 95488.3(b)(8)
- Tier 1 CI Calculator for Hydrogen, October 1, 2024, section 95488.3(b)(9)

- Tier 1 CI Calculator for Corn or Sorghum Ethanol - Instruction Manual, August 12, 2024, section 95488.6(a)(1)(B)(1)
- Tier 1 CI Calculator for Sugarcane Ethanol - Instruction Manual, August 12, 2024, section 95488.6(a)(1)(B)(2)
- Tier 1 CI Calculator for Biodiesel - Instruction Manual, August 12, 2024, section 95488.6(a)(1)(B)(3)
- Tier 1 CI Calculator for Hydroprocessed Ester and Fatty Acid Fuels - Instruction Manual, October 1, 2024, section 95488.6(a)(1)(B)(4)
- Tier 1 CI Calculator for Landfill Biomethane - Instruction Manual, August 12, 2024, section 95488.6(a)(1)(B)(5)
- Tier 1 CI Calculator for Wastewater Sludge Biomethane - Instruction Manual, August 12, 2024, section 95488.6(a)(1)(B)(6)
- Tier 1 CI Calculator for Dairy and Swine Manure Biomethane - Instruction Manual, October 1, 2024, section 95488.6(a)(1)(B)(7)
- Tier 1 CI Calculator for Organic Waste Biomethane - Instruction Manual, October 1, 2024, section 95488.6(a)(1)(B)(8)
- Tier 1 CI Calculator for Hydrogen - Instruction Manual, October 1, 2024, section 95488.6(a)(1)(B)(9)
- SB 350 Low-Income Barriers Study, February 2018, section 95491(e)(5)(A)2.
- ISO 14065:2020(E), *General principles and requirements for bodies validating and verifying environmental information*, section 95488.9(g)(8)(A)10.c.
- ISO/IEC 17065:2012(E), *Conformity assessment – Requirements for bodies certifying products, processes and services*, section 95488.9(g)(8)(A)10.c.

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

Chapter IV of this FSOR contains all comments submitted during the 45-Day comment period, the April workshop comment period, the two 15-Day comment periods, and the November 8, 2024 Board Hearing that were directed at the proposed amendments or to the procedures followed by CARB in proposing the amendments, together with CARB's responses. CARB

received a total of 398 comment letters, in addition to 8,763 form letter comments, during the 45-Day comment period; 197 comment letters with written feedback on the April 10, 2024 workshop; 253 comment letters during the First 15-Day comment period; 307 comment letters during the Second 15-Day comment period; and 102 comment letters during the Board Hearing. In addition, 188 stakeholders gave oral testimony at the November 8, 2024 Board Hearing. Each comment letter and the transcript of the testimony are responded to in this FSOR. Commenters included representatives from the electricity and natural gas sectors, refining sectors, health and environmental sectors, reporters and verifiers, airlines, and others.

The individually submitted written comment letters for the 45-Day, First 15-Day, and Second 15-Day comment periods, as well as the Board Hearing, are available here:

https://www.arb.ca.gov/lispub/comm/iframe_bccommlog.php?listname=lcs2024

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 on the public comment docket online. For ease of reference to match comment codes with responses, comments have been grouped in attachments to this FSOR based on their Commenter Code and the associated Table below.

The transcript of verbal testimony presented during the first Board Hearing is available here:

<https://ww2.arb.ca.gov/sites/default/files/barcu/board/mt/2024/mt110824.pdf>

Comments that address the draft Environmental Analysis are responded to in the “Response to Comments on the Draft and Recirculated Environmental Analyses Prepared for the Amendments to the Low Carbon Fuel Standard.”

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

Commenter Code	Submitter	Affiliation	Submittal Date
45d-001	Board Clerk	Environmental Justice Advisory Committee (EJAC)	1/5/2024
45d-002	Mary Ames	No Affiliation	1/17/2024
45d-003	Paula Levine	No Affiliation	1/18/2024
45d-004	Yasser Jaber	Seagate Produce Inc.	1/18/2024
45d-005	Steven Schroeder	No Affiliation	1/20/2024
45d-006	Massimo Fiorella	No Affiliation	1/21/2024
45d-007	Thomas MacLean	No Affiliation	1/26/2024
45d-008	Doug Sommer	East Kansas Agri-Energy LLC	1/30/2024
45d-009	Kari Battenhoff	Christianson CPA	1/30/2024
45d-010	Nasser Kutkut	Smart Charging Technologies LLC	1/30/2024
45d-011	Khalid Rustom	Verdant Energy Services	1/31/2024
45d-012	Nasser Mohsin	No Affiliation	1/31/2024
45d-013	Bob Istwan	The Motive Companies	2/1/2024
45d-014	Chris Stowe	Canary Biofuels	2/1/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-015	Aaron Binkley	No Affiliation	2/1/2024
45d-016	Mike Noland	No Affiliation	2/3/2024
45d-017	Victor Reyes	Valley Industry and Commerce Association (VICA)	2/5/2024
45d-018	Adrian Martinez	Earthjustice	2/5/2024
45d-019	Brian Kletscher	Highwater Ethanol	2/6/2024
45d-020	Jesse Holman	Senergy LLC	2/6/2024
45d-021	Amy Halpern-Laff	No Affiliation	2/8/2024
45d-022	Tim Wenger	No Affiliation	2/8/2024
45d-023	Tom Progar	No Affiliation	2/8/2024
45d-024	Julia Lowe	Sierra Club Winding Waters Group	2/8/2024
45d-025	Robert Rhodes	Wilderness Society	2/8/2024
45d-026	Susan Frye	No Affiliation	2/8/2024
45d-027	Ginny Masullo	No Affiliation	2/8/2024
45d-028	Christine Reid	No Affiliation	2/8/2024
45d-029	Mark Smith	No Affiliation	2/8/2024
45d-030	Elizabeth York	No Affiliation	2/8/2024
45d-031	Teri Klitzke	PureField Ingredients LLC	2/9/2024
45d-032	Robert Sijgers	No Affiliation	2/10/2024
45d-033	Reuben Franco	Orange County Hispanic Chamber of Commerce	2/12/2024
45d-034	Josh Thome	U.S. Venture Inc.	2/12/2024
45d-035	Amy Hofmeister	Glacial Lakes Energy LLC	2/13/2024
45d-036	Karen Meyer	No Affiliation	2/14/2024
45d-037	Ron Yarger	No Affiliation	2/14/2024
45d-038	Margaret Eaton	No Affiliation	2/14/2024
45d-039	Susan Austin	No Affiliation	2/14/2024
45d-040	Anthony Trujillo	No Affiliation	2/14/2024
45d-041	Nancy Ames	No Affiliation	2/14/2024
45d-042	Ben Lilliston	Institute for Agriculture and Trade Policy (IATP)	2/15/2024
45d-043	Margaret Laub	Anaergia	2/15/2024
45d-044	Sherry M Kerr	No Affiliation	2/15/2024
45d-045	Claire Foster	Fidelis New Energy	2/15/2024
45d-046	Goldie Potter	Protect Pomme de Terre	2/15/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-047	Don Gilstrap	Chevron	2/15/2024
45d-048	Don Gilstrap	Chevron	2/15/2024
45d-049	Dan Evans	Promus Energy	2/15/2024
45d-050	Simon Brandler	Brimstone	2/15/2024
45d-051	Diane Brost	No Affiliation	2/15/2024
45d-052	D. Zink	No Affiliation	2/15/2024
45d-053	Alex Oscopy	No Affiliation	2/16/2024
45d-054	Lorraine Lowry	No Affiliation	2/16/2024
45d-055	Alix Schrek	No Affiliation	2/16/2024
45d-056	Heidi Taylor	No Affiliation	2/16/2024
45d-057	Robert Brixner	No Affiliation	2/16/2024
45d-058	Toby Malina	No Affiliation	2/16/2024
45d-059	Linda Bartlett	No Affiliation	2/16/2024
45d-060	Lacey Levitt	No Affiliation	2/16/2024
45d-061	Claudia A Peters	No Affiliation	2/16/2024
45d-062	Pegalee Benda	No Affiliation	2/16/2024
45d-063	Phoenix Giffen	No Affiliation	2/16/2024
45d-064	Emily Watson	No Affiliation	2/16/2024
45d-065	Laurie Pueschel	No Affiliation	2/16/2024
45d-066	David Jallo	No Affiliation	2/16/2024
45d-067	Donovan Prael	Bushmills Ethanol	2/16/2024
45d-068	Cara O'Neill	No Affiliation	2/16/2024
45d-069	Rich Dandolo	No Affiliation	2/16/2024
45d-070	Lisa Winningham	No Affiliation	2/16/2024
45d-071	Jeremy Mall	No Affiliation	2/16/2024
45d-072	Sondra Bustos	No Affiliation	2/16/2024
45d-073	Maura Lucas	No Affiliation	2/16/2024
45d-074	Camila Vaccari	FS Fueling Sustainability	2/16/2024
45d-075	Margaret Webb	No Affiliation	2/16/2024
45d-076	Gloria Boyd	No Affiliation	2/16/2024
45d-077	Louise Gray	No Affiliation	2/16/2024
45d-078	Karen Neumeier	No Affiliation	2/16/2024
45d-079	Geralyn Gulseth	No Affiliation	2/16/2024
45d-080	Veronica Michael	No Affiliation	2/16/2024
45d-081	Rozae Nichols	No Affiliation	2/16/2024
45d-082	Briana Anderson	No Affiliation	2/16/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-083	Marisa Landsberg	No Affiliation	2/16/2024
45d-084	Wendy Allen	No Affiliation	2/16/2024
45d-085	Lionel Friedberg	No Affiliation	2/16/2024
45d-086	Armond Matevosian	No Affiliation	2/16/2024
45d-087	Pamela Maxfield	No Affiliation	2/16/2024
45d-088	Debbie Meeks	No Affiliation	2/16/2024
45d-089	Liza Tucker	Consumer Watchdog	2/16/2024
45d-090	Adam Aranyos	No Affiliation	2/16/2024
45d-091	Vasu Murti	No Affiliation	2/16/2024
45d-092	Jesse Nowicki	No Affiliation	2/16/2024
45d-093	Eric Sherman	No Affiliation	2/16/2024
45d-094	Cristin Reno	Oberon Fuels	2/16/2024
45d-095	Kristen Lowry	No Affiliation	2/16/2024
45d-096	Heather Dziedzic	American Biogas Council (ABC)	2/16/2024
45d-097	Tank Conner	No Affiliation	2/16/2024
45d-098	Dyan Osborne	No Affiliation	2/16/2024
45d-099	Perri Glass	No Affiliation	2/16/2024
45d-100	Romona Williams	No Affiliation	2/16/2024
45d-101	Bill Magavern	Coalition for Clean Air (CCA)	2/16/2024
45d-102	Amy Hamilton	No Affiliation	2/16/2024
45d-103	Margot McMillen	No Affiliation	2/16/2024
45d-104	Joanne Hedge	No Affiliation	2/16/2024
45d-105	Darlene Powell	No Affiliation	2/16/2024
45d-106	Felena Puentes	No Affiliation	2/16/2024
45d-107	Nancy McCormick	No Affiliation	2/16/2024
45d-108	Marcia Nelson	Farm Sanctuary	2/16/2024
45d-109	Catherine Santos	No Affiliation	2/16/2024
45d-110	Mary Moreno	Connie's Crooked Creations	2/16/2024
45d-111	Pati Tomsits	No Affiliation	2/16/2024
45d-112	Ellen Riegelhuth	No Affiliation	2/16/2024
45d-113	Wayne Johnson, PhD	No Affiliation	2/16/2024
45d-114	CS	No Affiliation	2/16/2024
45d-115	Tera Martinez	No Affiliation	2/17/2024
45d-116	John Pasqua	No Affiliation	2/17/2024
45d-117	Ted Myers	No Affiliation	2/17/2024
45d-118	Denise Vandermeer	No Affiliation	2/17/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-119	K L Johnson	MRCC	2/17/2024
45d-120	Mary Jones	Protect Pomme de Terre	2/17/2024
45d-121	Bernard Fenner	Ductor Americas Inc.	2/17/2024
45d-122	Nancy Rasmussen	No Affiliation	2/17/2024
45d-123	Desiree Mitchell	No Affiliation	2/17/2024
45d-124	Jason Linn	No Affiliation	2/17/2024
45d-125	Lucinda Mayoral	No Affiliation	2/17/2024
45d-126	Diana Ekholm	No Affiliation	2/17/2024
45d-127	Laura Berland-Shane	Blue Planet Systems	2/17/2024
45d-128	Jessie Melendrez	No Affiliation	2/17/2024
45d-129	Mariquita West	No Affiliation	2/17/2024
45d-130	Guadalupe Sanchez-Luna	No Affiliation	2/17/2024
45d-131	Shannon Speigner	No Affiliation	2/17/2024
45d-132	Anne Schedeen	No Affiliation	2/18/2024
45d-133	Shirley Lindquist	No Affiliation	2/18/2024
45d-134	Ivan Light	Inverness Ridge Association	2/18/2024
45d-135	Daniel Medrano	No Affiliation	2/18/2024
45d-136	Norm Sendler	No Affiliation	2/18/2024
45d-137	Chris Gilbert	No Affiliation	2/18/2024
45d-138	Robbi Buchholtz	Dakota Ethanol	2/18/2024
45d-139	Daniel Loftis	No Affiliation	2/18/2024
45d-140	Asher Goldman	Generate Capital	2/18/2024
45d-141	Travis Lane	Calgren	2/18/2024
45d-142	Greg Rosas	No Affiliation	2/19/2024
45d-143	William Brieger	Climate Action California (CAC)	2/19/2024
45d-144	Laura Verduzco	Chevron Corporation	2/19/2024
45d-145	Marti Thomas	No Affiliation	2/19/2024
45d-146	Susan Wrasmann	No Affiliation	2/19/2024
45d-147	Michael Caprio	Republic Services	2/19/2024
45d-148	Jasmin Ansar	The Climate Center	2/19/2024
45d-149	John Duff	National Sorghum Producers	2/19/2024
45d-150	Ryan Huggins	PineSpire	2/19/2024
45d-151	Paul Rozenberg	Suburban Propane	2/19/2024
45d-152	James Lavelle	US Renewable Energy Development Capital	2/19/2024
45d-153	Andrew Cullen	No Affiliation	2/19/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-154	James Duffy	Former LCFS Branch Chief	2/19/2024
45d-155	Alli McIntosh	SkyNRG	2/19/2024
45d-156	Mary Solecki	AJW	2/19/2024
45d-157	Tadashi Ogitsu	No Affiliation	2/19/2024
45d-158	Spencer Reeder	Audi of America Inc.	2/19/2024
45d-159	Nathalie Hoffman	Weaver	2/19/2024
45d-160	Charles Purshouse	Camco	2/19/2024
45d-161	Susan Mayer	No Affiliation	2/19/2024
45d-162	Fred Ghatala	Advanced Biofuels Canada Association (ABFC)	2/19/2024
45d-163	Jim Stewart	No Affiliation	2/19/2024
45d-164	Don Gilstrap	Chevron	2/19/2024
45d-165	Don Gilstrap	Chevron	2/19/2024
45d-166	Charles Davidson	Sunflower Alliance and Rodeo Citizens Association	2/20/2024
45d-167	Eddy Nupoort	Nel Hydrogen	2/20/2024
45d-168	Bryan Sievers	Roeslein Alternative Energy	2/20/2024
45d-169	Mark Stoermann	Newtrient LLC	2/20/2024
45d-170	Kim Dupre	No Affiliation	2/20/2024
45d-171	Neil Koehler	Renewable Fuels Association (RFA)	2/20/2024
45d-172	Nasser Kutkut	Smart Charging Technologies LLC	2/20/2024
45d-173	Mireille Ferdinand-Hercule	Diamond Green Diesel (DGD)	2/20/2024
45d-174	Dawn Caldwell	Renewable Fuels Nebraska (RFN)	2/20/2024
45d-175	Amanda Parsons DeRosier	Global Clean Energy (GCE)	2/20/2024
45d-176	Lisa Hanke	EcoEngineers	2/20/2024
45d-177	Carol Tjong	Hereford Ethanol	2/20/2024
45d-178	Rosalie Barcinas	Southern California Edison (SCE)	2/20/2024
45d-179	Mark Neuburger	California State Association of Counties	2/20/2024
45d-180	Alexandria Reed	General Motors (GM)	2/20/2024
45d-181	Jordan Garfinkle	Bloom Energy	2/20/2024
45d-182	Krysta Wanner	Western Propane Gas Association (WPGA)	2/20/2024
45d-183	Esabella Rojas	Los Angeles Area Chamber of Commerce (LAACC)	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-184	Lisa Whelan	Iowa Citizens for Community Improvement (CCI)	2/20/2024
45d-185	Lasse Moelgaard-Nielsen	Umwelt Energy	2/20/2024
45d-186	Dean Taylor	California Electric Transportation Coalition (CalETC)	2/20/2024
45d-187	Nancy Young	Gevo Inc.	2/20/2024
45d-188	Dean Taylor	Electric Vehicle Charging Association (EVCA), and California Electric Transportation Coalition (CalETC)	2/20/2024
45d-189	Evan Rosenberg	SRECTrade	2/20/2024
45d-190	Julie Busse	National Corn Growers Association (NCGA)	2/20/2024
45d-191	Tom Hance	US Canola Association (USCA)	2/20/2024
45d-192	Nancy Pauken	No Affiliation	2/20/2024
45d-193	Denizhan Baytug	EMC Cement	2/20/2024
45d-194	Robert Hambrecht	Allotrope Partners LLC	2/20/2024
45d-195	Helen Kemp	3Degrees Group Inc.	2/20/2024
45d-196	Brian Jennings	American Coalition for Ethanol (ACE)	2/20/2024
45d-197	Andrew Dick	Electrify America	2/20/2024
45d-198	Paul Wilkins	Electric Hydrogen	2/20/2024
45d-199	Jo Thapa	AJW Inc	2/20/2024
45d-200	Catherine Garoupa	EJAC + CVAQ	2/20/2024
45d-201	Andy Foster	Aemetis Inc.	2/20/2024
45d-202	Holly Mayton	Deere & Co.	2/20/2024
45d-203	Steve Forde	ADM	2/20/2024
45d-204	Ryan Clink	Hexagon	2/20/2024
45d-205	Monte Shaw	Iowa Renewable Fuels	2/20/2024
45d-206	Nataley Williams	Clean Air Task Force (CATF)	2/20/2024
45d-207	Kye Whitmore	Union of Concerned Scientists (UCS)	2/20/2024
45d-208	Molly Armus	Friends of the Earth U.S.	2/20/2024
45d-209	Jesse Holman	Senenergy LLC	2/20/2024
45d-210	Scott Hochberg	Center for Biological Diversity (CBD)	2/20/2024
45d-211	Shelby Neal	Darling Ingredients	2/20/2024
45d-212	Roxana Bekemohammadi	No Affiliation	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-213	Nikita Pavlenko	International Council on Clean Transportation (ICCT)	2/20/2024
45d-214	Miles Heller	Air Products	2/20/2024
45d-215	Ira Dassa	Twelve Benefit Corporation	2/20/2024
45d-216	Steve Compton	Sevana Bioenergy	2/20/2024
45d-217	Brian McDonald	Marathon Petroleum Company (MPC)	2/20/2024
45d-218	Todd Trauman	FuSE	2/20/2024
45d-219	Samantha Bourke	Prairie Farms Dairy	2/20/2024
45d-220	Matthew Rekeweg	Corteva Agriscience	2/20/2024
45d-221	Jennifer LeRow	Braya Renewable Fuels (Newfoundland) LP	2/20/2024
45d-222	Victoria Bogdan Tejeda	Center for Biological Diversity (CBD)	2/20/2024
45d-223	David Edwards	Air Liquide	2/20/2024
45d-224	Evan Neyland	ChargePoint	2/20/2024
45d-225	Duncan Coneybeare	HiiROC Ltd	2/20/2024
45d-226	John Steelman	Clean Air Task Force (CATF)	2/20/2024
45d-227	Joseph Boyd	Imperial Western Products (IWP)	2/20/2024
45d-228	Tom Van Heeke	Rivian Automotive	2/20/2024
45d-229	Greg Kester	California Association of Sanitation Agencies (CASA)	2/20/2024
45d-230	Chirag Bhakta	Food & Water Watch	2/20/2024
45d-231 DUPLICATE of 45d-224	Evan Neyland	ChargePoint	2/20/2024
45d-232	Richard DeRose	SJI Renewable Energy Ventures	2/20/2024
45d-233	Dan Bowerson	Alliance for Automotive Innovation (Auto Innovators)	2/20/2024
45d-234	Bruno Maier	Raizen	2/20/2024
45d-235	Lucas Grimes	Center for Resource Solutions (CRS)	2/20/2024
45d-236	Jacqueline Moore	Pacific Merchant Shipping Association (PMSA)	2/20/2024
45d-237	Bang Phung	Los Angeles Department of Water & Power (LADWP)	2/20/2024
45d-238	Michael Daley	Carbon Solutions Group (CSG)	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-239	Dan Ress	Center on Race Poverty & the Environment (CRPE)	2/20/2024
45d-240	Sam Wade	Coalition for Renewable Natural Gas	2/20/2024
45d-241	Tanya DeRivi	Western States Petroleum Association (WSPA)	2/20/2024
45d-242	Madison Vander Klay	Silicon Valley Leadership Group (SVLG)	2/20/2024
45d-243	Dallas Gerber	Growth Energy	2/20/2024
45d-244	Tim Gibbons	Missouri Rural Crisis Center	2/20/2024
45d-245	Michael Boccadoro	Dairy Cares	2/20/2024
45d-246	Julia Levin	Bioenergy Association of California (BAC)	2/20/2024
45d-247	Frank Miller	Hollywood Burbank Airport	2/20/2024
45d-248	Cinda Lohmann	Turner, Mason & Company	2/20/2024
45d-249	Myles Culhane	1PointFive	2/20/2024
45d-250	Jordan Kearns	Antora Energy	2/20/2024
45d-251	Zach Franklin	Grid Alternatives Coalition Letter	2/20/2024
45d-252	Martin Ryan	BerQ RNG	2/20/2024
45d-253	Chris Vervaet	Canola Council of Canada (CCC) and Canadian Oilseed Processors Association (COPA)	2/20/2024
45d-254	Hossein Tabatabaie	Iwatani Corporation of America	2/20/2024
45d-255	Greg Staiti	Montana Renewables LLC (MRL)	2/20/2024
45d-256	Russell Dyk	Bridge To Renewables Inc. (BTR)	2/20/2024
45d-257	Neal Reardon	Sonoma Clean Power	2/20/2024
45d-258	Chaitanya Khare	SGH2 Energy	2/20/2024
45d-259	Paul Sousa	Western United Dairies (WUD)	2/20/2024
45d-260	Tony Marlow	Castle & Cooke Aviation	2/20/2024
45d-261	John Peck	Family Farm Defenders	2/20/2024
45d-262	Heather Breyne	No Affiliation	2/20/2024
45d-263	Yoshiko Tsuwaki	Japan Hydrogen Forum (JH2F)	2/20/2024
45d-264	Anna Bella Korbatov	Fermata Energy	2/20/2024
45d-265	Gene Harrington	Biotechnology Innovation Organization (BIO)	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-266	David Hovermale	National Oilseed Processors Association (NOPA)	2/20/2024
45d-267	Amanda Myers Wisser	WeaveGrid	2/20/2024
45d-268	Randy Hoyle	Aera Energy LLC	2/20/2024
45d-269	Alexa Combelic	American Soybean Association (ASA)	2/20/2024
45d-270	Alexandra Frumar	Mobile Carbon Capture Coalition	2/20/2024
45d-271	George Gentry	Calforests	2/20/2024
45d-272	Claire Broome	350 Bay Area	2/20/2024
45d-273	Erin Cooke	San Francisco International Airport (SFO)	2/20/2024
45d-274	Nora Cohen Brown	Charm Industrial	2/20/2024
45d-275	Sean Lock	Monarch Bioenergy LLC	2/20/2024
45d-276	Jeremy Martin	Union of Concerned Scientists (UCS)	2/20/2024
45d-277	Will Barrett	American Lung Association (ALA)	2/20/2024
45d-278	Jamie Hall	EV Realty Coalition Letter	2/20/2024
45d-279	Kiki Velez	Natural Resources Defense Council (NRDC)	2/20/2024
45d-280	Jeremy Martin	Union of Concerned Scientists	2/20/2024
45d-281	Sam Uden	UCS, NRDC, and WRI Coalition Letter	2/20/2024
45d-282	Serj Berelson	Mainspring Energy	2/20/2024
45d-283	Elton Page	No Affiliation	2/20/2024
45d-284	Yuliya Shmidt	BART	2/20/2024
45d-285	Frank Harris	California Municipal Utilities Association (CMUA)	2/20/2024
45d-286	Michael Maguire	Governor's Office of Planning and Research (OPR)	2/20/2024
45d-287	Linda White	BMW of North America	2/20/2024
45d-288	Andrew Craig	California Bioenergy (CalBio)	2/20/2024
45d-289	Andrew Craig	California Bioenergy (CalBio)	2/20/2024
45d-290	Ellison Folk	Shute, Mihaly & Weinberger LLP	2/20/2024
45d-291	Nicole Looney	Sacramento Municipal Utility District (SMUD)	2/20/2024
45d-292	Noah Garcia	EVgo	2/20/2024
45d-293	Julian Lake	Bay Area Council	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-294	Jane Sadler	Rocky Mountain Institute (RMI)	2/20/2024
45d-295	Oscar Garcia	Neste	2/20/2024
45d-296	Megan Mekelburg	Electric Vehicle Charging Association (EVCA)	2/20/2024
45d-297	Jan Warren	Interfaith Climate Action Network of Contra Costa County (ICAN-CC)	2/20/2024
45d-298	Julio Friedmann	Carbon Direct	2/20/2024
45d-299	Kevin Welsh	Airlines for America (A4A)	2/20/2024
45d-300	Gary Grimes	World Energy	2/20/2024
45d-301	Jennifer Bingham	Dairy Cares	2/20/2024
45d-302	Mikhael Skvarla	CA Lobby Coalition Letter	2/20/2024
45d-303	Emily Lemei	Northern California Power Agency (NCPA)	2/20/2024
45d-304	Amelia Keyes	Communities for a Better Environment (CBE)	2/20/2024
45d-305	Bernard Fenner	Ductor Americas	2/20/2024
45d-306	Stefan Unnasch	Life Cycle Associates	2/20/2024
45d-307	Steven Berry	Yale University	2/20/2024
45d-308 DUPLICATE of 45d-290	Ellison Folk	Shute, Mihaly & Weinberger LLP	2/20/2024
45d-309	Karen Huggard	National Air Transportation Association	2/20/2024
45d-310	Graham Noyes	Noyes Law Corporation for Low-CI Power Coalition	2/20/2024
45d-311	Matthew Rutherford	Peninsula Clean Energy	2/20/2024
45d-312	Stefan Unnasch	Life Cycle Associates (LCA)	2/20/2024
45d-313	Stefan Unnasch	Life Cycle Associates (LCA)	2/20/2024
45d-314	Stefan Unnasch	Life Cycle Associates (LCA)	2/20/2024
45d-315	Rock Zierman	California Independent Petroleum Association (CIPA)	2/20/2024
45d-316	Colleen Liang	Port of Oakland	2/20/2024
45d-317	Mahlon Aldridge	Ecology Action	2/20/2024
45d-318	Stefan Unnasch	Life Cycle Associates (LCA)	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-319	Stefan Unnasch	Life Cycle Associates (LCA)	2/20/2024
45d-320	Chad Frahm	Brightmark	2/20/2024
45d-321	Erin Cooke	San Francisco International Airport (SFO)	2/20/2024
45d-322	George Kivork	Joby Aviation	2/20/2024
45d-323	Cassandra Farrant	Amp Americas	2/20/2024
45d-324	Claire Behar	Hy Stor Energy	2/20/2024
45d-325	Tyler Cole	TES US Development LLC	2/20/2024
45d-326	Alexandra Frumar	Remora	2/20/2024
45d-327	Katelyn Roedner Sutter	Environmental Defense Fund (EDF)	2/20/2024
45d-328	Ryan Kenny	Coalition of 51 Stakeholders	2/20/2024
45d-329	Matt Miyasato	FirstElement Fuel (FEF)	2/20/2024
45d-330	Holly Yanai	Divert	2/20/2024
45d-331	Jamie Katz	Defensores Del Valle Central Para El Aire y Agua Limpio	2/20/2024
45d-332	Trisha Delloiacono	CALSTART	2/20/2024
45d-333	Stefan Unnasch	Life Cycle Associates (LCA)	2/20/2024
45d-334	Judy Vaccaro-Fry	Antelope Valley Transit Authority (AVTA)	2/20/2024
45d-335	Don Schinske	Low Carbon Fuels Coalition (LCFC)	2/20/2024
45d-336	Robert Coviello	Bunge	2/20/2024
45d-337	Chelsea Lee	Coalition to Fix the LCFS	2/20/2024
45d-338	Alexis Moch	Prologis	2/20/2024
45d-339	Patty Lovera	Campaign for Family Farms and the Env't (CFFE)	2/20/2024
45d-340	Gary Hughes	Biofuelwatch	2/20/2024
45d-341	Jessi Davis	Southern California Gas Company (SoCalGas)	2/20/2024
45d-342	Graham Noyes	Noyes Law Corporation	2/20/2024
45d-343	Alex Menotti	LanzaJet	2/20/2024
45d-344	Graham Noyes	Noyes Law Corporation for Infinium	2/20/2024
45d-345	Brian Kee	MN8 Energy	2/20/2024
45d-346	Emily Carlton	LanzaJet	2/20/2024
45d-347	Claire Behar	Hy Stor Energy	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
DUPLICATE of 45d-324			
45d-348	Shiva Swaminathan	City of Palo Alto	2/20/2024
45d-349	Casey Coward	SEIU - United Service Workers West (USWW)	2/20/2024
45d-350	Virgil Welch	California Carbon Solutions Coalition (CCSC)	2/20/2024
45d-351	Mark Vincelli	Maas Energy Works	2/20/2024
45d-352	Eric Mintzer	No Affiliation	2/20/2024
45d-353	Thad Kurowski	Tesla	2/20/2024
45d-354	Cory-Ann Wind	Clean Fuels Alliance America (CFAA)	2/20/2024
45d-355	Michael Pimentel	California Transit Association (CTA)	2/20/2024
45d-356	Russell Dyk	Bridge To Renewables Inc. (BTR)	2/20/2024
45d-357	Scott Hedderich	Nuseed Americas	2/20/2024
45d-358	Graham Noyes	Noyes Law Corporation for H Cycle	2/20/2024
45d-359	Allie Wainer	Center for a Livable Future (CLF)	2/20/2024
45d-360	Dr. Rina Singh	Alternative Fuels & Chemicals Coalition (AFCC)	2/20/2024
45d-361	Yaniv Lewis	Xpansiv	2/20/2024
45d-362	Julia Tauszig	Brazilian Sugarcane and Bioenergy Industry Association (UNICA)	2/20/2024
45d-363	Martina Simpkins	Anew Climate	2/20/2024
45d-364	Kyle Berquist	Earthjustice	2/20/2024
45d-365	Chris Gould	California Resources Corporation (CRC)	2/20/2024
45d-366	Michael Wara	Stanford University	2/20/2024
45d-367	Robert Parkhurst	LCFS Coalition on Climate Smart Agriculture	2/20/2024
45d-368	Christine Ball-Blakely	Animal Legal Defense Fund (ALDF) Coalition Letter	2/20/2024
45d-369	Joshua Wilson	POET	2/20/2024
45d-370	Don Schinske	Low Carbon Fuels Coalition (LCFC)	2/20/2024
45d-371	Michael O'Hare	UC Berkeley	2/20/2024
45d-372	Mary Elizabeth	No Affiliation	2/20/2024
45d-373	Laura Haider	Fresnans Against Fracking	2/20/2024
45d-374	Peter Hawighorst	No Affiliation	2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-375	Dan Willis	San Francisco Public Utilities Commission (SFPUC), San Francisco Municipal Transportation Agency (SFMTA), San Francisco International Airport (Airport)	2/20/2024
45d-376	Luke Nguyen	Idemitsu Apollo Renewable Corporation	2/20/2024
45d-377	Teresa Bui	Pacific Environment	2/20/2024
45d-378	John O'Donnell	Rondo Energy	2/20/2024
45d-379	Phoebe Seaton	Leadership Counsel	2/20/2024
45d-380	Shannon Broome	Hunton Andrews Kurth	2/20/2024
45d-381	Matthew Sheets	Land Stewardship Project	2/20/2024
45d-382	Nicole Rice	California Renewable Transportation Alliance (CRTA)	2/20/2024
45d-383	Sasan Saadat	Earthjustice	2/20/2024
45d-384	Philip Sheehy	ICF	2/20/2024
45d-385	Matt Bright	CarbonCapture Inc.	2/20/2024
45d-386	Mark Hansen	UC Berkeley	2/20/2024
45d-387	Paul D. Hernandez	Voltera	2/20/2024
45d-388	Fariya Ali	Pacific Gas & Electric (PG&E)	2/20/2024
45d-389	Daniel Chandler	350 Humboldt	2/20/2024
45d-390	Angela Richards	Monarch Tractor	2/20/2024
45d-391	Colin Murphy	UC Davis	2/20/2024
45d-392	Tess Dornfeld	No Affiliation	2/20/2024
45d-393	John Thornton	CleanFuture Inc.	2/20/2024
45d-394	Barry Sedlik	California Business Ventures	2/21/2024
45d-395	Caroline Hobbs	Port of San Diego	2/21/2024
45d-396	Kristina Gallagher	California State Association of Counties (CSAC)	2/21/2024
45d-397	Susana Gonzalez Edmond	Edmond Group	2/21/2024 (originally submitted 2/20/2024)
45d-398	Brittany Benesi	American Society for the Prevention of Cruelty to Animals (ASPCA)	2/27/2021 (originally submitted 2/16/2024)
45d-399-6886	Earthjustice/Reform the LCFS Form Letter		1/11/2024 - 2/20/2024
45d-6887-8607	Stop Dirty Factory Farm Gas in the LCFS Form Letter		2/16/2024 - 2/20/2024

Commenter Code	Submitter	Affiliation	Submittal Date
45d-8608-8727	Stop Funding Biogas Form Letter		2/16/2024 - 2/20/2024
45d-8728-8745	Unsustainable Biogas Form Letter		2/16/2024 – 2/18/024
45d-8746-8755	Factory Farm Gas Form Letter		2/14/2024 – 2/16/2024
45d-8756-8763	Avoided Methane Crediting Form Letter		2/8/2024 – 2/13/2024

Table 2. Written Comments Received During the April Workshop Comment Period

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-001	Peter Jordan	H2 Energy Group	Received between 4/11/2024 and 5/10/2024
Apr-002	Scott Hedderich	Nuseed	Received between 4/11/2024 and 5/10/2024
Apr-003	Gregory Dolan	Methanol Institute	4/11/2024
Apr-004	Sharon Cooney	Metropolitan Transit System (MTS)	4/11/2024
Apr-005	Ross Buckenham	California Bioenergy LLC	Received between 4/11/2024 and 5/10/2024
Apr-006	Eric Mintzer	Gelber Group	Received between 4/11/2024 and 5/10/2024
Apr-007	Shannon Amiot	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-008	Yaniv Scherson	Anaergia	Received between 4/11/2024 and 5/10/2024
Apr-009	Jeremy Mall	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-010	Ben Lilliston	Institute for Agriculture and Trade Policy (IATP)	2/15/2024
Apr-011	Susan Gibson	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-012	Paulette Zimmerman	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-013	Dory Colbert	Missouri Rural Crisis Center	Received between 4/11/2024 and 5/10/2024
Apr-014	Lea Langdon	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-015	Robert Blake, Jr.	University of Missouri	Received between 4/11/2024 and 5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-016	Everett Murphy MD	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-017	Victor Purdy	FarmAid, Patchwork Family Farm	Received between 4/11/2024 and 5/10/2024
Apr-018	Sarah Joplin	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-019	Vic Burton	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-020	Linda Barta	Missouri Rural Crisis Center	Received between 4/11/2024 and 5/10/2024
Apr-021	Jack Meinzenbach	Sierra Club	Received between 4/11/2024 and 5/10/2024
Apr-022	Pattie Smetana	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-023	Timothy Gibbons	Missouri Rural Crisis Center	4/24/2024
Apr-024	Cynthia Babich	Del Amo Action Committee	Received between 4/11/2024 and 5/10/2024
Apr-025	Yaniv Scherson	Anaergia	Received between 4/11/2024 and 5/10/2024
Apr-026	Bernard C. Fenner	Ductor	5/3/2024
Apr-027	Cindy McCarthy	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-028	Kinshuk Chatterjee	Center for Sustainable Energy (CSE)	5/3/2024
Apr-029	Hossein Tabatabaie	Iwatani Corporation of America	5/6/2024
Apr-030	Daniel Chandler, Janet Cox, and Will Brieger	350 Humboldt, Climate Action California, and 350 Sacramento	5/6/2024
Apr-031	B.N. Rosen	US Navy	4/30/2024
Apr-032	Don Gilstrap	Chevron	Received between 4/11/2024 and 5/10/2024
Apr-033	Dawn Caldwell	Renewable Fuels Nebraska (RFN)	5/3/2024
Apr-034	Don Gilstrap	Chevron	5/7/2024
Apr-035	Randy Stookey	Renew Kansas Biofuels Association	5/10/2024
Apr-036	Kent Grotelueschen	Nebraska Soybean Association (NSA)	5/10/2024
Apr-037	Papia Gambelin	United Airlines, Inc.	5/10/2024
Apr-038	Harold Wolle, Jr.	National Corn Growers Association (NCGA)	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-039	Bill Magavern	Coalition for Clean Air (CCA)	5/8/2024
Apr-040	Robert Knief	Bartlett	5/10/2024
Apr-041	Corey Jorgenson	Shell Rock Soy Processing LLC	5/9/2024
Apr-042	Darvin Bentlage	Campaign for Family Farmers and the Environment (CFFE)	Received between 4/11/2024 and 5/10/2024
Apr-043	Ben Steyer	Michigan Soybean Association (MSA)	Received between 4/11/2024 and 5/10/2024
Apr-044	Tom Malecha	North Dakota Soybean Processors (NDSP)	5/10/2024
Apr-045	Eric Slater	CGB Enterprises, Inc.	5/10/2024
Apr-046	Tadd D. Nicholson	Ohio Corn and Wheat Growers Association (OCWGA)	5/9/2024
Apr-047	Ryan Huggins	PineSpire	5/9/2024
Apr-048	Adam Hendricks	Kentucky Soybean Association (KSA)	5/10/2024
Apr-049	-	Ohio Ethanol Producers Association	Received between 4/11/2024 and 5/10/2024
Apr-050	Christa Lucas	Southwest	5/9/2024
Apr-051	Shannon S. Broome	Highly Innovative Fuels USA (HIF)	5/9/2024
Apr-052	Jamie Katz, Phoebe Seaton, Michael Claiborne	Leadership Counsel for Justice and Accountability - Coalition	5/9/2024
Apr-053	David Strickland	General Motors LLC (GM)	5/10/2024
Apr-054	Todd Trauman, Colby Green, Elaine O'Byrne	FuSE Carbon Technologies	5/9/2024
Apr-055	Gracyna Mohabir	California Environmental Voters (EnviroVoters)	5/9/2024
Apr-056	Patrick Serfass	American Biogas Council (ABC)	5/9/2024
Apr-057	Rhiannon Davis	Electrify America	5/9/2024
Apr-058	Simon Brandler	Brimstone	5/9/2024
Apr-059	Jack Lucero Fleck	350 Bay Area	5/9/2024
Apr-060	-	UNEM - Brazil Corn Ethanol Association	5/10/2024
Apr-061	Philip O'Neil	DTE Vantage	5/10/2024
Apr-062	Eduardo A. Angeles	American Airlines	5/10/2024
Apr-063	Joshua P. Wilson	POET	5/10/2024
Apr-064	Cynthia Walker	TES US Development LLC	Received between 4/11/2024 and 5/10/2024
Apr-065	Harry Simpson	Crimson Renewable Energy	5/9/2024
Apr-066	Oscar Garcia	Neste	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-067	Greg Morris	ADM	5/10/2024
Apr-068	Kathleen Dolson	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-069	Andrew Brosnan	Anew Climate, LLC	5/10/2024
Apr-070 DUPLICATE of Apr-069	Andrew Brosnan	Anew Climate, LLC	5/10/2024
Apr-071	Rosalie Barcinas	Southern California Edison (SCE)	5/10/2024
Apr-072 NO ATTACHMENT	Ira Dassa	Twelve Benefit Corp	Received between 4/11/2024 and 5/10/2024
Apr-073	Dan Lashof	World Resources Institute (WRI)	5/10/2024
Apr-074	Andy Stevenson	Twelve Benefit Corp	5/10/2024
Apr-075	Scott Kennedy	Alaska Airlines	5/10/2024
Apr-076	Alexis Moch	Prologis, Inc.	5/10/2024
Apr-077	-	Campaign for Family Farms and the Environment (CFFE)	5/10/2024
Apr-078	Kent Hartwig, Nancy N. Young	Gevo, Inc.	5/10/2024
Apr-079	Jennifer M. LeRow	Braya Renewable Fuels	5/10/2024
Apr-080	Amanda Parsons DeRosier	Global Clean Energy (GCE)	5/9/2024
Apr-081	Jeff Wilkerson	Pearson Fuels	5/10/2024
Apr-082	Bob Powell	Brightmark	5/10/2024
Apr-083	Matt Miyasato	First Element	Received between 4/11/2024 and 5/10/2024
Apr-084	Stefan Unnasch	Life Cycle Associates (LCA)	5/10/2024
Apr-085	Rusty Goebel	Ohio Soybean Association (OSA)	5/10/2024
Apr-086	Jeremy Martin	Union of Concerned Scientists (UCS)	5/10/2024
Apr-087	Cristin Reno	Oberon	4/10/2024
Apr-088	Kaleb Little	Kansas Soybean Association (KSA)	5/10/2024
Apr-089 DUPLICATE of Apr-076	Alexis Moch	Prologis	Received between 4/11/2024 and 5/10/2024
Apr-090	Brian Jennings	American Coalition for Ethanol (ACE)	5/10/2024
Apr-091	Joseph Mendelson III	Tesla	5/10/2024
Apr-092	David Bonelli	PACT	5/10/2024
Apr-093	-	North Dakota Soybean Growers Association (NDSGA)	5/10/2024
Apr-094	Tanya DeRivi	Western States Petroleum Association (WSPA)	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-095	Kailee Tkacz Buller	National Oilseed Processors Association (NOPA)	5/10/2024
Apr-096	Christopher P. Bliley	Growth Energy	5/10/2024
Apr-097 DUPLICATE of Apr-095	Kailee Tkacz Buller	National Oilseed Processors Association (NOPA)	5/10/2024
Apr-098	Sam Wade	Coalition for Renewable Natural Gas	5/10/2024
Apr-099	Dan Bowerson, Joe Mendelson, and Tom Van Heeke	Joint Automakers: Alliance for Automotive Innovation, Tesla, and Rivian	5/10/2024
Apr-100	Chris Davison and Chris Vervaet	Canola Council of Canada (CCC) and Canadian Oilseed Processors Association (COPA)	5/10/2024
Apr-101	Cassandra Farrant	Amp Americas	5/10/2024
Apr-102	-	Generate	5/10/2024
Apr-103	Miles Heller	Air Products	5/10/2024
Apr-104	Paul Wilkins	Electric Hydrogen	5/10/2024
Apr-105	Scott Lewis	World Energy	5/10/2024
Apr-106	George Kivork	Joby	5/10/2024
Apr-107	Greg Kester	California Association of Sanitation Agencies (CASA)	5/10/2024
Apr-108	Stephanie Searle	International Council on Clean Transportation (ICCT)	5/10/2024
Apr-109	Chris Schaffer	Ag Processing Inc.	5/10/2024
Apr-110	-	Raizen	5/10/2024
Apr-111	Jessica Hoffmann	RPMG	5/10/2024
Apr-112	Josh Gackle	American Soybean Association (ASA)	5/10/2024
Apr-113	Matt Petersen and Drew Murphy	Transportation Electrification Partnership	5/10/2024
Apr-114	Paul Gross	Remora	5/10/2024
Apr-115	Nora Cohen Brown	Charm	5/10/2024
Apr-116	Tom Van Heeke	Rivian	5/10/2024
Apr-117	Jonathan Lewis and Ashley Arax	Clean Air Task Force (CATF)	5/10/2024
Apr-118	Trisha Dello Iacono	CALSTART	5/10/2024
Apr-119 DUPLICATE of Apr-063	Joshua P. Wilson	POET	Received between 4/11/2024 and 5/10/2024
Apr-120	Steven Fenaroli	California Farm Bureau (CAFB)	Received between 4/11/2024 and 5/10/2024
Apr-121	Scott Richman	Renewable Fuels Association (RFA)	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-122	-	Fidelis New Energy, LLC	Received between 4/11/2024 and 5/10/2024
Apr-123	Michael Daley	Carbon Solutions Group (CSG)	5/10/2024
Apr-124	Cory-Ann Wind and Carlos Gutierrez	Clean Fuels Alliance America and California Advanced Biofuels Alliance	5/10/2024
Apr-125	-	Beta Analytic, Inc.	5/10/2024
Apr-126	Lauren Renger	California Electric Transportation Coalition (CalETC)	5/10/2024
Apr-127	Krysta Wanner	Western Propane Gas Association (WPGA)	5/10/2024
Apr-128	Helen Kemp	3Degrees	5/10/2024
Apr-129 DUPLICATE of Apr-127	Krysta Wanner	Western Propane Gas Association (WPGA)	5/10/2024
Apr-130	Mike DeCamp	CoverCress Inc	5/10/2024
Apr-131	John Plaza	SkyNRG	5/10/2024
Apr-132 DUPLICATE of Apr-107	Greg Kester	California Association of Sanitation Agencies (CASA)	Received between 4/11/2024 and 5/10/2024
Apr-133	Shelby Neal	Darling Ingredients	5/10/2024
Apr-134 DUPLICATE of Apr-102	-	Generate	Received between 4/11/2024 and 5/10/2024
Apr-135 DUPLICATE of Apr-096	Christopher P. Bliley	Growth Energy	Received between 4/11/2024 and 5/10/2024
Apr-136	Amelia Keyes	Communities for a Better Environment (CBE)	5/10/2024
Apr-137	Harrison Pettit	Pacific Ag Renewables	5/10/2024
Apr-138	Kevin Welsh	Airlines for America (A4A)	5/10/2024
Apr-139	-	Diamond Green Diesel (DGD)	5/10/2024
Apr-140	Renee Fordyce	Missouri Soybean Association (MSA)	5/10/2024
Apr-141	Teresa Cooke, Katrina Fritz, and Janice Lin	California Hydrogen Coalition, California Hydrogen Business Council, and Green Hydrogen Coalition	5/10/2024
Apr-142	Philip Sheehy	ICF	Received between 4/11/2024 and 5/10/2024
Apr-143	Greg Staiti	Montana Renewables, LLC (MRL)	5/10/2024
Apr-144	Veronica Pardo	Resource Recovery Coalition of California (RRCC)	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-145 DUPLICATE of Apr-161	Evan Neyland	ChargePoint	Received between 4/11/2024 and 5/10/2024
Apr-146	Matt Herman	Iowa Soybean Association	5/10/2024
Apr-147	Noah Garcia	EVgo	5/10/2024
Apr-148	Robert Coviello	Bunge	5/10/2024
Apr-149 DUPLICATE of Apr-161	Evan Neyland	ChargePoint	Received between 4/11/2024 and 5/10/2024
Apr-150	Julia A. Levin	Bioenergy Association of California (BAC)	5/10/2024
Apr-151	Fariya Ali	Pacific Gas and Electric Company (PG&E)	5/10/2024
Apr-152	Dan Evans	Promus Energy	5/10/2024
Apr-153 DUPLICATE of Apr-148	Robert Coviello	Bunge	5/10/2024
Apr-154	Phoebe Seaton	Coalition to Fix LCFS	Received between 4/11/2024 and 5/10/2024
Apr-155	Andrew Craig	California Bioenergy LLC (CalBio)	5/10/2024
Apr-156 DUPLICATE of Apr-150	Julia A. Levin	Bioenergy Association of California (BAC)	5/10/2024
Apr-157	John Barrow	Bridge to Renewables (BTR)	5/10/2024
Apr-158	Steve Compton	Sevana Bioenergy	5/10/2024
Apr-159	-	Coalition to Fix LCFS	5/10/2024
Apr-160	Todd R. Campbell	Clean Energy	5/10/2024
Apr-161	Evan Neyland	ChargePoint	5/10/2024
Apr-162	Tiana Wong	Terraform	5/7/2024
Apr-163	Colin Murphy	UC Davis	5/9/2024
Apr-164	Nicole Rice	California Renewable Transportation Alliance (CRTA)	5/10/2024
Apr-165 DUPLICATE of Apr-076	Alexis Moch	Prologis	Received between 4/11/2024 and 5/10/2024
Apr-166 DUPLICATE of Apr-108	Stephanie Searle	International Council on Clean Transportation (ICCT)	5/10/2024
Apr-167	Yaniv Scherson	Anaergia	Received between 4/11/2024 and 5/10/2024
Apr-168	Chelsey Robinson	Bayer Crop Science	5/9/2024
Apr-169	-	FS Fueling Sustainability	5/6/2024
Apr-170	Scott Hedderich	Nuseed	5/10/2024
Apr-171	Margaret Claiborne Campbell	Delta	5/10/2024
Apr-172	Takehito Yokoo	Japan Hydrogen Forum (JH2F)	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-173	Graham Noyes	Noyes Law Corporation for Fulcrum Bioenergy	5/6/2024
Apr-174	Graham Noyes	Noyes Law Corporation for Loci Controls, Inc.	5/9/2024
Apr-175	David Zaziski	Infinium Operations, LLC	5/10/2024
Apr-176	Graham Noyes	Noyes Law Corporation for SAF Producer Group	5/9/2024
Apr-177	Graham Noyes	Noyes Law Corporation for Low Carbon Solution Providers	5/10/2024
Apr-178	Linda Waters	No Affiliation	Received between 4/11/2024 and 5/10/2024
Apr-179 DUPLICATE of Apr-076	Alexis Moch	Prologis	Received between 4/11/2024 and 5/10/2024
Apr-180	Andy Foster	Aemetis	5/10/2024
Apr-181	Omar Hayat	California Resources Corporation (CRC)	5/10/2024
Apr-182	Janet Cox and Daniel Chandler	Climate Action California and 350 Humboldt	5/10/2024
Apr-183	Austin Heyworth	Brazilian Sugarcane and Bioenergy Industry Association (UNICA)	5/10/2024
Apr-184	Mark Hansen and Yati Liu	UC Berkeley	Received between 4/11/2024 and 5/10/2024
Apr-185	Paul D. Hernandez	Voltera	5/10/2024
Apr-186 DUPLICATE of Apr-185	Paul D. Hernandez	Voltera	5/10/2024
Apr-187	Ryan Harty	Honda	Received between 4/11/2024 and 5/10/2024
Apr-188	Graham Noyes	Noyes Law Corporation for Kore Infrastructure	5/10/2024
Apr-189	Christopher M. Malone	Indigo Ag	5/9/2024
Apr-190	Katelyn Roedner Sutter, Pedro Piris Cabezas, and Sara Noelani Olsen	Environmental Defense Fund (EDF)	5/14/2024
Apr-191	-	Joint MHD EV Infrastructure Parties Coalition	5/10/2024
Apr-192	Michael Wara, Michael Mastrandrea, Mareldi Ahumada-Paras, Ben Clark	No Affiliation	5/10/2024
Apr-193	-	Low Carbon Fuels Coalition	5/10/2024
Apr-194	Rodney Fong	San Francisco Chamber of Commerce	5/10/2024

Commenter Code	Submitter	Affiliation	Submittal Date
Apr-195	Ma'n Altaher	Smart Charging Technologies LLC	5/9/2024
Apr-196	Manny Rutinel	Food for the Future	5/2/2024
Apr-197	Patty Hine	350 Eugene	5/6/2024

Table 3. Written Comments Received During the First 15-Day Comment Period

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-001	Rich Elam	No Affiliation	8/12/2024
15d1-002	Bonita Lang	No Affiliation	8/12/2024
15d1-003	Liam Harwyn	No Affiliation	8/13/2024
15d1-004	Vincent Vandenbosch	No Affiliation	8/13/2024
15d1-005	Phil More	Unspecified NGO	8/13/2024
15d1-006	Danny Tanasio	No Affiliation	8/13/2024
15d1-007	Andrea Carcovich	No Affiliation	8/14/2024
15d1-008	Scott Nelson	No Affiliation	8/15/2024
15d1-009	Stewart Hughes	No Affiliation	8/19/2024
15d1-010	Ellen Koivisto	No Affiliation	8/19/2024
15d1-010a	John Oda	No Affiliation	8/20/2024
15d1-010b	Mary Flanagan	No Affiliation	8/21/2024
15d1-011	Ben Keller	No Affiliation	8/19/2024
15d1-012	Laura Haider	No Affiliation	8/20/2024
15d1-013	Dennis Albiani	California Advocates	8/21/2024
15d1-014	David Gassman	No Affiliation	8/21/2024
15d1-015	Michael Daley	Carbon Solutions Group	8/21/2024
15d1-016	Eduardo A. Angeles	American Airlines	8/21/2024
15d1-017	Joey Airoso	Dairy Farmers	8/23/2024
15d1-018	Graham Noyes	Noyes Law Corporation for FS, Fueling Sustainability	8/23/2024
15d1-019	Graham Noyes	Noyes Law Corporation for Raizen	8/23/2024
15d1-020	Graham Noyes	Noyes Law Corporation for H Cycle	8/23/2024
15d1-021	Andrew Moore	Georgia/Florida Soybean Association	8/26/2024
15d1-022	Benjamin King	Beta Analytic	8/26/2024
15d1-023	Jean Tepperman	Sunflower Alliance	8/26/2024
15d1-024	Alessandra Magnasco	California Fuels & Convenience Alliance (CFCA)	8/26/2024
15d1-025	Jeffrey Pekrul	No Affiliation	8/26/2024
15d1-026	Gordon Russel	Louis Dreyfus Company	8/26/2024
15d1-027	Yaniv Scherson	Anaergia	8/26/2024
15d1-028	Jennifer LeRow	Braya Renewable Fuels	8/26/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-029	Zachary Kahn	Tesla	8/26/2024
15d1-030	Hilary Primack	Mahoney Environmental	8/28/2024
15d1-031	Laura Verduzco Flores	Chevron	8/26/2024
15d1-032	Kevin Deinert	South Dakota Soybean Association (SDSA)	8/26/2024
15d1-033	Shelby Neal	Darling Ingredients	8/26/2024
15d1-034	Amy Lilly	Mercedes-Benz	8/26/2024
15d1-035	Michael Smith	Xeal Energy	8/26/2024
15d1-036	Christopher Malone	Low Carbon Fuel Coalition	8/26/2024
15d1-037	Christy Seyfert	American Soybean Association (ASA)	8/26/2024
15d1-038	Victoria Bogdan Tejeda	Center for Biological Diversity (CBD)	8/26/2024
15d1-039	Bradley Parvin	No Affiliation	8/26/2024
15d1-040	John Anderson	Humboldt and Mendocino Redwood Companies	8/26/2024
15d1-041	Dan Evans	Promus Energy	8/26/2024
15d1-042	Don Gilstrap	Chevron	8/26/2024
15d1-043	Shane Snow	No Affiliation	8/26/2024
15d1-044	Peter De Gregorio	Climate Reality, Monterey Chapter	8/26/2024
15d1-045	Andy Foster	Aemetis	8/26/2024
15d1-046	Shannon Broome	Highly Innovative Fuels USA (HIF)	8/26/2024
15d1-047	Mark Mobley	No Affiliation	8/27/2024
15d1-048	Chelsey Robinson	Bayer Crop Science	8/27/2024
15d1-049	Kari Battenhoff	Christianson PLLP	8/27/2024
15d1-050	Helen Kemp	3Degrees Group Inc.	8/27/2024
15d1-051	Amanda Myers Wisser	Weave Grid Inc.	8/27/2024
15d1-052	Mark Stoermann	Newtrient LLC	9/27/2024
15d1-053	William Barksdale	Cargill, Inc.	8/27/2024
15d1-054	Gal Sitty	Kia Corporation	8/27/2024
15d1-055	Gregory Cane	California Hydrogen Car Owners Association (CHCOA)	8/26/2024
15d1-056	John Rauber	Deere & Company	8/27/2024
15d1-057	Christiana Darlington	Placer Co Air Pollution Control District (Placer APCD)	8/27/2024
15d1-058	Robert Parkhurst	Indigo Agriculture	8/27/2024
15d1-059	Lisa Hanke	EcoEngineers	8/27/2024
15d1-060	Lent Leakcock	Mainspring Energy	8/27/2024
15d1-061	Tim Hellem	Braun	8/27/2024
15d1-062	Jordan Garfinkle	Bloom Energy	8/27/2024
15d1-063	Robert Hambrecht	Allotrope Partners LLC	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-064	Nancy Young	Gevo	8/27/2024
15d1-065	James Duffy	No Affiliation	8/27/2024
15d1-066	Sherrie Merrow	The Transport Project	8/27/2024
15d1-067	Sara Olsen	Environmental Defense Fund (EDF)	8/27/2024
15d1-068	Christopher Lish	No Affiliation	8/27/2024
15d1-069	Rhiannon Davis	Electrify America	8/27/2024
15d1-070	Amanda DeMarco	World Resources Insititute (WRI)	8/27/2024
15d1-072	Chris Wilson	Electrochaea Corporation	8/27/2024
15d1-073	Maria Pica	ADM	8/27/2024
15d1-074	Matt Miyasoto	FirstElement Fuel	8/27/2024
15d1-075	Steven Fenaroli	California Farm Bureau (CAFB)	8/27/2024
15d1-076	George Kivork	Joby Aviation	8/27/2024
15d1-077	Matthew Amick	Biodiesel Coalition of Missouri (BCM)	8/27/2024
15d1-078	Darin Johnson	Minnesota Soybean Growers Association (MSGA)	8/27/2024
15d1-079	Marc Ventura	Phillips 66 Company	8/27/2024
15d1-080	Dan Bowerson	Alliance for Automotive Innovation	8/27/2024
15d1-081	David Edwards	Air Liquide	8/27/2024
15d1-082	William Barksdale	Cargill	8/27/2024
15d1-083	Renee Sharp	Natural Resources Defense Council (NRDC)	8/27/2024
15d1-084	Matt Bright	Direct Air Capture Coalition	8/27/2024
15d1-085	Tom Hance	U.S. Canola Association (USCA)	8/27/2024
15d1-086	R Higgins	PineSpire	8/27/2024
15d1-087	Michael Harrison	Valero Renewables Fuels Company, LLC	8/27/2024
15d1-088	David Bonelli	Powering America's Commercial Transportation	8/27/2024
15d1-089	Ethan Elkind	No Affiliation	8/27/2024
15d1-090	Allen Schaeffer	Engine Technology Forum	8/27/2024
15d1-091	Matt Dias	California Forestry Association	8/27/2024
15d1-092	Rosalie Barcinas	Southern California Edison (SCE)	8/27/2024
15d1-093	Margaret Campbell	Delta Air Lines	8/27/2024
15d1-094	Richard DeRose	SJI Renewable Energy Ventures	8/27/2024
15d1-095	Jeremy Martin	Union of Concerned Scientists (UCS)	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-096	Devin Mogler	Green Plains Inc.	8/27/2024
15d1-097	Elizabeth Bourbon	Diamond Green Diesel LLC (DGD)	8/27/2024
15d1-098	Chris Gould	Carbon TerraVault	8/27/2024
15d1-099	Yuliya Shmidt	BART	8/27/2024
15d1-100	Danielle Weizman	San Diego Gas & Electric (SDG&E)	8/27/2024
15d1-101	Steven Berry	No Affiliation	8/27/2024
15d1-102	Katie Muckenhirn	American Coalition for Ethanol (ACE)	8/27/2024
15d1-103	Laura Renger	California Electric Transportation Coalition (CalETC)	8/27/2024
15d1-104	Bruce Hata	No Affiliation	8/27/2024
15d1-105	Cristin Reno	Oberon Fuels	8/27/2024
15d1-106	Asher Goldman	Generate Capital	8/27/2024
15d1-107	Tom Van Heeke	Rivian Automotive	8/27/2024
15d1-108	Danielle Weizman	California Joint Utilities	8/27/2024
15d1-109	Don Schinske	Low Carbon Fuels Coalition	8/27/2024
15d1-110	Neil Koehler	Renewable Fuels Association (RFA)	8/27/2024
15d1-111	John Plaza	SkyNRG	8/27/2024
15d1-112	Noah Garcia	EVgo	8/27/2024
15d1-113	Fred Ghatala	Advanced Biofuels Canada Association	8/27/2024
15d1-114	Paul Gross	Remora	8/27/2024
15d1-115	Grant Kimberly	Iowa Biodiesel Board	8/27/2024
15d1-116	Brian Kee	Mercedes-Benz High Power Charging	8/27/2024
15d1-118	Gary Grimes	World Energy	8/27/2024
15d1-119	Nora Cohen Brown	Charm Industrial	8/27/2024
15d1-120	William Graham	DVO, Inc.	8/27/2024
15d1-121	Katie Saliccioli	Ford Motor Company	8/27/2024
15d1-122	Sarah Somorai	Hyundai Motor North America	8/27/2024
15d1-123	Orran Balagopalan	Leadership Counsel for Justice and Accountability	8/27/2024
15d1-124	Chris Vervaet	Canola Council of Canada (CCC) and Canadian Oilseed Processors Association (COPA)	8/27/2024
15d1-126	John Rosenfeld	Proteum Energy	8/27/2024
15d1-127	Trisha Dello Iacono	CALSTART	8/27/2024
15d1-128	Samuel Goda	Kaluza	8/27/2024
15d1-129	Casey Coward	SEIU United Service Workers West (USWW)	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-130	Cory-Ann Wind	Clean Fuels Alliance America	8/27/2024
15d1-131	Linda White	BMW	8/27/2024
15d1-132	John Jones	Fidelis New Energy, LLC	8/27/2024
15d1-133	Brian McDonald	Marathon Petroleum Company	8/27/2024
15d1-134	Michael LaCavera	Vopak Terminal Los Angeles	8/27/2024
15d1-135	Miles Heller	Air Products	8/27/2024
15d1-136	Julia Levin	Bioenergy Association of California	8/27/2024
15d1-137	Dan Willis	San Francisco Public Utilities Commission, San Francisco Municipal Transportation Agency, San Francisco International Airport	8/27/2024
15d1-138	Monte Shaw	Iowa Renewable Fuels Association	8/27/2024
15d1-139	Dallas Gerber	Growth Energy	8/27/2024
15d1-140	Hossein Tabatabaie	Iwatani Corporation of America	8/27/2024
15d1-141	Michael Caprio	Republic Services	8/27/2024
15d1-142	Timothy Johnson	Diesel Direct	8/27/2024
15d1-143 DUPLICATE of 15d1-141	Michael Caprio	Republic Services	8/27/2024
15d1-144	Gene Harrington	Biotechnology Innovation Organization (BIO)	8/27/2024
15d1-145 DUPLICATE of 15d1-102	Katie Muckenhirn	American Coalition for Ethanol (ACE)	8/27/2024
15d1-146	Graham Noyes	Noyes Law Corporation for Infinium	8/27/2024
15d1-147	Chad Frahm	Brightmark	8/27/2024
15d1-148	Katie Smith	Cargill	8/27/2024
15d1-149	Thereza Cevidanes	NATSO, SIGMA	8/27/2024
15d1-150	Dean Taylor	Electric Vehicle Charging Association (EVCA), California Electric Transportation Coalition (CalETC)	8/27/2024
15d1-151	Emily Lemei	Northern California Power Agency (NCPA)	8/27/2024
15d1-152	Zach Woogen	Vehicle-Grid Integration Council (VGIC)	8/27/2024
15d1-153	Joshua Wilson	POET	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-154	Michael McAdams	Advanced Biofuels Association (ABFA)	8/27/2024
15d1-155	Ashimi Patel	Par Pacific Holdings, Inc.	8/27/2024
15d1-156	Mikhael Skvarla	California Council for Environmental and Economic Balance (CCEEB)	8/27/2024
15d1-157	Michael Boccadoro	Dairy Cares	8/27/2024
15d1-158	Michael Maguire	Governor's Office of Planning & Research (OPR)	8/27/2024
15d1-159	Tim Phelps	Indiana Ethanol Producers Association (IEPA)	8/27/2024
15d1-160	Julee Malinowski-Ball	California Biomass Energy Alliance (CBEA)	8/27/2024
15d1-161	John Barrow	Bridge to Renewables (BTR)	8/27/2024
15d1-162	Spencer Reeder	Audi of America	8/27/2024
15d1-163	Krysta Wanner	Western Propane Gas Association (WPGA)	8/27/2024
15d1-164	Pete Budden	Natural Resources Defense Council (NRDC)	8/27/2024
15d1-165	Austin Heyworth	Brazilian Sugarcane and Bioenergy Industry Association (UNICA)	8/27/2024
15d1-166	Emily McNiff	Indiana Soybean Alliance (ISA)	8/27/2024
15d1-167	Sam Wade	Coalition for Renewable Natural Gas	8/27/2024
15d1-168	Kailee Tkacz Buller	National Oilseed Processors Association (NOPA)	8/27/2024
15d1-169	Christine Wolfe	WM	8/27/2024
15d1-170	Scott Kennedy	Alaska Airlines	8/27/2024
15d1-171	Tanya DeRivi	Western States Petroleum Association (WSPA)	8/27/2024
15d1-172	Jeremy Martin	Union of Concerned Scientists (UCS)	8/27/2024
15d1-173	Paul Wilkins	Electric Hydrogen	8/27/2024
15d1-174	Bill Magavern	Coalition for Clean Air, The Greenlining Institute, GRID Alternatives, Center for Biological Diversity, Communities for a Better Environment, Central California Asthma Collaborative, Union of Concerned	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
		Scientists, and Sierra Club California	
15d1-175	Edward Murphy	Sierra Pacific Industries (SPI)	8/27/2024
15d1-176	Stefan Unnasch	Low Carbon Fuels Coalition Biomass Working Group	8/27/2024
15d1-177	Bill Magavern	Coalition for Clean Air (CCA)	8/27/2024
15d1-178	Heather Dziedzic	American Biogas Council (ABC)	8/27/2024
15d1-179	Nicole Looney	Sacramento Municipal Utility District (SMUD)	8/27/2024
15d1-180	Stefan Unnasch	Life Cycle Associates (LCA)	8/27/2024
15d1-181	Bill McBee	North Dakota Soybean Processors (NDSP)	8/27/2024
15d1-182	Julia Litschewski	Electric Vehicle Charging Association (EVCA)	8/27/2024
15d1-183	Andrew Craig	California Bioenergy (CalBio)	8/27/2024
15d1-184	Jacqueline Moore	Pacific Merchant Shipping Association (PMSA)	8/27/2024
15d1-185	Robin Vercruse	Low Carbon Fuels Coalition (LCFC)	8/27/2024
15d1-186	Greg Kester	California Association of Sanitation Agencies (CASA)	8/27/2024
15d1-187	Ashimi Patel	Par Pacific Holdings, Inc.	8/27/2024
15d1-188	Thomas Hobby	Yosemite Clean Energy, LLC (YCE)	8/27/2024
15d1-189	Sean Newsum	Airlines for America (A4A)	8/27/2024
15d1-190	Ashley Arax	Clean Air Task Force (CATF)	8/27/2024
15d1-191	Sean Newsum	Aviation Industry Organizations	8/27/2024
15d1-192	Jane Sadler	Rocky Mountain Institute (RMI)	8/27/2024
15d1-193 DUPLICATE of 15d1-181	Bill McBee	North Dakota Soybean Processors (NDSP)	8/27/2024
15d1-194	Michael Dolch	Ag Processing Inc (AGP)	8/27/2024
15d1-195	Stefan Unnasch	Life Cycle Associates (LCA)	8/27/2024
15d1-196	Marcia Perin	Be8	8/27/2024
15d1-197	Thomas Malecha	Consolidated Grain & Barge (CGB)	8/27/2024
15d1-198	Adam Browning	Joint HD Infrastructure Providers	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-199	Jonathan Hirte	DTE Vantage	8/27/2024
15d1-200	Veronica Pardo	Resource Recovery Coalition of California (RRCC)	8/27/2024
15d1-201	Ellie Cohen	The Climate Center	8/27/2024
15d1-202	Jamie Yates	Pacific Environment	8/27/2024
15d1-203	Evan Neyland	ChargePoint	8/27/2024
15d1-204	Alexis Moch	Prologis	8/27/2024
15d1-205	Bryan Sievers	Roeslein Alternative Energy	8/27/2024
15d1-206	Bryan Sievers	Roeslein Alternative Energy	8/27/2024
15d1-207	Robert Coviello	Bunge	8/27/2024
15d1-208	Katherine Rubin	Los Angeles Department of Water & Power (LADWP)	8/27/2024
15d1-209	Ryan Kenny	Clean Energy	8/27/2024
15d1-210	Craig Moyer	Western Independent Refiners Association (WIRA)	8/27/2024
15d1-211	Tyler Lobdell	Food & Water Watch, Coalition	8/27/2024
15d1-212	Cassandra Farrant	Amp Americas	8/27/2024
15d1-213	Rina Singh	Alternative Fuels & Chemicals Coalition	8/27/2024
15d1-214	Melinda Palmer	Kern Energy	8/27/2024
15d1-215	Emily Carlton	LanzaJet, SAF Coalition	8/27/2024
15d1-216 DUPLICATE of 15d1-203	Evan Neyland	ChargePoint	8/27/2024
15d1-217	Gary Hughes	Biofuelwatch (BFW)	8/27/2024
15d1-218	Joe Jobe	Sustainable Advanced Biofuel Refiners Coalition (SABR)	8/27/2024
15d1-219	Nikita Pavlenko	International Council on Clean Transportation (ICCT)	8/27/2024
15d1-220	Andy Brosnan	Anew Climate, LLC	8/27/2024
15d1-221	Gracya Mohabir	California Environmental Voters (EnviroVoters)	8/27/2024
15d1-222	Sasan Saadat	Earthjustice	8/27/2024
15d1-223	Alchemy Graham	California Transit Association (CTA)	8/27/2024
15d1-224	Fariya Ali	Pacific Gas & Electric (PG&E)	8/27/2024
15d1-225	Patricia Seffens	No Affiliation	8/27/2024
15d1-226	Bradley D. Wilson	Western Iowa Energy, LLC (WIE)	8/27/2024
15d1-227	Ben Brint	SWTCH	8/27/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d1-228	Donna Warndorf	Neste US, Inc.	8/27/2024
15d1-229	Gary Grimes	World Energy	8/27/2024
15d1-230	Joshuah Stolaroff	Mote	8/27/2024
15d1-231	Steve Compton	Sevana Bioenergy	8/27/2024
15d1-232	Ruben Zaragoza	Southwest Airlines	8/27/2024
15d1-233	Tadashi Ogitsu	No Affiliation	8/27/2024
15d1-234	Sean Lock	Monarch Bioenergy LLC	8/27/2024
15d1-235	Greg Staiti	Montana Renewables, LLC	8/27/2024
15d1-236	Scott R. Hedderich	Nuseed	8/27/2024
15d1-237	Kevin Barker and Sarah M. Taheri	Southern California Gas Company (SoCalGas), San Diego Gas & Electric (SDG&E)	8/27/2024
15d1-238	Elizabeth Burns-Thompson	Landus	8/27/2024
15d1-239	Charles Davidson	Sunflower Alliance	8/27/2024
15d1-240	Lauren Gallagher	Communities for a Better Environment (CBE)	8/27/2024
15d1-241	Doug Van Ornum	WTE, LLC	8/27/2024
15d1-242	Noah Verleun	Global Clean Energy	8/27/2024
15d1-243	John A. Thornton	CleanFuture, Inc.	8/27/2024
15d1-244	Janet Coz	Climate Action California (CAC)	8/27/2024
15d1-245	Mikhael Skvarla	California Hydrogen Coalition, California Hydrogen Business Council, Fuel Cell and Hydrogen Energy Association, Green Hydrogen Coalition	8/27/2024
15d1-246	Henry Stern	California Legislators	8/27/2024
15d1-247	Ravi Sekhon	Centerline Logistics	8/27/2024
15d1-248	Philip Sheehy	ICF	8/27/2024
15d1-249	Nicole Rice	California Renewable Transportation Alliance (CRTA)	8/27/2024
15d1-250	Philip Sheehy	ICF	8/27/2024
15d1-251	Colin Murphy	UC Davis	8/27/2024
15d1-252	Brian Casey	US Venture	8/27/2024
15d1-253	Andy Stevenson	Twelve	8/27/2024

Table 4. Written Comments Received During the Second 15-Day Comment Period

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-001	Alessandra Magnasco	California Fuels and Convenience Alliance (CFCA)	10/2/2024
15d2-002	Laura Verduzco	Chevron Corporation	10/10/2024
15d2-003	Kevin O'Neill	No Affiliation	10/11/2024
15d2-004	Jessica Stewart	No Affiliation	10/11/2024
15d2-005	Jerry Jervis	No Affiliation	10/11/2024
15d2-006	Catherine Kinney	No Affiliation	10/11/2024
15d2-007	Tim Quinn	No Affiliation	10/11/2024
15d2-008	Kelly McKeown	No Affiliation	10/11/2024
15d2-009	Janet Saalberg	No Affiliation	10/11/2024
15d2-010	Carrie Berg	No Affiliation	10/11/2024
15d2-011	Megan Douthit	No Affiliation	10/11/2024
15d2-012	Alan Ebright	No Affiliation	10/11/2024
15d2-013	Carver Young	No Affiliation	10/11/2024
15d2-014	Kristine Benson	No Affiliation	10/11/2024
15d2-015	Allyson Ramser	No Affiliation	10/11/2024
15d2-016	Kimberly Ramser	No Affiliation	10/11/2024
15d2-017	Nicholas Prytherch	No Affiliation	10/11/2024
15d2-018	Jeffrey Beardsley	No Affiliation	10/11/2024
15d2-019	Steffani Fisher	No Affiliation	10/11/2024
15d2-020	Katherine Ursini	No Affiliation	10/11/2024
15d2-021	Ryan Gaytan	No Affiliation	10/11/2024
15d2-022	Christine Luiz	No Affiliation	10/11/2024
15d2-023	Lauren Beck	No Affiliation	10/11/2024
15d2-024	Claire Curci	No Affiliation	10/11/2024
15d2-025	Carson Hill	No Affiliation	10/11/2024
15d2-026	Angelique Francis	No Affiliation	10/11/2024
15d2-027	James Leimkuhler	No Affiliation	10/11/2024
15d2-028	Mollie Butcher	No Affiliation	10/11/2024
15d2-029	Jordan Francis	No Affiliation	10/11/2024
15d2-030	Ann Ramser	No Affiliation	10/11/2024
15d2-031	Daniel McGirr	No Affiliation	10/11/2024
15d2-032	Lisa Johnson	No Affiliation	10/11/2024
15d2-033	Suzanne Coulston	No Affiliation	10/11/2024
15d2-034	Tamala Waken	No Affiliation	10/11/2024
15d2-035	Sherry Kendzejeski	No Affiliation	10/11/2024
15d2-036	Lorin McDaniel	No Affiliation	10/11/2024
15d2-037	Cardon Smith	No Affiliation	10/11/2024
15d2-038	Lynn Bender	No Affiliation	10/11/2024
15d2-039	Joseph Byrd	No Affiliation	10/11/2024
15d2-040	Carrie Lee	No Affiliation	10/11/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-041	Niki Good	No Affiliation	10/11/2024
15d2-042	Edris Chambers	No Affiliation	10/11/2024
15d2-043	Mark Foster	No Affiliation	10/11/2024
15d2-044	Diane Hurst	No Affiliation	10/11/2024
15d2-045	Elizabeth Applebaum	No Affiliation	10/11/2024
15d2-046	Kerry McCarthy	No Affiliation	10/11/2024
15d2-047	Chad Rutan	No Affiliation	10/11/2024
15d2-048	Rocco Muratore	No Affiliation	10/11/2024
15d2-049	Laura Morris	No Affiliation	10/11/2024
15d2-050	Lauren Kramer	No Affiliation	10/11/2024
15d2-051	Elise Connor	No Affiliation	10/11/2024
15d2-052	Krizia Liquido	No Affiliation	10/11/2024
15d2-053	Rebecca McGuff	No Affiliation	10/11/2024
15d2-054	Catharine Giles	No Affiliation	10/11/2024
15d2-055	Christa Cole	No Affiliation	10/11/2024
15d2-056	Andrew Belden	No Affiliation	10/11/2024
15d2-057	Michele Wilbert	No Affiliation	10/11/2024
15d2-058	Annette Harper	No Affiliation	10/11/2024
15d2-059	Alison Andrizzi	No Affiliation	10/11/2024
15d2-060	Anita Munson	No Affiliation	10/11/2024
15d2-061	Eric Sentianin	No Affiliation	10/11/2024
15d2-062	Ryan Burgess	No Affiliation	10/11/2024
15d2-063	Chase Rief	No Affiliation	10/11/2024
15d2-064	Tara Warner	No Affiliation	10/11/2024
15d2-065	Joelle Palombo	No Affiliation	10/11/2024
15d2-066	Tara Loew	No Affiliation	10/11/2024
15d2-067	Jodi Harist	No Affiliation	10/11/2024
15d2-068	Tracy Cazares	No Affiliation	10/11/2024
15d2-069	Karen Escobar	No Affiliation	10/11/2024
15d2-070	Brigide Daily	No Affiliation	10/11/2024
15d2-071	Linsey Carbone	No Affiliation	10/11/2024
15d2-072	Brian Schuler	No Affiliation	10/11/2024
15d2-073	Michael Masai	No Affiliation	10/11/2024
15d2-074	Eileen Saul	No Affiliation	10/11/2024
15d2-075	Travis Duffield	No Affiliation	10/11/2024
15d2-076	Gina Gleason	No Affiliation	10/11/2024
15d2-077	Landon Brewer	No Affiliation	10/11/2024
15d2-078	Katherine Asher	No Affiliation	10/11/2024
15d2-079	Lauren Bennett	No Affiliation	10/11/2024
15d2-080	Monique Dixon	No Affiliation	10/11/2024
15d2-081	Shari Sell	No Affiliation	10/11/2024
15d2-082	Carrie Prentice	No Affiliation	10/11/2024
15d2-083	Peter Beldon	No Affiliation	10/11/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-084	Monica Munguia	No Affiliation	10/11/2024
15d2-085	Kellie Wilkie	No Affiliation	10/11/2024
15d2-086	Tressa Coburn	No Affiliation	10/11/2024
15d2-087	Illianna Ramirez	No Affiliation	10/11/2024
15d2-088	Trish Ponder	No Affiliation	10/11/2024
15d2-089	Rich Marotti	No Affiliation	10/11/2024
15d2-090	Tom Morgan	No Affiliation	10/11/2024
15d2-091	Shelby Neal	Darling Ingredients	10/11/2024
15d2-092	Leslye Roman	No Affiliation	10/11/2024
15d2-093	Glenn Halperin	No Affiliation	10/11/2024
15d2-094	Justine Leach	No Affiliation	10/11/2024
15d2-095	Alex Young	No Affiliation	10/11/2024
15d2-096	Lori Ann Haigh	No Affiliation	10/11/2024
15d2-097	Jasce Sanders	No Affiliation	10/11/2024
15d2-098	Roger Webster	No Affiliation	10/11/2024
15d2-099	We ThePeople	No Affiliation	10/11/2024
15d2-100	Lauren Porter	No Affiliation	10/11/2024
15d2-101	Christopher Amaya	No Affiliation	10/11/2024
15d2-102 DUPLICATE of 15d2-101	Christopher Amaya	No Affiliation	10/11/2024
15d2-103	Renee Spigarell	No Affiliation	10/11/2024
15d2-104	Veronica Spencer	No Affiliation	10/11/2024
15d2-105	Joseph Garrett	No Affiliation	10/11/2024
15d2-106	Mary Gordon	No Affiliation	10/11/2024
15d2-107	Chuck Jones	No Affiliation	10/11/2024
15d2-108	Tina Udell	No Affiliation	10/11/2024
15d2-109	Tamara Allee	No Affiliation	10/11/2024
15d2-110	Greg Hanoian	No Affiliation	10/11/2024
15d2-111	Aubrey O'Boyle	No Affiliation	10/11/2024
15d2-112	Penny Harrington	No Affiliation	10/11/2024
15d2-113	Martha Kerstner	No Affiliation	10/11/2024
15d2-114	Bettina Miller	No Affiliation	10/11/2024
15d2-115	Carla Birmingham	No Affiliation	10/11/2024
15d2-116	Cherie Doudna	No Affiliation	10/11/2024
15d2-117	Matthew Kelly	No Affiliation	10/11/2024
15d2-118	Cynda Ontiveros	No Affiliation	10/11/2024
15d2-119	Karla Curiel	No Affiliation	10/11/2024
15d2-120	Mathilda Dickey	No Affiliation	10/11/2024
15d2-121	Rita Tayenaka	No Affiliation	10/11/2024
15d2-122	Wyndy Nichols	No Affiliation	10/11/2024
15d2-123	David Fults	No Affiliation	10/11/2024
15d2-124	Todd Swanson	No Affiliation	10/11/2024
15d2-125	Kerry Wigginton	No Affiliation	10/11/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-126	Charity Sy	No Affiliation	10/11/2024
15d2-127	Michael Kupferstein	No Affiliation	10/11/2024
15d2-128	Pino Bogedahl	No Affiliation	10/11/2024
15d2-129	Jacob Bogedahl	No Affiliation	10/11/2024
15d2-130	Kellie Pauley	No Affiliation	10/11/2024
15d2-131	Rebecca Rodriguez	No Affiliation	10/11/2024
15d2-132	Tate Aslanjan	No Affiliation	10/11/2024
15d2-133	Erica Villa	No Affiliation	10/11/2024
15d2-134	Tanya Spangler	No Affiliation	10/11/2024
15d2-135	Kalop Harvey	No Affiliation	10/11/2024
15d2-136	Johana Delgado	No Affiliation	10/11/2024
15d2-137	Annie Clougherty	No Affiliation	10/11/2024
15d2-138	Debra Cummings	No Affiliation	10/11/2024
15d2-139	Venessa Meza	No Affiliation	10/11/2024
15d2-140	Philipp Lomboy	No Affiliation	10/12/2024
15d2-141	Lara Lei Bailey	No Affiliation	10/12/2024
15d2-142	Mari Valluzzi	No Affiliation	10/12/2024
15d2-143	Jessica Hekman	No Affiliation	10/12/2024
15d2-144	Jeremy Maltson	No Affiliation	10/12/2024
15d2-145	Gina Martin	No Affiliation	10/12/2024
15d2-146	Joseph Villanueva	No Affiliation	10/12/2024
15d2-147	Jessica McMann	No Affiliation	10/12/2024
15d2-148	Wendy Diaz Delgado	No Affiliation	10/12/2024
15d2-149	Ann Woods	No Affiliation	10/12/2024
15d2-150	Randy Woods	No Affiliation	10/12/2024
15d2-151	Catherine Salaiz	No Affiliation	10/12/2024
15d2-152	Alison Riley	No Affiliation	10/12/2024
15d2-153	Wes Morgan	No Affiliation	10/12/2024
15d2-154	Lynne Morgan	No Affiliation	10/12/2024
15d2-155	Allison B	No Affiliation	10/12/2024
15d2-156	Aracely Covarrubias	No Affiliation	10/12/2024
15d2-157	Helena Parker	No Affiliation	10/12/2024
15d2-158	Rebecca Oriol	No Affiliation	10/12/2024
15d2-159	Jessica Godde	No Affiliation	10/12/2024
15d2-160	Jullie Morgan	No Affiliation	10/12/2024
15d2-161	Kerry Johnson	No Affiliation	10/12/2024
15d2-162	Chris Brimhall	No Affiliation	10/12/2024
15d2-163	Daniel Gewickey	No Affiliation	10/12/2024
15d2-164	Jacquelyn Landreth	No Affiliation	10/12/2024
15d2-165	Doug Padgett	No Affiliation	10/12/2024
15d2-166	Asher Goldman	Generate Capital	10/16/2024
15d2-167	Brian McDonald	Marathon Petroleum Company	10/16/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-168	Jeremy Martin	Union of Concerned Scientists (UCS)	10/16/2024
15d2-169	Orran Balagopalan	Leadership Counsel for Justice and Leadership	10/16/2024
15d2-170	Kent Leacock	Mainspring Energy, Inc.	10/16/2024
15d2-171	Rana Sarkar	Government of Canada	10/16/2024
15d2-172	Cassandra Farrant	Amp Americas	10/16/2024
15d2-173	Nina Robertson	Earthjustice, Communities for a Better Environment, Asian Pacific Environmental Network, Center for Biological Diversity	10/16/2024
15d2-174	Francis "Terry" Molloy	No Affiliation	10/11/2024
15d2-175	James Collins	No Affiliation	10/11/2024
15d2-176	Ron May	No Affiliation	10/11/2024
15d2-177	Bill Hayden	No Affiliation	10/11/2024
15d2-178	John Haywood	No Affiliation	10/12/2024
15d2-179	Wes Morgan	No Affiliation	10/12/2024
15d2-180	Lynne Morgan	No Affiliation	10/12/2024
15d2-181	Graham Noyes	Noyes Law Corporation for CleanFuture	10/16/2024
15d2-182	Jim Duffy	No Affiliation	10/18/2024
15d2-183	Jim Duffy	No Affiliation	10/16/2024
15d2-184	Kaleb Little	Kansas Soybean Association (KSA)	10/18/2024
15d2-185	Helen Kemp	3Degrees	10/18/2024
15d2-186	Amanda Myers	WeaveGrid	11/18/2024
15d2-187	JT Steenkamp	Prologis	10/18/2024
15d2-188	Steve Compton	Sevana Bioenergy	10/18/2024
15d2-189	Paul Hernandez	No Affiliation	10/18/2024
15d2-190	Paul Rozenberg	Suburban Propane	10/18/2024
15d2-191	Morgan Caswell	San Pedro Bay Ports	10/18/2024
15d2-192	Cory-Ann Wind	Clean Fuels America, California Advanced Biofuels Alliance	11/18/2024
15d2-193	Dean Taylor	Electric Vehicle Charging Association (EVCA), California Electric Transportation Coalition (CaETC)	10/18/2024
15d2-194	Sandra Franco	Sustainable Advanced Biofuel Refiners Coalition	10/18/2024
15d2-195	Tanya DeRivi	Western States Petroleum Association (WSPA)	10/18/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-196	Bobbie Cane	California Hydrogen Car Owners Association (CHCOA)	10/18/2024
15d2-197	Matt Herman	Iowa Soybean Association (ISA)	10/18/2024
15d2-198	Melanie Law	The National Corn Growers Association (NCGA)	10/18/2024
15d2-199	John Thornton	CleanFuture	10/18/2024
15d2-200	Matthew Rekoweg	Corteva Agriscience	10/18/2024
15d2-201	Jared Gilmour	Bunge	10/18/2024
15d2-202	Alex Banbury	Promus Energy	10/18/2024
15d2-203	Hossein Tabatabaie	Iwatani Corporation America	10/18/2024
15d2-204	Ali Reed	General Motors (GM)	10/18/2024
15d2-205	Mary Elizabeth	No Affiliation	10/18/2024
15d2-206	Miles Heller	Air Products	10/18/2024
15d2-207	Don Gilstrap	Chevron	10/18/2024
15d2-208	Dawn Howe	Arkansas Soybean Association (ASA)	10/18/2024
15d2-209	Danielle Anderson	Christianson PLLP	10/18/2024
15d2-210	Amanda Cooley	Dairy Cares, Agricultural Council of California	10/18/2024
15d2-211	Breana Spinler	EcoEngineers	10/18/2024
15d2-212	Martina Simpkins	Anew Climate, LLC	10/18/2024
15d2-213	Declan Maddern	Yosemite Clean Energy (YCE)	10/18/2024
15d2-214	Jerry Schmitz	South Dakota Soybean Association (SDSA)	10/18/2024
15d2-215	Andrew Craig	California Bioenergy (CalBio)	10/18/2024
15d2-216	Patrick Couch	California Trucking Association, California Transit Association, Pacific Merchant Shipping Association	10/18/2024
15d2-217	Jamie Hall	Forum Mobility, EV Realty, Gage Zero, Terawatt Infrastructure, Prologis, Voltera Power, Zeem Solutions	10/18/2024
15d2-218	Greg Reading	Electrify America	10/18/2024
15d2-219	Greg Staiti	Montana Renewables (MRL)	10/18/2024
15d2-220	Alfredo Arredondo	Green Hydrogen Coalition	10/18/2024
15d2-221	Fariya Ali	Pacific Gas and Electric Company (PG&E)	10/18/2024
15d2-222	Michael Skvarla	California Hydrogen Coalition and California	10/18/2024

Commenter Code	Submitter	Affiliation	Submittal Date
		Hydrogen Business Council	
15d2-223	Kaia Robinson	Los Angeles Cleantech Incubator (LACI)	10/18/2024
15d2-224	Jonathan Hirte	DTE Vantage	10/18/2024
15d2-225	Tom Van Heeke	Rivian	10/18/2024
15d2-226	Nancy Young	Gevo	10/18/2024
15d2-227	Matt Miyasato	FirstElement Fuel (FEF)	10/18/2024
15d2-228	Jonathan Snoeberger	Louis Dreyfus Company (LDC)	10/18/2024
15d2-229	Roland Walker	No Affiliation	10/18/2024
15d2-230	Robert Seddon	No Affiliation	10/18/2024
15d2-231	Natalie Jung	No Affiliation	10/18/2024
15d2-232	Richard Zalewski	No Affiliation	10/18/2024
15d2-233	Larry Workman	No Affiliation	10/18/2024
15d2-234	Dan Bowerson	Alliance for Automotive Innovation (Auto Innovators)	10/18/2024
15d2-235	Takashi Ogi	Japan Hydrogen Forum (JH2F)	10/18/2024
15d2-236	Sara Herman	Cargill	10/18/2024
15d2-237	Jane O'Malley	International Council on Clean Transportation (ICCT)	10/18/2024
15d2-238	Robert Cleeland	No Affiliation	10/18/2024
15d2-239	Lori Luebbe	Nebraska Soybean Association (NSA)	10/18/2024
15d2-240	Ben Travlos	Missouri Soybean Association (MSA)	10/18/2024
15d2-241	Chris Vervaeet	Canola Council of Canada (CCC), Canadian Oilseed Processors Association (COPA), Canadian Canola Growers Association (CCGA)	10/18/2024
15d2-242	Brian Pellens	Carbon TerraVault	10/18/2024
15d2-243	Alexa Combelic	American Soybean Association (ASA)	10/18/2024
15d2-244	Dallas Gerber	Growth Energy	10/18/2024
15d2-245	Kirk Olsen	No Affiliation	10/18/2024
15d2-246	Randy Michetti	No Affiliation	10/18/2024
15d2-247	Herman Galicia	No Affiliation	10/18/2024
15d2-248	Anita Fields	No Affiliation	10/18/2024
15d2-249	Bethany Ballard	No Affiliation	10/18/2024
15d2-250	Doug Padgett	No Affiliation	10/18/2024
15d2-251	Leigh Raley	No Affiliation	10/18/2024
15d2-252	Greg Varra	No Affiliation	10/18/2024
15d2-253	Joshua P. Wilson	POET	10/18/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-254	Neil Koehler	Renewable Fuels Association (RFA)	10/18/2024
15d2-255	Becky Kinder	Kentucky Soybean Association (KSA)	10/18/2024
15d2-256	Caelin MacIntosh	American Biogas Council (ABC)	10/18/2024
15d2-257	Thereza Cevitanes	NATSO and SIGMA	10/18/2024
15d2-258	Kailee Tkacz Buller	National Oilseed Processors Association (NOPA)	10/18/2024
15d2-259	Jake Hamlin	CHS Inc.	10/18/2024
15d2-260	Mark Stoermann	Newtrient	10/18/2024
15d2-261	Aaron Lavee	Vespene Energy	10/18/2024
15d2-262	Will Collier	Bunge	10/18/2024
15d2-263	Bob Hambrecht	Allotrope Cellulosic Development Company (ACDC)	10/18/2024
15d2-264	Dean Taylor	California Electric Transportation Coalition (CalETC)	10/21/2024
15d2-265	Emily Lemei	Northern California Power Agency (NCPA)	10/24/2024
15d2-266	Ryan Kenny	Clean Energy	10/24/2024
15d2-267	Tony Brunello	U.S. Venture	10/24/2024
15d2-268	Steve Howell	Indiana Soybean Alliance (ISA)	10/24/2024
15d2-269	Sam Wade	Coalition for Renewable Natural Gas	10/24/2024
15d2-270	Alexis Moch	Coalition	10/24/2024
15d2-271	Benjamin Kling	Beta Analytic Testing Laboratory	10/24/2024
15d2-272	Matt Bright	DAC Companies	10/24/2024
15d2-273	Sarah Taheri	San Diego Gas & Electric (SDG&E)	10/24/2024
15d2-274	Steve Bond	Crimson Renewable Energy	10/24/2024
15d2-275	William Barrett	Health Organizations	10/24/2024
15d2-276	Nicole Looney	Sacramento Municipal Utility District (SMUD)	10/24/2024
15d2-277	Sean Newsum	Airlines for America (A4A)	10/24/2024
15d2-278	Cristin Reno	Oberon Fuels	10/24/2024
15d2-279	Jessilyn-Elise Davis	Southern California Gas Company (SoCalGas)	10/24/2024
15d2-280	Sarah Somorai	Hyundai	10/24/2024
15d2-281	Daniel Chandler	Climate Action California, 350 Humboldt, 350 Sacramento	10/24/2024
15d2-282	Shannon Broome	Highly Innovative Fuels USA (HIF)	10/24/2024

Commenter Code	Submitter	Affiliation	Submittal Date
15d2-283	Shannon Broome	Low CI Methanol Coalition	10/24/2024
15d2-284	Steven Berry	Yale	10/24/2024
15d2-285	Ben Steyer	Michigan Soybean Association	10/24/2024
15d2-286	Joe Jobe	Sustainable Advanced Biofuel Refiners (SABR)	10/24/2024
15d2-287	Colin Murphy	UC Davis	10/24/2024
15d2-288	Becca Teigen	SRECTrade	10/24/2024
15d2-289	Sara Olsen	Environmental Defense Fund (EDF)	10/24/2024
15d2-290	Chad Frahm	Brightmark	10/24/2024
15d2-291	Steve Fenaroli	California Farm Bureau	10/24/2024
15d2-292	Gracyna Mohabir	California Environmental Voters (EnviroVoters)	10/24/2024
15d2-293	Nancy Johnson	North Dakota Soybean Growers Association (NDSGA)	10/24/2024
15d2-294	Julia Levin	Bioenergy Association of California (BAC)	10/24/2024
15d2-295	Steve Burns	Acelen Renewables	10/24/2024
15d2-296	Melinda Palmer	Kern Energy	10/24/2024
15d2-297	Michael Harrison	Valero Renewable Fuels Company	10/24/2024
15d2-298	Fred Ghatala	Advanced Biofuels Canada (ABC)	10/24/2024
15d2-299	Ravi Sekhon	Centerline Logistics	10/27/2024
15d2-300	Oscar Garcia	Neste	10/27/2024
15d2-301	Tyler Lobdell	Leadership Counsel for Justice & Accountability and "Commenters"	10/27/2024
15d2-302	Amy Malaki	SkyNRG	10/27/2024
15d2-303	Katie Saliccioli	Ford	10/27/2024
15d2-304	Krysta Wanner	Western Propane Gas Association (WPGA)	10/29/2024
15d2-305	Zach Woogen	Vehicle-Grid Integration Council (VGIC)	10/29/2024
15d2-306	Bob Hart	Citizen	10/19/2024
15d2-307	Maria Pica	ADM	10/16/2024

Table 5. Written Comments Received During the Board Hearing

Commenter Code	Submitter	Affiliation	Submittal Date
BH-001	Andrew Dunlop	No Affiliation	11/7/2024
BH-002	Chelsey Robinson	Bayer	11/7/2024
BH-003	Heather Spring	The Pasha Group	11/7/2024

Commenter Code	Submitter	Affiliation	Submittal Date
BH-004	Robin Vercruse	Low Carbon Fuels Coalition	11/7/2024
BH-005	Susan S	No Affiliation	11/7/2024
BH-006 DUPLICATE of BH-005	Susan S	No Affiliation	11/7/2024
BH-007 DUPLICATE of BH-005	Susan S	No Affiliation	11/7/2024
BH-008	Eli Komai	No Affiliation	11/7/2024
BH-009	Laura Souza	No Affiliation	11/8/2024
BH-010	Roxana Bekemohammadi	United States Hydrogen Alliance (USHA)	11/8/2024
BH-011	Sharon Cooney	San Diego Metropolitan Transit System (MTS)	11/8/2024
BH-012	Will Drier	Electrification Coalition	11/8/2024
BH-013	Adam Browning	MHD FCI Coalition	11/8/2024
BH-014	Bang Phung	Los Angeles Department of Water & Power (LADWP)	11/8/2024
BH-015	James Duffy	Former LCFS Branch Chief	11/8/2024
BH-016	Kurtis Downs	No Affiliation	11/8/2024
BH-017	James Duffy	Former LCFS Branch Chief	11/8/2024
BH-018	Frank Harris	California Municipal Utilities Association (CMUA)	11/8/2024
BH-019	Daniel Gaston	No Affiliation	11/8/2024
BH-020	Capri Maybrun	No Affiliation	11/8/2024
BH-021	Ryan Hinds	No Affiliation	11/8/2024
BH-022	Harry Maybrun	No Affiliation	11/8/2024
BH-023	Jeremy Martin	Union of Concerned Scientists (UCS)	11/8/2024
BH-024	Dan Kramer	No Affiliation	11/8/2024
BH-025	Jeremy Martin	Union of Concerned Scientists (UCS)	11/8/2024
BH-026	Erica Smith	SYASL Partners for Kern County Board of Supervisors	11/8/2024
BH-027 DUPLICATE of BH-026	Erica Smith	SYASL Partners for Kern County Board of Supervisors	11/8/2024
BH-028	Lauren Gallagher	Communities for a Better Environment (CBE)	11/8/2024
BH-029 DUPLICATE of BH-026	Erica Smith	SYASL Partners for Kern County Board of Supervisors	11/8/2024
BH-030	Lauren Gallagher	Communities for a Better Environment (CBE)	11/8/2024

Commenter Code	Submitter	Affiliation	Submittal Date
BH-031	Daniel Gage	The Transport Project	11/8/2024
BH-032	George Halgedahl	No Affiliation	11/8/2024
BH-033	Dean Taylor	California Electric Transportation Coalition (CalETC)	11/8/2024
BH-034	Esther Portillo	Natural Resources Defense Council (NRDC)	11/8/2024
BH-035	Robert Spiegel	California Manufacturers & Technology Association (CMTA)	11/8/2024
BH-036	Tyler Lobdell	Food & Water Watch	11/8/2024
BH-037	John Jones	Fidelis New Energy	11/8/2024
BH-038	Nina Robertson	Earthjustice	11/8/2024
BH-039	Douglas McLendon	No Affiliation	11/8/2024
BH-040	Daniel Lashof	World Resources Institute (WRI)	11/8/2024
BH-041	Devon Ryan	Caltrain	11/8/2024
BH-042	James Senter	No Affiliation	11/8/2024
BH-043	Kevin Young	No Affiliation	11/8/2024
BH-044	Bob Chan	No Affiliation	11/8/2024
BH-045	Felipe Amaya	No Affiliation	11/8/2024
BH-046	Oscar Garcia	No Affiliation	11/8/2024
BH-047	Jim Stewart	No Affiliation	11/8/2024
BH-048	Igor Tregub	No Affiliation	11/8/2024
BH-049	Mary Elizabeth	No Affiliation	11/8/2024
BH-050	Cynthia Phakos	No Affiliation	11/8/2024
BH-051	Pam McKown	Climate Action California (CAC)	11/8/2024
BH-052	Cynthia Cannady	Cannady Law Office	11/8/2024
BH-053	Tim Taylor	National Federation of Independent Business (NFIB)	11/8/2024
BH-054	Tom Van Heeke	Rivian	11/8/2024
BH-055	James Millington	No Affiliation	11/8/2024
BH-056	Ken Lange	No Affiliation	11/8/2024
BH-057	Andrea Mitchel	No Affiliation	11/8/2024
BH-058	Stephen Rosenblum	Climate Action California (CAC)	11/8/2024
BH-059	Graham Noyes	Raizen	11/8/2024
BH-060	Kathy Dervin	Protect Monterey Bay, 350 Bay Area Action	11/8/2024
BH-061	Mark Dickson	No Affiliation	11/8/2024
BH-062	Tim McHargue	California Hydrogen Car Owners Association (CHCOA)	11/8/2024
BH-063	Brandon Friend	Vopak	11/8/2024

Commenter Code	Submitter	Affiliation	Submittal Date
BH-064	Ingrid Malmgren	Plug In America	11/8/2024
BH-065	Orran Balagopalan	Shute, Mihaly & Weinberger LLP for Leadership Counsel	11/8/2024
BH-066	Ningning Guo	No Affiliation	11/8/2024
BH-067	Wayne Trull	No Affiliation	11/8/2024
BH-068	John Ellingwood	No Affiliation	11/8/2024
BH-069	Anil Mehta	No Affiliation	11/8/2024
BH-070	Ravi Sekhon	Centerline Logistics	11/8/2024
BH-071	Marc B	No Affiliation	11/8/2024
BH-072	Mike McCarthy	R-NOW	11/8/2024
BH-073	Eulalia Halloran	No Affiliation	11/8/2024
BH-074	Kyle Heiskala	Environmental Health Coalition	11/8/2024
BH-075	Thomas Cretney	No Affiliation	11/7/2024
BH-076	Jose Chavez	No Affiliation	11/8/2024
BH-077	Renee Nghiem	No Affiliation	11/8/2024
BH-078	Stefan Unnasch	Life Cycle Associates (LCA)	11/8/2024
BH-079	California State Senate Republicans & Concerned Citizens	Senate Republican Caucus	11/8/2024
BH-080	Ray Joseph	No Affiliation	11/8/2024
BH-081	Keith Malone	No Affiliation	11/8/2024
BH-082	Jennifer P	No Affiliation	11/8/2024
BH-083	Larry Navin	Methanol Institute	11/8/2024
BH-084	Scott Rothdeutsch	SAR GRN NRG	11/8/2024
BH-085	Rajni Sheth	No Affiliation	11/8/2024
BH-086	Shay Mccoy	No Affiliation	11/8/2024
BH-087	Donna Waddell	No Affiliation	11/8/2024
BH-088	Andy Vesey	Fortescue North America	11/8/2024
BH-089	Darrell Johnson	No Affiliation	11/8/2024
BH-090	Pete Montgomery	Kern Energy	11/8/2024
BH-091	Anthony Christlieb	No Affiliation	11/8/2024
BH-092	Daniel Mouradian	No Affiliation	11/8/2024
BH-093	James Duffy	No Affiliation	11/8/2024
BH-094	Robert Driver	No Affiliation	11/8/2024
BH-095	James Ottem	No Affiliation	11/8/2024
BH-096	Brenda Taylor	No Affiliation	11/8/2024
BH-097	Rebecca Franke	No Affiliation	11/8/2024
BH-098	Steve Feazel	No Affiliation	11/8/2024
BH-099	Mario Del Angel	No Affiliation	11/8/2024
BH-100	Gregory Cane	No Affiliation	11/8/2024
BH-101	Daniel Gaston	No Affiliation	11/8/2024

Commenter Code	Submitter	Affiliation	Submittal Date
BH-102	Vicki Nelson	No Affiliation	11/8/2024

Table 6. Oral Comment Presented at the Board Hearing

Comment Code	Submitter	Affiliation	Submittal Date
BHT-1	Erick Orellana	Community Water Center	11/8/2024
BHT-1a	Erick Orellana	Community Water Center	11/8/2024
BHT-2	Sam Wade	Coalition for Renewable Natural Gas	11/8/2024
BHT-3	Michael Boccadoro	Dairy Cares	11/8/2024
BHT-3a	Michael Boccadoro	Dairy Cares	11/8/2024
BHT-4	Ambar Gomez	UCR	11/8/2024
BHT-5	Ambar Gomez	UCR	11/8/2024
BHT-6	Alberto Leon	No Affiliation	11/8/2024
BHT-7	Will Barrett	American Lung Association (ALA)	11/8/2024
BHT-8	Will Barrett	American Lung Association (ALA)	11/8/2024
BHT-9	Will Barrett	American Lung Association (ALA)	11/8/2024
BHT-10	Will Barrett	American Lung Association (ALA)	11/8/2024
BHT-11	Will Barrett	American Lung Association (ALA)	11/8/2024
BHT-12	Will Barrett	American Lung Association (ALA)	11/8/2024
BHT-13	Aldondra Mateo	People's Collective for Environmental Justice	11/8/2024
BHT-14	Aldondra Mateo	People's Collective for Environmental Justice	11/8/2024
BHT-15	Aldondra Mateo	People's Collective for Environmental Justice	11/8/2024
BHT-16	Jose Avalos	San Bernardino community and Collaborative for Environmental for Environmental Justice	11/8/2024
BHT-17	Marquez Duarte	People's Collective for Environmental Justice	11/8/2024
BHT-18	Marquez Duarte	People's Collective for Environmental Justice	11/8/2024
BHT-19	Benjamin Juna	No Affiliation	11/8/2024
BHT-20	Andrea Vidaurre	People's Collective for Environmental Justice	11/8/2024
BHT-21	Macarmen Gonzalez	People's Collective for Environmental Justice	11/8/2024
BHT-22	Jamie Katz	No Affiliation	11/8/2024
BHT-22a	Jamie Katz	No Affiliation	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-23	Kasey Knoell	California Bioenergy (CalBio)	11/8/2024
BHT-23a	Kasey Knoell	California Bioenergy (CalBio)	11/8/2024
BHT-24	Ada Trujullo	San Bernardino resident	11/8/2024
BHT-25	Andrew Craig	California Bioenergy (CalBio)	11/8/2024
BHT-25a	Andrew Craig	California Bioenergy (CalBio)	11/8/2024
BHT-26	Maria Arevalo	Pixley resident	11/8/2024
BHT-27	Don Gilstrap	Chevron	11/8/2024
BHT-28	Don Gilstrap	Chevron	11/8/2024
BHT-29	Grecia Orozco	Center on Race, Poverty, and the Environment	11/8/2024
BHT-30	Grecia Orozco	Center on Race, Poverty, and the Environment	11/8/2024
BHT-31	Grecia Orozco	Center on Race, Poverty, and the Environment	11/8/2024
BHT-32	Grecia Orozco	Center on Race, Poverty, and the Environment	11/8/2024
BHT-33	Grecia Orozco	Center on Race, Poverty, and the Environment	11/8/2024
BHT-33a	Grecia Orozco	Center on Race, Poverty, and the Environment	11/8/2024
BHT-34	Cynthia Pinto-Cabrera	Central Valley Quality Coalition	11/8/2024
BHT-35	Cynthia Pinto-Cabrera	Central Valley Quality Coalition	11/8/2024
BHT-36	Cynthia Pinto-Cabrera	Central Valley Quality Coalition	11/8/2024
BHT-37	Cynthia Pinto-Cabrera	Central Valley Quality Coalition	11/8/2024
BHT-38	David Rodriguez	No Affiliation	11/8/2024
BHT-39	Christina Velazquez	No Affiliation	11/8/2024
BHT-40	Beverly Whitfield	No Affiliation	11/8/2024
BHT-41	Patricia Ramos Anderson	No Affiliation	11/8/2024
BHT-42	Erick Karlen	Pacific Gas and Electric Company (PG&E)	11/8/2024
BHT-43	Jamie Hall	EV Realty	11/8/2024
BHT-44	Michael Caprio	Republic Services	11/8/2024
BHT-45	Adam Browning	Forum Mobility	11/8/2024
BHT-46	Adam Browning	Forum Mobility	11/8/2024
BHT-47	Margaret Boelter	Zeem Solutions	11/8/2024
BHT-48	Matt Miyasato	First Element Fuel	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-49	Matt Miyasato	First Element Fuel	11/8/2024
BHT-50	Gordon Russell	Louis Dreyfus Company	11/8/2024
BHT-51	Armando Munoz	Member of SEIU	11/8/2024
BHT-52	Allison Willis	AGP	11/8/2024
BHT-53	Allison Willis	AGP	11/8/2024
BHT-54	Allison Willis	AGP	11/8/2024
BHT-55	Munni Krishna	Gage Zero	11/8/2024
BHT-56	Jovan Houston	SEIU	11/8/2024
BHT-57	Jonathan Harding	American Biogas Council (ABC)	11/8/2024
BHT-58	Jonathan Harding	American Biogas Council (ABC)	11/8/2024
BHT-59	Jonathan Harding	American Biogas Council (ABC)	11/8/2024
BHT-59a	Jonathan Harding	American Biogas Council (ABC)	11/8/2024
BHT-60	Asher Goldman	Generate Capital	11/8/2024
BHT-61	Asher Goldman	Generate Capital	11/8/2024
BHT-62	Jodie Muller	Western States Petroleum Association (WSPA)	11/8/2024
BHT-63	Jodie Muller	Western States Petroleum Association (WSPA)	11/8/2024
BHT-64	Jodie Muller	Western States Petroleum Association (WSPA)	11/8/2024
BHT-65	Jodie Muller	Western States Petroleum Association (WSPA)	11/8/2024
BHT-66	Jodie Muller	Western States Petroleum Association (WSPA)	11/8/2024
BHT-67	Shannon Broome	Highly Innovative Fuels (HIF)	11/8/2024
BHT-68	Shannon Broome	Highly Innovative Fuels (HIF)	11/8/2024
BHT-69	Roman Partida-Lopez	Greenlining Institute	11/8/2024
BHT-70	Peter Zonneveld	Neste U.S.	11/8/2024
BHT-71	Peter Zonneveld	Neste U.S.	11/8/2024
BHT-72	Jeremy Martin	Union of Concerned Scientists (UCS)	11/8/2024
BHT-73	Jeremy Martin	Union of Concerned Scientists (UCS)	11/8/2024
BHT-74	Gracyna Mohabir	California Environmental Voters (EnviroVoters)	11/8/2024
BHT-75	Kathy Pelayo	Resident of San Bernardino	11/8/2024
BHT-76	Lucia Aguilar	San Bernardino resident	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-77	Graham Noyes	Noyes Law Corporation	11/8/2024
BHT-78	Graham Noyes	Noyes Law Corporation	11/8/2024
BHT-79	Jim VandePutte	Raizen	11/8/2024
BHT-80	Jim VandePutte	Raizen	11/8/2024
BHT-81	Jim VandePutte	Raizen	11/8/2024
BHT-82	Jim VandePutte	Raizen	11/8/2024
BHT-83	Carlos Gutierrez	California Advanced Biofuels Alliance (CABA)	11/8/2024
BHT-84	Carlos Gutierrez	California Advanced Biofuels Alliance (CABA)	11/8/2024
BHT-85	Mikhael Skvarla	California Hydrogen Coalition	11/8/2024
BHT-86	Mikhael Skvarla	California Hydrogen Coalition	11/8/2024
BHT-87	John Wenger	National Oilseed Processors Association (NOPA)	11/8/2024
BHT-88	John Wenger	National Oilseed Processors Association (NOPA)	11/8/2024
BHT-89	Chad Frahm	Brightmark	11/8/2024
BHT-90	Chad Frahm	Brightmark	11/8/2024
BHT-91	Lauren Gallagher	Communities for a Better Environment (CBE)	11/8/2024
BHT-92	Lauren Gallagher	Communities for a Better Environment (CBE)	11/8/2024
BHT-92a	Lauren Gallagher	Communities for a Better Environment (CBE)	11/8/2024
BHT-93	Sarah Taheri	San Diego Gas and Electric Company (SDG&E) and Southern California Gas Company (SoCalGas)	11/8/2024
BHT-94	Miles Heller	Air Products	11/8/2024
BHT-95	Miles Heller	Air Products	11/8/2024
BHT-96	Nicole Rice	California Renewable Transportation Alliance (CRTA)	11/8/2024
BHT-97	Steve Compton	Sevana Bioenergy	11/8/2024
BHT-98	Quentin Foster	H Cycle	11/8/2024
BHT-99	Quentin Foster	H Cycle	11/8/2024
BHT-100	Alfredo Arredondo	Green Hydrogen Coalition	11/8/2024
BHT-101	Alfredo Arredondo	Green Hydrogen Coalition	11/8/2024
BHT-102	Gary Hughes	Biofuelwatch	11/8/2024
BHT-103	Gary Hughes	Biofuelwatch	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-104	Gary Hughes	Biofuelwatch	11/8/2024
BHT-104a	Gary Hughes	Biofuelwatch	11/8/2024
BHT-105	Steve Leshner	Shell U.S.A.	11/8/2024
BHT-106	Todd Campbell	Clean Energy	11/8/2024
BHT-107	Melodee Black	Southern California Edison (SCE)	11/8/2024
BHT-108	Laura Renger	California Electric Transportation Coalition (CalETC)	11/8/2024
BHT-109	Mary Solecki	World Energy	11/8/2024
BHT-110	Melanie Law	National Corn Growers Association (NCGA)	11/8/2024
BHT-111	Melanie Law	National Corn Growers Association (NCGA)	11/8/2024
BHT-112	Melanie Law	National Corn Growers Association (NCGA)	11/8/2024
BHT-113	Yasmin Ochoa	California Bioenergy (CalBio)	11/8/2024
BHT-114	Bobby Thomas	Rodeo Renewable Energy Complex	11/8/2024
BHT-115	Joe Jawad	United Steel Workers	11/8/2024
BHT-116	Robin Vercruse	Low Carbon Fuels Coalition	11/8/2024
BHT-117	Robin Vercruse	Low Carbon Fuels Coalition	11/8/2024
BHT-118	Robert Parkhurst	Sierra View Solutions	11/8/2024
BHT-119	Robert Parkhurst	Sierra View Solutions	11/8/2024
BHT-120	Robert Parkhurst	Sierra View Solutions	11/8/2024
BHT-121	Noah Garcia	EVgo	11/8/2024
BHT-122	Elisia Hoffman	Electrify America	11/8/2024
BHT-123	Elisia Hoffman	Electrify America	11/8/2024
BHT-124	James Kast	Iwatani	11/8/2024
BHT-125	Brandon Wong	Electric Vehicle Charging Association (EVCA)	11/8/2024
BHT-126	Sean Newsum	Airlines for America (A4A)	11/8/2024
BHT-127	Bill Magavern	Coalition for Clean Air (CCA)	11/8/2024
BHT-128	Bill Magavern	Coalition for Clean Air (CCA)	11/8/2024
BHT-129	Bill Magavern	Coalition for Clean Air (CCA)	11/8/2024
BHT-130	Bill Magavern	Coalition for Clean Air (CCA)	11/8/2024
BHT-131	Jacqueline Moore	Pacific Merchant Shipping Association (PMSA)	11/8/2024
BHT-132	Jacqueline Moore	Pacific Merchant Shipping Association (PMSA)	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-133	Jacqueline Moore	Pacific Merchant Shipping Association (PMSA)	11/8/2024
BHT-134	Jackie Birdsall	Toyota Motor North America	11/8/2024
BHT-135	Jackie Birdsall	Toyota Motor North America	11/8/2024
BHT-136	Jackie Birdsall	Toyota Motor North America	11/8/2024
BHT-137	Jackie Birdsall	Toyota Motor North America	11/8/2024
BHT-138	Jackie Birdsall	Toyota Motor North America	11/8/2024
BHT-139	Ryan Kenny	Clean Energy	11/8/2024
BHT-140	Nina Robertson	Earthjustice	11/8/2024
BHT-141	Nina Robertson	Earthjustice	11/8/2024
BHT-142	Nina Robertson	Earthjustice	11/8/2024
BHT-143	Matt Vespa	Earthjustice	11/8/2024
BHT-143a	Matt Vespa	Earthjustice	11/8/2024
BHT-144	Elizabeth Szulc	CALSTART	11/8/2024
BHT-145	Amanda DeRosier	Global Clean Energy	11/8/2024
BHT-146	David J. Marrett	No Affiliation	11/8/2024
BHT-147	Jennifer Cardenas	Sierra Club	11/8/2024
BHT-148	Assemblyman Tom Lackey	34th Assembly District	11/8/2024
BHT-149	Whitney Amaya	East Yard Communities community member	11/8/2024
BHT-150	Abigail Odoul	No Affiliation	11/8/2024
BHT-151	Yassi Kavezade	Sierra Club National	11/8/2024
BHT-152	Fernando Gaytan	Earthjustice	11/8/2024
BHT-153	Fernando Gaytan	Earthjustice	11/8/2024
BHT-154	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024
BHT-155	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024
BHT-156	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024
BHT-156a	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024
BHT-157	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024
BHT-158	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024
BHT-159	Esther Portillo	Natural Resource Defense Council (NRDC)	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-160	Maya Inigo-Anderson	Communities for a Better Environment (CBE)	11/8/2024
BHT-161	Maya Inigo-Anderson	Communities for a Better Environment (CBE)	11/8/2024
BHT-162	Maya Inigo-Anderson	Communities for a Better Environment (CBE)	11/8/2024
BHT-163	Faizal Hassan	Anew Climate	11/8/2024
BHT-164	Faizal Hassan	Anew Climate	11/8/2024
BHT-165	Faizal Hassan	Anew Climate	11/8/2024
BHT-166	Ethan Hendricks	AMP Americas	11/8/2024
BHT-167	Ethan Hendricks	AMP Americas	11/8/2024
BHT-168	Tom Ashley	Voltera Power	11/8/2024
BHT-168a	Tom Ashley	Voltera Power	11/8/2024
BHT-169	Jesse Delacruz	Urbano Strategies	11/8/2024
BHT-170	Spencer Reeder	Audi	11/8/2024
BHT-171	Faraz Rizvi	Asian Pacific Environmental Network	11/8/2024
BHT-172	Faraz Rizvi	Asian Pacific Environmental Network	11/8/2024
BHT-173	Tony Brunello	U.S. Energy	11/8/2024
BHT-174	Tony Brunello	U.S. Energy	11/8/2024
BHT-175	Tony Brunello	U.S. Energy	11/8/2024
BHT-176	Phoebe Seaton	Leadership Counsel for Justice and Accountability and Defensoras	11/8/2024
BHT-177	Roy Bleckert	No Affiliation	11/8/2024
BHT-178	Dan Lashof	World Resources Institute (WRI)	11/8/2024
BHT-179	Dan Lashof	World Resources Institute (WRI)	11/8/2024
BHT-180	Bonney Shehadey	California Bioenergy (CalBio)	11/8/2024
BHT-181	Jim Stewart	No Affiliation	11/8/2024
BHT-182	Frank Harris	California Municipal Utility Association (CMUA)	11/8/2024
BHT-183	Christine Ball-Blakely	Animal Legal Defense Fund (ALDF)	11/8/2024
BHT-183a	Christine Ball-Blakely	Animal Legal Defense Fund (ALDF)	11/8/2024
BHT-183b	Christine Ball-Blakely	Animal Legal Defense Fund (ALDF)	11/8/2024
BHT-184	Julia Levin	Bioenergy Association of California (BAC)	11/8/2024
BHT-185	Julia Levin	Bioenergy Association of California (BAC)	11/8/2024
BHT-186	Chris Shimoda	California Trucking Association (CTA)	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-187	Emily Lemei	Northern California Power Agency (NCPA)	11/8/2024
BHT-188	James Duffy	No Affiliation	11/8/2024
BHT-189	James Duffy	No Affiliation	11/8/2024
BHT-190	Paul Townsend	POET	11/8/2024
BHT-191	Pete Montgomery	Kern Energy	11/8/2024
BHT-192	Pete Montgomery	Kern Energy	11/8/2024
BHT-193	Dan Bowerson	Alliance for Automotive Innovation (Auto Innovators)	11/8/2024
BHT-194	Dan Bowerson	Alliance for Automotive Innovation (Auto Innovators)	11/8/2024
BHT-195	Jack Hedge	The Pasha Group	11/8/2024
BHT-195a	Jack Hedge	The Pasha Group	11/8/2024
BHT-196	Ravi Sekhon	Centerline Logistics	11/8/2024
BHT-197	Sarah Somorai	Hyundai Motor North America	11/8/2024
BHT-197a	Sarah Somorai	Hyundai Motor North America	11/8/2024
BHT-198	Alessandra Magnasco	California Fuels and Convenience Alliance (CFCA)	11/8/2024
BHT-199	Alessandra Magnasco	California Fuels and Convenience Alliance (CFCA)	11/8/2024
BHT-200	Alessandra Magnasco	California Fuels and Convenience Alliance (CFCA)	11/8/2024
BHT-201	Alessandra Magnasco	California Fuels and Convenience Alliance (CFCA)	11/8/2024
BHT-202	Charles Waston	Mainspring Energy	11/8/2024
BHT-203	Andrea Villarin	Los Angeles Department of Water and Power (LADWP)	11/8/2024
BHT-204	Josh Stoops	Sacramento Municipal Utility District (SMUD)	11/8/2024
BHT-205	Adam Mohabbat	LA Cleantech Incubator	11/8/2024
BHT-206	Amanda Myers	WeaveGrid	11/8/2024
BHT-207	Brian McDonald	Marathon Petroleum Corporation	11/8/2024
BHT-208	Brian McDonald	Marathon Petroleum Corporation	11/8/2024
BHT-209	Brian McDonald	Marathon Petroleum Corporation	11/8/2024
BHT-210	Brandon Friend	GOpac	11/8/2024
BHT-211	Tim Taylor	National Federation of Independent Business (NFIB)	11/8/2024
BHT-212	Molly Armus	Friends of the Earth	11/8/2024
BHT-212a	Molly Armus	Friends of the Earth	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-213	Greg Kester	California Association of Sanitation Agencies (CASA)	11/8/2024
BHT-214	Michael Pimentel	California Transit Association (CTA)	11/8/2024
BHT-214a	Michael Pimentel	California Transit Association (CTA)	11/8/2024
BHT-215	Neil Koehler	Renewable Fuels Association (RFA)	11/8/2024
BHT-216	Steven Fenaroli	California Farm Bureau (CAFB)	11/8/2024
BHT-217	Audry Platt	No Affiliation	11/8/2024
BHT-218	Christine Wolfe	Waste Management	11/8/2024
BHT-219	Tyler Lobdell	Food and Water Watch	11/8/2024
BHT-220	Tyler Lobdell	Food and Water Watch	11/8/2024
BHT-221	Tyler Lobdell	Food and Water Watch	11/8/2024
BHT-222	Chris Nevers	Rivian	11/8/2024
BHT-223	Chris Nevers	Rivian	11/8/2024
BHT-224	Vanessa Hyslop	Kinds County member	11/8/2024
BHT-225	Teresa Bui	Pacific Environment	11/8/2024
BHT-226	Teresa Bui	Pacific Environment	11/8/2024
BHT-227	Brent Newell	Leadership Counsel for Justice and Accountability	11/8/2024
BHT-228	Brent Newell	Leadership Counsel for Justice and Accountability	11/8/2024
BHT-229	Brent Newell	Leadership Counsel for Justice and Accountability	11/8/2024
BHT-230	Krysta Wanner	Western Propane Gas Association (WPGA)	11/8/2024
BHT-231	Dan Willis	San Francisco Public Utilities Commission	11/8/2024
BHT-232	Rita Nagle	Louis Dreyfus Company	11/8/2024
BHT-233	Rita Nagle	Louis Dreyfus Company	11/8/2024
BHT-234	Rita Nagle	Louis Dreyfus Company	11/8/2024
BHT-235	Dan Chia	Omni Government Relations on behalf of Port of Long Beach	11/8/2024
BHT-236	Dan Chia	Omni Government Relations on behalf of Port of Long Beach	11/8/2024
BHT-237	Tim McRae	California Hydrogen Business Council	11/8/2024
BHT-238	Ashley Arax	Clean Air Task Force (CATF)	11/8/2024
BHT-239	Ashley Arax	Clean Air Task Force (CATF)	11/8/2024

Comment Code	Submitter	Affiliation	Submittal Date
BHT-240	Ashley Arax	Clean Air Task Force (CATF)	11/8/2024
BHT-241	Colin Murphy	UC Davis Institute of Transportation Studies	11/8/2024
BHT-242	Colin Murphy	UC Davis Institute of Transportation Studies	11/8/2024
BHT-243	Daniel Chandler	Climate Action California (CAC)	11/8/2024
BHT-244	Stefan Unnasch	Life Cycle Associates	11/8/2024
BHT-245	Stefan Unnasch	Life Cycle Associates	11/8/2024
BHT-246	Kevin Hamilton	Central California Asthma Collaborative and Environmental Justice Advisory Committee	11/8/2024
BHT-247	Paul Hernandez	No Affiliation	11/8/2024
BHT-248	Paul Hernandez	No Affiliation	11/8/2024
BHT-249	Chris Hunt	No Affiliation	11/8/2024
BHT-250	Lisa McGhee	Tom's Truck Center	11/8/2024
BHT-251	Laura Rosenberger Haider	Fresnans Against Fracking	11/8/2024
BHT-252	Laura Rosenberger Haider	Fresnans Against Fracking	11/8/2024
BHT-253	Adrian Martinez	Earthjustice	11/8/2024
BHT-254	Jose Lopez	California Bioenergy (CalBio)	11/8/2024
BHT-255	Alexandra Lavy	Agricultural Energy Consumers Association	11/8/2024
BHT-256	Scott Hedderich	Nuseed America	11/8/2024
BHT-257	Kathleen Van Osten	United Airlines	11/8/2024

CARB has summarized and responded to the written and oral comments on the LCFS amendments and the process by which they were adopted. These comment summaries and responses are contained in multiple appendices to the FSOR, sorted by subject matter listed below.

The following notes about the comments and responses will help with understanding how the comments are structured and labeled:

- Each comment has a unique code, as identified in the tables above. Each code indicates the comment period or context of the submission, followed by a unique number for each comment submitted within that comment period or context. For example, comment “45d-001.1” indicates a comment received during the original 45-day comment period: “001” is the unique number identifying the letter that contains the comment and “.1” indicates a specific comment within that letter. These additional sub-comment codes are shown in the copies of the comments included in the rulemaking file. For ease of reference to match comment codes with responses, comments have been grouped in attachments to this FSOR based on their Commenter Code and the associated Table above (e.g., Table 3 comments are grouped together in *FSOR Attachment 3 - Table 3 1st15-Day Comments*).

- 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 some instances, comment excerpts are preceded by the statement, “Commenter says,” with the comment excerpt in quotation marks. In other instances, the verbatim excerpt is presented without any preface or quotation marks. Comments that have been summarized, rather than quoted, are preceded by “Summary:” and are not followed by quotation marks.
- In verbatim comment excerpts, CARB has not corrected or noted errors in the original (for example, by adding “[sic]”). Comment excerpts’ formatting may differ from the formatting of the original comment.
- Footnotes in comments generally have been omitted, though the footnote numbers may remain in the text of the comment excerpt.
- In general, CARB has noted where it made changes in response to the comment. Where it is not noted, no changes were made in response to the comment.

The summary of comments and agency responses are provided in the following Appendices:

- **Appendix A:** General Support, Definitions, Carbon Intensity Target, Regulatory Alternatives, Modeling, Air Quality, Pricing, Gas Prices, Base Credit Spending Requirements, Zero Emission Infrastructure Programs, Bidirectional Charger, Book-and-Claim Provisions, EV Charging, Electricity Crediting, Hydrogen, Fuel Supply Equipment Registration, Transit and Public Fleets, Environmental Justice, Rulemaking Procedure, Authority and Other Legal Objections
- **Appendix B:** Combustion, Jet Fuel, Marine, Forklifts, eTRU, Biomethane, Land Use Change Modeling, Crop-Based Fuels, Definitions Under Sustainability Requirements, Sustainability Requirements, Woody Biomass, Intermediate Crops, Specified Source Feedstock Attestations, Higher Ethanol Blend
- **Appendix C:** Application Submission and Review Process, Life Cycle Analysis, CA-GREET4.0, Lookup Table, Lookup Table Pathways, Tier 1 CI Calculators, Fuel Pathways – General, Temporary Fuel Pathways, Deemed Complete Date, Margin of Safety, Credit True Up, Deficit Obligation, Verification, Vehicle EERs, Dairy and Swine Manure Pathways, Project-Based Crediting, Crude Oil CI and OPGEE, Carbon Capture and Sequestration, Market Functioning, Carbon Isotopic Analysis, Miscellaneous

Coded comments can be referenced in the FSOR attachments below:

- **Attachment 1.a** - Table 1 45-Day Comments
- **Attachment 1.b** - Table 1 45-Day Comments
- **Attachment 2** - Table 2 April Workshop Comments
- **Attachment 3** - Table 3 First 15-Day Comments
- **Attachment 4** - Table 4 Second 15-Day Comments
- **Attachment 5** - Table 5 Board Hearing Written Comments
- **Attachment 6** - Table 6 Board Hearing - Oral Testimony

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 new scientific basis or a new scientific portion subject to peer review requirements set forth in section 57004, and thus no new peer review was required.