



December 7, 2020

Dr. Sam Pournazeri,  
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Submitted electronically to [Sam.Pournazeri@arb.ca.gov](mailto:Sam.Pournazeri@arb.ca.gov)

**Re: 2020 Mobile Source Strategy and META Tool**

Dear Mr. Pournazeri:

The signatories to this letter appreciate the opportunity to comment on the Draft 2020 Mobile Source Strategy (Draft 2020 MSS) released on November 25, 2020. We also appreciate that staff is bringing the Draft 2020 MSS to the members of the California Air Resources Board as an informational item and seeking their input rather than as an action item for approval. We look forward to a robust dialogue following the meeting with additional stakeholder engagement.

Though some changes have been made in the Draft 2020 MSS from the Discussion Draft, we strongly believe the current work product remains inconsistent with the corresponding legislative mandate set forth by Senate Bill 44 (SB 44) to prepare a comprehensive strategy to reduce air quality and greenhouse gas emissions from the transportation sector for the reasons outlined in previous comment letter from this coalition (attached). Inclusion of renewably-fuel existing cleaner combustion technology into the 2020 MSS can solve many of the current draft's shortcomings without hindering the long-term zero emission goals.

**The Draft 2020 MSS Does Not Address Near Term Emissions**

The Draft 2020 MSS has a sole focus on long-term goals and does not provide any strategies or reductions to meet near-term attainment requirements in 2023 in the South Coast Air Basin and 2024 and 2025 in

the San Joaquin Valley. In the recent letter to CARB, the South Coast Air Quality Management District (SCAQMD) expressed concern that the Draft 2020 MSS does not address near-term attainment and states that the lack of discussion of the 2023 attainment date is “likely unlawful.”

In addition to attainment, there is a critical need to reduce carbon emissions in the near term. In 2018, the International Panel on Climate Change issued the special report, “Global Warming of 1.5°C.” The report states, “Without increased and urgent mitigation ambition in the coming years, leading to a sharp decline in greenhouse gas emissions by 2030, global warming will surpass 1.5°C in the following decades, leading to irreversible loss of the most fragile ecosystems, and crisis after crisis for the most vulnerable people and societies.” If the state only focuses on long term emission reductions, these climate impacts will not be avoided. Both short- and long-term strategies need to be addressed.

Lastly, public health continues to be impacted by transportation emissions. Not addressing near term emissions does nothing to help impacted communities, which are largely made up of low-income, minority populations.

Previous plans intended to address near term needs. However, the Draft 2020 MSS seems to disregard those plans rather than building on them. For example, the 2016 Mobile Source Strategy (2016 MSS) assumes 900,000 trucks meeting the 0.02 grams of nitrogen oxides (NOx) low NOx standard (low NOx trucks) by 2030. However, the Draft 2020 MSS no longer includes this turnover. Another example is the 2018 San Joaquin Valley State Implementation Plan Supplement, in which CARB committed to turning over 33,000 Class 8 trucks with incentives by 2024 in the San Joaquin Valley alone. However, the Draft 2020 MSS does not include these trucks. It appears that CARB, through the Draft 2020 MSS, is renegeing on its near-term commitments to meet health-based standards reduce air quality emissions.

### **Assumptions for Heavy Duty Truck Turnover are Not Fully Analyzed**

The 2020 Draft MSS makes several assumptions to reach the desired turnover of the existing HD Truck fleet. However, these assumptions are merely concepts and should not be viewed as approved strategies. Per SB 44, strategies must be technologically feasible and cost-effective. Until strategies are analyzed and deemed technologically feasible and cost-effective, they should be only viewed as concepts. For example, the Draft 2020 MSS assumes that sales for all trucks used in drayage would be 100 percent zero emission starting in 2024. There are currently no regulations or standards on the books or being developed that require the sales of these trucks to be zero emission nor could one be developed in that time frame. Additionally, the state of the technology and availability of infrastructure is not guaranteed to be operationally and economically feasible. Full analyses and public process needs to take place prior to finalizing any strategies.

### **A Full Portfolio Approach is Needed**

The Draft 2020 MSS must look at all viable options to meet the emission reduction needs. Solely relying on one technology to come to fruition is not a practical approach to meeting the goals of the state. A portfolio approach has the ability to serve a wide variety of vocations and can get much needed near-term reductions and can provide an alternative if technology development and/or deployment is delayed.

### **Dairy Gas Production Capabilities Should Not be Capped at 2024 Levels**

The table on page 141 states that renewable gas from dairy digesters would be capped at 2024 levels based on a report by Gladstein Neandross and Associates. That report states the production levels by January 1, 2024 and does not represent a cap of production capabilities. In fact, the California Department

of Food and Agriculture provided funding for twelve additional projects for a total of \$16.53 million since the completion of the report; therefore, production capability continues to increase.

Thank you again for the opportunity to comment on the Draft 2020 MSS. We look forward to working with CARB on developing a full and comprehensive document in 2020.

Sincerely,

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Sean R. Edgar, Director, CleanFleets.Net

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October 21, 2020

**Re: 2020 Mobile Source Strategy Discussion Draft**

Dear Mr. Pournazeri:

The signatories to this letter appreciate the opportunity to comment on the 2020 Mobile Source Strategy Discussion Draft (2020 MSS Discussion Draft). The 2020 MSS Discussion Draft is an integral planning document that will inform and guide other state, regional and local planning documents as well as upcoming regulatory proceedings, including the Carbon Neutrality policy and the Scoping Plan. We are hopeful there will be additional meaningful opportunities moving forward to work with the California Air Resources Board (CARB) staff and Board in preparing and finalizing this important document.

**THE PROPOSED 2020 MSS DISCUSSION DRAFT IS NOT A COMPREHENSIVE PLAN AS REQUIRED BY LAW**  
Senate Bill 44 (SB 44) requires that CARB:

*“update the state board’s 2016 mobile source strategy to include a **comprehensive strategy** for the deployment of medium-duty and heavy-duty vehicles in the state for the purpose of bringing the state into compliance with federal ambient air quality standards and reducing motor vehicle greenhouse gas emissions from the medium-duty and heavy-duty vehicle sector.” 43024.2. (a)(1) (emphasis added)*

The 2020 MSS Discussion Draft does not provide an update to the 2016 Mobile Source Strategy (2016 MSS) nor is it a comprehensive strategy. Rather, it only proposes CARB’s preferred technology mix to meeting air quality standards and greenhouse gas emission goals. Components of the 2016 MSS not included in the 2020 MSS Discussion Draft include:

- Technology Assessments

- Statewide Measures
- Regional Measures
- Emission Reduction Calculations for Measures
- Economic Analysis

Again, the 2020 MSS Discussion Draft is merely a technology mix and does not include any of the above components that were included in the 2016 MSS. The technology mix used in the 2016 MSS was known as the Vision Scenario and was integral to the 2016 MSS. However, the Vision Scenario was one component of the 2016 MSS – not a comprehensive plan itself.

CARB staff has already acknowledged that the 2020 MSS Discussion Draft is not a complete update of the 2016 MSS and that the remainder of the update and the comprehensive strategy would begin in 2021. This is clearly not consistent with the requirements of SB 44, nor does it allow for a comprehensive review of risks, costs, or potential for success.

Adopting the 2020 MSS Discussion Draft as a partial update does not allow stakeholders the opportunity to meaningfully comment on a “plan” if it is woefully incomplete. The technology mix and the actions to achieve it must be developed concurrently to develop a reasonable and achievable plan.

In addition to the lack of a comprehensive strategy, piecemealing the 2020 MSS Discussion Draft by only completing a technology mix by January 1, 2021 also leads to failing to meet other important requirements of SB 44, which were negotiated within the Legislature, including:

*43024.2.*

*“(2) The state board’s updates to the mobile source strategy shall include both of the following:  
(A) An identification of policies that provide advantages to fleets that reduce greenhouse gas emissions earlier than required by law.”*

*“(b) In developing the comprehensive strategy, the state board shall do all of the following:*

*(2) Identify regulation that could improve market acceptance, spur technology advancements, reduce technology costs, and support the commercialization and deployment of medium duty and heavy-duty vehicles that reduce emissions of greenhouse gases.*

*(3) Identify research needs to address any data gaps.*

*(4) Identify areas where the state should coordinate with other state agencies, districts, utilities providers, and technology providers to implement measures identified as part of the comprehensive strategy.*

*(6) Identify policies that provide advantages to fleets that reduce greenhouse gas emissions early.”*

**RECOMMENDATION:** CARB should not adopt a component of the 2020 MSS individually. CARB should comply with the requirements to SB 44 by completing a comprehensive 2020 MSS, even if it takes additional time past December 2020.

**THERE HAS BEEN LACK OF TRANSPARENCY AND INADEQUATE PUBLIC PROCESS**

With the importance and significant influence of the 2020 MSS, stakeholders expect, and California deserves a robust public participation process. To date, the public process for the 2020 MSS has been exceedingly sparse.

There has only been two public workshops and staff has indicated that there will not be any more prior to the anticipated vote by the Board in December 2020. The first public workshop was conducted in March 2020. At the time of that preliminary workshop, the Mobile Emissions Toolkit for Analysis (META) tool was

not available and little information was provided at the workshop for stakeholders to digest. The Draft MSS was released on September 30 and a mere four business days later, the second workshop was held on October 7, 2020. That is simply not enough time to respond to a 145-page document of this significance. At the second workshop, CARB staff noted that there will be no more public workshops and the only opportunities to comment were to submit a comment letter by October 21, 2020 or in public testimony at the December adoption hearing. Additionally, the second workshop was to present the first “Discussion Draft”. If staff proceeds as planned, there will be no workshops for the real 2020 MSS Discussion Draft.

SB 44 requires that the 2020 MSS be developed “in collaboration with relevant stakeholders”. Two public workshops (one with little information and one with little lead time) for the 2020 MSS does not meet this requirement. Additionally, it is simply bad practice for a public agency to provide such poor public outreach for a document as important and impactful to stakeholders as the 2020 MSS Discussion Draft.

For comparison, for the 2016 MSS, staff released the first iteration of the technology mix, Vision 1.0, in 2012 - four years before adoption of the 2016 MSS. The META tool was released to the public on August 5, 2020 – mere four months before the expected December 10 adoption hearing. While the time allotted by SB 44 was less than for the 2016 MSS, CARB did not express, to our knowledge, any concerns during the legislative process that they did not have the resources or time to meet the January 1, 2021 deadline. Furthermore, Governor Newsom signed SB 44 in September 2019 with a January 1, 2020 implementation date, providing CARB with ample time to prepare and begin work. It is unclear why CARB staff has repeatedly expressed that they did not have enough time to complete the 2020 MSS update.

**RECOMMENDATION:** CARB should hold additional public workshops as the overall strategy is being further developed *before* presenting it for Board consideration to increase public engagement and transparency, even if it takes additional time past December 2020.

#### **LOW CARBON FUELS ARE NOT CONSIDERED IN THE 2020 MSS DISCUSSION DRAFT**

The 2020 MSS is required by SB 44 to develop a comprehensive strategy to meet greenhouse gas reduction goals. However, staff has not considered the use of low carbon renewable fuel, not even in the near term. The 2020 MSS Discussion Draft completely ignores renewable gas, which is the lowest carbon fuel commercially available today and in the foreseeable future. In staff’s alternative scenario calculations, staff does not even calculate the potential carbon reductions from the alternative. Staff only calculates fuel consumption. It is incomprehensible that staff would not even consider the lowest carbon and most cost-effective strategy available.

Additionally, SB 44 requires CARB to identify *early actions* to reduce greenhouse gas emissions.

43024.2.

*“(b) In developing the comprehensive strategy, the state board shall do all of the following:*

*(6) Identify policies that provide advantages to fleets that reduce greenhouse gas emissions early.*

In order to satisfy this requirement, the 2020 MSS must look for ways to “provide advantages” for early emission reductions. What staff has presented to date, does not accomplish this. In order for CARB to achieve early greenhouse gas reductions, it must look at lower carbon renewable fuels such as renewable natural gas, renewable propane, renewable diesel or any other low carbon alternative. Renewable natural gas has lower carbon intensity than the electric grid and the supply is going to grow in the near term. A recent study on the near-term supply of in-state renewable gas showed that by 2024, 160 new renewable gas production facilities will be operational by 2024. These facilities will add 119 million diesel gallon equivalent units of renewable gas by 2024. Most astonishing, the average carbon intensity of the

renewable gas produced will be (-)101.74 grams of carbon dioxide equivalent per megajoule (gCO<sub>2</sub>e/MJ). For comparison the electric grid currently has a carbon intensity of 82.92 gCO<sub>2</sub>e/MJ<sup>1</sup>.

Ignoring low carbon fuels is also completely inconsistent with the policy signals being sent by the continued implementation of the highly successful Low Carbon Fuel Standard (LCFS) program at CARB.

**RECOMMENDATION:** Staff should consider all carbon reduction strategies including renewable fuel and staff should calculate the carbon emission reductions of alternatives prior to Board consideration, even if it takes additional time past December 2020.

### **THE 2020 MSS DISCUSSION DRAFT DOES NOT LOOK AT A MIX OF TECHNOLOGIES TO MEET NEAR-TERM AIR AND CLIMATE GOALS**

The 2020 MSS Discussion Draft includes only one medium and heavy-duty truck alternative, and none to achieve the 2023 South Coast Ozone standard. The 2020 MSS Discussion Draft proposes that all accelerated turnover is replaced with zero emission technologies. The alternative scenario assumes that instead of all accelerated turnover be to zero emission technologies, all accelerated turnover is to Low NO<sub>x</sub> technologies. Overly simplified scenarios like this create a false choice of all of one technology or the another. Zero emission and Low NO<sub>x</sub> should not be seen as competing technologies, but rather complementary technologies. It is not an “all or nothing” policy choice facing California. The reliance on one single technology to meet the state’s goals would worsen the state’s chances to achieving the all of its goals, including cost-effectiveness. All advanced technologies—ZEV, Renewable Fuels, Efficiency Gains—should play a role.

While Executive Order N-79-20 does provide direction for new sales of medium- and heavy-duty vehicles to be electric vehicles by 2045, where feasible, this does not absolve CARB from its responsibilities to reduce near-term emissions. It also doesn’t supersede state law requiring a “comprehensive strategy for the deployment” of these vehicles for the “purpose of bringing the state into compliance with federal ambient air quality standards,” which includes the near-term 2023 deadline.

**RECOMMENDATION:** Staff should develop additional scenarios that includes a mix of zero emission technologies and Low NO<sub>x</sub> technologies.

### **THE 2020 MSS DISCUSSION DRAFT SHOULD USE LATEST PROJECTIONS IN THE EMISSION CALCULATIONS**

Appendix A of the Draft 2020 MSS describes the methodology and assumptions for calculating carbon emissions from different sources. Appendix A includes the following:

“CNG is assumed to be 100% supplied by RNG consistent with the LCFS compliance scenario. The fraction of RNG from dairy biogas is fixed at 24% after 2030, with the remainder from landfill gas”

There is no description on how this assumption was made. In 2019, 180 million diesel gallon equivalent units (DGE) of RNG was used in California per Low Carbon Fuel Standard data. The vast majority of this RNG used in the state of California has been imported from out-of-state. However, in-state production is rapidly ramping up as significant public and private investments have been made. A recent study concluded that based upon existing project investments (including various CA incentive programs), by Jan. 1, 2024 there will be 160 in-state RNG production facilities.<sup>2</sup> Of these projects, 38% are LFG projects, 36% are dairy projects, and the 26% balance is from an assortment of “other” RNG sources (gasification, wastewater, recycled municipal organics, etc.). This does not include numerous out of state projects that have been announced, which would only increase

<sup>1</sup> [https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/comments/tier2/elec\\_update.pdf](https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/comments/tier2/elec_update.pdf)

<sup>2</sup> “An Assessment: California’s In-State RNG Supply for Transportation 2020-2024” GNA, 2020

These projects would produce 119 million DGE of RNG per year for the transportation sector. The weighted average carbon intensity of the 119 million DGE from the 160 in-state RNG projects will be (-) 101.74 grams of carbon dioxide equivalent units per megajoule (g/CO<sub>2</sub>e/MJ). This extremely low (negative) carbon fuel would represent 66.1% of the total 180 million DGE of RNG used in 2019.

It is important to note that the California Department of Food and Agriculture (CDFA) is expected to announce the next round of Dairy Digester Research and Development Program (DDRDP) grants, which would further increase the production of dairy RNG.

**RECOMMENDATION:** The assumptions for RNG made in the carbon calculation methodology should be revised to include the future RNG mix and average carbon intensity.

**EMISSION REDUCTION CALCUALTIONS SHOULD BE COMPLETED AND RELEASED FOR PUBLIC REVIEW**

In addition to using unsubstantiated assumptions as described above, staff has yet to complete and publicly release all of the necessary emission reduction calculations. Specifically, staff has not completed the carbon reductions for the alternative scenario. At the October workshop, staff only presented the long-term fuel consumption calculation for the alternative scenario, which is not representative of the emission reductions when accounting for renewable fuel. Emission reduction potential from each of the scenarios are fundamental to the strategy. It is unacceptable that staff would conclude the public process without completing the emission calculations and making those models available for public review and comment.

**RECOMMENDATION:** Staff should complete the emission reduction calculations, release it publicly, and allow stakeholder the opportunity to comment prior to board consideration, even if it takes additional time past December 2020.

Thank you again for the opportunity to comment. We, the undersigned organizations, are hopeful that CARB can best resolve the issues outlined in this letter prior to being considered by the Board and are eager to aid as needed.

Sincerely,

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