



City Council
311 Vernon Street
Roseville, California 95678

October 29, 2021

Mr. Craig Segall
Deputy Executive Officer of Mobile Sources and Incentives
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Advanced Clean Fleets Draft Regulation – Public Fleet Requirements and Cost Assumptions

Dear Mr. Segall:

On behalf of the City of Roseville (Roseville), I write to provide comments to the Air Resources Board (Air Board) regarding the Advanced Clean Fleets (ACF) Draft Regulation, specifically the provisions for public fleets and the cost assumptions.

Roseville is the largest city in Placer County with a population over 146,594 and 42.26 square miles of land. As a full-service city, Roseville provides most essential utility and public services to its citizens, everything from public safety, electricity, water, wastewater, to solid waste management. These utilities serve just under 50,000 residences and businesses. This requires the city to maintain a large, diverse, and capable fleet. Roseville is committed to sustainability and can appreciate the task the Air Board is trying to accomplish with this rulemaking.

Due to the nature of Roseville's fleet operations, need for emergency response, integrated utilities and interplay with other state compliance obligations, we write to share our comments, concerns, and recommendations to amend the regulation prior to adoption.

Circular Economy

In 2017, Roseville saw the opportunity to develop a "closed loop" with its waste stream. A confluence of legislation, including Senate Bill 605 Lara (Chapter 523, Statutes 2014), Senate Bill 1383 Lara (Chapter 395, Statutes 2016) and Assembly Bill 1826 Chesbro (Chapter 727, Statutes of 2014) sent a strong signal that the most logical solution was to leverage our waste stream for a beneficial use that reduced our methane emissions and reduced our reliance on fossil fuels.

Capturing our landfill and wastewater treatment methane emissions will reduce consumption of over 250,000 gallons of diesel and be replaced with locally generated and controlled renewable natural gas. With our landfill and wastewater treatment facilities adjacent to one another there is no reliance on pipelines or crediting to achieve this outcome, thus further lowering the carbon intensity of the fuel. Paired with low-NOx engines and the environmental outcomes on a lifecycle basis, we expect to exceed what can be expected from battery electric trucks charging during off-peak evening hours.

As California seeks to reduce global climate emissions, it is important to account for the full lifecycle of the energy and paired end-use. Based on Air Board's own low-carbon fuel standard pathways we know that the 2020 carbon intensity for off-peak (after 9pm) evening charging ranges from 112.14

gCO₂e/MJ to 79.35 gCO₂e/MJ and that the grid average between 9pm and 5am is 85.19 gCO₂e/MJ¹. Adjusted energy economy ratio (EER) values for battery medium duty application is 3.4² or ~25.06 gCO₂e/MJ. Provisional pathways in California for wastewater sludge and landfill like Roseville's project result in a CI of 15.87 gCO₂e/MJ to 19.28 gCO₂e/MJ. Early investment by Roseville to deploy renewable natural gas (RNG) to our fleet provides a ~44.91% to 26.07% lower carbon intensity from the evening grid average today over a future vehicle that does not currently exist. Furthermore, we anticipate during drought years and with the stress of summer heat waves that the 2021 and near-term evening grid carbon intensity will continue to rise. This will further be exacerbated by the demand for charging created by this regulation.

Roseville believes in striving to be the best environmental steward through sound investment and policy. With the management of wastewater and solid waste we believe that for the foreseeable future using RNG in low-NO_x specialty vehicles in the refuse fleet will provide better environmental outcomes for our residents' fees and taxes. At this time there are no zero-emission vehicles that can serve our routes without substantial disruption to the services and costs of those services to the residents of our city.

The Air Board should not foreclose this environmentally sound option at this time and instead allow Roseville and other municipalities in control of their wastewater and solid waste streams to achieve compliance with this regulation and others required by statute.

Emergency Response

In the event of minor or major emergency responses to natural or manmade disasters Roseville needs maximum flexibility to deploy and field as many assets and resources to that event, or as has been the case lately, multiple events. While we appreciate the recognition of this need by Air Board staff, we remain concerned that a 75% zero-emission vehicle (ZEV) requirement might be overly burdensome and unattainable. With smaller utilities like Roseville, emergency response requires deploying every vehicle in the fleet in addition to the ability to provide mutual aid to other communities in need.

Emergency responses often require vehicles from our various utilities including electrical, water and wastewater utilities. Utility response to certain types of emergencies including natural disasters like fires, floods, spills, hazardous waste cleanups, and earthquakes, requires optionality and flexibility in the resources deployed. We are not currently confident in the infrastructure rollout statewide or the capabilities of compliant vehicles to commit to the narrowness of this requirement. We would respectfully suggest the Air Board leave these requirements open ended until thresholds of regional (beyond California) infrastructure availability and the capability of vehicles can achieve a direct replacement with equivalent duty cycles for the vehicles they are replacing.

Exemption Process

Roseville supports a simplification of the exemption process in this proposal. As opposed to every fleet generating an unknown and likely substantial amount of paperwork in the necessary cases for exemptions, we believe the Air Board should establish a technology clearinghouse. Like previous technology forcing rules adopted by the Air Board, two original equipment manufacturers (OEMs) should be able to serve each segment before any compliance timeline is started for those vehicles. Public entities such as cities, counties, and utilities have stringent contracting requirements and should not be required to award sole-source contracts for compliance if there are fewer than two certified vehicles for that body type and weight class.

¹ https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/comments/tier2/elec_update.pdf

² https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/guidance/lcfsguidance_20-04.pdf

Furthermore, we have substantial concerns about reliance on startups and lesser-established manufacturers entering this space. These concerns stem from the real possibility that these companies have unproven technology and unknown abilities to manufacture and deliver serviceable products at scale. We suggest that the Air Board require OEMs, prior to certification of their offerings for compliance with this regulation, be able to keep delivery timelines in-line with those currently experienced with diesel trucks. The ability to demonstrate and take a purchase order is not sufficient when our compliance with state regulation is on the line. OEMs that do not have regional service centers or authorized repair vendors within 50 miles of a compliance entity's yard should also be excluded from consideration as a compliant vehicle. Without proximate service options, Roseville further suggests that OEMs, which do not offer fleet technician training, be excluded from consideration as compliant vehicles for this regulation.

While this may seem difficult to achieve, it reflects the seriousness and necessity that this regulation fully contemplates, the implications to the fleet's operations, and ability to self-service or have service conveniently within proximity of the fleet. Roseville needs these vehicles to keep up basic and required services for our city and we cannot afford to allow a startup with unestablished abilities use our community to Beta test new technology from afar.

Near-Zero Definition

The Air Board's definition of near-zero is not reflective of commercially available or contemplated vehicles coming to market. While we understand that this is a technology-forcing regulation the narrowness and current state of the market should require a more reasonable approach.

Roseville supports a definition of near-zero that is inclusive of vehicles that would comply with South Coast Air Quality Management District Rule 1196. This standard achieves 90% lower NOx emissions compared to current heavy-duty vehicles and when paired with RNG, the lifecycle emissions are lower than all-electric heavy duty vehicles charged from the grid as previously discussed.

Cost Assumptions

Roseville is currently in the process of developing a "charging island" at one of our corporation yards. This project will provide approximately 90 level 2 chargers for the city fleet and to charge up to 30 buses. Roseville is in a unique position with its own publicly owned electric utility. As these plans progress, we will reach out to the Air Board to share those costs directly.

Based on our citywide fleet turnover, we anticipate needing on average of 40 medium and heavy duty vehicles to be purchased each year. Currently the difference in costs is 85% more expensive per vehicle while only handling 50% of the current routes. While we anticipate that these costs will come down over time, it is currently more environmentally and economically beneficial for portions of our fleet to transition to RNG and low-NOx engines for the foreseeable future.

The Air Board should not conclude that the current ZEV offerings are 1:1 replacement as many of the stated capabilities are projected and unproven. Based on our experience true 1:1 replacement will need to have a range of 170% more than the vehicles being offered for our refuse fleet. Additionally, the buses being purchased are only capable of handling commuter routes and not the intra-city routes.

If required to follow the proposed regulation as drafted, the projected infrastructure and fleet costs will add substantial rate increases across multiple utilities throughout the city. In a time of economic uncertainty and rising utility costs, due to substantial mandates across regulatory bodies, we caution the Air Board from unnecessarily being over aggressive in this rulemaking and further exacerbating the

affordability issues facing many residents of this state. Utility cost increases have a disproportionate effect on low-to-middle income households. This instant rulemaking is not an isolated instance. Several other State-level regulatory proceedings at the State Water Resources Control Board, for instance, are also contemplating cost-increases that will be passed on to utility ratepayers.

Conclusion

Roseville is pursuing a progressive, environmentally sound, and robust strategy to decarbonize our city. We want to ensure that policy does not overburden our residences and add to the mounting regulatory costs of California's rigorous goals. We look forward to continuing to work with the Air Board on striking an appropriate balance to initiate the development of compliant vehicles, while mitigating the costs to the residents and businesses we serve.

If you or your staff have any questions, please contact Noelle Mattock at (916) 297-2177 or NCMattock@Roseville.ca.us.

Sincerely,



Krista Bernasconi, Mayor
City of Roseville

cc: Board Members, California Air Resources Board
Richard Corey, Executive Officer, ARB
Craig Segall, Deputy Executive Officer, ARB
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