

October 17, 2022

Clerk of the Board
California Air Resources Board (CARB)
1001 I Street
Sacramento, CA 95814

Comments on Proposed Advanced Clean Fleets Regulations

Tesla appreciates the opportunity to submit these comments regarding the proposed Advanced Clean Fleets (ACF) regulations issued by CARB staff at the end of August 2022. Tesla has been an active participant in this proceeding and has offered our perspective in various forums, including through informal comments submitted in response to draft versions of the regulation issued by staff, as well as through participation in the various workshops and working group sessions convened by staff. While we will reiterate some of the recommendations we've made previously, we also offer some additional refinements that, if adopted, will enhance the efficacy the ACF regulation in driving emissions reductions.

Tesla recommends the Board adopt the following changes to the proposed regulations:

- The ZEV Milestone Option, available to High Priority and Federal Fleets, should be modified to better reflect the emissions impacts of heavier duty vehicles, like class 8 trucks.
- The High Priority and Federal Fleets regulation should incorporate credit generation, banking and trading provisions to provide obligated entities additional compliance flexibility, as well as to promote early action and compliance beyond the floors set by the regulation.
- Near Zero Emission Vehicles should not be treated as equivalent to Zero Emission Vehicles for compliance purposes.
- The 100% sales mandate should be accelerated to 2035.

The ZEV Milestone Option, available to High Priority and Federal Fleets, should be modified to better reflect the emissions impacts of heavier duty vehicles, like class 8 trucks.

Under the proposed regulation, High Priority and Federal Fleet operators that opt into the ZEV Milestone Option can fulfill any compliance obligation emanating from a given vehicle group by deploying ZEVs from any vehicle group, with all vehicles, regardless of group or weight class, providing the same compliance value.¹ Although Tesla appreciates and supports the flexibility this offers to subject entities, treating all vehicles as providing the same compliance value is out of step with the underlying emissions benefits different vehicles provide. For example, a fleet operator that has an obligation to deploy a ZEV that is associated with its fleet of conventional sleeper cabs, could, based on the proposed regulation, deploy a ZEV van to meet that obligation. Given the wildly disparate emissions impacts that these vehicles have, this creates some troubling incentives that could undermine the overall emission benefits the regulation is intended to provide. If the compliance obligation associated with a more expensive, but also more impactful, class of vehicles can be met by deploying lower cost, less impactful vehicles, it seems almost axiomatic that subject fleets will choose to deploy the lower cost vehicles,

¹ Proposed Regulation Order Advanced Clean Fleets Regulation – High Priority and Federal Fleet Requirements, Section 2015.2(c)

undercutting at least some of the emissions and other benefits of the framework, to the extent their vehicle mix allows them to do so.

This is not to say that Tesla opposes compliance fungibility, however the greater emissions benefits associated with replacing more highly polluting vehicles should be reflected in the regime. In lieu of the current equivalent treatment, Tesla strongly encourages the Board to direct staff to better reflect the relative emissions benefits that different vehicle types have into the ZEV Milestone Option Framework. If, for example a typical sleeper cab (where “typical” refers not only to the technical specifics of the vehicle but also a typical duty cycle) produces four times the annual emissions as a typical package delivery van, then it would seem logical that one ZEV sleeper cab should provide four times the compliance value of a ZEV package delivery van. Thus, if an entity wishes to deploy ZEV vans instead of deploying a ZEV sleeper cab to meet an obligation associated with the sleeper cabs in its fleet, it shouldn’t be able to offset that obligation by deploying one ZEV van. Tesla notes that there is precedent for recognizing the relative emissions benefits across vehicle weight classes within the Advanced Clean Truck (ACT) regulation, as reflected in weight class modifiers established in Section 1963.1 of that regulation.

While we acknowledge that developing and incorporating this concept into the proposed framework is not a trivial exercise, we think it is important to address this given the dilutive effect it could have on ZEV deployment, particularly with respect to the heaviest duty and most polluting vehicles, by allowing entities to meet those compliance obligations by replacing lighter-duty, less emissive vehicles with ZEVs, while leaving the more problematic heavy-duty vehicles in service. As a company that is investing substantial resources in bringing a class 8 day cab and sleeper cab to market, Tesla is concerned that the proposed ACF regulations, by according equivalent compliance value regardless of vehicle type within the ZEV Milestone Option framework, CARB is putting its fingers on the scale in a manner that will dramatically tilt the market toward replacing the lightest duty conventional vehicles, to the detriment of the overall benefits yielded by the regulation and, specifically, its impacts in disadvantaged communities where the heaviest duty vehicles are of particular concern.

An alternative approach that would also address this concern, albeit in a manner that would somewhat limit compliance flexibility, would be to constrain the degree of compliance fungibility across vehicle types. For example, the framework could be adjusted such that the compliance obligations associated with heavier duty vehicles, like day cabs and sleeper cabs, cannot be met via the deployment of lighter-duty vehicles, like package delivery vans or box trucks, but would allow compliance obligations associated with lighter duty vehicles to be met through the deployment of heavier duty vehicles. This alternative, while arguably less analytically rigorous than the proposal discussed above, does offer a more straightforward means of at least partially addressing the same issue. For example, under this approach, a fleet would be able to meet a compliance obligation emanating from its Group 1 vehicles to deploy one ZEV by deploying one day cab, but it would not be able to do the converse. It would not be able to deploy Group 1 vehicles to meet compliance obligations emanating from the day or sleeper cabs it has in its fleet (which are Group 2 and 3 vehicles under the framework, respectively). Tesla observes that this approach is akin to that taken in the Advanced Clean Trucks (ACT) regulation, under which the fungibility of ACT credits is limited in a conceptually similar manner.²

² Advanced Clean Trucks Regulation, Section 1963.3(d).

The High Priority and Federal Fleets regulation should incorporate credit generation, banking and trading provisions to provide obligated entities additional compliance flexibility, as well as to promote early action and compliance beyond the floors set by the regulation.

As discussed in detail in prior comments that Tesla has submitted in response to various drafts of the Advanced Clean Fleets regulation, Tesla continues to believe that the framework would be improved by included credit generation, banking and trading provisions. We won't reiterate those comments in full here but incorporate them by reference.³ Tesla notes that in developing the various iterations of these regulations, staff has spent a great deal of effort to provide off-ramps that obligated entities can invoke in order to be exempted from fulfilling a compliance obligation. Tesla believes there is a role for off-ramps, but also submits, as we have previously, that the failure to incorporate compliance credit generation, banking and trading provisions represents a significant missed opportunity to help ensure the overall ACF framework realizes the intended emissions reductions even in the face of some of the challenges that some fleets may face in transitioning to ZEVs. The use of exemptions necessarily means that the state and affected communities will forgo the benefits of ZEV deployment for the period and number of vehicles covered by the exemption. In contrast, if an entity that is unable to meet a given compliance obligation directly were able to channel its demand to support excess compliance by another entity, by purchasing compliance credits from that entity, those benefits would be largely retained. Other than generalized concerns that including this in the framework would add complexity, Tesla has not heard any credible opposition to this idea based on its merits. It does strike Tesla as strange that CARB, which has embraced the use of credit trading as an important option for subject entities to achieve important emissions reduction objectives in a number of its regulations, including the state's Cap and Trade program, the Advanced Clean Cars Regulation, the Advanced Clean Trucks Regulation, the NOx regulation, and the Low Carbon Fuel Standard, would eschew this approach here. Given the highly disparate costs of compliance that different entities will face, this seems like a fairly ideal context for this type of compliance tool to be made available in at least some capacity.

Near Zero Emission Vehicles should not be treated as equivalent to Zero Emission Vehicles for compliance purposes.

The proposed regulation retains language that treats near zero emission vehicles (NZEVs) as equivalent to ZEVs through model year 2035. Tesla has previously opposed this equivalent treatment and continues to do so. As stated previously, while it is not entirely unreasonable to allow an entity to deploy a NZEV as an alternative solution in the event that a full ZEV (or compliance credit purchased from another entity per the recommendations in the preceding section) cannot be purchased, the notion that a NZEV would simply be treated as equivalent to a ZEV for the next decade is wrongheaded. As with our comments above regarding credit generation, banking and trading, rather than opine at length here, we incorporate by reference the comments we've made on this issue previously.⁴

The deadline for meeting a 100% ZEV sales requirement should be moved to 2035.

Tesla reiterates the perspective we provided in the comments we submitted last year on this issue when the draft regulations were initially issued. In relevant part:

³ See "Comments on Draft Regulations and Cost Study Issued in the Advanced Clean Fleets Rulemaking" dated Oct. 27, 2021 and "Comments on May 2022 Draft Advanced Clean Fleet Regulations" dated May 13, 2022.

⁴ See "Comments on May 2022 Draft Advanced Clean Fleet Regulations" dated May 13, 2022.

Tesla strongly supports ARB's efforts to establish a stringent sales requirement on manufacturers of MD and HD vehicles and applauds ARB staff for pushing this further by proposing to modify the Advanced Clean Truck regulation to include a 100% sales requirement. Given the gravity of the climate crisis including the fact that the impacts of climate change appear to be manifesting sooner and with greater severity than anyone has anticipated,⁵ coupled with ARB's cost study which shows that zero emission vehicles across the spectrum of MD and HD vehicles will be cost effective sometime between 2025 and 2030,⁶ Tesla believes there is a strong case for accelerating the 100% sales mandate to 2035 if not earlier. Such an acceleration can also help further address some of the concerns expressed by stakeholders that are subject to the ACF regulation that there may be insufficient supply to meet the demand for ZEVs that the ACF creates. This mandate would also provide the appropriate signal to manufacturers that they need to entirely shift to ZEVs and double down on current efforts. As indicated on CALSTART's Zero-Emission Technology Inventory, across vehicle categories there appears to be growing representation of incumbent and new manufacturers pursuing ZEVs, with an increasing number of models available or in the pipeline. However, given the scale of the transition that is required, it is reasonable for ARB to push for accelerated action to drive manufacturer product roadmaps more emphatically and quickly toward ZEVs.

Tesla thanks CARB for the opportunity to provide this feedback on the proposed ACF regulations.

Sincerely,

/s/ Andy Schwartz

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⁵ "The West is Burning, Climate Change is Making it Worse", Cameron Peters, Vox, July 25, 2021, <https://www.vox.com/2021/7/25/22592004/wildfires-climate-change-reconciliation-bill>; "Study: Northwest heat wave impossible without climate change", Seth Bornstein, OPB, July 7, 2021, <https://www.opb.org/article/2021/07/07/study-northwest-heat-wave-impossible-without-climate-change/>; Climate Change Indicators in the United States, US Environmental Protection Agency, <https://www.epa.gov/climate-indicators>; "Climate change indicators and impacts worsened in 2020", April 19, 2020, <https://public.wmo.int/en/media/press-release/climate-change-indicators-and-impacts-worsened-2020>;

⁶ Advanced Clean Trucks Total Cost of Ownership Discussion Document, Figures 1-6. https://ww2.arb.ca.gov/sites/default/files/2021-08/210909costdoc_ADA.pdf