May 17, 2021

Chair Liane Randolph and Honorable Board Members
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Item 21-4-1 Proposed Clean Miles Standard Regulation

Chair Randolph and Honorable Board Members,

General Motors LLC (GM) appreciates the opportunity to comment on the California Air Resources Board's (CARB) proposed regulation order for the California Clean Miles Standard. This is a pioneering regulation with the potential to inspire similar action in other jurisdictions while accelerating the development of the electric vehicle (EV) market. Given GM's leadership in EV development and our experiences operating the Maven carsharing service with Transportation Network Company (TNC) drivers as target users, we wish to share our perspectives and suggest areas for further consideration. GM sees promise in the proposed Clean Miles Standard and believes it can play a role in the state's overall approach to reducing passenger vehicle emissions in California. But we believe its ultimate success will rely on continued and reliable state investments in EV infrastructure and incentive programs and that additional strategic credit-generation pathways in the regulation could enhance its impact.

GM Has Significant Experience Understanding the Challenges and Opportunities in Electrifying Shared Mobility Services

GM was an early leader in offering solutions to electrify shared mobility services. From 2016-2020, GM operated a mobility platform – Maven Gig – that provided short-term vehicle access programs as weekly vehicle rentals to ride-sharing drivers. Maven Gig drivers using Chevrolet Bolt EVs paid a fixed weekly fee for unlimited miles and unlimited charging through the EVgo network. The operation of this program provided valuable insights into TNC electrification needs, opportunities, and challenges. Bolt EVs in Maven Gig vehicles traveled over 55 million electric miles with more than 1 million charging events accounting for over 17 GWh of electricity. While Maven Gig is no longer in operation, GM remains interested in supporting the electrification of this sector. We participate in a TNC Electrification Working Group with the City of LA and recently collaborated with RMI to better understand challenges and opportunities for TNC

electrification leveraging Maven Gig data.[1] GM also continues to explore opportunities to accelerate adoption of EVs—potentially including off-lease (used) vehicles—through both individually owned vehicles and rental programs targeting rideshare and delivery drivers. For example, we partnered with Uber in 2020 to offer discounts on Bolt EV.[2]

The Clean Miles Standard Can Play a Role in a Comprehensive Approach to Reducing Passenger Vehicle Emissions in California

GM has long believed that achieving California's emissions reductions goals for the passenger vehicle sector will require a comprehensive approach that builds a sustainable, profitable market for EVs. While GM takes no formal position on the stringency of the standard in the proposed regulation order, we find that the Clean Miles Standard can help do exactly that, with the necessary modifications and complementary policies in place to build demand, meet charging needs, and overcome related barriers.

The Clean Miles Standard can support the light-duty vehicle market's electrification in three important ways.

- Directly building demand for EVs by requiring TNCs to electrify their operations on an expedited timeline. To meet their requirements, TNCs might promote EVs to their drivers, offer their own incentives, or enhance some of the emerging EV rental programs we have seen under trial in the industry in recent years, all of which could boost sales and electric vehicle miles traveled (eVMT). Rapid electrification of TNC fleets will likely require both personally owned vehicles and rental models.
- Increasing public exposure to the technology as TNCs deploy a greater number of EVs into service. Most obviously, with more EVs in service Californians will simply see more of them on the road around them. But perhaps more importantly, drivers and passengers alike might experience an EV for the first time through TNC fleet rentals and ride-hailing service and have a chance to learn of some of the benefits of the technology firsthand—not unlike a "ride-and-drive" event. The fact is that EVs remain unfamiliar to a surprisingly large share of the population, but we also know that the vehicles themselves are often their own best advertisement. GM is excited about the possibility that the Clean Miles Standard could give more Californians an opportunity to experience an EV. The fact that each vehicle typically provides several rides per day—often with more than one passenger—makes ride-hailing fleets a very powerful tool for exposing more people to the technology.
- Supporting expanded EV charging infrastructure: Electrifying TNC fleets helps support infrastructure development, particularly around building the business model for public-facing charging infrastructure by increasing DC fast charge

[1] https://rmi.org/insight/accelerating-the-electric-vehicle-transition
[2] https://media.gm.com/media/us/en/gm/home.detail.html/content/Pages/news/us/en/2020/sep/0908-uber.html

station utilization and predictability. This should have spillover benefits to the general population and the broader ZEV program to the extent that increased EV deployment in rideshare applications helps drive additional deployment of publicly available charging infrastructure, though there may also be a need for some dedicated chargers to serve TNC needs.

California's Existing EV and Infrastructure Incentive Programs Are Critical Tools for the Success of the Clean Miles Standard

EV purchase incentives continue to be essential for the success of the EV market and, in turn, the Clean Miles Standard. GM knows that customers want a no-compromise, long-range vehicle that is well designed and meets their functional needs. At the same time, they want pricing in line with internal combustion engine vehicles. This is especially true of consumers who use their vehicles to drive for ride-hailing services. As CARB staff's own analysis highlighted, many TNC drivers—perhaps the majority—come from communities of concern where incomes tend to be lower and access to capital for vehicle purchases more constrained. In such cases, even a short payback period on an EV purchase might not be sufficient to overcome the challenges many drivers face with the upfront expenditure of acquiring an EV that may be more expensive than a comparable conventional alternative.[3]

Public policy support is crucial for addressing the affordability challenge and GM noted CARB staff's evident appreciation for the issue in its analysis where, "[t]o enable the purchase of the electric vehicle for drivers (particularly lower-income drivers), staff have summarized existing incentives available."[4] This summary included the Clean Fuels Reward Program, the Clean Vehicle Rebate Project (CVRP), and Clean Cars for All (CC4A). However, the state has not adequately funded CVRP, and it is currently closed. The tenor of recent debates about the program mean that automakers and advocates alike share serious concerns about its future. This jeopardizes a key source of financial support for TNC drivers buying a new EV, but it also jeopardizes the breadth and depth of the used EV market comprised of the once-new EVs CVRP brings to the state—a likely and more affordable source of EVs for many TNC drivers. For its part, CC4A as currently designed and implemented is arguably not optimized for effectively and efficiently transitioning lower income Californians into EVs or supporting vehicle switching by TNC drivers. In part this is due to the initiative's scrappage requirement, which could be burdensome or even dissuasive for some households, and partly because, in some air districts, the program does not require that the replacement vehicle be a zero-emissions one.[5]

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[3] https://ww3.arb.ca.gov/regact/2021/cleanmilesstandard/isor.pdf, p. 17.
[4] https://ww3.arb.ca.gov/regact/2021/cleanmilesstandard/isor.pdf, p. 18.
[5] https://www.valleyair.org/drivecleaninthesanjoaquin/replace/

For programs such as CVRP and CC4A to play the role that they should in achieving the targets of the Clean Miles Standard, GM respectfully calls on the state to focus on supporting EV sales through its incentive programs; making participation in incentive programs more convenient by avoiding overly restrictive eligibility requirements that complicate the programs and create confusion for dealers and customers; and, ending the "on again, off again" budget uncertainty of recent years. Ultimately, GM believes the Clean Miles Standard will only be as successful as California is committed to reliably and substantially funding effective EV incentive programs for both new and used vehicles and we strongly encourage the state to do so.

In addition to vehicle purchase incentives, GM recommends continued investment in light duty EV charging infrastructure. One key lesson learned from our experience with Maven Gig was that charging infrastructure availability can be a constraint on the market. Funding support is needed for infrastructure deployment to support the light duty market, including but not limited to multi-unit dwellings and DC fast charge plazas in and around urban areas. We note that the latest draft investment plan for the Energy Commission's Clean Transportation Program rapidly ramps down EV infrastructure funding over the next year before eliminating it completely in FY23-24. We believe this is premature and could undermine state electrification goals, including but not limited to the Clean Miles Standard.

To Maximize the Regulation's Broader Impact, CARB Should Consider Additional Market-Building Pathways for TNCs to Earn Credit Toward Compliance

The proposed regulation order provides flexibility to TNCs to earn credits toward a portion of their obligations under the Clean Miles Standard. The provisions allowing credit for investments in bicycle infrastructure and fare integration with public transit services appear to be reasonable flexibilities that could deliver valuable transportation emissions reductions and more generally support other important elements of the transportation system. For similar reasons, GM respectfully encourages CARB to consider additional compliance flexibilities to encourage charging infrastructure deployment and increased EV penetration.

Given the recent findings of the California Energy Commission on California's charging infrastructure shortfall GM believes it would be appropriate for CARB to reward TNCs for investments in public direct current fast charging (DCFC) "hubs" in dense commercial and residential communities or at airports.[6] Public DCFC plays an important role in the viability of electrified TNC operations as well as the broader success of the EV market. Experiences to date suggest that some of these chargers may need to be dedicated to shared use fleets to ensure a positive experience and easy access for both the TNC drivers and the retail drivers. CARB should also evaluate the benefits of incentivizing TNC investments in Level

[6] https://www.energy.ca.gov/programs-and-topics/programs/electric-vehicle-charging-infrastructure-assessment-ab-2127

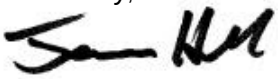
2 residential charging solutions that target multi-unit dwellings and rental homes, where the barriers to charger installation for residents—financial and otherwise—can be significant.

In our view, concerns regarding EV affordability would also justify awarding compliance credits for TNC incentive programs that meaningfully reduce the cost for TNC drivers to go electric. TNCs might provide rebates or vouchers to drivers for purchasing an EV, possibly paired with incentives to support home charging. Or TNCs might support low-cost daily, weekly, or longer EV rentals for TNC drivers, potentially through partnerships with rental companies. We believe that rental programs, and the entities that manage them, will be critical to helping build adoption.

Key to the case for providing such flexibilities is that these investments would not only benefit the TNCs and their drivers as they seek to electrify their operations. In fact, these investments would have important spillover benefits including the marshalling of additional private capital to fund public charger installations, new public chargers available for use by all EV drivers, and more EVs on the road both in and out of TNC service reducing emissions and improving air quality in the state's most challenged air districts.

We appreciate this opportunity to share our perspectives and look forward to the Board's consideration of the proposed regulation order.

Sincerely,



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