State of California
Air Resources Board

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

## Public Hearing to Consider the Clean Miles Standard Regulation

Public Hearing Date: May 20, 2021
Agenda Item No.: 21-4-1

## I. General

The Staff Report: Initial Statement of Reasons for Rulemaking (staff report), entitled "Proposed Clean Miles Standard Regulation," released March 30, 2021, is incorporated by reference herein. The staff report contained a description of the rationale and supporting documentation for the proposed regulation. On March 30, 2021, all references relied upon and identified in the staff report were made available to the public, upon request.

Greenhouse gas (GHG) emissions from the transportation sector continue to rise despite increasingly stringent emissions standards for vehicles and decreases in the carbon content of fuel. Additional measure to transition the transportation sector to zero-emission vehicles (ZEVs) and reduce vehicle miles traveled (VMT) are critical to achieving California's GHG emission reduction targets and health protection goals, including minimizing air pollution exposure throughout the state, particularly in our most impacted communities.[1]

Reducing GHG emissions from transportation network companies (TNC) is necessary to help meet the State's long-term air quality targets and the State's goal of meeting 100 percent ZEV sales by 2035. TNCs provide on-demand rides through a technology-based platform by connecting passengers to drivers who use personal or rental vehicles. Ride-hailing services offered by TNCs have grown at a rapid pace since they entered the California market in 2012. The TNC sector is the fastest growing sector relative to other categories of commercial passenger vehicle fleets regulated by the California Public Utilities Commission (CPUC).

[1] California Air Resources Board, Draft 2020 Mobile Source Strategy (web link: https://ww2.arb.ca.gov/sites/default/files/2020-11/Draft_2020_Mobile_Source_Strategy.pdf, accessed 1/20/21).

The TNCs are well-positioned to help state and local agencies meet air quality and climate goals through electrification and VMT reduction. TNCs can support VMT reduction through pooling, reducing miles driven without passengers (deadhead miles), and supporting mode shifts to active transportation and transit. Such actions can ensure that TNCs become a more sustainable transportation option.

The purpose of this regulation is to reduce GHG emissions from the TNC sector and to accelerate ZEV adoption. The use of ZEVs in TNC services can influence ZEV adoption by the broader California fleet since each TNC vehicle provides rides to numerous passengers. With the exposure of ZEVs to numerous riders, TNCs can facilitate education and outreach about ZEVs and encourage vehicle owners to consider switching to ZEVs. In addition to increasing ZEVs in TNC service, this regulation also aims to reduce VMT relative to passenger miles traveled (PMT) by encouraging shared rides, reductions in deadhead miles, connections to mass transit, and investments in active transportation infrastructure.

In May 2021, following a 45-day comment period, CARB conducted a Board hearing to consider the proposed Clean Miles Standard as described in the staff report and the associated Notice of Public Hearing (45-Day Notice). The requirements of the regulation are included in title 13, division 3, chapter 11, section 2490 of the California Code of Regulations. At this public hearing, staff presented the proposal as released in the 45-Day Notice, as well as proposed modifications to the regulatory text based on additional coordination with the CPUC, the agency implementing the proposed regulation. At the conclusion of the hearing, the Board adopted Resolution 21-10 and directed staff to amend the proposed regulation to allow additional payment options that TNCs could use to demonstrate that a ride-hailing trip was connected to a transit trip to be eligible for the transit connection credit. The Board also directed staff to gather additional data to evaluate the proposed regulation's impacts on TNC drivers. The Board further directed staff to bring any concerns back to the Board, if needed, with recommendations to address the concerns.

A total of 18 written comment letters were received from individuals or organizations during the 45-day comment period that began on April 2, 2021. At the Board hearing on May 21, 2021, two written comment letters were received along with 19 individuals who gave oral statements. Subsequently, staff proposed modifications to the original proposed regulation to address the direction given by the Board as well as the comments received. On September 14, 2021, CARB released a "Notice of Public Availability of Modified Text" available for public comment from September 14, 2021, through September 29, 2021. CARB received written comments from three stakeholders during the 15-day comment period.

### 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 would be reimbursable by the State

pursuant to Part 7 (commencing with section 17500), Division 4, Title 2 of the Government Code.

### B. Consideration of Alternatives

Government Code section 11346.9(a)(4) requires that CARB consider reasonable alternatives which "include, but are not limited to, alternatives that are proposed as less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing statute or other law being implemented or made specific by the proposed regulation."

For the reasons set forth in the staff report, in staff's comments and responses at the hearing, and in this FSOR, the Board determined that no alternative considered by the agency would be equally effective in achieving the GHG reduction and electrification of the TNC sector.

#### 1. 100% eVMT by 2030

This alternative scenario would require TNCs to achieve 100 percent electrification by 2030 and includes slightly higher targets in the earlier compliance years compared to the proposed targets. At the January 2020 informational hearing, the Board gave direction for staff to consider a higher electrification target. Stakeholder input received during the regulation development also included requests for a 100 percent electrification target by 2030. Subsequently, CARB staff analyzed an electrification target trajectory that reaches 100 percent by 2030. Staff also estimated the cost of compliance using an economic cost model to switch the vehicles with the lowest net cost to ZEVs in each year until the electrification target was met. This alternative scenario resulted in up to seven times more vehicles being switched to ZEVs in some years.

Table 1. Alternative scenario of 100% electrification by 2030 with higher intermediate electric vehicle miles traveled (eVMT) targets

| Calendar Year | Alternative 1 eVMT Targets |
|---|---|
| 2023 | 5% |
| 2024 | 15% |
| 2025 | 30% |
| 2026 | 60% |
| 2027 | 70% |
| 2028 | 80% |
| 2029 | 90% |
| 2030 | 100% |

Alternative 1 would significantly increase the number of ZEVs used in TNC service compared to the proposed regulation in every year between 2023 and 2030, and most particularly in 2030 when the remaining drivers in the fleet would be expected to switch to ZEVs. This alternative would result in higher overall costs than the proposed regulation. Costs to the TNC sector would increase due to higher ZEV purchases, home chargers, and electricity use; however, drivers may realize some cost savings from decreased gasoline use and less vehicle maintenance.

Staff recommended against this alternative—and the Board ultimately did not adopt this alternative—because a 100 percent electrification target with higher targets in the earlier years could impose substantially higher costs to low-income and low-mileage TNC drivers than the chosen alternative. Because the majority of drivers are low-mileage drivers, with some accruing very low annual miles or having very short tenures on the platform, the incremental benefit of switching these low-mileage drivers to EVs would not result in significantly greater emission benefits than the preferred scenario. The bulk of TNC miles, in comparison, are logged by a small fraction of full-time, high-mileage drivers. Thus, switching low-mileage drivers to ZEVs would not reduce emissions much more than what can be achieved by switching all the high-mileage drivers to ZEVs, which the proposed target already accomplishes. The percentage of vehicles that would need to switch to ZEVs by 2030 to meet the proposed electrification target is just 46 percent, or approximately 330,000 vehicles. In contrast, to achieve 100 percent electrification by 2030, the remaining 54 percent of vehicles—the low-mileage and short tenure vehicles—would need to be ZEVs. Thus, this alternative would bring the total vehicles switched to approximately 770,000.

Additionally, requiring 100 percent electrification would not incentivize TNCs to implement other GHG-reduction strategies, such as increasing shared rides, reducing deadhead miles, and supporting connections to transit and active transportation. These additional strategies are valuable even if the TNCs achieve 100% electrification of their fleet, because they would decrease the total number of vehicles on the road and thereby could lessen environmental and social impacts of traffic congestion.

### 2. 80% eVMT by 2030

This alternative scenario would require TNCs to meet an 80% eVMT target by 2030, as reflected in Table 2.

Table 2. Alternative 2 scenario of 80% electrification by 2030

| Calendar Year | Alternative 2 eVMT Targets |
|---|---|
| 2023 | 2% |
| 2024 | 4% |
| 2025 | 15% |
| 2026 | 30% |
| 2027 | 45% |
| 2028 | 60% |
| 2029 | 75% |
| 2030 | 80% |

Relative to the proposed regulation, Alternative 2 is less stringent, requiring fewer vehicles to be switched to ZEVs and therefore achieving lower GHG emission benefits. It results in lower costs for electricity and home chargers, and reduces the overall barriers TNC drivers might face to switch to a ZEV. Staff and the Board rejected Alternative 2 because it does not maximize the GHG reduction possible with this regulation. Furthermore, given that Lyft and Uber have both committed to achieving 100 percent electrification by 2030, the Alternative 2 scenario would be ineffective in pushing the industry to innovate.

### 3. Small Business Alternative

Government Code section 11346.9(a)(5) requires a description of reasonable alternatives to the regulation that would lessen any adverse impact on small business as well as the agency's reasons for rejecting those alternatives. No adverse impact on small businesses is expected under the proposed regulation as the regulation exempts from the eVMT and GHG targets any TNC that operates less than 5 million miles annually. While 12 TNCs currently operate in California, only two of them are anticipated to remain significantly above the 5 million annual VMT threshold. Under the proposed regulation, the remaining small TNCs will only be required to continue reporting information in Attachment 1.

## II. Modifications Made to the Original Proposal

The text of the proposed modifications to the original proposed regulation were made available to the public for a supplemental 15-day comment period through a "Notice of Public Availability of Modified Text" (15-Day Notice). The 15-Day Notice and modified regulatory language were posted to the CARB rulemaking website on September 14, 2021. The comment period began on September 14, 2021, and ended on September 29, 2021.

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

1. In a new subsection, 2490(a)(3), staff added language stating that the California Public Utilities Commission (CPUC) has authority to adopt or enforce additional requirements related to the implementation of the Clean Miles Standard. This regulation is unusual in that its authorizing statute split regulatory authority between CARB and CPUC. This language confirms CPUC's authority to add requirements as needed during their proceedings that pertain to the implementation of the regulation as directed by the authorizing statute, Senate Bill (SB) 1014 (Skinner, Chapter 369, Statutes of 2018).

2. In subsection 2490(b), staff deleted the term "integrated fare payment", because this term is no longer used in the text of the proposed regulation. This change came about because the Board directed staff to expand the transit connection credit option. Staff modified the $CO_2$ credit provision for TNC connected trips to transit to allow for additional methods of verifying that a TNC trip was connected to transit. For the TNC to earn this optional credit, the transit portion of the connected trip does not necessarily need to be paid through the TNC app or a third-party app; rather, any proof of payment and proof that the connection occurred could be provided.

3. In subsections 2490.1(d)(1) and 2490.1(d)(4), staff revised language to indicate that the CPUC, not CARB, will be issuing any over-compliance credits earned by a TNC. CPUC indicated to CARB that they wished to take on this role as part of its responsibility to implement the regulation.

4. In subsection 2490.2(c), staff added "minus $eVMT_{P1,P2,P3}$" back into the description of equation terms because it was inadvertently removed in the 45-day notice version of the proposed regulation. Additionally, the subscript "All" was stricken from the equation term $VMT_{P3, All}$ to remove any confusion on what data should be included in this part of the equation and to define the term more clearly.

5. In subsection 2490.2(d), staff added the term "project life" in parentheses to further define and clarify what is meant by the years in which the project is operational. "Project life" was also added to subsection 2490.3(b)(7) for the same reason.

6. In subsection 2490.2(d)(5), staff added language indicating that credits may only be earned beginning in the year the project becomes operational and can only be applied during the project life. This modification is necessary to provide clarity on when the regulated party may request the optional bikeway and sidewalk infrastructure investment credits.

7. In subsection 2490.2(e), staff expanded the options used to demonstrate that a ride-hailing trip was connected to a transit trip, and no longer limited the

connected trip to an integrated fare payment. This modification was made, as directed by the Board in the May 2021 hearing, to allow credit-earning from transit-connected trips purchased through other means, not only with an integrated fare payment system, to demonstrate the transit connection. This modification includes changes to the definition of terms for Equation 5 for consistency.

8. In subsection 2490.2(f), staff added language that the CPUC may establish additional $CO_2$ credit options, in addition to those included in this regulation. These credits can only be applied in the GHG equation to be used to meet the GHG target. This modification flags for stakeholders that CPUC has authority, through its proceedings, to establish additional crediting mechanisms as part of CPUC's implementation role under SB 210.

9. In renumbered subsection 2490.2(g), staff modified the text to state that the TNC may apply for $CO_2$ credits from the CPUC and that the CPUC shall issue credits upon finding that the TNC has submitted all required information as described in Sections2490.2(b) and 2490.2(c). This modification is made to explain that, prior to earning credits, TNCs must submit data to CPUC, not CARB, and that the CPUC will determine eligibility of the credits based on the required information submitted and determine credits earned. This change will assist CPUC in its implementation role.

10. In section 2490.3(a)(3), staff added a reference to the new Attachment 2, containing additional required data fields. Attachment 2 adds data fields that include driver information that can be linked to the trip data in Attachment 1 using the anonymous unique Driver IDs. This data requirement is added to gather more information about the driver and can be used to evaluate impacts on TNC drivers as directed by the Board.

11. In section 2490.3, staff removed the biennial compliance plan requirement. Originally, this reporting requirement was added to elaborate on this statutory requirement of SB 1014. It is removed because it does not require CARB to do anything—it is a direction to TNCs. CPUC may consider whether to elaborate on this statutory requirement during CPUC's rulemaking proceedings.

12. In renumbered subsection 2490.3(b)(4), "CARB" is replaced with "CPUC" to reflect that CPUC, not CARB, is the agency issuing over-compliance credits that the TNC must report in its Annual Compliance Report. Staff made this modification to be consistent with section 2490.1(d) of the regulation, which identifies CPUC as the agency tasked with approving and issuing over-compliance credits during the implementation of this regulation.

13. In subsection 2490.3(b)(5), "CARB" is replaced with "CPUC" to reflect that CPUC, not CARB, is the agency issuing optional $CO_2$ credits that the TNC must report in its Annual Compliance Report. Staff made this modification to be consistent with

the language provided in subsection 2490.2(g), which identifies CPUC as the agency tasked with approving and issuing optional $CO_2$ credits during the implementation of this regulation.

14. In subsection 2490.3(b)(8), staff removed the term "integrated fare payment" to be consistent with the $CO_2$ credit provision as described in section 2490.2, which no longer requires payment to be made through an integrated fare payment system to demonstrate that a transit-connected trip occurred. Also in this subsection, staff added the requirement to submit the length of Period 3 trips connected to transit, as renumbered subsection 2490.3(b)(8)(E), which is necessary to determine the amount of $CO_2$ credit that may be earned by a TNC, but was not included in the earlier version of the regulation. Staff removed the former subsection 2490.3(b)(8)(F), which had required TNCs to submit the name of the integrated fare operator and contact information as it was determined this no longer necessary to submit and may be infeasible in some cases. Staff added the word "stop" in renumbered 2490.3(b)(8)(G). This is necessary to illustrate that the type of transit pick-up or drop-off location may be different than a station and can be a bus stop. In 2490.3(b)(8)(H), staff removed "amount paid for transit trip," per direction from the Board to allow other information to serve as verification of the connected transit trip, not limited to a payment for the transit trip.

15. In subsection 2490.4(b), staff added "CPUC" to be consistent with subsections 2490.1(d) and 2490.2(g), which identify CPUC as the agency that would approve and issue credits.

16. In Attachment 1, staff added the data fields "Total amount paid" and "Tip." Staff made this modification to capture additional data related to potential impacts of the regulation on TNC drivers. Staff removed the justification column because the justifications for each data element required are provided in the staff report.

17. Staff added Attachment 2, and referenced it in section 2490.3(a)(3). This addition responds to the Board's concern regarding the proposed regulation's impacts to drivers. Attachment 2 contains new driver-related data fields that TNCs must report, including driver revenue, ZEV subsidies given to the driver, total engaged time that the drivers spends in Periods 2 and 3, and total annual miles. This information will assist CARB in evaluating the impacts of the regulation on drivers per the Board's request.

**B. Non-Substantial Modifications**

Subsequent to the 15-day public comment period mentioned above, staff identified the following additional non-substantive changes to the regulation:

Subsections 2490.1(c)(4) and (5): Corrected subsections headings to be consistent with California Code of Regulations (CCR) formatting (original subsections below

"(4)" and "(5)" were marked as "(i)," "(ii,)" etc. and updated to "(A)," "(B)," etc. accordingly)

Subsection 2490.2(d): Corrected the numbering of subsections (6) through (8)

Subsection 2490.2(e)(4): Corrected the internal section reference from 2490.3(c)(8) to 2490.3(b)

Subsection 2490.2(g): Corrected the numbering of new subsection (g)

Section 2490.3: Corrected the numbering of subsections (b) and (c)

Subsections 2490.3(b)(6), (7), and (8): Corrected subsections headings to be consistent with CCR formatting (same as with subsections 2490.1(c)(4) and (5) above)

The modifications described above constitute non-substantial changes to the regulatory text because they reflect more accurately 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. Summary of Comments and Agency Response

Written comments were received during the 45-day comment period in response to the May 20, 2021 public hearing notice; and written and oral comments were presented at the Board hearing. Written comments were also received during the 15-day comment period in response to the 15-Day Notice released on September 21, 2021. The tables below identify the organizations and individuals that provided comments and indicate how they provided their comments. Each comment is assigned a "comment code," as described below, that staff used to identify the commenter in the response to comments.

| **Comment Code** | **Period Comment Received** |
|---|---|
| OP | Comments received during the 45-day comment period of the original proposal, April 2 to May 17, 2021 |
| B | Comments received in written materials during the Board hearing , May 20, 2021 |
| T | Comments received as testimony during the Board hearing, May 20, 2021 |
| F | Comments received during the 15-day comment period of the modified proposal, September 14 to September 29, 2021 |

**Written Comments Received During the 45-Day Comment Period**

| Comment Code | Commenter | Affiliation |
|---|---|---|
| OP-1 | Graham Noyes (April 27, 2021) | StepOne Tech America Inc. |
| OP-2 | Mark Roest (May 3, 2021) | Sustainable Energy Inc. |
| OP-3 | Cory Bullis (May 5, 2021) | Electric Vehicle Charging Association and Alliance for Automotive Innovation |
| OP-4 | Cory Bullis (May 17, 2021) | FLO |
| OP-5 | Paul Augustine (May 14, 2021) | Lyft |
| OP-6 | Tom Becker (May 15, 2021) | *Individual* |
| OP-7 | Austin Heyworth, Adam Gromis, Alex Larro (May 14, 2021) | Uber |
| OP-8 | Elizabeth Irvin (May 17, 2021) | Union of Concerned Scientists |
| OP-9 | Leah Silverthorn, Cameron Demetre (May 14, 2021) | California Chamber of Commerce and TechNet |
| OP-10 | Matthew Bruchon, Jeremy Michalek (May 17, 2021) | Carnegie Mellon University |
| OP-11 | Mari Davidson, Adam Lenz (May 17, 2021) | Waymo |
| OP-12 | David Weiskopf (May 17, 2021) | NextGen California |
| OP-13 | Adam Mohabbat (May 17, 2021) | EVgo |
| OP-14 | Jamie Hall (May 17, 2021) | General Motors |
| OP-15 | Prashanthi Raman (May 17, 2021) | Cruise |
| OP-16 | Darton Ito, Joe Castiglione (May 17, 2021) | San Francisco Municipal Transportation Agency and San Francisco County Transportation Authority |
| OP-17 | Bill Magavern, Daniel Barad, David Weiskopf, Erin Rodriguez, John Shears, Matt | Coalition for Clean Air, Sierra Club California, NextGen, UCS, The Center for Energy Efficiency and Renewable Technologies, |

| Comment Code | Commenter | Affiliation |
|---|---|---|
| | Hettich, Simon Mui (May 17, 2021) | Transport Workers Union, Natural Resources Defense Council |
| OP-18 | Matthew Bruchon, Jeremy Michalek (May 2021) | Carnegie Mellon University |

**Written Comments Received During the Board Hearing**

| Comment Code | Commenter | Affiliation |
|---|---|---|
| B-1 | Senator Nancy Skinner | California State Senate, SD-09 |
| B-2 | Megan Richer | Via Transportation Inc. |

**Oral Comments Presented at the Board Hearing**

| Comment Code | Commenter | Affiliation |
|---|---|---|
| T-1 | Adam Gromis | Uber |
| T-2 | Dan Howells | EVCA |
| T-3 | Joe Castiglione | SFCTA |
| T-4 | Neil Koehler | Pacific Ethanol |
| T-5 | Mark Roest | Sustainable Energy, Inc. |
| T-6 | Steven Douglas | Auto Innovators |
| T-7 | Graham Noyes | Pearson Fuels |
| T-8 | Bill Magavern | Coalition for Clean Air |
| T-9 | Sam Appel | BlueGreen Alliance |
| T-10 | Simon Mui | NRDC |
| T-11 | David Weiskopf | NextGen |
| T-12 | Megan Richer | Via |
| T-13 | Adam Mohabbat | EVgo |
| T-14 | Juha Honkasalo | StepOne |
| T-15 | Leah Silverthorn | CalChamber |
| T-16 | Matthew Beyer | UCS |
| T-17 | Will Barrett | American Lung Association |
| T-18 | Paul Augustine | Lyft |
| T-19 | Laura Rosenberger Haider | *Individual* |

**Written Comment Received During the 15-Day Comment Period**

| Comment Code | Commenter | Affiliation |
|---|---|---|
| F-1 | Paul Augustine (September 29, 2021) | Lyft |
| F-2 | Alex Larro (September 29, 2021) | Uber |
| F-3 | Yi Han (September 24, 2021) | Woodward Inc. |

## A. $CO_2$ Credits

1. ***Comment:*** Commenter recommends that credits be offered to TNCs for investing in ZEV charging infrastructure. [OP-3, OP-4, OP-7, OP-9, OP-13, T-2, T-13]

   ***Agency Response:*** CARB believes TNCs should play a role in supporting access to charging infrastructure, particularly if it is designated for drivers on their platforms. Staff believe this is something TNCs are likely to do already to comply with electrification targets. Furthermore, because investing in charging would support compliance with the electrification target, such credits would dilute the emission benefits of the regulation by effectively providing extra credit for electrification. Giving credits would also take away from other actions that TNCs would take to reduce GHG emissions. Finally, TNCs would be able to earn credits in the Low Carbon Fuel Standard (LCFS) program if they installed chargers for their fleets.

2. ***Comment:*** Commenter recommends that credits be offered to TNCs if they help drivers get into ZEVs, such as by providing subsidies toward ZEV purchases. [OP-9, OP-12, T-1]

   ***Agency Response:*** Similar to the Comment 1 response above, for TNCs to comply with electrification targets, they will likely help the drivers on their platforms switch to ZEVs. In fact, Uber has announced plans to invest in the switch to electric vehicles. Providing credits for this investment is therefore unnecessary and would dilute the emission benefits of the program. In addition, in speaking to drivers of TNC services, staff learned that if subsidies are provided, drivers prefer that the subsidies be provided from a third-party—not the TNCs—because allowing TNCs to distribute subsidies would set up a system whereby TNCs may have an advantage over drivers that receive these subsidies.

3. ***Comment:*** Commenter recommends that TNCs be offered credits for providing micromobility trips on their platform. [OP-9, T-1]

   ***Agency Response:*** CARB considered the possibility of $CO_2$ credits for micromobility trip miles provided on TNC platforms. TNCs are already investing in micromobility and it is therefore unnecessary to provide extra credit for these actions and doing so would dilute the emission benefits of the program. Furthermore, staff currently

has insufficient data on whether micromobility trips tend to displace VMT, to support a credit option for micromobility trips. Staff also has insufficient data on the emissions associated with the rebalancing of micromobility devices by larger vehicles, including diesel-powered vans. The credit provision for bikeway and sidewalk infrastructure, however, is included in the regulation to support the growth of safe active transportation, including with the use of micromobility devices.

4. ***Comment:*** Commenter suggests that $CO_2$ optional credits should be expanded to apply to the eVMT targets, not just the GHG targets, to allow more flexibility for TNCs to meet the eVMT targets while not harming drivers. Such flexibility would encourage TNCs to experiment with new investments, such as in charging infrastructure. Also, commenters suggest that the proposed regulation should allow CPUC to adopt an eVMT credit program. [OP-3, OP-7, OP-9, T-2]

   ***Agency Response:*** Staff (and the Board) selected eVMT targets based on supporting modeling that shows the targets are feasible while providing a pathway under which high-mileage drivers switching to ZEVs could recoup the cost of switching after one year. The eVMT targets have been set low in the early years of the regulation to accommodate for uncertainties in ZEV market growth in the near-term. The proposed eVMT requirement reaches 90 percent by 2030, which is estimated to require less than half of vehicles in service at that time to be ZEVs. Furthermore, the two large TNCs in California have already committed to 100% eVMT in at least the large markets by 2030. To ensure maximum emission benefits, the regulation will not allow for credits from other actions to be used toward the eVMT requirement. Any additional flexibility allowing eVMT credit options, such as for investments in charging, may dilute the emission benefits of the program. TNCs must take actions to meet the minimum electrification requirements to comply with the regulation, and extra credit for such actions is not necessary.

5. ***Comment:*** Commenter suggests that credits from TNC connections to transit should allow for other methods of verifying the transit connection, as integrated fare payment systems are not always feasible. Relatedly, commenter requests that credits be available for TNCs to earn by simply offering a transit option in the app. [B-2, T-1, T-12]

   ***Agency Response:*** Based on feedback during the comment period and Board deliberation, CARB has modified the credit provision for transit connected trips to allow for other methods of verifying that the TNC trip was connected to a transit trip, without explicitly requiring an integrated fare payment system. This and other modifications were released to the public on September 14, 2021, in the Notice of Public Availability of Modified Text (15-Day Notice).

6. ***Comment:*** Commenter requests that credits for transit-connected trips be given for the transit miles instead of vehicle miles, to discourage riders from choosing the last stop on the transit line instead of the transit stop closest to their destination. [OP-10]

***Agency Response:*** Credits for transit connected trips are calculated using the first- and/or last-mile segment of the connected trip to prevent TNCs from claiming an unfair share of $CO_2$ credits from transit trips that may be long distance. These long-distance transit trips likely would have happened on their own.

7. ***Comment:*** Commenter requests that credits be granted to TNCs for providing publicly subsidized trips that fill a transportation gap. [B-2, T-12]

   ***Agency Response:*** While addressing transportation gaps is important, TNC trips subsidized by a public transit agency have been a relatively small portion of trips. One of the primary goals of the proposed regulation is to increase eVMT in TNCs. Granting eVMT credits for trips not necessarily served by ZEVs would not be practical as part of this proposed regulation.

8. ***Comment:*** Commenter requests that CARB review and clarify the bikeway and sidewalk infrastructure credit provision. [OP-7]

   ***Agency Response:*** Based on comments, staff have reviewed the bikeway and sidewalk infrastructure credit provision and have provided modifications in the regulation language to clarify how this credit provision can be used. The modifications were released to the public on September 14, 2021, in the 15-Day Notice. Staff believe these changes clarify the provision and address the comments.

9. ***Comment:*** Commenter suggests that the bikeway and sidewalk $CO_2$ credits be limited to offsetting just the emissions in the county in which the bikeway and sidewalk infrastructure is built, to offset the emissions from TNC trips that take place in that county, rather than applying the $CO_2$ credit to the TNC's statewide GHG emissions. [OP-16, T-3]

   ***Agency Response:*** This suggestion adds unnecessary complexity to what is an optional $CO_2$ credit provision. It would require the implementing agency to conduct detailed geographical analyses of the TNC trips and emissions occurring in the county in which the bikeway and sidewalk investment is made. What the commenter suggests would also change how the $CO_2$ credits are used. The $CO_2$ credits are currently meant to be applied to a company's compliance with statewide annual targets. Since targets are set on a statewide basis, using $CO_2$ credits to offset emissions in one county would be difficult to implement and would make this option infeasible.

10. ***Comment:*** Commenter requests that CARB clarify that with respect to bikeway and sidewalk infrastructure, "operational" means that the facility is available for public use, and that credits be given only when the investment dollars are fully paid to the agency leading the project. [OP-16]

    ***Agency Response:*** The recent modifications released on September 14, 2021, explain that the term "operational" means the length of the project life. The use of

the term "project life" is consistent with terms used by local planning agencies and is most relevant to defining how the $CO_2$ credits in the proposed regulation are given. To emphasize what the proposed regulation states, all investment projects must be public projects and the $CO_2$ credits may only be issued for the length of the project life, which is an adequate restriction on the terms of the credit provision without further needing to restrict it to the after the TNC's investment dollars are fully paid toward the project. Staff believes a likely scenario is that the project life years will begin after the TNC investment is made anyway.

**B. Data Transparency and Data Confidentiality and Reporting**

1. ***Comment:*** Commenter advocates for making robust TNC data and compliance reports publicly available, as this kind of data transparency by allowing the public to evaluate and comment on the TNCs' progress toward emission reduction as well as on how they are supporting drivers. [OP-8, T-3, T-17]

   ***Agency Response:*** Data confidentiality issues are currently being handled by the CPUC, and further information can be found in Decision 20-03-014 under Rulemaking 12-12-011.

2. ***Comment:*** Commenter expressed that data fields including Driver IDs, TNC IDs, and VIN information raise privacy concerns and certain driver-related data are beyond the scope of SB 1014. Commenter also requests that a separate data template should be provided by CARB for the new data requirements that are not already part of CPUC's annual reporting requirements. [F-1, F-2]

   ***Agency Response:*** Data including Driver IDs, TNC IDs, and VIN have always been included in CPUC's annual reporting requirement. These types of data have been required of TNCs and their inclusion in the proposed regulation means they will continue to be required data reporting elements. The newly added driver-related data, such as annual revenue and total annual miles, are within the scope of SB 1014, as they relate to impacts to drivers. SB 1014 directs CPUC to monitor impacts to low- to moderate-income drivers, and Board directives to CARB staff also emphasize a need to evaluate the proposed regulation's impacts to drivers over time. Any new data reporting requirement per the proposed regulation will be managed by the CPUC, which is the implementing agency. CPUC will manage the templates with which the new data requirements should be reported. To the extent CARB accesses this information to evaluate the impacts of the regulation, CARB has policies in place for managing confidential or sensitive data and does not plan to release driver data to the public.

**C. Driver Impacts**

1. ***Comment:*** Commenter recommends that more data related to driver impacts should be reported. Commenter also urges that the burden of compliance should fall only on the companies, and that drivers should not have to be financially impacted by this

regulation. CARB should push TNCs to demonstrate that they are supporting their drivers. [OP-8, T-9, T-10]

***Agency Response:*** CARB has added modifications to the regulation to require additional data related to driver revenue, to evaluate changes in driver revenue on a per-hour and per-mile basis over the course of the regulation. The modified language was released to the public on September 14, 2021, in the 15-Day Notice. CARB is also pursuing a third-party survey contract to acquire additional driver information before and after the proposed regulation takes effect. The survey would include information that cannot be collected or disclosed by the TNCs, including household income, access to home charging, and others. Based on comments and Board direction, CARB is committed to monitoring impacts of the regulation on drivers.

**D. Exemptions**

1. ***Comment:*** Commenter requests that TNC trips served by larger vehicles, such as those for microtransit operations, and all wheelchair-accessible vehicle (WAV) trips be exempt from the eVMT requirement since there is a relative lack of electric models available in the larger vehicle segment. [B-2, T-12]

   ***Agency Response:*** CARB believes that this exemption is unnecessary at this time, given that only the two largest TNCs operating in the state are subject to the requirements of the proposed regulation and the rest, including those that provide microtransit services, are exempt due to not meeting the threshold of 5 million annual miles. One TNC whose primary operation is providing microtransit trips with larger vehicles in California is not projected to exceed the 5-million-mile threshold in the near-term. This means that this company is not likely to become subject to the proposed regulation's targets until much later into the regulation period when more electric vehicle models in the larger vehicle segment will be available than would be in the early years of the regulation.

   Additionally, the WAV trip exemption only applies to trips requested and served as WAV trips to ensure that if those vehicles are also serving regular passenger trips, they should count toward compliance. If a large vehicle is serving a pooled trip, the higher occupancy value would help towards meeting GHG/PMT targets. Having the larger vehicle serve low occupancy, non-pooled trips is discouraged.

**E. GHG and eVMT Targets**

1. ***Comment:*** Commenter recommends that the eVMT targets are increased in the early years or expedited to reach the maximum eVMT target earlier than 2030. [OP-2, T-11]

   ***Agency Response:*** The methodology staff used to set the eVMT targets was constructed in such a way to consider the potential cost impacts on TNC drivers,

particularly in the early years of the regulation, to ensure the targets are feasible in each calendar year. Relatedly, staff evaluated a more aggressive 100 percent electrification alternative, which may be similar to expediting the electrification targets as the commenter requests. Staff decided against it based on the higher cost to the TNC industry as a whole, including for drivers, and only a moderate increase in emission benefit. Furthermore, the percentage of vehicles that would need to switch to ZEVs by 2030 to meet the proposed electrification target is just 46 percent, or approximately 330,000 vehicles. In contrast, to achieve 100 percent electrification by 2030, the remaining large fraction of vehicles that are low-mileage and short tenure need to be ZEVs, bringing the total vehicles switched to approximately 770,000.

2. ***Comment:*** Commenter suggests that electrification feasibility alone should dictate the stringency of the GHG targets, rather than requiring TNCs to further reduce GHG emissions than can be achieved by meeting the electrification targets. Commenter cites the COVID-19 pandemic that created uncertainty in the ability to increase shared rides and reduce deadheading compared to base year levels. [OP-5]

   ***Agency Response:*** For this regulation, the electrification targets were set based on a cost optimization model that considered impacts to drivers. Staff believes it is feasible to achieve further emission reduction using other strategies, such as increasing pooling, reducing deadheading, connecting riders to transit, and investing in active transportation infrastructure. GHG targets that are determined only by the eVMT targets would be redundant. The GHG targets go beyond electrification, further reducing GHG beyond what results from minimum eVMT compliance to encourage other strategies, including further electrification, increasing shared rides, decreasing deadhead miles, encouraging more fuel-efficient vehicles in the rest of the fleet, and taking advantage of the $CO_2$ credit provisions for connecting passengers to transit and investing in bikeway and sidewalk infrastructure. The TNCs also have an ability to bank GHG credits, allowing for flexibility in GHG compliance over multiple years.

3. ***Comment:*** Commenter states that the proposed GHG targets may actually incentivize a rebound effect where PMT will be increased due to possible workarounds for compliance. Additionally, the electrification targets may incentivize more deadheading by ZEVs. [OP-10]

   ***Agency Response:*** CARB does not believe the GHG targets will incentivize an unnecessary increase in PMT. Since the GHG reduction is relative to PMT, this allows for the growth of the TNC sector as they serve more customers. As TNCs grow, they will inevitably increase PMT. The goal of this proposed regulation is to reduce the GHG emissions relative to the PMT served.

   CARB has considered the possibility of increased deadheading by ZEVs to meet the electrification targets, and therefore has already constricted the eVMT compliance

calculation to only include Period 3 miles. Period 1 and 2 miles, which are deadheading miles, are not included in the eVMT compliance calculation.

4. ***Comment:*** Commenter requests that near-term targets be more stringent, while maintaining the long-term targets, to better match the current ZEV market conditions. [OP-5, OP-12]

   ***Agency Response:*** CARB has set the eVMT targets based on supporting modeling that shows that they are feasible targets and that high-mileage drivers switching to ZEVs can recoup the cost of switching after one year. These targets are low in the early years to account for current ZEV market conditions, in which longer-range ZEV models are more costly.

**F. Feasibility**

1. ***Comment:*** Commenter requests that the agencies establish a transparent mechanism to evaluate the feasibility of the adopted GHG and electrification targets every two years, and to include an off-ramp and assurance that targets can be adjusted in the regulation in the future, if needed. [OP-5, OP-9, T-18]

   ***Agency Response:*** As required by SB 1014, CARB will review the available data related to barriers to expanding the usage of ZEVs by TNCs every two years. This work, as well as any potential of off-ramps, will be developed in conjunction with the CPUC, who is designated as the implementing agency of the proposed regulation. CARB believes the details of this process does not belong in the proposed regulation language, but instead should be discussed with stakeholders and the public during the CPUC's rulemaking process to establish their mechanisms for implementation.

**G. Incentives**

1. ***Comment:*** Commenter recommends that publicly funded vehicle incentive programs, including the Clean Vehicle Rebate Project (CVRP) and Clean Cars 4 All, be continued and that programs should be increased and expanded to provide incentives specifically for TNC drivers and for TNC rental fleets, without an annual cap on the amount of incentives a fleet can receive. [OP-3, OP-5, OP-13, T-2, T-13]

   ***Agency Response:*** CARB's Clean Miles Standard staff have met with incentive program staff on an ongoing basis during the rulemaking process to learn the projected future of current vehicle incentive programs and to discuss any potential opportunities for expansion of programs to support TNC drivers. Existing incentive programs are available for eligible California residents, and TNC drivers are encouraged to pursue them when deciding to switch to a ZEV. Incentive information

geared specifically for TNC drivers is available on the Clean Miles Standard website.[2]

Current incentive program restrictions for fleets are not expected to be lifted at this time, nor are any funds planned to be directed to TNC rental fleets specifically. Furthermore, TNCs can reach out to incentive staff through their funding program workshops.

**H. Infrastructure**

1. ***Comment:*** Commenter suggests that public agencies coordinate to ensure adequate electric vehicle charging infrastructure, including TNC-dedicated charging particularly in urban areas and areas that serve as mobility hubs. [OP-13, OP-14, T-13]

   ***Agency Response:*** Agencies including the California Energy Commission, the CPUC, and CARB continue to coordinate on an ongoing basis to evaluate and plan for the expansion of vehicle charging infrastructure in the state. With the Clean Miles Standard regulation in place, there is a special focus on ensuring that the charging needs of TNC drivers will continue to be met as the electrification requirements increase each year.

**I. Occupancy**

1. ***Comment:*** Commenter cautions against assuming that average vehicle occupancy will increase in future years compared to the base year, and that calculating GHG compliance should be based on actual occupancy rather than fixed occupancy factors. Commenter also recommends that CARB evaluate the barriers to high occupancy services. [OP-5, OP-16, T-3]

   ***Agency Response:*** CARB staff estimated a vehicle occupancy increase that is optimistic but feasible for the future, based on assessing trends in the large metropolitan areas in California. The decision to use fixed occupancy factors in calculating GHG compliance was made due to the current lack of ability to record actual occupancy for each trip. However, Attachment 1 includes a data field for actual vehicle occupancy when it becomes available. The agencies will look at the data to see if the occupancy factors need to be changed in the future.

**J. Other**

1. ***Comment:*** Commenter recommends that the regulation be expanded to taxis. [T-5]

   ***Agency Response:*** SB 1014 specifically excludes taxis, therefore CARB cannot include taxis as regulated parties in this rulemaking.

[2] https://ww2.arb.ca.gov/resources/fact-sheets/tnc-driver-fact-sheet

2. ***Comment:*** Commenter suggests that the regulation not include automated vehicles (AVs) in the definition of TNCs. [OP-11]

   ***Agency Response:*** SB 1014 directs the agencies to consider AVs and other innovative technology in developing the proposed regulation. Therefore, AVs providing TNC trips would be subject to the requirements if they do not meet any criteria for exemption.

3. ***Comment:*** Commenter requests that the agencies should account for multi-apping by possibly providing a correction factor to prevent double-counting miles. [OP-5, F-1]

   ***Agency Response:*** For compliance reporting, each TNC calculates their annual g $CO_2$/PMT using all miles logged on their platform, regardless of whether some of those miles were simultaneously logged by a different TNC while drivers are multi-apping. However, for calculating emissions for inventory purposes, CARB will remove double-counted miles to produce a more accurate emissions inventory for the TNC sector in California as a whole. The methodology used to remove double-counted miles is described in the 2018 Base-Year Emissions Inventory Report found on the Clean Miles Standard website.

## IV. 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 peer review is not required for this proposed regulation as it does not contain a scientific basis or scientific portion that is subject to peer review. The regulation does not establish "a regulatory level, standard, or other requirement for the protection of public health or the environment," such as an ambient air quality standard or toxic exposure level. As such, it does not have a "scientific basis" or "scientific portions" that form the foundations of a regulatory standard or level. Moreover, since the TNC fleet consists of personal vehicles already in use by California drivers, this proposed regulation alone is not projected to change the light-duty fleet mix or new ZEV sales numbers in the state as TNCs to increasingly electrify their fleet.