

July 16, 2021

Ms. Therese McMillan, Executive Director
Metropolitan Transportation Commission
Bay Area Metro Center
375 Beale Street, Suite 800
San Francisco, CA 94105-2066
tmcmillan@bayareametro.gov

RE: CARB Review of Metropolitan Transportation Commission's Draft 2021
RTP/SCS Senate Bill 375 Greenhouse Gas Emissions Technical Quantification
Methodology

Dear Ms. McMillan:

California Air Resources Board (CARB) staff appreciate Metropolitan Transportation Commission's (MTC) Senate Bill 375 (SB 375) draft technical quantification methodology submittal¹ pursuant to requirements under California Government Code section 65080 (b) (2) (J) (i), as well as additional information MTC has provided in response to CARB staff's concerns and questions. CARB staff has reviewed all materials MTC provided on its proposed technical methods and planning analysis tools for assessing SB 375 transportation-related greenhouse gas (GHG) emissions from Plan Bay Area 2050 (2021 RTP/SCS). Below is a summary of CARB staff's remaining concerns with MTC's draft technical methodology along with suggested remedies.

2020 GHG Emission Reduction Target

State law requires CARB to provide 2020 GHG targets and MPOs to develop an SCS that achieves the GHG targets approved by CARB.² Given that 2020 is a specific milestone in SB 375, MPOs need to continue to monitor, and report observed data as it relates to achievement and maintenance of that target in the SCS. Consistent with CARB's SCS Evaluation Guidelines³, MTC could compare available observed data with performance indicators to understand whether the region is moving in a direction consistent with the SCS's planned outcomes to meet the 2020 target.

SCS Strategies to Reduce GHG Emissions

Avoiding Double Counting of Strategy GHG Emission Reductions: The draft technical methodology describes two strategies, Expanding Transportation Demand Management Programs and Targeted Transportation Alternatives, that are both

¹ MTC submitted preliminary draft technical methodologies to CARB staff on May 6, 2019, April 16, 2020, August 26, 2020, and April 12, 2021. Hereafter referred as "draft technical methodology".

² Senate Bill 375 (Statutes of 2008, Chapter 728). Sections 65080(b)(2)(A) and 65080(b)(2)(B).

³ CARB's [SCS Program and Evaluation Guidelines](#).

oriented in part towards expanding commute trip reduction programs.⁴ CARB staff is concerned about potential double-counting of GHG emission reductions between these two strategies and requests that MTC provide further clarification to demonstrate that the strategies are distinct. Specifically, information on the applicable population, geography, and/or investments per strategy would be helpful to demonstrate that the GHG emission reductions from each strategy are distinct.

Vehicle Buyback and Electric Vehicle (EV) Incentive: The draft technical methodology provides that the EV incentive program will support a total of 462,000 EVs by 2035. MTC's method appears to credit 100 percent of the total GHG emission reductions from all EVs in the Bay Area. However, consistent with the SCS Evaluation Guidelines MTC should adjust its calculations to claim partial credit based on the proportion of anticipated regional investment.

Annual Conversion Rate for Car Share Strategy Quantification: MTC's proposed quantification method for this strategy appears to first calculate annual VMT reduction and then convert annual VMT reductions to daily VMT/GHG per capita reductions using 300-days per year as the conversion rate. CARB staff request that MTC clarify the basis and reasonableness of using a 300-days per year conversion rate for light duty vehicle travel. CARB staff generally expect a 347-days per year conversion rate when quantifying GHG emissions for light duty vehicles.

Incremental Progress Analysis

The draft technical methodology includes a finding from MTC's Incremental Progress Assessment that the 2021 SCS will achieve a 22 percent reduction in GHG per capita by 2035. The assessment included a comparison with the prior SCS using the updated modeling framework, which achieved a 9 percent reduction. CARB staff appreciates the assessment to better understand how the region would achieve GHG emission reductions from plan-to-plan. Consistent with the SCS Evaluation Guidelines, CARB will need MTC to submit a comprehensive incremental progress analysis as a part of its SCS submittal. The analysis should include documentation of its approach to quantify the GHG reduction difference between its two plans, as well as its approach to identify the contributions of key variables (e.g., existing strategies, new strategies, exogenous variables, model updates) to the total difference.

Sensitivity Tests

The draft technical methodology notes that MTC will conduct an ongoing effort to work with CARB staff for identifying needed sensitivity tests.⁵ Consistent with CARB's Evaluation Guidelines, CARB staff requests that MPOs conduct sensitivity analyses for all new on-model strategies, and for model validation and calibration purposes, if the model has significantly changed. CARB staff determined that the structure of MTC's

⁴ See, MTC Discussion Draft Technical Methodology (April 2021), at pages 23-24 and 46-48.

⁵ See, MTC Discussion Draft Technical Methodology (April 2021), at page 28.

travel model is largely the same as the prior SCS with notable updates to auto-operating costs (AOC) and long-run induced travel. CARB staff requests MTC provide sensitivity analyses for new on-model SCS strategies, AOC, and induced travel as part of its SCS submittal.

Long-Run Induced Travel

The draft technical methodology indicates that MTC captures long-run induced travel by using an integrated model with multiple modeling runs. CARB staff understands that MTC's approach analyzes accessibility shift over time. For CARB staff to validate MTC's approach and modeling results, CARB staff requests the following additional information at the time of SCS submittal: 1) documentation of the number of iterations run, how the iterations applied SCS strategy implementation assumptions, and how the outputs were then used to quantify GHG emission reductions and VMT for the 2021 SCS; 2) accessibility shift data and mapping for each modeling run; and 3) results of a model sensitivity analysis to quantify the long-run induced travel elasticity (i.e., percent VMT increase, in the long-run, to percent lane mile increase)⁶.

CARB staff's final technical evaluation will take place once MTC submits its final SCS to CARB. CARB will review and make a final determination using the methodology identified in the SCS Evaluation Guidelines. The guidelines are intended to clarify the scope of CARB's updated strategy-based evaluation process. CARB's evaluation of MPO SCSs will focus on changes to land use and transportation strategies and investments that MPOs are making from one SCS to the next. As part of the final review process, CARB staff may request additional information to conduct and support our final evaluation pursuant to SB 375.

We look forward to continuing our collaboration with MTC as it finalizes and adopts the 2021 RTP/SCS. If you have any questions, please contact me at lezhie.kimura@arb.ca.gov.

Sincerely,



Lezhie Kimura Szeto
Manager, Sustainable Communities Policy & Planning Section
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cc: See next page.

⁶ See, generally, CARB SCS Program and Evaluation Guidelines (November 2018), Appendix B.

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