

Discussion Document

GHG Estimation Methodology and Reporting for the California Transportation Plan 2040

The following text describes the general methodology that the California Department of Transportation (Caltrans) is proposing to follow in order to estimate and report the Greenhouse Gas (GHG) reduction and remaining GHG deficit or surplus for key planning horizons that result from the various actions taken by the Metropolitan Planning Organizations (MPO) as part of SB 375 implementation, from the various policies and strategies Caltrans will introduce as part of the California Transportation Plan (SB 391 implementation) and from the various technological and regulatory changes that are proposed or are reasonably expected to be implemented at the State and Federal level.

Statewide Total Greenhouse Gas Estimation and Reporting Methodology for the Transportation Sector

1. Use as the GHG baseline, the measured 1990 emissions from the transportation sector for the movement of people and freight in California. [source: California Air Resources Board (CARB)]
2. Use MPO and statewide models to determine VMT changes resulting from latest approved RTP/SCS/APS and CTP policies/strategies. (source: MPOs and Caltrans)
3. Evaluate use of CARB's *Vision for Clean Air* approach to estimate overall GHG based on VMT inputs from MPO and statewide models as well as reductions resulting from the use of alternative fuels, new vehicle technology and tailpipe emissions reductions for light duty and heavy duty vehicles. (source: CARB)
4. Evaluate use of CARB's *Vision for Clean Air* approach to estimate the overall GHG produced by airplanes, trains and waterborne vehicles as well as the GHG reductions resulting from the use of alternative fuels, new vehicle technology and tailpipe emissions reductions. (source: CARB)
5. Calculate the percent above or below the 1990 measured number that results from the GHG numbers determined in Items 2, 3 and 4. Present the result as a range (i.e. the benefit of SB 375, SB 391 and vehicle/technology changes result in a 2020 GHG level that is 10-20% above 1990 levels and a 2040 GHG level that is 5-15% below 1990 levels).

Modes to be addressed in GHG estimation (P = passenger, F = freight):

- Walk (P)
- Bike (P)
- SOV (P)
- HOV (P)
- Transit (P)
- Truck (F)
- Rail (P+F)
- Air (P+F)
- Water (F)

Years to be estimated:

- 2020
- 2040