

ITEM 10 – Information
January 17, 2024

Performance-Based Planning and Programming:
Rulemaking Regarding Greenhouse Gas Emissions on the
National Highway System

Background: Staff will provide a briefing on the recent federal rulemaking that implements a performance measure for state DOTs and MPOs to track greenhouse gas (GHG) emissions as part of the federally required Performance Based Planning and Programming (PBPP) framework.



MEMORANDUM

TO: Transportation Planning Board
FROM: Eric Randall, TPB Transportation Engineer
Erin Morrow, TPB Transportation Engineer
SUBJECT: FHWA Final Rulemaking for Greenhouse Gas (GHG) Emissions Performance Measure
DATE: January 11, 2024

On November 22, 2023, the Federal Highway Administration (FHWA) announced a final rule to establish a performance measure for greenhouse gas (GHG) emissions as part of the National Highway Performance Program (NHPP). The final rule was published in the Federal Register on December 7, 2023.

The final rule requires state DOTs and MPOs to set declining targets for carbon dioxide (CO₂) emissions on the Interstate and non-Interstate National Highway System (NHS) to support the national goals of reducing economy-wide GHG emissions by 50%-52% below 2005 levels by 2030 and to net zero by 2050.

State DOTs are required to set two- and four-year targets and MPOs are required to set four-year targets, as part of the performance-based planning process (PBPP) that is also required for highway safety, highway assets, and other performance areas. Initial State DOT four-year targets are required to be established by February 1, 2024 for the 2022-2025 quadrennial performance period; for this period only the two-year targets are not required. State DOTs must also submit State Initial GHG Reports by February 1, 2024 to FHWA. MPOs have up to 180 days after the state DOTs establish their targets to establish four-year targets for the same period and do not have an immediate reporting requirement.

Due to our regional geography, the TPB is required to adopt three geographic targets for the GHG performance measure: one target for the TPB's metropolitan planning area, one target for the Washington DC-MD-VA urban area, and one target for the Baltimore MD urban area. These latter two targets must be quantitative and established jointly with our adjacent MPOs, the Fredericksburg Area Metropolitan Planning Organization (FAMPO) for the Washington urban area target and the Baltimore Regional Transportation Board (BRTB) for both the Washington and Baltimore urban area targets. TPB staff are in coordination with the region's DOTs and our adjacent MPOs on this rulemaking as routinely conducted as part of our overall PBPP process.

The GHG performance measure is the percent change in tailpipe CO₂ emissions on the NHS, compared to a reference year of 2022. State DOTs are required to measure emissions reductions for their state using a prescribed formula, which uses fuel consumption, fleet factors, and VMT. MPOs also have the same performance measure – percent change in tailpipe CO₂ emissions on the NHS – but have “flexibility in how they calculate the GHG metric... MPOs may use the MPO share of the State's VMT as a proxy for the MPO share of CO₂ emissions in the State, VMT estimates along with MOVES emissions factors, FHWA's Energy and Emissions Reduction Policy Analysis Tool (EERPAT) model, or other method the MPO can demonstrate has valid and useful results for CO₂ measurement.”

The rule does not dictate the levels for the targets besides that they must be declining, but rather that “State DOTs and MPOs have the flexibility to set targets that work for their respective climate change policies and other policy priorities, so long as they are declining.” The rule does not establish penalties for failing to meet targets or provide any incentives.

Over the next several months TPB staff will test several options for calculating GHG emissions performance and forecasting future performance in order to develop the required targets. TPB staff anticipates bringing a recommended methodology and draft targets to the TPB for a briefing in May 2024 followed by the final targets for adoption in June 2024.

ADDITIONAL INFORMATION

Federal Register publication of the Final Rule for the GHG Emissions Performance Measure:

<https://www.federalregister.gov/documents/2023/12/07/2023-26019/national-performance-management-measures-assessing-performance-of-the-national-highway-system>