

GREENHOUSE GAS (GHG) EMISSIONS PERFORMANCE – FINAL RULE

Performance Based Planning and Programming (PBPP)

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Presentation Outline

- Greenhouse Gas (GHG) Emissions Performance Final Rule
- State DOT Requirements
- MPO Requirements
- What this means for the TPB
- Specifications for estimating GHG
 - State DOT Formula
 - MPO Formula Options
- Next Steps and Schedule



GHG Final Rule

- On November 22, 2023, the Federal Highway Administration (FHWA) announced a notice of final rulemaking to establish a performance measure for greenhouse gas (GHG) emissions.
- The final rule was published in the Federal Register on December 7, 2023, and became effective on January 8, 2024.
- Requires State DOTs and MPOs to set declining targets for carbon dioxide (CO₂) emissions on the National Highway System (NHS) as part of the PBPP process.
 - Based on reference year CY 2022.



State DOT Requirements

- The new rule requires State DOTs to establish initial targets by February 1, 2024. The targets must be reported to FHWA in an Initial State DOT GHG Report.
- The rule requires 4-year and 2-year targets, aligned with the quadrennial PBPP timeline.
 - Only 4-year targets are required for the current quadrennial PBPP period, 2022 – 2025.
 - Performance against targets will first be reported in October 2026 in the Final Period Performance Report due to FHWA.



MPO Requirements

- MPOs have up to 180 days following State DOT establishment of targets to establish 4-year targets.
 - MPOs establish targets for their metropolitan planning area (MPA) as well as each urban area > 200K population.
 - MPOs may support State DOT targets or establish their own quantitative targets.
 - Urban areas with portions of the NHS that fall within more than one MPA must have joint quantitative targets established by the appropriate MPOs.



What this means for the TPB

- TPB will need to adopt 4-year targets for the period 2022-2025 no later than July 2024.
- Will need to adopt three geographic targets:
 - TPB metropolitan planning area
 - Washington DC-MD-VA urban area, jointly with the Baltimore Regional Transportation Board (BRTB) and the Fredericksburg Area Metropolitan Planning Organization (FAMPO)
 - Baltimore MD urban area, jointly with BRTB
- TPB staff will develop quantitative targets for the first two geographic areas and coordinate with BRTB staff on the third geographic target.



PBPP Requirements vs. TPB Goals

- On June 15, 2022, the TPB adopted Resolution R18-2022, which included the following GHG reduction goals :
 - “The TPB adopts regional, voluntary, on-road transportation-sector-specific GHG reduction goals of 50% below 2005 levels by 2030 and 80% below 2005 levels by 2050”
- From the perspective of the goals established by the TPB, the federally-required GHG performance measure:
 - Only applies to emissions on the NHS
 - Uses a different reference year (2022)
 - Targets are established for four-year time periods (starting with 2022-2025)
 - Applies only to CO₂ (*though CO₂ makes up the vast majority of GHG emissions from transportation*)



GHG Formulas for State DOTs

- There are no guidelines for developing quantitative targets, aside that targets must be declining.

“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.”
- State DOTs must use a prescribed formula for calculating emissions.
- Uses three data elements:
 - CO2 factors for each on-road fuel type, posted by FHWA
 - Motor fuel consumption data collected by State DOTs and reported to FHWA in the Fuels and Financial Analysis System-Highways (Fuels & FASH) system
 - VMT data collected by State DOTs and reported to the FHWA in the Highway Performance Monitoring System (HPMS)
- There are no penalties (or incentives) associated with actual performance vs. targets.



MPO Formula Options

- MPOs have flexibility in measuring or determining performance for CO2 emissions.
- MPOs can adapt the state DOT formula:
 - “MPOs may use the MPO share of the State’s VMT as a proxy for the MPO share of CO2 emissions in the State,…”*
- Or MPOs can use other methods, as suggested by FHWA or as developed and agreed with partners:
 - “...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.”*



Next Steps and Schedule

- Over the next several months. TPB will coordinate with State DOTs and adjoining MPOs on evaluation and implementation of this new federal requirement, including:
 - State DOTs' data, GHG emissions performance for reference year, adopted targets, and methodology used for target development.
 - Research options available for determining GHG emissions performance and developing targets as required of the TPB.
- Anticipate briefing the TPB and Tech Committee on recommended methodology and draft targets in May, followed by TPB adoption of the required targets in June 2024.



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