



EAST-WEST GATEWAY
Council of Governments

Creating Solutions Across Jurisdictional Boundaries

Memo to: Board of Directors
From: Staff
Subject: 2022 Regional Performance Targets – Traffic Congestion and Emissions
Date: September 15, 2022

The Moving Ahead for Progress in the 21st Century Act (MAP-21), signed into law on July 6, 2012, establishes a performance-driven, outcome-based planning and programming process. A crucial element of the process is the establishment of performance targets and measures to achieve desired outcomes across the transportation system. These performance targets are intended to ensure state DOTs and MPOs invest resources in transportation projects that make progress toward the achievement of national goals including: safety, infrastructure condition/state of good repair, congestion reduction, transportation system reliability, freight movement/economic vitality, environmental sustainability, and reduced project delivery delays. On December 4, 2015, the Fixing America’s Surface Transportation Act (FAST Act) was signed into law and continued the performance-based planning process established in the MAP-21. The process was reaffirmed by the Infrastructure Investment and Jobs Act (IIJA) signed into law on August 10, 2021.

State DOTs and MPOs are given separate responsibilities for establishing performance targets. Performance measures are used to track progress toward meeting those targets for safety, bridge and pavement condition, reliability, congestion, emissions, and transit assets. Previously, the Board of Directors set regional performance targets for each of these categories. Targets have to be established on an annual or biennial basis, subject to the requirements of the federal transportation performance measurement regulations. As part of Congestion Mitigation and Air Quality (CMAQ) Program process, 2-and 4-year targets have to be established for annual hours of peak hour excessive delay, non-single occupancy vehicle travel, and on-road mobile source emissions by October 1, 2022. As required, target setting was conducted collectively between EWG staff, IDOT, and MoDOT.

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Annual Hours of Peak Hour Excessive Delay (PHED)

For the PHED measure, traffic congestion is measured by the annual hours of peak hour excessive delay per capita on the National Highway System (NHS). The threshold for excessive delay is based on the travel time at 20 miles per hour or 60% of the posted speed limit travel time, whichever is greater. PHED data is derived from the National Performance Management Research Data Set (NPMRDS).

PHED was between 9.2 and 10.6 hours in the five year preceding the COVID-19 Pandemic. In 2020, there was a steep decline to 4.9 hours. In 2021 we started to see a rebound in traffic congestion, and PHED increased to 6.6 hours. Staff recommends setting the 2- and 4-year targets in the table below. The expected shift in travel patterns after the pandemic leads to setting higher targets than our baseline.

PHED Baseline Performance and Target			
Performance Measure	Baseline (2021 NPMRDS Data)	2-Year Target (2023)	4-Year Target (2025)
PHED	6.6 hours	8.4 hours	8.3 hours

Non-Single Occupancy Vehicle Travel (Non-SOV)

The Non-SOV measure takes into account the percentage of travel via carpool, van, public transportation, commuter rail, walking, or bicycling as well as telecommuting. This data is derived from the American Community Survey (ACS), produced by the Census Bureau. East-West Gateway is required to establish targets for the Non-SOV measure and report progress on a biennial basis. The 2020 ACS data shows the regional percent of Non-SOV travel is 19.5%.

From 2012 to 2019, Non-SOV mode share had remained relatively constant (between 17.3% and 17.8%), with slight increases and decreases which may be explained by the sample data utilized by the ACS. In 2020, Non-SOV travel increased to 19.5%. This increase can be attributed to the COVID-19 Pandemic and the resulting decrease in overall travel due to increased telecommuting. In 2021, individuals returned to commuting, however, there is a higher rate of telecommuting compared to pre-pandemic years. Staff recommends setting the 2- and 4-year targets in the table below. The increase in telecommuting and resulting change in commute patterns leads to a higher 2-year and 4-year target compared to pre-pandemic years.

Non-SOV Baseline Performance and Target			
Performance Measure	Baseline (2020 ACS Data)	2-Year Target (2023)	4-Year Target (2025)
Non-SOV	19.5%	18.0%	18.2%

On-Road Mobile Source Emissions

The on-road mobile source emissions performance measure requires state DOTs and MPOs to establish quantitative targets for Total Emissions Reduction (on-road mobile sources) for applicable pollutants and precursors. The EWG region is responsible for setting targets for Volatile Organic Compounds (VOC) and Nitrogen Oxides (NOx) based on an October 2021 FHWA applicability determination.

The on-road mobile source emissions performance measure tracks the emissions reduced by transportation projects funded through the CMAQ program and is referred to as Total Emissions Reduction. The Total Emissions Reduction will need to be shown for the entire St. Louis, MO-IL Urbanized Area. Development of regional emissions targets, per federal law, was conducted collectively between staff, IDOT, and MoDOT, and the three agencies recommend setting expected emissions reductions from CMAQ projects in the Transportation Improvement Program (TIP) as regional emissions targets. While programmed projects may be delayed, advanced, added, or removed, accounting for what is in the TIP was considered the most reasonable approach for setting emissions targets. Staff recommends the 2- and 4-year targets in the table below.

Total Emissions Reduction (On-Road Mobile Source Emissions) (kg/day)			
Performance Measure	FFY 2018-2022 Baseline Performance	2-Year Target (2023)	4-Year Target (2025)
Nitrogen Oxides (NOx)	190.0	9.671	143.483
Volatile Organic Compounds (VOC)	22.3	3.308	8.673

Next Steps

There will be a mid-performance period progress report due October 1, 2024, through which 4-year targets may be adjusted. East-West Gateway will also need to integrate these performance targets into its planning processes by including it in the metropolitan transportation plan, Connected 2050. In addition, East-West Gateway is required to show how investments in the TIP help achieve all adopted performance targets.

FHWA fact sheets on the non-single occupancy vehicle travel, annual hours of peak hour excessive delay, and on-road mobile source emissions are attached.

Staff Recommendation: Staff recommends approval of the 2022 regional performance targets for annual hours of peak hour excessive delay, non-single occupancy vehicle travel, and on-road mobile source emissions.