Final Rule: Greenhouse Gas Emissions Reporting

MPO Transportation Advisory Committee Meeting

1/25/2024

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Agenda

- Overview
- Metric and Measure
- Timeline
- Questions and Discussion

Overview


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Performance Measures

Areas: Categories of the transportation system we track.

Examples: Bridge Condition, Safety, Pavement Condition, System Performance.

Goals: How we set the end vision for how the system performs.

Example: Reduce GHG emissions to 50% below 2005 levels by 2030.

Measures: How we track progress towards the goals.

Example: Number of fatalities, percentage of NHS bridges considered in good condition, number of serious injuries.

Metrics are used to calculate the measures.

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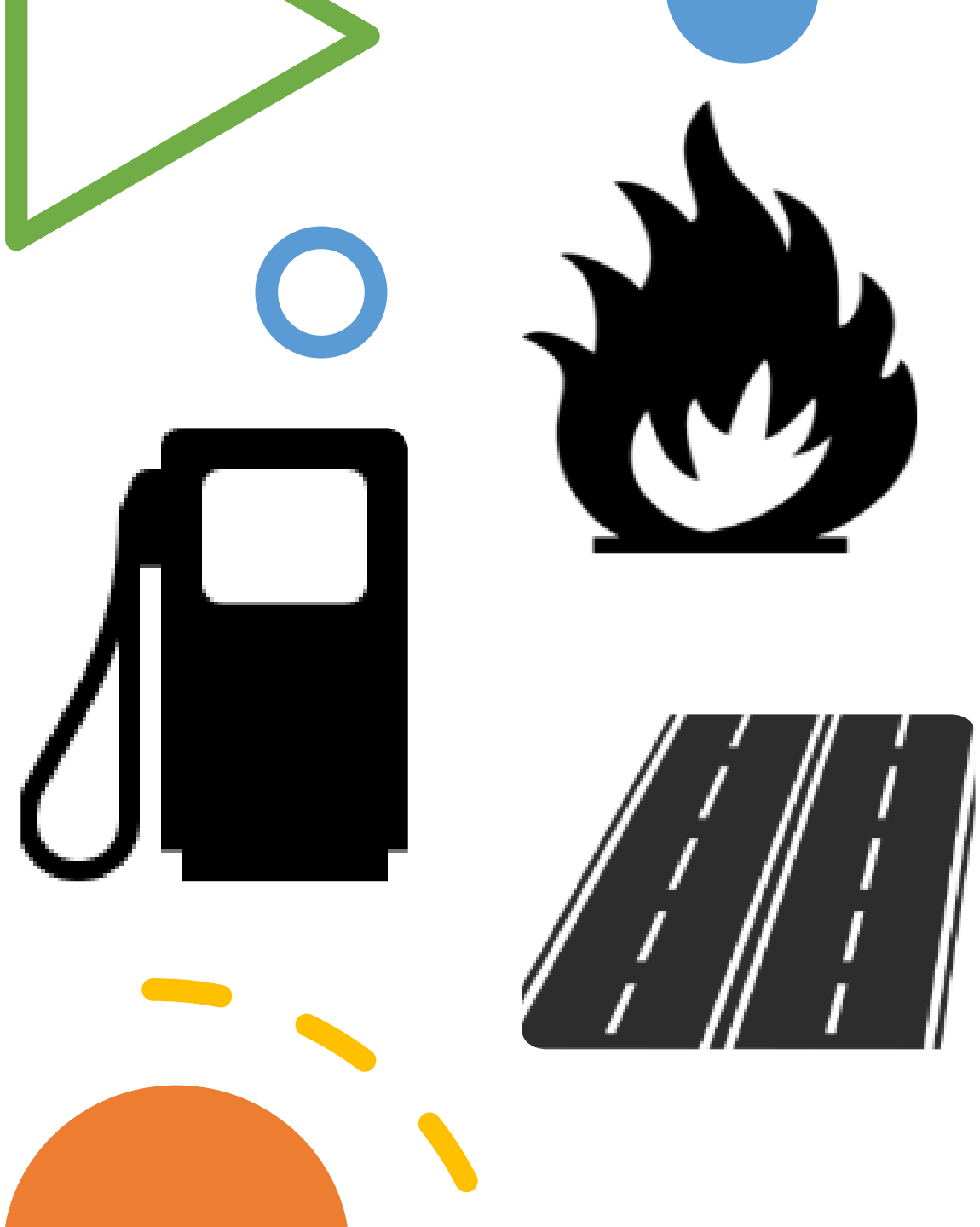
Overview

Performance Area	Performance Measure
Safety	• Number of fatalities • Rate of fatalities per 100 million vehicle miles traveled (VMT) • Number of serious injuries • Rate of serious injuries per 100 million vehicle miles traveled • Number of non-motorized fatalities and non-motorized serious injuries
Pavement Condition	• Percentage of pavements of the Interstate System in Good condition • Percentage of pavements of the Interstate System in Poor condition • Percentage of pavements of the non-Interstate National Highway System (NHS) in Good condition • Percentage of pavements of the non-Interstate NHS in Poor condition
Bridge Condition	• Percentage of NHS bridges classified as in Good condition • Percentage of NHS bridges classified as in Poor condition
System Performance	• Percent of person-miles traveled on the Interstate that are reliable • Percent of person-miles traveled on the non-Interstate NHS that are reliable • NEW: Percent change in tailpipe carbon dioxide (CO_2) emissions on the NHS compared to the reference year – (calendar year 2022)
Freight Movement	• Truck Travel Time Reliability (TTTR) Index
Traffic Congestion	• Annual Hours of Peak Hour Excessive Delay (PHED) Per Capita • Percent of Non-Single Occupancy Vehicle (SOV) Travel
On-Road Mobile Source	• Total Emission Reductions for applicable criteria pollutants

Overview

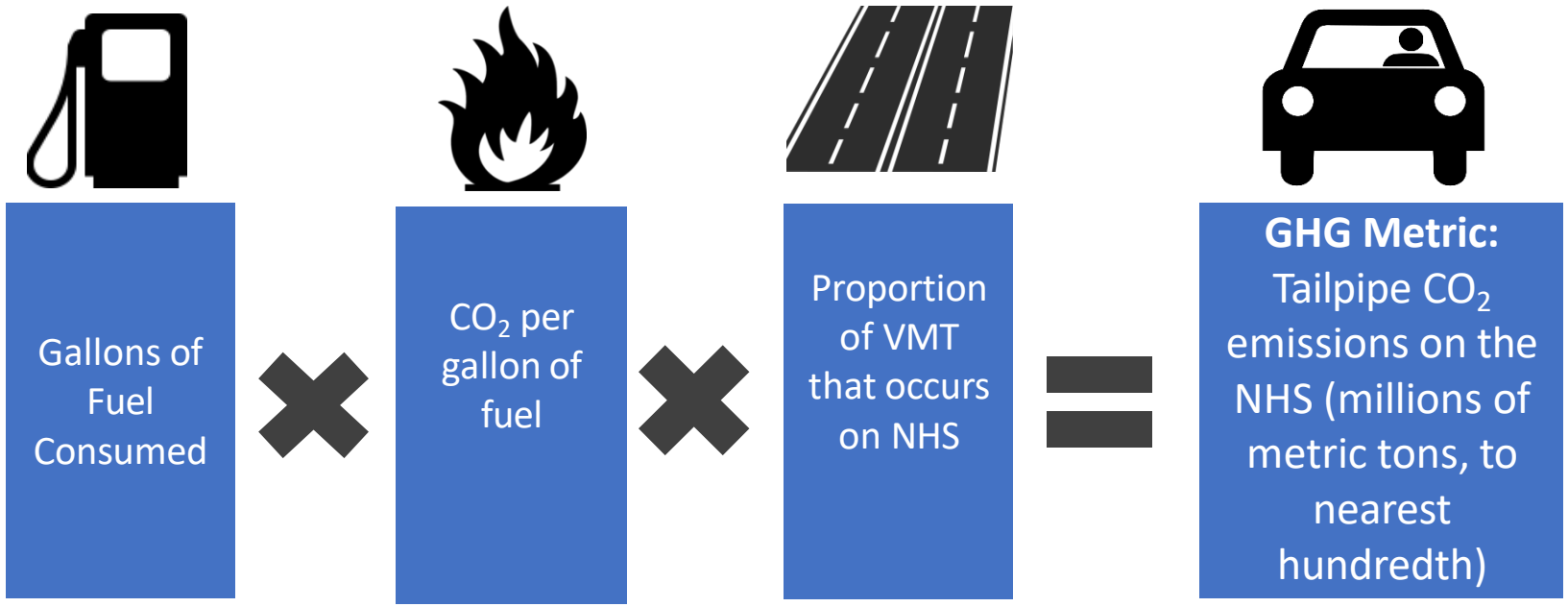
- FHWA issued a final rule on greenhouse gas emissions reporting effective January 8th, 2024.
- In support of national goal to decrease transportation the economy's emissions 50-52% below 2005 levels in 2030, net-zero economy by 2050.
- State DOT's will set 2 and 4-year targets.
- MPO's will set 4-year targets supporting the DOT's.
- MPO's sharing UZA's (Urbanized Areas) will set joint targets.
    - Portsmouth UZA
    - Boston UZA



Metric & Measure

GHG Metric and Measure

§ 490.511: Calculating the GHG Metric



- Nationally consistent for States
- MPOs may use other methods to calculate the metric

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GHG Metric and Measure

§ 490.509: Data Requirements for Metric Calculation

Data Required	Data Source	Description
Annual Fuel Sales 	**Fuels and Financial Analysis System-Highways (Fuels & FASH)**	Total gallons of fuel consumed by fuel type (gasoline and gasohol, and special fuels). Based on fuel sales data for the prior calendar year. Expressed in 1,000 gallons
CO_2 emission factors 	**FHWA-supplied emission factors**	CO_2 emissions per volume of gasoline/gasohol and special fuels. Posted on FHWA website no later than August 15th of each reporting year.
Annual vehicle miles travelled (VMT) 	VMT estimates are from best available data that represents the prior calendar year and is consistent, to the maximum extent practicable, with data submitted to HPMS. The reference year shall use HPMS data as of November 30, 2023.	

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Colorado Carbon-Sharing

Table 1: GHG Transportation Planning Reduction Levels in MMT of CO2e

Regional Areas	2025 Reduction Level (MMT)	2030 Reduction Level (MMT)	2040 Reduction Level (MMT)	2050 Reduction Level (MMT)
DRCOG	0.27	0.82	0.63	0.37
NFRMPO	0.04	0.12	0.11	0.07
PPACG	N/A	0.15	0.12	0.07
GVMPO	N/A	0.02	0.02	0.01
PACOG	N/A	0.03	0.02	0.01
CDOT/Non-MPO	0.12	0.36	0.30	0.17
TOTAL	0.43	1.5	1.2	0.7

Source: Colorado Department of Transportation

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Target Reporting Timeline & Details

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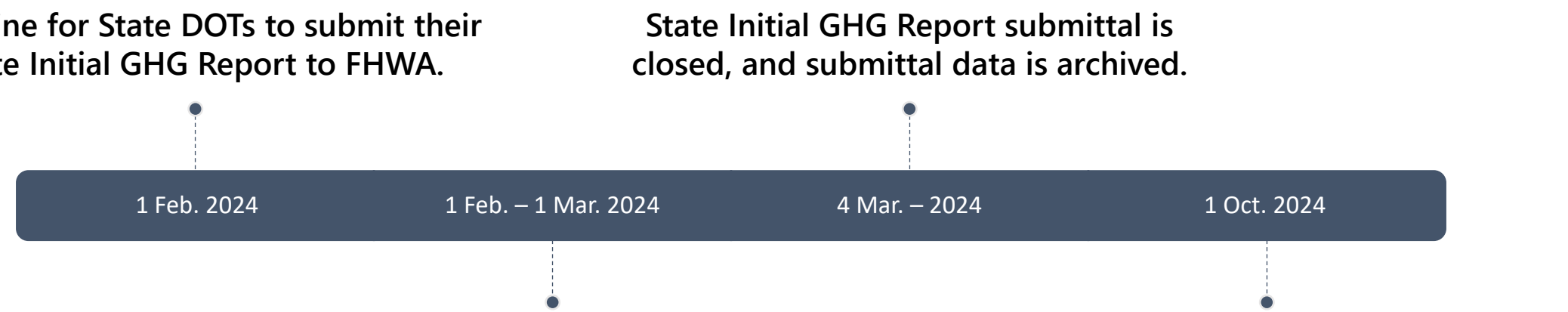
Timeline


Deadline for State DOTs to submit their State Initial GHG Report to FHWA.
State Initial GHG Report submittal is closed, and submittal data is archived.
1 Feb. 2024
1 Feb. – 1 Mar. 2024
4 Mar. – 2024
1 Oct. 2024
FHWA-HQ review period
Mid Performance Period Progress Report is due. State DOTs can amend the 4-year target for the GHG measure initially established through the 2/1/2024 reporting.

GHG Metric for CY 2022: Tailpipe CO2 emissions on the NHS for CY2022, computed in million metric tons and rounded to the nearest hundredth (Examples of acceptable formatting are 00.00 (mmt))

mmt

a. Fuel Volume Consumed, Gasoline and Gasohol[1]. The quantity of fuel consumed in CY 2022, rounded to the nearest thousand gallons, and expressed in 1,000 gallons.

b. Fuel Volume Consumed, Special Fuels[1]. The quantity of fuel consumed in CY 2022, rounded to the nearest thousand gallons, and expressed in 1,000 gallons.

c. CO2 Factor for Gasoline & Gasohol Fuels [2], for CY 2022, as provided by FHWA. 0.00000810 mmt/(1,000gal)

d. CO2 Factor for Special Fuels [2], for CY 2022, as provided by FHWA. 0.00001019 mmt/(1,000gal)

e. NHS VMT[3]. The total vehicle-miles traveled on NHS in CY 2022 (rounded to the nearest one million vehicle-miles, and expressed in one million vehicle-miles).

f. Total VMT[3]. The total vehicle-miles traveled on all public roads in CY 2022 (rounded to the nearest one million vehicle-miles, and expressed in one million vehicle-miles).

1. Fuel sales information needed to calculate the fuel consumed shall represent the total number of gallons of fuel consumed by fuel type and reported to Fuels & FASH. [23 CFR 490.107(d)(2)(ii) & 23 CFR 490.509(g)]
2. FHWA shall provide the CO2 factors for each on-road fuel type associated with the reference year. [23 CFR 490.107(d)(2)(i)]
    a. CO2 Factor for Gasoline & Gasohol Fuels 0.0000081 mmt/(1,000 gal)
    b. CO2 Factor for Special Fuels 0.00001019 mmt/(1,000 gal)
3. The VMT data needed to calculate the GHG metric shall be the HPMS data as of November 30, 2023. [23 CFR 490.107(d)(2)(iii) & 23 CFR 490.509(h)]. FHWA will provide State DOTs with additional information on this value after December 15, 2023

Questions and Discussion

- Questions?
- General Discussion and input

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Thank you!


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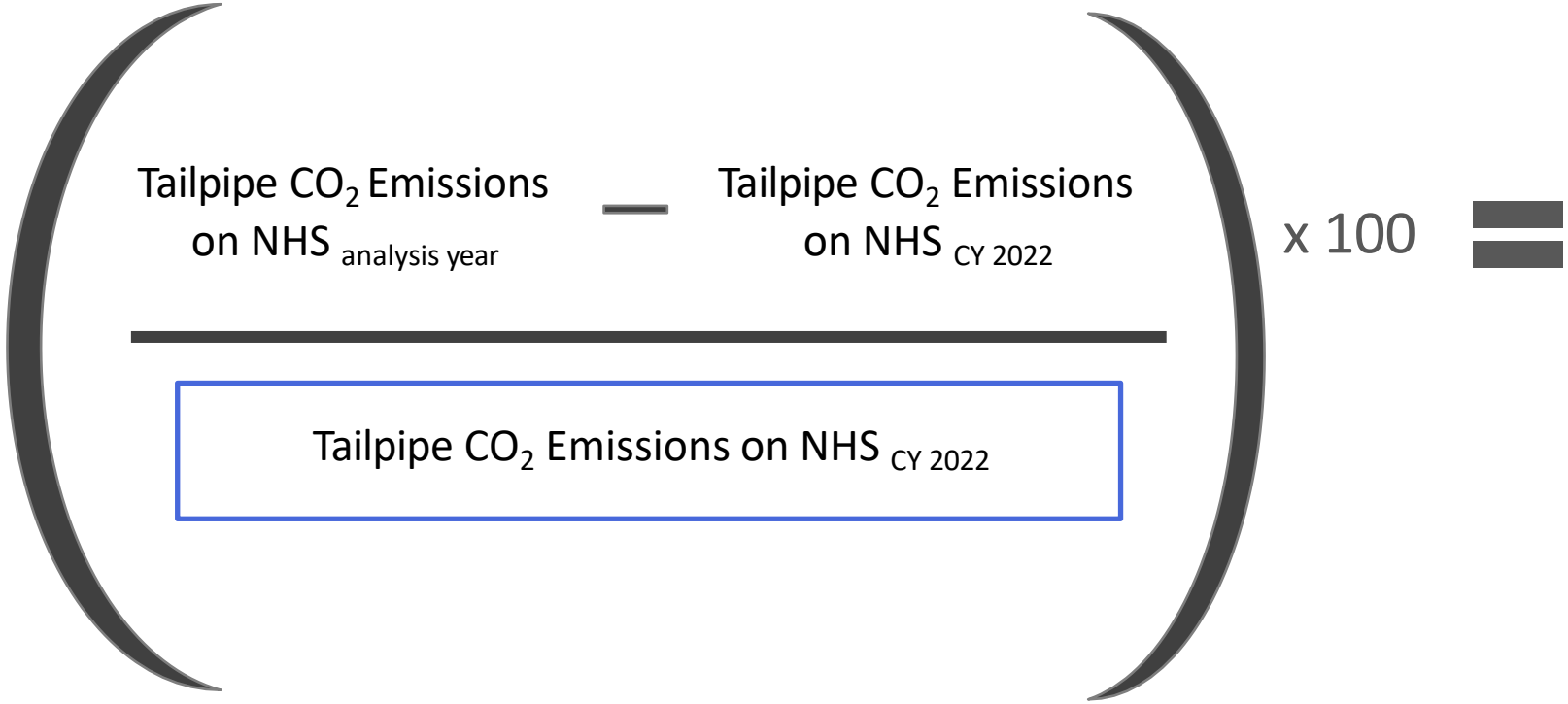
GHG Metric and Measure

§ 490.513(d): Calculating the GHG Measure



% change in tailpipe CO_2 emissions on the NHS compared to CY 2022

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