

CMAQ Emission Reduction Performance Measures

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Transportation and Air Quality Subcommittee
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Federal Performance Measures

- Required by the FAST Act and Infrastructure and Investment Jobs Act.
- MPOs in nonattainment regions must develop CMAQ emission reduction targets
- Facilitates performance-based planning
- Four-year performance periods



Background

- Statute indicates a four-year PM cycle
 - Year 0: Develop performance measures for two- and four-years ahead
 - Year 2: Revisit and reassess PM targets
 - Track progress on two-year targets
 - Revise four-year targets if necessary
 - Year 4/Year 0:
 - Track progress on final four-year targets from previous cycle
 - Develop new performance measures for two- and four-years ahead

- Ongoing consultation with FHWA, TxDOT, NCTCOG, and El Paso MPO to develop target methodology

2018-2021 Four-Year Targets (Cycle 1)

Year	NOx Reductions (kg/day)	VOC Reductions (kg/day)
2018	837.617	40.366
2019	81.828	28.204
2020	254.816	83.017
2021	254.816	83.017
Four-Year Target	1,429.077	234.604

- Targets were reviewed by H-GAC staff and advisory committees: TAQ, TAC, TPC
- Revised targets approved by TPC on September 24, 2020

Four-Year Target Verification (Cycle 1)

- **Summer 2022: Verify results of 2018-2021 targets via FHWA Public Access System (PAS) and develop reporting**
- August 2022: Request TAC approval of CMAQ performance measures
- September 2022: Request TPC approval of CMAQ performance measures
- October 1, 2022: Submit performance measures to TxDOT & FHWA

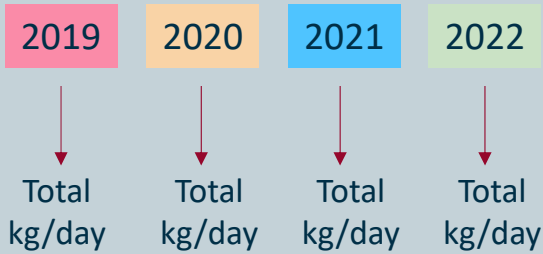
2023-2026 Four-Year Targets (Cycle 2)

- Statute indicates a four-year PM cycle
 - Year 0: Develop performance measures for two- and four-years ahead
 - Year 2: Revisit and reassess PM targets
 - Track progress on two-year targets
 - Revise four-year targets if necessary
 - Year 4/Year 0:
 - Track progress on final four-year targets from previous cycle
 - Develop new performance measures for two- and four-years ahead

- Ongoing consultation with FHWA, TxDOT, NCTCOG, and El Paso MPO to develop target methodology

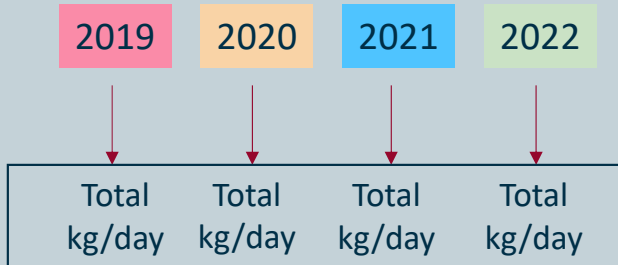
1

CMAQ PROJECT BENEFITS REPORTED IN UPACS FY Reports



2

CMAQ PROJECT BENEFITS REPORTED IN TIP



2a

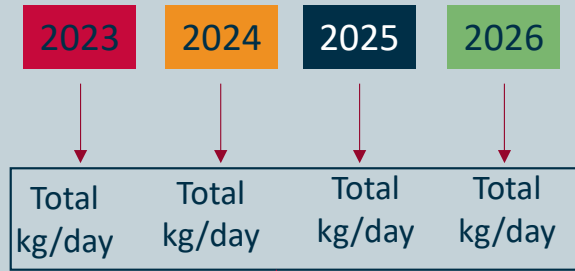
Calculate Average Emissions Benefits of 4 Years (kg/day)

3

$$\frac{\text{UPACS } \textcircled{1}}{\text{TIP } \textcircled{2}} = \frac{2019\% + 2020\% + 2021\% + 2022\%}{4} = \text{4 YEAR AVG \%}$$

4

CMAQ PROJECT BENEFITS REPORTED IN TIP



4a

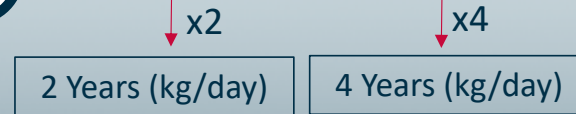
Calculate Average Emissions Benefits of 4 Years (kg/day)

5

Compare Annual Average between 2a and 4a to determine higher annual average

6

Higher Annual Average (kg/day)



7

x 4 YEAR AVG %

2-Year Target

4-Year Target

Next Steps (Cycle 2)

- Interagency consultations with FHWA, TxDOT, NCTCOG, and El Paso MPO are continuing – will discuss potential revisions to target methodology
- **Summer 2022: Complete draft 2023-2026 two- and four-year targets. Request TAQ approval of air quality metrics.**
- August 2022: Request TAC approval of CMAQ performance measures
- September 2022: Request TPC approval of CMAQ performance measures
- October 1, 2022: Submit performance measures to TxDOT & FHWA

Questions?