

# **Tulare County Association of Governments**

## **Congestion Mitigation and Air Quality (CMAQ) Cost-Effectiveness Threshold Documentation**

The Congestion Mitigation and Air Quality (CMAQ) program provides funding for transportation projects or programs that contribute to attainment or maintenance of the national ambient air quality standards. All San Joaquin Valley Metropolitan Planning Organizations (MPOs) adopted policies in 2007 for distributing at least 20 percent of the CMAQ funds to projects that meet a cost-effectiveness threshold for emission reductions. For the 2021 Federal Transportation Improvement Program (FTIP), this applies to years 2020-2021 through 2023-2024.<sup>1</sup> TCAG has made every effort to expend the minimum 20 percent funding for cost-effective projects over the course of the FTIP and the attached documentation demonstrates that TCAG has met the 20 percent funding goal.

Project eligibility continues to be based on federal CMAQ guidance. MPOs can fund projects within local jurisdictions or contribute funding to the San Joaquin Valley Air Pollution Control District (SJVAPCD) grant incentive programs to meet the cost-effectiveness threshold requirements. Funds contributed to the SJVAPCD grant incentive programs will be assumed to have met the threshold, as that threshold is more stringent than the one established by the CMAQ cost-effectiveness policy.

Emission benefits and cost-effectiveness calculations are based on the applicable pollutants for the region, including the components of ozone (nitrogen oxides (NO<sub>x</sub>) and reactive organic gases (ROG) and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The "Methods to Find the Cost-Effectiveness of Funding Air Quality Projects" document developed by the Air Resources Board (ARB) is currently the appropriate methodology for calculating cost-effectiveness. In addition, FHWA has published "CMAQ Improvement Program Cost-Effectiveness Tables and Development Methodology" on December 3, 2015 and this methodology will be used to establish project eligibility for project types not addressed in the state guidance. Another appropriate cost-effectiveness calculation methodology may be used upon consultation with interagency partners. Cost-effectiveness is expressed as dollars spent per pound of pollutant reduced (ROG + NO<sub>x</sub> + PM<sub>2.5</sub> + PM<sub>10</sub>). The cost-effectiveness threshold for the 2021 FTIP was recommended to be maintained at \$45 per pound (\$90,000/ton). The threshold is based on CMAQ dollars only, not total project cost.

TCAG has identified, through existing programmed projects in those years or other selection methods, projects that qualify for the cost-effectiveness policy. TCAG,

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<sup>1</sup> As a new call for projects has not been issued during the current 2023 FTIP period, the cost-effectiveness documentation also applies to the first two years of the 2023 FTIP (2022-2023 and 2023-2024). Upon selecting projects for the next call for projects, the cost-effectiveness threshold documentation will be updated to include the projects awarded in the new call for projects.

through its open call for projects released November 19, 2020, provided project eligibility information, project selection criteria, and emissions calculations methodology with supplemental information such as emissions factors for various projects, to all applicants. Project applications were due in January and project information and emissions calculations were verified by staff. A list of applications was brought to the TCAG Board for approval on March 15, 2021. Projects were selected based on adopted TCAG criteria.

As stated in the Cost-Effectiveness Policy, TCAG has agreed to post information related to the implementation of the cost-effectiveness CMAQ policy on its website. Attached is documentation that fulfills this requirement and demonstrates that TCAG has estimated the amount of funding in the 2021 FTIP (and first two years of the 2023 FTIP) necessary to meet the 20 percent cost-effectiveness goal and provided a summary of the CMAQ projects that meet the minimum cost-effectiveness threshold.

## CMAQ Cost-Effectiveness Threshold Documentation

<u>Year</u>	<u>Estimated CMAQ Apportionments</u>	<u>20 Percent Minimum</u>
FY 2020-2021	\$6,200,000	\$1,240,000
FY 2021-2022	\$6,199,000	\$1,239,800
FY 2022-2023	\$6,428,000	\$1,285,600
FY 2023-2024	\$6,556,000	\$1,311,200
Totals	\$25,383,000	\$5,076,600

<b>Year</b>	<b>MPO ID</b>	<b>Agency</b>	<b>Project Description</b>	<b>CMAQ Funding Amount</b>	<b>Estimated Cost-Effectiveness<sup>(1)</sup></b>
2021	TUL17-001	Dinuba	Roundabout at Alta & Nebraska	\$1,015,000	30.68
2021	TUL16-205	Porterville	Purchase 3 Electric Buses	\$2,055,000	23.89
2022	TUL16-205	Tulare County	Purchase 2 CNG Buses	\$929,000	21.00
2023	TUL20-001	Dinuba	Roundabout at Alta & Kamm	\$1,800,000	43.25

Total CMAQ Funding Amount \$5,799,000

CMAQ Cost-Effectiveness Goal \$5,076,600

CMAQ Cost-Effectiveness Goal Met? YES

Percent of CMAQ Funds Awarded to Cost-Effective Projects 23%

(1) Cost-effectiveness for each project identified as meeting the cost effectiveness threshold must be below \$45 per pound, or \$90,000 per ton.