

CMAQ COST-EFFECTIVENESS THRESHOLD DOCUMENTATION FOR THE STANISLAUS COUNCIL OF GOVERNMENTS 2021 FTIP

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. *StanCOG* 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 *StanCOG* 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_x) and reactive organic gases (ROG) and particulate matter (PM₁₀ and PM_{2.5}). 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_x + PM_{2.5} + PM₁₀). 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.

StanCOG has identified, through existing programmed projects in those years or other selection methods, projects that qualify for the cost-effectiveness policy. *StanCOG*’s project selection process begins with approval of the CMAQ funds distribution methodology by the Policy Board. On August 21, 2019 the Policy Board, per resolution 19-05, adopted the methodology for the distribution of FFY 20/21 and FFY 21/22 CMAQ Funds. The approved methodology is outlined below.

CMAQ Distribution Methodology FFYs 2020/21 and 2021/22	
Category	Funding Breakdown
Rideshare Apportionment (Off the Top)	\$400,000 for FFY 2020/21 \$405,000 for FFY 2021/22
Small/Medium Size Agencies <i>(Hughson, Newman, Oakdale, Patterson, Riverbank, Waterford)</i>	20% of CMAQ Balance after Rideshare Apportionment (\$400,000 Project Cap)
Large Agencies & Transit <i>(Ceres, Modesto, Turlock, Stanislaus County)</i>	80% of CMAQ Balance after Rideshare Apportionment (\$1,200,000 Project Cap)

Project cost-effectiveness is determined by the California Air Resources Board’s (ARB) Air Quality Cost Effectiveness Calculations Methodology.

Once the distribution methodology is approved, a Call for Projects is announced, and agencies must submit a CMAQ application packet to StanCOG. The application packet allows the agency to demonstrate that the project is eligible for CMAQ funding and includes calculations demonstrating the cost-effectiveness of the project. The FFY 2020/21 and FFY 2021/22 Call for Projects schedule is as follows:

StanCOG CMAQ Call for Projects Schedule	
August 22, 2019	Call for Projects Begins
September 19, 2019	Project Applications due to StanCOG
September 26, 27, or 30 th , 2019	Application Review
November 20, 2019	Policy Board Considers CMAQ Programming Recommendations
January 2020	Projects to be programmed in the 2019 FTIP

As identified in this schedule the applications and cost-effectiveness calculations are reviewed to verify application completeness and accuracy of the cost-effectiveness calculations submitted. The selected projects are then brought through the Technical Advisory Committee, Citizen Advisory Committee, and Management and Finance Committee for a recommendation to the Policy Board. The Policy Board then adopts the CMAQ projects that are to be programmed in the FTIP.

Projects submitted will contend based on “Cost-Effectiveness”. Projects in each category will be “ranked” from most cost effective (fewest CMAQ dollars required per pound of emissions reduction) to least cost effective (most CMAQ dollars required per pound of emissions reduction) and funded in that order until the funding from the respective category is exhausted.

As stated in the Cost-Effectiveness Policy, StanCOG 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 StanCOG has estimated the amount of funding in the 2021 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 Documentation for StanCOG's 2021 FTIP

<u>Year</u>	<u>Estimated CMAQ Apportionments</u>	<u>20 Percent Minimum</u>
FY 2020-2021	\$ 4,522,728.00	\$ 904,545.60
FY 2021-2022	\$ 4,830,720.00	\$ 966,144.00
FY 2022-2023*		-
FY 2023-2024*		-
Totals	\$ 9,353,448.00	\$ 1,870,689.60

Year	FTIP ID	Agency	Project Description	CMAQ Funding Amount	Estimated Cost-Effectiveness ⁽¹⁾
20/21		City of Modesto	Traffic Control Devices	\$ 122,500	5.07
20/21		City of Modesto	Traffic Control Devices	\$ 150,000	10.34
20/21		City of Modesto	Traffic Control Devices	\$ 550,000	26.54
20/21		City of Modesto	Signal Coordination	\$ 47,250	23.02
20/21		City of Modesto	Signal Coordination	\$ 63,000	28.75
20/21		City of Turlock	Traffic Signal Synchronization	\$ 20,350	32.66
20/21		StanCOG	Regional Telework Program	\$ 983,458	25.28
21/22		City of Turlock	Traffic Signal Synchronization	\$ 234,025	32.66
21/22		City of Modesto	Signal Coordination	\$ 189,000	23.02
21/22		City of Modesto	Signal Coordination	\$ 252,000	28.75
21/22		StanCOG	Regional Telework Program	\$ 187,198	25.28

Total CMAQ Funding Amount \$ 2,798,781.00

CMAQ Cost-Effectiveness Goal \$ 1,870,689.60

CMAQ Cost-Effectiveness Goal Met? YES

Percent of CMAQ Funds Awarded to
Cost-Effective Projects 30%

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

* Call for Projects for these years has not been held.