

## **CMAQ Cost-Effectiveness Threshold Documentation for the *Fresno 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 2021 to 2025. *The Fresno Council of Governments (Fresno COG)* 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 *Fresno COG* 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.

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

When unobligated and programmable CMAQ capacities exist, staff would present the recommendation to do a “call for projects.” This staff recommendation will be presented to Fresno COG’s Transportation Technical Committee, Policy Advisory Committee, and Policy Board. This presentation will contain information on present and future CMAQ capacities, eligibility, selection process and scoring, and schedule. Staff will also provide a reminder of the Board-approved CMAQ Programming Policy and Guidance. This guidance addresses the goal to program 20 percent of the 2021 FTIP’s total CMAQ capacity to highly cost-effective projects/programs. Following Board approval, staff will release the “call for projects.” The CMAQ scoring committee, which is made up of technical staff of local agencies and Caltrans, will be convened to review and score the submitted applications, and make a recommendation for programming.

During the evaluation process, the CMAQ committee will prioritize and recommend highly cost-effective projects/programs, which will help to achieve the region's 20 percent programming goal. This recommendation will be put before the committees before going to the Policy Board for official approval of FTIP programming.

As stated in the Cost-Effectiveness Policy, *Fresno COG* 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 *Fresno COG* 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.

Fresno COG will release the next "Call for Projects" in the Summer of 2021 to identify and program new projects/programs for the latter two years of the 2021 FTIP and/or the 2023 FTIP. Cost-effectiveness will continue to be a major factor in the project selection process.

# CMAQ Cost-Effectiveness Documentation for the *Fresno Council of Governments* 2021 FTIP

<u>Year</u>	<u>Estimated CMAQ Apportionments</u>	<u>20 Percent Minimum</u>
FY 2020-2021	\$ 14,583,406.00	\$ 2,916,681.20
FY 2021-2022	\$ 14,583,406.00	\$ 2,916,681.20
FY 2022-2023	\$ 15,146,661.50	\$ 3,029,332.30
FY 2024-2025	\$ 15,146,661.50	\$ 3,029,332.30
Totals	\$ 59,460,135.00	\$ 11,892,027.00

<u>Year(s)</u>	<u>FTIP ID</u>	<u>Agency</u>	<u>Project Description</u>	<u>CMAQ Funding Amount</u>	<u>Estimated Cost-Effectiveness<sup>(1)</sup></u>
2021	LSTMP728	City of San Joaquin	SJ Sidewalk and Bike Facilities	\$720,042.00	0.43
2021	LSTMP638	City of Parlier	Chavez Elementary Alley Paving	\$251,000.00	2.82
2021-2023	LSTMP643	County of Fresno	Goodfellow Ave Shoulder Improvements	\$3,571,998.00	6.12
2021-2022	LSTMP644	County of Fresno	Mountain View Ave Shoulder Improvements	\$2,518,298.00	4.22
2022	LSTMP738	City of Huron	Huron Alley Paving (2020)	\$601,720.00	0.30
2021	LSTMP740	City of Mendota	Mendota Alley Paving (2021)	\$517,682.00	29.89
2021	FRE170017	City of Coalinga	Coalinga Alley Paving - Various Locations	\$469,209.00	1.00
2024	LSTMP529	Sanger Unified School District	Purchase 2 CNG School Buses	\$371,826.00	19.00
2024	LSTMP647	Sanger Unified School District	Purchase 2 CNG School Buses - 2018	\$389,532.00	25.36
2021-2022	LSTMP739	City of Orange Cove	Orange Cove Alley Paving (2020)	\$418,476.00	0.37
2021-2023	LSTMP730	City of Firebaugh	Firebaugh Alley Paving (2020)	\$523,169.00	0.37
2021-2023	LSTMP734	City of Firebaugh	J & 10th Street Improvements	\$546,619.00	0.35
2022-2023	LSTMP733	City of Coalinga	Coalinga Dirt Alley Paving - Phase 2	\$769,940.00	0.69
2022	LSTMP534	County of Fresno	American Ave Shoulder Improvements	\$1,889,489.00	23.00
2024	LSTMP646	Kings Canyon Unified School District	Purchase 2 CNG School Buses - 2018	\$371,458.00	20.69
2024	FRE190012	City of Reedley	CNG Street Sweeper Replacement	\$347,641.00	15.20
2024	LSTMP648	Southwest Transportation Agency	Purchase 2 CNG School Buses - 2018	\$424,944.00	32.35
2021-2022	LSTMP732	City of Reedley	Reedley Alley Paving (2020)	\$706,912.00	0.85
2022	FRE150024	County of Fresno	Adams Ave Shoulder Improvements	\$750,509.00	18.25
2022	LSTMP535	County of Fresno	Jensen Ave Shoulder Improvements	\$1,614,923.00	24.00

Total CMAQ Funding Amount \$ 17,775,387.00

CMAQ Cost-Effectiveness Goal \$ 11,892,027.00

CMAQ Cost-Effectiveness Goal Met? YES

Percent of CMAQ Funds Awarded to Cost-Effective Projects 29.89%

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

The following sections come from Fresno COG’s adopted CMAQ Policies and Procedures. When sufficient CMAQ capacity warrants, staff will seek the Board’s approval to release a competitive “Call for Projects.” Staff will review and assess project applications for their completeness and CMAQ eligibility. The CMAQ committee, will be convened to evaluate and score project applications, and make a recommendation for programming.

**Category Funding Goals:**

The following category funding goals are established:

<b>Project Type</b>	<b>Percentage**</b>
Transit Improvements	20.0%
Cleaner Fuel Technology	15.0%
Traffic Flow Improvements	10.0%
Traffic Signal Projects	4.0%
Pedestrian/Bicycle	6.0%
PM-10 Reduction	3.5%
Miscellaneous	1.5%
Cost-Effective (any project type)*	40.0%
Total	100%

**Project Application Scoring:**

The following scoring factors (totaling a maximum of 50 points) will be used to rank the project applications.

## CMAQ SCORING CRITERIA RUBRIC

<b>30-point range</b>	<b>Cost-Effectiveness</b>	
	Project cost- effectiveness is determined by the California Air Resource Board's (ARB) Air Quality Cost-Effectiveness Calculations Methodology: <a href="http://www.arb.ca.gov/planning/tsaq/eval/eval.htm">http://www.arb.ca.gov/planning/tsaq/eval/eval.htm</a>	
	Range Factors	Projects will be evaluated on a relative basis (i.e., how they compare to each other).  <i>Note: Cost-effective projects are those that meet the \$45 per pound (\$90,000 per ton) cost-effectiveness threshold. During the scoring committee process, projects identified as cost-effective are scored and selected first.</i>
<b>20-point range</b>	<b>Congestion Relief</b>	
	Project has impact on congestion and increases service capacity and/or reliability.	
	Range Factors	<p><b>Transit:</b></p> <p><i>HIGH Impact:</i> Significantly reduces transit vehicle crowding; increases service capacity significantly; Transportation Control Measures; increases service reliability significantly; a major interconnect or fare coordination project; bus turnouts at major intersections; intermodal facility accommodating major transfers; travel time reduction.</p> <p><i>MEDIUM Impact:</i> Increases service reliability in a minor capacity; a minor interconnect or fare coordination project; general bus turnouts; intermodal facility accommodating major transfers.</p> <p><i>LOW Impact:</i> Increases passenger comfort or convenience, bike racks.</p>
	Range Factors	<p><b>Roads:</b></p> <p><i>HIGH Impact:</i> Transportation Control Measures, signal coordination of multiple (&gt;3) signals, gap closure projects, traffic operations system, left turn pockets, other intersection improvements and traffic flow improvements.</p> <p><i>MEDIUM Impact:</i> HOV lanes signal coordination, park-and-ride lots.</p> <p><i>LOW Impact:</i> New signals where none currently exist and are warranted by volume or delay, ramp metering with HOV bypasses (when shown not to adversely affect surface streets).</p>
	Range Factors	<p><b>Bicycle/Pedestrian:</b></p> <p><i>HIGH Impact:</i> Transportation Control Measures, a facility that will primarily serve commuters and/or school sites, and sidewalks where none exist.</p> <p><i>MEDIUM Impact:</i> Public educational, promotional, and safety programs that promote non-motorized modes of transportation.</p> <p><i>LOW Impact:</i> Mixed use bicycle/pedestrian facility (recreation &amp; commuter), usable sidewalk segments.</p>
<b>20-point range</b>	<b>Air Pollutant Emissions Reduction</b>	
	Project incorporates transportation control measures, reduces volatile organic compounds, nitrogen oxides, and/or particulate matter emissions.	
	Range Factors	Projects will be evaluated on a relative basis; (i.e., how they compare to each other) based on the submitted air pollutant reductions of volatile organic compounds, oxides of nitrogen, and/or particulate matter.

<b>10-point range</b>	<b>Trip Reduction</b> Project reduces vehicle trips and/or vehicle miles traveled (VMT).	
	Range Factors	<p><i>HIGH Impact:</i> Significantly reduces vehicle trips and VMT.  <i>MEDIUM Impact:</i> Moderately reduces vehicle trips and VMT.  <i>No Impact:</i> Does not reduce vehicle trips or VMT.</p> <p>Projects will be evaluated on a relative basis, (i.e. how they compare to each other). The CMAQ Scoring Committee may take factors such as city population, project size/scale, project cost, and/or local impact into consideration when evaluating project impact.</p> <p><i>Note: projects that increases vehicle trips and/or VMT will receive zero points.</i></p>
<b>10-point range</b>	<b>Subjective Evaluation</b> The subjective evaluation category allows the scorer the flexibility to decide that some aspect of the project that was not already considered in prior criteria should, in fact, be given consideration. The items listed under the subjective category are examples only and the list is not meant to all-inclusive of what might be considered under subjective evaluation	
	Range Factors	<p>The scorer may consider other important factors including, but not limited to:</p> <ul style="list-style-type: none"> <li>▪ The prioritization importance placed on the project by the project’s sponsor, support for multimodal access, and enhancing connectivity of transportation systems.</li> <li>▪ Projects which minimize the loss of prime farmland, unique farmland, farmland of statewide importance and farmland of local importance.</li> <li>▪ Projects that promote energy conservation, improves quality of life, leverages other funds, promotes system management such as supporting other modes of transportation; reduces greenhouse gas emissions and supports Sustainable Communities Strategies.</li> <li>▪ Since the issue of “timely project delivery” is so important, the CMAQ Scoring Committee may take into consideration, as a part of a project’s “subjective” evaluation score, the local agency’s ability to deliver projects on timely basis (i.e. past performance/current ability to deliver projects on schedule).</li> </ul>
<b>4-point range</b>	<b>Construction-Ready Projects</b> Project is requesting construction funding only and is committed to the delivery requirements as described in the guidelines. Projects requesting points in this category will go through a Caltrans screening process. <i>Note: Projects requiring waivers or other independent agency approval are excluded from this category unless applicant can demonstrate absolute certainty in delivering project on an expedited schedule.</i>	
	4 points	Project is requesting funds for construction only in the first year (2020/21) of the FTIP. PE and ROW documentation should be included in the application packet.
	2 points	Project is requesting funds for construction only in the second year (2021/22) of the FTIP. PE and ROW documentation should be included in the application packet.
<b>6-points</b>	<b>Expedited Project Delivery</b> Project applicant is committed to the expedited project delivery requirements as described in the guidelines. <i>Note: Projects requiring waivers or other independent agency approval are excluded from this category unless applicant can demonstrate absolute certainty in delivering project on an expedited schedule.</i>	
	6 points	Project is committed to the expedited project delivery schedule, programmed within the first two years of the FTIP, and its subsequent delivery requirements. No documentation is required. All phases of project may be programmed.
<b>100 Total Points Available</b>		

**Potential Point Reductions**

-5 points	<b><i>Constrained in Regional Transportation Plan (RTP)</i></b>	
	-5 points	<p>If the project is <b><u>not</u></b> on the “constrained project list” in the Regional Transportation Plan, it will receive a five-point deduction in this category.</p> <p><i>Note: Exceptions will be made for projects submitted by applicant agencies who <b><u>do not</u></b> formally submit projects to the RTP.</i></p>