

CMAQ COST-EFFECTIVENESS THRESHOLD DOCUMENTATION FOR THE KERN COG 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 beginning in Fiscal Year (FY) 2011. For the 2021 Federal Transportation Improvement Program (FTIP), this applies to years 2020-2021 through 2021-2022. Kern Council of Governments (Kern 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 Kern 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_x] and reactive organic gases [ROG]) and particulate matter (PM). 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. Cost-effectiveness is expressed as dollars spent per pound of pollutant reduced (ROG + NO_x + PM₁₀). The cost-effectiveness threshold for the 2021 FTIP is \$45 per pound (\$90,000 per ton) and is based on CMAQ dollars only, not total project cost.

Kern COG has identified, through existing programmed projects in those years or other selection methods, projects that qualify for the cost-effectiveness policy. The Kern COG Congestion Mitigation Air Quality Program Policy provides the scoring criteria developed in consultation with local jurisdictions and transit agencies in Kern County. The Kern COG Board of Directors approved the Kern COG Congestion Mitigation Air Quality Program Policy November 17, 2016. The Kern COG Board of Directors approved the Kern COG CMAQ Local Cost-Effectiveness Policy September 20, 2007.

Kern COG issued a call for projects in March 2019 that incorporated the CMAQ cost effectiveness policy to identify at least 20% of the CMAQ funds for projects that meet a cost-effectiveness threshold of \$45 per pound. The call for projects was initiated to program \$11,375,000 CMAQ funds in fiscal year 20/21 and \$11,371,000 CMAQ funds in fiscal year 21/22. Based on the CMAQ Policy approved by the Kern COG Board, Kern COG will allocate a minimum of \$4.5 million of those funds to projects that meet the cost effectiveness threshold. A draft CMAQ Program of Projects was circulated for review December 26, 2019 to the Transportation Technical Advisory Committee and presented on January 16, 2020 to the

Transportation Planning Policy Committee. The Kern COG Board approved the final CMAQ Program of Projects February 20, 2020. Kern COG then incorporated the approved program of projects into the 2019 Federal Transportation Improvement Program via amendments and Draft 2021 Federal Transportation Improvement Program.

As stated in the Cost-Effectiveness Policy, Kern 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 Kern 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.

CMAQ Cost-Effectiveness Documentation for the Kern COG 2021 FTIP

<u>Year</u>	<u>Estimated CMAQ Apportionments</u>	<u>20 Percent Minimum</u>
FY 2020-2021	\$11,375,000	\$2,275,000
FY 2021-2022	\$11,371,000	\$2,274,200
FY 2022-2023		\$0
FY 2023-2024		\$0
Totals	\$22,746,000	\$4,549,200

<u>Year</u>	<u>FTIP ID</u>	<u>Agency</u>	<u>Project Description</u>	<u>CMAQ Funding Amount</u>	<u>Estimated Cost-Effectiveness(1)</u>
20/21	KER180507	Bakersfield	Bakersfield: Signal Coordination Part 1: Along Truxtun Ave, H St, Oak St, Ming Ave, Hageman Rd, Coffee Rd, Chester Ave, 23rd St, and 24th St; Installation of Traffic Signal Interconnect / Synchronization	\$1,593,540	\$14.34
20/21	KER180507	Bakersfield	Bakersfield: New Stine Rd between Panama Lane and Mohawk St & Calloway Dr between White Ln and Brimhall Rd; install traffic signals communication	\$531,180	\$18.45
20/21	KER180507	Bakersfield	Bakersfield: McKee Rd at Ashe Rd; install traffic signal	\$287,722	\$17.69
21/22	KER180507	Bakersfield	Bakersfield: Signal Coordination Part 2: California between Mohawk St and Oak St; Stockdale Hwy between Coffee Rd and H St; Brundage In between Oak St and Hughes Ln; Installation of Traffic Signal Interconnect / Synchronization	\$1,239,420	\$43.34
20/21 & 21/22	KER200502	California City	In California City: Mendiburu Rd from Hacienda Blvd to Neuralia Rd; surface unpaved street	\$1,727,022	\$0.05
21/22	KER200504	Kern County	Kern County (Delano): Lytle Avenue from West Cecil Avenue to County Line Road; Pave dirt Rd	\$1,436,028	\$1.34
20/21	KER200501	Kern COG	Kern County: CommuteKern Rideshare Program	\$211,602	\$42.12
21/22	KER200501	Kern COG	Kern County: CommuteKern Rideshare Program	\$222,148	\$40.13
20/21	KER200505	Shafter	Shafter: Santa Fe Way (SR 43) and E Los Angeles Ave/S Beech Ave Intersection; Operational Improvement/Construct Roundabout	\$1,327,950	\$43.39
21/22	KER180507	Shafter	Shafter: Santa Fe Way from Los Angeles Ave to Galpin St; Construct 8' shoulders on both sides of roadway	\$1,327,950	\$1.33
20/21	KER200507	Tehachapi	Tehachapi: Pinon Street from Brandon Lane east to Dennison Road; pave an unpaved street and install Class II bike lane	\$885,299	\$0.46

Total CMAQ Funding Amount \$10,789,861

CMAQ Cost-Effectiveness Goal \$4,549,200

CMAQ Cost-Effectiveness Goal Met? YES

Percent of CMAQ Funds Awarded to Cost-Effective Projects 47%

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