CMAQ COST-EFFECTIVENESS THRESHOLD DOCUMENTATION FOR THE KERN COG 2023 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 2023 Federal Transportation Improvement Program (FTIP), this applies to years 2022-2023 through 2023-2024. 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 (PM10 and PM2.5). 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 IAC partners. Cost-effectiveness is expressed as dollars spent per pound of pollutant reduced ($ROG + NO_x + PM_{2.5} + PM_{10}$). The cost-effectiveness threshold for the 2023 FTIP was recommended to be increased to $63 per pound ($126,000/ton) from a previous level of $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 2021 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 $63 per pound. The call for projects was initiated to program $11,539,000 CMAQ funds in fiscal year 22/23 and $11,535,000 CMAQ funds in fiscal year 23/24. Based on the CMAQ Policy approved by the Kern COG Board, Kern COG will allocate a minimum of $4.6 million of those funds to projects that meet the cost effectiveness threshold. A draft CMAQ Program of Projects was circulated for review January 5, 2022 to the Transportation Technical Advisory Committee and presented on January 20, 2022 to the Transportation Planning Policy Committee. The Kern COG Board approved the final CMAQ Program of Projects February 17, 2022. Kern COG then incorporated the approved program of projects into the 2021 Federal Transportation Improvement Program via amendments and Draft 2023 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 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 Documentation for the *Kern Council of Governments* 2023 FTIP

Year	Estimated CMAQ Apportionments		20 Percent Minimum
FY 2022-2023	*$11,539,000*	$	2,307,800.00
FY 2023-2024	*$11,535,000*	$	2,307,000.00
FY 2024-2025	*$* -	$	-
FY 2025-2026	*$* -	$	-
Totals	$ 23,074,000.00	$	4,614,800.00

Year	FTIP ID	Agency	Project Description	CMAQ Funding Amount	Estimated Cost-Effectiveness[1]
23-24	KER220502	California City	California City: Redwood Blvd from 560 ft east of Hacienda Blvd to 98th St; surface unpaved shoulders/roadway, install Class II bike lanes, sidewalks and raised median island approx 1,500 ft	$846,966	$8.65
23-24	KER180507	Bakersfield	Bakersfield: White Ln from Wible Rd to Buena Vista Rd; installation of adaptive signal coordination	$775,080	$21.26
23-24	KER180507	Bakersfield	Bakersfield: Stockdale Hwy from Renfro Rd to Coffee Rd; installation of adaptive signal coordination	$336,768	$17.04
23-24	KER180507	Bakersfield	Bakersfield: H St from White Ln to Panama Ln, Panama Ln from Akers Rd to Parsons Wy; installation of adaptive signal coordination	$509,048	$27.81
22-23	KER220501	Kern COG	Kern County: COMMUTEKERN Rideshare Program	$240,187	$38.85
23-24	KER220501	Kern COG	Kern County: COMMUTEKERN Rideshare Program	$256,470	$37.22
22-23	KER180507	Kern County	Kern County (Bakersfield): Various areas in Metro Bakersfield; Traffic Signal Coordination (Interconnect)	$1,353,004	$25.07
22-23	KER180507	Kern County	Kern County (Oildale): Within and around the community of Oildale; Traffic Signal Coordination (Interconnect)	$1,055,189	$57.97
22-23	KER180507	Kern County	Kern County (Bakersfield): Rosedale Highway between SR-43 and Heath Road; Surface 4 miles of dirt shoulders	$2,875,285	$14.53
22-23	KER180507	Kern County	Kern County (Tehachapi): Backes Ln (Highline Rd - Schout Rd), Schout Rd (Backes Ln - Woodford Tehachapi Rd), Woodford Tehachapi Rd (Schout Rd - SR 202); pave shoulder and bike lane	$1,832,751	$54.93
22-23 & 23-24	KER200506	Kern County	Kern County (Tehachapi): Intersection of Cummings Valley Rd and Bear Valley Rd; Construct a roundabout and ancillary facilities	$3,634,344	$50.88
			Total CMAQ Funding Amount	$13,715,092	
			CMAQ Cost-Effectiveness Goal	$ 4,614,800.00	
			CMAQ Cost-Effectiveness Goal Met?	YES	
			Percent of CMAQ Funds Awarded to Cost-Effective Projects	59%	

(1) Cost-effectiveness for each project identified as meeting the cost effectiveness threshhold must be below $63 per pound, or $126,000 per ton.