

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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MEMORANDUM

TO: Members of the Advisory Committee on Transportation System Planning and Programming for the Milwaukee Urbanized Area (Milwaukee TIP Committee)

FROM: Southeastern Wisconsin Regional Planning Commission Staff

DATE: May 19, 2022

SUBJECT: **EVALUATION AND PRIORITIZATION OF CANDIDATE PROJECTS FOR FEDERAL FISCAL YEARS (FFY) 2022 AND 2023 CARBON REDUCTION PROGRAM (CRP) FUNDING AND RECOMMENDATION OF CANDIDATE PROJECTS**

The Infrastructure Investment and Jobs Act (IIJA), commonly referred to as the Bipartisan Infrastructure Law (BIL), enacted in November 2021, created a new Federal funding program, called the Carbon Reduction Program (CRP). The purpose of CRP is to reduce transportation emissions—defined as carbon dioxide (CO₂) emissions from on-road highway sources—nationwide through the development of state carbon reduction strategies and through the funding of projects designed to reduce transportation-related CO₂ emissions. As a result of the BIL legislation, the Wisconsin Department of Transportation (WisDOT) initiated a solicitation, in early 2022, for new local/county transportation-related projects for Federal Fiscal Year (FFY)¹ 2022 CRP funds coming to the State. However, due to a budgetary issue with the CRP funding, WisDOT delayed the CRP solicitation until it could be formally added to the State budget. In March 2023, CRP was formally amended into the current State budget with limits for certain transportation system management (TSM) and street lighting projects, as shown on Table 1.

Subsequently, WisDOT again solicited for CRP projects in March 2023 that meet the new eligibility requirements, with applications due on April 7, 2023. Eligible projects submitted in the previous solicitation did not need to be resubmitted. WisDOT's solicitation focused on the FFY 2022 CRP funding

¹ Generally, the years covered for a particular funding cycle under WisDOT's Local Program are based on the State Fiscal Year, which starts on July 1st on one year and ends on June 30th of the next. However, for the CRP solicitation, WisDOT is programming the new CRP funding being made available from the new BIL legislation based on the Federal Fiscal Year (FFY), which begins on October 1st of each year and ends on September 30th of the next. For example, the current SFY is 2023, which started on July 1, 2022, and ends on June 30, 2023, and the current FFY is 2023, which started on October 1, 2022, and ends on September 30, 2023.

Table 1
Types of Projects Eligible for CRP-MUA Funding

Project Category	Type of Project
Transportation Systems Management (TSM)	<p>An advanced transportation and congestion management technologies project eligible under 23 U.S.C. 503(c)(4)(E), including:</p> <ul style="list-style-type: none"> • advanced traveler information systems • advanced transportation management technologies • advanced transportation technologies to improve emergency evacuation and response by Federal, State, and local authorities • infrastructure maintenance, monitoring, and condition assessment • advanced public transportation systems • transportation system performance data collection, analysis, and dissemination systems • advanced safety systems • integration of intelligent transportation systems with the Smart Grid and other energy distribution and charging systems • integrated corridor management systems • advanced parking reservation or variable pricing systems • electronic pricing, toll collection, and payment systems • technology that enhances high occupancy vehicle toll lanes, cordon pricing, or congestion pricing • integration of transportation service payment systems • advanced mobility, access, and on-demand transportation service technologies, such as dynamic ridesharing and other shared-use mobility applications and information systems to support human services for elderly and disabled individuals <p>A project for the deployment of infrastructure-based intelligent transportation systems capital improvements and the installation of vehicle-to-infrastructure communications systems</p> <p>A project eligible under the Congestion Mitigation and Air Quality (CMAQ) program, described in 23 U.S.C. 149(b)(5), that improves traffic flow and does not involve construction of new capacity, including:</p> <ul style="list-style-type: none"> • signalization improvement • intersection improvement, such as adding turn lanes • transportation systems management and operations improvement • implementation of intelligent transportation system strategies • incident and emergency response mobility improvement, such as through real-time traffic, transit, and multimodal traveler information
Energy-Efficient Lighting/Traffic Signals	<p>A project to replace street lighting and traffic control devices with energy-efficient alternatives</p>

Source: Federal Highway Administration and SEWRPC

included in the current State budget, including \$3,769,297 in CRP funding allocated to the Milwaukee urbanized area (MUA). For these funds, WisDOT has indicated a desire to implement projects/project phases that can be obligated by the end of the current FFY in September. Given the limited timeframe, only projects that do not require any preliminary engineering would be able to utilize the FFY 2022 funding this year.

WisDOT has also indicated that there may be an opportunity for more FFY 2022 CRP funding than initially allocated if funding from other parts of the State is underutilized. As such, WisDOT is permitting Commission staff to award projects for the \$3,844,683 in FFY 2023 CRP-MUA funding, which could potentially be implemented this or next year—potentially avoiding the need for a similar solicitation next year. In doing so, WisDOT cautioned that any FFY 2023 CRP-MUA funding approved by the Milwaukee TIP Committee for implementation of projects next year is subject to funding levels included in the next biennial budget expected to be adopted this summer.

Table 2 shows the 16 candidate projects submitted by local sponsors requesting a total of \$12,466,201 in CRP-MUA funding. The submitted projects are collectively requesting significantly more funds than are available (\$12,466,201 requested as compared to \$7,613,980 in CRP-MUA funding available). The Commission—working with local officials through the Milwaukee TIP Committee—is responsible for prioritizing the 16 candidate projects and recommending the projects for CRP-MUA funding. For consideration by this Committee, the Commission staff has developed two alternative methodologies for prioritizing the candidate CRP-MUA projects.

Alternative 1

Under this alternative methodology, projects would be prioritized based on their cost effectiveness (reduction in annual tons of CO₂ reduced per dollar spent), as shown in Table 3. Table 4 shows the projects ranked based on their cost-effectiveness. Based on the results of the application of the cost-effectiveness ratio for the 16 projects, 13 projects would be recommended for funding under this alternative. As these projects are requesting a total of \$7,629,241 in CRP-MUA, which slightly exceeds the \$7,613,980 of CRP-MUA funding available, it would be recommended under this alternative that the City of Mequon's project be partially funded, receiving \$55,499 of the requested \$70,760 in CRP-MUA funding, as shown in Table 4. This alternative would result in an estimated annual carbon emissions reduction of 2,209.0 tons.

Under this alternative, the remaining projects would be prioritized based on their cost effectiveness should additional FFY 2022 and 2023 CRP-MUA funding become available prior to the next CRP funding cycle, as follows:

- First Priority: Fully fund the City of Mequon's street lighting project (\$15,261)
- Second Priority: City of West Allis' street light conversion project (\$3,951,360)

Alternative 2

Under this alternative, the first priority project for each of the project sponsors would be recommended for the available \$7,613,980 CRP-MUA funding. Since, the total amount of CRP-MUA funding being requested for the sponsor's first priority projects (\$10,925,401) exceeds the available CRP-MUA funding, the amount recommended for the two highest cost projects—one from the City of Milwaukee and one from the City of West Allis—were reduced, accordingly. The projects recommended for CRP-MUA funding under this alternative are shown in Table 5. This alternative would result in an estimated annual carbon emissions reduction of 1,382.6 tons.

Table 2
Candidate Projects for FFY 2022 and 2023 CRP-MUA Funding

Sponsor	Project Title	Project Limits/Description	Local Priority	Project Type	Amount of Federal Funds Requested
City of Brookfield	Street Lighting Upgrade to LED	Various lighting circuits within the City of Brookfield	1	Lighting	\$283,640
Village of Greendale	LED Street Light Conversion	LED street light conversion in 4 locations	1	Lighting	\$771,990
City of Greenfield	Street Lighting Conversion to LED	W. Grange Ave (27th to 48th St); S. 31st St (at Grange); W. Edgerton Ave (Loomis Rd to 74th St)	1	Lighting	\$477,028
City of Mequon	Street Lighting	Mequon Road (Cedarburg Road to N Port Washington Road)	1	Lighting	\$70,760
Milwaukee County	Traffic Signal Monitoring System Improvements	Make improvements to the Milwaukee County Department of Transportation's (MCDOT) communication system and monitoring capabilities on the county highway system	1	Traffic Flow	\$265,600
	W Oklahoma Ave Detection Improvement	Traffic signal improvements to reduce congestion	2	Traffic Flow	\$83,200
City of Milwaukee	Street Lighting Replacement with Energy-Efficient Alternatives	Center Street to Juneau Avenue, 60th Street to Lake Michigan	1	Lighting	\$3,205,145
	Install Traffic Management System	(14 Intersections)	2	Traffic Flow	\$572,000
City of Oak Creek	Street Lighting Upgrades	Various locations within the City of Oak Creek	1	Lighting	\$327,720
City of South Milwaukee	LED Relamping of Street Lighting	Citywide street light replacement	1	Lighting	\$392,683
City of Waukesha	Traffic Signal Reconstruct at Sunset & Prairie	Intersection of Sunset Dr. at Prairie Ave.	1	Traffic Flow	\$460,000
	Traffic Signal Rehabilitation at Sunset & Oakdale	Intersection of Sunset Dr. at Oakdale Dr.	2	Traffic Flow	\$388,000
	Traffic Signal Reconstruct at Broadway & Hartwell	Intersection of E. Broadway & N. Hartwell Avenue/Lincoln Avenue	3	Traffic Flow	\$497,600
City of Wauwatosa	HPS to LED Street Light Conversion (LLC)	City-wide	1	Lighting	\$342,485
City of West Allis	Street Lighting Conversion	1.3 sq. miles in various locations through the City of West Allis	1	Lighting	\$3,951,360
Village of West Milwaukee	Street Lighting LED Conversion Project	Convert five existing Village street lighting systems to energy efficient LED technology.	1	Lighting	\$376,990
TOTAL					\$12,466,201

Table 3

Estimated Carbon Reduction for Candidate Projects for FFY 2022 and 2023 CRP-MUA Funding

Sponsor	Project Title	Amount of Federal Funds Requested	Estimated Carbon Reduction (tons of CO₂/year)	Amount Requested per Estimated Carbon Reduction (\$/tons of CO₂/year)
City of Brookfield	Street Lighting Upgrade to LED	\$283,640	8.2	\$34,590.24
Village of Greendale	LED Street Light Conversion	\$771,990	19.3	\$39,999.48
City of Greenfield	Street Lighting Conversion to LED	\$477,028	5.4	\$88,338.61
City of Mequon	Street Lighting	\$70,760	0.7	\$104,985.16
Milwaukee County	Traffic Signal Monitoring System Improvements	\$265,600	7.9	\$33,720.96
	W Oklahoma Ave Detection Improvement	\$83,200	2.6	\$31,689.58
City of Milwaukee	Street Lighting Replacement with Energy-Efficient Alternatives	\$3,205,145	2,005.0	\$1,598.58
	Install Traffic Management Systems (14 intersections)	\$572,000	36.8	\$15,561.85
City of Oak Creek	Street Lighting Upgrades	\$327,720	30.1	\$10,887.71
City of South Milwaukee	LED Relamping of Street Lighting	\$392,683	58.1	\$6,758.75
City of Waukesha	Traffic Signal Reconstruct at Sunset & Prairie	\$460,000	4.7	\$98,323.88
	Traffic Signal Rehabilitation at Sunset & Oakdale	\$388,000	2.0	\$193,512.79
	Traffic Signal Reconstruct at Broadway & Hartwell	\$497,600	0.3	\$1,489,051.00
City of Wauwatosa	HPS to LED Street Light Conversion (LLC)	\$342,485	25.2	\$13,590.67
City of West Allis	Street Lighting Conversion	\$3,951,360	31.2	\$126,646.15
Village of West Milwaukee	Street Lighting LED Conversion Project	\$376,990	5.2	\$72,498.08

Table 4

Recommended Candidate CRP-MUA Projects Under Alternative 1

Sponsor	Project Title	Amount Requested per Estimated Carbon Reduction (\$/tons of CO₂/year)	Amount of Federal Funds Requested	Amount of Federal Funds Requested
City of Milwaukee	Street Lighting Replacement with Energy-Efficient Alternatives	\$1,598.58	\$3,205,145	\$3,205,145
City of South Milwaukee	LED Relamping of Street Lighting	\$6,758.75	\$392,683	\$3,597,828
City of Oak Creek	Street Lighting Upgrades	\$10,887.71	\$327,720	\$3,925,548
City of Wauwatosa	HPS to LED Street Light Conversion (LLC)	\$13,590.67	\$342,485	\$4,268,033
City of Milwaukee	Install Traffic Management Systems (14 intersections)	\$15,561.85	\$572,000	\$4,840,033
Milwaukee County	W Oklahoma Ave Detection Improvement	\$31,689.58	\$83,200	\$4,923,233
Milwaukee County	Traffic Signal Monitoring System Improvements	\$33,720.96	\$265,600	\$5,188,833
City of Brookfield	Street Lighting Upgrade to LED	\$34,590.24	\$283,640	\$5,472,473
Village of Greendale	LED Street Light Conversion	\$39,999.48	\$771,990	\$6,244,463
Village of West Milwaukee	Street Lighting LED Conversion Project	\$72,498.08	\$376,990	\$6,621,453
City of Greenfield	Street Lighting Conversion to LED	\$88,338.61	\$477,028	\$7,098,481
City of Waukesha	Traffic Signal Reconstruct at Sunset & Prairie	\$98,323.88	\$460,000	\$7,558,481
City of Mequon	Street Lighting	\$104,985.16	\$55,499	\$7,613,980
City of Mequon	Street Lighting	\$104,985.16	\$15,261	\$7,629,241
City of West Allis	Street Lighting Conversion	\$126,646.15	\$3,951,360	\$11,580,601
City of Waukesha	Traffic Signal Rehabilitation at Sunset & Oakdale	\$193,512.79	\$388,000	\$11,968,601
City of Waukesha	Traffic Signal Reconstruct at Broadway & Hartwell	\$1,489,051.00	\$497,600	\$12,466,201

Note: Projects listed above the red line would be recommended for CRP-MUA funding under Alternative 1.

Table 5
Recommended Candidate CRP-MUA Projects Under Alternative 2

Sponsor	Project Title	Local Priority	Amount of Federal Funds Requested
City of Brookfield	Street Lighting Upgrade to LED	1	\$283,640
Village of Greendale	LED Street Light Conversion	1	\$771,990
City of Greenfield	Street Lighting Conversion to LED	1	\$477,028
City of Mequon	Street Lighting	1	\$70,760
Milwaukee County	Traffic Signal Monitoring System Improvements	1	\$265,600
City of Milwaukee	Street Lighting Replacement with Energy-Efficient Alternatives	1	\$1,922,542
City of Oak Creek	Street Lighting Upgrades	1	\$327,720
City of South Milwaukee	LED Relamping of Street Lighting	1	\$392,683
City of Waukesha	Traffic Signal Reconstruct at Sunset & Prairie	1	\$460,000
City of Wauwatosa	HPS to LED Street Light Conversion (LLC)	1	\$342,485
City of West Allis	Street Lighting Conversion	1	\$1,922,542
Village of West Milwaukee	Street Lighting LED Conversion Project	1	\$376,990
Total			\$7,613,980

Under this alternative, the remaining projects would be prioritized based on their cost effectiveness should additional FFY 2022 and 2023 CRP-MUA funding become available prior to the next CRP funding cycle, as follows:

- First Priority: Fully fund the City of Milwaukee’s street lighting replacement with energy-efficient alternatives project (\$1,282,603)
- Second Priority: Fully fund the City of West Allis’ street lighting conversion project (\$2,028,818)

STATE CARBON REDUCTION STRATEGY

As previously indicated, the BIL legislation included a requirement for the development of a statewide Carbon Reduction Strategy (CRS) that supports efforts to reduce transportation emissions and identify strategies to reduce these emissions. Per the BIL legislation, the initial CRS is required to be completed by November 15, 2023, and updated at least once every four years. In addition, States and MPOs are encouraged to approve CRP funding for projects that support implementation of the CRS. Earlier this year, WisDOT began work to develop a state CRP, in consultation with the Metropolitan Planning Organizations (MPOs) within the state, including SEWRPC. Once completed, it is anticipated that the CRS would be considered in the evaluation and recommendation of candidate projects for CRP-MUA funding for future funding cycles.

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