

Michigan Department of Transportation

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

2015 Guidance

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I. Disclaimer

This document contains material from the Federal Highway Administration's (FHWA's) CMAQ Final Program Guidance document, which can be found online at www.fhwa.dot.gov/environment/air_quality/cmaq, along with supplemental material pertaining to how the Michigan Department of Transportation (MDOT) administers the CMAQ program. It was prepared by the **MDOT CMAO Project Review Committee** and will be updated as needed.

The purpose of this document is to provide information to government agencies that participate in the CMAQ Program. This document should be used as a resource for all individuals who will submit projects to MDOT through the annual Call for Projects for review and determination of eligibility for federal aid under the CMAQ program. All other federal aid guidelines must be followed to ensure projects are authorized and delivered in a timely manner.

This document is intended to be a living document and will be updated with revisions and corrections as needed. Questions, comments, and suggested changes to the document will be taken into consideration. Please direct those to Todd Kauffman, CMAQ Program Manager via e-mail at kauffmant@michigan.gov or by calling 517-335-2938 or to Paul Lott at lottp@michigan.gov or by calling 517-335-4166.

Frequently asked questions will be compiled and published on the MDOT CMAQ website at a later date.

MDOT CMAO Project Review Committee Members:

Paul Lott, Transportation Planner – Systems Implementation and Monitoring Unit
Andrea Brush, Supervisor – Office of Passenger Transportation
Paula Corlett, Supervisor – Traffic Signals Unit
Joshua DeBruyn, Transportation Planner - Statewide Bicycle/Pedestrian Coordinator
Todd Kauffman, Transportation Planner – Systems Implementation and Monitoring Unit
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Jeff Reid, System Manager - University Region Office
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II. Program Purpose

The CMAQ program provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act (42 U.S.C. Paragraph 7506 Section 176(c)). Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, or particulate matter-nonattainment areas and for areas that were out of compliance but have now met the standards-maintenance areas (See table 1).

MDOT's strategy aligns with the overall purpose of the program. At this time, MDOT allocates CMAQ funds to eligible counties based on county populations. No current selection process is used at the state level. Applicants are required to work with Metropolitan Planning Organizations (MPOs) or Regional Planning Agencies (RPAs) in selecting projects that are most effective in reducing congestion and transportation related emissions in a cost effective manner. Projects that produce little emissions reduction at a high cost should be avoided.

III. Priority for Use of CMAQ Funds

The Moving Ahead for Progress in the 21st Century (MAP-21) legislation directs MDOT to use a portion of its CMAQ funds for projects that reduce particulate matter (PM 2.5) in areas designated as nonattainment and maintenance for PM 2.5. Diesel retrofits are highlighted in MAP-21 as eligible to effect such mitigation. Information on diesel retrofit projects can be found in the following EPA Guidance Document:

<http://www3.epa.gov/otaq/stateresources/transconf/policy/420b14007.pdf>.

IV. Annual Apportionments of CMAQ Funds to States

A. CMAQ Apportionments and State Allocation

Each year, after a set-aside amount for MDOT and Local Traffic Operation Centers (TOCs) and the MichiVan Rideshare program, Michigan's remaining CMAQ apportionment is allocated to eligible counties according to the county's population as a percentage to the total population of all eligible counties in the state. The distributed amount is split evenly between MDOT and the Local Agency Programs (including transit agencies).

The amount of CMAQ funding allocated to each agency can be found in the annual Call for Projects letter, and on MDOT's CMAQ website at: www.michigan.gov/CMAQ.

B. Federal Share and State/Local Match Requirements

The federal share for CMAQ funds is governed by 23 U.S.C. 120. It is generally 80 percent, subject to the upward sliding scale adjustment for states containing public lands. In Michigan, the federal share for most projects is 81.85 percent. Transit projects are currently being funded at 80 percent federal share. Certain safety projects that include an air quality or congestion relief component, as provided in 23 USC 120(c), may have a federal share of 100 percent. These projects include: carpool/vanpool projects, traffic signal improvements that include actuation, traffic circles or “roundabouts”, and rideshare programs. However, this provision is limited to 10 percent of the total funds apportioned to a state under 23 U.S.C. 104.

V. Geographic Areas Eligible to use CMAQ Funds

A. Eligible Areas

All projects submitted for CMAQ funding must be located in a non-attainment or maintenance area as described by the NAAQS. Eligible areas are listed by county in Appendix 1.

B. Who is Eligible to Apply for Funds?

In Michigan, only agencies who are able to receive Federal-aid under Michigan Act 51 of 1951 (as amended) can apply for CMAQ funding. This includes the following agencies: MDOT, county road commissions, cities/villages, and public transit agencies. Metropolitan Planning Organizations (MPOs) or Regional Planning Agencies (RPAs) may receive Federal-aid through a Transportation Work Authorization (TWA) or agreement with MDOT.

Non-eligible agencies include but are not limited to, the following: townships, private companies, universities/colleges, local school districts, county general government departments, public libraries, certain federal and state agencies, and non-profits. These agencies may request sponsorship from an eligible agency. In these instances, a third-party contractual agreement documenting sponsorship must be submitted with the application.

In cases where there is more than one agency sponsoring a project, a lead agency must be identified to receive the CMAQ funds to manage the project.

VI. Project Eligibility Provisions

A. Project Eligibility: General Conditions

All projects submitted for CMAQ funding must be located in or improve the air quality in a non-attainment or maintenance area as described by the NAAQS. The project must benefit the non-attainment or maintenance area by contributing to the reduction of mobile source emissions.

Road projects must be located on a Federal-aid eligible route or on a road adjacent to a Federal-aid eligible route where the project is related to that route. The MDOT Physical Reference (PR) Finder website is helpful to assist the applicant in confirming that the route is eligible for Federal-aid and can be accessed online at <http://www.mcgi.state.mi.us/prfinder/MCGI.aspx>.

1. Capital Investment

CMAQ funds may be used to establish new or expanded transportation projects or programs that reduce emissions, including capital investments in transportation infrastructure, congestion relief efforts, diesel engine retrofits, or other capital projects.

2. Operating Assistance (*new under MAP-21, June 2013*)

- a. Operating assistance is limited to new transit, commuter and intercity passenger rail services, intermodal facilities, travel demand management strategies (including TOCs), inspection and maintenance programs, and the incremental cost of expanding these services.
- b. In using CMAQ funds for operating assistance, the intent is to help start up viable new transportation services that can demonstrate air quality benefits and eventually cover costs as much as possible. Other funding sources should supplement and ultimately replace CMAQ funds for operating assistance, as these projects no longer represent additional, net air quality benefits but have become part of the baseline transportation network. The provisions in 23 U.S.C. 116 place responsibilities for maintenance of transportation facilities on the states. Since facility maintenance is akin to operations, a time-limited period of CMAQ assistance provides adequate incentive and flexibility while not creating a pattern of excessive or perpetual support.
- c. Operating assistance includes all costs of providing new transportation services, including, but not limited to, labor, fuel, administrative costs, and maintenance.
- d. When CMAQ funds are used for operating assistance, non-federal share requirements still apply.

- e. With the focus on start-up and recognizing the importance of flexibility in the timing of financial assistance, the three years of operating assistance allowable under the CMAQ program may now be spread over a longer period, for a total of up to five sequential years of support. Grantees who propose to use CMAQ funding for operating support may spread the third year amount (an amount not to exceed the greater of year one or two) across an additional two years (i.e. years four and five). This will provide an incremental, taper-down approach while other funding is used for a higher proportion of the operating costs as needed.

See the table below for examples of possible funding allocations. At the conclusion of the five-year period, operating costs would have to be maintained with non-CMAQ funding. It is anticipated that this may enable a transition to more independent system operation. The amounts which apply to years one and/or two are established at the discretion of the state or local sponsor.

Example Allocations of CMAQ Funds for Operating Assistance

Example	Year 1	Year 2	Year 3	Year 4	Year 5	Total
A	\$300	\$300	\$200	\$50	\$50	\$900
B	300	300	100	100	100	900
C	100	400	200	100	100	900

- f. Elements of operating assistance prohibited by statute or regulation are not eligible for CMAQ participation, regardless of their emissions or congestion reduction potential.

3. Emission Reductions

Air quality improvement includes contribution to attainment, reduction in pollution, air quality benefits, and others. CMAQ-invested projects or programs must reduce carbon monoxide (CO), ozone precursor (nitrogen oxides (NOx) and volatile organic compounds (VOCs), particulate matter (PM) or PM precursor (e.g., NOx) emissions from transportation. These reductions must contribute to the area's overall clean air strategy and be demonstrated by the emissions calculations that are required as part of the project submittal. States and MPOs may also consider the ancillary benefits of eligible projects, including greenhouse gas reductions, congestion relief, safety, or other elements, when using CMAQ funds. However, such benefits alone do not establish eligibility.

4. Planning and Project Development

Activities in support of eligible projects may be eligible for CMAQ funds. Studies that are part of the project development pipeline (e.g., preliminary engineering) under the National Environmental Policy Act (NEPA) are eligible for CMAQ funds.

General studies that fall outside specific project development do not qualify for CMAQ funding. Examples of such efforts include major investment studies, commuter preference studies, modal market polls or surveys, transit master plans, and others. These activities are eligible for Federal planning funds.

When using CMAQ funds for project development, applicants should plan to obligate the entire budgeted amount necessary to carry out this phase of the project.

B. Specific Eligible Projects and Programs (For a complete list please visit: <http://www.fhwa.dot.gov/map21/guidance/guidecmaq.cfm>)

1. Intelligent Transportation Systems (ITS)

Funding is available for establishment or operation of a traffic monitoring, management, and control facility, including the installation of advanced truck stop electrification systems. Applications for funding of TOC operations must include the physical address of the TOC.

2. Transportation Control Measures (TCMs)

Examples of transportation control measures include, but are not limited to:

- improved public transit,
- traffic flow improvements,
- shared ride services,
- pedestrian/bicycle facilities, and
- flexible work schedules.

3. Alternative Fuels

Alternative fuel projects including participation in vehicle acquisitions, engine conversions, and refueling facilities.

4. Congestion Relief and Traffic Flow Improvements

Examples of traffic flow improvements include:

- traffic signal optimization,
- traffic signal modernization with interconnection or actuation
- intersection traffic flow improvements,
- add turning lanes,

- limited weave/merge lanes on freeways, and

Improvements to transportation systems management and operations that mitigate congestion and improve air quality such as ITS implementation are also eligible. This includes efforts to improve incident and emergency response or mobility (such as through real time traffic, transit and multimodal traveler information).

Projects that improve aesthetics or non-standard supports for aesthetic purposes are not eligible for CMAQ funding. Aesthetic enhancements to otherwise eligible CMAQ funded projects may be included as non-participating local contributions.

Traffic signal systemization projects should indicate “coordination/timing” and/or “interconnect”.

5. Transit Improvements

Transit investments include transit vehicle acquisitions, construction of new facilities, or improvements to facilities that increase transit capacity.

6. Bicycle and Pedestrian Facilities and Programs

Examples of eligible non-recreational bicycle transportation and pedestrian improvements that provide a reduction in single-occupant vehicle (SOV) travel include:

- Shared use pathways, sidewalk and bicycle lane projects will be reviewed on a case-by-case basis. MDOT will consider shared use pathways and sidewalks if the value to commuting, connections to employment centers, retail or dining establishments and/or transit service can be made.
- As the purpose of these projects is to reduce SOV travel, MDOT will not fund multiple projects within the same corridor (i.e. bicycle and pedestrian facilities that are parallel and follow in close proximity to a facility or route that is not at full capacity).
- Any project that reduces road capacity for the purpose of installing non-motorized facilities will require a traffic engineering model/analysis to confirm the project will not create or increase vehicle congestion thus reducing air quality.
- Fixed bicycle racks, bicycle racks on transit vehicles and equipment purchases related to bicycle share systems may also be eligible if they meet Buy America and other federal provision.

When submitting applications for bicycle or pedestrian facilities, the projects must comply with Title II of the Americans with Disabilities Act (ADA).

Projects must also be designed to the latest standards for bicycle and pedestrian facilities as outlined in the respective American Association of State Highway and Transportation Officials (AASHTO) publications. This includes, but is not limited to: off-roadway pathways with minimum 10 feet width and a minimum of 2 feet clear zone on each side. The standards for bridges or boardwalks include a minimum 14 feet width between rub rails. For roadways with no curb and gutter, the standard for minimum width is 4 feet on each side of the road. If parking is permitted, the minimum standard width for bike lanes is 5 feet. Projects must also be designed and constructed in accordance with the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).

In very rare circumstances, a reduced width of 8 feet may be used where the following conditions prevail:

- Bicycle traffic is expected to be low, even on peak days or during peak hours.
- Pedestrian use of the facility is not expected to be more than occasional.
- Horizontal and vertical alignments provide safe and frequent passing opportunities.
- The path will not be regularly subjected to maintenance vehicle loading conditions that would cause pavement edge damage.

7. Travel Demand Management (TDM)

Eligible projects or programs would shift travel demand to nonpeak hours or other transportation modes, increase vehicle occupancy rates, or otherwise reduce demand through initiatives, such as teleworking, ridesharing, pricing, and others. Note: These projects should include a complete description of activities that will be covered by CMAQ funding as they may need to be divided into multiple job numbers for reporting purposes.

8. Public Education and Outreach Activities

Public education and outreach activities educate the public, community leaders, and potential project sponsors about connections among trip making and transportation mode choices, traffic congestion, and air quality. These activities can help communities reduce emissions and congestion by inducing drivers to change their transportation choices.

Long-term public education and outreach can be effective in raising awareness that can lead to changes in travel behavior and ongoing emissions reductions; therefore, these activities may be funded indefinitely.

9. Carpooling and Vanpooling

Carpooling and vanpooling, also known as “rideshare”, activities may be funded with up to 100 percent federal funding, with limitations. These activities are

designed to increase the use of carpools and vanpools. Capital expenses, marketing of rideshare programs, and carpool matching programs and software are eligible.

10. Diesel Engine Retrofits

Acquisition of diesel retrofits, including tailpipe emissions control devices and the provision of diesel-related outreach activities. For more information on diesel engine retrofits, please refer to Appendix I.

MDOT will fund the replacement of the vehicle cab and chassis. The vehicle must be at least five years old, and must be in current use. Verification of current usage is required, and can be satisfied by submitting a copy of the vehicle's current registration. If the replacement is diesel to alternative fuel, MDOT/CMAQ program funds will participate by funding the incremental cost of a new similar diesel vehicle. The agency will be responsible for funding additional costs to convert to alternative fuel. For additional information see the Statewide Guidance Supplement: Non-Transit Vehicle Replacements document on MDOT's CMAQ website at: www.michigan.gov/CMAQ.

Note: These projects require a Buy America waiver approval from FHWA and this approval process may take up to six months.

C. Ineligible Activities:

Projects that do not benefit air quality are not eligible for CMAQ funding. Also, no funds may be used to add capacity except for HOV facilities that are available to SOV only at off-peak times. Routine maintenance projects (highway or transit), replacement of any vehicles without improved emission, or individual single traffic signal replacements without justification are also ineligible for CMAQ funds. Projects not located in or do not benefit a non-attainment area.

VII. Project Selection Process: General Conditions

A. Air Quality Analysis

1. Quantitative Analysis

An emissions calculation must be conducted for each project. The calculation includes the expected emission benefit, which is classified as a reduction of emissions, and the cost-benefit calculation, which is the cost per Kilogram over the life of the project. The applicant must include the calculation of each pollutant within the affected non-attainment or maintenance area.

2. Qualitative Assessment

Federal guidance requires a quantitative analysis when technically feasible but allows a qualitative analysis if the sponsor lacks the skills or equipment necessary to measure emissions. A qualitative analysis explains how the project would lower emissions without specifying the amount. Qualitative assessments should consider

project impacts on traffic volumes, speeds, vehicle mix, traffic routing, and expected changes in mobile source emissions. Qualitative analyses can also discuss the overall downward trend in forecasted mobile source emissions.

B. Call for Projects

Each year, MDOT conducts a Call for Projects for both Trunkline and Local programs. Projects are submitted using a fillable Excel spreadsheet. Information on the annual CMAQ Call for Projects is available on the MDOT CMAQ website at www.michigan.gov/cmaq.

Projects reviewed by the CMAQ Sub-Committee and deemed eligible for CMAQ funding have conditional approval based on the scope of work, which consists of a description of work, project location, budget, and schedule. This conditional approval applies to all phases of the project. Any change to the scope after approval requires processing a change request on MDOT's MAP database, may warrant a new eligibility determination review, and may require changes to the state transportation improvement plan (S/TIP). The change process may delay project authorization. Applicants will be required to submit justification for approval of high cost – low emissions reducing projects.

For area wide projects, or projects with multiple locations (i.e. citywide, MPO-wide, region wide), the project information can be listed together. Please include details on the locations in the additional comments field of the spreadsheet.

VIII. Program Administration

A. Project Prioritization-MPO & Local Agency Responsibilities

Application for CMAQ funding must follow the statewide and metropolitan planning processes prior to submittal for eligibility determination. Agencies should develop a CMAQ project selection and prioritization process. When submitting the projects for eligibility determination, list the selected projects in order from highest priority to lowest priority.

Agencies must insure that approved projects are included in the appropriate year's S/TIP prior to requesting obligation of funds. Transit projects must be included in the S/TIP for the year the funds will be requested from the Federal Transit Administration (FTA). Local agencies can contact the Local Agency Programs (LAP) office at (517) 373-7680 to request obligation. Transit agencies should contact the Office of Passenger Transportation at (517) 373-0471.

B. State Responsibilities

In Michigan, MDOT and FHWA determine the eligibility of all CMAQ projects. A multi-disciplinary sub-committee consisting of state program managers, local agency program representatives and planners, and representatives from FHWA evaluates each application. The CMAQ Program Manager or a team member will follow up with applicants if additional information is required to determine eligibility.

For projects requiring a Buy America waiver, be aware that the approval process may add an additional six months to the project timeframe. Please take this into consideration when requesting funding for these types of projects.

C. Program Delivery

1. Programming Projects to the MAP Database

Projects that are deemed eligible for CMAQ funds will be programmed to the MDOT MAP database.

2. Requesting Obligation

MDOT projects are obligated through internal system requests made by the MDOT project manager. Transit funds are transferred, or “flexed,” from FHWA to the FTA. MDOT does not award the federal share as a conventional grant but provides the funds on a reimbursable basis.

3. Advance Construction

Advance Construction (AC) is defined in U.S.C. Title 23, Sec. 115 as obligation of funds without the use of Federal-aid or Federal-aid authority, and being reimbursed (AC conversion) for those funds in a later year.

The agency is responsible for funding the project, and will be reimbursed in a later year for eligible expenses if Federal-aid is available.

Note: Projects funded with additional CMAQ funds above an agency’s annual allocation is not considered advance construction as they count against the current year’s federal aid obligation authority. Agencies must remain constrained to the available allocation to ensure all projects are delivered.

D. Federal Agency Responsibilities and Coordination

1. Program Administration

FHWA administers the obligation or authorization of funds from the CMAQ program for road and highway projects.

The FTA administers transit projects. When ready to be obligated, the CMAQ funds for transit projects will be “flexed” from FHWA to FTA. Transit agencies should ensure timely submittal of documentation to the Office of Passenger Transportation in order for their projects to be executed on time. This includes the projects being included in the appropriate S/TIP.

2. Eligibility Determinations

Although FHWA determined eligibility in the past, the responsibility has been delegated to the MDOT Call for Projects Sub-Committee in cooperation with FHWA. Experimental pilot projects, public-private partnerships, or new projects which have not been funded in Michigan in the past may require FHWA review.

If a project is deemed ineligible, the applicant may request specific information as to how the determination was made from the project review committee.

E. Annual Reports

At the close of the fiscal year, the CMAQ Program Manager will compile all data necessary to submit an annual report to FHWA. The report documents how CMAQ funds were used during the fiscal year, including initial obligations, increases, and de-obligations. All emission calculations are also included in the report. The report is required by federal law.

Table 1. Michigan Nonattainment and Maintenance Areas

County	Area	Pollutant
Allegan Co.	Allegan Co., MI	Ozone
Benzie Co.	Benzie Co., MI	Ozone
Berrien Co.	Benton Harbor, MI	Ozone
Calhoun Co.	Kalamazoo-Battle Creek, MI	Ozone
Cass Co.	Cass Co., MI	Ozone
Clinton Co.	Lansing-East Lansing, MI	Ozone
Eaton Co.	Lansing-East Lansing, MI	Ozone
Genesee Co.	Flint, MI	Ozone
Huron Co.	Huron Co., MI	Ozone
Ingham Co.	Lansing-East Lansing, MI	Ozone
Kalamazoo Co.	Kalamazoo-Battle Creek, MI	Ozone
Kent Co.	Grand Rapids, MI	Ozone
Lapeer Co.	Flint, MI	Ozone
Lenawee Co.	Detroit-Ann Arbor, MI	Ozone
Livingston Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5
Macomb Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5
Mason Co.	Mason Co., MI	Ozone
Monroe Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5
Muskegon Co.	Muskegon, MI	Ozone
Oakland Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5
Ottawa Co.	Grand Rapids, MI	Ozone
St Clair Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5
Van Buren Co.	Kalamazoo-Battle Creek, MI	Ozone
Washtenaw Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5
Wayne Co.	Detroit-Ann Arbor, MI	Ozone, PM-2.5

Appendix 1: Considerations for Diesel Retrofit Projects

(From the 2008 FHWA Final Program Guidance)

The term diesel retrofit includes any technology or system that achieves emission reductions beyond that required by the EPA regulations at the time of engine certification. Assuming all other criteria are met, eligible diesel retrofit projects include the replacement of high-emitting vehicles/equipment with cleaner vehicles/equipment (including hybrid or alternative fuel models), repowering or engine replacement, rebuilding the engine to a cleaner standard, the purchase and installation of advanced emissions control technologies (such as particulate matter traps or oxidation catalysts), or the use of a cleaner fuel to support eligible non-road devices. The legislation defines retrofit projects as applicable to both on-road motor vehicles and non-road construction equipment. Retrofit strategies include:

Emissions Control Technologies

The EPA and the California Air Resources Board (CARB) have retrofit technology verification programs that evaluate the performance of advanced emissions control technologies and engine rebuild kits. CMAQ-funded diesel retrofit projects must use retrofit technologies that are verified under the EPA's Voluntary Diesel Retrofit Program or CARB. A list of EPA-verified technologies is available at <http://epa.gov/cleandiesel/verification/>. CARB's verification program can be found at <http://www.arb.ca.gov/diesel/verdev/verdev.htm>. In addition, for more detailed information on the cost-effectiveness of various diesel retrofit technologies, the EPA's study, "The Cost-Effectiveness of Heavy-Duty Diesel Retrofits and Other Mobile Source Emission Reduction Projects and Programs" can be found at: <http://www.epa.gov/cleandiesel/publications.htm>

Vehicle/Equipment Replacement Projects

Replacement projects occur when older vehicles/equipment are replaced with cleaner vehicles/equipment before they would have been removed through normal fleet turnover or attrition. The vehicle or equipment being replaced should have the engine remanufactured to a cleaner standard or be scrapped. For areas that want to take credit in the State Implementation Plan (SIP) and transportation conformity processes for these projects, see the EPA's retrofit guidance at: <http://www.epa.gov/otaq/stateresources/transconf/policy.htm#retrofit>.

Generally, the replacement vehicle or equipment would perform the same function as the vehicle or equipment that is being replaced (e.g., an excavator used to dig pipelines or utility trenches would be replaced by an excavator that continues these duties).

In addition, the vehicle or equipment being replaced would be in good working order and able to perform the duties of the new vehicle or equipment. Removing vehicles that no longer function or are at the end of their useful life will not lead to an emissions reduction.

Repower or Engine Replacement Projects

Engine replacement projects involve the replacement of an older, higher emitting engine with a newer, cleaner engine. Engine replacements can also be combined with emission control technologies. The engines being replaced should be scrapped or remanufactured to a cleaner standard. As noted above, for areas that want to take credit in the SIP and transportation conformity processes for these projects, see EPA's retrofit guidance at: <http://www.epa.gov/otaq/stateresources/transconf/policy.htm#retrofit>.

New engines also must be EPA-certified. For a complete list of all EPA certified large highway and non-road engines, please consult the list at <http://www.epa.gov/otaq/certdata.htm>.

For more information on diesel retrofits, please see the EPA's National Clean Diesel Campaign website at <http://www.epa.gov/cleandiesel/>.

Appendix 2: Non-Transit Vehicle Replacements

Michigan Department of Transportation (MDOT)

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

Statewide Guidance Supplement: Non-Transit Vehicle Replacements

The purpose of this document is to address issues that have occurred with funding of replacements of non-transit diesel-fueled vehicles within the eligible CMAQ category of “Diesel Engine Retrofit”.

Projects approved for CMAQ funding under the category of “Diesel Engine Retrofit” must meet the following requirements prior to the start of the procurement process:

- a. The vehicle being purchased must be included in an approved FHWA Buy America waiver request.¹ Requests are submitted by MDOT to FHWA each quarter. Any new project added to the current fiscal year CMAQ program will be submitted in the next quarter’s Buy America Waiver request and must be approved prior to authorization. This may take up to six months.
- b. Federal regulation require that the State DOT has authorization from FHWA prior to work beginning.² Local agencies should confirm that the authorization is in place prior to purchasing the vehicle. Please contact the appropriate MPO Program Manager in the Statewide Planning section at (517) 373-9054 for verification of authorization. **Note:** Any costs incurred prior to the date of authorization is not eligible for federal aid reimbursement and will be the responsibility of local agency.
- c. Only federal-aid eligible expenses incurred for the purchase of the vehicle are reimbursable. Examples of ineligible expenses include snow plows, lawn equipment, and graders. Periphery equipment not already installed on the vehicle may also be ineligible. This includes items that are considered maintenance equipment. Submittals will be reviewed during the Call for Projects and a determination will be made of what is eligible and ineligible. The authorized amount will be adjusted to reflect the eligible costs, if needed and the agency will be responsible for any ineligible costs.
- d. The vehicle being replaced must have remaining useful life and should be taken out of service. Project agreements involving replacements for either engines or full vehicles should include a provision for disposal or destruction of the engine block, verification that the engine is no longer contributing emissions in the nonattainment or maintenance area.

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¹ [23 C.F.R. 635.401 Buy America Requirements](#)

² [23 CFR 630.106 Authorization to Proceed](#)