

**COMPETITIVE SELECTION PROCESS FOR THE USE OF FY 2011
CONGESTION MITIGATION AND AIR QUALITY FUNDING IN THE
BALTIMORE REGION**



January 2011

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I. PROGRAM OVERVIEW

This document outlines the process for public agencies and public-private partnerships to apply for Congestion Mitigation and Air Quality Improvement Program (CMAQ) funding from the Baltimore Regional Transportation Board (BRTB), for emission reduction projects in the Baltimore region. In addition, the document describes the process by which funding applications will be reviewed for eligibility and selection. A portion of the CMAQ funds attributed to Maryland have been allocated to the BRTB to fund mobile source emission reduction projects in the Baltimore region. The Maryland Department of Transportation (MDOT) has provided CMAQ project selection authority to the BRTB in the amount of \$800,000 in state fiscal year 2011.

The BRTB is holding its third competitive selection process to fund CMAQ eligible projects. Candidates for funding will be asked to submit projects in one of the following nine categories. These project categories were chosen based on their ability to effectively reduce emissions from the “on-road” transportation system in the Baltimore region, thereby sustaining our quality of life.

Project Type Categories

Project Types	Targeted Pollutant(s)
School Bus Diesel Retrofits (i.e., diesel oxidation catalysts, particulate filters)	PM2.5, VOCs
Transit Bus Retrofits (i.e., diesel oxidation catalysts, particulate filters)	PM2.5, VOCs
Heavy Duty Diesel Truck Retrofits (diesel oxidation catalysts, particulate filters)	PM2.5, VOCs
Clean Fuel/Hybrid Transit Buses	PM2.5, NOx (for hybrid buses)
Clean Fuel/Hybrid Non-Transit Vehicles	varies
Idle Reduction Devices	NOx, PM2.5
Emergency Ride Home Programs	NOx, VOCs
Transportation Management Associations (TMAs)	NOx, VOCs
Other (i.e., traffic signal synchronization, bicycle/pedestrian facilities and storage, etc.)	varies

While project type categories that require operations funding are eligible, such as emergency ride home programs and transportation management associations (TMAs), preference will be given to the other project types which are based on capital funding.

The list of CMAQ-funded project types was created based on the region’s nonattainment status for National Ambient Air Quality Standards (NAAQS) for 8-hour ozone and fine particulate matter, established by the Clean Air Act. Fine particulate matter, nitrogen oxides and volatile organic compounds were considered priority mobile source air pollutants for the purpose of creating the list of project type categories to target reductions. Carbon monoxide and carbon

dioxide were also considered priority mobile source air pollutants for this purpose. The reasons for the priority status assigned are listed in the table below. Only applications for projects that reduce emissions from the “on-road” transportation sector in the region, rather than the “nonroad” sector, are eligible for this funding opportunity.

Priority Mobile Source Air Pollutants

Mobile Source Air Pollutant	Reason for Concern
Nitrogen Oxides (NOx)	Precursor to both ozone and PM2.5
Fine Particulate Matter (PM2.5)	Nonattainment status
Volatile Organic Compounds (VOCs)	Precursor to ozone
Carbon Monoxide (CO)	Maintenance phase
Carbon Dioxide (CO2)	Greenhouse gas

The CMAQ program was created in 1991 by the Intermodal Surface Transportation Efficiency Act (ISTEA) with the purpose of providing funding for transportation programs and projects that reduce air pollution and congestion from the transportation system. The CMAQ program was continued under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). This funding is provided to state and local governments to assist them in reaching federal air quality requirements established by the Clean Air Act and its amendments.

II. APPLICATION PROCESS

A. General Eligibility

Public agencies as well as public-private partnerships may apply for this funding program. (See Section II.B. below for more information on public-private partnerships.) Maryland State agencies may apply for funding, but preference will be given to projects with local agency sponsors. There is no minimum funding request required; however, it is advised that applicants for projects requesting under \$50,000 of CMAQ funds explore opportunities to bundle projects together with other interested parties, for one larger application.

Candidate projects will be submitted to the BRTB. The projects will be reviewed for initial eligibility. Once this screening process is completed, the remaining projects will be scored based upon qualitative and quantitative factors. The projects will be analyzed to determine their emission reduction capabilities and their cost effectiveness. Based upon this data as well as other criteria (described below), candidate projects will be evaluated and then selected for funding. Grant funding must be used for projects which result in emission reductions. Specific CMAQ-funded projects will be listed in or amended into the Transportation Improvement Program (TIP) for the Baltimore region. An air quality conformity determination is performed for both the TIP and the long-range transportation plan for the region.

Per Federal regulations, CMAQ funding will be provided on a reimbursable basis. Money will not be released until the work is completed. All projects selected must be new or currently undergoing development. All allocated funds for projects must be drawn down within 24 months from the beginning of the appropriate state fiscal year. In accordance with federal criteria, operating assistance will be provided, if deemed eligible.

If a project is not able to make reasonable progress primarily as described within 6 months of federal approval, the funding will be referred back to the BRTB. The BRTB will determine use of remaining fund disposition.

B. Public-Private Partnerships (PPP)

Public-private partnerships (PPP) are eligible to apply for funding to this program; however, the project needs a local jurisdiction sponsor willing to submit the application. In a PPP, a private or non-profit entity's resources replace or supplement State or local funds in a selected project. PPP's must have a legal, written agreement in place between the local jurisdiction and the private or non-profit entity before a CMAQ-funded project may be implemented. These agreements should be developed under relevant State contract law and should specify the intended use for CMAQ funding; the roles and responsibilities of the participating entities; and how the disposition of land, facilities, and equipment will be carried out should the original terms of the agreement be altered (e.g., due to insolvency, change in ownership, or other changes in the structure of the PPP).

Public funds should not be invested where a strong public benefit cannot be demonstrated. Consequently, CMAQ funds must be devoted only to PPPs that benefit the general public by clearly reducing emissions, not for financing marginal projects. Consistent with the planning and project selection provisions of the Federal-aid highway program, the Federal Highway Administration (FHWA) considers it essential that all interested parties have full, open, and timely access to the project selection process.

There are several other statutory restrictions and special provisions on the use of CMAQ funds in PPPs. Eligible costs under this section may not include costs to fund an obligation imposed on private sector or non-profit entities under the CAA or any other Federal law. However, if the private or non-profit entity is clearly exceeding its obligations under Federal law, CMAQ funds may be used for that incremental portion of the project.

Sharing of total project costs, both capital and operating, is a critical element of a successful public-private venture, particularly if the private entity is expected to realize profits as part of the joint venture.

C. Grant Amounts

All matches for grant amounts must be made in cash. Grant amounts for projects that are sponsored solely by a **public agency** are determined according to the following formula:

$$\text{Total Project Cost (\$)} \times 80\% = \text{Grant Amount (\$)}$$

Grant amounts for projects that are sponsored by a **public-private partnership** are determined according to the following formula:

$$\text{Total Project Cost (\$)} \times 50\% = \text{Grant Amount (\$)}$$

All funding necessary to meet the match requirement will be the responsibility of the local jurisdiction(s) where the project will be located. In-kind services and other non-monetary activities, such as ownership or operation of land, or construction, will not be allowed to be included when accounting for the non-federal match requirement, under this CMAQ competitive selection process.

Project sponsor activities related to a proposed project cannot be funded with federal CMAQ dollars prior to federal approval. Expenditures made prior to the federal approval will be the responsibility of the project sponsor and are not eligible for reimbursement.

D. Submission of Applications

All respondents shall submit **4 copies** of their completed application to:

Baltimore Regional Transportation Board
Attn: CMAQ Coordinator
Offices @ McHenry Row
1500 Whetstone Way, Suite 300
Baltimore, MD 21230

Applications must be received by the BRTB no later than 2:00 p.m. Eastern Standard Time on **Tuesday, February 22, 2011**. Please allow adequate time for mail or other carrier delivery. Applications arriving after the deadline will not be accepted. Applications may be submitted electronically, provided that a complete hard copy is received by mail within two days following the deadline. Please direct any questions through e-mail at: CMAQinfo@baltometro.org.

The BRTB reserves the right to reject any applications without cost or detriment to the BRTB. Local jurisdiction staff will be responsible for preparing all paperwork, project request letters and documentation. Applications shall include the following:

I. Work Plan

The Statement of Work, also called a work plan or narrative, is an important requirement of all applications. The Statement of Work must include the following:

- 1) A full project description, up to 10 pages long, including:
 - Service to be provided;
 - The means by which the project will achieve a significant reduction in transportation-related air pollution emissions;
 - Fleets/vehicles description (if applicable);
 - Verified retrofit technologies, or emerging technologies to be used or funded by the eligible entity (if applicable);
 - The project schedule.
 - Information on the feasibility of the project.
- 2) An evaluation of the quantifiable emissions reduction benefits or disbenefits from the proposed project. If the project proposed involves a diesel retrofit or idle reduction measure, applicants shall use the Diesel Emissions Quantifier tool found at the National Clean Diesel Campaign web site at: <http://cfpub.epa.gov/quantifier>.

Otherwise the applicant will need to show verifiable calculations used to quantify the cost effectiveness and emission reductions of the proposed project.

- 3) An estimate of proposed project costs;
- 4) Match information;
- 5) A description of the age and expected lifetime of the equipment used or funded by the eligible entity (if applicable);
- 6) Provisions for the monitoring and verification of the project;
- 7) A map showing the project location;
- 8) For project applications requesting operations funding, please describe a plan for continuing operations funding beyond the CMAQ-funded period.

Applicants should be aware that applications will be evaluated against criteria listed below on the quantitative and the qualitative measures scoring sheets.

II. Attachments

The following sections should be included as attachments to the work plan.

1. Project Type-Specific Application Form

The local jurisdiction/project applicant will be required to complete and send a project type-specific application form. These forms can be found online at www.baltometro.org. Once the application is completed, it can be e-mailed to the BRTB CMAQ Coordinator, using the “Submit by E-mail” icon on the top right corner of the application. A hard copy of the completed form will also need to be printed and mailed with the project application.

On the application forms, the applicant will need to provide contact information, project details, funding information, fleet and retrofit information (if applicable), as well as emission reduction and cost effectiveness information. As stated above, applicants requesting funding for diesel retrofit or idle reduction technology projects are required to calculate emission benefits and cost effectiveness of the proposed project using the EPA-developed Diesel Emissions Quantifier (DEQ) which can be accessed at <http://cfpub.epa.gov/quantifier/>. Inputs used in the DEQ need to be reported on either the Diesel Retrofit Technical Form or the Idle Reduction Project Technical Form, as well as the emission reduction and cost effectiveness results. In addition to the application forms, the applicant will need to provide a printout of the DEQ input and results pages.

For transit or non-transit clean fuel/hybrid vehicle project applications, the application will need to use the Clean Fuel Vehicle Technical Form. For emergency ride home or transportation management association project applications, the

applicant will need to use the Travel Demand Management Technical Form. For projects that do not fit into the above project-type categories, the applicant will need to complete the Other Project Type Technical Form. All applications will need to show input assumptions. Applicants will need to provide verifiable emission reduction and cost effectiveness calculations. Additional information may be requested of the project sponsor after application submission.

2. Fleet Description (if applicable)

Please provide the following information in a table or spreadsheet, if applicable:

- Number and type of vehicles and equipment affected by this application;
- Vehicles and equipment characteristics, such as engine model and model year, engine manufacturer, annual fuel consumption, average annual miles, and who owns, maintains and operates the vehicles/equipment;
- A description of the location in which the vehicles/equipment operate;
- The fleet replacement rate.

3. Budget

Please provide a detailed budget and a budget narrative.

4. Project Support Letters

Applicants will be required to provide a project support letter from a [BRTB empowered representative](#).

5. Letters of Commitment:

- To provide bimonthly reports during the project implementation and funding period.
- To provide matching funds.
- Describing the responsible parties for possession, operation, and maintenance of equipment and materials following project completion.

III. Reporting Requirements

Bimonthly* (one every two months) progress reports and a detailed final report will be required. Bimonthly reports summarizing technical progress, planned activities for the next two months and summary of expenditures are required. Applicants are further required to make a commitment to share all data collected with the BRTB for assessment. The final report shall be completed within 90 calendar days of the completion of the period of performance. The final report should encompass a complete overview/summary of all of the activities conducted within the project period; including any and all data results as well as a justification for impediments should be addressed.

E. Documentation Required by Regulation

The local jurisdiction/project applicant will have the responsibility of preparing and providing, upon request, all State and federally-required documentation including, but not limited to NEPA-compliance documentation. It is the responsibility of the local jurisdiction/project applicant to

* Even if a project sponsor “flexes” funding for the original BRTB-approved project, the applicant is still required to provide bimonthly progress reports and a final report on the original project.

prepare documentation and demonstrate compliance under the National Environmental Policy Act (NEPA) as well as other program requirements. This documentation will not be required as part of the application packet. If a project is selected for CMAQ funding under this process, this paperwork will be included in the submittal to FHWA.

F. Schedule

Call for Projects:	Monday, January 3, 2011
Informational Meeting for Applicants:	Wednesday, January 19, 2011, 1 to 3 PM
Applications and Letters of Commitment Due:	Tuesday, February 22, 2011, 2:00 PM
Scoring of Applications:	Late February/Early March 2011
	<i>CMAQ Technical Evaluation Group to provide scores to CMAQ Subcommittee by week of March 21, 2011</i>
Final Review of Applications:	March 21 to April 11, 2011
	<i>CMAQ Subcommittee to meet week of April 11, 2011</i>
BRTB Approves Selection of Application(s)	April 26, 2011
Letter(s) Mailed to Winning Applicant(s):	Early May 2011
Notice to Proceed:	Dependent upon SHA/Federal Approval

III. APPLICATION REVIEW

Project applications will be reviewed first by the CMAQ Technical Evaluation Group. The CMAQ Technical Evaluation Group is made up of representatives from the following organizations.

CMAQ Technical Evaluation Group

- Maryland Department of the Environment
- Baltimore Metropolitan Council
- Maryland Energy Administration

This evaluation process will be done in four phases, as described below.

Evaluation Process

- Phase 1. Screen applications to determine whether they:
 - a. Do or do not meet federal CMAQ eligibility guidelines.
 - b. Do or do not fall within the priority project type categories.
 - c. Are or are not complete.
 - d. Have a letter of support from a local jurisdiction sponsor in the Baltimore region.
 - e. Have a letter of commitment of an available match.
- Phase 2. Score projects based upon specified **qualitative measures**.
- Phase 3. Score projects based upon specified **quantitative measures**:
 - a. Emission reductions
 - b. Cost effectiveness
- Phase 4. Add the qualitative and quantitative scores for each project. Array the projects based on these **total scores**.

The sheets that will be used to score proposed projects based upon selected qualitative and quantitative measures are provided below.

Once the CMAQ Technical Evaluation Group has reviewed each application, they will submit their recommendations and application scores to the CMAQ Subcommittee. Responsibility for making final decisions on which application to send on to the BRTB for approval will be made by the CMAQ Subcommittee. The CMAQ Subcommittee consists of representatives from the following organizations, for a total of seven representatives.

CMAQ Subcommittee

- Maryland Department of Transportation
- Two local jurisdictions selected by the BRTB
- Mid-Atlantic Regional Air Management Association
- Johns Hopkins School of Public Health
- Greater Baltimore Committee
- Citizens Planning & Housing Association

Quantitative Measure Scoring Sheet

Criteria:

Points Given:

1. Cost effectiveness for PM2.5: CMAQ \$ per ton of pollutant reduced, for PM2.5	Greater than \$50,000 or unknown 0	(\$40,000-\$50,000) 2.2	(\$30,000-\$40,000) 4.4	(\$20,000-\$30,000) 6.6	(\$10,000-\$20,000) 8.8	Less than or equal to \$10,000 11	
2. Cost effectiveness for NOx: CMAQ \$ per ton of pollutant reduced, for NOx	Greater than \$50,000 or unknown 0	(\$40,000-\$50,000) 2.2	(\$30,000-\$40,000) 4.4	(\$20,000-\$30,000) 6.6	(\$10,000-\$20,000) 8.8	Less than or equal to \$10,000 11	
3. Cost effectiveness for VOC: CMAQ \$ per ton of pollutant reduced, for VOC	Greater than \$50,000 or unknown 0	(\$40,000-\$50,000) 1.6	(\$30,000-\$40,000) 3.2	(\$20,000-\$30,000) 4.8	(\$10,000-\$20,000) 6.4	Less than or equal to \$10,000 8	
4. Emission Reductions Possible for PM2.5: (tons per year)	Less than 0.25 0	(0.25-0.5) 2.5	(0.5-0.75) 5	(0.75-1.0) 7.5	Greater than 1.0 10		
5. Emission Reductions Possible for NOx: (tons per summer day)	Less than 0.0125 0	(0.0125-0.025) 2.5	(0.025-.0375) 5	(0.0375-0.05) 7.5	Greater than 0.05 10		
6. Emission Reductions Possible for VOC: (tons per summer day)	Less than 0.0125 0	(0.0125-0.025) 1.75	(0.025-.0375) 3.5	(0.0375-0.05) 5.25	Greater than 0.05 7		

Total points possible = 57

Total points given = _____

Qualitative Measure Scoring Sheet

Criteria:

Points Given:

<p>1. Consistency with latest Plan goals: Is the project consistent with goals adopted for Transportation Outlook 2035?</p>	Does not Meet 0	Somewhat Meets 2	Mostly Meets 4	Meets 6	
<p>2. Supports conformity/attainment: Would the project support conformity of long-range plans and short term TIPs in the Baltimore region? (Consider any emission reduction disbenefits.)</p>	Does not Meet 0	Somewhat Meets 2	Mostly Meets 4	Meets 6	
<p>3. Synergistic potential: Does the project support other emission reduction efforts in the Baltimore region?</p>	Does not Meet 0	Somewhat Meets 1	Mostly Meets 2	Meets 3	
<p>4. Long term emission reduction potential: What is the potential that this project will be able to keep reducing mobile source emissions, both criteria pollutants as well as greenhouse gas emissions, in the long term (beyond 5 years)?</p>	Does not Meet 0	Somewhat Meets 1	Mostly Meets 2	Meets 3	
<p>5. Project Innovation/Regional Catalyst: Does the project incorporate new technology or methods that are innovative for the Baltimore region? How likely is it that this project can act as a regional catalyst by being replicated in other areas?</p>	Does not Meet 0	Somewhat Meets 2	Mostly Meets 4	Meets 6	
<p>6. Feasibility of implementation: Will the project be able to be implemented with relative ease and in an expedient manner? This can be determined based on prior project experience either locally or in other areas of the country.</p>	Does not Meet 0	Somewhat Meets 2	Mostly Meets 4	Meets 6	
<p>7. Public Benefit Does the project provide a strong public benefit in addition to air quality?</p>	Does not Meet 0	Somewhat Meets 2	Mostly Meets 4	Meets 6	

Total points possible = 36

Total points given = _____

IV. SPECIFIC PROJECT REQUIREMENTS

For each of the priority project type categories, the following requirements must be fulfilled to qualify for funding from this grant program. These requirements are discussed briefly below and are in keeping with the (2008) FHWA Final CMAQ Program Guidance. A copy of this guidance can be found online at <http://www.fhwa.dot.gov/environment/cmaq08gm.htm>.

Heavy Duty Diesel Truck, School Bus, and Transit Bus Retrofits

The purchase and installation of after-treatment emission reduction devices, including diesel oxidation catalysts (DOC), diesel particulate filters (DPF) and closed crankcase ventilation filtration systems (CCVF) are eligible for CMAQ funding. A complete list of eligible technologies can be found on the U.S. Environmental Protection Agency (EPA) list of Verified Retrofit Technologies at <http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>. In addition to the above list of EPA verified retrofit technologies, EPA recognizes and accepts those retrofit hardware strategies or device-based systems that have been verified by the California Air Resources Board (CARB). Information about CARB's Verification Program and their list of verified technologies can be found at the ARB verification page, <http://www.arb.ca.gov/diesel/verdev/verdev.htm>. The sponsor will be required to verify that the vehicle(s) will operate primarily within the nonattainment area for three to five years following the project start date.

Clean Fuel/Hybrid Transit Buses

New transit buses being used to expand the fleet or replace existing buses are eligible for CMAQ funding. Transit agencies are encouraged to purchase vehicles that are most cost-effective in reducing emissions. This program will accept funding applications for clean fuel transit buses, including hybrid buses. The sponsor will be required to verify that the vehicle(s) will operate primarily within the nonattainment area for three to five years following the project start date.

Clean Fuel/Hybrid Non-Transit Vehicles

CMAQ funds may be used to purchase publicly-owned alternative fuel vehicles, including passenger vehicles, refuse trucks, street cleaners, and others. Costs associated with converting fleets to run on alternative fuels are also eligible. When private fleet operators and/or local public fleet operators purchase vehicles, only the cost difference between the alternative fuel vehicles and comparable conventional fuel vehicles is eligible. Such vehicles should be fueled by one of the alternative fuels identified in section 301 of the 1992 Energy Policy Act or biodiesel. The sponsor will be required to verify that the vehicle(s) will operate primarily within the nonattainment area for three to five years following the project start date.

Although not defined by the Energy Policy Act of 1992 as alternative fuel vehicles, certain hybrid vehicles that have lower emissions rates than their non-hybrid counterparts may be eligible for CMAQ funding. Hybrid passenger vehicles must meet EPA's low emissions and energy efficiency requirements for certification under the HOV exception provisions of the SAFETEA-LU to be eligible for CMAQ funding. Projects involving heavier vehicles, including refuse haulers and delivery trucks, also may be appropriate for program support. Eligibility will be based on a comparison of the emissions projections of these larger candidate vehicles and other comparable models.

Idle Reduction Devices

The upgrading of diesel vehicles with idle reduction devices is eligible for CMAQ funding. The idle reduction device must reduce emissions. The vehicle must travel within, or in proximity to and primarily benefiting, the Baltimore nonattainment area. The sponsor will be required to verify that the vehicle(s) will operate primarily within the nonattainment area for three to five years following the project start date.

Emergency Ride Home Program

Emergency ride home programs (also known as “guaranteed ride home”) are eligible for CMAQ funding if they are explicitly aimed at reducing SOV travel and associated emissions. CMAQ funds may support capital expenses and up to three years of operating assistance to administer and manage new or expanded programs.

Transportation Management Associations (TMAs)

CMAQ funds may be used to establish TMAs provided that they reduce emissions. Eligible expenses include TMA start-up costs and up to three years of operating assistance. The TMA should eventually be able to cover its own costs. Funding would only be intended to help start or expand the service.

Other Project Types

Various project requirements will apply to projects in the “other” project type category. For assistance on what is federally required, please review the (2008) FHWA Final CMAQ Program Guidance at <http://www.fhwa.dot.gov/environment/cmaq08gm.htm>. Requirements specific to the BRTB CMAQ Competitive Selection Process for projects in the “Other” category will be addressed on a case-by-case basis, and will be left to the discretion of the BRTB and the CMAQ Subcommittee.