

What Is the Track Record for Using CMAQ Funds to Support AFV programs?

As of 2001, about \$674 million in CMAQ funding has been used for AFV projects, representing a little more than five percent of all CMAQ obligations. The following Table shows total expenditures by state (in thousands) on AFV projects for FY 2001.

| State | CMAQ Funds | State | CMAQ Funds |
|-------|------------|-------|------------|
| AZ | 3,228 | MO | 1,585 |
| CA | 45,836 | NV | 1,470 |
| CT | 2,372 | NH | 160 |
| GA | 6,502 | NY | 19,582 |
| IN | 2,500 | PA | 2,104 |
| KY | 578 | TX | 1,262 |
| MA | 1,578 | WA | 1,394 |
| MI | 6,663 | WI | 563 |

Are There Other Benefits in Using AFV?

- Alternative Fuels Provide States or Metropolitan Planning Organizations an Opportunity to be Positive Environmental Role Models.** For high-profile fleets, alternative fuels offer the added advantage of widespread public awareness and approval. This is true for public transit and school bus districts, where low emissions are especially important. Private delivery fleets often publicize their use of alternative fuels, even if they are only being tested.
- Alternative Fuel Vehicles Can Be Purchased for the Same Price as Conventional Vehicles.** Many times,

the incremental cost of purchasing an AFV is offset by federal and state incentives and rebates offered by the auto manufacturers.

CMAQ and the DOE's Clean Cities Program

Clean Cities is a voluntary, public private partnership program coordinated by the Department of Energy (DOE). The program is designed to reduce dependence on imported oil, improve local air quality, and stimulate local economies by increasing the use of alternative fuels and alternative fuel vehicles. Clean Cities creates an effective plan, implemented at the local level, for developing a sustainable, nationwide alternative fuels market. Today, there are more than 80 cities or city coalitions that are members of the Clean Cities Program, and many of these coalitions use CMAQ funds for numerous alternative fuel projects.

For more information on the Clean Cities Program, visit the DOE Web site at: www.eere.energy.gov/cleancities/index.html



Fueling the XCELLSIS fuel cell bus with compressed hydrogen. Photograph courtesy of Bob Barnitt, eTIAX LLC. (Department of Energy/National Renewable Energy Laboratory).

For more information, please contact:
 U.S. Department of Transportation
 Federal Highway Administration
 Office of Natural and Human Environment
 400 7th Street, S.W., Room 3240
 Washington, D.C. 20590; 202-366-6724
<http://www.fhwa.dot.gov/environment/cmaqpgs/>

Notice

This document is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for use of the information contained in this document. This report does not constitute a standard, specification or regulation.

Quality Assurance Statement

The Federal Highway Administration provides high-quality information to serve Government, industry, and the public in a manner that promotes public understanding. Standards and policies are used to ensure and maximize the quality, objectivity, utility, and integrity of its information. FHWA periodically reviews quality issues and adjusts its programs and processes to ensure continuous quality improvement.

It all adds up to cleaner air

FHWA-HEP-05-017
 HEPN-07-05(5M)E

1

CMAQ and Alternative Fuel Vehicle Projects



LIQUEFIED NATURAL GAS



U.S. Department
 of Transportation
 Federal Highway
 Administration

CMAQ and Alternative Fuel Vehicle Projects

What Is CMAQ?

The Congestion Mitigation and Air Quality Improvement (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, and its amendments. CMAQ funds support transportation projects within areas designated by the Environmental Protection Agency as nonattainment or maintenance areas by reducing mobile source emissions. Eligible activities include transit improvements, travel demand management strategies, traffic flow improvements, and public fleet conversions to cleaner fuels, among others.

What Is the CMAQ Funding Process?

CMAQ funds must be invested in a nonattainment or maintenance area if one exists within that state. Minimum apportionment states without nonattainment or maintenance areas can use the funds as they would any Surface Transportation Project (STP). For mandatory funding, the funds must be spent on projects that reduce Ozone (O₃) precursors, such as Volatile Organic Compounds (VOC), Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), or Particulate Matter (PM) from transportation sources. The project must also come from a conforming plan, where applicable, or a Transportation Improvement Program. The state is responsible for the distribution of CMAQ funds.

The federal share for most eligible CMAQ projects is 80 percent. The CMAQ program operates on a reimbursement basis, with funds provided when the work is completed. All CMAQ funded projects must conform to established guidance

How Does the Use of Alternative Fuels Reduce Vehicle Emissions?

Some alternative fuels are cleaner burning than gasoline and diesel and produce fewer tailpipe emissions. For example, a light-duty natural gas vehicle can produce 80 percent fewer tailpipe emissions than a gasoline vehicle. A light-duty propane vehicle can produce 60 percent fewer harmful emissions than its gasoline counterpart. Electric Vehicles (EVs) are classified as zero emission vehicles because they produce no tailpipe or evaporative emissions although electricity generation usually creates emissions.



For heavy-duty vehicles, emission reductions are also possible. Compressed Natural Gas (CNG) heavy-duty vehicles can demonstrate a reduction in ozone-forming emissions (CO and NO_x) compared to some conventional fuel. However, hydrocarbon emissions may slightly increase.



Pierce Transit in Tacoma, Washington is “commuting without polluting” by running transit buses on clean compressed natural gas.
Photograph courtesy of Pierce Transit (Department of Energy/National Renewable Energy Laboratory).

The number of new vehicles designed for use with alternative fuels constitutes a relatively small percentage of the overall number of vehicles manufactured for use in the United States each year.

CMAQ and Alternative Fuel Vehicle Conversion Projects

Fleet conversions no longer need to be specifically identified or included in the State Implementation Plan (SIP), or maintenance plan, to be eligible for CMAQ funding. Consideration of such projects should be coordinated with air quality agencies prior to selection for funding under the CMAQ program. The proposal for CMAQ funding must demonstrate that the

proposed conversion is effective in reducing the specific pollutant(s) causing the air quality violation.

Are CMAQ Funds Used to Establish Refueling Sites/Infrastructure?

The establishment of Alternative Fuel Vehicles (AFV) refueling facilities and other infrastructure is also eligible for funding if the facility is publicly owned or leased. However, if reasonably accessible private alternative fuel refueling stations exist, CMAQ funds may not be used to fund publicly owned fueling stations.

CMAQ and Public-Private Partnerships in AFV Projects

Since most of the AFV projects are undertaken in partnership with the private sector, the Transportation Equity Act for the 21st Century contained special provisions for alternative fuel projects that are part of a public-private partnership. For purchase of privately owned vehicles or fleets using alternative fuels, activities eligible for CMAQ Program funding are limited to the federal share of the incremental cost of an AFV compared to a conventionally fueled vehicle. Furthermore, if other federal funds are used for vehicle purchase in addition to CMAQ funds, such federal funds must be applied to the incremental cost before CMAQ funds are applied.