

ALTERNATIVE FUEL PROGRAM FOR NON-CDTA FLEETS SET-ASIDE INFORMATION

The Capital District Transportation Committee (CDTC) has programmed \$1,500,000 in Surface Transportation Program (STP) funds in the 2013-2018 Transportation Improvement Program (TIP) to implement an alternative fuels and advanced vehicle technologies program. This program has been created to reduce emissions, improve air quality and reduce petroleum use which is part of the core mission of the Capital District Clean Communities Coalition (CDCC), part of the U.S. Department of Energy Clean Cities program and hosted by the CDTC.

For this current set aside solicitation \$744, 000 in funds will be made available for alternative fuel projects in federal fiscal years 2014/15 -2015/16.

Why an Alternative Fuels Program?

The United States relies heavily on foreign petroleum to power its transportation sector. In 2011 the U.S. imported about 45% of the petroleum it consumed and two-thirds of these imports came from outside of North America. Because 71% of petroleum use in the U.S. is from the transportation sector, reducing U.S. dependence on petroleum-based fuels to power the vehicles we all drive is essential to supporting our economy and energy security.

Increased economic and energy security aren't the only benefits of reducing petroleum use in transportation. Gasoline- and diesel-powered vehicles are major sources of greenhouse gases, smog-forming compounds, particulate matter and other air pollutants. Widespread use of alternative fuels and advanced vehicles could greatly reduce the emissions that impact our air quality and public health. There is an opportunity to expand the alternative fuels and advanced vehicle marketplace in the Capital Region. Transitioning to non-petroleum-based fuels locally will not only have economic, energy and environmental benefits for the region but contribute to the national goal of reducing petroleum use and improving air quality.

Moving Ahead for Progress in the 21st Century (MAP-21) was signed into law in July 2012 and funds surface transportation programs at over \$105 billion for fiscal years 2013 and 2014. This legislation is the first long-term highway authorization enacted since 2005. MAP-21 transformed the policy and programmatic framework for investments in the transportation system's growth and development, creating a streamlined and performance-based surface transportation program that builds on many of the highway, bike, and pedestrian programs and policies established in 1991.

MAP-21 includes highlighted language for electric and natural gas vehicle infrastructure and diesel retrofits. MAP-21's performance-based program emphasizes cost-effectiveness in the selection of projects for funding. As a result, applications that include cost-effectiveness figures and analysis and

provide more than 20% of the required matching funds are likely to be more attractive candidates for funding.

Eligible Projects

This solicitation is for on-road alternative fuel (including: compressed natural gas (CNG), propane (LPG), and plug-in battery electric (EV) and hybrid) vehicles, fueling/charging infrastructure, and diesel engine retrofits and conversions. Both public and private sector entities located in the counties of Albany, Rensselaer, Saratoga and Schenectady are encouraged to apply. Private sector entities must, however, partner with a public entity and the public entity must be the project sponsor to be eligible for funding.

Funding for vehicles will cover 80% of the incremental cost of an alternative fuel vehicle and a traditional vehicle, up to \$60,000 per vehicle. Funding for fueling/charging infrastructure and diesel engine retrofits and conversions will cover 80% of the cost. A minimum 20% match is required for all projects. A portion or the entire match can be contributed as in-kind, such as mechanic labor.

Projects already receiving funds from other sources or programs (ex. NYSERDA EV Truck Voucher program, Cleaner Greener Communities, etc.) are not eligible for federal funding.

The vehicles and/or fueling infrastructure must be registered to an address located in Albany, Rensselaer, Saratoga or Schenectady Counties.

The eligibility categories are below:

a) On-Road Alternative Fuel Vehicles

This category is for the purchase or lease of light-, medium-, and heavy-duty alternative fuel vehicles. The eligible alternative fuels for this category are CNG, LPG, EV, and hybrid vehicles. To be eligible for funding, the vehicle must meet the Buy America provision or be able to obtain the necessary Buy America waiver. Information about Buy America and the Buy America waivers can be viewed online at: <http://www.dot.gov/highlights/buyamerica>. This funding will reimburse 80% of the incremental cost of the difference in purchase or lease price between a traditional and eligible alternative fuel vehicle. The maximum reimbursement per vehicle is \$60,000.

b) Electric Vehicle Charging Stations

This category includes the purchase and/or installation of publicly-accessible electric vehicle charging stations. The installation of electric vehicle charging stations should comply with ADA guidelines and be consistent with the Electric Vehicle Siting and Design Guidelines prepared through the Northeast Electric Vehicle Planning Study

(http://www.transportationandclimate.org/sites/default/files/EV_Siting_and_Design_Guidelines.pdf). To be

eligible for funding, the station must meet the Buy America provision or be able to obtain the necessary Buy America waiver. Information about Buy America and the Buy America waivers can be viewed online at: <http://www.dot.gov/highlights/buyamerica>. This funding will reimburse 80% of the cost of the infrastructure or installation.

c) Fueling Infrastructure

This category is for the purchase and/or installation of publicly-accessible fueling infrastructure. The eligible fuels include CNG and LPG. To be eligible for funding, the station must meet the Buy America provision or be able to obtain the necessary Buy America waiver. Information about Buy America and the Buy America waivers can be viewed online at: <http://www.dot.gov/highlights/buyamerica>. This funding will reimburse 80% of the cost of the infrastructure or installation.

d) Retrofit or Add-On of Emission-Reduction Technology

This category is for the retrofit of an existing engine on an on-road heavy-duty vehicle, or adding on devices to the vehicle. To be eligible for funding, the retrofit or add-on systems must use technologies certified or verified by the EPA or CARB. The US Environmental Protection Agency has approved retrofit technologies for use in engine retrofit program. This list can be viewed on-line at <http://www.epa.gov/otaq/retrofit/verif-list.htm> for retrofit technologies applicable for on-road vehicles. The California Air resource board (CARB) also maintains a list of verified technologies at <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>. To be eligible for funding, the vehicle equipment must meet the Buy America provision or be able to obtain the necessary Buy America waiver. Information about Buy America and the Buy America waivers can be viewed online at: <http://www.dot.gov/highlights/buyamerica>. This funding will reimburse 80% of the cost of the retrofit/add-on technology or installation.

This funding opportunity will reimburse the incremental cost of the purchase and installation of the retrofit and/or add-on technology. If the engine is to be rebuilt to install the emission-reduction devices, the incremental cost is the difference between the cost of rebuilding the existing engine and the cost of rebuilding the engine to include the retrofit or add-on technology. If the engine does not need to be rebuilt in conjunction with installing the new technology, then the incremental cost will be the full cost of purchasing and installing the technology.

e) Repower of Heavy-Duty Vehicles

This category is for the replacement of an existing engine on an on-road heavy-duty vehicle with a new, rebuilt, or remanufactured engine. The replacement engine must be a certified model year 2007 or later for on-road vehicle applications. Certification means approved by the EPA. Eligible rebuilt or remanufactured engines must use original engine manufacturer (OEM) components only and be purchased from the OEM or its authorized dealers and distributors. To be eligible for funding, the vehicle equipment must meet the Buy America provision or be able to obtain the necessary Buy America waiver. Information about Buy America and the Buy America waivers can be viewed online at:

<http://www.dot.gov/highlights/buyamerica>. This funding will reimburse 80% of the cost of the infrastructure or installation.

This funding opportunity will reimburse the incremental cost of the purchase and installation of the replacement engine. The incremental cost is the cost to purchase and install the replacement engine and associated equipment, minus the scrappage value, or the trade-in or sale value of the old engine.

Definitions:

Retrofit Technologies: Exhaust after-treatment retrofit technologies, such as diesel oxidation catalysts, diesel particulate filters, closed crankcase ventilation systems, selective catalytic reduction (SCR) and lean NOx catalysts (LNCs). Diesel emission control devices can be installed on a wide variety of vehicles including on-highway trucks and buses. Using catalytic processes or filters, control devices reduce carbon monoxide (CO), hydrocarbons (HC) and particulate matter (PM) in diesel exhaust. Filter systems may also be added to an engine's crankcase system to reduce PM emissions associated with them. CCV systems are designed to return crankcase blow-by gases to the engine intake for subsequent combustion during the engine combustion process. Devices that use a process called selective catalytic reduction (SCR) use a catalyst and a liquid reagent to reduce the oxides of nitrogen (NOx) produced by the engine. Exhaust gas recirculation (EGR) recycles a portion of the engine exhaust to reduce NOx emissions. Lean NOx catalysts use catalytic processes and a reductant to lower NOx emissions.

Repower: Refers to the removal of an existing engine and its replacement with a newer or cleaner engine. Some engines may be able to be upgraded to reduce their emissions by applying manufacturer recommended upgrades or kits to certified or verified configurations. Repowers and upgrades may include engine replacement for use with a cleaner fuel such as compressed natural gas, re-calibrations, and/or other components and/or the addition of newer, cleaner technologies to reduce the emissions from the engines. EPA is particularly interested in engine upgrades or repowers that include combined verified improvements which will further reduce emissions (e.g., through the addition of verified retrofit technologies such as a diesel particulate filter, diesel oxidation catalyst or crankcase emission control). Replacement engines must be of the most recent model year feasible, with preference that engines be model year 2007 or newer, and must be certified under 40 CFR Parts 89 and 90.

For repowers and replacements, EPA requires that the engine being replaced must be scrapped, remanufactured by an original engine manufacturer to a cleaner emission standard or rendered permanently disabled. Drilling a hole in the engine block and manifold while retaining possession of the engine is an acceptable scrapping method. Other methods may be considered. The replacement engine or equipment will be of the same type and similar gross

vehicle weight rating or horsepower as the engine, or equipment being replaced (e.g., a 300 horsepower bulldozer engine is replaced by an engine of similar horsepower).

Project Cost Issues

The maximum reimbursement for the purchase or lease of an alternative fuel vehicle is \$60,000. All other project categories have no minimum or maximum Costs. Project sponsors must provide cover, at a minimum, 20% of the cost of the project. A portion of the required match may include in-kind labor. Project sponsors providing greater than the required 20% match will be given preference. The program aim is to apply alternative fuels and advanced vehicle technologies to projects to achieve petroleum and emission reduction and air quality benefits in the most cost-effective manner.

- ◆ *Maximized Distribution of Funds:* In considering how *large* a proposal to submit, it should be kept in mind that the aim of the program is to use the funds available in this round -- \$744,000 -- to fund a *variety of projects across the region*. While proposals will not be disqualified for being too costly, evaluations will take cost and this overall aim into consideration.

- ◆ *Fiscal Management:* Also with regard to large projects, bear in mind that this is a *reimbursement* program -- ***a successful applicant will have to complete the necessary paperwork and receive authorization from NYSDOT Region 1 and then "front" the entire cost of the project before getting the federal share back.*** In addition, the amount of federal funding a project receives will remain the same even if the cost ultimately increases. If the project ends up costing more than originally projected, you will be required to cover any additional costs needed to complete the project.

Proposal Details:

All proposals for STP funding should include:

- ◆ A description of the project including size, scope, timetable, completion date, and location.
- ◆ A petroleum displacement analysis of the proposed project.
- ◆ An emissions reduction analysis of the proposed project.
- ◆ Number of new (light-, medium-, heavy-duty) vehicles and their MPG proposed and number and MPG of vehicles being replace,
- ◆ And/or how many vehicles are estimated to use station?
- ◆ Location of vehicles/infrastructure.
- ◆ Cost estimate.
- ◆ Return on investment analysis.

Project Evaluation

Eligibility categories a, b, and c are new funding categories for the CDTC Alternative Fuels Set-Aside. Previous Set-Aside Solicitations covered eligibility categories d and e but yielded less than desirable outcomes. As a result, projects in categories a, b, and c will be given priority over projects in categories d and e. An evaluation team will use the set of questions below to guide its determination of which proposals merit funding.

- ◆ Is the project eligible?
- ◆ What are the project team's qualifications (i.e. what is the team's experience with implementing alternative fuel projects and working within the Federal Aid process?)
- ◆ How many gas gallon equivalents (GGEs) will this project displace?
- ◆ Is there a reasonable return on investment?
- ◆ What are the emission benefits/disbenefits of the project?
- ◆ Are the applicant's cost numbers realistic (i.e., "can they do what they propose for the indicated cost?")?

SCORING CRITERIA

The following information and scoring criteria will be used to score and rate project applications for STP funding.

1. Project Description & Petroleum Displacement (30 points): The applicant should describe the project based on the eligibility category:

- a) On-Road Alternative Fuel Vehicles: The description should include the type and MPG of the vehicles being replaced, the average annual mileage of each vehicle, the estimated MPG of the purchase or lease of new vehicles being proposed, and where the proposed vehicles will be located.
- b) Electric Vehicle Charging Stations: The description should include the location of the proposed station, estimated use of station, estimated charge time, estimated average dwell time of the vehicles anticipated to use station, and potential market impact (i.e. will this station encourage or influence private consumers or other fleets to purchase plug-in electric vehicles).
- c) Fueling Infrastructure: The description should include the location of the proposed station, estimated use of station, and potential market impact (i.e. will this station encourage or influence private consumers or other fleets to purchase alternative fuel vehicles).
- d) Retrofit or Add-on of Emission Reduction Technology and e) Repower of Heavy-Duty Vehicles: The description of the project should describe the fleet that will be retrofitted, including the vehicle type, vehicle usage, vehicle age and condition, odometer readings, vehicle location (where it is housed and where it is typically operated), the percentage of the fleet that will be retrofitted, etc.

**There are various tools available to assist you on the US Department of Energy Alternative Fuels Data Center website: <http://www.afdc.energy.gov/fuels/>*

2. Return on Investment (30 points): The applicant should identify the return on investment (ROI) or payback period of the proposed project. There are a number of tools available to assist you with this analysis on the US Department of Energy Alternative Fuels Data Center website: <http://www.afdc.energy.gov/tools>. A comparison of petroleum use and maintenance costs of existing fleet and how the proposed project will reduce petroleum use and costs. All proposed retrofit technologies must be EPA certified. All proposed vehicles and infrastructure are subject to Buy America provisions and require Buy America waivers if necessary. You can view the Buy America provision on the FHWA website: <http://www.dot.gov/highlights/buyamerica>.

3. Implementation Plan (20 points): Describe implementation steps and timeline for carrying out the proposed retrofits. Describe the project team's qualifications for implementing the proposed project – i.e. what is project team's experience with alternative fuel projects and the Federal Aid process? If mechanic or construction labor is to be used as in-kind match, key personnel assigned and their qualifications should be identified. Otherwise, the applicant should identify the business and accompanying credentials of the business that will be used to perform the retrofit installation.

4. Project Budget (20 points): Applicants must clearly identify the cost of each vehicle/charging station/retrofit unit and the construction/installation cost associated with it. Capital, labor and total costs should be itemized for each of the proposed projects. Match must be clearly identified. If match is in-kind, supporting documentation with respect to the value of the match must be submitted.

DEADLINE FOR APPLICATION SUBMISSION

Applications must be submitted to the address below no later than **5:00 PM Eastern Standard Time, January 31, 2014**. Applications received after that date and time will not be considered.

Deadlines and Transmittal Instructions: One (1) hard copy and one (1) electronic copy of the completed PJP (Parts B & C) must be completed and returned to the CDTC office by 5:00 p.m., January 31, 2014. Hard copies may be hand delivered or mailed and electronic copies may be provided via email to pjp@cdtcmppo.org or on CD/flash drive via hand delivery or regular mail.

Mailing address:	Michael V. Franchini, Executive Director Capital District Transportation Committee One Park Place, Main Floor Albany, NY 12205	Fax: (518) 729-5764
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The applications will be reviewed, scored and ranked by a project selection team that will consist of representatives from CDTC and the Capital District Clean Communities coalition. Recommendations for funding will be presented to CDTC's Planning Committee and Policy Board for approval.

The information in this application is a public record. Applicants should not include information that may be regarded as confidential. The applicant will comply with the necessary Certifications and Assurances if awarded for funding.

Disadvantaged, minority and women-owned business enterprises will be afforded full opportunity to submit proposals and there will be no discrimination on the basis of race, creed, color, sex, national origin, disability or marital status in the award of the contract or any subcontract.

For More Information

Contact Jennifer Ceponis of the CDTC staff at 458-2161 or email Jennifer at jceponis@cdtcmpo.org.