

2015 NASEO Energy Policy Outlook Conference

Picking Up Speed for Alternative Fuel Vehicles



Michael Scarpino

US Department of Transportation
Volpe, National Transportation Systems
Center

Clean Cities Program's Success Stories & Lessons Learned with CMAQ Funding

February 4, 2015



Clean Cities Mission

To advance the energy, economic, and environmental security of the U.S. by supporting local decisions to reduce petroleum use in transportation.

- **Sponsored** by the DOE's Office of Energy Efficiency and Renewable Energy's Vehicle Technologies Office
- Established in 1993 in response to the Energy Policy Act (EPACT) 1992
- Companion program to the EPACT mandates requiring certain fleets to acquire AFVs (Federal, State, and Fuel Provider Fleets)
- **Provides a framework for businesses and governments to work together as a coalition to enhance markets**
- *Major Emphasis:* **Deployment of alternative fuels and advanced vehicle technologies (i.e. vehicles and fueling infrastructure)**
- *Program Goal:* **Reduce U.S. petroleum use by 2.5 billion gallons/year by 2020**

Clean Cities Coalitions



Nearly 100 coalitions with thousands of stakeholders

1. Coalition manages an Alt Fuel Program funded by CMAQ

- Chicago
- Alabama
- NY: Genesee Region, Greater Long Island
- Dallas Fort Worth
- Massachusetts

2. Coalition assists stakeholders in their application for CMAQ project funding

- Norwich
- Kansas City
- Land of Sky (Asheville)
- Denver
- Eastern Tennessee
- Clean Fuels Ohio

3. Coalition submits application for CMAQ project funding

- Norwich
- Wisconsin
- Clean Fuels Ohio

- **Drive Clean Chicago**

- Drive Clean Truck voucher program: \$11 Million currently available
- Provides 80% of incremental cost for eligible electric and hybrid Class 2-8 vehicles
- Applicable to fleets domiciled in Cook, DuPage, Kane, Lake, McHenry, or Will counties
- Must apply through an Approved Vendor/dealership for pre-qualified vehicles

- **Chicago Area Green Fleet Grant Program**

- Competitive grant program: \$3 Million currently available for government and private fleets in Chicago area, selections made quarterly
- Natural gas and propane vehicles eligible (off-road electric equipment eligible) Empire Clean Cities support



- **Kansas City Regional Clean Cities**
 - Awards can only be made to government agencies
 - Coalition provides stakeholders application assistance
- **Land of Sky Clean Vehicles Coalition**
 - Educates and assists eligible entities
 - Great Smoky NP & Cherokee Indian Reservation for vehicles, stations, as well as education and outreach programs
- **Denver Metro Clean Cities**
 - Regional Air Quality Council funds for EVSE and EVs
 - Coalition provided a letter of commitment for the project application and sits on the review committee
- **Norwich Clean Cities**
 - Support Stakeholders when applying for State DOT CMAQ program: Vehicle/Fuel Recommendations, Calculate Emission Reductions & Grant Writing

Coalition Submits Application for CMAQ: Norwich Clean Cities CMAQ Project



- Connecticut DOT issued a CMAQ solicitation through the MPO for \$10M
- Alternative fuel vehicle and infrastructure project eligible
- 80% of total cost of vehicle or infrastructure
- Norwich Clean Cities partnered with public and private stakeholders
- Awarded \$2.5M for a CNG station



- 2012: DERG Changed, Funded at \$20 Million (Two Years);
- Moved to Ohio EPA and ODOT
- All DERG Funding Comes from CMAQ Allocation to Ohio

Key Partnership:



- Funding 2012:
 - \$10M Available
 - Applied for \$9.25 M on behalf of 24 partners
 - Received \$3.5 M on behalf of 8 partners
- Funding 2013:
 - \$10M Available
 - Applied for \$9.75 M on behalf of 21 partners
 - Recommended for \$7.24 M on behalf of 15 partners.

Examples of OH Diesel Emission Reduction Funding (2013)



Project Financial Summary				
Partner (# Engines Effected)	Project Cost	DERG Request	Partner Match	Clean-Up Technology/Target Fleet
Austintown Local Schools (14)	\$1,354,000	\$1,070,880	\$267,720	14 Propane School Bus Replacements
Canton City Schools (4)	\$586,144	\$462,515.20	\$115,628.80	4 Natural Gas School Bus Replacements
City of Cincinnati (4)	\$652,834	\$192,000	\$460,194	4 Natural Gas Dump Truck Replacements
COTA (30)	\$1,304,322	\$1,043,458	\$260,864	30 CNG Transit Bus Engine Components
Columbus Regional Airport Authority (6)	\$90,000	\$72,000	\$18,000	6 Propane Shuttle Bus Repowers
Frito Lay – Project B (6)	\$862,550	\$394,531	\$98,682	6 Natural Gas Powered Delivery Truck Replacements
Home City Ice (40)	\$1,116,000	\$873,600	\$218,400	40 Natural Gas Delivery Truck Conversions
JARO Transport (30)	\$252,420	\$201,936	\$50,484	30 Anti-Idling Unit Retrofits
JRAYL Transportation (40)	\$1,220,000	\$976,000	\$244,000	40 Natural Gas Dual Fuel Repowers
McGinnis (6)	\$510,000	\$406,00	\$101,600	2 Diesel Marine Vessel (6 engine) Repowers
NAT Transportation (4)	\$1,063,006	\$132,490	\$930,516	4 Natural Gas Refuse Truck Replacements
Ringler Energy (10)	\$305,000	\$260,000	\$65,000	10 Natural Gas Dual Fuel Repowers
JW Stenger Trucking (5)	\$152,500	\$152,000	\$38,000	5 Natural Gas Dual Fuel Repowers
Sugar Creek Packing (20)	\$580,700	\$464,560	\$116,140	20 Plug-in Hybrid Electric Refrigerated Trailer Unit Replacements
Superior Beverage (16)	\$2,057,930	\$540,736	\$1,439,946	16 Natural Gas Dual Fuel Repowers
Total Projects (235 Engines)	\$10,803,084	\$7,245,333	\$4,425,175	*Scrap value accounted for in EPA Request and Partner Match. Not reflected in total project costs (see budgets).

1. Fact Finding about the MPO/State DOT

- What pollutants are of most interest to the MPO (CO, NO_x, PM)?
- Which areas are in non-attainment or maintenance?
- What is the availability of funding?
- Review FHWA CMAQ Program Guidance Document

2. AFV Project Eligibility

- What AFV projects are eligible?
- Are there any restrictions or priorities? Vehicles ? Infrastructure ?

3. Transportation Improvement Program

- Find out the timeframe for getting projects included in the TIP
- Recommend including AFVs in the TIP

4. Build Business Case for Alternative Fuel Projects

- Lower fuel costs/ return on investment
- Environmental benefits
- Local economic development
- Public health benefits
- Maintenance cost savings

5. High Emission Reduction for Project Cost

- Emphasize the cost effectiveness of AFV projects in terms of quantity of emissions reduced for amount of funding provided
- Provide scenarios of the amount of money required for a project and the emissions benefits

6. CMAQ AFV Success Stories

- Share examples from other states or MPOs advancing AFVs with CMAQ
- Include names and contact information for people who are willing to talk about their experiences

7. Feedback About Current Programs

- Communicate feedback about improving existing CMAQ AFV programs (increased funding or expanded applicant eligibility)

8. Clean Cities Coalition Federal Connections

- MPOs are supported by the U.S. Department of Transportation
- Coalitions are designated by the U.S. Department of Energy
- Network of resources such as national laboratory staff, Alternative Fuel Data Center, AFV tools, and other coalitions.

9. Opportunities for Public Recognition

- Coalition press releases
- Station grand openings/ ribbon cutting ceremonies
- Clean Cities TV and MotorWeek Videos

- Find contacts and build relationships
 - State DOT office
 - Local MPO FHWA Division office
 - Local MPO Clean Cities coalition
 - FHWA Division office
- Air quality performance measures
 - Educate contacts on how alt. fuel projects help meet state established targets
- Transportation Improvement Program (TIP)
 - Encourage MPO to include alt. fuel projects in their TIP
- Learn from the experience of others
 - Many Clean Cities coalition successes across the nation



Mike Scarpino

U.S. Department of Transportation
Volpe Center
(617) 494-3373
michael.scarpino@dot.gov



Clean Cities Website: www.cleancities.energy.gov

Alternative Fuels and Advanced Vehicles Data Center: www.afdc.energy.gov

Fuel Economy: www.fueleconomy.gov

Clean Cities Coordinator Contact Information and Coalition Web Sites:
www.afdc.energy.gov/cleancities/progs/coordinators.php

Clean Cities Technical Response Service: technicalresponse@icfi.com, 800-254-6735



U. S. Department of Energy