Alternative Fuels Vehicle Conversion

Local access to state resources to increase deployment

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SUPPORTED BY:

VIRGINIA DEPARTMENT OF MINES, MINERALS AND ENERGY VIRGINIA DEPARTMENT OF GENERAL SERVICES VIRGINIA CLEAN CITIES AT JAMES MADISON UNIVERSITY

Agenda

- Virginia Energy Plan: Governor's alternative fuels goals
- Current Virginia alternative fuels activities
 - Alternative Fuels Program
 - × PPEA
 - Revolving Loan Fund
 - **K** CMAQ Funds
- CMAQ funds and alternative fuel vehicles
- Localities and CMAQ
- What other states are doing

Virginia Energy Plan

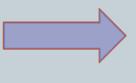
 Accelerate the development of advanced vehicle technology and the use of alternative fuels vehicles in the Commonwealth

VEP GOAL

100 VEHICLES CONVERTED BY OCTOBER 1, 2015

300 VEHICLES BY END OF ADMINISTRATION

DOUBLE ALTERNATIVE FUEL STATIONS TO 800 BY END OF ADMINISTRATION



CURRENT

19 VEHICLES CONVERTED (19% OF GOAL)

19 VEHICLES CONVERTED (6.3% OF GOAL)

441 STATIONS (10.25% OF GOAL)

Virginia Activity

Number of Commonwealth Fleet Vehicles Converted

19 Commonwealth Vehicles*

Agency	Number of Vehicles	Types
Mines, Minerals, and Energy	9	CNG
General Services 8		4 CNG, 4 LPG
Corrections	1	1 CNG
Motor Vehicles	1	1 LPG

^{*} Does not include 1st application through CMAQ program

Virginia's Alternative Fuel Fleet Program

- Program initiated by unanimous legislation in 2011

 <u>establish a plan providing for the replacement of state-owned or operated vehicles</u>
 <u>with vehicles that operate using natural gas, electricity, or other alternative fuels,</u>
 <u>to the greatest extent practicable, considering available infrastructure, the location</u>
 <u>and use of vehicles, capital and operating costs, and potential for fuel savings.</u>
 - An Executive Order followed ordering an Alternative Fuels fueling station PPEA
 - × 15 Proposals submitted
 - 2 selected and ultimately awarded
 - Compressed Natural Gas Solution Clean Energy
 - Propane/Autogas Solution Alliance Autogas
 - o % interest revolving loan program
 - \$1.3 million annually from CMAQ funds over the six-year planning period
 - Covers incremental cost of Agency converting vehicle to alternative fuel
 - Up to an average of \$10,000 per vehicle

CMAQ for Alternative Fuel Vehicles

Timeline

2010 – Local request to use CMAQ funds to cover <u>ENTIRE</u> cost of purchase of alternative fuel vehicles

2011 – CTB denied localities from utilizing CMAQ funds to cover <u>ENTIRE</u> cost of purchase of alternative fuel vehicles

2012 – CTB authorizes approximately \$1.3 million per year in CMAQ funds to cover <u>INCREMENTAL</u> cost for state agency fleet conversion

2014 (July) – Virginia receives formal approval from federal government to use CMAQ funds for fleet conversion

CMAQ for Alternative Fuel Vehicles

Locality Access to CMAQ Fleet Conversion funds

REQUEST: Allow localities to access CMAQ funds to cover INCREMENTAL cost of local fleet conversion

State Benefits

Satisfies Governor's Alternative Fuel Priorities

Increased deployment = Increased infrastructure

Increased deployment = More favorable vendor terms

Locality Benefits

Increased fleet conversion

Increased infrastructure deployment

Air Quality improvement

Locality Interest

• Localities have been leaders in fleet conversion

	Number of Alternative	
Locality	Fuel Vehicles	Fleet Conversion
Spotsylvania	36	Sheriff fleet has 31 light duty vehicles running on propane, and 5 school buses running on propane
Newport News	22	City has 22 propane powered vehicles in police and public works fleet
Chesapeake	37	City has 8 first response fire and rescue vehicles on propane, has 29 trash trucks on CNG
Arlington	29	City has 29 CNG transit vehicles at Arlington Rapid Transit
Richmond City	105	City has 9 light duty trucks and cars on CNG, Richmond transit has 72 buses on CNG, City has 24 trash trucks on CNG
Chesterfield	5	County Schools 5 school buses on LPG
Virginia Beach	5	City Schools have 4 heavy duty vehicles on CNG and 1 light duty vehicle
Gloucester	8	County Schools have 8 school buses on LPG
Williamsburg	16	Transit has 16 natural gas powered buses

Locality Interest

Locality Interest in utilizing state resources for additional conversion

Richmond City – Exploring additional natural gas vehicles for their extensive fleet, including additional stations, 30 police vehicles, and 7 sedans and trucks, this fiscal year.

Chesterfield – Exploring LPG for school buses, including 100 buses and 5 stations that the State fleet could use.

Norfolk City – Exploring use of CNG for a range of vehicles and propane school buses.

Loudoun – Exploring natural gas for its local government fleet. A State partnership built fast-fill CNG station at Dulles.

What Other States Do with CMAQ

- Kansas has used \$3.4 million in CMAQ for 80% incremental cost of CNG and 80% of cost of stations.
- Ohio has used \$20 million for retrofit and re-powering engines, including CNG and propane.
- New York has used \$10 million in CMAQ for CNG stations, as well as CNG school buses, taxis, and vans.
- Illinois has provided \$14 million for alternative fuel vehicles and reimburses Chicago-area Class 2-8 trucks and buses for all-electric or CNG, electric taxis, and for CNG and EV stations.

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Thank You

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