Community Groups Rally for Clean Cities and AFVs

Working with traditional Clean Cities stakeholders, community groups can contribute to the increased use of alternative fuels. Just ask West Harlem Environmental Action, the United Puerto Rican Organization of Sunset Park, or Sustainable South Bronx. All three organizations participated in the first-ever National Alternative Fuels Day and Environmental Summit at Hostos Community College in the Bronx, New York.

Held on April 11, 2002, in conjunction with the National Alternative Fuel Odyssey Day, the event drew a crowd of more than 200 residents, community activists, business owners, government officials, and other non-governmental organizations. Also attending were New York City high school automotive technology students, who viewed an impressive array of alternative fuel vehicles (AFVs).

PIX 11450

Non-polluting neighborhood electric vehicles were on display at New York's first-ever National Alternative Fuels Day and Environmental Summit.

Why do community groups care about alternative fuels? According to recent studies by the American Medical Association, Union of Concerned Scientists, and Environment & Human Health, Inc., airborne pollutants in diesel exhaust can reduce lung function and increase the incidence of asthma attacks. Asthma is an especially acute problem in New York City, where asthma hospitalization rates are among the highest in the nation.

Some communities endure a disproportionate share of vehicle emissions. Six of the eight diesel bus depots in Manhattan are concentrated in certain communities. At the Hunts Point Cooperative Market in the Bronx—recognized as one of the largest produce and meat markets in the world—the densely-populated community experiences 20,000 diesel truck trips into and out of the neighborhood each week.

The same medical studies conclude that AFVs can play an important role in reducing air pollution. Building on such recommendations, the New York summit culminated three years of collaboration by more than 30 community-based organizations, fleet owners, academic institutions, corporations, and governments. Its goal was to increase the use of AFVs in the city's affected boroughs.

The summit and its associated activities have already proven effective in boosting New York's AFV market. Manhattan Beer Beverage Company, for example, which operates a fleet of more than 500 vehicles from its South Bronx distribution facility, has committed to using natural gas trucks. The summit inspired deployment of 22 electric delivery trucks by the U.S. Postal Service. It has reinvigorated the Clean Cities Program in New York, and sparked the formation of BRAVE-1, a coalition of advocates working on AFV projects in the Bronx.

The potential for alternative fuels in NYC is enormous, says Marcy Rood, deputy director of DOE's Clean Cities Program and co-chair of the Summit. "New York City has already placed a lot of AFVs in its municipal, taxi, and bus fleets, and CMAQ funding is available to private fleets. But the team assembled during the last three years has the ability to build on this foundation and concentrate on some major private fleets. For instance, the summit planning committee has already met with Coca-Cola Bottling Company, which operates a fleet of 95 trucks that unload at the Hunts Point Cooperative Market," she said.

The summit went beyond the activities included in typical Advancing the AFV Choice events. In addition to AFV success stories and a vehicle display, it featured a panel of noted health scientists discussing the health impacts of diesel vehicles. It concluded with a facilitated discussion by policy makers and community activists of how to increase AFV use in targeted neighborhoods. Community representatives joined city and state officials, including City Councilman Jose Serrano and New York State Assemblyman Ruben Diaz to discuss public policies to increase AFV use. In total, 18 recommendations were outlined in a paper titled, *New York City Outcomes and Recommendations for Greater Alternative Fuel Vehicle Use* (see **www.ccities.doe.gov/national_af_day.html**). Over the next year, community groups in NYC and others will work toward their clean transportation goals and act upon the recommendations of the outcomes paper.

Omar Freilla, program director of Sustainable South Bronx and co-chair of the summit, said, "I encourage Clean Cities coalitions nationwide to reach out to community groups like ours that can strengthen local efforts. There is a great need and desire for clean, alternative fuels in neighborhoods where the health of residents suffers because of heavy concentrations of polluting vehicles."

Cultivating Collaboration

EPA is soliciting a second round of nominations for collaborative partnerships to address local environmental justice concerns. Detailed instructions are provided at the EPA Office of Environmental Justice Web site at **www.ccities.doe.gov/national_af_day.html**.

From the Automakers

Ford's 30-seat CNG School Bus Fills a Niche in Student Transit

A new alternative for helping school children breathe easier is available from Ford Motor Company. Ford's E-450 Cutaway with a dedicated compressed natural gas (CNG) option was certified in 2002 to be used as a Type A1 (gross vehicle weight of 10,000 lb. or more) school bus. According to Ford, it is the first and only original equipment manufacturer (OEM) dedicated CNG school bus of this size on the market and the only OEM-dedicated CNG cutaway on the market.

Ford

The E-450 Cutaway school bus has a 5.4-liter dedicated CNG V-8 engine and is expected to seat 30 students. It is rated as an ultra-low emission vehicle. According to Ford, using CNG reduces emissions of sulfur dioxide by 97 percent and carbon dioxide by 50 percent, compared with using gasoline. Emissions of particulate matter, a troublesome characteristic of diesel engines, are mostly eliminated with CNG.

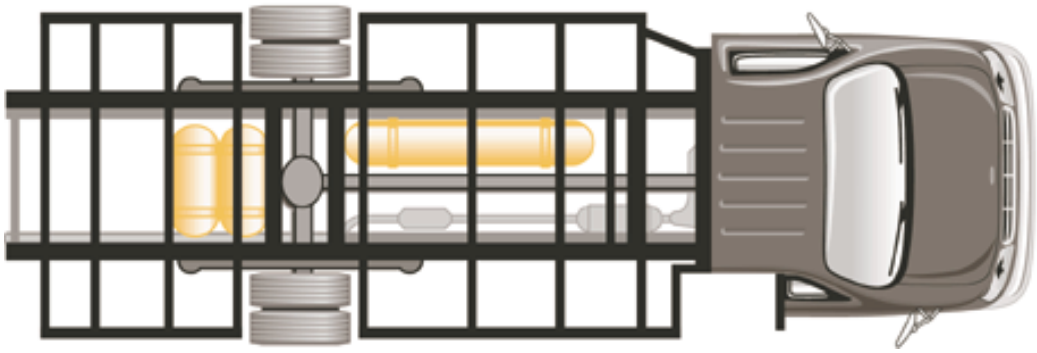
The E-450 Cutaway comes standard with three underbody CNG tanks that provide a range of up to 150 miles. "School buses are an ideal CNG vehicle application," said Bruce Glennie, Assistant AFV Brand Manager at Ford. "You want something that drives loops every day—that's a school bus."

The release of the school bus option comes amid increasing concerns about the effects of toxic diesel school bus emissions on children (see "Alternative Fuel School Buses Earn High Marks," *Alternative Fuel News, Vol. 5–No. 3;* **http://afdcweb.nrel.gov/documents/altfuelnews/5_3cover.html**). Ford estimates that about 45,000 school buses are sold each year in the United States, of which about 10,000 are Type A. About 1,400 CNG school buses are on the road today, but all are larger than Type A, making the E-450 Cutaway a unique option among alternative fuel school buses.

The manufacturer's suggested retail price for the E-450 Cutaway with the CNG option is $37,325–$37,825, which is about $13,000 more than the gasoline option and $8,000 more than diesel. When Ford sells it, the Cutaway consists of only a chassis and passenger cab. To make it a complete school bus, body builders such as Blue Bird and Thomas Built Buses buy the cutaway and install the bus body. The bus conversion typically adds $16,000–$26,000, resulting in a final price of $53,325–$63,825.

Since its introduction two years ago, more than 600 E-450 Cutaways with the CNG option have been sold, mostly for use as shuttle buses. "You would buy this bus for the same reasons you would buy any alternative fuel vehicle: a cleaner environment and energy security," said Glennie. State and local incentives encourage some school districts to purchase alternative fuel buses, while other districts, such as those in the greater Los Angeles area, are required to do so.

More information about Ford's E-450 Cutaway with the CNG option is available from authorized Ford CNG dealerships; a list of dealerships is available at 1-800-34-FLEET. Information is also available on the Web at **www.afv.ford.com**.



Ford's CNG-fueled E-450 Cutaway has one underbody mid-ship fuel tank and two aft-axle tanks. Fuel capacity is 16.7 gasoline gallons equivalent.

Handbook and CD Pave the Way to Alternative Fuel School Buses

A recently published handbook—*Making the Grade: Alternative Fuel School Buses*—answers many important questions: Why alternative fuels, and why now? Are alternative fuel school buses really safe? What kinds of incentives are available? And many more.

The accompanying CD—*The Interactive Alternative Fuel Bus Utility Software Program*—enables quick comparisons of the ownership and annual operating costs of the most common alternative fuel engines designed for full-size school buses. It is also easy to add and compare new engines that are not already included on the CD.

The handbook and software were funded by the U.S. Department of Energy and developed by the Nevada State Energy Office and Thomason & Associates, Inc. They can be obtained free of charge by calling the Clean Cities Hotline at 1-800-423-1363. A request can be submitted online at **www.afdc.doe.gov/hotline.html**, or via email at hotline@afdc.nrel.gov.

GM Unveils AFV Dealer Certification Program

The Alternative Fuels Division of General Motors has launched a program to certify GM dealers to sell and service AFVs. Beginning with model year 2003, only certified GM AFV dealers will sell alternative fuel vehicles from GM. More information on the certification program is available at **www.gmaltfuel.com**.

More than 40 dealers have become certified so far, GM says. The program was created to ensure the quality of the dealership experience, and to help dealers earn sales and sustain customer trust. To become certified, dealers must agree to send staff members to certain GM sales and service training classes. Additionally, certified dealers must own or purchase various diagnostic equipment and tools, some of which are AFV-specific.

General Motors

GM started sending its AFV Sales Toolkit to certified dealers in June. Included are AFV selling tips and infrastructure information.

GM's certified AFV dealers will receive the company's AFV Sales Toolkit. Included are sales tips and industry information such as viable AFV markets, how to locate fueling infrastructure, a glossary of fuel types, products, and systems, and creative ways to finance AFVs. Some content for the GM Toolkit was provided by Clean Cities and DOE's Alternative Fuels Data Center.

Certified GM AFV dealers will also receive services such as:

- Support for regional events sponsored by GM, to help position dealerships as local AFV experts.
- Recommendations on how communicate with fleet buyers.
- Exclusive electronic "newsflashes" about product availability and incentive programs.
- Assistance with sales initiatives from GM regional sales managers.

DaimlerChrysler Adds to FFV Lineup

DaimlerChrysler

DaimlerChrysler is expanding its line of flexible-fuel vehicles (FFVs) in model year 2003. Fueling with E85 will be available as a no-cost option in the Chrysler Sebring sedan (top photo) and the Dodge Stratus (not shown), when equipped with the 2.7-liter 16-valve V-6 OHC engine.

Flexible fueling continues to be available in DaimlerChrysler minivans with the 3.3-liter 16-valve V6 SOHC engine. Included are the Dodge Caravan, Chrysler Voyager and Chrysler Town and Country. New for 2003 is the Dodge Cargo Van (lower photo), a version of the Caravan with panel inserts replacing rear windows. FFVs can run on any combination of unleaded gasoline and E85 fuel, which is 85 percent ethanol and 15 percent gasoline.

Federal News

Partnering Approach to Platform Development May Lower the Obstacles to Heavy-duty AFVs

Clean Cities stakeholders embracing the alternative fuel niche market principle have focused much of their efforts on high fuel-consuming, heavy-duty vehicles, such as transit buses and trash haulers. Air quality and energy use concerns also have prompted states such as California and Texas to enact legislation intended to increase the use of heavy-duty alternative fuel vehicles (AFVs) in these key applications. Despite the seemingly inherent demand, however, product availability for heavy-duty AFV fleets is still very limited.

PIX 11451

PIX 11452

DOE's new CNG platform partnership with industry and the South Coast AQMD initially will yield a medium-duty truck for use by utilities (top), and a pickup/delivery truck. Both vehicles shown are variations of the Freightliner FL70. Also planned is a CNG-fueled side-loading waste hauler.

Unlike light-duty AFVs, heavy-duty vehicles require custom or specialized equipment. At times they are almost made-to-order for each customer. And although the alternative fuel engines may be available, in many cases, the platform engineering has not been done to package them in the configurations that will serve the niche market customers who need them. What's more, says Dennis Smith, Clean Cities technical expert at the U.S. Department of Energy (DOE), the long-term cycle of product development to commercialization has not always allowed the right vehicles to enter the market when they are most needed. The lag time in vehicle availability has resulted in low volume sales and caused manufacturers dependent on the "if you build it, they will come" business model to question expanding or even continuing their product lines. In the end, many specialized AFV customers can't get the vehicles they need. This vehicle availability barrier is clearly holding back niche market progress.

But a new partnership may help remove the uncertainty of heavy-duty AFV development and commercialization. DOE, along with the National Renewable Energy Laboratory (NREL) and California's South Coast Air Quality Management District (SCAQMD), have joined forces to rapidly configure a variety of popular heavy-duty natural gas vehicle platforms for use as demonstration vehicles to meet niche market fleet demands. The first phase of platform development projects will yield a heavy-duty side-loading trash truck, a medium-duty utility truck, and a medium-duty pickup/delivery vehicle. The vehicles should be available to customers in the mid-2003 timeframe. Although the initial focus is natural gas, the group seeks proposals from manufacturers interested in a second phase of similar projects for other alternative fuels as well.

More information about industry partners in DOE's heavy-duty platform development effort, and about vehicle specifications and availability, will be posted as it becomes available on the Clean Cities Web site at **www.ccities.doe.gov/whats_new.shtml**.

The new team approach could be the first step for staged development of multiple vehicle platforms needed to support niche market growth. "The idea is to develop these vehicle platforms from start to finish, rather than concentrating on components alone," said Richard Parish, a senior project leader at NREL. "We've worked with Clean Cities stakeholders to identify the platforms that can serve specific niche market needs, so the next step is to work with the manufacturers and industry to develop the vehicles. Through our collaborative process, we've worked ahead to line up customers and remove some of the guess work from the commercialization process."

For more information about platform development and vehicle availability, please contact Richard Parish at 303-275-4453 or richard.parish@nrel.gov.

AFV Conversions Continue After Expiration of Option 3

Some Clean Cities stakeholders were concerned last year when the U.S. Environmental Protection Agency (EPA) announced it would not extend a long-standing rule affecting AFV conversions. Set to expire on December 31, 2001, was Option 3 of EPA's Mobile Source Enforcement Memorandum 1A, widely known as Memo 1A.

Option 3, now expired, was one of three ways in which vehicles converted for alternative fuel use could gain EPA emission certification. Considered the least demanding of the three, it trusted service providers to retain their own emission test results, stipulating that unannounced spot checks by EPA might occur. The other options required providers to routinely submit test results for full review by EPA.

Option 3 was in fact set to expire on several previous dates, and each time it was extended. When EPA said last year that the option would finally go away, conversion companies feared their businesses would disappear with it. Equally concerned were their customers, who have long complained that their needs are unmet by original equipment manufacturers (OEMs), and are filled mostly by aftermarket converters.

But while EPA last year was planning to retire Option 3, it was also streamlining the route that would remain for most conversion providers, called Option 1. Much of the motivation to streamline that option was exerted by the Clean Cities Program and its AFV stakeholders. Option 1 operates in substantially the same way in which OEMs certify their vehicles. (The other remaining alternative, Option 2, is based on California certification requirements for aftermarket AFVs.)

What's new under Option 1 is the ability for converters to be designated as small volume manufacturers and take advantage of flexibility in EPA regulations that apply to aftermarket conversions. EPA requirements for these vehicles were outlined at this year's Clean Cities Conference in Oklahoma City. An informative session was held on May 14 by Martin Reineman of EPA and Dennis Smith of DOE.

EPA's current policies allow conversion companies to:

- Forego evaporative emission testing on the gaseous fuel.
- Forego exhaust and evaporative testing on gasoline for dual fuel conversions.
- Forego SFTP and cold CO testing on gaseous fuel.
- Forego fuel economy testing, reporting, and compliance on alternative fuels.
- Use the OEM's deterioration factors rather than EPA assigned deterioration factors.
- Use a much simplified data entry process for submitting data to EPA.
- Anticipate a minimum amount of EPA confirmatory testing of aftermarket conversions.
- Pay a reduced and reasonable amount of fees for obtaining a Certificate of Conformity.

EPA expects to distribute the final version of these policy changes in the next several weeks.

DOE Awards More Than $4.6 Million to Clean Cities Coalitions in 2002 SEP

Responding to a growing interest in alternative fuels, DOE awarded $4.68 million to Clean Cities coalitions for 55 projects in 23 states and the District of Columbia. The funds, awarded through DOE's 2002 State Energy Program Special Projects, are leveraged by nearly $21.4 million in matching funds to support alternative fuel vehicle (AFV) acquisitions in niche markets, vehicle platform development, alternative fuel school bus purchases, vehicle signage, alternative fuel infrastructure development, and Clean Cities coordinator positions. In addition to funds for a record-high 20 coordinators, this year's Clean Cities SEP projects will result in nearly 270 new AFVs on the road, including shuttle vans, taxis, city vehicles, buses, and heavy trucks. Approximately half of the total funding will be used to build alternative fuel refueling stations to dispense natural gas, E85, propane, and biodiesel. By end of DOE's current fiscal year, another $1 million will be awarded to fund E85 promotion and infrastructure development in several Clean Cities coalitions.

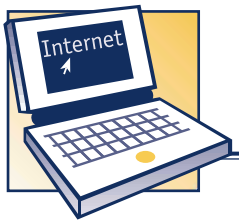
"We are committed to return 50 percent of our annual program budget directly to the Clean Cities coalitions, in the form of grants for alternative fuel projects and financing assistance for coalition events," said DOE's Shelley Launey, Clean Cities program director. "This commitment assumes the program budget will remain between $8 million and $12 million. If not, coalition support may vary as well. And with the exception of support for coalition coordinators, nearly all of our funding is used for alternative fuel hardware, contributing directly to the increase of AFVs on the road and refueling to support their use in Clean Cities nationwide." For information about specific projects, please visit **www.ccities.doe.gov/support.html**.

Clean Air Excellence Awards Program

EPA has launched its third annual Clean Air Excellence Awards Program to honor outstanding, innovative efforts that support progress in achieving cleaner air. Open to public and private entities in the United States, the program offers awards in Clean Air Technology, Community Development/Re-Development, Education/Outreach, Regulatory/Policy Innovations, and Transportation Efficiency Innovations. An award for outstanding individual achievement may also be given.

EPA will judge award entries using general criteria and criteria specific to each category.

Entries must be submitted by September 18, 2002. For more information, visit **www.epa.gov/oar/caaac/clean_award.html**, or contact Paul Rasmussen (rasmussen.paul@epa.gov) of EPA's Office of Air and Radiation at 202-564-1306.



On the Web

Expanded AFV Site Designed for Consumers

A major addition to the Clean Cities Web site makes it easy for consumers to learn about alternative fuel vehicles (AFVs). The Vehicle Buyer's Guide for Consumers, located at **www.ccities.doe.gov/vbg/consumers**, does for individual consumers what the Vehicle Buyer's Guide for Fleets has long offered to fleet managers. It provides comprehensive and easily accessible information about AFV technologies, pricing and specifications, fueling locations, and more. In addition, the consumer site offers information about advanced technology vehicles (ATVs) such as hybrid electric vehicles.

The site is designed to help consumers find the AFVs that are best for them. It is found readily by Internet search engines, ensuring that consumers looking for AFV information will be directed to it. An umbrella site at **www.ccities.doe.gov/vbg** provides basic information about AFVs and directs users to either the consumer guide or the fleet guide. Within the consumer site there are links to AFV and ATV basics, a database of currently available vehicles, information about incentives, and links to related organizations.

The first stop is the "What Are Your Choices?" page. Consumers can learn about AFVs and the fuels that power them: natural gas, electricity, propane, E85, and biodiesel. Other sections provide information about AFV conversions and used AFVs. A future technologies section discusses the exciting potential of fuel cell vehicles.

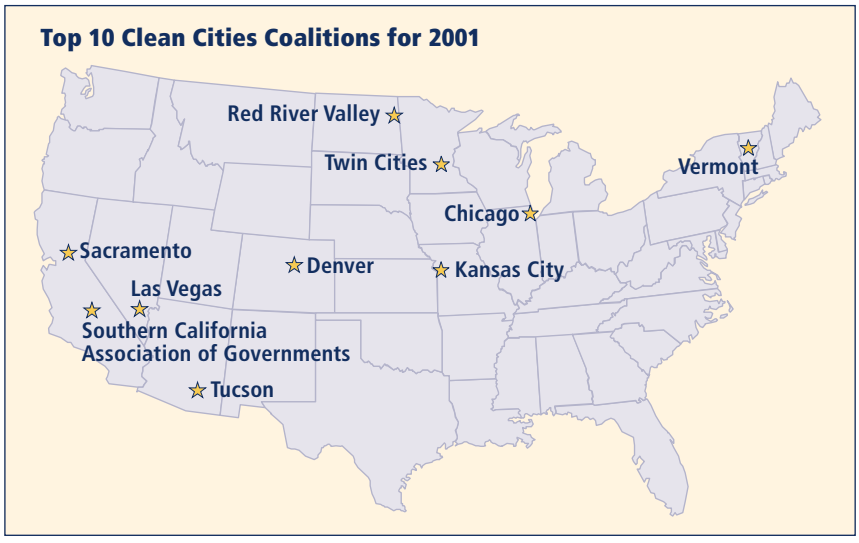
The "Product Information" page includes a database of AFVs and ATVs, searchable by fuel type, manufacturer, and vehicle class. Multiple AFVs can be compared side by side. The user can access detailed vehicle specs, link to a dealer locator, and perform a cost analysis. The cost analysis accounts for the purchase price of the AFV and its conventional counterpart, applicable federal and state incentives, and fuel costs to calculate an AFVs payback time.

Also included is an "Information Resources" page with links and contacts related to vehicles, organizations, and emissions data. Another section provides AFV and ATV industry news and press releases. The site is continuously updated as new information becomes available.

Clean Cities Roundup

DOE Announces Top 10 Coalitions for 2001

Among the awards presented at the 8th National Clean Cities Conference in Oklahoma City were the Top 10 "cleanest" Clean Cities (see map). Not to be confused with the annual Coalition and Coordinator Awards, this honor recognizes achievements in total AFV market growth—AFVs on the road, using alternative fuel, and refueling stations to support their use. Annual top performers are selected from data reported by coordinators in their annual Clean Cities surveys submitted to DOE.



Like last year, coalitions received points for new AFVs and alternative fuel refueling sites put into service throughout the year, as well as total AFVs on the road and refueling stations in operation. To reflect DOE's energy use objectives, the point system is weighted according to the relative oil displacement potential for the fuels and vehicles. Medium- and heavy-duty vehicles, for example, earn more points than light-duty vehicles. Similarly, only vehicles known to operate on alternative fuel (for at least some of the time) are considered. Flexible-fuel vehicles, for example, were counted only if operated in proximity to E85 infrastructure. A standard amount of credit is given for every E85 station, and additional credit can be earned by demonstrating fuel use.

AFV Technology Goes Retro in New Haven

On June 10, the city of New Haven, Connecticut, celebrated the addition of four new electric vehicles that will transport visitors and commuters throughout the city's financial district and downtown area. Although now equipped with rubber wheels and air conditioning, the 22-foot red and green electric trolleys were built to resemble the vintage trolleys that rolled along city streets in the early twentieth century. The celebration culminated a four-year effort by the Greater New Haven Clean Cities Coalition. Coordinator Lee Grannis started the project and won high-level support from U.S. Senators Christopher Dodd and Joseph Lieberman, as well as U.S. Representative Rosa DeLauro, D-Connecticut, who championed $1.2 million in federal funding that gave the project life. According to Grannis, the project demonstrates the power of public-private partnerships. Support will come from New Haven Savings Bank, United Illuminating, Pro-Park, and LAZ Parking, plus the city of New Haven and the Greater New Haven Transit District, which operates the vehicles.

PIX 11453

With air conditioning and zero emissions, New Haven's electric buses, manufactured by Ebus, add comfort and clean technology to the look and feel of the good old days.

New Haven resident Sidney Glucksman (center, standing highest) first suggested electric trolleys to Mayor John DeStefano.

Wheelchair access is another modern feature of New Haven's 22-foot all-electric trolleys.

PIX 11454

Greater New Haven Transit District facilities now include overnight charging for four vehicles.

New Haven's trolley conductors sport retro-style uniforms.

PIX 11455

Coordinator Lee Grannis tells the downtown crowd of the benefits of clean transportation and Clean Cities. Looking on (far right) is U.S. Representative Rosa DeLauro, who helped win federal funding for the project.

Alternative Fuels Data Center
National Renewable Energy Laboratory
1617 Cole Blvd., MS/1633
Golden, CO 80401-3393

Clean Cities Welcomes New Hampshire

The Granite State Clean Cities Coalition officially joined DOE's Clean Cities Program on May 31. More than 40 coalition stakeholders participated in the designation ceremony, held at the University of New Hampshire's New England Center. Among its recent accomplishments, the coalition worked with U.S. Senator Bob Smith to secure $1 million in funding to support CNG bus purchases and the construction of a new CNG station for Wildcat Transit, serving the University of New Hampshire and surrounding region.

Participants included (from left) coalition co-coordinator Derek Greenauer of the Governor's Office of Energy and Community Services (ECS), Tom Gross of DOE, Ann Manoogian of ECS, Mike Scarpino of DOE's Boston Regional Office, and Jack Ruderman of ECS.

Coalition co-coordinator Becky Ohler of the New Hampshire Department of Environmental Services talks to Ford representatives about the Ford Focus fuel cell vehicle on display at the event.

PIX 11456

Clean Cities program director Shelley Launey (right) drove with Adrian Farley (center) and Christy Ficker of DOE from Washington, D.C., to Durham, New Hampshire in Launey's dedicated natural gas Civic GX. (For more on their trip, please see www.ccities.doe.gov/whats_new.shtml.)