In early August, the U.S. Department of Energy (DOE) announced more than $5.4 million in funding to assist 66 cost-shared Clean Cities projects across the country. The funds, awarded by the State Energy Program (SEP) Special Projects activity, will support a wide range of endeavors including acquiring alternative fuel vehicles (AFVs), developing infrastructure, reducing idling by heavy-duty vehicles, and maintaining Clean Cities coalitions.

Of the 66 Clean Cities grants, 13 are niche market activities to acquire AFVs for food and beverage delivery, transit and shuttle services, refuse hauling, or public works. The AFVs will use natural gas and propane. Compressed natural gas (CNG) will fuel shuttle vans, city fleet vehicles, delivery trucks, refuse trucks, and street sweepers. One grant will help with the acquisition of 16 liquefied natural gas (LNG) refuse haulers, and with grant assistance shuttle buses and heavy-duty delivery trucks will be fueled with propane. The states receiving niche market grants are California, Colorado, Indiana, Massachusetts, Minnesota, New Mexico, New York, Ohio, Oklahoma, South Carolina, and Texas.

Not all the niche market grants were awarded in non-attainment areas. For example, the grant of nearly $89,000 awarded to Oklahoma will pay incremental costs for as many as 22 additional CNG light- and medium-duty vehicles for the Oklahoma City General Services fleet. Oklahoma City is in attainment, and the purchases are not mandated.

Sixteen infrastructure projects were awarded funds that will be used for building or upgrading alternative fuel refueling sites. Nine of those grants will provide new or upgrade existing CNG
West Jordan High School in West Jordan, Utah, is probably the first high school in the United States to use both AFVs and an AFV curriculum in its driver education program. The district has a fleet of 12 driver education vehicles, which includes two CNG Honda Civics. Approximately 700 West Jordan sophomores drove the Civic GXs about 4,500 miles during the 2003-2004 school year.

In January 2003, several Salt Lake Clean Cities stakeholders—who represent the Utah Energy Office, the National Energy Foundation (NEF), and American Honda—presented the district with the idea of using Civic GXs as driver education vehicles. The district, which has used CNG school buses in its fleet for more than a decade, embraced the idea. With the help of a Clean Cities SEP grant, it purchased the two vehicles with the idea of using Civic GXs as driver education vehicles. The district, which has used CNG school buses in its fleet for more than a decade, embraced the idea. With the help of a Clean Cities SEP grant, it purchased the two vehicles along with a FuelMaker CNG dispenser.

Salt Lake Clean Cities Director Beverly Miller called the project “a perfect example of how a Clean Cities partnership can spread the American fuels message far beyond the typical one driver, one vehicle.”

As part of the drivers’ education program, NEF provides a 90-minute presentation to all students about alternative fuels and their impacts on the economy, foreign policy, domestic security, and the environment. The presentation includes activities to help students realize that their choices in vehicles and fuels are important.

“We want them to understand that this is just the beginning, that they have many choices about transportation,” says Sunny Dent, director of programs at NEF. “Today’s alternative fuel vehicles are stepping stones to hydrogen fueled vehicles, which may well become commonplace in their lifetimes.”

The Utah State Energy Program has a fund for entities that can’t take advantage of the tax credit for AFVs. The school district applied for and received a grant from this fund for half the incremental cost of the vehicles. For help buying the FuelMaker dispenser, the district received help from Salt Lake Clean Cities, which had grant money to use toward refueling upgrades. Additionally, the district received a discount on the dispenser as part of a standing agreement between Honda and FuelMaker.

For more information, contact Beverly Miller at beverly.miller@slcgov.com, 801-535-7736.
City of Keene Is Keen on Biodiesel

The City of Keene, New Hampshire, knows biodiesel. From one-ton trucks to Freightliners, all 77 of the vehicles in the city’s public works department run on B20 (20% biodiesel, 80% petroleum diesel).

A stakeholder in the Granite State Clean Cities Coalition, the City of Keene Department of Public Works switched to biodiesel in summer 2002. The change was prompted by a $2,500 grant received from the New Hampshire Governor’s Office of Energy and Community Services to promote the use of alternative fuels.

Public Works Fleet Services Superintendent Stephen Russell is a long time fan of alternative fuels. “I have always been interested in the environmental benefits,” explains Russell. “Prior to working with Keene, I managed a corporate fleet. I’d attend alternative fuels conferences, then come back with proposals, but I couldn’t get the budget to incorporate the fuels. When the governor’s office called with the grant offer, I jumped on the opportunity.” The grant was good for a three-month supply of biodiesel, which cost approximately $.20/gallon more than petroleum diesel at the time.

These days, Public Works pays the incremental costs of the fuel—with the Keene City Council’s blessing. “The City Council is very supportive of a clean environment, so it requested that the extra cost be put in my budget,” Russell says.

The department fleet is running smoothly on B20. The fleet’s 65 on-road and 12 off-road vehicles are fueled onsite at the department’s pump, which was installed in July 2002.

According to Russell, there have been no issues with power or low temperatures, which can get colder than 10º F in the winter. “We have a plow truck pushing tons of snow and have not noticed any drop in power or gelling of the fuel in cold weather.” he says.

In addition, Russell says the air quality inside the fleet maintenance facility has improved with the use of biodiesel. “When we used diesel, the fumes would linger,” he says. “With biodiesel, we have no more headaches.” This simple switch improved the working conditions without having to spend money on air cleaning systems.

Biodiesel use has also expanded to include all of Keene’s ambulances and fire trucks—not surprising considering that Keene is one of more than 150 cities worldwide that participate in the International Council for Local Environmental Initiatives (ICLEI) Cities for Climate Protection Campaign (wwwICLEI.org/co2).

For more information, contact Stephen Russell at srussell@ci.keene.nh.us, 603-352-6550.

School District Transports Students in Propane Buses

The Portland Public School District (PPSD) in Oregon has used propane in its school buses since 1983. Today all 85 of the district’s school buses—as well as 230 buses run by the district’s contractor, Laidlaw Educational Services—run on propane. The alternative fuel buses transport roughly 9,300 students to and from school each day.

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Innovative Programs Put AFVs, Hybrids on Texas Roads

Two innovative programs operated by the Dallas-Fort Worth Clean Cities Coalition and the North Central Texas Council of Governments (NCTCOG) have increased the number of alternative fuel and hybrid vehicles on Texas highways.

The Clean Vehicle Loaner Program offers public fleets the opportunity to test-drive alternative fuel and hybrid vehicles. Participating vehicles are leased under a three-year agreement by NCTCOG, using NCTCOG funding. The loaner cars, which include a natural gas Honda Civic GX and a hybrid electric Toyota Prius, are lent to fleets free of charge for six weeks. At the end of the period, the cars are returned to NCTCOG where they are loaned to the next participant or used by NCTCOG staff for business related activities. A natural gas Ford Crown Victoria and bi-fuel propane Ford F150, available commercially as conversions, are also accessible.

Before applying for the program, interested fleets are encouraged to research the vehicles to find one that best suits their needs. Once approved, the fleets complete a quick application/ waiver process that details their insurance responsibilities during the loan period. There may or may not be a waiting period for the vehicle. “Some entities have had a six-month wait, while others have gotten their vehicles right away,” says Mindy Mize, Dallas-Forth Worth Clean Cities coordinator. “The hybrid Prius and Propane F150 have been the most popular of the vehicles to test.”

According to Mize, most fleets that have participated in the program ended up purchasing the type of vehicle they tested. “People appreciate the opportunity to try out the vehicles, and, so far, fleets are very happy with them,” she says.

The Dallas-Fort Worth coalition and NCTCOG also teamed up on an older initiative, the Clean Vehicle Program, which provided reimbursements toward the purchase of AFVs or hybrids. Funded through the U.S. Department of Transportation Federal Highway Administration’s Congestion Mitigation and Air Quality (CMAQ) Improvement Program, the Clean Vehicle Program provided

fleets with reimbursements of up to 80% of the incremental cost of an AFV and as much as $3,000 for a hybrid.

Both public and private fleets submitted applications in response to a Clean Vehicle call for projects in 2000. Reimbursements were given for light-, medium-, and heavy-duty vehicles, amounting to as much as $12,000 for light-duty AFVs and $30,000 for heavy-duty vehicles. Approximately $4 million was paid out when the project closed in August 2003.

For more information, contact Mindy Mize at mmize@nctcog.org, 817-608-2346.
Airport vehicles operate for long hours on short routes. From tugs and treads to baggage tractors, airport ground service equipment commands the tarmac, while buses, shuttles, and taxis move the endless flow of human cargo. These vehicles consume large quantities of fuel and typically exceed aircraft as the largest single source of airport pollution. These characteristics make airports a prime market for AFVs.

A Tiger Team project produced an AFV strategic plan for Milwaukee’s General Mitchell International Airport in Wisconsin. The airport wanted a comprehensive, unbiased evaluation of AFV options from an organization with airport experience. It worked with the Wisconsin-Southeast Area Clean Cities coalition to apply for Tiger Team technical assistance.

“The Tiger Team expert assigned to our project had a great understanding of clean airport projects,” says Gary Evans, environmental program manager for We Energies and president of the Wisconsin coalition. The Tiger Team worked with the coalition, airport, and other partners to identify potential AFV fleets, fuel use, emission benefits, infrastructure requirements, stakeholders, funding opportunities, and policy issues. The resulting “General Mitchell International Airport Strategic Plan” describes the steps needed to implement as many as 456 AFVs, which represent almost a million gallons of annual petroleum displacement.

The plan helped secure Congestion Mitigation and Air Quality funding for a CNG station and will be used to apply for additional funding. The credibility of the plan also made the airport comfortable with implementing a new technology. “The airline industry is extremely risk averse,” Evans says. “A study like this helps alleviate concerns.”


In FY 2005 Clean Cities will continue its work to further commercial acceptance of idle reduction technologies in heavy-duty vehicles. In FY 2004, Clean Cities teamed with the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Transportation’s Federal Highway Administration (FHWA) to promote the use of idle reduction technologies.

The federal partnership was a strategic move for Clean Cities, says director Shelley Launey. “We knew we could make the most rapid progress by partnering with EPA and FHWA; they’d already made a lot of progress in the idle reduction arena, and we wanted to start with the area that could make the biggest impact now.”

Like any effective partnership, each party brings something to the table. EPA’s interest is in emission reductions; FHWA’s is strategy, development, and maintenance of local and state highway systems; and Clean Cities’ specialty is petroleum displacement through community-based partnerships.

It’s the local connections that most appeal to EPA and FHWA. With 10 years of marketing experience and a network of 88 coalitions, 4,800 stakeholders, and hundreds of fleets nationwide, Clean Cities can easily spread the word about the benefits of idle reduction.

Clean Cities on October 20 will host a Web cast to educate coordinators on idle reduction. The session will include an overview of available technologies, a market assessment, a review of the players on the national scene, and a description of the role Clean Cities will play in furthering this measure.

The partnership has also arranged to present on idle reduction technologies at the Emissions Reduction and Energy Leadership Summit in December in San Antonio, Texas. Other targeted activities include holding an idle reduction workshop on Washington Day, developing user-friendly financing options, and targeting prospective fleet customers at Advancing the Choice events.

In addition, Clean Cities is involved in a consortium that’s developing a national strategic plan to move the country forward in the market acceptance and use of idle reduction technologies.

The consortium, which was assembled during the National Idling Reduction Planning Conference in May, expects to roll out the plan next spring. The group includes EPA, FHWA, and program leaders in DOE’s FreedomCAR & Vehicle Technologies Program, who are developing and evaluating idle reduction technologies through the 21st Century Truck Initiative and the Advanced Vehicle Testing Activity.
Vehicle conversion companies are stepping up to continue the availability of vehicles that run on propane and CNG. “We are confident [conversion companies] will fill the void left by [OEM] departures,” says Brian Feehan, executive director of the Propane Vehicle Council. To understand the role of conversion companies and the availability of the AFVs they offer, it’s important to understand recent regulatory changes affecting the industry.

In 2002, final expiration of Option 3 of EPA’s Mobile Source Enforcement Memorandum 1A obliged conversion companies to undergo a more rigorous emission certification process for each vehicle type they want to convert. This resulted in industry consolidation and changes in the availability of converted AFVs.

Fleets with enough buying power are not limited to existing certified vehicles. Conversion companies will certify a new vehicle if there is enough demand for it. The number of vehicles required to make certification pay off for conversion companies varies. Some companies are willing to certify a popular vehicle with an order of as few as 10 vehicles if the vehicle is likely to generate additional demand once certified. Others require vehicle orders of 40–50, and some require 200 or more. Fleets that belong to a group of Clean Cities stakeholders with interest in a currently uncertified vehicle should consider pooling their buying power to generate the necessary demand for certification.

“Whatever vehicle you have, whatever size engine, if you have a large enough purchase order we can have the vehicle certified and begin conversion in two months,” says Kevin Walls, head of business development for DRV Energy.

Funding and incentives are available for AFV conversions. For more information, visit the Clean Cities funding page at www.eere.energy.gov/cleancities/funding.html. Some conversion companies also help customers secure funding—ask individual companies about the types of assistance they can access.

For More on Conversions

Clean Cities News asked conversion companies about their EPA-certified light- and medium-duty engine families. Visit www.eere.energy.gov/cleancities/ccn/pdfs/ccn_8_3_conversion.pdf for a table of available conversion products. Although the location of the company headquarters is listed in the table, most conversion companies have a network of installers around the country. Other sources of conversion information are available online. For an updated list of contacts, visit www.eere.energy.gov/cleancities/progs/res_guide.cgi?CONVCO. For more information on the implications of Memo 1A, see Conversions 101 at www.eere.energy.gov/cleancities/afdc/afv/conversion101.html.

For the first time in program history, DOE is handing off the operation and management of the annual conference to the private sector. The 11th National Clean Cities Conference will be hosted by the Coachella Valley Clean Cities Coalition in Palm Springs, California—the site of the 2005 conference—and the Alternative Fuel Vehicle Institute, a nonprofit organization based in Las Vegas, Nevada.

The shift is due to the support the conference has received over the years from industry partners. “Responsible stewardship of public dollars is an ever-present objective of our program,” says Shelley Launey, Clean Cities director. “During the past 10 years we’ve seen a steady increase in industry dollars and a decrease in DOE dollars to support the conference. It has become a self-sustaining endeavor, and the timing is right to turn it over to the Clean Cities community.”

According to Launey, privatizing the conference will benefit coalitions and give them more flexibility in fund raising opportunities. The structure of the event will continue to emphasize advanced technologies, market research and analysis, partnership development, and fleet compliance with new emissions laws.

The 11th National Clean Cities Conference will be held May 1-4, 2005, in Palm Springs. For more information, contact Bert Kronmiller at 760-343-3456, ext. 138, or Annalloyd Thomason at 702-254-4180, ext. 23.
stations. Three will provide for biodiesel refueling, among them a Colorado project that will build three biodiesel distribution and retail sites. Two grants will be used to create a network of stations providing E85. One fueling station in California will begin to offer LNG. A propane cluster project will kick-off in California, and one grant will assist with the development and demonstration of six hydrogen stations in California. In addition to Colorado and California, infrastructure project grants were awarded to Arizona; Washington, D.C.; Florida; Kentucky; Minnesota; Pennsylvania; and South Carolina.

Three SEP grants are dedicated to heavy-duty vehicle idle reduction projects. California will receive a grant to assist with a shorepower truck idling project. New Mexico was awarded $100,000 to test a Pony Pack auxiliary power unit on a fleet of heavy-duty vehicles. New York will be funded to help install, operate, and maintain a 50-pedestal truck stop electrification (TSE) facility at the Petro Stopping Center in Waterloo, New York. The 50-acre truck stop is currently under construction, and the shorepower TSE system will provide grid electricity to stationary, long-haul trucks for the operation of on-board HVAC units and in-cab conveniences such as telephone, television, and Internet access. These grants are jointly funded with DOE’s Advanced Vehicle Testing Activity in the FreedomCAR & Vehicle Technologies Program.

Four states will receive assistance in purchasing alternative fuel (CNG or propane) school buses. Maine, New Mexico, Texas, and Virginia will receive these grants. The $200,000 Texas was awarded will help the state resume its successful school bus rebate program. The rebate program covers 80% of the price difference between gasoline and propane buses. In exchange, rebate recipients will provide performance data including miles driven, maintenance costs, volume of alternative fuel purchased, lessons learned, community outreach efforts undertaken, and location and resale value of any AFVs resold.

An additional 30 grants will provide funds to coalitions to assist with outreach to local fleets and other coalition activities. Each of the 30 awardees will receive grants of $20,000 to assist with activities such as increasing their stakeholder base, refining outreach campaigns, and assisting with coalition staffing.

These grants were awarded to coalitions in California, Colorado, Connecticut, Florida, Georgia, Indiana, Louisiana, Maine, Michigan, Missouri, New Mexico, New York, Ohio, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

For more detail on Clean Cities SEP Special Projects grant award winners, visit the Clean Cities financial opportunities page at: www.eere.energy.gov/cleancities/financial.html.

The Clean Cities grants were part of a larger award to states of nearly $16 million provided by DOE’s State Energy Programs Special Projects. For more information on the DOE awards see the DOE Web site at www.energy.gov.

### Resources


“Funding Opportunities: A Directory of Energy Efficiency, Renewable Energy, and Environmental Protection Assistance Programs” (www.eere.energy.gov/cleancities/pdfs/epa_funding_apps_04.pdf) provides information on financial and technical assistance opportunities available from federal agencies, state governments, and private foundations for projects that reduce energy costs, improve air quality, and enhance economic development opportunities.

Planet Connecticut (www.planetconnecticut.org/index.html) teaches middle school students about commuting alternatives and making better energy choices.

### A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy’s Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

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DOE/GO-102004-1946
September 2004

Printed with a renewable-source ink on paper containing at least 50% wastepaper, including 20% postconsumer waste.
Course Trains Trainers on Alternative Fuel Use, Safety

School was in this summer for EPAct-covered fleets and Clean Cities stakeholders who attended any of the four AFV train-the-trainer courses held throughout the country in May through August.

Sponsored by EPAct and Clean Cities, the courses covered everything trainers need to know to confidently train drivers on the use of alternative fuels. Focusing specifically on E85, biodiesel, CNG, and propane, participants learned about the benefits of the fuels, as well as each fuel’s characteristics and properties. Safety practices, emergency action plans, vehicle technologies, and fueling procedures were also discussed.

The goal of the curriculum was to send trainers back to their organizations as experts and have them add the course to their training packages. Held in Minneapolis, Minnesota; Denver, Colorado; Sacramento, California; and Washington, D.C., course attendance averaged 40 students per class. Participants included EPAct-covered fleets, Clean Cities stakeholders, and other industry members.

According to DOE EPAct Regulatory Manager Linda Bluestein, the idea to sponsor a training course stemmed from the necessity of driver acceptance of alternative fuels. “Making sure drivers understand and are comfortable with alternative fuels is one of the most important keys to a successful AFV program,” she says. “Driver resistance can derail a potentially successful AFV program.”

Helping drivers to feel safe while using alternative fuels and vehicles was one of the most thoroughly covered subjects in the course. Safety topics included proper handling practices for each fuel, the importance of having emergency action plans in place, and the types of safety equipment needed for each type of fuel.

The training course also focused on the environmental and energy security benefits of using each type of alternative fuel, including reduced emissions, cost savings, and fuel efficiency. This part of the course helped solidify the idea that using alternative fuels is a priority, says Tim Gerlach, Twin Cities Clean Cities Coalition coordinator and host of the course held in Minneapolis in May. That’s why they attended, he says, “because it’s the right thing to do.”

The final course of the summer was held August 18 in Washington, D.C. Feedback from attendees of this and the other three sessions was positive. The materials will be available for download later this fall from the Clean Cities Web site. Stay tuned for more information.