

Clean Cities Now (www.eere.energy.gov/cleancities/ccn) is the official publication of *Clean Cities*, an initiative of the U.S. Department of Energy designed to reduce petroleum consumption in the transportation sector by advancing the use of alternative fuel vehicles, idle reduction technologies, hybrid electric vehicles, fuel blends, and fuel economy.

States Take the Lead by Developing Alternative Fuel Policies

Biofuels incentives in Ohio, state tax credits for truck stop electrification in Washington, a hybrid rebate program in Pennsylvania. A clear trend is emerging and states are becoming key to implementing alternative fuel and advanced transportation policies. In fact, from January through September of this year, Clean Cities estimates that 66 alternative fuel or advanced transportation laws and regulations have been added to state rolls. For example:

- Indiana passed a law to increase the maximum amount of tax credits that can be granted for biodiesel production, biodiesel blending, and ethanol production;
- Washington implemented tax incentives for truck stop owners and truckers who invest in truck stop electrification and on-board retrofits; and
- Florida modified state regulations to allow sales of E85 to the public. Previous state regulation had prohibited the sale of E85.

In addition to new laws and regulations, states have implemented 32 incentives so far in 2006, many involving funding for the development of alternative fueling infrastructure. Among them:

- Colorado announced plans to invest \$500,000 to add 30 to 40 new E85 fueling pumps across the state,
- Ohio allocated \$1 million to increase the number of E85 and biodiesel retail pumps, and
- South Carolina partnered with the federal government to open the \$9 million Hydrogen Research Center in Aikin.

Driving Change

Four primary drivers are moving states toward action, says Carol Werner, Executive Director of the Environmental and Energy Study Institute in Washington, D.C. "We have the increasing run-up in gasoline and diesel prices, petroleum security concerns, worries about peak oil, and concerns about climate change," Werner says. "And the states get it. They understand the value of alternative fuels and advanced vehicle technologies to their local economies and jobs in their regions."

In addition, explains Werner, states are under pressure to meet federal mandates. "Many state and local governments are developing plans to reduce emissions because of current and potential carbon constraints."

She adds that the recent increase in interest in alternative fuels, hybrid vehicles, and idle reduction technologies is not a fad and is a powerful tool to influence national policy. "We believe political pressure at the state and local level may make a difference at the federal level. State and local governments are living and learning labs for policy, but the governors agree there has to be change at the national level."

Clean Cities' Role

Clean Cities coordinators can and do play a role in developing state laws, regulations, and incentives. For example, Tammy Morgan, Coordinator for the Greater Baton Rouge Clean Cities Coalition, testified before the Louisiana House of Representatives in support of the renewable fuels standard bill that requires 2% of all gasoline sold in the state to be produced from biomass or farm crops when ethanol and biodiesel production reach certain levels. The bill was signed into law, but, since then, the governor has signed legislation delaying its implementation until the cost of ethanol produced in the state is less than the cost of conventional gasoline. Morgan acknowledges that influencing policy is not easy. "It's a tough nut to crack; it helps to know someone in the legislature or a lobbyist. And, you have to keep on trying."

Clean Cities' Alternative Fuels Data Center (AFDC) has been tracking alternative fuel and advanced transportation legislation since the late 1990s. The online [State and Federal Incentives and Laws](#) database provides easy-to-understand, detailed descriptions of current transportation-related mandates and organizes them in a searchable, convenient format.

"Clean Cities' database was created to help stakeholders make informed vehicle and fuel decisions based on local and federal legislation and incentives," says Wendy Dafoe, Information Specialist at the AFDC at NREL. "It also helps the program identify and understand trends in the alternative fuel and advanced technology field."

For a complete listing of incentives and laws pertaining to transportation technologies, visit the database on the [AFDC Web site](#). State-level information is updated annually after each state's legislative session ends. Federal information is updated after enacted legislation is signed into law or when rules are issued by the responsible agencies.

Coalition News

Maryland Opens First State-Owned E85 Station

Secretary of Energy Samuel Bodman joined Maryland Governor Robert Ehrlich on August 7, 2006, to dedicate Maryland's first state-owned E85 station at the Baltimore State Office Center. The station, which is not yet open to the public, will primarily serve flexible fuel vehicles (FFVs) operated by state agencies.

The state fleet currently includes about 550 FFVs, and 120 more will be acquired each year. Federal and local government fleets and nonprofit agencies can also apply to use the station.

Besides energy security and environmental benefits, Maryland sees ethanol as a boost to its agricultural sector. "One reason we're promoting biofuels is that they create additional markets for our corn and soybean farmers," says Maryland Clean Cities coordinator Lauren Robbins, who works for the Maryland Energy Administration (MEA). MEA, the Maryland Grain Producers Utilization Board, and a Clean Cities grant funded the new E85 station.

Three additional state-owned E85 stations--one in College Station and two in Annapolis--are scheduled to open in 2006. These stations will put E85 within reach of the vast majority of state FFVs.

To promote widespread E85 use, MEA initiated an ethanol awareness program in 2005, which includes direct mailing E85 coupons to people living near public E85 stations, running E85 radio promotions, and listing Maryland E85 station locations on General Motors' "Live Green, Go Yellow" FFV advertisements. An upcoming state program will provide cost-shared grants to retail fueling stations for adding E85 or biodiesel infrastructure.



MEA Director Fred Davis, Secretary Bodman, Governor Ehrlich, and Maryland Grain Producers Utilization Board President Jason Scott (from left) dedicate the E85 station.

Photo contributed by
Maryland Energy Administration

Maryland is making progress toward biofuel production as well. A biodiesel plant opened in Berlin in 2006, and plans are being made to construct additional biodiesel and ethanol plants in the state.

Kellie Walsh Named DOE Coordinator of the Year

The U.S. Department of Energy (DOE) recently named Kellie Walsh the 2006 National Coordinator of the Year. Walsh has been executive director of the Central Indiana Clean Cities Alliance (CICCA) since 2001.

Under her charge, the coalition has displaced more than 5 million gasoline gallon equivalents of petroleum through the use of alternative fuels and vehicles, hybrids, and fuel blends.

"Kellie has that can-do, heartland spirit and dedicated work ethic," says Clean Cities Director Dennis Smith. "Whether she's approaching high-level local leaders or professional race car drivers, her dedication takes her where she needs to go and convinces people to join her. It's this unfettered spirit that makes her so effective."

As a result of her efforts, Indiana now has 30 public E85 fueling sites (with commitments for 19 more in the near future), as well as more than a dozen processing plants in development, which will produce bulk quantities of ethanol and biodiesel in the region.

Walsh's accomplishments have not gone unnoticed. In 2005, she received DOE's 2005 Midwest Region Coordinator Award. More recently, she was honored with the Paul Dana Leadership in Biofuels Award and the 2006 Coordinator Peer Choice Award.

Los Angeles Expands Nation-Leading Alternative Fuel Fleet

The City of Los Angeles recently received \$2.56 million to purchase 50 liquefied natural gas (LNG) refuse trucks, 25 compressed natural gas (CNG) street sweepers, and six CNG articulated buses. The grants were received via the South Coast Air Quality Management District from the Mobile Source Air Pollution Reduction Review Committee and the Carl Moyer Program. The grants will also be used to purchase 82 diesel emission-control devices for installation on existing refuse trucks.



The City of Los Angeles will add 25 CNG street sweepers to its fleet.

Photo contributed by City of Los Angeles Bureau of Street Services

Los Angeles already has the nation's largest municipal alternative fuel refuse truck fleet, with 260 of 703 trucks operating on alternative fuels. The city's goal is to replace all its diesel refuse trucks and street sweepers—about 900 vehicles—with alternative fuel versions in the next four to six years. To accommodate the added vehicles, the city is updating its maintenance yards and adding two LNG/CNG fueling stations, with more to follow.

Los Angeles is concerned about vehicle emissions of particulate matter (PM), which a 2000 California study linked to cancer and respiratory ailments, and oxides of nitrogen (NOx), which contribute to smog formation. "Natural gas is one of the cleanest fuels for the types of problems in our air basin," says Heloise Froelich, Environmental Supervisor with the Los Angeles Environmental Affairs Department, Air Quality Division.

Froelich is also coordinator of the Los Angeles Clean Cities Coalition, which comprises Los Angeles' government fleets and public/private project partners. Since the coalition began in 1996, it has received almost \$14 million in grants for alternative fuel vehicles and infrastructure. More than 2,200 of the city's 15,000 non-emergency municipal vehicles run on alternative fuels. The acquisitions from this latest grant will be operational by spring 2007.

New E85 Station Supports University of Arizona's Growing FFV Fleet

The University of Arizona unveiled a new E85 station at its Tucson campus in August. The station, with a 4,000-gallon above-ground tank, will start out serving 30 flexible fuel vehicles (FFVs) operated by the university's motor pool.



The University of Arizona installed this 4,000-gallon above-ground ethanol tank.

Photo contributed by Mona L. Johnson

"We chose ethanol because of the excellent availability of FFVs," says Mark Harrell, fleet manager for the University of Arizona's Facilities Management. Harrell's motor pool fleet, which is rented out to various campus departments for local and interstate travel, includes FFV sedans, minivans, and pickup trucks. Statewide, about 80 of the university's 1,100 vehicles are FFVs, with smaller numbers of propane and compressed natural gas vehicles.

The motor pool FFVs are expected to use 20,000 gallons of E85 during the first year the station is open, about 10% of the fleet's annual fuel use. This number is expected to grow as more FFVs are acquired in compliance with Energy Policy Act state fleet requirements.

Funding for the E85 station came entirely from the University of Arizona, with technical assistance from the National Ethanol Vehicle Coalition and the Tucson Clean Cities Coalition. "It was a fabulous cooperative effort," says Colleen Crowninshield, coordinator of the Tucson coalition. According to Crowninshield, her coalition fleets had 3,565 alternative fuel vehicles as of 2005, including 126 FFVs, and the number of FFVs is expected to triple in 2006.

The high visibility of the university's E85 use provides an additional benefit. "As Clean Cities coalitions, we need to educate the public about alternative fuels," says Crowninshield. "When an educational institution uses alternative fuels it's a great way to get the message out."

Program News

Regional Offices Realigned

The U.S. Department of Energy (DOE) recently announced the reorganization of its Regional Offices.

Previously broken into six areas (Northeast, Mid-Atlantic, Southeast, Midwest, Central, and Western) the new regional office structure is consistent with the 10 standard federal regions used by most government agencies (see map). Four representatives from DOE are managing the Clean Cities activities in their respective regions from the National Energy Technology Laboratory (NETL).

Formerly of the Northeast region, [Mike Scarpino](#), relocated to NETL and now leads regions 1, 2, and 5. The other new regional officers are [Steve Richardson](#), leader of regions 3 and 4; [Neil Kirschner](#), leader of regions 6, 7, and 8; and [Mike Bednarz](#), leader of regions 9 and 10. All four regional officers are DOE employees.



This map denotes the new regional office structure.

DOE

Three of DOE's former regional officers have been reassigned. [Roxanne Dempsey](#) of the Western office relocated to the Golden Field Office in Colorado and is working with the Wind Program. [Ernie Oakes](#) of the Central region is working with the Biomass Program and remains the project manager for the Green Energy Parks Transportation Program. [Stephanie Sung](#) of the Midwest region also relocated to the Golden Field Office and is working on the State Energy Program.

Patricia Passarella of the Mid-Atlantic region and David Dunagan of the Southeast region left DOE to pursue new opportunities.

Clean Cities Launches New Coordinators' Council

July 2006, marked the first meeting of the Clean Cities Coordinators' Council, a new committee formed to improve communication between the U.S. Department of Energy (DOE) and coordinators.

The goal of the volunteer council is to help DOE understand the specific issues of each region, establish program priorities, and communicate coordinator needs. Two coordinators from each of DOE's six former regions serve on the committee (see box below). Their duties include:

- Participating in monthly conference calls, Web casts, and electronic discussions;
- Recommending coalitions for designation and renewal;
- Identifying funding and partnership opportunities;
- Reporting on coalition successes and challenges; and
- Gathering input from the coordinators in their regions and reporting council activities to coordinators and stakeholders.

In addition, committee members participate in the council's working group, share and rotate the meeting chair responsibilities, and communicate the needs of their regions. Meeting minutes are distributed to Clean Cities' 90 coordinators.

Council meetings are held monthly with Clean Cities staff from DOE headquarters, the National Energy Technology Laboratory, and the National Renewable Energy Laboratory.

Clean Cities Coordinators' Council Representatives*

Region	Coordinator
Midwest	Francis Vogel, Wisconsin Clean Cities
	Kevin Herdler, St. Louis Regional Clean Cities
Northeast	Steve Linnell, Maine Clean Communities
	Andria Adler, Greater Long Island Clean Cities Coalition
Southeast	Dave Pelton, Clean Cities of Middle Tennessee
	Tobin Freid, Triangle Clean Cities
Western	Linda Urata, San Joaquin Valley Clean Cities
	Mark Brady, Puget Sound Clean Cities
Central	Beverly Miller, Utah Clean Cities
	Stephanie Lee, Houston Clean Cities
Mid-Atlantic	Lauren Robbins, Maryland Clean Cities
	Ellen Bourbon, New Jersey Clean Cities

*Each region also has two alternates.

Hybrid Tax Credit: Claim It While You Can

For a limited time only. That's the message if you want to take advantage of the hybrid tax credit enacted by the Energy Policy Act of 2005. The credit—up to \$3,400 for eligible vehicles—is phased out after hybrid sales reach a certain volume.

It works like this: As long as a manufacturer has sold fewer than 60,000 hybrid vehicles after December 31, 2005, you can claim 100% of the tax credit for buying one of its vehicles. Once the manufacturer sells 60,000 hybrids, including all models sold by the same manufacturer, you can still claim the full credit until the end of the second calendar quarter after the quarter in which the 60,000th vehicle was sold.



Toyota is the first OEM to reach the 60,000-vehicle threshold with sales of the hybrid Prius.

Photo contributed by Wieck Photo Database

In the second and third quarters after the 60,000th sale you can claim 50% of the credit, and in the fourth and fifth quarters you can claim 25% of the credit. After the fifth quarter you can no longer claim the credit at all. The credit expires December 31, 2010, regardless of sales. The same applies to advanced lean burn technology vehicles, which the Internal Revenue Service (IRS) defines as having direct injection and an internal combustion engine that operates primarily by using more air than necessary for complete combustion. These vehicles must also achieve at least 125% of the model year 2002 city fuel economy for their class.

One manufacturer already reached the vehicle threshold. According to the IRS, Toyota hit the [60,000-vehicle limit](#) during the calendar quarter ending June 30, 2006. As a result, credit for all new, qualified Toyota hybrid (or lean-burn) vehicles will begin to phase out on October 1, 2006.

As of press time no other manufacturer appears to have reached the 60,000 mark. See the Electric Drive Transportation Association (EDTA), [Hybrid Vehicle Sales Information and Tax Credits](#) for information on available hybrids and their corresponding tax credits.

The hybrid tax credit is part of the Alternative Motor Vehicle Credit, which also covers light-, medium-, and heavy-duty fuel cell and dedicated natural gas, propane, and hydrogen vehicles, as well as light-duty lean-burn vehicles. To learn more, see the Incentives and Laws section of the [Clean Fleet Guide](#). While you're there, check to see if your state offers additional incentives for hybrid and alternative fuel vehicle purchases.

For additional information, visit the [IRS](#) Web site, which summarizes the hybrid credit and includes the applicable tax forms.

Example of the Hybrid Tax Credit Phase-Out

Source: [Highlights of the Energy Policy Act of 2005 for Individuals](#), IRS, January 2006

- 1) F Company is a manufacturer of hybrid vehicles but not advanced lean-burn technology motor vehicles. F Company sells its 60,000th hybrid on March 31, 2006.
- 2) Ms. Smith buys an F Company hybrid on June 30, 2006, and claims the full credit.
- 3) Ms. Maple buys an F Company hybrid on December 31, 2006, and claims 50% of the credit.
- 4) Mr. Grey buys an F Company hybrid on June 30, 2007, and claims 25% of the credit.
- 5) Mr. Green buys an F Company hybrid car on July 1, 2007, and is unable to claim the credit because the credit has phased out for F Company vehicles.

Success Story

Smithtown Chooses CNG to Cut Refuse Collection Costs

Faced with rising refuse collection costs, the Town of Smithtown is requiring its refuse collection contractors to use compressed natural gas (CNG) trucks. It's the first New York municipality to institute such a requirement. On January 1, 2007, the 30 contractor-owned diesel refuse trucks collecting solid waste and recyclables from the town's 115,000 residents will be replaced by CNG models.

This August, Smithtown finalized a list of four refuse collection companies as the low-bidders that will enter into seven-year contracts: Brothers Carting, Dejana Industries, Jody Industries, and V. Garafalo Carting. The companies will be responsible for buying new CNG trucks. To offset the higher cost of CNG trucks versus diesel trucks, the companies can claim the Federal Alternative Motor Vehicle Credit for up to 80% of the incremental cost. An alliance of local organizations is helping the contractors find financing options.

To further ease the transition, Smithtown entered into an agreement with natural gas supplier Clean Energy, which operates a nearby fueling station, to set fuel prices through 2013. CNG costs for the refuse trucks will start at \$2.33 per diesel gallon equivalent (DGE) through 2008 and increase each year to conclude at \$2.94 per DGE in 2013. The contracted CNG price could decrease if the price differential between diesel and CNG goes above a set threshold. Clean Energy will work with natural gas utility KeySpan to expand pipelines and accommodate the new natural gas demand.

"Controlling refuse collection costs for town residents was the primary reason Smithtown chose CNG," says Andria Adler, coordinator of the Greater Long Island Clean Cities coalition. "The commitment from Clean Energy to set a stable fuel price was very important."

Switching to CNG provides environmental and energy security benefits as well. The CNG refuse trucks are projected to reduce annual emissions of nitrogen oxides by 177 tons and particulate matter by 173 tons. Over the life of the contracts, Smithtown expects to displace more than 2.5 million DGE of petroleum-based fuel.

The benefits could be amplified if other towns adopt a similar strategy. "If this works for Smithtown, I can see other towns following suit," says Adler.

Clean Cities inspired Smithtown's move to CNG. In May 2006, Russell Barnett, Smithtown's Environmental Protection Director, saw a Clean Cities alternative fuel presentation at the Federation of New York Solid Waste Associations Solid Waste/Recycling Conference & Trade Show in Bolton Landing, New York. The presentation persuaded him that CNG was the best choice for Smithtown's refuse fleet.

For more information, contact [Andria Adler](#), coordinator, Greater Long Island Clean Cities.

EPAAct Update

DOE Publishes NOPR on Replacement Fuel Goal

The U.S. Department of Energy (DOE) on September 6, 2006, published a [Notice of Proposed Rulemaking](#) (NOPR) outlining a proposed modification to the 2010 goal of 30% U.S. motor fuel production to be supplied by replacement fuels.

The Energy Policy Act (EPAAct) of 1992 established a goal of developing sufficient U.S. domestic replacement fuel production capacity to replace 30% of projected total motor fuel use by 2010. DOE is required to review this goal periodically, publish the results of its review, and provide opportunities for public comment. DOE recently conducted this review and, in the new NOPR, proposes to keep the replacement fuel goal of 30% but

extend the date for achieving the goal to 2030.

This NOPR also implements a March 6, 2006, order of the U.S. District Court for the Northern District of California to prepare and publish a NOPR on the 2010 fuel replacement goal.

A public hearing on the NOPR will be held on October 3, 2006, and public comments will be accepted until November 3, 2006. For more information, see DOE's [electronic docket](#) on the EAct Web site.

New Resources

How Much Could You Save by Idling Less?

Argonne National Laboratory produced this worksheet that helps calculate how much money can be saved by reducing the diesel engine idling time of a single heavy-duty truck. Download the worksheet at http://www.transportation.anl.gov/downloads/idling_worksheet.xls.

Biodiesel Hotline

The National Biodiesel Board has a new biodiesel hotline. The toll-free number, 866-BIODIESEL, will help truckers find biodiesel refueling stations anywhere in the United States. The hotline will be staffed 24 hours a day, seven days a week.

What is Clean Cities?

This four-page fact sheet is updated quarterly and provides an overview of the Clean Cities initiative. The document describes Clean Cities' mission, stakeholders, and portfolio of technologies. It also provides a current list of coalitions and coordinator contact information. See the July 2006 edition at www.eere.energy.gov/cleancities/pdfs/40223.pdf.

Handbook for Handling, Storing and Dispensing E85

Produced by Clean Cities and the National Ethanol Vehicle Coalition, this handbook provides current information on EAct alternative fuel regulations, flexible-fuel vehicles, E85 properties and specifications, and handling and storage guidelines. Download it at www.eere.energy.gov/afdc/pdfs/40243.pdf.

Breaking the Biological Barriers to Cellulosic Ethanol: A Joint Research Agenda

This research agenda outlines DOE's plans for developing cellulosic ethanol into a practical alternative to gasoline. The roadmap identifies the research required for overcoming challenges to the large-scale production of cellulosic ethanol and details the recent advances in biotechnology that have made the production of cellulosic ethanol cost effective. The report and a fact sheet abstract are available at www.doegenomestolife.org/biofuels/b2bworkshop.shtml.

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.

For more information contact: EERE Information Center 1-877-EERE-INF (1-877-337-3463)

www.eere.energy.gov

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Energy Efficiency and Renewable Energy

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