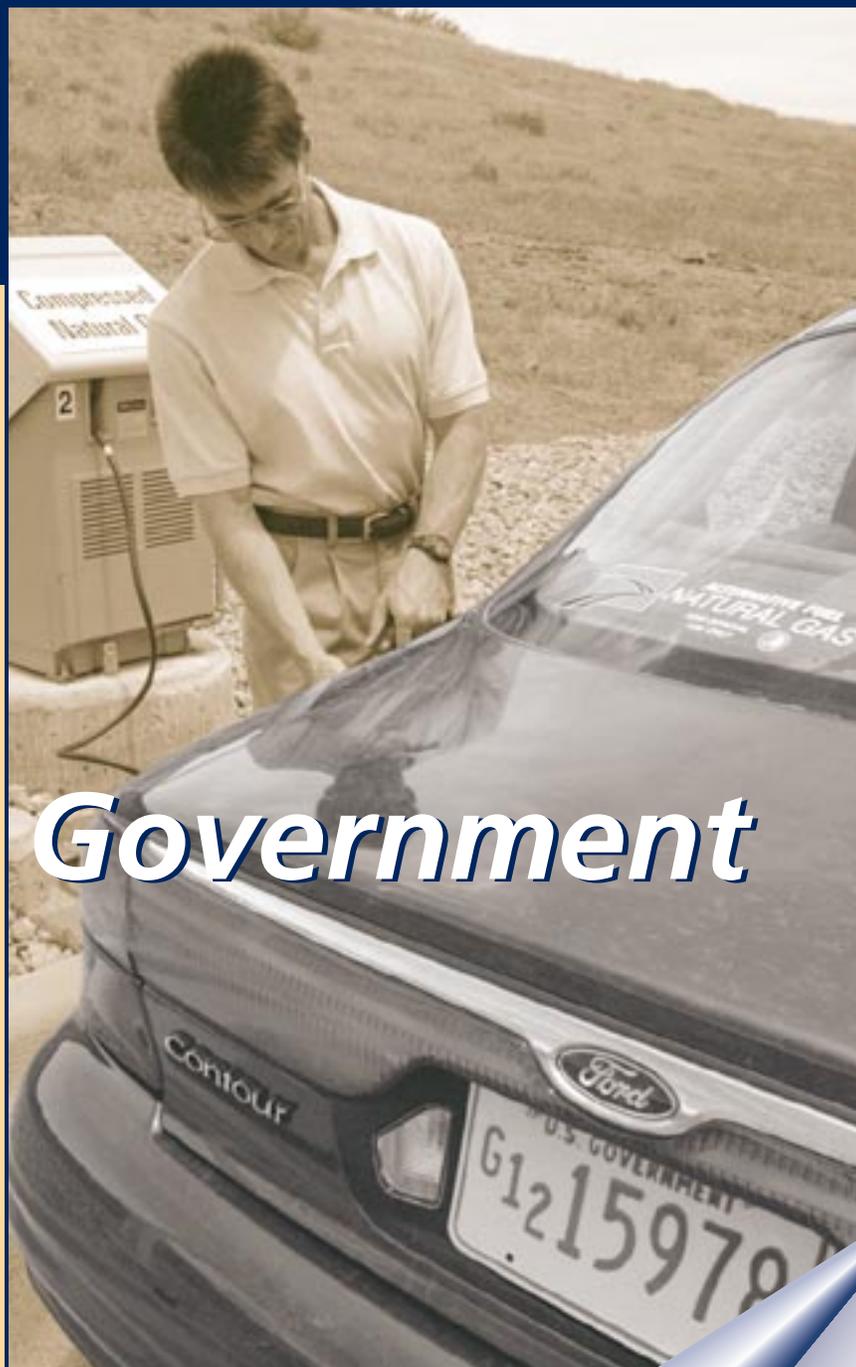


U.S. DEPARTMENT OF ENERGY

ALTERNATIVE FUEL NEWS

An Official Publication of the Clean Cities Network and the Alternative Fuels Data Center

From the Office of Energy Efficiency and Renewable Energy



**Executive
Order 13149**

Greening the Government

State
Alternative Fuel
Incentives:

**What Works
Best?**

National Clean Cities Conference
Rolls into San Diego

Inside:
The sporty
Honda Insight



Dear Clean Cities Stakeholders:

Your work to develop a market for alternative fuels is more important than ever. Drivers across the country are experiencing first hand our nation's dependence on foreign petroleum. As they reach deeper into their pockets at their trips to the pump, the benefits of AFV use become more apparent and the Clean Cities message grows more critical.

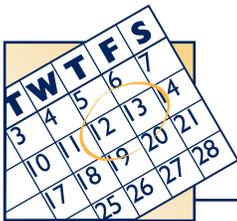
President Clinton reinforced this message when he signed Executive Order 13149 earlier this year. The new Executive Order shifts the federal fleet focus from vehicle acquisitions to alternative fuel use and petroleum displacement. You can learn more about this new directive and what it means for Clean Cities in our cover story.

And just as the need for Clean Cities becomes more readily apparent, the program's momentum continues to grow. New coalitions are joining the program and new partnerships are creating opportunities for AFV projects. In May we broke all previous attendance records at the Sixth National Clean Cities Conference. Nearly 1,000 AFV enthusiasts gathered in San Diego for an action-packed week of discussions, training sessions, exhibits, ride-and-drives, and fun. Many thanks to the host coalition, the San Diego Regional Alternative Fuels Partnership, for its outstanding efforts to make this year's conference the best we've had so far. You can read more about the Clean Cities Conference on page 6 of this issue.

Best wishes for a safe and happy summer, and as usual, enjoy the issue.

Shelley Launey, Director

Clean Cities Program
U.S. Department of Energy



Upcoming Conferences and Events

18th National NGV Conference and Exhibition

September 17–19, 2000
Rio Suite Hotel
Las Vegas, Nevada
Contact: Thomason and Associates Inc. @ 702-254-4180

Fleet Expo 2000

September 17–19, 2000
Rosemont Convention Center
Chicago, Illinois
Contact: Fleet Expo 2000 @ 310-533-2410

Workshops on Possible Local Government and Private Fleet Regulations

August 22, 2000
Denver, Colorado
(open only to local and state government representatives)
September 26, 2000
Washington, D.C.
Contact: DOE Regulatory Information Line @ 202-586-9171

Clean Cities and EPA Sponsored Voluntary Mobile Emissions Program Workshops

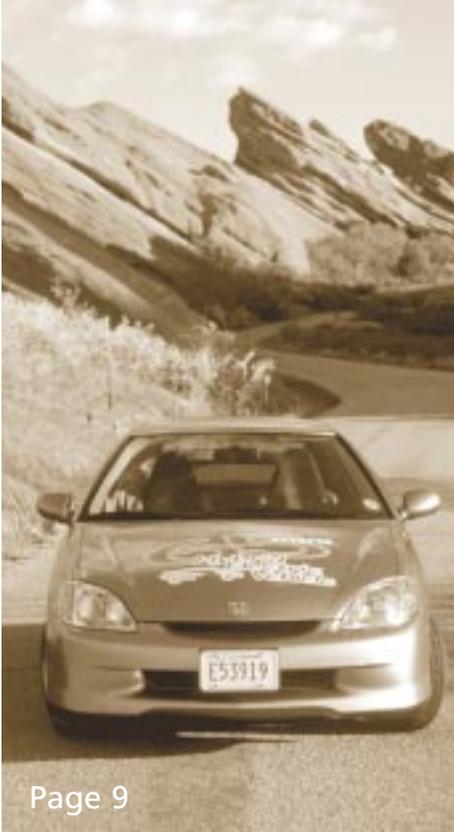
August 29, 2000
Philadelphia, Pennsylvania
September 6–7, 2000
Atlanta, Georgia
September 14, 2000
New York, New York
November 26–27, 2000
Denver, Colorado
Contact: Kimberly Taylor @ 303-275-4358

Contents

ALTERNATIVE FUEL NEWS

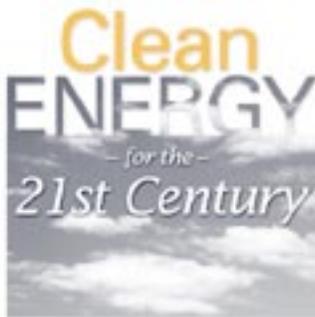
Volume 4 Number 2

August 2000



Page 9

Ken Kelly, NREL/PIX 02771



BR-540-28052

August 2000



Printed with a renewable-source ink on paper containing at least 50% wastepaper, including 20% postconsumer waste

Cover Story • 4

Red, White, and Blue . . . and Green

Executive Order 13149 comes at a critical time as gasoline and diesel prices soar.

Feature Story • 6

San Diego Spectacular

The Sixth National Clean Cities Conference and Expo drew nearly 1,000 people for three exciting days of alternative fuel activities.



Page 11

FutureTruck

Departments

Hot off the Press • 7

A newly released transportation market assessment features current trends and information to help fleet managers learn more about advanced technology vehicles.

From the States • 8

A study by the National Conference of State Legislators highlights the most successful AFV incentives.



Warren Getz, NREL/PIX 05857

Page 4

From the Automakers • 9

Honda Insight – Driving for the Long Run

Funding • 10

DOE awards nearly \$4 million to Clean Cities

Broad Area Announcement contracts help support Clean Cities activities

Nuts and Bolts • 11

Vehicle competitions showcase new technologies:

- Tour de Sol
- Ethanol Vehicle Challenge
- Future Truck 2000

Clean Cities Roundup • 12

Clean Cities nears 80 coalitions

On the Cover:

A U.S. government fleet vehicle fills up using the compressed natural gas refueling facility at the National Renewable Energy Laboratory.

Warren Gretz, NREL/PIX 05858

Red,
White,
and Blue...

and Green

The federal fleet has a new driver for using alternative fuel in its alternative fuel vehicles (AFVs). It's called Executive Order 13149, Greening the Government Through Federal Fleet and Transportation Efficiency, and its arrival could not be more timely. Announced by President Clinton on Earth Day, as gasoline and diesel prices continued to soar, the new Executive Order is designed to not only increase the use of alternative fuel by federal agencies but also to increase the use of fuel efficient vehicles in the federal fleet.

The EPAAct mandate for federal fleet AFV acquisitions remains unaffected by the new order—in model year 2000 and beyond, AFVs are to constitute 75% of covered federal fleet vehicle purchases. What is different, however, is the emphasis on actual use of alternative fuel, rather than vehicle purchases. The new order directs federal agency fleets to use alternative fuel to meet a majority (at least 51%) of the vehicles' fuel needs. It also requires agencies to reduce their overall petroleum consumption by at least 20% over the next five years.

A 20% reduction in petroleum use in just five years may seem challenging, but the Executive Order provides agencies with the flexibility to develop appropriate strategies to achieve the goal. Each agency may decide for itself whether or not to rely more heavily upon petroleum replacement strategies, like increasing the use of alternative fuels and AFVs, or petroleum displacement strategies, such as purchasing fuel efficient hybrid vehicles, reducing vehicle miles traveled, and implementing other energy efficient practices. A combination of petroleum replacement and displacement strategies will be needed to achieve a 20% reduction, but each agency may develop a plan specific to its needs and abilities.

According to the order, agencies will earn credits towards the EPAAct vehicle purchase requirements for their AFV purchases. To maintain the emphasis on actual alternative fuel use, dedicated and electric vehicles will count for more credits, as will dedicated medium- and heavy-duty vehicles.

A 20% reduction in petroleum use in just five years may seem challenging, but the Executive Order provides agencies with the flexibility to develop appropriate strategies to achieve the goal.

- Each light-duty vehicle will count for one credit
- An additional credit (for a total of two credits) will be awarded for light-duty vehicles dedicated to using only alternative fuel and zero-emission vehicles
- Dedicated medium-duty vehicles will count for three credits
- Dedicated heavy-duty vehicles will count for four credits
- One credit will be awarded for every 450 gallons of 100% biodiesel or 2,250 gallons of B20 used in diesel vehicles

"Instead of trying to increase the acquisition requirements, we're creating incentives so that federal fleet managers will want to buy these dedicated vehicles, and more importantly, so they'll want to use the alternative fuel," said DOE's Lee Slezak, Federal Fleet AFV Program Manager.

Many Clean Cities coalitions will enjoy the boost federal AFVs provide local alternative fuel markets. The order directs federal fleets to use publicly accessible alternative fuel refueling sites or, if public refueling is unavailable, to establish non-public sites. With specific requirements to use alternative fuel in AFVs in addition to a petroleum reduction goal, federal fleets in many Clean Cities will have a definite need for refueling infrastructure. Federal fleets will therefore build upon regional infrastructure investments and contribute to local market development by increasing throughput at the stations already in use.

Agencies are also directed to use environmentally friendly products, including re-refined motor oil and retread tires when these materials are available and meet performance requirements. Bio-based products, such as engine lubricants, are also encouraged.

Executive Order 13149 takes a giant step forward by delegating specific responsibility and accountability for agency compliance. While the Department of Energy (DOE), the Office of Management and Budget (OMB), the General Services Administration (GSA), and the Environmental Protection Agency (EPA) will assist with the order's implementation, each agency is required to designate a senior level official, such as an assistant secretary, to ensure that it fulfills the requirements of

Photodisc

the order. The senior official is responsible for developing an agency strategy to meet its alternative fuel use and petroleum reduction goals and for ensuring the strategy's inclusion in the agency's annual budget submission to OMB.

OMB will also appoint a senior level official to follow through with its own responsibilities, specifically, to ensure that budget submissions for each agency include the funding necessary to meet the requirements of the order.

DOE also plays a leadership role in implementing the Executive Order. In addition to meeting its own agency goals, DOE will educate other federal agency personnel on the requirements of the order, help them create compliance strategies, and develop guidance for data collection and reporting. Building upon its own current tracking mechanism, DOE is implementing a Web-based reporting system that makes it easier for federal fleet managers to report their vehicle acquisitions and fuel use. The federal AFV Web site will include a "buyer's guide" to available models including alternative fuel and hybrid vehicles. In addition to fuel type, users will be able to select different vehicle categories according to class, size, and configuration, and will have access to the standard item numbers necessary for acquisitions through GSA. According to the order, DOE is also responsible for reviewing agencies' annual budget submissions (before they are sent to OMB) and producing a compliance scorecard that will be submitted to the President with an annual progress report on the Executive Order.

GSA, the largest purchaser of federal vehicles annually, is also given responsibility for successful implementation of the new Executive Order. Not only is GSA directed to ensure that its leased fleet includes AFVs and energy efficient vehicles, but it will

What is OMB?

The Office of Management and Budget (OMB) helps prepare the federal budget and evaluates the effectiveness of federal agency programs, policies, and procedures. OMB sets funding priorities and ensures that agency reports, rules, testimony, and proposed legislation are consistent with the president's budget and administration policies. In addition, OMB oversees and coordinates the administration's procurement, financial management, information, and regulatory policies. In each of these areas, OMB's role is to help improve administrative management, to develop performance measures and coordinating mechanisms, and to reduce any unnecessary burdens on the public.

also work with auto manufacturers and the agencies to ensure production plans and acquisition strategies are compatible with one another. GSA will also allow agencies to incorporate incremental costs into lease rates, which will help ensure that leased AFVs are replaced with AFVs and not gasoline or diesel vehicles.

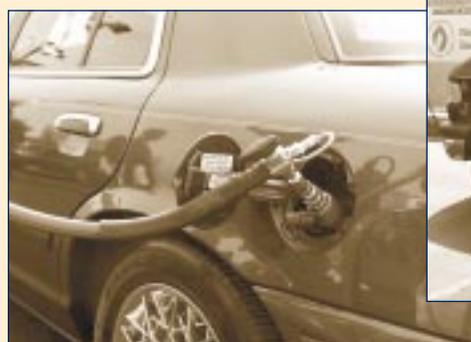
Historically, federal agencies have taken a leading role in AFV market development and enhanced energy efficiency in transportation. Executive Order 13149 will propel the federal fleet to a greener and more independent future and will support local Clean Cities coalitions by bolstering regional alternative fuel markets. For more information on Executive Order 13149, call the DOE National Alternative Fuels Hotline at 800-423-1DOE or go to www.afdc.doe.gov.

First Federal Multifuel Station Opens

The nation's first federal multi-fuel alternative fuel station opened early this summer in Arlington, Virginia. The Navy Annex Citgo, located near the Pentagon, offers compressed natural gas (CNG) and E85 to local, state, and federal government vehicles. DOE's Deputy Secretary, T.J. Glauthier, participated in the ribbon cutting ceremony, where he refueled one of DOE's dedicated CNG Ford Crown Victorias.



DOE file photo/PIX 06667



DOE file photo/PIX 06576



DOE file photo/PIX 06508

Pictured clockwise from top: federal van fills up with E85; federal CNG van awaits fueling; DOE dedicated Crown Victoria receives a full tank of CNG.

The San Diego Spectacular

WHAT BETTER WAY TO KICK OFF AN alternative fuel conference than from behind the wheel of an alternative fuel vehicle (AFV)? That's just what Clean Cities Director Shelley Launey did—she zoomed down the aisle of the San Diego Concourse Golden Hall in a Ford Th!nk electric vehicle, signaling the start of the Sixth National Clean Cities Conference and Expo. Nearly 1,000 people flocked to San Diego—shattering the previous conference attendance record—for three action-packed days of alternative fuel activities.

AFV displays in the outdoor plaza attracted both alternative fuel enthusiasts and casual passers-by. Inside the Concourse, participants heard from plenary speakers, participated in special breakout sessions, engaged in table talk discussions, and circulated through the many exhibits in the Expo hall.

Following Launey's "electrified" grand entrance and introductions by the San Diego Regional Alternative Fuels Partnership, California Energy Commission Chairman Robert Parnell and California Air Resources Board Chairman Alan Lloyd welcomed attendees to the state of California. Monday's keynote highlights also included internationally renowned business strategist and futurist Peter Schwartz, who captivated the audience with his thoughtful look at the past and predictions for the nation's business and energy future. Airports, voted the top niche market priority by Clean Cities coordinators and stakeholders, also took center stage on opening day. Attendees heard from American Airlines Vice President Tim Ahern on plans to incorporate AFVs into daily operations at the



airline's major hubs, and a special breakout session featuring airport executives, fuel providers, and shuttle companies examined strategies to further develop AFV use at airports.

On Tuesday, Clean Cities coordinators fueled up for the day at a special coalition awards breakfast. Conference activities continued with a series of keynote presentations, including one from DOE's Dan Reicher, Assistant Secretary for Energy Efficiency and Renewable Energy. Still reveling in the attention Earth Day brought to clean energy issues, he remarked on Clean Cities' new niche market successes and extended his challenge to other fleets to achieve 100% alternative fuel use. Attendees were also treated to a special presentation by Antarctic adventurer, Sunniva Sorby. Her tales of perseverance when faced with the seemingly insurmountable hardships of her arctic trek both awed and inspired all in attendance.

Following Sunniva's inspiring account of Antarctic challenge was a special appearance by DOE Secretary Bill Richardson, who expressed his particular appreciation for Clean Cities' efforts to develop a market for alternatives to imported energy sources. In addition to his remarks about the growing need for alternative fuels and a diverse national energy economy, Secretary Richardson announced DOE's State Energy Program (SEP) Special Projects winners and presented the 2000 Clean Cities National Partner Awards (see p. 10 for more information on SEP). The list of Clean Cities National Partners is available on the Web at www.cities.doe.gov/conference.shtml.

Conference-goers awoke Wednesday to find a full page Clean Cities advertorial, sponsored by Deere Power



Petra Colleen Photography/PIX 06084

Keynote speaker, business strategist and futurist Peter Schwartz (above)

San Diego Regional AFV Partnership Chair, Steve Bimson (below)



Petra Colleen Photography/PIX 03465

Systems, in *USA Today*. Following the morning's plenary session, many attendees enjoyed the highly informative and entertaining media workshop, hosted by Don Rheem and Bob Melnyk. Rheem shared his marketing and communications expertise, including tips on working with the media and effective interviewing. Melnyk, producer of the Environmental Showcase video series, unveiled the new Clean Cities public service announcement, which was subsequently distributed to Clean Cities Coordinators, and provided helpful hints for working with local television stations to ensure its broadcast.

Other side events to the conference included the groundbreaking ceremony for San Diego's Regional Transportation Center and an alternative fuels and infrastructure development workshop sponsored by the U.S. Environmental Protection Agency. The National Energy Technology Laboratory, Science Applications International Corporation, Gas Technology Institute (formerly Gas Research Institute), and Clean Cities International also sponsored a training session on developing greenhouse gas emission reduction projects.

While the three full days of the Clean Cities Conference provided participants with a wealth of alternative fuels information and helped open new doors to market development opportunities, it was not without its fun – thanks to Clean Cities' automotive partners. Coordinators enjoyed a pre-conference tour of an aircraft carrier, the U.S.S. Constitution, courtesy of DaimlerChrysler. Attendees also joined Ford Motor Company in a romp where the wild things are at the famous San Diego Zoo. They chatted with fortune tellers and danced the night away with friends from



Petra Colleen Photography

Department of Energy Secretary Bill Richardson addresses Clean Cities Conference attendees at the outdoor vehicle display.

American Honda. And they feasted on local foods as they rallied in the E Street Alley, courtesy of General Motors.

It was a highly productive, highly successful conference and touted by many as the best Clean Cities Conference so far. But stay tuned...plans are already underway for the Seventh National Clean Cities Conference in Philadelphia!

For details on a few select breakout sessions and table talk discussions at the Sixth National Clean Cities Conference, check out the Clean Cities Web site at www.ccities.doe.gov/conference.shtml.



Hot off the Press

Looking Ahead to Advanced Technology Vehicles

The National Renewable Energy Laboratory (NREL) recently released a transportation market assessment report for DOE's Field Operations Program (FOP), which conducts baseline and field tests of near-term alternative fuel and electric vehicles. The report, entitled, "Field Operations Program: Overview of Advanced Technology Transportation," features information about the current transportation market that will be used for strategic planning and projection of future program resource needs, as the FOP moves from testing AFVs to testing advanced electric, hybrid, and fuel cell vehicles.

According to the report, of the total energy used for transportation, automobiles and light trucks account for

approximately 67%, heavy trucks account for 17%, and buses are responsible for 1%. However, heavy-duty vehicles contribute approximately 30% of highway vehicle NO_x emissions and 60% of particulate matter. Fleets own roughly 10% of the total number of vehicles with the other 90% being owned by private individuals. To better describe the types of vehicles that will need to be tested in future FOP activities, the report provides a comprehensive listing of the electric, hybrid, and fuel cell vehicles currently in production or scheduled for production in the near term. The report also includes highlights of a fleet managers survey that describe their priorities for vehicle selection as well as information to facilitate their transition to advanced technology vehicles.

For more information check out www.afdc.doe.gov/pdfs/fop.pdf.



From the States

Best Practices for State AFV Incentives

Which alternative fuel incentives work best, and why? The National Conference of State Legislatures (NCSL) recently addressed those questions in a report entitled, “State Alternative Fuel Vehicle Incentives: A Story of Disconnects?” The report is intended to teach state legislators what works and what doesn’t in the world of AFV incentives. “Our goal is to show legislators what other states offer and what is most effective so they can make informed decisions about their state’s alternative fuel program and incentives,” said NCSL’s Leah Breckenridge.

The report, funded by the U.S. Department of Energy’s Clean Cities Program and based on NCSL research and a nationwide fleet survey NCSL conducted with help from the National Association of Fleet Administrators, provides a comprehensive overview of the kinds of incentives available, the most effective incentives for various AFV fleets, and options for developing strong state alternative fuel incentive programs.

State government incentives represent the bulk of incentives that fleets use.

According to NCSL’s research, of the different incentives available—grants, tax incentives, loans, tax deductions, high occupancy vehicle lane access, and preferential parking—grants are the most desirable to fleets and the most commonly used. Survey respondents, including state, utility, municipal, private, and federal government fleets, found grants to be the simplest and most consumer-friendly incentive. Grant programs are most likely to adhere to NCSL’s main principles of effective incentives –

- focused on well-defined goals
- available to both public and private fleets
- large enough to entice consumers
- easy to use, often with managers to disperse funds
- marketed so that users know they’re available.

NCSL draws several important conclusions about effective alternative fuel incentives, taking into account the barriers to alternative fuel use and the types of fleets most inclined to choose AFVs. Incentives, according to the report, must be backed by strong leadership from government. State legislators are encouraged to focus on grants and develop incentives to meet the needs of a well-targeted market that includes infrastructure as well as vehicles. NCSL also recommends incentive programs that address

Alternative Fuel Incentives

Grants

- 18 states offer grants
- grants are the most commonly used and most desired form of incentive
- most are available to both public and private entities
- consumers are often confident they will receive grant funds at the time of purchase

Tax Incentives

- 21 states offer tax incentives
- not as popular as grants
- tax incentives do not help municipalities, state governments, and municipal utilities—these fleets represent a majority of the AFV population
- tax deductions are of limited use to small business fleets with low net income

Fuel Price/Tax Deductions

- 33 states offer fuel price/tax and sales tax discounts or exemptions
- fuel price discounts encourage fuel use rather than vehicle purchases
- tax reductions for fuel have a long payback period and do not result in enough of a price discount to attract a new market

Loans

- 29 states offer loans; 16 are specific to ethanol and E85
- loans are powerful but can be less effective than tax deductions and credits
- loan programs are more effective if they have dedicated personnel to manage them
- loans are more useful to fleets in areas with high price differentials between alternative fuel and gasoline or diesel to make the economics attractive

Non-Financial Incentives

- many states include high occupancy vehicle (HOV) lane access and preferential parking
- five states allow HOV lane access to AFVs with less than the required occupants
- non-financial incentives can be particularly attractive to private fleets, but often require additional vehicle identification, such as decals or special license plates
- include incentives for the resale of AFVs—as of April, 28, 2000, Arizona is the only state to exempt sales of used alternative fuel vehicles from the state’s transaction privilege and use tax

emissions benefits; focus on fuel use; include funding for marketing, technician training, and maintenance concerns; target resale issues; and most importantly, be easy and worthwhile for consumers.

According to the NCSL/NAFA fleet survey, Clean Cities has been the most effective effort at marketing and outreach for AFV programs, vehicles, and incentives.

Earlier this year the state of Arizona passed an incentives package offering unprecedented savings to potential AFV buyers. Look for details in the next issue of *AFN*.

NCSL plans to distribute the report to legislators who have a specific interest in alternative fuel issues, particularly those serving on their states' energy and transportation committees. An overview of the report should soon be available to the public on the Web at www.ccities.doe.gov/whats_new.shtml. For more information, contact Leah Breckenridge at 303-830-2200. To learn more about specific states' incentives, check out the Clean Cities AFV Fleet Buyer's Guide at www.fleets.doe.gov.



From the Automakers

Honda Insight—Driving for the Long Run

The Insight, Honda's sporty, two-seater coupe, is the world's most fuel-efficient gasoline-powered vehicle.

The Insight was the first gasoline-electric hybrid vehicle to be sold in the United States. About 200 were sold during February 2000, and potential buyers currently face a 3 to 4 month waiting list. Honda now plans to produce about 400 each month; its goal is to sell 4000 by the end of this year. Target buyers are environmentally conscious drivers and those with very long commutes.

Unlike a pure battery-powered electric vehicle, the Insight does not need to be plugged into an outside power source. The ultra-thin electric motor draws power from the batteries to boost engine performance and acts as a generator during braking to recharge the batteries. It has an EPA rating of 70 miles per gallon highway (61 miles per gallon city), and its engine uses advanced lean-burn technology, low-friction design, and lightweight materials in combination with a new lean burn-compatible NOx catalyst to achieve efficiency and low emissions.

The heart of the Insight, the Integrated Motor Assist (IMA™) couples the electric motor with a compact 1.0-liter, 3-cylinder engine for outstanding efficiency. Electricity for the motor is stored in a 144-volt nickel-metal hydride battery pack and controlled via an advanced power control unit.

The Insight's 10.6-gallon fuel tank together with the electric motor, enables the car to run 700 miles between refueling, which appeals especially to drivers with very long commutes. It meets California's stringent Ultra-Low Emissions Vehicle standard, and has won awards from the following organizations:

THE SIERRA CLUB. Excellence in Environmental Engineering Award (the first car in this organization's 108-year history to win an award)



Ken Kelly, NREL/PIX 07780

Rated at 70 miles per gallon highway, the Insight is the most fuel-efficient gasoline-powered vehicle available on the market.

THE CLEAN CAR COALITION. The Environmental Progress Award for exceeding the Coalition's fuel efficiency standards and for its progress in reducing tailpipe emissions

POPULAR MECHANICS. Design and Engineering Award 2000 for innovation and invention in the automotive industry (1 of 25 vehicle models)

AUTOMOBILE MAGAZINE. Technology of the Year Award, which recognized the Insight's IMA™ system as the foundation for all future vehicles

Like Honda's dedicated natural gas Civic GX, the Insight also received a superior rating in the American Council for an Energy Efficient Economy's Green Book, and Honda received the Most Likely to Change the World Award from *American Woman Motorscene* for electric and alternative fuel vehicles.

For more information about the Honda Insight, visit www.honda2000.com/models/insight/index.html.



Funding

DOE Awards Nearly \$4 Million to Clean Cities

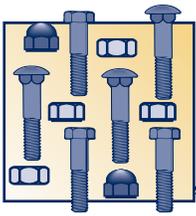
Energy Secretary Richardson announced the winners of the DOE State Energy Program (SEP) Special Projects grants at the Sixth National Clean Cities Conference on Tuesday, May 9. Clean Cities coalitions submitted more than 140 proposals requesting a total of \$11.6 million to support alternative fuel projects—a testament to the momentum of the Clean Cities Program and the growth of the AFV market. “The number of proposals increases each year,” said DOE’s Dorothy Wormley, Clean Cities’ resident grant expert. “Coalitions are developing stronger proposals that result in a greater number of AFVs and refueling stations. It’s great for the AFV market, but the rising number of strong proposals makes the selection process that much harder,” she said. In the 2000 SEP, DOE will award \$3.8 million to support alternative fuel niche markets, alternative fuel infrastructure development, alternative fuel school buses, partially funded full-time Clean Cities

coordinator positions, and fuel cell vehicle demonstration projects. Fifty-six projects in 24 states will be funded. All told, the funds should result in more than 510 additional AFVs on the road including eight heavy-duty trucks and 43 school buses, and more than 40 new refueling facilities. The funds will also support 15 Clean Cities coordinator positions. For a complete list of cities receiving funds and detailed information on specific projects funded through the 2000 SEP, check out Support and Funding on the Clean Cities Web site: www.ccities.doe.gov.

DOE Awards Broad Area Announcement Contracts in Support of Clean Cities

As announced by Assistant Secretary Dan Reicher at the Clean Cities Conference, DOE will award nearly \$400,000 in Broad Area Announcement contracts to support Clean Cities activities in three categories – stakeholder conferences, new marketing efforts with international partners, and coalition training programs. The chart below describes the projects awarded in each of the three categories.

Category	Grant Recipient	Project Description
Stakeholder conferences Conferences offer an excellent opportunity for Clean Cities and alternative fuel stakeholders to meet face to face with colleagues, form partnerships for joint projects, discuss solutions to challenges, and learn the latest information on new technologies to spur the marketplace.	Clean Airport Partnership	Co-sponsorship of the Clean Airport Summit
	Natural Gas Vehicle Coalition	Sponsorship of the 2000 and 2001 NGV Conferences
Increased marketing efforts with international partners Many cities in the Western Hemisphere, including Santiago, Monterrey, and Sao Paulo, suffer from some of the highest levels of air pollution in the world. Trade missions to these and other cities help forge international partnerships that can expand the market for U.S. technologies and businesses, improve air quality both overseas and at U.S. border cities, and help mitigate the potentially harmful effects of global climate change.	Gladstein & Associates	Funds supporting the North American Free Trade Agreement Trade Corridor Initiative for heavy-duty AFVs
	Gas Technology Institute (formerly GRI)	Reverse trade missions to address air quality considerations
	Governors’ Ethanol Coalition	Sponsorship of an international development seminar on ethanol
Clean Cities training Training not only strengthens local Clean Cities coalitions, but it also leverages DOE’s limited resources by helping Clean Cities help themselves, particularly with market development efforts.	Clean Air Action	“Ideal Clean Cities” – market development, fund-raising training, and troubleshooting for select Clean Cities coalitions
	Environmental Strategies, Inc.	Airport activity center market development training for select Clean Cities coalitions



Nuts and Bolts

Vehicle Competitions Showcase New Technologies

While many students spent May and June eagerly counting down the days until schools' end, select groups of innovators finished building, testing, and celebrating their successes in alternative fuel student competitions.

Tour de Sol

Checkered flags waved in the nation's capital on May 19, as dozens of electric and other environmentally friendly vehicles raced across the finish line of the Twelfth American Tour de Sol. Organized by the Northeast Sustainable Energy Association and co-sponsored by DOE, the American Tour de Sol is a week-long road rally showcasing the latest in electric and advanced technology vehicle offerings. Entries included dozens of student-built vehicles, futuristic prototypes, and original equipment manufactured electric vehicles that journeyed from New York City to Washington, D.C. The Honda Insight won first place in the production category, which is reserved for vehicles already in production and available for consumer purchase. The General Motors EV1 Generation II, which uses a nickel metal hydride battery, also received a production award for its notable success in lasting 224 miles before needing a recharge. DaimlerChrysler's EPIC minivan, a spectator favorite, received the "Consumer Acceptability Award." A special award was presented to a Connecticut high school team for setting a Tour range record of 164.5 miles—the farthest any entrant powered by lead-acid batteries has traveled on a single charge.

For more detailed results and a complete list of sponsors, check out www.nesea.org.

Ethanol Vehicle Challenge

The University of Texas at Austin celebrated a first place victory in the 2000 Ethanol Vehicle Challenge at an awards ceremony held in Windsor, Ontario, Canada on May 20. Sixteen North American university teams completed the third Ethanol Vehicle Challenge. Their task: to re-engineer Chevrolet Silverado 4x4 pickup trucks to run on E85 and to produce the most efficient, lowest-emission, best-performing vehicle. Throughout the seven-day competition, the vehicles were judged on emissions, fuel economy, cold-start capabilities, power, design strategy, and handling. The University of Waterloo finished in second place and the University of California at Riverside received the third place award. The team from the University of Illinois at Chicago also received recognition for breaking the ultra-low emission standard – an Ethanol Vehicle Challenge

first. The competition, sponsored by DOE, Natural Resources Canada, and General Motors of Canada is a cooperative effort among governments; the auto, ethanol, agricultural, and petroleum industries; and academia to bring environmentally friendly vehicle technologies to the marketplace.

Check out www.transportation.anl.gov/ttrdc/evc2000 for more information.

FutureTruck 2000

FutureTruck, a four year competition, challenges student teams to re-engineer full-size sport utility vehicles to become more environmentally friendly and energy efficient without sacrificing performance, utility, and affordability. The 2000 competition, hosted by the General Motors Desert Proving Ground in Mesa, Arizona, was held from June 8–15. More than 200 engineering students from 15 U.S. and Canadian universities set out to modify model-year 2000 Chevrolet Suburbans using advanced technologies, such as fuel cells, hybrid powertrains, advance control systems, and alternative fuels, including biodiesel and E85. The vehicles underwent testing in more than ten technical events. And you didn't need to travel to Arizona to catch the competition—title sponsor Yahoo! Inc. made portions available live through a Web broadcast.

West Virginia University and University of Maryland tied for first place. West Virginia university was able to reduce its vehicle's greenhouse gas emissions by 23 percent while still maintaining much of its performance. The University of Maryland vehicle demonstrated a 12% increase in fuel economy over the stock suburbans. Third place went to the team from Virginia Tech, who also won an award for producing the vehicle with the best consumer acceptability. Most sport utility vehicle fans would also be pleased with the University of California at Davis team, which placed fourth in the overall competition and demonstrated over-the-road equivalent fuel economy of 18.7 miles per gallon—nearly 13 percent better than the stock Suburban. For a complete list of winners, check out www.futuretruck.org/competition/2000awards.html.





Clean Cities Roundup

Clean Cities Nears 80 Coalitions

The Clean Cities network spans a variety of landforms. It serves mountain communities and national forests. It crosses deserts and extends to coastal regions. And now it stretches into bayou country with the addition of **Greater Baton Rouge**, the first coalition in the state of Louisiana, on April 12.

Baton Rouge Mayor-President Tom Ed McHugh served as the event's master of ceremonies. He joined DOE's Tom Gross, Deputy Assistant Secretary for Transportation Technologies, as well as other high level representatives from the Louisiana Governor's Office, several state agencies, and the state legislature to officially welcome Greater Baton Rouge to the Clean Cities Program. The luncheon ceremony was held at the city's Centroplex Plaza and also showcased stakeholder exhibits, an AFV display, as well as presentations from local elementary, middle school, and high school students.

The Greater Baton Rouge Clean Cities Coalition (GBRCC) serves the parishes of East Baton Rouge, Ascension, Livingston, West Baton Rouge, and Iberville. More than 750 AFVs are already on the road in the Baton Rouge area, and the coalition expects to have nearly 1,400 in use by 2004. The GBRCC received the Clean Cities "Eager Beaver" Award at the Sixth National Clean Cities Conference in recognition of its outstanding program plan. Stakeholders plan to continue their aggressive public outreach efforts as well as their work with local fleets to facilitate the AFV choice and to further develop the regional refueling infrastructure network.

The **Truckee Meadows Coalition**, serving the Reno, Nevada region, was designated the 79th member of the



Greater Baton Rouge Clean Cities Coalition/PIX 06081

Mike McDaniel, Greater Baton Rouge Clean Cities Coordinator, receives a plaque from DOE's Tom Gross, Deputy Assistant Secretary for Transportation Technologies and Shelley Launey, Clean Cities Program Director

Clean Cities Program on June 28. DOE's Richard Moorer, Associate Deputy Assistant Secretary for Transportation Technologies, joined Reno Mayor Jeff Griffin in the ceremony, which was held at the National Automobile Museum.

Truckee Meadows Clean Cities stakeholders represent several important niche markets, including taxis, transit buses, shuttles, and school buses. The coalition recently filed incorporation papers with the state of Nevada and is now recognized as a nonprofit organization through its membership in National Clean Cities, Inc. Stay tuned to AFN for designation updates, or check out the Clean Cities Web site, at www.ccities.doe.gov, for the latest information.