



10th National Clean Cities Conference and Expo

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A Hybrid is Delivered

First Hybrid Electric Vehicle from General Motors Is Delivered To Miami-Dade GSA at Florida's Annual Clean Cities Meeting

General Motors vaulted itself into the 21st century last week, delivering its first hybrid electric vehicle, which also happens to be the world's first full-size production hybrid pickup truck, to the General Services Administration in Miami-Dade County — the first of 50 to be delivered to the south Florida fleet this month. The handover took place at the Tenth



GM's John Gaydash & Silverado hybrid at Clean Cities

Annual Clean Cities meeting in Fort Lauderdale, Fla.

Miami-Dade is the lead customer for the new hybrid, a V-8 that will have fuel economy 10 to 12 percent better than a standard truck.

Big Fuel Burners Targeted

Other fleets, including customers in Maine and in Philadelphia, will get smaller numbers of the new GM hybrid, for a total of 200 this year. The model year 2005 vehicle will become generally available late this year with the hybrid costing \$2,500 more than the standard model.

“This is an important entry for us in our continued efforts to reduce [more on page 2](#)

DoE Hydrogen Awards

U.S. Energy Secretary Spencer Abraham has announced federal funding to the tune of \$350 million supporting a raft of hydrogen projects said to be worth about \$525 million.

“A hydrogen economy has the long-term potential to deliver greater energy independence by reducing America's dependence on foreign sources of energy,” Abraham said in a release.



Spencer Abraham

“It offers immense environmental benefits that current energy technologies cannot meet.”

[See Page 6](#)

Whither Clean Cities?

Successful Show in Florida Overshadowed by Coordinators' Concern As They Learn There that DoE Overseers May Cut the Program Back

Clean Cities staged an excellent tenth annual meeting in Fort Lauderdale last week, with all manner of alternative and advanced technology vehicles displayed, and the at-show delivery of General Motors' first hybrid vehicle (above).

Toyota brought the only Highlander hybrid in the United States to the Clean Cities gala, and attendees were regaled by the presence of *Cheers* actor George Wendt (courtesy GM, at right with Clean Cities director Shelley Launey).

But the upbeat atmosphere was dampened by word that Clean Cities' parent office in the U.S. Energy Department, pressured to eliminate “stovepiping,” may force a cutback in clean vehicle activities.

While that simplifies things for the government, it complicates things for clean vehicle advocates and automakers who appreciate and have come to depend on the “one-stop” access to DoE afforded by Clean Cities.

For more on this, and on the happier aspects of the Clean Cities meeting,

[See Pages 2-4](#)



Shelley Launey and 'Norm' cozy up for a cold one

Clean Cities 2004

GM's Got a Hybrid (continued)

fossil fuel use," says GM commercial operations marketing director John Gaydash. "We picked the highest volume vehicles that use the most fuel and are the most popular" to hybridize, he told *F&F*.

The Chevrolet Silverado extended-cab hybrid is aimed at recreational users and the working man, as the truck is fitted with four 120-volt electrical outlets and can be locked while idling to provide power for toys or tools — thus no need to carry or tow a generator. When fuel burns down to two gallons, the horn sounds.

The hybrid drive improves fuel efficiency of the truck's Vortec 5300 V-8 engine by 10 to 12 percent, GM says. The vehicle has lead acid batteries for storing electricity gleaned from regenerative braking.

The vehicle has major implications for GM's long-term future too: "The hybrid controls and the engine technology will all be useful in our efforts toward developing hydrogen fuel cell vehicles," Gaydash says.

GM, Mike Jones, 313-665-6474; fax 313-667-1181; michael.p.jones@gm.com; www.gm.com



10th National Clean Cities Conference and Expo

Will OWIP Crack Whip?

Word of Possible Clean Cities Revamp Spreads, Causing Concern at Otherwise Upbeat Gathering

"I don't understand how it could possibly be better if we had to work with multiple organizations," says John Gaydash. "It's a complication with very little value." The General Motors fleet and commercial marketing director was talking about a plan in OWIP, the Office of Weatherization and Intergovernmental Programs, Clean Cities' parent in the Department of Energy's Energy Efficiency and Renewable Energy bureau, to streamline operations and eliminate government "stovepiping," or redundancy.

But while that may make sense from OWIP's point of view, to alt fuel specialists like Gaydash, and others who participate in Clean Cities initiatives, eliminating stovepipes complicates access to DoE.

Apprehension about OWIP cast a shadow on the Tenth Annual Clean Cities Conference & Exhibition, the theme of which was *Celebrating a Decade of Drive*.

Many Clean Cities delegates learned about the OWIP plans at the Fort Lauderdale meeting. They fear that the plan to increase efficiency could, in the worst case, see Clean Cities renamed, marginalized, or even eliminated.

Too Early for Alarm, Lutz Says

Acting OWIP director Ellen Lutz told *F&F* affiliate *ShowTimes* in Fort Lauderdale that the proposed reorganization objectives are to get more money to the local level and "knit together local and state resources working to accomplish the same goals." When stakeholders, like the CC delegates, are involved early in the process, Lutz said, there's bound to be ambiguity, which makes people uncomfortable. But some CC delegates insist the process is well along.

"We're all concerned," said National Clean Cities Inc.'s Greg Zilberfarb. He's developing a counterproposal to keep the Clean Cities program intact.

Lutz says the fears are overblown. "Clean Cities will be the delivery channel at the local level for alternative fuel vehicles," she told *ShowTimes*, stating that she went to the Florida meeting seeking input from industry reps and coordinators.

Zilberfarb said there's concern that Clean Cities could "go away," leaving a supportive alt fuels industry without a central DoE contact. Maintaining Clean Cities' brand recognition is a primary concern, as the Clean Cities name has come to connote clean vehicles — and real help from DoE in getting them deployed.

FUELS

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Clean Cities 2004

Toyota Shows Highlander

New Hybrid Looks to Be A Success Already, Judging By the Reception Enjoyed by Prius

It's a problem many would envy. On its website, one of the first things you see, is a warning by Toyota that it's having problems meeting demand, and that would-be buyers of its Prius hybrid may have to wait.

The U.S. delivery tally from Prius' June 2000 launch through the end of March was 74,879 units, says Toyota advanced vehicles chief Ed La Rocque.

Sales surged with the introduction of the larger, yet cleaner and more powerful 2004 model car with Synergy brand hybrid drive. Nearly 8,000 model year 2004 Priuses were sold during the first three months of the year.

There were three Priuses at Clean Cities 2004 (two for the Tuesday ride-and-drive), as well as a hybrid Highlander sport utility vehicle on static display inside the hall — the only one in the United States.

A V-6 with Four-Cylinder Thirst, V-8 Power

A larger version of the Synergy drive in the Prius yields "V-8 performance with four-cylinder fuel economy" in the Highlander hybrid, La Rocque says. The Highlander hybrid with Synergy Hybrid Drive boosting a 3.3-liter, DOHC 24-valve VVT-I V-6 engine will be available for general sale in the first



Prius' big brother? Toyota was at Clean Cities with the only example in the United States of its Highlander hybrid SUV, which is going on sale in the first quarter of 2005. Toyota's Synergy Hybrid Drive yields V-8 performance with a V-6 engine — and burns fuel like a four-cylinder car. Toyota has sold some 80,000 Prius hybrids since Prius was launched in June 2000, and more than 8,000 of the new model in the first three months of 2004 alone. That's Paul Daverio, Jaycie Chitwood, Timothy Chappell and Ed La Rocque above.



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GEMs to Be Better than Ever

Global Electric Motorcars brought its re-engineered 2005 neighborhood electric vehicles to the Fort Lauderdale show.

GEM's four new models feature a new front suspension, a digital driver display, a GE motor and controller unit re-engineered to enable regenerative braking down to zero mph, a new Delta Q charger, sealed electronics, and a three-inch wider steering track.



Rick Kasper, president and COO of the Fargo-based DaimlerChrysler subsidiary, said GEM's 2004 sales are running 25 percent ahead of plan.

"We are profitable, we are growing, and it is truly an automotive-engineered vehicle." Environmental attractions aside, "We are a legitimate business, and we are making money," he said.

GEM, president Rick Kasper, 701-232-2500; fax 701-446-0104; rkasper@gemcar.com; www.gemcar.com

Ruvolo: Coordinator of the Year

San Franciscan Takes Top Honors for 2004

San Francisco's clean transportation director Rick Ruvolo took Coordinator of the Year honors at Clean Cities 2004. He co-founded the San Francisco Clean Cities Coalition, has served as its chairman for 10 years.

Ruvolo also organized San Francisco's Clean Air Vehicle Coalition.

More recently he drove one of San Francisco's two new Honda FCX fuel cell vehicles to the Schwarzenegger Hydrogen Highway executive order signing in Sacramento, fueling it there for the return trip, demonstrating that the Hydrogen Highway is now.

He termed the drive "historic."
City of San Francisco, Rick Ruvolo,
415-355-3762; rick.ruvolo@sfgov.org



www.FleetsandFuels.com

Clean Cities 2004

Type IVs for GM

Lead Automaker Moving to Lightweight Tanks Following Nearly a Decade of Super Caution

General Motors confirmed at Clean Cities that it will use all-composite Type IV CNG fuel tanks in its large natural gas vehicles for model year 2005, replacing cylinders from Pressed Steel Tank, which is leaving the OEM supply business (*F&F*, December 23).

GM has used steel tanks wrapped with carbon fiber after accidents in San Francisco and Minneapolis in early 1994 temporarily forced it from the business.



GM's going with Type IVs on CNG trucks next year

The lightweight Type IVs will be supplied by General Dynamics (the former Lincoln), says GM alt fuels marketing manager Mike Jones. GM's smaller NGVs will continue to use steel tanks, Jones told *F&F*, supplied by Italy's Faber.

A PST tank on a 2500HD truck was on display at Fort Lauderdale.

GM, Mike Jones, 313-665-6474; fax 313-667-1181; michael.p.jones@gm.com; www.gm.com

GD (Lincoln), VP Bill Dick, 402-465-6516; fax 402-646-6777; wdick@gdatp.com; www.gdatp.com

PST, VP John Darling, 414-476-0500, ext 278; fax 414-476-7191; jdarling@pressedsteel.com; www.pressedsteel.com

First Show Ever for Avalence

Avalence promoted a new electrolytic fueling appliance, the Hydrofiller, for hydrogen vehicles. How new? CC 2004 was the Connecticut company's first-ever trade show, said VP Martin Shimko. The difference between the Hydrofiller and other electrolysis generators is that the Avalence product works at high pressure, meaning the unit yields 5,000-psi hydrogen without mechanical compression (*F&F*, Jan. 17).

Avalence, CEO Deborah Moss, 203-701-0052, ext 104; fax 203-878-4123; dkm@avalence.com; www.avalence.com

Tal-Op's Oil & Water Micromix

Another Clean Cities first-timer was Florida's Tal-Op, with a microemulsifier for extending diesel fuel with water. NOx emissions are reduced by as much as 20 percent and particulates by as much as 60 percent, with even more dramatic reductions in visible smoke, the company said at CC 2004.

There is also a 5 to 8 percent integral fuel savings.

Tal-Op, president Avi Tal,

954-646-6858; avi@tal-op.com; www.tal-op.com

www.FleetsandFuels.com

Alt Fuels in the Philippines

Teresita Borra, director of the Energy Utilization and Management Bureau of the Philippines Department of Energy reported on alt fuel programs including autogas (LPG/propane) and coco-biodiesel — both domestically produced fuels — at CC 2004.

"We are blessed with these resources," Borra said.

"Indigenous energy reduces dependence on imported fuel." Philippine managers aim to have 658,000 vehicles running on alternative fuels by 2013.

Water Buses, Water Taxis, & More

Water buses and taxis plying the channels and canals of Fort Lauderdale during CC 2004 ran on biodiesel from Griffin Industries.

Broward County Transit water buses operated by Water Taxi, Inc. have electric drives too, with electricity produced by onboard generators: thus they are true hybrid electric vehicles, albeit waterborne.

Griffin produces its BioG-3000 brand biodiesel in Butler, Ky. and ships it to fuel distributors for blending at various levels. The company has four biodiesel distributors in South Florida, where local users besides Water Taxi include the City of Coconut Creek, Florida DoT, the U.S. Postal Service, Big Cypress National Preserve, and Everglades National Park.

Birmingham, Ala.-based ERS Rail Transload said at CC 2004 that it's working on a new biodiesel plant for the southeastern U.S. with the support of the Central Alabama Clean Cities Coalition.

ERS is a rail-highway distribution center for fuels including biodiesel and ethanol, and chemicals. Clean Cities' Justin Joffrion says ERS in Birmingham is "the natural location" since a ready-made fuel supply of 1.5 million pounds of fat and oils passes through ERS from a nearby poultry rendering facility every week. The nearest biodiesel plant is in Kentucky, more than 350 miles away.

Also promoting biodiesel, with converted vehicles but concentrating for now on products like environmentally friendly lawn mowers, was Orlando-based HUGR Systems.

Griffin, Hart Moore, 859-781-2010; fax 859-572-2575;

jhmoore@griffinind.com; www.biog-3000.com

HUGR, J.P. Patten, 407-849-1467; jp@hugrsystems.com;

www.hugrsystems.com



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a Broward County Transit water bus

Natural Gas Vehicles

Supreme Break for Hybrids?...

The Supreme Court limited a California agency's right to require alt fuel vehicle purchases by private fleets late last month, prompting an ecstatic reaction from the Engine Manufacturers Association — and boosting the backers of diesel-fueled hybrid electric vehicles too.

Busbuilders like New Flyer and Orion see the Los Angeles market opening up as the 8-1 Supreme Court ruling curbs the South Coast Air Quality Management District's requirement for local fleets to use natural gas fuels. New Flyer is offering hybrid buses with GM Allison drivetrain. More than one million miles will have been logged by some 30 test buses of the type by the end of June, New Flyer says — and more than 230 are to be delivered to Seattle-area agencies this year.

Production deliveries began April 26.

New Flyer (Winnipeg) Roger Hristovski, 204-224-6483; roger_hristovski@newflyer.com; www.newflyer.com

...Or, Ultimately, for NGVs?

The ruling on AQMD's alt fuel fleet regulations is a "narrow technical decision" which may well rouse the California Air Resources Board, which has broader authority, to tighten its own requirements to the detriment of diesel, says Rich Kolodziej, president of Washington's Natural Gas Vehicle Coalition.

"CARB has the authority, even if AQMD does not," Kolodziej told *F&F*. He also notes that the Supreme Court decision only affects private fleets, not transit buses. NGVC, Rich Kolodziej,

202-824-7366; rkolodziej@ngvc.org; www.ngvc.org

2004 NGV Meetings

May 25-28, 10th annual meeting of the European Natural Gas Vehicle Association. Graz, Austria. ENGVA, Jeff Seisler or Gerco Klein, +31-23-554-3050; fax +31-23-557-9065; info@engva.nl; www.engva.org

September 19-22, 22nd National NGV Conference and Exhibition. San Antonio, Texas. Organized by the Clean Vehicle Education Foundation, an affiliate of the U.S. Natural Gas Vehicle Coalition. CVEF, Stephe Yborra, 202-824-7362; fax 202-824-7367; syborra@cleanvehicle.org; www.cleanvehicle.org (now up and running)

October 26-28, NGV2004/Expo GNC IV, the 9th Conference & Exhibition on Natural Gas Vehicles — the world natural gas vehicles meeting. Costa Salguero Center in Buenos Aires, Argentina. *A Road to a Better World* theme. NGV2004 Organizing Committee/Prensa Vehicular, +54-11-4307-4559 or +54-11-4307-5201; info@ngv2004.com or gas@geored.com; www.ngv2004.com or International Association for Natural Gas Vehicles/IANGV (Auckland, New Zealand), Dr. Garth Harris or Janet Koschir, +64-9-810-9747; fax same; iangv@iangv.org; www.iangv.org

Electric Vehicles

Think Crushed

It's Looking as if Ford Will Destroy Think Cars as U.S. Waivers Expire

Barring a last-minute reprieve, Ford will scrap some 365 Think City battery electric vehicles as the NHTSA waivers allowing them to operate on U.S. roads expire.

Ford shipped 18 of its battery electric Think City commuter cars back to Norway (*F&F*, March 15), but negotiations to send the rest to former subsidiary



not so jaunty anymore

Think Nordic have hit an impasse.

The rub is warranty issues, says Ford — specifically Ford's fear that Think Nordic won't be able to support the aging vehicles. If the Norwegian company can't, Ford could get stuck with the liability.

"It wasn't an easy one," Vicki Northrup says of the decision to scrap the cars. She is the former manager of Ford's efforts to repatriate the vehicles to Norway.

'Negative Consumer Feedback'

"We discovered that the cars in Europe had increasingly escalating warranty costs over the past year," Northrup told *F&F* last week.

"They've got severe warranty issues," she says. "Consumer feedback was increasingly negative."

Water leaks and problems related to the cars' plastic bodies were among the problems, and the parties feared that the U.S. cars, many of which have been used in California, would fare poorly in Norwegian winters.

"Right now we're still paying for the warranty costs," Northrup says. And if Think's plan to use sales of the old cars to help pay for its new model didn't pan out, Ford might have to continue to pay.

"The business plan was shaky," Northrup says. "We were not sure that they could stand alone... we didn't want to take on that kind of risk."

'It Is a Shame'

The situation is emblematic of the continued low esteem in which battery electric vehicles have come to be held, as hydrogen has seized the imagination of policymakers.

"It is a shame for the U.S. car industry," says one European battery and hybrid EV specialist, "at a time when they receive \$1.2 billion for hydrogen cars that cannot be available for another 10 years at least."

Northrup says the waivers for some of the Think cars still in U.S. use won't expire until January 2005. Ford info, Carolyn Brown, 313-337-5518; cbrown@ford.com

DoE Hydrogen

\$350 Million for Hydrogen

Administration Claims 'Center Stage in Detroit' As It Unveils First Third of Its Hydrogen Awards

Exactly one week after California Governor Arnold Schwarzenegger signed off on the Hydrogen Highway network of some 200 hydrogen fueling stations around the state by 2010 (*F&F*, April 26), U.S. Energy Secretary Spencer Abraham unveiled some \$350 million in funding for a wide range of projects associated with President Bush's hydrogen and fuel cell vehicle commercialization plan.

The \$350 million, Abraham said at NHA, supports approximately \$525 million in R&D. The DoE-backed projects involve 30 lead organizations and include more than 100 partners.

One Third of the BushPlan

The \$350 million also represents nearly one-third of the president's \$1.2 billion commitment in research funding to bring hydrogen and fuel cell technology from the laboratory to the showroom, DoE says.

Award recipients include academia, industry and DoE national labs. The overall scheme aims "to enable America to lead the world in developing clean, hydrogen-powered automobiles that would free the U.S. from dependence on foreign petroleum."

Key points include establishment of

- centers of excellence for hydrogen storage, to be located at the Los Alamos and Pacific Northwest National Labs for chemical means of hydrogen storage, the Sandia National Lab for metal hydrides, and the National Renewable Energy Lab for nanoscale carbon "sponges." DoE will ante about \$150 million over five years with an additional private cost share of approximately \$20 million; the goal is greater than 300 mile driving range without impacting cargo or passenger space;
- vehicle and infrastructure learning demos: DoE's expected share is \$190 million over five years with an additional private cost share of approximately \$190 million;
- fuel cell research projects: DoE's share is \$13 million dollars over three years with an additional private cost share of approximately \$10 million, this in addition to \$75 million in fuel cell awards announced last year; and
- hydrogen education projects including middle and high school curricula and teacher professional development.

The educational projects will "pair hydrogen technology experts with professional educators and experienced curriculum developers to create hands-on activities and lessons to engage students in the developing hydrogen economy," DoE says.

Air Products & Chemicals, Inc. emerged as a key player in early California hydrogen infrastructure

plans, being appointed leader of a team that will demonstrate a variety of hydrogen production schemes in coming years.

Air Products Infrastructure Team

APCI will head a U.S. DoE project team comprised of Toyota USA, American Honda, Nissan North America, BMW, ConocoPhillips, the National Fuel Cell Research Center at the University of California, Irvine, the University of California, Davis, and California's South Coast Air Quality Management District.

"This is the first significant funding at the national level since President Bush's stated goal of supporting establishment of a hydrogen economy," said APCI energy industries VP Chris Sutton.

The five-year program is to see as many as two dozen California fueling stations, producing hydrogen by a variety of methods. Designs will include a fueling station on a pipeline and movable stations placed at existing retail gasoline stations, including ConocoPhillips sites, as well as municipal locations.

Hydrogen is to be made with natural gas and renewable energy sources. Some stations will be able to dispense liquid hydrogen.

"Toyota, Honda and Nissan plan to assign, collectively, up to 65 fuel cell vehicles to this project, and BMW plans to assign up to 15 hydrogen-fueled internal combustion engine vehicles," APCI says, "to be driven by a broad range of drivers and interested parties including technical experts, policy makers, vehicle customers and fleet operators."

'Hydrogen Is Completely Viable as a Fuel'

The project team requested DoE funding of approximately \$35 million of the overall award for hydrogen infrastructure activities and a public outreach program.

"Automobiles in the future will not be powered by fossil fuels as they are today," BMW's North American engineering VP Karl-Heinz Ziwick says in an APCI release. "Hydrogen is completely viable as a fuel and the technology exists to advance its use in vehicles with internal combustion engines or with fuel cells," Ziwick said.

"The more challenging step to the realization of hydrogen-powered vehicles is the development of a supporting infrastructure of fueling stations and service facilities," Ziwick said.

Speaking even more generally, "The financial commitment of the private sector dramatically increases the probability of success that we will overcome the technology challenges in this important endeavor and achieve the President's vision," Abraham said.