

Here Come the Buckets

Two Dozen International Utility Trucks with Eaton Hybrid Drives Being Deployed for Field Evaluation With 14 Utilities Nationwide
Utility bucket trucks from International with parallel hybrid electric drives from Eaton are being delivered to 14 utilities nationwide with a view to gathering data on emission reductions and fuel savings.

If the utilities are sufficiently impressed, International expects higher volumes to significantly reduce the current cost premium of the vehicles.



The figure's not been publicized but has been reported at approximately \$30,000 on top of a conventional cherry picker truck that costs about \$140,000.

Funding from the U.S. Army's National Automotive Center is helping offset the costs

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ANG Progress

Midwest Adsorbed Natural Gas Team Gets Ready for a Vehicle Test

Developers of a low pressure alternative for storing natural gas on a vehicle are gearing up for a vehicle test in which they'll evaluate their adsorbed natural gas system on a bi-fuel Ford F-150 pickup operated by Kansas City.

ANG, being targeted aggressively by the University of Missouri and ALL-CRAFT, the MU-led Alliance for Collaborative Research in Alternative Fuel Technology, involves the use of corn-cob waste-derived nanoporous carbon (or other materials) to store natural gas at 500 psi, rather than the 3,000 or 3,600 psi that's common today (*F&F*, April 11, 2005 and August 15, 2005).

The MU researchers are seeking further funding for their efforts, which they believe to be the key to natural gas vehicle viability — ANG has the potential to eliminate the bulky tanks that plague NGV designers and operators (like taxi drivers who hate to lose their trunk space), and could lower the energy cost of fuel compression. One drawback: ANG technology requires near 100 methane.

"We're hoping that we get some OEM interested," says Sam Swearngin of Kansas City fleet services.

Money is being sought from the National Science Foundation via NSF's Partnerships for Innovation Program, and from other sources, including American Honda. Honda is already promoting an undisclosed storage medium for hydrogen. The material has allowed Honda to halve the pressure in the fuel tank of its latest FCX fuel cell vehicle (*F&F*, January 16).

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ZBus & ZEVs

The California Air Resources Board hasn't forgotten its zero-emission vehicle aspirations, and has slated two meetings to look at the possibilities, both regulatory and technical.

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Hybrid Electric Vehicles

Utility Bucket Trucks *(continued)*

of the pilot program.

Dallas-based TXU Corp's TXU Electric Delivery unit is one of the utilities talking up the trials, reporting that projected fuel savings of 40% to 60% could make for annual savings of \$4,500 at today's fuel prices — plus maintenance benefits.

"On the road, the truck runs on an efficient combination of biodiesel and battery power," TXU says. "At job sites, the utility bucket can operate for up to two hours on the battery charge, without the engine idling that is necessary with conventional bucket trucks.

Cutting CAIDI, Maybe

"The result is fuel savings, along with reduced emissions and less noise in neighborhoods where service restoration is underway."

Besides TXU and program leader Florida Power & Light, participants in the hybrid utility truck program are Alabama Power, American Electric Power, Baltimore Gas & Electric, ComEd (Exelon), Duke Power, Entergy, Florida Power & Light, Georgia Power, Hydro Quebec, the Missouri Dept. of Transportation, Pacific Gas & Electric, PEPCO

(Washington, D.C.), and Southern California Edison.

The trucks are to be fitted by late this summer with auxiliary power generation hardware. APG will allow the trucks to serve as on-site generators, providing up to 25 kilowatts of exportable, grid-quality power to buildings being worked on. That may allow some utility operators to modestly (or with additional hybrid trucks, significantly) reduce their CAIDIs — customer average interruption duration indices.

The APG package will include power receptacles for driving electric hand tools and other equipment.

Eventually the trucks could be fitted with heavier electrical systems for putting power back into the grid, and they may even evolve into plug-in hybrids, says Bill Van Amburg, senior VP at WestStart-Calstart, a key organizer of the program through its Hybrid Truck User Forum initiative.

"We haven't even started to scratch the surface," Van Amburg said Friday. But, "you have to prove core value first," he told *F&F*, referring to the vehicles' immediate obvious fuel-savings advantages.

The Model 4000 International trucks have DT 466 diesel engines and lithium ion battery packs. Eaton's Kevin Beaty declines to list specific suppliers, noting that they may well change when the vehicles eventually enter real series production.

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San Francisco's First Hybrid Orion

Orion parent DaimlerChrysler and series drivetrain supplier BAE Systems will celebrate delivery of the first hybrid electric transit bus to San Francisco's Muni this Thursday, June 1. Officials of Muni and the supplier companies, and San Francisco Mayor Gavin Newsom are expected to attend.

Muni has ordered 56 of the Cummins ISB diesel-fueled series hybrid vehicles (*F&F*, May 30, 2005).

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Natural Gas Vehicles

249 More for OCTA

Board of California Agency Votes Unanimously To Spend Up to \$106 Million for More New Flyers
Southern California's Orange County Transportation Authority voted early this month to step up its planned purchases of CNG-fueled New Flyer buses, committing in \$106 million to the purchase of 249 new 40-footers, topping an existing order for 50.

"The CNG buses will be used to replace older diesel buses and to expand OCTA's bus fleet, especially as rising [gasoline] prices help to boost demand for public transit," the agency says. "The new buses will be delivered in stages between 2007 and 2009."

"The purchase will boost the number of large buses in OCTA's fleet from 564 to 756."

OCTA last year committed to CNG instead of the LNG used to fuel 232 of its older vehicles, tapping Trillium USA for a new CNG fueling installation (*F&F*, September 26). OCTA is also working on a project to re-power the 232 buses, replacing their existing Detroit Diesel engines.

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Public Access CNG

First Public Station Opened in Rhode Island, Clean Energy Expands Further in California
Rhode Island Airport Corporation opened the state's first public-access CNG station last week at the T.F. Green International Airport in Warwick. RIAC currently has six CNG vehicles in its fleet with two more slated for delivery next month.

"We are also encouraging onsite tenants to use alternative fueled vehicles and shuttles," said RIAC vice chairman Jim Forte.

More CNG Cabs for San Francisco?

On the West Coast, Clean Energy has opened new CNG fueling stations in Santa Monica and Oakland, and has broken ground on a facility for the Yellow Cab Cooperative in San Francisco. Yellow may buy as many as 50 Ford Crown Victoria taxis (converted to dedicated-CNG operation by BAF) through the local S&C Ford dealership, GM Hal Mellegard told *F&F*.

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CNG for SCAT

Agency that Had Opted for Gasoline Hybrids Now Says It Wants to Go with CNG After All
South Coast Area Transit in Ventura County north of Los Angeles appears to be going with compressed natural gas buses after all, after saying late last year that it would be buying gasoline-fueled hybrid electrics (*F&F*, December 5).

"A policy decision was made by our board to continue using CNG," says SCAT fleet and facilities director Robert Lurie.

Pricing prompted the decision, says an industry source, as CNG made on-site for around \$1.25 per gasoline gallon equivalent looks quite attractive compared with gasoline that's now at \$3. "And when the \$0.50/GGE rebate begins on 1 October," the source says, "CNG will be astoundingly cheap."

Another source suggests another possibility for fuel-miserly SCAT: CNG-fueled hybrids.

A decision is expected at SCAT's next board meeting, which is slated for June 7.

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Fab-AFV

AFV Fleet Service Is Phoenix Emphasis As Fab Branches Beyond Fuel Systems

Fab Industries emphasized its new AFV Fleet Service unit at the Clean Cities meeting in Phoenix, talking up 46,000-square-foot facility in Fontana, Calif., where the company performs engine installations and other heavy-duty vehicle upfits.

The Fontana facility "will enable AFV to continue the manufacturing and installation of CNG, LNG and LPG fuel systems while continuing to grow the fleet, transit and municipal service business they have built their reputation on," the firm says.

Fab is best known for its work on buses, notably the installation of compressed and liquefied natural gas fuel systems for operators including Los Angeles

more on page 4



The Fab-AFV Fleet Service yard in Fontana, Calif.

Natural Gas Vehicles

Fab's AFV Fleet Services *(continued)*

Metro and Big Blue Bus in Santa Monica on North American Bus Industries and New Flyer vehicles.

Fab's 2005 acquisition of AFV Fleet Service nearly one year ago has allowed it to expand to engine installations (F&F, July 5, 2005).

Fab/AFV partnered with Allianz Sweeper and Southern California Gas to produce the first Cummins CNG-powered Freightliner M2. In a demonstration project funded by Pacific Gas & Electric (PG&E) and the Monterey Bay Unified Air Pollution Control District (MBUAPCD), AFV also recently installed the first Emission Solutions, Inc. Phoenix NG 7.6L natural gas engine in California. The ESI pilot vehicle is a 2002 International 4400 dump truck belonging to the County of Monterey.

The AFV facility in Fontana is across from the California Speedway with amenities including on-site CNG fueling capability, six 60-foot service bays, and a 5,000-square-foot parts room—stocking all types of NGV and fueling hose related service parts including John Deere service components.

To go along with the new fabrication department, the company has also opened a state-of-the-art panel and hose assembly shop replete with a high pressure test bench.

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U.S. Energy for AFVI WD6L

Dual Fuel Technology Applied to Daewoo Engine For AFVI, and to a DDC Engine for Ohio's Swaco
Atlanta- and Tampa-based U.S. Energy Initiatives Corp, the former Hybrid Fuel Systems, reports the successful trial run of a Daewoo WD6L engine on a dual-fuel mix of diesel and natural gas for the Las Vegas-based Natural Gas Vehicle Institute.

"The Daewoo system was put on a developmental fast-track at the request of our client, U.S.-based NGVI," U.S. Energy CEO Mark Clancy says in a release. "We completed our field installations with our chief programmer in Korea ensuring the system was running smoothly.

"NGVI has notified us that they intend to follow-up the successful Daewoo conversion with a Hyundai 13 liter and a Daewoo 15 liter... Both Daewoo and Hyundai are engaging our company as the direct result of the efforts made by the NGVI to further the

NGVs at World Gas Conference

Natural gas vehicle advocates are gearing up for the 23rd World Gas Conference in Amsterdam June 5-9. Program includes Tuesday morning panel, *Natural Gas Vehicles: The Road Ahead?* moderated by FuelMaker president & CEO John Lyon, and other sessions featuring NGVs.



International Gas Union
23rd World Gas Conference
5 - 9 June 2006, Amsterdam - NL

Gas: Powers the people
Preserves the world
Promoted by IGU

[More Meetings Listings on Page 8](#)

Relocation

ENGVA Plans Move to Brussels in Summer 2007

European Natural Gas Vehicle Association members voted late last month to move the organization from Amsterdam to Brussels when its current office lease expires in June 2007. "There is general agreement by members that, in order for ENGVA to fulfill its primary objective of creating a favorable legislative and regulatory framework to enhance the commercial European markets for NGVs an intense lobbying effort is required.

"As such," the association says, "relocation to Brussels will allow ENGVA to be on top of all the actions of the European Commission." Still needed is a full vote by the ENGVA board, which wants to see a business plan first. ENGVA is accordingly looking for help in assembling such a plan.

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use of natural gas worldwide."

U.S. Energy reports application of its patented dual-fuel diesel-to-natural-gas-conversion knowhow to a Sterling truck with a Series 60 Detroit Diesel engine for the Solid Waste Authority of Central Ohio, which is reclaiming methane from a major municipal landfill (F&F, August 1, 2005).

U.S. Energy's dual fuel technology allows a diesel engine to run mostly on natural gas — displacing up to 80% of the diesel fuel.

The company also said this month that it's acquired a worldwide non-exclusive license agreement for Catalytic Activated Vacuum Distillation (CAVD) technology from EarthFirst Technologies, which is applicable to production of gaseous biofuel from renewable sources.

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Natural Gas Vehicles

Don't Forget to Inspect

CVEF Reminds Members About CNG Tanks, Sums Up Requirements, Training Availability
The Clean Vehicle Education Foundation reminds natural gas vehicle operators that compressed natural gas fuel tanks must be inspected regularly — a visual inspection should be performed every 36 months or 36,000 miles.

“Inspections performed by service stations or state agencies may not include a detailed CNG cylinder visual inspection, as outlined in a standard developed by natural gas vehicle industry engineers,” CVEF says.

“Following this standard, a qualified inspector will note cuts, cracks, gouges, abrasions, discoloration, broken fibers, loose brackets, damaged gaskets or isolators, heat damage or other problems and recommend proper action to assure fuel system safety.”

CVEF, an affiliate of NGVAmerica, has detailed information on how to get in touch with qualified cylinder inspectors, as well as referrals to organizations that can train such inspectors.

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German ‘Disillusionment’

NGVs Are Proving Disappointing in Germany, Says ex-GM Opel Consultant Stefan Schrahe
Germany is well on its way to its 2007 goal of 1,000 CNG filling stations, but “disillusionment” has afflicted the marketplace, according to Stefan Schrahe, a consultant who formerly worked for GM Opel and was closely involved with the launch of the Zafira and Combo NGVs.

NGV advocates are disillusioned, Schrahe says, as Germany’s fleet of some 35,000 CNG cars compares poorly with some 360,000 that had been forecast. At least one of the approximately 650 fueling stations in Germany has only about 50 customers — a far cry from the 300 or so needed for commercial viability.

Cheaper to Run, But Perhaps Not Cheap Enough

This is despite the fact that ADAC (the German Automobile Association) and the *Stiftung Warentest* consumer test institute have confirmed that a natural gas vehicle can be operated for half the cost of a gasoline car and by a third lower than a diesel.

One reason for the weak market, Schrahe suggests, is Germany’s affluence. The average Germany citizen, he says, needs to work about 35 minutes to buy eight liters of gasoline, sufficient to travel 100 kilometers. To buy fuel to go that distance a driver in Argentina

must work nearly two hours, and a Brazilian about four hours.

(Argentina and Brazil have in recent years emerged as world NGV market leaders, with nearly 2.5 million NGVs between them.)

“To the user of a natural gas vehicle in many regions of the world the question of the fuel of choice is all about maintaining mobility,” Schrahe says — not about saving a relatively petty amount of money.

Other factors influencing consumers who can afford to be fussy include the limited trunk space in many NGV models, a relatively limited choice of vehicles, and perceptions of reduced performance and reliability.

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An Opel Zafira on display at ENGVA’s annual meeting in Brussels last month

Great Organic Potential

Biogas Alone Could Provide Half the Fuel Needed by European Transportation Sector

“Maximizing all biomethane opportunities, including biodegradable waste (instead of building biorefineries to produce liquid biofuels) could by 2030 mean a 50% rather than a 25% biofuel share in road transports,” European Natural Gas Vehicle Association chairman Peter Boisen said at the ENGVA meeting in Brussels.

“Add 15% natural gas and we have replaced two thirds of the crude oil needs.”

Boisen, who claims responsibility for natural gas and other vehicles during a long career at Volvo, is a vociferous advocate for biomass-derived gaseous fuels, arguing that fundamental production efficiencies make gaseous fuels far more economically practical than liquid biofuels, and well worth the extra expense of handling them onboard a vehicle.

Biogas from sources including wood waste could fulfill all of Sweden’s transportation needs, with 50% to spare, Boisen says, extrapolating on figures presented in Brussels by Dr. Jörgen Held, managing director of the Malmö-based Swedish Gas Centre.

“Expressed in other terms,” says Boisen, “this would correspond with 3% of the total European consumption of transportation fuels.” The majority would be derived from lignocellulosic feedstock, such as wood and straw, with which Sweden is particularly blessed.

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Alt Fuels Marketing

Touting 'Alternatives'

OEM Alliance Launches Alt Fuels Campaign, Makes Just a Passing Mention of Natural Gas

The Alliance of Automobile Manufacturers has launched a multi-million dollar national ad campaign touting its members' commitment to alternative fuels.

Alliance members include BMW, DaimlerChrysler, Ford, General Motors, and Toyota.

The campaign, which kicked off last week, includes state-specific press releases, advertisements and a website, www.discoveralternatives.org, which says there are more than 40 different alt fuel vehicle models are on sale in the U.S., with 35 coming soon.

It says manufacturers are committed to making one million more alt fuel vehicles this year.

The site identifies types of alternative fuels—hybrids, diesels/biodiesels, E85, electric, natural gas—and lists the make and model by manufacturer, including two GM natural gas models, the Chevrolet Silverado 2500 HD and GMC Sierra 2500 HD, which are expected to be discontinued.

Honda's three hybrid models are listed, but not the dedicated-CNG Civic GX. Honda is not a member of the Alliance.

"It's fine that the automakers are promoting alternative fuels," comments Rich Kolodziej of NGV America, the former Natural Gas Vehicle Coalition. "But hybrid vehicles and ethanol vehicles

are just extenders," he says.

"The automakers really need to focus on vehicles that don't run on gasoline at all," Kolodziej told *F&F* at the Clean Cities meeting in Phoenix.

"We hope that with increased public awareness and demand, that they'll start making those vehicles again," he said.

Gaseous Fuels

A General Hydrogen Airport Tug

A Vancouver airport baggage tug using the same Hydricity brand hydrogen fuel cell power pack tested in an Air Canada forklift will be evaluated by the airline with some \$867,000 (\$776,000 U.S.) in government support through the Canadian Transportation Fuel Cell Alliance.



General Hydrogen, which uses Ballard stacks (and indeed counts Geoffrey Ballard as a founder) says that lift trucks and related industrial vehicles represent a fuel cell market that's commercially viable today (*F&F Strategies*,

March 27). Such hydrogen vehicles are said to "have all the benefits of lead-acid batteries and none of the disadvantages."

General Hydrogen has a new non-exclusive evaluation pact with **Cat Lift Trucks** (Caterpillar) too. A Hydricity pack is to be delivered to Cat in Texas in July.

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Pragmatic Hydrogen

Hy-Drive Puts Water to Work on Existing Vehicles, Cutting Emissions & Boosting Performance

Canada's Hy-Drive Technologies (Toronto:HGS) is promoting a hydrogen-based performance enhancer (and emission reducer) it says can work on existing heavy duty vehicles today.

The Hy-Drive HGS (for hydrogen generating system) uses electrolysis to crack distilled water into its component elements onboard a diesel vehicle. The hydrogen and oxygen are then injected into the diesel engine.

"The results are reduced emissions and fuel consumption, along with increased horse power," the company says.

Hy-Drive says that an SAE-published test of its HGS conducted by Santa Ana-based **California Environmental Engineering** found the system to reduce particulate up to 81%, hydrocarbon emissions up to 75%, carbon monoxide emissions up to 15%, and nitrous oxide emissions up to 11%.



Compact Hy-Drive installation on a Class 8 tractor

The firm claims its system reduces fuel consumption by an average of 9.5% on large commercial vehicle engines. Mississauga-based Hy-Drive says that there are upwards 100 units HGS on the road today, and that the system is available for \$10,500, "with customers generally making up that cost within a year in fuel savings and ease of engine maintenance."

Hy-Drive reports a deal with Ontario's **Martinrea International** to develop its HGS for automobiles and light trucks.

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Gaseous Fuels

eTec, Clean Energy for H2 Dispenser

Clean Energy and Arizona's Electric Transportation Engineering Corp have teamed to develop a commercial-grade, heavy-duty hydrogen-CNG blending dispenser.

The new device will be used for TransLink buses in Vancouver in connection with the Integrated Waste Hydrogen Utilization Project there.

"We have always claimed that natural gas is the bridge to hydrogen for transportation and this enables it," Clean Energy president Andrew Littlefair says in a release. "The new HCNG technology is a great leap forward."

eTec, Kevin Morrow, 602-716-9576, ext 24; fax 602-256-2606; kmorrow@etecevs.com; www.etecevs.com

Quantum for H2 Cars for Norway

Quantum (NASDAQ:QTWW) reports an order for 15 hydrogen-fueled Toyota Prius hybrid vehicles from Norway's **Miljøbil Grenland** for the Norwegian Hydrogen Highway (**HyNor**) project.

The hydrogen Priuses will be put into service this year and next, Quantum says. HyNor is a hydrogen energy infrastructure project that runs along 580 kilometers (360 miles) from Oslo to Stavanger.

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Biodiesel

New Holland Gives B20 Its Blessing

Agricultural engine specialist New Holland has become the first OEM to approve the use of B20 biodiesel across its entire product line.

"This is what we have been working toward for years; a major equipment manufacturer announcing full support," said National Biodiesel Board chief Joe Jobe.

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Electric Vehicles

First Opus Order

Wichita's Optima Inks a Contract for Hybrids: Five ISE-Drive Buses Firm with Option for Ten Kansas-based Optima Bus reports the first sale of its low-floor Opus ISE bus with hybrid electric drive.

Avon Transit of Avon, Colo., Optima says, is buying five hybrid buses with an option for ten more under a contract valued at \$7.5 million.

Optima also claims the largest order ever placed for 30-foot buses, a deal with Miami-Dade County for 300 new design Opus vehicles that includes options for an additional 300 buses. Optima says its five-year contract is valued at approximately \$178 million.

Optima, the former Chance Coach, introduced its hybrid line with drive-trains from San Diego's ISE last year (*F&F*, Dec. 19). *Optima, CEO Michael Monteferrante, 316-779-7700, ext 348; michael.monteferrante@optimabus.com; www.optimabus.com*

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Streamlined Miami Opus will be available as a hybrid too.

Buses for AFVS
Arizona's AFV Solutions reports delivery of a battery electric bus from China's **Shenzhen Wuzhoulong Motors**, and says a hybrid version is on the way. *AFVS, president Jeff Grosco, 480-545-2745; azspeaker@aol.com; www.afvsolutions.com*



AFVS' electric bus loaded at Guangzhou

The Sakura Maranello4

A Battery Electric City Car for UK Market and a Diesel-Fueled Hybrid Version for Autumn

The UK's Sakura Battery is promoting a battery electric city car manufactured by Italy's Effidi Automotive.

The Maranello4 has a top speed of 30 mph and a single-charge range of approximately 45 miles. It is exempt from the London congestion charge and parking is free in many areas, Sakura says.

"With the saving on fuel, the congestion charge, parking in London and zero road tax, the Maranello4 could almost pay for itself in the first year for many London buyers," the distributor adds.

"Due to the demand in Europe delivery times are typically around six to eight weeks, but our partners Effidi are working to increase production, so we hope by the end of this year no one will have to wait more than four weeks," Sakura managing director Dan Hornby says in a release.

Prices start at 9,995 British pounds, about \$18,800.

A diesel-fueled hybrid electric version, with a top speed of 50 MPH and a range of 250 miles, is promised for September.

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Events

A New Name

Clean Cities Handle Being Phased Out In Favor of Alt Fuels Conference & Expo

The Alternative Fuels Vehicle Institute is phasing out the name Clean Cities as it begins promoting its next annual meeting, the third to be organized by AFVI.

Drawing on the Clean Cities sequence, the 13th National Alternative Fuels and Vehicles Conference and Expo will be held **April 29-May 2, 2007** at the the Los Angeles Convention Center and the Millennium Biltmore Hotel in downtown Los Angeles, Calif.

The new name “more clearly states what it is we are about,” organizers say. The return to California is apt too, as “the state is leading the way in policies and funding to increase the use the use of alternative fuels and advanced vehicle technologies.”

The 2007 gathering will be hosted by industry and the Southern California Clean Cities coalitions.

Will Kleindienst will again be conference chair.

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ZBus & ZEVs

Mandates? California Air Resources Board Eyes Large & Small Zero Emission Vehicles

The California Air Resources Board has slated meetings in June and September to discuss technology and regulations relevant to zero emission buses and automobiles.

The agency says the pace of zero-emission bus development – the so-called ZBus – hasn't kept pace with automakers' efforts to apply hydrogen fuel cell technology to smaller vehicles. The agency's regulations lowing transit agencies to opt for alternative fuels like CNG or take the “diesel path” (requiring faster ZBus deployment) should thus be modified.

Several ZBus workshops have already been held, and another is slated for **June 21** at the South Coast Air Quality Management District headquarters in Diamond Bar.

With a possible eye to reopening its ZEV regulations for passenger cars and light trucks, CARB has slated a ZEV Technology Symposium September 25-27 at California EPA headquarters in Sacramento.

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Pickens Kickoff

Clean Energy to Celebrate the New Name Of 100,000-gpd LNG Plant in Willis, Texas
Clean Energy will celebrate the new name of its liquefied natural gas plant in Willis, Texas this **Wednesday, May 31**.

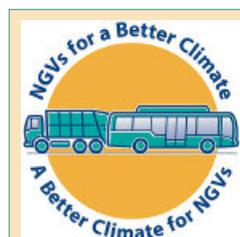
The Pickens plant, named for Clean Energy founder Boone Pickens, can turn out 100,000 gallons per day of vehicle-grade LNG fuel. It was purchased last year from Applied LNG Technologies for \$14 million in a deal that included truck loading facilities, a million-gallon LNG storage tank, and five tanker-trailers (*F&F*, December 19).

The Pickens LNG plant in Willis is approximately 60 miles north of Houston.

Clean Energy is also firming up plans for a new, 80,000-gpd LNG facility and 42 LNG fueling stations as part of an “aggressive” \$100 million, five-year growth plan.

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Check out the European Natural Gas Vehicle Association's *excellent* recap of its annual meeting in Brussels late last month. *Start here*. and don't miss the fact-filled *vehicles* and *exhibitor* summaries.

World Propane in U.S. This Fall

International LPG Annual in October in Chicago
Chicago 2006, the 19th Annual World LP Gas Forum, will be held **October 17-20** at the Palmer House Hilton, Chicago, Ill.



The gathering includes the first-ever LP Gas Technology Conference, sponsored by the World LP Gas Association and PERC, Washington's Propane Education & Research Council.

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19th WORLD LP GAS FORUM



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