

FLEETS &

August 15, 2005

Volume XII, Number 16

The Law of the Land

The New Energy and Highway Laws Are Signed by President Bush With Their Many Incentives for Alternative Fuels and Infrastructure Landmark energy and highway legislation with numerous incentives for alternative fuels and infrastructure, and for advanced technology vehicles, has been signed into law by President Bush.

The energy legislation has been praised by most clean vehicle advocates, but it's been criticized for failing to address the fundamental energy efficiency of American vehicles by raising mileage standards. The new laws make no attempt to reverse a decades-long trend whereby technical advances have been applied not reduce fuel consumption but to deliver larger and faster vehicles to consumers who have been told relentlessly that they need them.



President Bush signed the Energy Policy Act of 2005 on August 8

Praise from Many

That basic debate aside, the Energy Policy Act of 2005 and the highway bill provide numerous incentives for alt fuels and for hybrid drive vehicles.

“This bill launches an energy strategy for the 21st century,” President Bush said in signing the Energy Policy Act of 2005. It “is going to help every American who drives to work, every family that pays a power bill, and every small business owner hoping to expand.”

The legislation has been praised by the National Biodiesel Board, the Electric Drive Transportation Association, and the Natural Gas Vehicle Coalition, among many others. Jeff Seisler of the European Natural Gas Vehicle Association said the energy bill “will be important for our work here in Europe and worldwide.”

Biodiesel advocates see the penny-per-percentage-point tax break they've enjoyed since 2004 extended two years, through 2008. The highway bill makes biodiesel projects eligible for CMAQ and other funding.

Hybrid vehicles across the board get new incentives too, ranging up to \$30,000 for heavy duty vehicles. Hybrids have been made eligible to help fleets meet EPA's alt fuel vehicle purchase requirements.

Happiest of all perhaps are natural gas vehicle advocates, who have been frustrated in the attempts to secure significant new incentives not for the past

more on page 2

New Gas Engine Line from ESI

Watch for Texas-based Emission Solutions, Inc. to launch a new line of dedicated-natural gas engines for trucks.

The first of the new line, the 175- to 265-horsepower Phoenix 7.6L, will be based on the DT 466 from International/Navistar. [More on Page 5](#)

**Inside this Issue...**

AQMD Enforcing Fleet Rules...	Page 2
Cobasys Teams with Motorola...	Page 3
UQM for FreedomCar, Denver...	Page 3
NREL's New Hybrid Software...	Page 3
Canadian H2 Standard a First...	Page 4
Air Products Picks FuelCell...	Page 4
Nuvera's Improved FC Stack...	Page 4
1,000th NABI CNG Bus to LA...	Page 5
CNG Buses for Portland, Maine...	Pages 5-6
Aussie AEC Has New Partners...	Page 6
Energy On <i>National Geo</i> Cover...	Page 6
Fuel Cells Court the Media...	Page 7

The European View

Leaders of the European Natural Gas Vehicle Association speak their piece on GM's departure from U.S. NGVs and the critical importance of government support for game-changing industries.

They will make their case even more forcefully at the next annual ENGVA meeting, in Brussels this coming spring. [See Page 8](#)

Government

Energy & Highway Bills *(continued)*

five years, as previously reported, but for *the past five Congresses*.

The energy bill contains generous incentives for alt fuel vehicles, including NGVs, and for building alt fuels infrastructure. The highway bill includes 50-cent-per-gallon or equivalent gallon excise tax credits.

Existing tax credits are abolished, but the result is a net of gain of 35.4 cents per gasoline equivalent gallon of CNG and (because the calculations are based on liquid LNG gallons) a whopping 63.6 cents per diesel equivalent gallon of LNG — effective October 1, 2006.

Vital New Marketing Tool

Of some concern is the fact that that the long-sought fuel use tax credit has emerged as a credit to fuel sellers. The structure will allow natural gas providers to be more competitive in wooing customers now using other fuels, insists Jim Harger of Clean Energy, and will allow far more aggressive investment in fueling infrastructure.

The Energy Policy Act of 2005 was signed August 8 at the Sandia National Laboratory in Albuquerque as an acknowledgement to Senator Peter Domenici, the New Mexico Republican who heads chairs the Senate Energy Committee. The highway bill was signed two days later at a Caterpillar plant in Illinois.

'Inherently Cleaner'

Los Angeles Air Agency Is Again Enforcing Still-Disputed Rules that Discourage Diesel

The South Coast Air Quality Management District recommenced its enforcement of disputed fleet rules this month, following a favorable federal court ruling this past May.

"The Fleet Rules shall be in full force and effect as they apply to state and local public entities, including the State of California, counties, cities, and special districts," AQMD says, acknowledging that it will not impose the rules on federal vehicles.

The regulations affect most the Los Angeles area's fleet vehicles, ranging from airport vehicles though sweepers and trash trucks, to school and transit buses.

"There is an overall need to continue to reduce emissions from mobile sources as early as possible," the agency says. "Many alternative-fuel engines are inherently cleaner than conventional fueled vehicles."

SCAQMD, Dean Saito,

909-396-2647; dsaito@aqmd.gov; www.aqmd.gov

Companies

NABI Sells Optare

UK Operation Selling for \$20.7 Million, NABI Will Support Existing U.S. Vehicles

North American Bus Industries says it's completed a deal to sell its subsidiary Optare to the UK unit's top managers, Robert Coombes and Roger Fossey, for 11.8 million pounds (approximately \$20.7 million U.S.).

NABI says it acquired Leeds-based Optare in early 2000 "as part of a strategy of expansion beyond its core North American bus market."



sole Americanized product, the 30-foot low-floor 30-LFN, amounted to nearly 170 units to U.S. operators including Miami-Dade Transit, American Eagle

Airlines (shown) and Thrifty Rental Car.

NABI says too that it has entered an agreement with Optare to provide spare parts and technical services for the 30-LFN buses NABI supplied to U.S. customers. Proceeds of the Optare sale will be used to reduce NABI's debt.

NABI info, Brianne Christopher, 909-773-0505;

fax 909-923-8263; brianne.christopher@nabiusa.com;

www.nabiusa.com

Optare, GM Robert Coombes,

+44-113-264-5182; fax +44-113-260-6635;

bussales@optare.com; www.optare.com

www.FleetsandFuels.com

FUELS

FLEETS &

Rich Piellisch, Editor & Publisher
 August Pacific Press
 560 Fourth Street, Suite B
 San Francisco, CA 94107 USA
 415.896.5988 telephone
piellisch@fleetsandfuels.com

Kathy Thorne for Subscription Inquiries
 Professional Newsletter Management Services, Inc.
 PO Box 335 / Boyds, MD 20841 USA
 301.540.3971 telephone / 301.528.2497 fax
support@pnmsi.com / dispatch@fleetsandfuels.com

Fleets & Fuels is published 24 times a year by August Pacific Press.
 \$397 per year world rate. Quantity discounts available.
 Publisher and Editor-in-Chief Richard Piellisch.
 COPYRIGHT © 2005 August Pacific Press. All Rights Reserved.
Fleets & Fuels subscribers are free to share *Fleets & Fuels* with colleagues on-site, via whatever means they find convenient, and are urged to get in touch with the publisher regarding discounts for additional, off-site subscriptions.

ISSN 1075-0134

www.FleetsandFuels.com

Electric Vehicles

Cobasys-Motorola

Firms Team on Control System Components For Nickel Metal Hydride Batteries for Hybrids

Cobasys is trumpeting a pact with Motorola to develop and manufacture control components for hybrid electric vehicle battery systems.

Their hybrid battery pack controller, says Cobasys, “integrates Motorola designed hardware with Cobasys patent pending software.” In addition to monitoring and controlling the hybrid battery pack, it will perform diagnostics for Cobasys’ nickel metal hydride batteries.

“Integrating Cobasys advanced NiMH battery technology solutions and battery system control software with Motorola’s expertise in electronic design and manufacturing makes for a world class partnership,” Cobasys VP and chief sales officer Scott Lindholm says in a release.

Cobasys Gains ISO/TS 16949 Certification Too

The agreement “has potential to span all Cobasys transportation HEV battery system markets,” adds Cobasys president and CEO Thomas Neslage.

“Motorola’s relationship with Cobasys will enable Motorola to enter its electronics capabilities and expertise into a growing higher electronic content automotive application,” Motorola program manager Mark Gunderson told *F&F*. He is in charge of hybrid electric vehicle strategy and product development, and heads the firm’s foray into HEVs.

Gunderson is based in Deer Park, Ill.

Cobasys also said this month that it’s secured ISO/TS 16949 certification, which it describes as “the required standard for global automakers that are awarding new contracts.”

Cobasys, VP Scott Lindholm, 248-620-5700;

slindholm@cobasys.com; www.cobasys.com

Motorola, Mark Gunderson, 847-862-1222;

mark.gunderson@motorola.com

How’s Your Hybrid?

The National Renewable Energy Laboratory in Colorado is promoting software to help fleet managers compare the costs and emissions of hybrid electric vehicles to conventional vehicles. The Hybrid Electric Vehicle Fleet Cost and Benefits Calculator Tool was developed by NREL and partner organizations.

It can help fleet purchasers assess potential savings from purchasing HEVs by taking into account purchase price, fuel costs, repair and maintenance costs, resale value, and applicable tax incentives.

NREL info, Kerry Masson, 303-275-4083;

kerry_masson@nrel.gov; www.eere.energy.gov

No Stopping

UQM Technologies Reports New Contracts Ranging from FreedomCar to Hybrid CNG

Colorado’s UQM Technologies is forging head with new work, trumpeting contracts for projects ranging from the FreedomCar fuel cell vehicle initiative to the provision of new hybrid electric drives for the compressed natural gas-fueled shuttle buses that ply Denver’s downtown mall.

UQM reports a contract from UT-Battelle, which operates the Oak Ridge National Laboratory, to develop an advanced traction motor for the U.S. Department of Energy’s FreedomCar program. The \$293,000 Phase I development effort will be conducted over a nine-month period with DoE funding half.

“The development effort will be focused on permanent magnet traction motors that are high performing and highly energy efficient using new and novel materials and configurations to reduce manufacturing costs,” UQM says.

Denver MallRide Buses

UQM has seen successful testing of its hybrid drivetrain hardware to improve the performance of the Denver’s MallRide buses (*F&F*, January 31); now the firm claims an order from RTD, the Denver Regional Transportation District, to retrofit seven more of the vehicles. Each of the 45-foot buses will be retrofitted with a 35-kilowatt UQM generator and two UQM power electronic motor controllers.

RTD introduced its hybrid electric fleet of



MallRide shuttles in 2000, and now operates three dozen of them. They have CNG-fueled 2.5-liter Ford engines powering their series hybrid drives.

“Our equipment is well-suited for this demanding application and we are looking forward to additional orders from Denver RTD in the future as their needs require,” UQM president Bill Rankin says in a release.

UQM also reports a second contract from Eaton Corp, which is moving forward with a range of hybrid vehicle projects (*F&F Strategies*, July 18). UQM says that the order is for additional permanent magnet motor and controller systems as Eaton aims to double the fuel efficiency of conventional trucks by applying hybrid technology.

UQM, president Bill Rankin, 303-278-2002;

fax 303-278-7007; wgrankin@uqm.com; www.uqm.com

Eaton, Kevin Beaty,

269-342-3022; kevindbeaty@eaton.com; www.eaton.com

Hydrogen

Olympian

Canada Claims First Hydrogen Tank Standard, B51 Allows Composite Tanks in Fueling Stations

Vancouver's Powertech Labs is spreading the word about a new standard for compressed hydrogen fuel tanks, believed to be the world's first.

It allows the use of all-composite tanks in hydrogen fueling installations, which Powertech says "simplifies the introduction of 700 bar (10,000 psi) fill stations for the Hydrogen Highway that is currently being constructed in advance of the 2010 Winter Olympic Games in Vancouver."

Based on CNG Standards

On August 11, "The Canadian Standards Association B51 committee formally approved what is believed to be the world's first standard covering the requirements for hydrogen vehicle fuel tanks," reports says Powertech gas systems engineering director Craig Webster. He is secretary of the CSA B51 panel.

The new B51 is essentially an extension of the existing B51 compressed natural gas tank standard to hydrogen. The hydrogen requirements in CSA B51 are based on draft EIHP, draft ISO 15869, and draft NGV2/HGV2 standards.

"Until now," says Webster, "hydrogen tanks for vehicles have been accepted by regulatory authorities using either natural gas vehicle standards, or draft hydrogen tank standards." The B51 standard is expected to be published in December.

Powertech Labs, Craig Webster, 604-590-7413;

fax 604-590-5347; craig.webster@powertechlabs.com;

www.powertechlabs.com

Fuel-Versatile

Air Products Taps FuelCell Energy For New Multi-Fuel Hydrogen Unit

Air Products has picked Connecticut's FuelCell Energy to help it develop a fuel-versatile Hydrogen Energy Station for the U.S. Department of Energy. The new HES will build on FuelCell Energy's ultra-clean Direct FuelCell (DFC) and Air Products' advanced gas separation technologies.

The goal is to co-produce hydrogen for vehicle fueling and to generate electrical power from a single system. "The HES effort will be directed toward a capability of using readily available fuels such as natural gas, propane and anaerobic digester gas from municipal and industrial wastewater treatment facilities," Air Products says.

"This Hydrogen Energy Station could establish a

bridge for continued hydrogen infrastructure development," according to Greg Keenan, business development manager for Future Energy Solutions at Air Products. "The HES will integrate aspects of FuelCell Energy's DFC technology and Air Products' process and separation technology to provide a unique and highly-efficient offering.

"Air Products believes that the HES can potentially be competitive with other distributed hydrogen generation technologies," Keenan said in a release. Several locations are being evaluated for the demonstration of the HES, currently scheduled to be onstream in 2007.



Dr. Hansraj Maru is FuelCell Energy's chief technology officer.

"Making hydrogen available locally for other applications, such as automotive fuel cells, enhances the value proposition of our DFC products," he said.

Air Products, Dave Mc Carthy, 610-481-3356; fax -481-5036; mccardj@apci.com; www.airproducts.com

FuelCell Energy info, Steven Eschbach,

203-825-6000; seschbach@fce.com; www.fce.com

Andromeda II

Nuvera Claims a Raft of Improvements In Its Second Generation Fuel Cell Stack

Italy- and Massachusetts-based Nuvera Fuel Cells is claiming a wide range of performance improvements in its new proton exchange membrane fuel cell stack, the Andromeda II.

The 125-kilowatt (168 horsepower) stack is said to exhibit better power density and cold-start capability (from as low as 30C) and to be more efficient and durable — 100,000 cycles with no deterioration.

Non-coated stainless steel bipolar plate construction allows for manufacturing at for low cost.

'Rethinking'

The advances address critical challenges to the commercialization of fuel cell vehicles, says Nuvera automotive platform leader Giovanni Bruni.

"Andromeda II was engineered with the entire power system in mind," he says in a release.

"By rethinking the stack engineering, we were able to significantly reduce system humidity and pressure, which enables faster cold-start capabilities and lowers parasitic power demand, thus increasing reliability and overall system efficiency."

Nuvera says its Andromeda II is available for delivery to qualified customers developing fuel cell vehicles.

Nuvera info, Bob Derby, 617-245-7571; mobile 508-254-9668; derby.r@nuvera.com; www.nuvera.com

Natural Gas Vehicles

The Phoenix

Texas-Based Emission Solutions Plans Engines, Seeking U.S. EPA and California Certifications Watch for McKinney, Texas-based Emission Solutions, Inc. to kick off a new line of dedicated-natural gas vehicle engines.

The first of the line, aimed at Class 5 to Class 7 short-haul vehicles, including small transit buses, will be the 175- to 265-horsepower Phoenix 7.6L.

2007 NOx Met Easily

The Phoenix 7.6L, is a spark-ignition variant of the popular DT 466 engine from International (Navistar), a straight-six powerplant.

ESI's Phoenix version emits just 0.7 grams of NOx per brake horsepower hour, *even with a deterioration factor*, says the McKinney, Texas-based company. It thus easily meets the U.S. EPA's 2007 requirement of 1.2 grams.

Tests at the Southwest Research Institute have certified Phoenix 7.6L NOx emissions of just 0.513 grams. Non-methane hydrocarbon and particulate emissions were pegged at 0.059 and 0.009 grams per brake horsepower hour, respectively.

Emission Solutions says it is filing for both U.S. EPA and California Air Resources Board certifications. Approvals are expected as soon as **September 30**.

Target markets, ESI VP Jim Cole told *F&E*, include school buses, small transit buses, dump trucks up to 12 cubic yards, food and/or beverage trucks, small sanitation trucks, and utility trucks with cherry pickers. "Our niche market is distribution and short haul service trucks," Cole says.

CNG or LNG Installations Planned

ESI plans an engine swap program whereby existing 466 engines can be exchanged for the Phoenix 7.6L, which has a nearly identical footprint.

The program will include full installation of either liquefied or compressed natural gas tanks and lines, as well as a two-years parts-and-labor warranty "and a full complement of optional maintenance services."

"Support is crucial," Cole comments.

"We see tremendous potential for the ESI Phoenix 7.6 in short-haul transportation and distribution applications such as school buses, food and beverage fleets and in the municipal work truck sector where this engine is so well suited," ESI president Jim Moore says in a draft release.

Emission Solutions, VP Jim Cole, 972-369-0099; fax 972-369-0091; jimcole@emissionsolutionsinc.com

Northeast CNG

Metro in Portland, Maine Is Buying Buses, Installing CNG Fueling with Public Access Maine's Greater Portland Transit District – The Metro – is buying 13 compressed natural gas buses and investing in the required fueling infrastructure as part of a project expected to cost nearly \$6.5 million.

The agency is buying 13 Orion VII buses (the 35-foot version) powered by 8.1-liter 6081 engines from Deere Power Systems.

Pace Taps Hanover

They cost approximately \$345,000 apiece, says Peter Hefler, the former agency GM who is helping out as The Metro's CNG guru. They are to be delivered early in 2006.

CC Pace Associates, a unit of Pace Global Energy Services, is installing a Hanover CNG fueling system for approximately \$1 million. It'll have capacity of some 250 cubic feet per minute, says Tom Aubee of Pace, and both transit and light-duty dispensers, the

more on page 6

NABI's 1,000th CNG Bus to LA

Ontario, CA-North American Bus Industries delivered its 1,000th compressed natural gas, low-floor bus to the Los Angeles County Metropolitan Transportation Authority on August 8. NABI says it's been providing alt fuel buses to Los Angeles since 1993 and low-floor buses since 2000. There have been four separate contracts.

NABI is delivering 200 60-BRT CNG articulated buses to LA Metro, and has already delivered 875 40-foot low-floor buses and 95 45-foot CompoBuses, said to comprise "nearly half of Metro's fleet." NABI says it's produced more than 1,500 CNG vehicles of varying lengths for U.S. operators.

NABI, Rich Himes, 909-773-0502; fax 909-923-8263; rich.himes@nabiusa.com; www.nabiusa.com

LA Metro, Richard Hunt, 818-701-2801; fax 818-701-2812; huntr@mta.net; www.mta.net



LA Metro vehicle technology director Mike Bottone and manager John Drayton accept plaque from NABI field service manager Craig Pruett (right)

Natural Gas Vehicles

Portland Buses (continued)

latter for public access. It's to be a state-of-the-art station, he says, designed with the "cosmetics" needed to attract public customers, and easy cardlock or Visa and MasterCard payment capability to make them come back. Gas will be provided by Northern Utilities.



In the works is an upgrade of an existing garage to accommodate the CNG buses, a job expected to cost an additional \$1 million. A contract is to be let next month.

Eight More Buses Wanted

Funding has been arranged, Hefler says, from a variety of federal and state sources.

The buses are being funded 80 percent by the federal government and 15 percent by the state, which according to Hefler agreed to ante more than the traditional 10 percent because the vehicles run on alternative fuel.

The cities of Portland and Westbrook provide the remainder.

The agency is working with the Maine DoT and the state's Congressional delegation to secure funding for an additional eight CNG buses, Hefler says, taking

The Metro's total number of CNG coaches to 21.

"I suspect it will take a couple of years," he told F&F, "2006 and 2007."

The Metro, Peter Cavanaugh, 207-774-0351;

pcavanaugh@gpmetrobus.com; www.gpmetrobus.com

Orion, VP Mark Brager, 905-403-7806;

mbrager@orionbus.com; www.orionbus.com

Deere, Jeff Noonan-Day, 319-292-7925; fax 319-292-5075;

noonan-dayjeffreyp@johndeere.com; www.deere.com

CC Pace, Tom Aube, 401-667-0215;

aubeet@paceglobal.com; www.paceglobal.com

Hanover, Tom Ostrye, 918-259-2275; fax 918-259-2386;

tostrye@hanover-co.com; www.hanover-co.com

AEC and Its Partners

Advanced Engine Components reports expanding its alliances in the Asian region via agreements with fellow Australian Advanced Fuels Technology and with the Automotive Corporation of Pakistan (ACP). And, AEC's Beijing unit has signed a technical agreement with FAW Dalian Diesel Engine Company to develop a 3.2-liter, Euro 3 emission natural gas engine for small buses and light duty trucks. AEC's MoU with Advanced Fuels will allow the firms to share their natural gas engine products and expertise globally. The deal with Pakistani importer ACP gives AEC improved access to the Pakistan market.

AEC, managing director Tony Middleton, +61-8-9209-6900; fax -9209-6999; tony_middleton@advancedengine.com or enquire@advancedengine.com; advancedengine.com

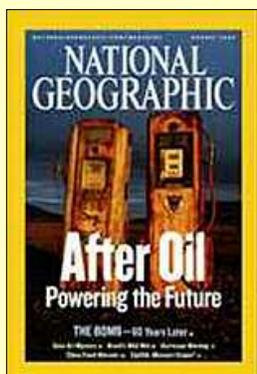
All Craft on the Web

Researchers at the University of Missouri (MU) continue their work on adsorbed natural gas (ANG) as a low cost alternative to compressed natural gas, and have launched a website dedicated to ALL-CRAFT, their Alliance for Collaborative Research in Alternative Fuel Technology.

Success with ANG is seen as a natural gas vehicle market enabler, as it could eliminate the heavy clumsy voluminous tanks that have reduced trunk space and otherwise made CNG vehicles unattractive.

Energy required for natural gas compression would be dramatically reduced too.

ALL-CRAFT's adsorbent feedstock? Corn cobs (F&F, April 11). MU, Prof. Peter Pfeifer, 573-882-2335; fax 573-882-4195; pfeiferp@missouri.edu; www.physics.missouri.edu; all-craft.missouri.edu



Post-Petroleum

Need for Change and What Might Answer Detailed in National Geographic The world energy situation is addressed in the cover story of this month's *National Geographic*, with a 5,000-word article by Michael Parfit and photos by Sarah Leen.

"It's time to step up the search for the next great fuel for the hungry engine of humankind," Parfit writes. "Is there such a fuel? The short answer is no."

"The successor will have to be a congress, not a king. Virtually every energy expert I met did something unexpected: He pushed not just his own specialty but everyone else's too." Parfit's long article (equal approximately to this newsletter) deals extensively with nuclear power, both fission and fusion, and with biomass and solar. Natural gas is given short shrift, natural gas vehicles mentioned not at all, and hydrogen summarily dismissed.

Events

Bloom off the Boom?

Two Major H2 Fuel Cell Organizations Invite Press to Spread Their Good Word

Two organizations at the thick of hydrogen fuel cells and a potential H2 transportation economy are taking unusual steps to spread a positive message.

The California Hydrogen Highway office is holding twin briefings, giving reporters their choice of Berkeley or Los Angeles.

Ballard Power Systems (NASDAQ:BLDP), which has long claimed leadership in proton exchange membrane fuel cell design, is giving reporters their choice of Vancouver or Tokyo, expenses paid.

Siting Insight

The first of the California Hydrogen Highway briefings is slated for **August 30** at the University of California in Berkeley. The second is to be held **September 1** at Cal State Los Angeles.



The California Air Resources Board-hosted gatherings will include workshops and panel discussions and will provide details on fueling station siting strategies and other developments, including codes and standards.

Speakers at both are to include Analisa Bevan of CARB, Steve Ellis of American Honda, Al Weverstad of General Motors, Jeffrey Jacobs of Chevron, Phil Baxley of Shell, Jason Mark of the Union of Concerned Scientists, Neel Sirosh of Quantum Technologies (invited) and Joan Ogden of the Institute of Transportation Studies, University of California Davis. Other speakers will attend just one of the meetings.

Ballard's Tokyo briefing sessions are planned for **September 14-16**, and the Vancouver sessions are slated for **September 26-28** (timed to lead into the California Fuel Cell Partnership's Road Rally in San Francisco; below right).

'Unparalleled Access'

Ballard promises "unparalleled access to members of the Ballard team, who offer leading-edge knowledge and expertise in all aspects of fuel cell technology and product development and commercialization, as well as insight into the evolving alternative energy landscape."

The session in Vancouver will focus on fuel cell stack technology, "providing the opportunity to see

More Meetings Action!! Click here for instant access to a complete calendar on the *Fleets & Fuels* website.

inside the Ballard facility like no other journalist has seen before." The Tokyo session will highlight hydrogen-powered residential cogeneration programs.

Ballard late last month reported a net loss of \$61.9 million (U.S.) for the first six months of 2005, compared with a net loss of \$67.4 million for the first half of 2004. Ballard sales declined from \$28.6 million for the first half of 2004 to \$19.2 million for the first six months of this year.

CARB info, Dimitri Stanich,
916-322-2990; fax 916-445-5025; dstanich@arb.ca.gov;
www.hydrogenhighway.ca.gov

for Ballard (StrataComm in Washington),
Kelly Indrieri, 202-289-2001; fax 202-289-1327;
kindrieri@stratacomm.net; www.ballard.com

SAE Next Month

September 7-9, North American International Powertrain Conference at the Hilton Toronto in Toronto, Ontario. Registration discounted by \$100 until **August 19**. SAE, Patti Kreh, 248-273-2474; pkreh@sae.org; www.sae.org

September 7-9, SAE Future Transportation Technology Conference, co-located with the 2005 IEEE Vehicular Power and Propulsion Conference at the Illinois Institute of Technology, Chicago. IIT/IEEE (Institute of Electrical and Electronics Engineers), Prof. Ali Emadi, 312-567-8940; fax 312-567-8976; emadi@iit.edu; www.sae.org; vpp.iit.edu

Grove Fuel Cells in London

October 4-6, the Ninth Grove Fuel Cell Symposium at the Queen Elizabeth II Conference Centre in Westminster, London. Billed as 'the largest and most comprehensive fuel cell event in Europe.' Conference sessions covering transportation and other fuel cell applications, with plenary sessions tackling such big-question issues as *Building a Fuel Cell Industry* and *The Future of Fuel Cells and Hydrogen*. Grove-Elsevier, Gill Heaton, +44-1865-373625; fax -1865-375855; grovefuelcell@elsevier.com; www.grovefuelcell.com

SAE Fuel Cells in Connecticut

October 23-25, Fuel Cell Summit 2005 at the Mohegan Sun Resort & Casino in Uncasville (Hartford), Conn. Jointly sponsored by the Society of Manufacturing Engineers and the Connecticut Clean Energy Fund. Online registration available. SME, Heidi Wiegand, 313-425-3056; fax 313-425-3403; hwiegand@sme.org; www.sme.org; www.fuelcellis.com

Fuel Cell Vehicle Road Rally



September 29-October 1, Fourth California Fuel Cell Partnership Road Rally. San Jose, San Francisco, Sacramento. CaFCP info, Meghan Blake, 916-375-8034; blake@cafcp.org; www.cafcp.org

Natural Gas Vehicles

View from Europe

Natural Gas Vehicle Experts Bring Perspectives To GM's U.S. Market Exit, Need for Government
General Motors has done a vast disservice to the American natural gas vehicles industry by deciding to leave it, as the automaker has only itself to blame for its disappointing market results.

Not so. GM didn't get the government support an OEM needs to succeed with a game-changer like an alternative automotive fuel.

30-Plus OEM NGVs in Europe

Such are the divergent views of the men who run the Amsterdam-based European Natural Gas Vehicle Association, Jeff Seisler and Peter Boisen. They are enjoying a far more prosperous NGV environment than their U.S. counterparts as European policymakers see natural gas as the way to eventually achieve an emissions-free transportation economy based on hydrogen. ENGVA enjoys a market where, at least in most countries, infrastructure development and NGV offerings from the OEMs are moving forward in concert.

European fleet operators and consumers have a choice of upwards of 30 light-duty OEM NGVs, including offerings from Detroit's Big Three: GM, Ford and DaimlerChrysler. All are bi-fuel vehicles (some are optimized for CNG but feature tiny gasoline tanks for "limp-home" situations). Because of low CNG prices relative to gasoline and diesel, some models are selling at rates of 3,000 or more per month.



Peter Boisen

"What were they doing to sell their vehicles?" Jeff Seisler asks of GM U.S. "Waiting in the showroom to see if an NGV customer showed up?" Seisler is the former director of the Natural Gas Vehicle Coalition in Washington and the founder and executive director of ENGVA.

"This is a hot-button issue with me," he says. "If no one is 'turning the NGV crank' to motivate curiosity of customers, how is that going to translate to a local dealer getting motivated to become an NGV dealer?"

"Government action in support of NGVs is the only factor that could really give the NGV market the required lift," counters Boisen. He is a former Volvo Cars executive who now serves as ENGVA chairman.

Europe Takes NGVs Seriously

European Commission policy makers see NGVs as the way to attain a zero-emission hydrogen transportation economy, and have targeted 10 percent NGVs on European roads by 2020. This coming spring's ENGVA annual meeting, the organization's 12th, will be held in Brussels in an attempt to call maximum media attention

to that fact, and to maintain and sustain Europe's NGV momentum (*F&F*, August 1).

Seisler has pushed for years for a coordinated, concerted approach to get NGV stakeholders ranging from gas-sellers to drivers on the same page in lobbying for incentives, setting

standards and hence codes that make NGVs viable, and setting up critical training programs at the retail level.

"Some [European] gas companies," he told *F&F*, "put on specialized training sessions for car dealerships to make sure they are familiar with the pros and cons of NGVs. Opel," he says, "had a very successful sales campaign by providing a free GPS system in each NGV they sold. *This is motivation.* (emphasis added)

Associations Should Focus 'Completely' on Politics

"Clearly there needs to be more coordination between the marketing specialists in the gas companies and the vehicle dealerships if we are going to be able to motivate (and satisfy) the ultimate customer."

Seisler sees "serious problems in the linkages between car manufacturers and their dealerships" too.

"ENGVA and other NGV associations must completely focus their actions on political support of the NGV business," says ENGVA chairman Boisen.

"With strong political support we will see a rapid growth of marketing efforts."

"If we look at the current development in Germany with three new CNG filling stations every week this is something that is entirely related to the broad political agreement on a moratorium on natural gas tax increases until 2020," Boisen says. "But, even with this strong long term government support of NGV developments, vehicle sales are not yet large enough to really make the present NGV offers as profitable as other similar size vehicles."

Boisen says too that for NGVs to really succeed, infrastructure must become established throughout Europe, to enable long-distance travel.

That will motivate manufacturers to offer CNG versions of their more higher end models, which will in turn, Boisen says, boost the acceptance of NGVs as a whole.

ENGVA, director Jeff Seisler, +31-23-554-3050;

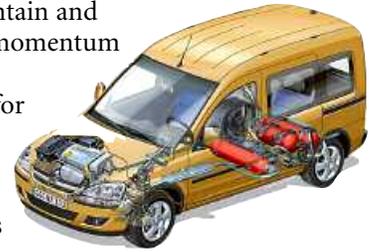
fax +31-23-557-9065; info@engva.nl; www.engva.org

ENGVA, chairman Peter Boisen (Sweden),

+46-304-31921; peter@boisen.se

GM/Opel, Stefane Schrahe, +49-6142-7-6-0990;

stefan.schrahe@de.opel.com; www.opel.com



Opel Combo is but one of GM's offerings for European light vehicle operators.



Jeff Seisler

www.FleetsandFuels.com