

TUG Tidbits



Newsletter of the Natural Gas Transit Users Group

March, 2005

- ◆ 500 Million Miles on Alternative Fuels
 - ◆ Beijing Challenges LA Metro's Claim to Operate Most CNG Buses
 - ◆ Help Grow your CNG Fleet with OPM (Other People's Money)
 - ◆ Sacramento Transit Bus Catches Fire – CNG System Not Involved
 - ◆ Is International Right – Are “Green” Diesels as Clean as Natural Gas?
 - ◆ CATAbus Reaches 100% CNG
 - ◆ LAX Receives Two CNG Hybrid Buses
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500 Million Miles on Alternative Fuels

The Los Angeles County Metropolitan Transportation Authority serves one of the nation's largest and most heavily congested urban areas, with over 20 million residents and a service area of over 1500 square miles. And they claim to be the largest operator of CNG transit buses in the world! Of their 2500-bus fleet, 1970 use CNG.

LA Metro's current CNG fleet consists of

- 594 Neoplans with Cummins L10Gs,
- 100 Neoplans with DDC 50Gs,
- 446 New Flyers with 50Gs, and
- 800 NABIs with 50Gs.

CNG buses on order are 200 NABI Artics, 70 NABI 45-foot Compos and 75 NABI 40-foot conventional buses. The Artics will have Cummins Westport L Gas Plus engines and the others Detroit 50Gs.

Metro's CNG fueling is operated/maintained via public/private partnerships. Fueling system operation costs Metro \$0.13 – 0.15/therm for compression plus an average of \$0.15/therm for capital amortization.

Although CNG buses cost more to buy than Diesels, a comparison of CNG vs Diesel bus operating costs showed \$0.73/mile for the 2001 CNG buses vs \$0.87/mile for the 1998 Diesel buses, both using DDC 50 series engines. **And**, Metro data show their 2004 CNG buses certified to lower emissions than either 2004 “Clean Diesel” or Diesel-Electric hybrids.

The information in this article was taken from a presentation by John Drayton, LA Metro’s Manager of Vehicle Technology. Contact Hank Seiff (see contact information on last page) for a CD ROM or paper copy.

Beijing Challenges LA Metro’s Claim to Operate Most CNG Buses

A Cummins Westport, Inc. (CWI) press release announced that CWI received an order for 450 B-series natural gas engines for transit service in Beijing. Canadian Prime Minister Paul Martin took part in the announcement during a ceremony at Beijing Public Transport’s (BPT) headquarters.

CWI also said that BPT currently operates more than 2200 CWI engines in its transit fleet, making it one of the cleanest bus fleets in the world. If that is so, it puts Beijing ahead of Los Angeles’ 1970 natural gas buses. The 450 additional engines will be delivered in 2005.

Help Grow your CNG Fleet with OPM (Other People’s Money)

The DOE National Energy Technology Lab’s (NETL) State Energy Program (SEP) is offering Special Projects grants for alternative fuel vehicles and refueling infrastructure. The solicitations are only open to state governments, so get in touch with your State Energy Office or other agency responsible for administering the State Energy Program, since states may work in collaboration with non-state partners.

Go to at <http://www.netl.doe.gov/business/solicit/index.html>, (DE-PS26-05NT42396). Then click on “Clean Cities AFV Incremental Costs,” which is offering a total of \$800,000 for the incremental cost of new or retrofitted highway-certified AFVs that will result in large conventional fuel displacement. DOE has particular interest in funding medium- and heavy-duty highway vehicles. If you are concerned that there may not be enough funding for the incremental costs of a number of CNG transit buses, consider proposing to use the money to help buy CNG support vehicles such as vans, trucks or sedans.

The second solicitation, “Clean Cities Refueling Infrastructure,” is offering a total of \$1.6 million in AFV refueling infrastructure funding to help decrease the nation's de-

pendence on petroleum. You might use some of that for smaller CNG stations, modifications/upgrades to larger transit stations or to carve out a corner of your property and buy dispensers to allow for shared or public access to a station (we understand Pierce Transit was funded by DOE for this sort of activity in the past).

Sacramento Transit Bus Catches Fire – CNG System Not Involved

On February first a Sacramento Regional Transit bus caught fire on Interstate 5. The *Sacramento Bee* reported that no one was injured as the nearly 50 middle school students who had been onboard watched from the shoulder of the freeway. The article indicated that the fire started in the engine compartment.

From the article and other sources, we understand that the CNG bus was an Orion, about a year old, with SCI tanks. The CNG fuel system was not touched and did not contribute to the fire. Contact Hank Seiff (see contact information on last page) for further information..

The Clean Vehicle Education Foundation (CVEF) keeps track of NGV “incidents” in the US and Canada. If you hear of an incident, please contact Hank Seiff.

Is International Right – Are “Green” Diesels as Clean as Natural Gas?

International Truck and Engine recently handed out “A Guide to Scientific Research on Diesel and Natural Gas Engines” at a “Green Diesel Technology” meeting. In it, they claim that “Recent scientific research confirms that advanced, low-emitting engine technology and ultra-low-sulfur fuel make diesel trucks and buses as clean or cleaner than natural gas....” Can it be true? Well...not with an honest “apples to apples” comparison. Many of the studies cited were funded by International and none make honest comparisons. For example, they compare *new* diesel buses with advanced particulate traps (and ultra-low sulfur fuel) against *old* natural gas buses with no pollution controls. In a fair comparison, the buses would have the same level of technology. And while International speculates about diesel and NG safety, statistics show there has never been a natural gas fuel system related fatality in the US!

Why is International adamantly against NG? Perhaps because they’re the only heavy-duty engine manufacturer with no NG product to sell. The Clean Vehicle Education Foundation (CVEF) has prepared a response to the International “Fact Sheet” which compares their claims with the “real facts.” Contact Hank Seiff (see contact information on last page) for an electronic or paper copy.

CATAbus Reaches 100% CNG

With the receipt of two new 18-passenger CNG-powered Starcraft buses in January 2005, CATA (Centre Area Transportation Authority in central Pennsylvania) announces that it’s the first transit authority east of the Mississippi River to have its

fleet operated entirely by alternative fuel. CATA now fuels all 50 of its buses with CNG.

CATA is a joint authority of five municipalities, including the State College Borough which contains Penn State University. Since 1999 CATA has operated all the transit service on the Penn State campus, providing over six million bus rides a year to Penn State students and staff, commuters, senior citizens and many others.

In 1993, CATA made a commitment to alternative fuels, deciding to replace its outdated diesel-powered fleet with clean compressed natural gas. They took this action to lower operating costs, improve air quality, and reduce reliance on imported fuels. CATA had an interest, too, in being able to use fuel produced locally in Centre County.



In 1994, as the first step toward fulfilling this commitment, CATA ordered 16 CNG-powered buses from Bus Industries of America (now Orion Bus Industries). With the purchase of the Starcraft buses, CATA has expanded its fleet four times, bringing the total number of CNG-powered buses to 62. Additionally, a fueling facility and three compressors were constructed on its property (also providing a CNG dispenser at the nearby UniMart).

“As a pioneer in the use of compressed natural gas buses, CATA has had a very positive experience,” says CATA’s General Manager, Hugh Mose. “Not only have the buses performed well, but the response from the general public has been overwhelmingly favorable. In my 25-plus years of experience in public transportation, I cannot think of an initiative that has created such a positive response in the community as the introduction of CNG-powered buses at CATA.”

LAX Receives Two CNG Hybrid Buses

Two low-floor, hybrid CNG-electric transit buses have been delivered to Los Angeles International Airport (“LAX”) and will be placed in service to transport passengers within the airport. The buses were manufactured by Hybrid Bus Technologies, LLC, of Denver, Colorado and are powered by a compressed natural gas fueled 2.5 liter Ford industrial engine that operates at 2,000 rpm to generate electricity. The electricity powers a 100 kW UQM® generator which, along with a battery pack, powers the bus through two 100 kW UQM® propulsion systems. Regenerative braking is also used to recharge the battery pack.

The hybrid electric transit buses are an updated design of the 45-foot, low floor bus that has been transporting 63,500 passengers daily across the 1.3-mile long 16th Street pedestrian mall in Denver since 2000.

Please send all questions, comments, requests for information, etc. to Hank Seiff at 703-534-6151 or hseiff@cleanvehicle.org.

The photo of an LA Metro Rapid Transit CNG bus in the heading was provided by the Los Angeles County Metropolitan Transit Authority. .