International Newsroom

California's Newest Green Product - A Hybrid School Bus - Saves Fuel, Reduces Emissions

IC Bus Shows Positive First Year Results for Napa Valley School District



Napa, Calif. (July 25, 2008) Imagine the environmental impact if all of California's school buses were able to double their fuel efficiency and eliminate up to 40 percent of their greenhouse gas emissions. That's not the premise for a futuristic Hollywood movie, it's reality for one California school district.

IC Bus, LLC, the largest school bus manufacturer in North America and affiliate of Navistar, Inc. (NYSE: NAV), delivered a revolutionary new hybrid diesel electric school bus to Napa Valley Unified School District last August –

the only hybrid diesel electric school bus in California.

While most “diesel-only” powered school buses achieve an average of six to seven miles per gallon, Ralph Knight, transportation director at Napa Valley School District, was surprised to learn just how much fuel the hybrid diesel electric school bus could save.

After one school year and 13,000 miles, he was pleasantly surprised to learn that the fuel efficiency of the hybrid bus helped him reach close to 13 miles per gallon – nearly double the fuel efficiency of a typical diesel school bus.

Based on 13,000 miles the hybrid bus traveled during the 2007-08 school year, annual fuel costs for a standard school bus would be just under $10,000 at $4.87 per gallon. Conversely, fuel for the hybrid bus costs approximately $5,000 at the same price per gallon.

“Fuel costs are a major concern to me,” said Knight. “Cutting annual fuel costs in half for this bus is a major advantage – both for taxpayers’ wallets and for the environment.”

Traveling about 65 miles per day, the hybrid bus typically transports roughly 60 children each morning and 60 each afternoon through a mixed route of highway and city driving.

“The children are excited to be riding one of the first hybrid school buses in the nation,” said Knight. “The parents have also commented on the positive environmental benefits of the bus.”

Drivers also enjoy driving the bus. To the driver, it operates similar to a standard school bus. However, the diesel engine receives assistance from an electric motor at certain points during acceleration and deceleration. The

hybrid drive system on Napa Valley's bus is recharged by plugging it into a standard outlet at night or between morning and afternoon routes.

Torrance, Calif.-based Enova Systems, a leading supplier of proprietary electric, hybrid and fuel cell digital power management systems is the exclusive supplier of school bus hybrid drive systems to IC Bus. The company selected Enova's post-transmission parallel hybrid drive system because of its reliability, proven ability to deliver significant fuel efficiency improvements and emission reductions over a broad range of route cycles, and because no additional investment in maintenance infrastructure is required.

The word in the industry has gotten out. Knight says he has fielded calls from school districts all over the country asking him about the performance of this new bus.

"I've told them the truth," said Knight. "I'm very pleased with the hybrid school bus."

One of the other advantages of the bus hasn't really been "seen" – and that's by design. The exhaust of the hybrid school bus is smokeless with dramatically reduced emissions compared to older buses operating in California. In fact, emissions of particulate matter have been reduced by up to 90 percent.

"There's a host of new technologies incorporated into the hybrid school bus that provide the improvement in fuel economy and reduction in emissions," said David Hillman, marketing director at IC Bus. "With a year of customer experience in Napa, and the additional experience gained from hybrid buses at customers throughout the U.S. and Canada, we have shown that hybrid technology is a viable solution for bus operators in North America. The volume provided by our current customer base has allowed us to reduce our prices by $30,000 to $40,000. We encourage further efforts to provide federal and state

funding, such as the California Proposition 1B funds, to help offset purchase prices and provide the opportunity for more school districts and bus operators to implement this environmentally vital technology."

In the case of Napa's hybrid unit, PG&E provided $30,000 to help with the purchase of the plug-in hybrid school bus. An additional $30,000 to fund the bus was provided by the U.S. EPA through the Clean School Bus USA program and the West Coast Collaborative, a public-private partnership to reduce diesel emissions.

Schools in California can use funds allocated by Proposition 1B to direct toward the purchase of a hybrid school bus. Funding to districts to support hybrid purchases from Proposition 1B and distributed through the California Air Resources Board can be up to $40,000 per bus.

More information about the hybrid school bus can be found at www.icbus.com.

IC Bus
IC Bus, LLC of Warrenville, Ill., is a wholly owned affiliate of Navistar International Corporation (NYSE: NAV). The nation's largest manufacturer of school buses, IC Bus is a leader in passenger protection, chassis design, engines and ergonomics. The company is also a producer of commercial buses. All IC Bus buses are sold, serviced and supported through a renowned dealer network that offers an integrated customer program encompassing parts, training and service.

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