

A different path to heavy duty natural gas trucks

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(Photo courtesy of American Power Group)

The APG V5000 is a non-invasive, dual fuel natural gas upgrade that requires no high-temperature parts or high pressure fuel injectors.

An option for fleets looking to move into heavy duty natural gas-powered trucks is a non-invasive, dual fuel technology from American Power Group (APG), a company that designs and produces proven alternative fuel solutions for stationary power generators, backup power systems and commercial transportation (www.americanpowergroupinc.com).

APG's V5000 Dual Fuel Turbocharged Dual Fuel System was recently introduced as part of a natural gas dual fuel glider kit that will give fleets a net annual fuel savings averaging 20 to 30 percent compared to diesel only, say company officials. The APG gliders feature a 2013 Freightliner chassis powered by a rebuilt Detroit Series 60 engine.

The term glider kit refers to a truck that has a new frame, cab, electrical system and front axle but must utilize remanufactured systems for two of the three drivetrain components - the engine, transmission or rear axle. In this way, the glider allows the truck owner to power the vehicle with an older EPA-approved emissions class engine.

APG officials says its EPA dual fuel technology tests show sustainability improvements that include an 80 percent reduction in carbon monoxide and a 25 to 30 percent reduction in nitrous oxide and particulate matter emissions compared to the base year diesel engine.

With few exceptions, American Power Group's dual fuel natural gas technology can be installed on any commercial vehicle older than model year 2009.



ENERGY ENHANCEMENT SYSTEM

The technology is a non-invasive energy enhancement system that converts existing diesel engines into more efficient and environmentally friendly engines that have the flexibility to run on diesel fuel and liquefied natural gas or diesel fuel and compressed natural gas, with the flexibility to return to 100 percent diesel fuel operation at any time.

The proprietary technology displaces up to 80 percent of the normal diesel fuel consumption with the average displacement ranging from 40 to 65 percent.

The energized fuel balance is maintained with a proprietary read-only electronic controller system that ensures the engines operate at the OEM's specified temperatures and pressures.

Installation on a wide variety of engine models and end-market applications require no engine modifications unlike the invasive fuel-injected systems in the market.

APG technology can be used to convert the broadest range of Class 8 engine models in the industry, company officials say. With EPA approvals now covering 448 engine families for six of the most popular OEM engines, APG technology can be used to convert most engines that are model year 2009 or older.

The cost of converting an existing vehicle to dual fuel using the APG natural gas conversion technology is around \$30,000 per vehicle and includes the APG ECU, tank, installation and labor, they note. Net annual fuel savings for an existing vehicle using APG technology are estimated at 15 percent to 30 percent over diesel alone.

The cost of a new APG dual fuel natural gas glider is comparable to that of a new diesel truck, with a net annual fuel savings of 20 percent to 30 percent over diesel, the officials add.

APG dual fuel systems are available through any WheelTime Network Authorized Dealer and APG Certified Installers.