

Energy Intelligence: Propane-Fueled Forklifts Offer Sustainability, Performance

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Owners and managers of manufacturing facilities are working hard to incorporate environmentally friendly practices into everyday operations. As they look for ways to update their existing material handling processes to meet the demands of corporate sustainability initiatives, many are realizing they already have taken that first step by using a fleet of propane-fueled forklifts.

Propane-fueled forklifts are common in manufacturing facilities, warehouses, and distribution centers across the country, as they provide many advantages to owners and managers — especially with regard to sustainability. They reduce greenhouse gas emissions by 19 percent compared with gasoline-fueled forklifts, and 7 percent compared with those fueled by diesel.

The economics involved with achieving those sustainability benefits have been enhanced due to a 50-cent-per-gallon alternative fuel tax credit for propane-fueled forklifts, made available through the December 2010 passage of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. That financial incentive also applies to on-road vehicles fueled by propane autogas that some manufacturing facilities use in their daily operations. Those vehicles also are sustainable performers, including offering a 25 percent reduction in greenhouse gas emissions.

Clean, Available Alternative Fuel

Nearly 90 percent of U.S. propane supplies are produced in the United States, making it a readily available, domestic fuel choice for manufacturing facility owners and managers.

The Propane Education & Research Council (PERC) has calculated that more than 600,000 propane-fueled forklifts are operating in U.S. factories, warehouses, and distribution centers today. According to the Occupational Health and Safety Administration (OSHA), propane-fueled forklifts primarily fall into Class IV models (Internal Combustion Engine Trucks with Solid/Cushion Tires) and Class V (Internal Combustion Engine Trucks with Pneumatic Tires).

Reduced greenhouse gas emissions achieved by propane-fueled forklifts do not result in reduced power. Propane-fueled forklifts provide consistent, 100 percent power throughout operation, and are able to run 24 hours per day with longer run times between refueling than forklifts fueled or powered by other energy sources.

Propane was approved as a clean, alternative fuel under the Clean Air Act of 1990, which in turn qualifies it for various federal tax incentives and rebate programs. The federal government and many states offer programs to encourage the use of domestic and alternative fuels, with most states offering at least one incentive. Facility owners are eligible to apply for the alternative fuel tax credit, which provides a 50-cent-per-gallon savings on propane purchased to refuel a facility's forklifts and work trucks through Dec. 31, 2011.

Keep in mind that this commentary should not be construed as tax advice. Instead, plant owners who are interested in applying for the tax credit should consult their tax advisor regarding claims for credits or refunds, and the Internal Revenue Service (IRS) website for appropriate dates and forms. Claimants must be registered with the IRS and follow all documentation requirements.

Safe, Easy Refueling

Since propane-fueled forklifts are used daily in manufacturing facilities across the country, propane providers have established a reliable refueling infrastructure to meet fuel demand. Through this process, propane providers deliver fuel to meet just-in-time inventory as often as needed — through either cylinder exchange or on-site refueling.

Cylinder exchange programs usually include installation of a cage at a manufacturing facility, where a propane provider replaces empty cylinders with full ones during regularly scheduled deliveries. Propane cylinders require little space and can easily be kept in a storage area inside or outside of a facility. This mature business model conserves time and resources for facility owners and managers, and allows trained operators to refill their forklifts as often as needed.

For facilities requiring large quantities of propane, a propane provider can install a no-spill dispenser on-site to refuel empty cylinders. This dispenser also can refill tanks for work trucks fueled by propane autogas. Facility owners and managers can work with their propane provider to determine where a refueling area can be located that best meets their needs.

As with any refueling approach, proper safety and training procedures is crucial. Only personnel with proper training should replace or refuel propane cylinders. In addition to reviewing safety materials from the manufacturers of their forklifts, facility owners and managers should be sure to review key safety standards such as Occupational Health and Safety Administration (OSHA) Standard 1910.178 (I)(2)(ii) and American National Standards Institute/Industrial Truck Standards Development Foundation (ANSI/ITSDF) Standard B56.1-2009 4.19.2.

Taking The First Steps

Propane-fueled forklifts have been a sustainable, high-performing material handling solution for years, offering manufacturing facility owners and managers the added advantages of easy refueling and cost savings. Work trucks fueled by propane autogas present a new opportunity to meet sustainability initiatives and build environmental stewardship for many facility owners.

There are many ways to learn about introducing propane-fueled forklifts and vehicles fueled by propane autogas to an existing operation. Facility owners and managers can start by visiting or consulting with a propane provider or trusted equipment dealer.

The Propane Education & Research Council was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source through research and development, training, and safety initiatives.

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