

# Industrial Plant LNG Fuel Conversion

## Case Study

**Company:** Kleen Laundry and Dry Cleaning Services, Inc.

**Business:** Commercial Laundry

**Location:** Lebanon, NH

**2011 Fuel Consumption:** 830,000 gallons of Propane

**Conversion Date:** February 2012



### Background

Kleen, Inc. is a commercial laundry processing the linens for 26 hospitals, nursing homes and clinics in New Hampshire, Vermont and Maine. Since 1996, Kleen, Inc. had burned propane as its primary fuel for their boilers and dryers. The unpredictability of propane prices and the high cost of propane led Kleen, Inc. to investigate other fuel options. Kleen, Inc. looked very closely at a biomass system in 2009 before deciding that the biomass system did not meet all of their goals. Kleen, Inc. continued to investigate other options and started to look at liquefied natural gas (LNG) in December of 2010. After fully vetting LNG and visiting multiple LNG installations, Kleen, Inc. decided that a conversion to LNG met all of their goals.

### Process

After receiving proposals from multiple LNG suppliers, Kleen, Inc. awarded their installation and fuel supply business to Prometheus Energy of Houston, TX. Prometheus Energy provided the design and engineering for the project, and worked with the city of Lebanon, NH, in the permitting and approval process. Prometheus Energy structured a turnkey solution, coordinating the complete installation from delivery of equipment, to site work, and commissioning. Prometheus Energy worked closely with Kleen, Inc. on the conversion of the fuel consuming equipment, providing technical expertise and advice throughout the entire conversion process. The fuel system includes the LNG storage tank, gas vaporization equipment and gas distribution system.

### Results

The savings resulting from the fuel conversion have been impressive. Below are the fuel costs for the months of April and May 2011 vs. the fuel costs for April and May 2012.

April/May 2011	April/May 2012	Difference	% Difference
\$155,120	\$103,126	\$51,994	33.5%

*Kleen, Inc.'s LNG Installation*



*In addition to the cost savings, Kleen, Inc. is also experiencing a 10% lower level of CO<sub>2</sub> greenhouse gas emissions.*

*"Prometheus Energy's expertise and experienced team enabled the success of this project"*  
—Greg Gosselin,  
President of Kleen, Inc.