# PROPANE AT A GLANCE



## WHAT IS PROPANE?

Propane is a gas found mixed in natural gas and petroleum deposits. To obtain propane, it must be separated from natural gas and crude oil when they are processed for their final uses. Propane is called a fossil fuel because it was formed hundreds of millions of years ago from the remains of tiny sea animals and plants. When the plants and animals died, they sank to the bottom of the oceans and were buried by layers of sediment and sand that turned into rock. Over time, the layers became thousands of feet thick.

The layers were subjected to enormous heat and pressure, changing the energy-rich remains into petroleum and natural gas deposits. Eventually, pockets of these fossil fuels became trapped in rocks, similar to the way a wet sponge holds water.

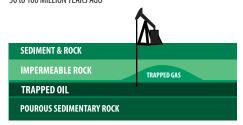
### **HOW WAS PROPANE FORMED?**



300 to 400 MILLION YEARS AGO



50 to 100 MILLION YEARS AGO



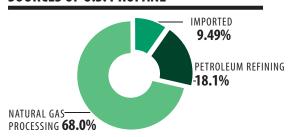
**TODAY** 

## PRODUCING PROPANE

Propane is a gas derived from natural gas and petroleum. Over half of the propane used in the United States is extracted from raw natural gas.

Propane comes from natural gas and petroleum wells. About 68 percent of the propane used in the United States is extracted from raw natural gas. Raw natural gas contains about 90 percent methane, five percent propane, and five percent other gases. The propane is separated from the raw natural gas and the other gases at a natural gas processing facility. About 68 percent of propane is extracted from natural gas. Petroleum accounts for 18 percent of propane. Petroleum is separated into its various products at a processing plant called a refinery. The other 14 percent of the propane we use in the U.S. is **FARMS** imported from other countries, mostly from Canada by rail car.

#### **SOURCES OF U.S. PROPANE**



\* Total does not equal 100% due to independent rounding. Data: Energy Information Administration

#### **PROPANE USES**

Propane is a clean-burning, versatile fuel. It is used by nearly everyone in the United States—in homes, on farms, by business, and in industry—mostly for producing heat and operating equipment.

#### **HOMES**

Homes and businesses use about 30 percent of the propane consumed in the U.S. Propane is used mostly in homes in rural areas that do not have natural gas service, as well as in manufactured (mobile) homes. Millions of homes use propane to meet some of their energy needs. About 22 percent of mobile homes use propane for heating. Propane is also used in homes for air conditioning, heating water, cooking and refrigerating foods, drying clothes, lighting, and fueling fireplaces. Homes that use propane as a main energy source usually have a large propane tank outside of the house that stores propane under pressure as a liquid. Propane dealers

deliver propane to the residences in trucks, filling the tanks several times a year as needed. The average residential propane tank holds between 500 and 1,000 gallons of liquid fuel. Millions of backyard cooks use propane-powered gas grills for cooking. Recreational vehicles (RVs) usually have propane-fueled appliances, giving them a portable source of energy for cooking, hot water, and refrigeration.

Many of America's farms use propane to help meet their energy needs. Farmers use propane to dry crops such as corn, soybeans, grains, tobacco, apples, peanuts, and onions. Propane is also used to ripen fruit, heat water, and refrigerate foods. Propane flamethrowers are used to control weeds. Propane is also used to heat barns, chicken houses, stock tanks, nurseries, greenhouses, orchards, and incubators. Propane is one fuel farmers use to operate a variety of farm equipment, including tractors, weeders, irrigation pumps, stand-by generators, and seedling planters.

#### BUSINESS

Some businesses and commercial establishments—such as hotels, schools, hospitals, restaurants, and laundromats—use propane for heating and cooling air, cooking and refrigerating food, heating water, and lighting.

#### **INDUSTRY**

Industry uses 61 percent of the propane consumed in the U.S. Some industries find propane well suited to their special needs. Metal workers use propane tanks to fuel their cutting torches and other equipment. Industries also use propane for soldering, vulcanizing, and other processes that need a ready heat source. Portable propane heaters provide a convenient source of heat for construction and road workers in cold weather. Propane also is used to heat asphalt for highway construction and repairs. Propane heaters at construction sites are used to dry concrete, plaster, and fuel pitch. And because propane is a very low-emission fuel, forklift trucks powered by propane can operate safely inside factories and warehouses.



To make products and fuel industry





To fuel machinery



To fuel appliances



To fuel backyard grills



To fuel hot air



operate farm equipment



To fuel fleet vehicles