

***Presentation to DEQ Greenhouse Gas
Reporting Advisory Committee***

November 16, 2009

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Northwest Propane Gas Association***



Propane is Clean

- *Propane is one of the lightest, simplest hydrocarbons in existence, and, as a result, is one of the cleanest burning of all alternative fuels.*
- *Listed as clean alternative fuel in the 1990 Clean Air Act and the National Energy Policy Act of 1992.*

Propane is a Domestic Fuel

90%

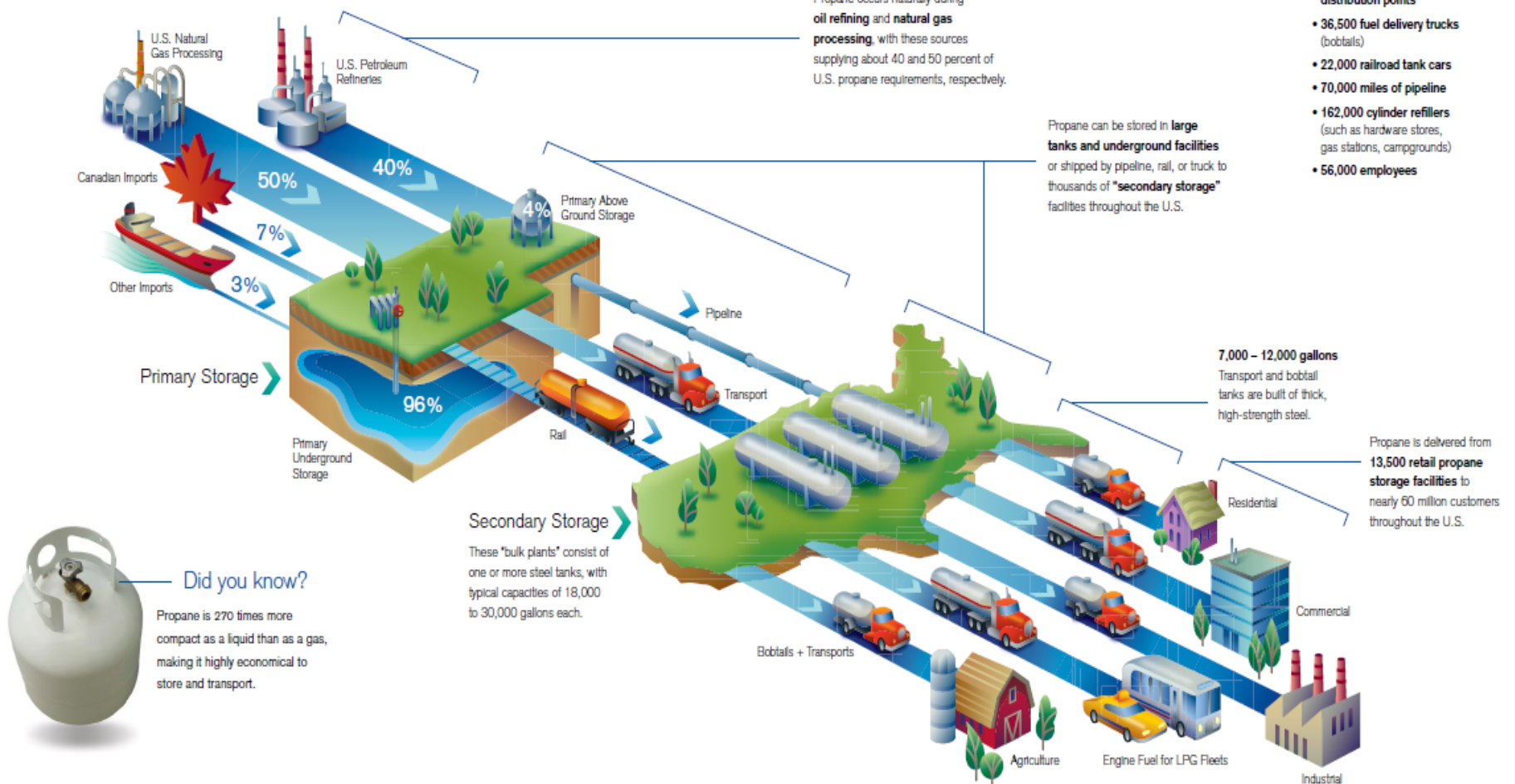
of propane is produced domestically and reduces our dependence on foreign oil. It comes from natural gas or crude oil as a byproduct of the refining process.

Propane is a Domestic Fuel

PROPANE
EXCEPTIONAL ENERGY™

How Propane Gets to Where It's Needed.

The U.S. propane industry has created a vast and safe distribution network to get propane from the source to customer sites. U.S. Department of Transportation regulations and other codes and standards provide for the safe transport of propane on our highways, railroads, and waterways. However propane reaches you, this wide-ranging distribution system means that even if you live far from the natural gas main or power grid, you can be cooking with gas.



Propane occurs naturally during **oil refining and natural gas processing**, with these sources supplying about 40 and 50 percent of U.S. propane requirements, respectively.

Propane can be stored in **large tanks and underground facilities** or shipped by pipeline, rail, or truck to thousands of "secondary storage" facilities throughout the U.S.

7,000 – 12,000 gallons
Transport and bobtail tanks are built of thick, high-strength steel.

Propane is delivered from **13,500 retail propane storage facilities** to nearly 60 million customers throughout the U.S.

Today's Propane Distribution Network.

- 90 barges and tankers
- 6,000 transports
- 13,500 bulk/storage distribution points
- 36,500 fuel delivery trucks (bobtails)
- 22,000 railroad tank cars
- 70,000 miles of pipeline
- 162,000 cylinder refilers (such as hardware stores, gas stations, campgrounds)
- 56,000 employees

Did you know?

Propane is 270 times more compact as a liquid than as a gas, making it highly economical to store and transport.



Propane is Clean

- *Propane is often the fuel of choice used “off the natural gas grid” in rural areas of the country. Often that can mean propane serves those with lower incomes.*

Propane is Versatile and Portable

PROPANE
EXCEPTIONAL ENERGY[®]

- *Nearly 80% of farms use propane for irrigation pumps, grain dryers, power generation and other farm equipment.*

Irrigation Engines

Propane Cuts Greenhouse Gas Emissions On the Farm



24%

Gasoline



9%

Diesel

Propane is Versatile and Portable

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EXCEPTIONAL ENERGY™

- *Thermal agriculture assists production by controlling weeds, insects, and microbes using propane rather than introducing toxic chemicals into the land and groundwater.*



Propane is Versatile and Portable

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EXCEPTIONAL ENERGY[®]

- *Propane is an essential fuel for crop drying, flame cultivation, fruit ripening, and space and water heating.*



Propane is Versatile and Portable

PROPANE
EXCEPTIONAL ENERGY™

- *In Oregon, the USDA is encouraging the transition from dirty diesel smudge pots to clean-burning propane heater systems for orchard frost protection.*



Propane is Versatile and Portable

PROPANE
EXCEPTIONAL ENERGY™

- *Household uses include, furnaces, water heaters, outdoor grills, fireplaces, dryers and range tops.*

Residential Space Heating

PROPANE
EXCEPTIONAL ENERGY™

Propane Cuts Greenhouse Gas Emissions...at Home



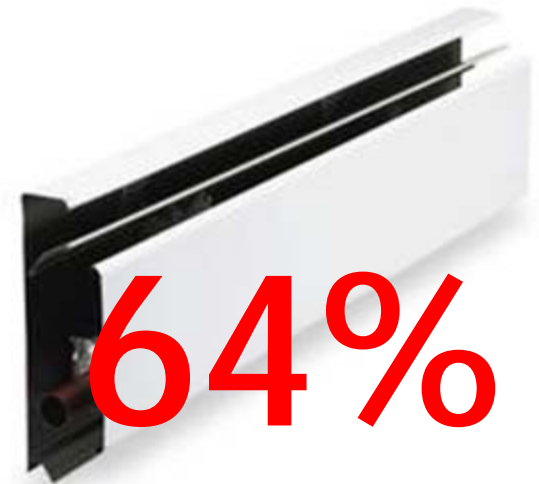
69%

Furnace



12%

Heat pump



64%

Baseboard

Residential Water Heating



63%

Tankless



60%

Standard

Propane is Versatile and Portable



- *Propane is used in forklifts and on-road vehicles, as well as commercial and industrial applications.*

Vehicles – Light duty trucks

PROPANE
EXCEPTIONAL ENERGY™

Propane Cuts Greenhouse Gas Emissions On the Road



19%

Compared to
Gasoline

2%



Fewer Emissions than Ethanol (E85)



**More than 800
Propane Buses Sold in 2008**

Propane as a Greenhouse Gas

- *With its low greenhouse gas emissions, short lifespan in the atmosphere, and low carbon content, propane has less of an impact on the environment than many other comparable fuels.*
- *For on-site emissions alone, propane has lower carbon content than gasoline, diesel, heavy fuel oil and ethanol.*

Propane as a Greenhouse Gas

- *When released into the atmosphere, LPG is unstable and has a relatively short lifetime.*
- *The greenhouse gas footprint of LPG is relatively small compared to other fuels in terms of total emissions and emissions per unit of energy consumed.*
- *LPG's share of total U.S. fossil fuel combustion represents about **1.05%** of total emissions.*

About the Propane Industry

- *Propane dealers are not utilities; rather, propane marketers are private businesses, and most of them are classified by the SBA as small businesses.*



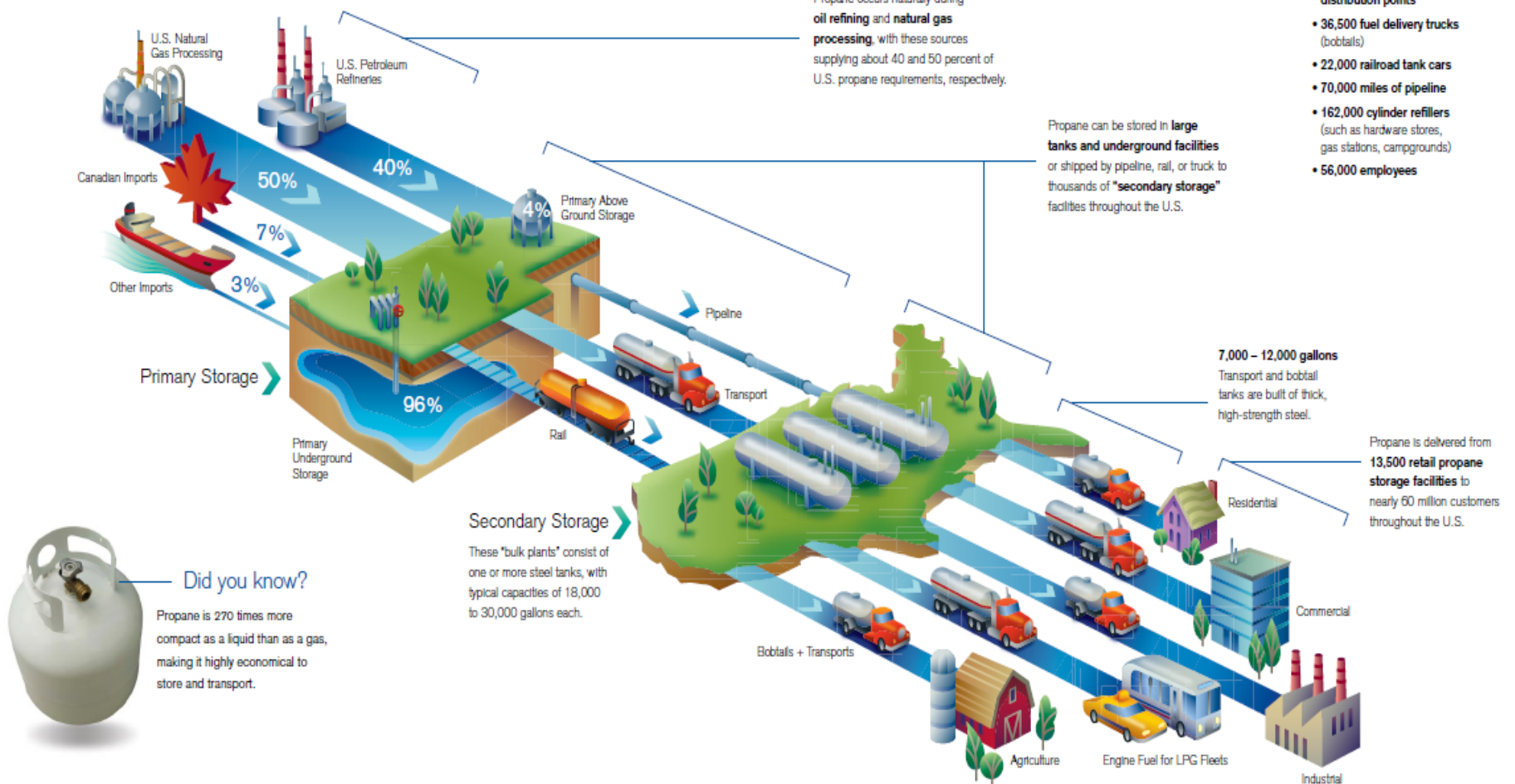
About the Propane Industry

- *The distribution chain is complex: refineries, transporters, wholesalers, national multi-state and regional propane companies, independent dealers, dispensers, cylinder exchange locations, and other distribution points.*

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**2007
Sales of Natural Gas Liquids
and Liquefied Refinery Gases**

API
Statistics Department
December 2008

energy **API**  **GAS PROCESSORS ASSOCIATION**

 **PROPANE**
education & research
COUNCIL

 **NPGA**
NATURAL GAS PROCESSORS ASSOCIATION

- *The best source of U.S. propane industry sales and use statistics is the annual Sales of Natural Gas Liquids and Liquefied Refinery Gases publication created and distributed by the American Petroleum Institute (API).*

About the Propane Industry

- *This report is the only source of national and state-by-state sales data on odorized propane markets. It is published annually and is used by propane marketers, investors, common carriers, and others with an interest in the propane industry.*

About the Propane Industry

- *In recent years there has been a reduction in propane consumption in Oregon, largely due to efficiencies and conservation.*
- *Propane is a very small part of the total energy consumption in Oregon, often serving as a secondary fuel.*

Propane Issues Concerning Greenhouse Gas Reporting

- *At the federal level, discussion centers on reporting by the refinery at the point of fractionation.*
- *The marketplace is very competitive. Confidentiality and disclosure of individual dealers' sales volume is a big concern for propane dealers, who consider it proprietary information.*

Propane Issues Concerning Greenhouse Gas Reporting

- *Multi-state propane companies are concerned about double reporting.*
- *Independent dealers often do not have sufficient staff and expertise to handle burdensome reporting duties.*

Oregon Legislation Concerning Greenhouse Gas Reporting

- ***SB 38 Section 2:***

(5) “...For the purpose of determining greenhouse gas emissions related to liquefied petroleum gas, the commission shall allow reporting using publications or submission of data by the American Petroleum Institute but may require reporting of such other information necessary to achieve the purposes of the rules adopted by the commission under this section.”

Oregon Legislation Concerning Greenhouse Gas Reporting

- ***SB 38 Section 2:***

(6) “To an extent that is consistent with the purposes of the rules adopted by the commission under this section, the commission shall minimize the burden of the reporting required under this section by: ... (e) Requiring reporting by the fewest number of persons in a fuel distribution system that will allow the commission to acquire the information needed by the commission...”

Propane Contacts

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Thank you for your time.