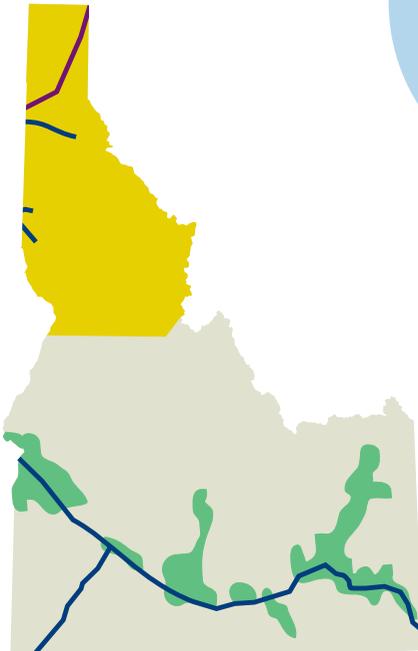


Natural Gas Fact Sheet Idaho

Natural gas is a fundamental fuel for Idaho's economic and environmental future: heating our homes, powering businesses, moving vehicles and serving as a key component in many of our most vital industrial processes. Read on for an overview of natural gas' role in our state, the key attributes of this clean and abundant fuel and opportunities available to increase utilization of this domestically sourced resource.



Idaho's Natural Gas System

Legend

- Avista Corporation
- Intermountain Gas
- Williams Northwest Pipeline
- TransCanada's GTN System

Overview

Idaho relies on two utilities to supply natural gas throughout the state. Two large transmission pipelines provide reliable gas transport to, and through, our region from major supply basins in the Rockies, Northern Alberta and Northern British Columbia.

These pipelines and utilities are important Idaho employers, their joint in-state workforces total more than 300 individuals serving almost 400,000 residential, commercial and industrial natural gas customers.

Utilities in Idaho earn the majority of their revenue based on the service and delivery fees they charge to deliver natural gas safely to homes and businesses. The commodity cost of natural gas is largest passed on at-cost to the consumer.

More Supply = Lower Costs for Idaho's Natural Gas Consumers

As the commodity cost of natural gas has decreased, due to new supply from shale, Washington consumers have reaped the benefits through rate reductions and a stable pricing outlook.

According to "Fueling the Future With Natural Gas: Bringing it Home" a 2014 study by IHS CERA and the American Gas Foundation, low natural gas prices driven by America's abundance of domestic natural gas are expected to increase per-household income in the U.S. by more than \$3,500 by 2025.

Natural gas is a key process fuel for some of Idaho's largest and most vital industries, including:

- **Manufacture of Computer and Electronic Products:** 12,430 Idaho employees
- **Food Processing:** 15,556 Idaho employees
- **Manufacture of Wood and Paper Products:** 6,393 Idaho employees
- **Chemical Production:** 2,492 Idaho employees

Source: 2012 BLS-NAICS



Natural Gas Helps Idaho Farms Stay Healthy

Fertilizer used to grow crops is composed almost entirely of natural gas components, meaning the price of natural gas has a tremendous effect on Idaho's agriculture, responsible for

4.5 percent of the state's economic output.

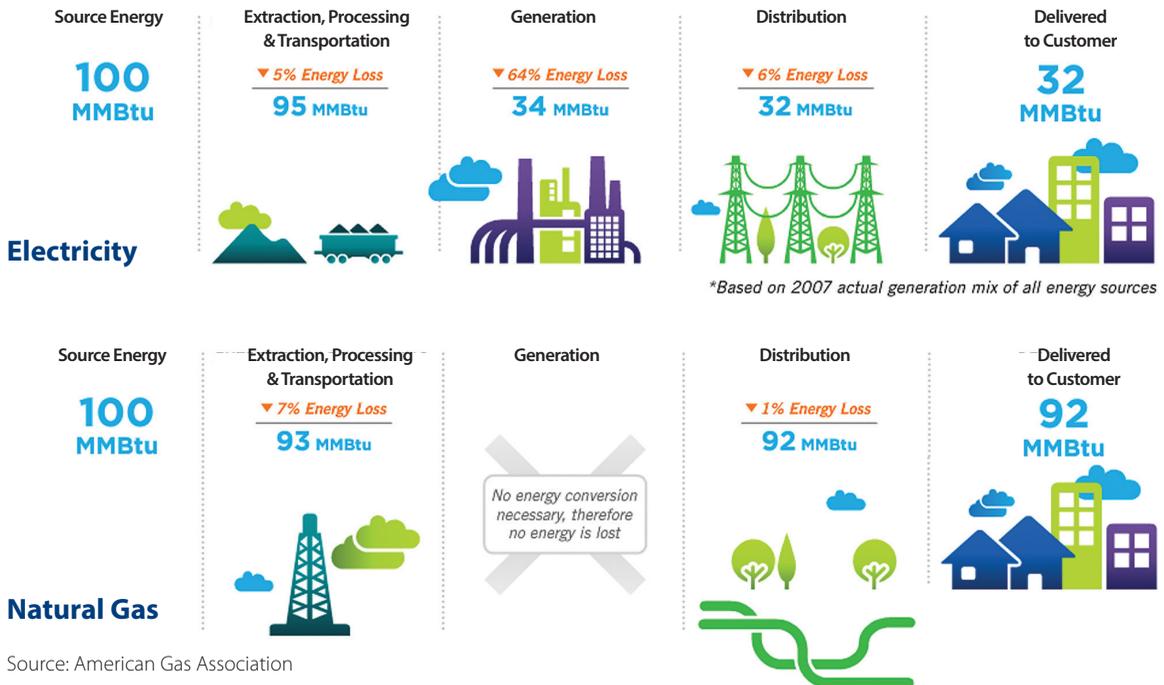
Gas for Power Generation

Natural gas as an electric generation fuel continues to grow in importance to our state. Flexible gas-fired generation keeps the lights on when the wind isn't blowing for Idaho's 973MW of wind generation while providing peaking capability during times of high demand. High efficiency combined cycle units (CCCT), powered by natural gas, provide base load energy.

Natural Gas is . . .

Abundant & Domestic

- About 93% of the natural gas consumed in the United States was produced in the U.S. The remaining 7% is imported from Canada along with a nominal amount of internationally traded liquefied natural gas (LNG).
- Idaho relies on production basins in Northern Alberta, Northern British Columbia and the U.S. Rockies for our gas supply. Depending on demand and market conditions we may receive as much as two-thirds of our supply from Canada due to our proximity.
- The domestic natural gas resource base is large, estimated to be 2,515 trillion cubic feet, enough to meet America's diverse energy needs for generations to come. (Source: PGC, 2015)



Source: American Gas Association

- The natural gas industry operates in all 50 states and is responsible for almost 3 million jobs and \$385 billion in economic output. (Source: API, 2015)

Clean

- Natural gas is efficient: 92% of the natural gas produced is delivered to customers as usable energy. (In contrast, 32% of the total energy used to generate electricity reaches consumers.)
- Natural gas produces 50% fewer GHG emissions than coal and up to 30% fewer than oil, along with significantly fewer particulate and NOX emissions.
- Quick ramping natural gas "peaker" power plants allow for intermittent renewable resources, such as wind and solar, by providing power when the wind stops blowing or the sun stops shining.

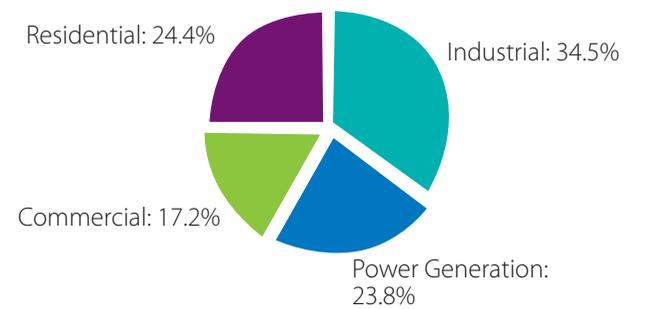
Safe & Reliable

- Natural gas pipelines and utilities have strict protocols for testing and replacing, designed to ensure system integrity.
- Two natural gas transmission pipelines, Williams NW Pipeline and TransCanada GTN, deliver the majority of the natural gas consumed in Idaho; both pipelines have continuously operated safely and reliably for more than 50 years.
- According to the National Transportation Safety Board, pipelines are the safest form of energy transportation.

Versatile

- Natural gas touches nearly every segment of American life, as the dominant source of energy nationwide for heat, hot water and cooking in homes and businesses.
- Natural gas also has uses as a feedstock for industrial processes, is used to generate electricity and has a growing role as a transportation fuel.

Idaho's 2016 Gas Consumption by End Use



Source: EIA, 2016

Opportunities

Our nation's abundant natural gas supply outlook offers an incredible opportunity to deliver energy value to American homes and businesses, fuel a renaissance in manufacturing and provide a cleaner, less expensive fuel option for vehicles, thus reducing our dependence on imported oil.

NGVs

- Compared to diesel-powered vehicles, natural gas vehicles can reduce greenhouse gas emissions by 29%.
- This number could be as high as 83% if renewable natural gas is introduced into the supply.
- Natural gas vehicles offer significant fuel savings over time, and began 2017 at around \$2 per diesel gallon equivalent.
- Replacing medium and heavy duty diesel trucks with NGVs is the most economically efficient way to reduce NOx emissions.



Avista operates CNG trucks, like the one pictured here, as part of their Idaho operations based out of Coeur d'Alene.

Combined Heat and Power (CHP)

A proven American technology that can be more efficient and cleaner than the majority of current power generation technologies. CHP puts the excess heat created during gas-fired power generation to use, boosting efficiency while producing clean, affordable energy for businesses and factories.

Direct Use

When natural gas is utilized directly in the home, over 90% of its energy is applied to its intended use.

Natural gas furnaces are up to 98% efficient, last longer than electric heat pumps and deliver heat up to 25 degrees warmer, for comfort more quickly.

Greater recognition of the benefits of natural gas in federal and state regulation, legislation, building energy codes, appliance standards and energy policy initiatives will open new doors to increased energy efficiency and energy security for our state and its citizens.



1914 Willamette Falls Dr. #260
West Linn, OR 97068
t: 503.344.6637 f: 503.344.6693
www.nwga.org
Twitter: @NWGas