

8. Natural Gas and LNG as a Clean Fuel

Greenhouse gas

Natural gas is a fossil fuel. Like all fossil fuels, it generates carbon dioxide – also known as CO₂, a type of greenhouse gas.

Natural gas is the cleanest-burning of all fossil fuels and is a cleaner alternative to other energy sources like coal. Changing from coal to natural gas would cut China’s greenhouse gas emissions by up to 40%.

Over a year, two trillion cubic feet of B.C.’s natural gas could replace:

- more than 70 nuclear facilities, or
- approximately 100 coal plants.

Alternative power sources and transitional fuel

Natural gas is widely accepted as a “transitional” fuel. It can help reduce carbon emissions now, while powering the shift to renewable energy sources such as wind, solar and bioenergy.

British Columbia’s liquefied natural gas (LNG) facilities will be the cleanest in the world. New measures will be in place before LNG export plants are built, and investments will continue to focus on using innovation and clean energy sources to reduce greenhouse gas emissions across the natural gas industry.

The temperature in Kitimat and Prince Rupert is lower than other LNG-producing countries. Because it’s naturally cooler on the B.C. coast, less energy is needed to chill natural gas to -160°C – the temperature where natural gas liquefies.

LNG producer	Temperature	B.C.’s energy efficiency advantage
B.C. (Prince Rupert, Kitimat)	7° C	
Australia	27° C	34%
Qatar	26° C	32%
Mozambique	23° C	27%
Louisiana	22° C	25%

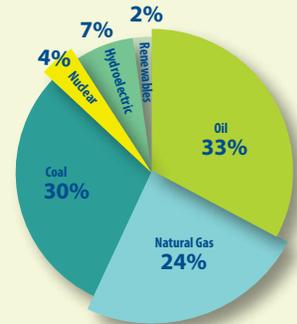
Points to consider:

- Do we have a social responsibility to help reduce global greenhouse gas emissions by selling LNG to high-emitting countries around the world (e.g. China)?
- Can a case be made that using LNG to replace dirtier fuels like coal and oil, and to develop alternative, green energy sources, is good for the environment?

Dig a little deeper:

Global Energy Consumption in 2013 by Fuel Type

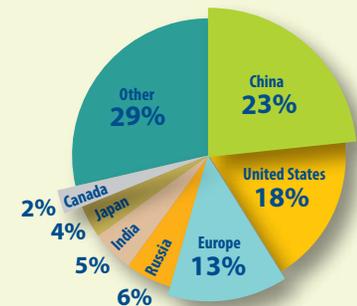
Hydrocarbons dominated global energy consumption in 2013.



BP Statistical Review of World Energy 2014

Fossil Fuel Consumption in 2013 by Country

China is – and will continue to be – the world’s heaviest user of fossil fuels.



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