

1. What's the Story?

Natural gas is the largest energy source used in Canadian homes. It is also used in manufacturing plants, to generate electricity, and as fuel in heavy-duty trucks.

B.C. has an enormous supply of natural gas – an estimated 2,933 trillion cubic feet. This could support domestic and export markets for the next 150 years. A significant amount of this natural gas is accessible through sophisticated drilling technology including hydraulic fracturing.

Hydraulic fracturing

Hydraulic fracturing involves pumping water and sand into a gas well at a high pressure, causing small cracks to appear in the rock deep below the surface and releasing the natural gas trapped inside. Hydraulic fracturing is only used for a week or two, when the well is first drilled. After the process is completed, water is withdrawn and then gas flows into the well – often for as long as 20 or 30 years. The gas is captured and transferred to processing plants through pipelines. The water is reused in other wells, and eventually sent to a location where it can be safely disposed of.

Liquefied Natural Gas

Liquefied Natural Gas (LNG) is natural gas that has been chilled to -160°C. Once chilled, the natural gas becomes a liquid, condensing to 1/600th of its original volume. It is now safer and more efficient to transport overseas. LNG is loaded onto specially designed ships and sent to foreign markets. There, it is reheated and converted back into a gaseous state and used to generate power and heat homes.

The demand for natural gas is on the rise. China and Japan are both pursuing a new supply – China to fuel its massive modernization, and Japan to diversify its fuel supply. China is already the world's largest user of fossil fuels.

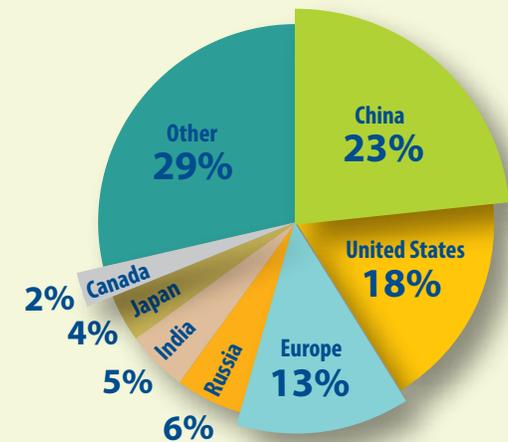
Points to consider:

- British Columbia has a lot of natural gas – more than many other areas of the world. Why does it make sense for B.C. to export natural gas to these other markets?
- There is demand for natural gas from markets around the world. How do you perceive British Columbia's role in natural gas production and export?

Dig a little deeper:

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

Fossil Fuel Consumption in 2013 by Country



BP Statistical Review of World Energy 2014