



LNG:

A super-cool fuel and a hot commodity

> LNG (liquefied natural gas) will play a critical role in North America's energy future, and will help to reduce the world's greenhouse gas emissions through the displacement of coal and other higher-emitting fuels, and as a potential feedstock for hydrogen production.

What is LNG?

Liquefied natural gas (LNG) is natural gas that has been supercooled to a liquid state, or liquefied, for shipping and storage. As a clear, colorless, odorless, non-toxic liquid, cooled to about -260°F or -162°C, the volume of LNG is about 600 times smaller than its gaseous state.

The liquefaction process allows natural gas to be used as a transportation fuel – and to be shipped by sea all over the world aboard specialized LNG vessels.

These double-hulled carriers transport LNG in large, onboard, supercooled (cryogenic) tanks, [and can hold up to 260,000 m³ of LNG](#), the equivalent of 5.6 billion cubic feet of natural gas.

The global LNG market

Asia dominates global demand for LNG, with the world's top five importers – China, Japan, South Korea, India and Taiwan – accounting for 65% of all global imports in 2021. Asian markets will continue to have a growing appetite for LNG driven by population growth, increasing quality of life and urbanization, which drive power demand and gas as a preferred feedstock for power, home and commercial heating, and petrochemicals.

On the other side of the world, Europe's quest to reduce its dependency on Russian gas – which has greatly intensified since Russia's invasion of Ukraine in February 2022 – is expected to dramatically increase demand for LNG in European markets.

On the supply side, the emergence of new LNG export projects, particularly in the United States, is expected to [boost global supply by 19% between 2021 and 2026](#).

Forecasts call for North America and Qatar to become dominant LNG exporters.

How does LNG get to you?

Once a carrier reaches port, LNG is offloaded at import and regasification terminals, and stored in insulated storage tanks to retain its temperature.

When needed, the LNG is warmed to convert it back to a gas and then delivered by pipeline – heating homes, businesses, hospitals and schools, and being transformed into thousands of consumer products, including medications, fertilizers, fabrics, chemicals and plastics.

Enbridge, LNG and the energy transition

As a diversified energy company, Enbridge is uniquely positioned to help accelerate the global transition to a cleaner energy future – and we're doing it in ways that are ethical, sustainable and socially responsible.

We're committed to reducing the carbon footprint of the energy we deliver, and to achieving net-zero emissions by 2050. We're advancing new low-carbon energy technologies – including hydrogen, renewable natural gas, and carbon capture and storage.

And we're also expanding global access to natural gas through LNG, which will help to reduce the world's greenhouse gas (GHG) emissions through the displacement of coal-fired power generation. It's estimated that natural gas power generation [emits anywhere from 40% to 60% less CO₂ than coal](#), based on plant efficiency.

U.S. Gulf Coast

With new American LNG export plants already changing global gas dynamics, Enbridge's pipeline network is strategically located to meet growing demand – internationally, as well as domestically.

Our Texas Eastern Transmission and Valley Crossing pipelines, which draw from multiple basins, currently serve four operating Gulf Coast LNG facilities – with expansion projects in the queue to serve the Venture Global Plaquemines LNG export facility in Plaquemines Parish, LA, and the potential for other connections as well.

Western Canada

In Canada, Enbridge's BC Pipeline (T-North and T-South) is well-positioned to deliver growing supply from the Western Canadian Sedimentary Basin (WCSB) to new LNG projects on Canada's West Coast.

In July 2022, we announced an agreement with Woodfibre LNG Limited, a subsidiary of Pacific Energy Corporation Limited, to jointly invest in construction and operation of the Woodfibre LNG project – a 2.14 Mtpa (~300 MMcf/d) LNG export facility with 250,000 m³ of floating storage capacity to be built near Squamish, BC.

Enbridge will invest in a 30% ownership stake as a non-operating partner. The project is expected to enter service in 2027.

How LNG gets to you

