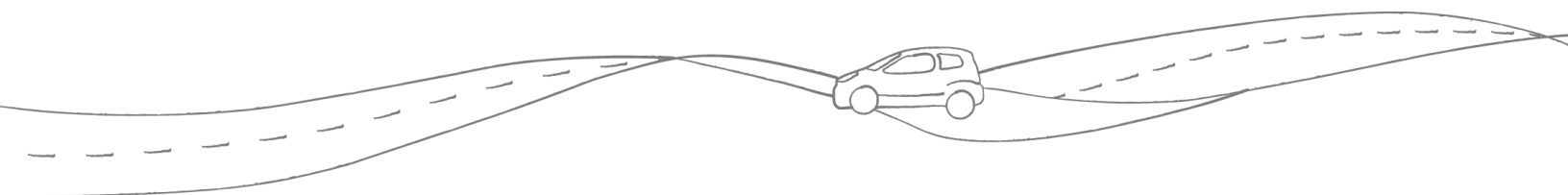




Mackenzie Delta Liquified Natural Gas

Proven resources and untapped potential from a predictable partner.



Mackenzie Delta Liquified Natural Gas (MDLNG)

In a time of heightened uncertainty around global energy supply, Canada's Northwest Territories (NWT) has the clean gas resources and political stability to meet the world's current and future energy needs.

The NWT's Mackenzie Delta region is home to more than six trillion cubic feet (TcF) of onshore conventional sweet gas. And Canada Energy Regulator estimates up to 10 TcF more in onshore conventional gas is waiting to be discovered in the region.

The MDLNG Concept

In 2021, the *Government of the Northwest Territories* (GNWT) commissioned a pre-feasibility study to examine the viability of a natural gas extraction, liquefaction and export concept using known Mackenzie Delta resources.

1. Natural gas is extracted from a series of discovered and proven gas fields near Tuktoyaktuk, NT
2. The product is moved to a central processing facility, then an offshore liquefaction and loading facility
3. Polar-class, icebreaking LNG tankers transport the product to liquefied natural gas (LNG)-importing nations in Asia.

The Study's Base Case

The MDLNG concept used the following base case:

- Four million tonnes of natural gas exported annually
- 20+ years of production
- 170,000 cubic metres per shipment
- 50 shipments annually with polar-class LNG carriers

It makes dollars and sense

- The concept is economically competitive with current Canadian and international LNG export projects, based on an internal rate of return of roughly 10 percent (2021 costing)
- All production facilities, associated infrastructure and LNG export carriers modelled in the study have been operating safely in Arctic climates for more than 40 years
- As future resources are discovered or become available, the concept can expand—both in terms of annual production and overall operational lifespan. Profitability would also grow
- LNG demand in Asia is expected to grow for at least the next 30 years.



The MDLNG advantage

- MDLNG is closer to Asian markets than other established or proposed LNG export hubs
- Canada is a stable, predictable jurisdiction with high environment, social and governance (ESG) standards
- Development follows a streamlined regulatory process with all proposed gas fields within the Inuvialuit Settlement Region
- Proven reserves can sustain exports for more than 20 years, with the potential for future discoveries to extend project life
- No need to construct a lengthy, cross-boundary pipeline to deliver natural gas
- The gas deposits can be developed without hydraulic fracturing

Closer to Asian markets

MDLNG's over-the-top shipping route can cut days, or even weeks, off LNG transport times. Distance to Tokyo (in nautical miles) from established or proposed LNG export hubs:

- Mackenzie Delta: 3,800
- Vancouver: 4,300
- Yamal Peninsula: 5,100
- Gulf of Mexico: 17,000



Opportunities for Japan

- The 7th Strategic Energy Plan places an emphasis on LNG as an energy source, where adding renewable energy technologies might be challenging
- If uncertainty over current LNG supply increases through geopolitical conflict or as local sentiment towards LNG exports wanes, Canada can help reduce Japan's reliance on those suppliers
- A transition away from coal and diesel to LNG will help Japan achieve its net-zero emissions goal



Let's Connect

The Northwest Territories welcomes partnerships and investments to help unlock its vast mineral resources and help nations meet their energy and net-zero needs.

Contact information:

Department of Industry, Tourism
and Investment

www.gov.nt.ca