



Feasibility study for Qilak LNG

Alaska-based Qilak LNG Inc., a subsidiary of Lloyds Energy, is planning a new liquefied natural gas (LNG) export project in the Alaska North Slope. Aker Arctic has completed a pre-feasibility study for the project.

The Qilak LNG 1 project seeks to capitalise on recent developments in Arctic LNG technology allowing natural gas to be directly exported from the Alaska North Slope. This concept would significantly reduce the capital cost compared to projects that require a long-distance pipeline and a large minimum LNG order.

Delivery to Asia

Phase 1 of the Qilak LNG project will have an export capacity of 4 million tonnes per year (MTPA) with additional capacity planned to come online in future phases, as determined by gas supply and global demand.

The project targets delivery of natural gas to Asian markets, including Japan, at a more competitive shipping cost than many other sources of LNG.

Economically viable

The pre-feasibility study, completed by Aker Arctic in 2019, examined the technical challenges of shipping directly from an offshore facility in the Beaufort Sea. Based on this process, Qilak LNG concluded that with the available gas supply, competitive project economics and a partner willing to utilise Alaska's gas for power and city gas use in Asia, the Qilak LNG 1 project can be economically and technically viable.

An extensive feasibility study will begin in 2020, with the target of reaching an investment decision by 2022. The first gas shipments could begin in 2026 or 2027.

Agreement with ExxonMobil

In October 2019, Qilak LNG Inc. announced that a Heads of Agreement (HOA) was entered with Exxon-Mobil Alaska Production Inc. regarding the potential supply of natural gas from the Point Thomson field to Qilak LNG's proposed Alaska North Slope liquefied natural gas export project.

The HOA foresees ExxonMobil providing at least 560 million standard cubic feet of natural gas per day to Phase 1 of the Qilak LNG 1 Project. This first phase will have an export capacity of 4 million tonnes per year of LNG over a 20-year term, utilizing offshore liquefaction and loading, and icebreaking LNG carriers.

Double-acting LNG carriers

Icebreaking LNG carriers are currently successfully employed to carry natural gas from the Russian Arctic through the Yamal LNG plant in Sabetta. These carriers use Aker Arctic - developed design and patented technology, with a bow tailored for sailing in open water and moderate ice conditions, and a heavy stern for icebreaking in astern mode using three azimuthing propulsion units. Similar icebreaking carriers could be used for Qilak LNG.

The offshore LNG plant is planned to be equipped with LNG storage facilities, a liquefaction plant, and offloading arms to serve the ships. A gas conditioning plant to remove CO₂ would be located onshore at Point Thomson. ■

More information about the project:

- www.qilaklng.com
- www.alaskapublic.org
- www.petroleumnews.com