



# ***ALASKA MOVING FORWARD***

***DEVELOPING A NATURAL GAS  
INFRASTRUCTURE AND LNG EXPORT PROJECT***



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ALASKA'S INTEGRATED NATURAL GAS PROJECT  
INCLUDES **800 MILES** OF PIPELINE AND A  
**NEW LNG FACILITY.**

## ALASKA'S ADVANTAGE



### PROVEN GAS RESERVES AND EXISTING INFRASTRUCTURE

Alaska has successfully been exporting LNG for almost 50 years. This project will tap approximately 35 trillion cubic feet of proven gas resources, plus 200 trillion cubic feet of potential gas resources on the North Slope. That's enough gas to support the integrated natural gas project for generations, while providing real economic benefits to the State and all Alaskans.

The major North Slope gas sources, Prudhoe Bay and Point Thomson, already have infrastructure, large-scale production facilities, and a qualified work force.



### MARKET PROXIMITY AND ARCTIC CLIMATE

Strategically located in the North Pacific, Alaska's proximity to the key growth markets for LNG offers significant shipping advantages.

Alaska's colder climate allows liquefaction plants to produce LNG with up to 15 percent greater efficiency than warmer locations. The cold, dry environment makes Alaska ideal to maximize LNG production.



### STABLE AND RELIABLE SUPPLY

Alaska is home to the first LNG export facility in North America and has reliably served the Asia market since exports began in 1969, delivering over 1,300 shipments to Japan as the country's longest supplier.



### BUSINESS ADVANTAGES

- Enormous proven and potential gas resource.
- Arctic climate means more efficient production.
- Close proximity to Asia markets.
- Significant preliminary engineering and design work completed.
- Known and stable regulatory and governmental process.
- Advanced regulatory; Resource Reports containing 33,700 pages filed with FERC.
- Strong safety and responsibility culture.
- Government support from local, state, and federal agencies.
- Statewide enthusiasm for commercializing North Slope natural gas.
- Target startup in 2023-2025.

## ALASKA'S NATURAL GAS SUPPLY

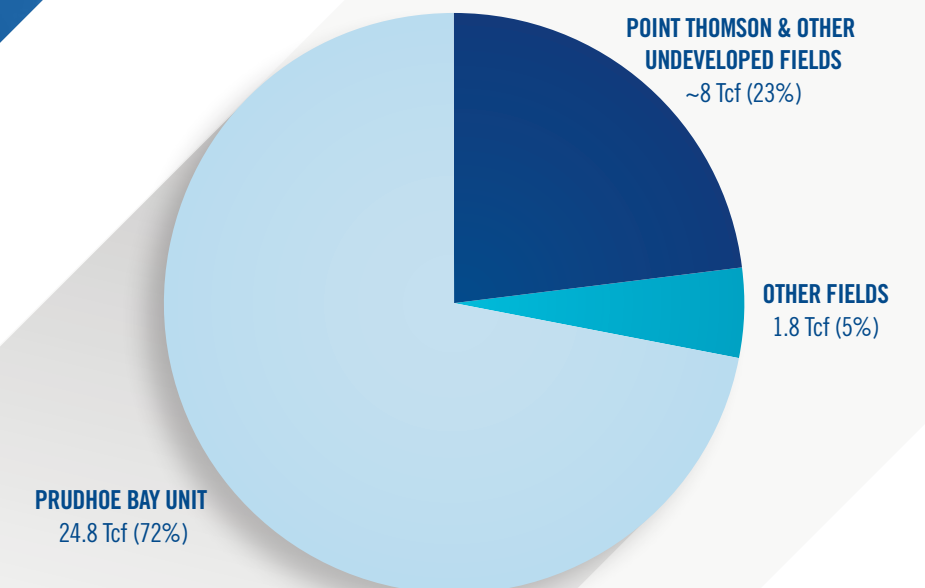
Oil and gas drive the Alaska economy anchored by Alaska's petroleum-rich North Slope which is home to four of the United States' top 10 conventional producing oil fields including Prudhoe Bay, the largest conventional field in North America. The North Slope is also one of the largest natural gas resources in the world.

The North Slope contains approximately **35 trillion cubic feet of proven natural gas resources**, and a potential resource of **another 200 trillion cubic feet of natural gas**. Advancements in drilling technology will allow tapping of an additional **590 trillion cubic feet of shale, tight gas, and gas hydrates**. These resources make the project viable for the long term.

Alaska will continue to be a world-class leader in supplying energy resources to the global economy for ages. This project will ensure that future and add more natural gas to our international hydrocarbon portfolio.

ALASKA'S CLOSE **PROXIMITY TO KEY MARKETS**, **PROVEN VAST GAS RESOURCES**, AND **SUPPORTIVE BUSINESS ENVIRONMENT**, POSITION THE STATE TO BECOME THE **PREFERRED SUPPLIER** TO THE GLOBAL LIQUEFIED NATURAL GAS (LNG) MARKETS.

### NORTH SLOPE PROVEN GAS RESOURCES





# ALASKA'S NATURAL GAS INFRASTRUCTURE AND LNG EXPORT PROJECT

The project will move North Slope natural gas through the resource-rich center of Alaska providing clean-burning natural gas to fuel local markets, mining, and industrial needs. A new liquefaction facility built in Nikiski (North America's longest serving LNG export location) will provide access to the expanding LNG market.

The Prudhoe Bay and Point Thomson fields anchor the project on the North Slope. These fields will produce, on average, about 3.5 billion cubic feet of gas per day with approximately 75 percent from the Prudhoe Bay field and 25 percent from the Point Thomson field.

This integrated natural gas project is one of the most important projects being built in the United States. It is Alaska's priority project and has been widely studied by stakeholders, federal agencies, and State regulators.

## LIQUEFACTION FACILITY

The liquefaction facility, located in Nikiski, will process and export up to 20 million tons of LNG per year using the Propane Precooled Mixed Refrigerant (C3MR™) Process, an Air Products and Chemicals Inc. (APCI) patented technology.

- Three LNG trains.
- Two 240,000 cubic meter storage tanks.
- The facility can transfer approximately 12,500 cubic meters of LNG per hour.
- Two loading berths to accommodate LNG carriers up to 217,000 cubic meters (Q-Flex).
- Target startup in 2023-2025.

“THE PROJECT IS EXPECTED TO PRODUCE AND EXPORT UP TO **20 MILLION TONS** OF LNG PER YEAR USING **CLEAN, EFFICIENT, AND SAFE** METHODS AND TECHNOLOGIES.”

## THE PIPELINE

The backbone of the project is an 800-mile pipeline starting on the North Slope and terminating in Southcentral Alaska. With the pipeline will come a stable supply of natural gas for Alaskans, ensuring they have access to a long-term and affordable gas supply for home heating and industrial needs. This economic resource will also drive multiple industries for Alaska including manufacturing, mining, and other industrial developments throughout resource-rich Alaska. The pipeline will also transport North Slope gas to Nikiski for export to international LNG markets, ensuring demand and spurring new exploration projects throughout the state.

- 800-mile (1,287 km), 42-inch (1.1 m) diameter natural gas pipeline.
- Multiple interconnection points for in-state gas distribution.
- Eight compressor stations.
- 2,075 psig (143 bar) operating pressure.
- Average throughput of 3.1 billion cubic feet per day; maximum capacity of 3.3 billion cubic feet per day.

## GAS TREATMENT PLANT

The gas treatment plant (GTP) will be located in Prudhoe Bay near existing oil and gas infrastructure. The plant will be comprised of three process trains to remove impurities from the natural gas.

- An average daily capacity of 3.5 billion cubic feet; maximum capacity of 3.9 billion cubic feet per day.
- Carbon dioxide will be removed, captured, and provided for reinjection into underground reservoirs.





“The most common denominator for any growing economy is low-cost energy. Monetizing our gas on the world market makes it possible to deliver low-cost energy to Alaskan homes and businesses, create thousands of construction and long term operational jobs, while at the same time generating much needed revenue for the state through gas exports.” — Governor Bill Walker



## PROJECT SUPPORT

Support for Alaska’s natural gas infrastructure and LNG export project is widespread and includes government, industry, and statewide enthusiasm for commercializing Alaska’s North Slope natural gas. The project will liberate the North Slope gas resource and is Alaska’s most significant gas infrastructure project.

Economic impact studies indicate that the project will benefit Alaskans through royalties and jobs, and provide low-cost, clean energy to help stimulate economic activity throughout the state.

Providing an international market for Alaska’s natural gas will also spur further oil and gas exploration from

the North Slope to Southcentral Alaska, ensuring local supply and leading to more oil and gas industry activity in the state.

### MAJOR IMPACT

- **Delivers a secure energy supply for Alaskans.**
- **Generates billions of dollars in new revenue for the State.**
- **Creates up to 12,000 jobs during construction and another 1,000 full time jobs during operation.**
- **Creates numerous opportunities for Alaska businesses and contractors.**

## VISION

To maximize the benefit of Alaska’s vast North Slope natural gas resource through the development of infrastructure necessary to move the gas into local and international markets.

The Alaska Gasline Development Corporation (AGDC) is an independent, public corporation of the State of Alaska.

AGDC holds oversight and delegation authority to expedite development of an integrated natural gas infrastructure and LNG export project. AGDC is actively pursuing project commercialization that will result in a major infrastructure project underpinned by customer contracts and third-party financing.

AGDC IS **COMMITTED** TO PROJECT **COMMERCIALIZATION.**

**JULY 2014**

Joint Venture Formed

**2018-2019**

Final Investment Decision

**2023-2025**

In-Service First Cargo

**2015-2017**

Engineering and Design

**2018-2023**

Construction

**OVER 50 YEARS**

Upstream Resource Development



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