

Tyonek Community Meeting

The Stars are Aligned for Alaska LNG
2018

Rosetta Alcantra, VP of Communications



- **Alaska Gasline Development Corporation (AGDC):**

- Public corporation owned by the State of Alaska.
- Empowered to expedite, finance, and build a gas project.
- ***AGDC is Alaska's natural gas infrastructure development company.***



- **Vision:**

- Maximize the benefit of Alaska's vast North Slope natural gas resources through the development of infrastructure necessary to move the gas into local and international markets.

ALASKA
GASLINE
DEVELOPMENT CORP. 

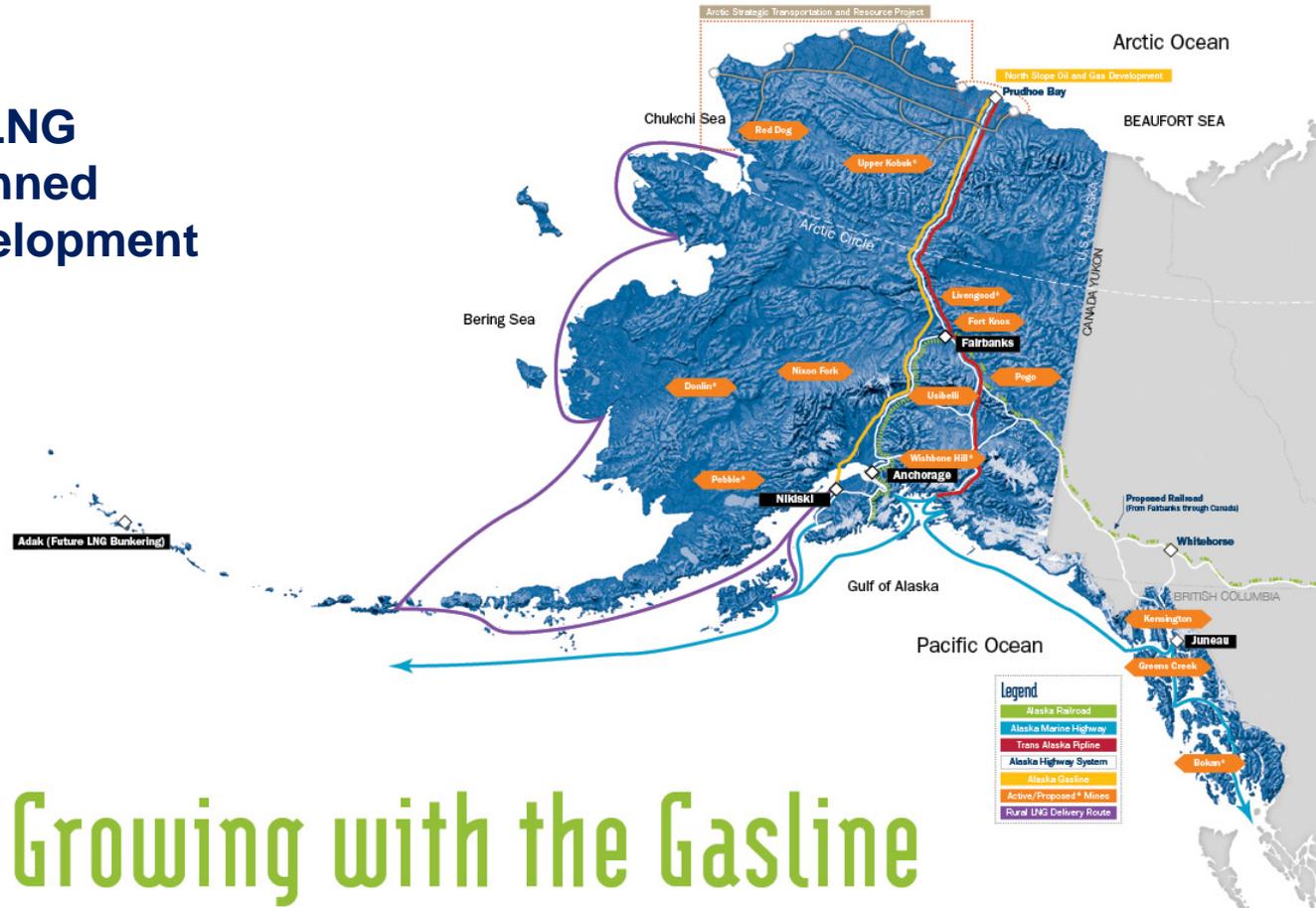
Presentation Agenda

- **Project Overview.**
- **Benefits to Alaskans.**
- **Supply, Demand, and Financing.**
- **Commercial and Permitting.**



Project Map

Alaska Gasline and LNG are part of a well planned and responsible development future for Alaska.



Growing with the Gasline

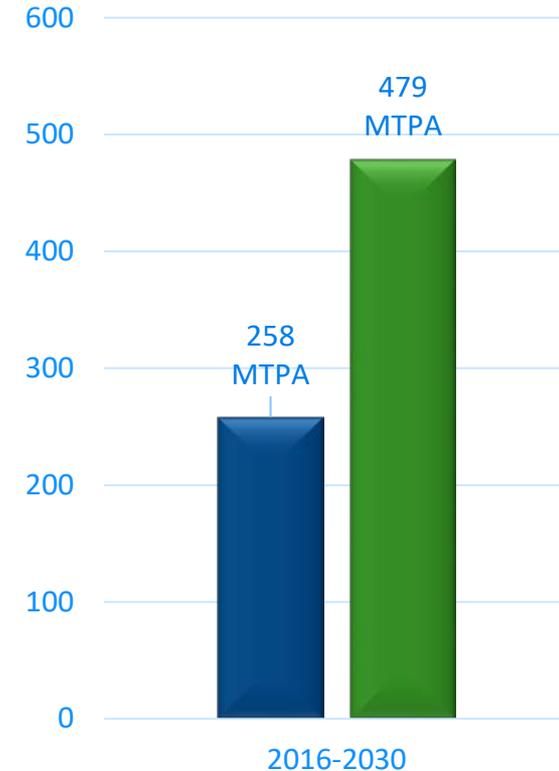
What is LNG?

LNG = Liquefied Natural Gas.

- Natural gas is the cleanest burning fossil fuel.
- 50 percent less carbon dioxide than coal when you burn it.
- Global energy demand is expected to double by 2050.
- LNG is a growth industry.



Global LNG Demand
(86% increase)



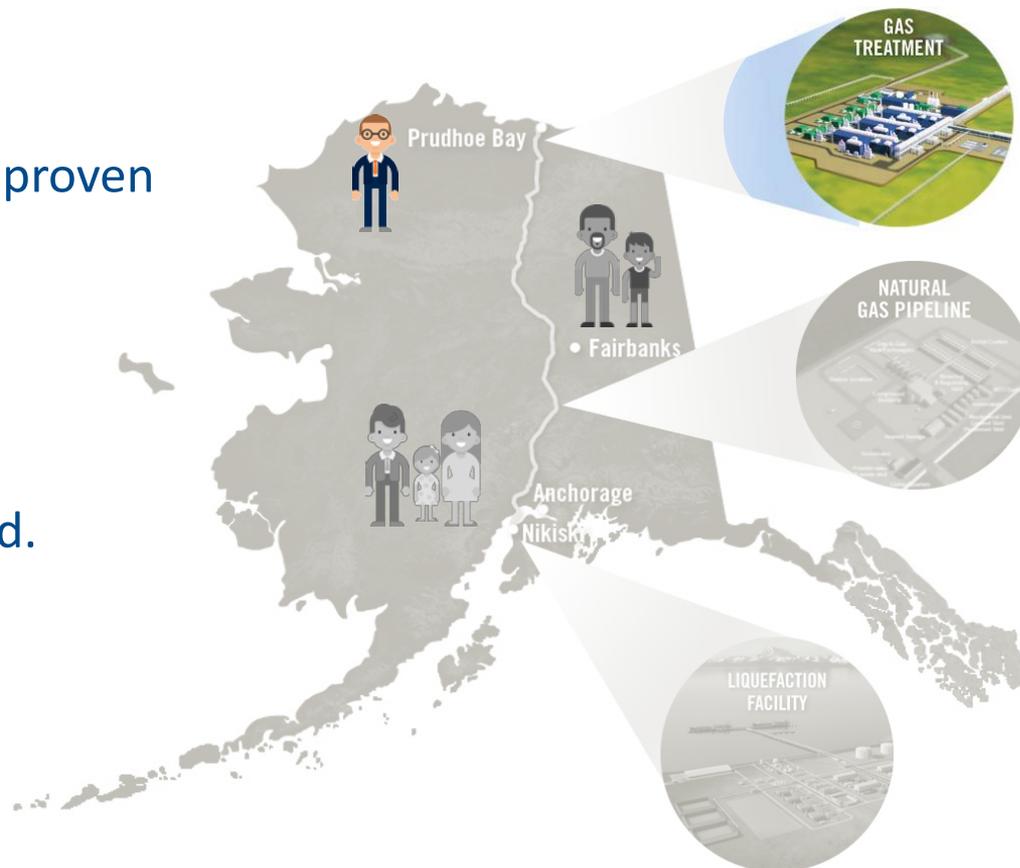
Gas Treatment Plant

- **Alaska's North Slope**

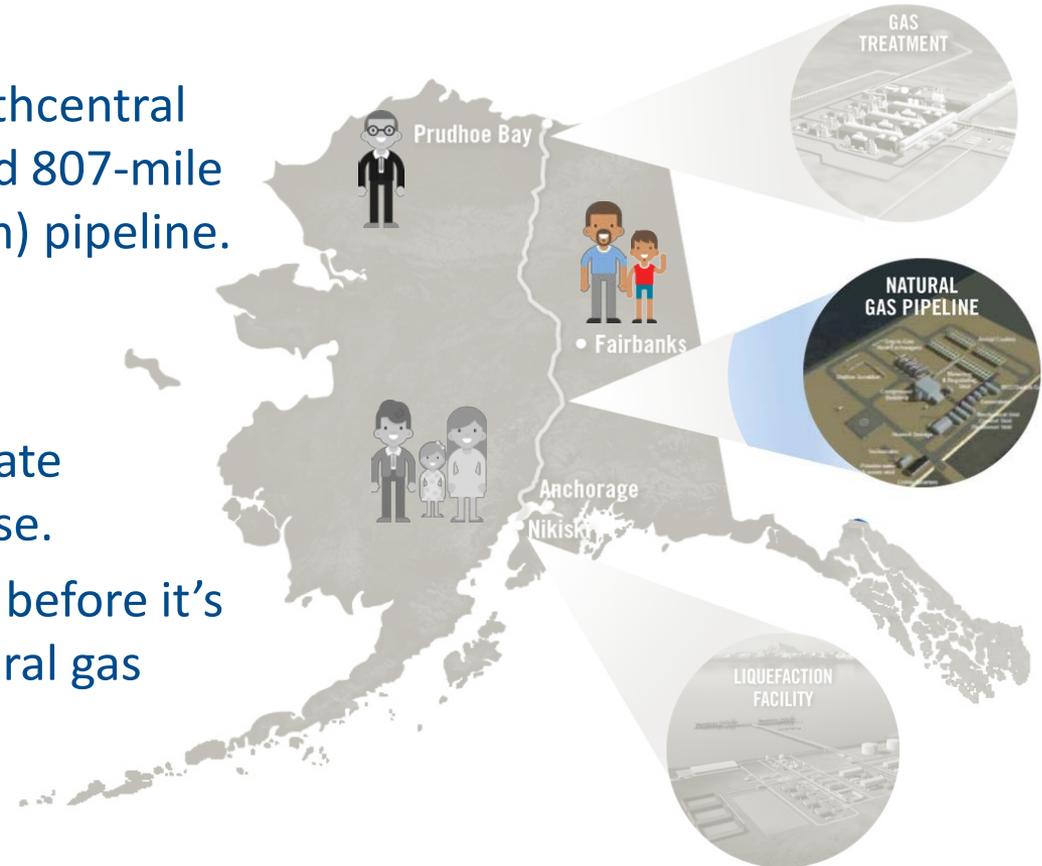
- 35 Trillion cubic feet (Tcf) of proven natural gas resources.
- Existing infrastructure and workforce.

- **Gas Treatment Plant:**

- Treat and compress 3.5 Bcf/d.
- Remove carbon dioxide.

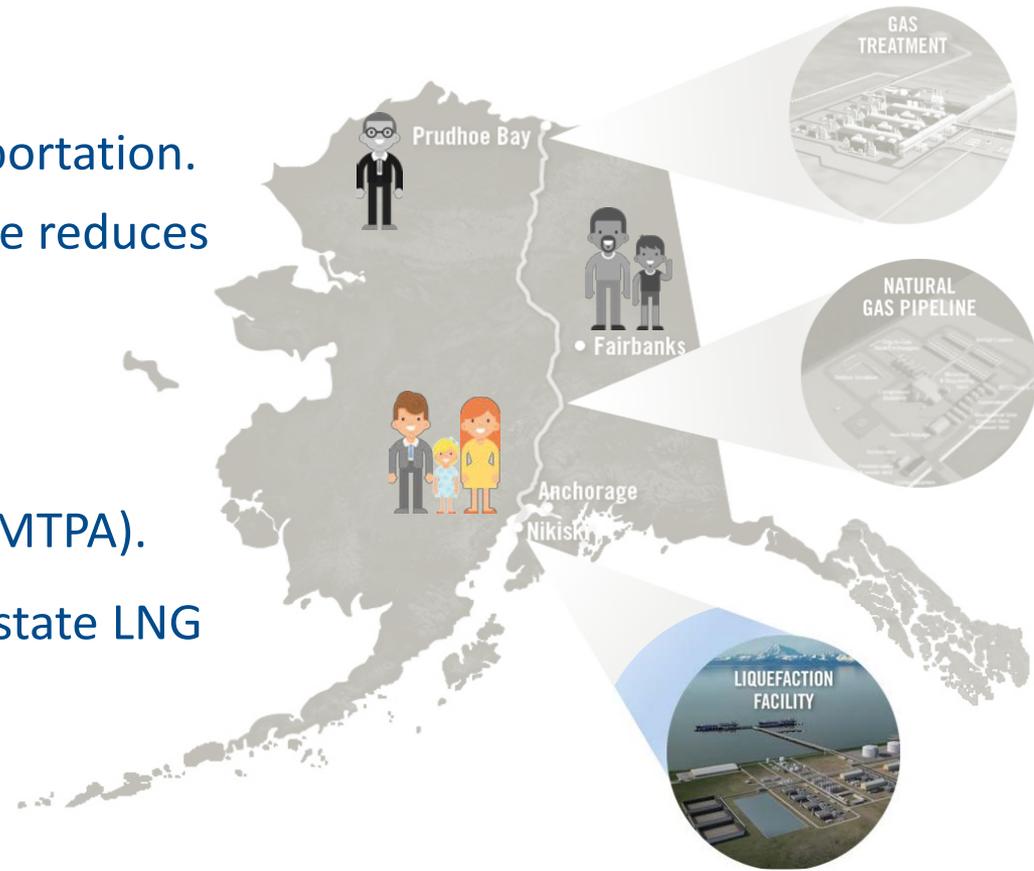


- **Pipeline:**
 - Gas is transported to Southcentral Alaska via an underground 807-mile (1,299 km), 42-inch (1.1 m) pipeline.
 - Established corridor.
 - Delivers over 3.3 Bcf/d.
 - Multiple offtakes for in-state domestic and industrial use.
 - Alaskans will get gas first, before it's turned into liquefied natural gas (LNG) for export.



LNG Plant

- **LNG Plant:**
 - Located in Nikiski.
 - Natural gas liquefied for transportation.
 - When super chilled volume reduces to 1/600 its gaseous form.
 - LNG is loaded onto specialized ships for transport.
 - 20 million tonnes per annum (MTPA).
 - Opportunity for small scale in-state LNG distribution.



The Alaska LNG Project

- **Needed:**

- Asia market will face a supply deficit within seven years.
- Alaska LNG is well positioned to target this supply deficit.

- **Competitive:**

- Alaska can deliver LNG at a competitive price.
- Alaska LNG will provide stable, predictable, long-term security.
- Project phasing reduces risk and exposure.

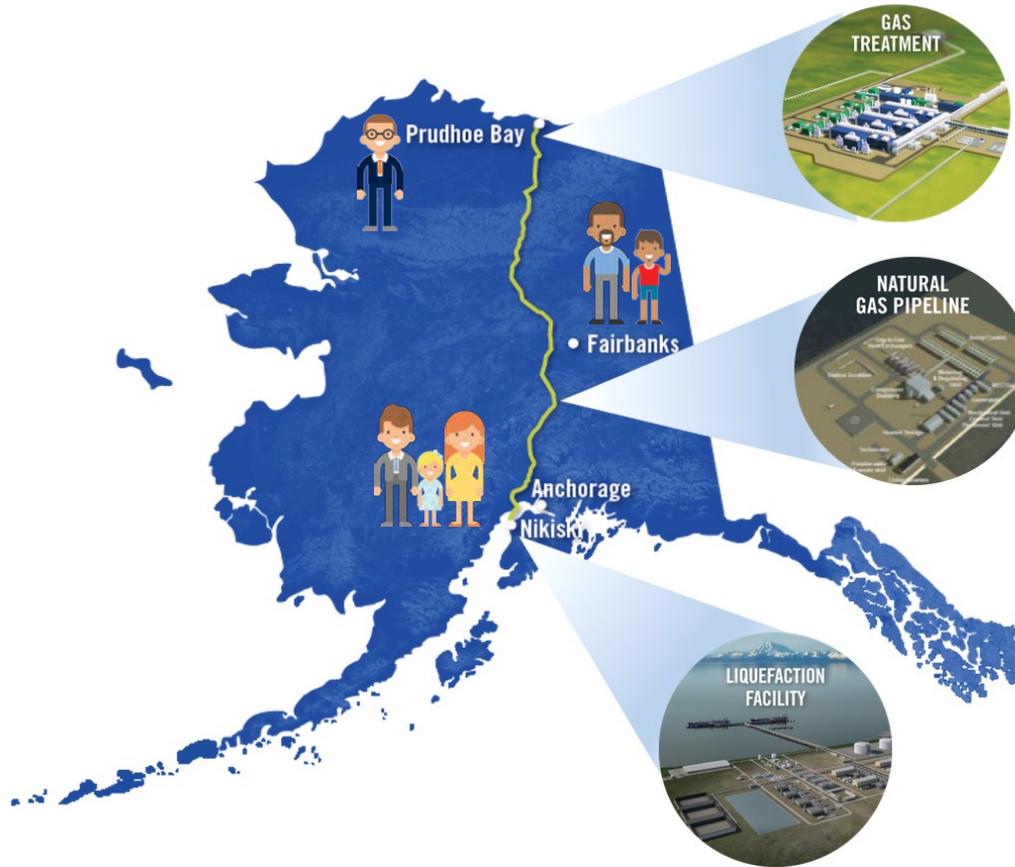
- **Achievable:**

- Pre-FEED engineering completed.
- FERC.
- First cargo in 2024/2025.



Benefits for Alaskans

CLEAN ENERGY. STABLE GAS SUPPLY. JOBS FOR ALASKANS.



First cargo in 2024 – 2025.

Clean Energy for Alaskans

- Clean air in Alaska.
- Blue skies in China.
- Alaska LNG will improve China's air quality and offset 80 million tonnes of CO₂ per Year.



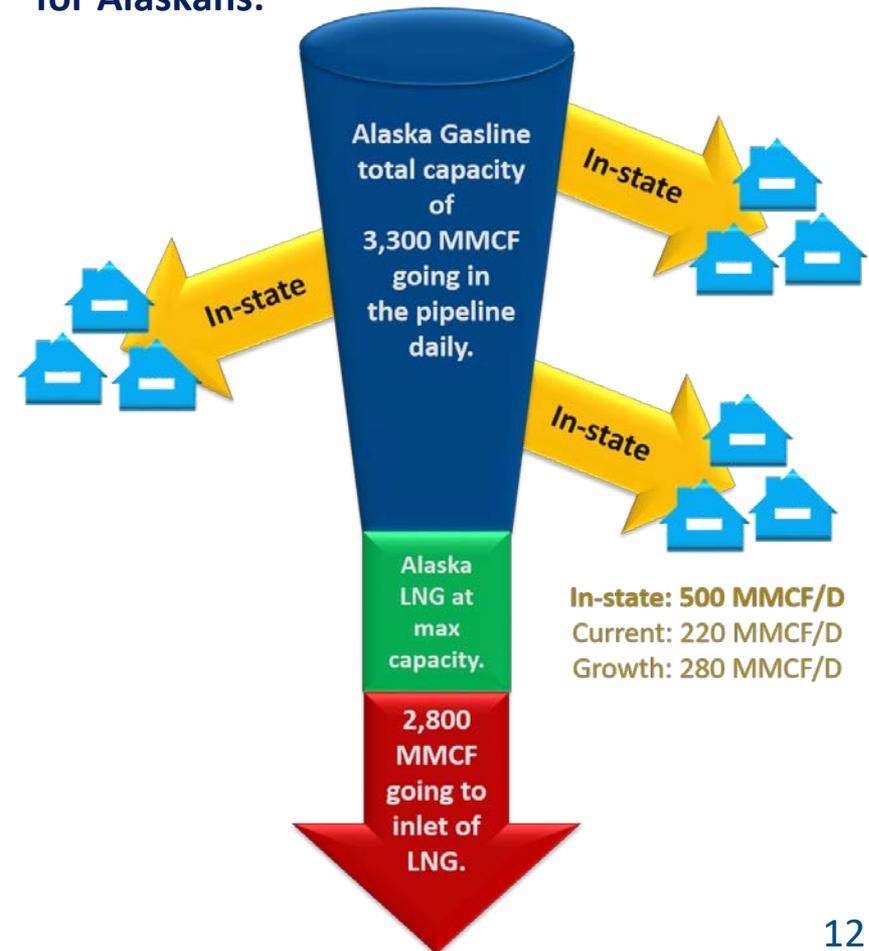
The Alaska Gasline will provide clean fuel to reduce particulate pollution.



TOP PRIORITY: GAS FOR ALASKANS

- **Stable Prices.**
- **Energy for all of Alaska:**
 - Offtakes to communities and projects along the Alaska Gasline.
 - Small scale LNG distribution.
 - No risk of Alaskans' gas going to Asia.

Alaska LNG System Design Guarantees Gas for Alaskans:



- **Alaska LNG will create a construction employment boom with a long-term employment future:**
 - **12,000** jobs during construction.
 - **1,000** long-term operations jobs.

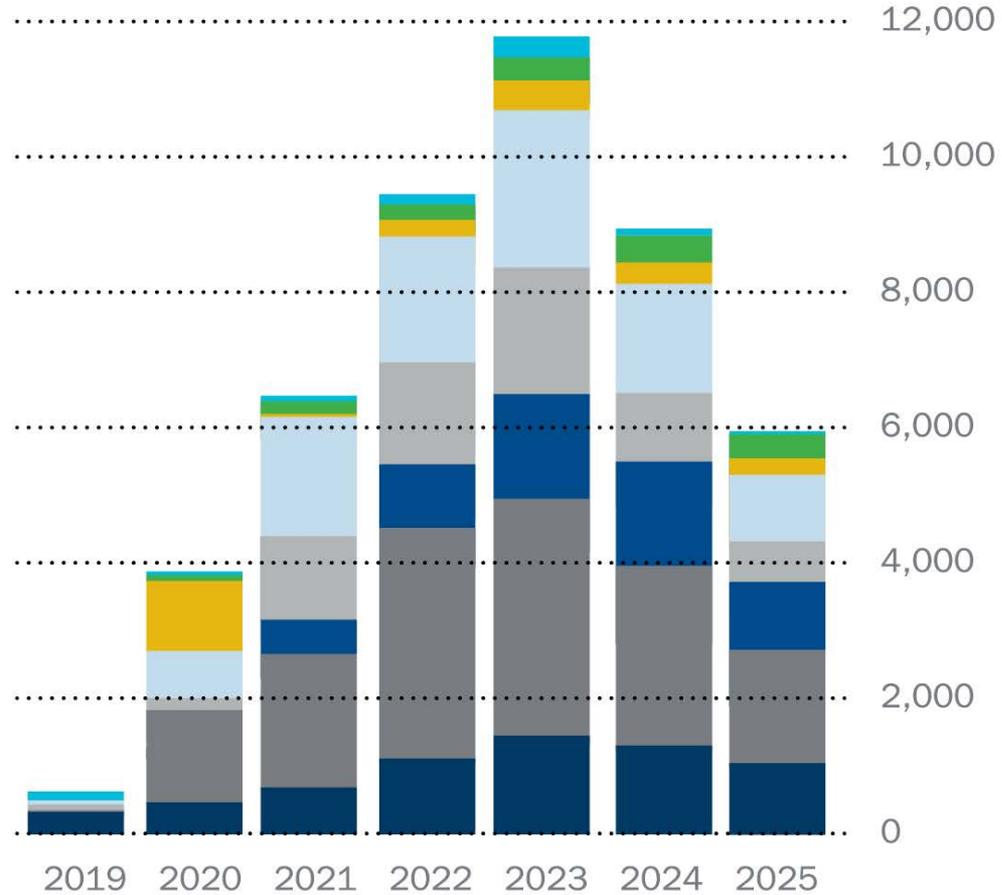


Jobs for Alaskans

Direct Hires at Peak



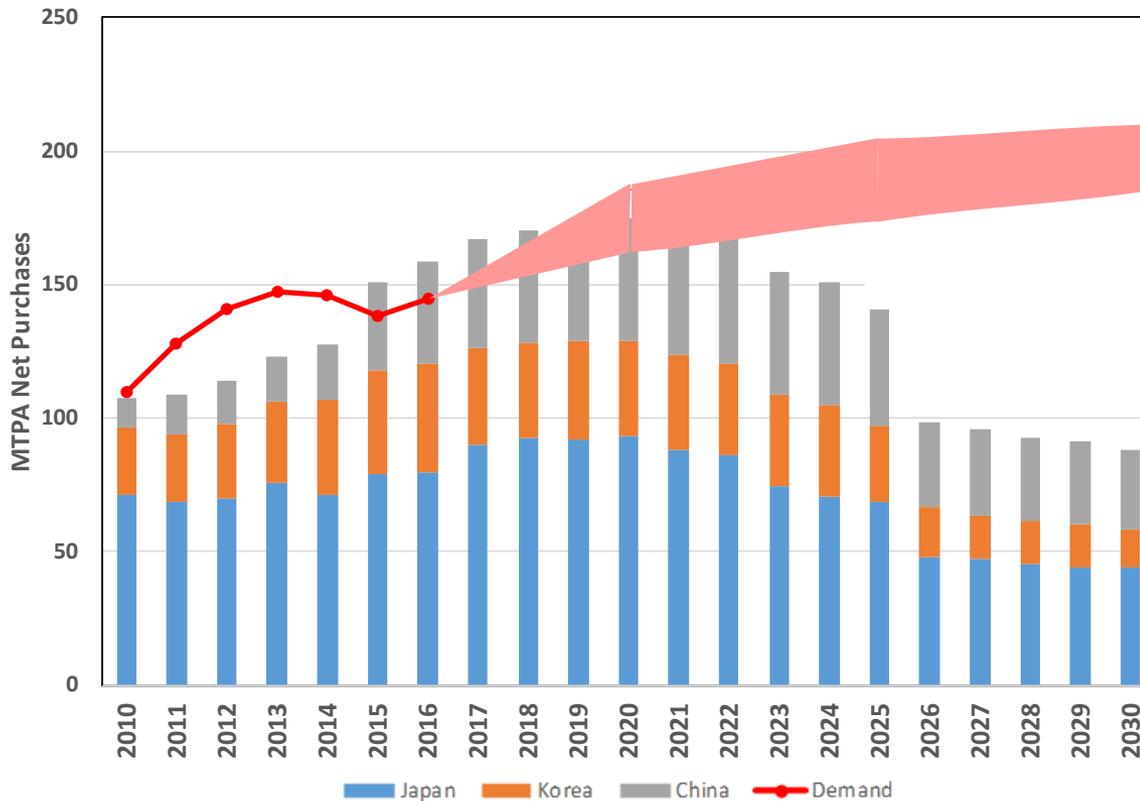
Direct Hires by Year and Type



Every trade will be needed to construct the Alaska LNG.

LNG Supply-Demand Forecast

Japan, Korea, China LNG Contracts and Demand

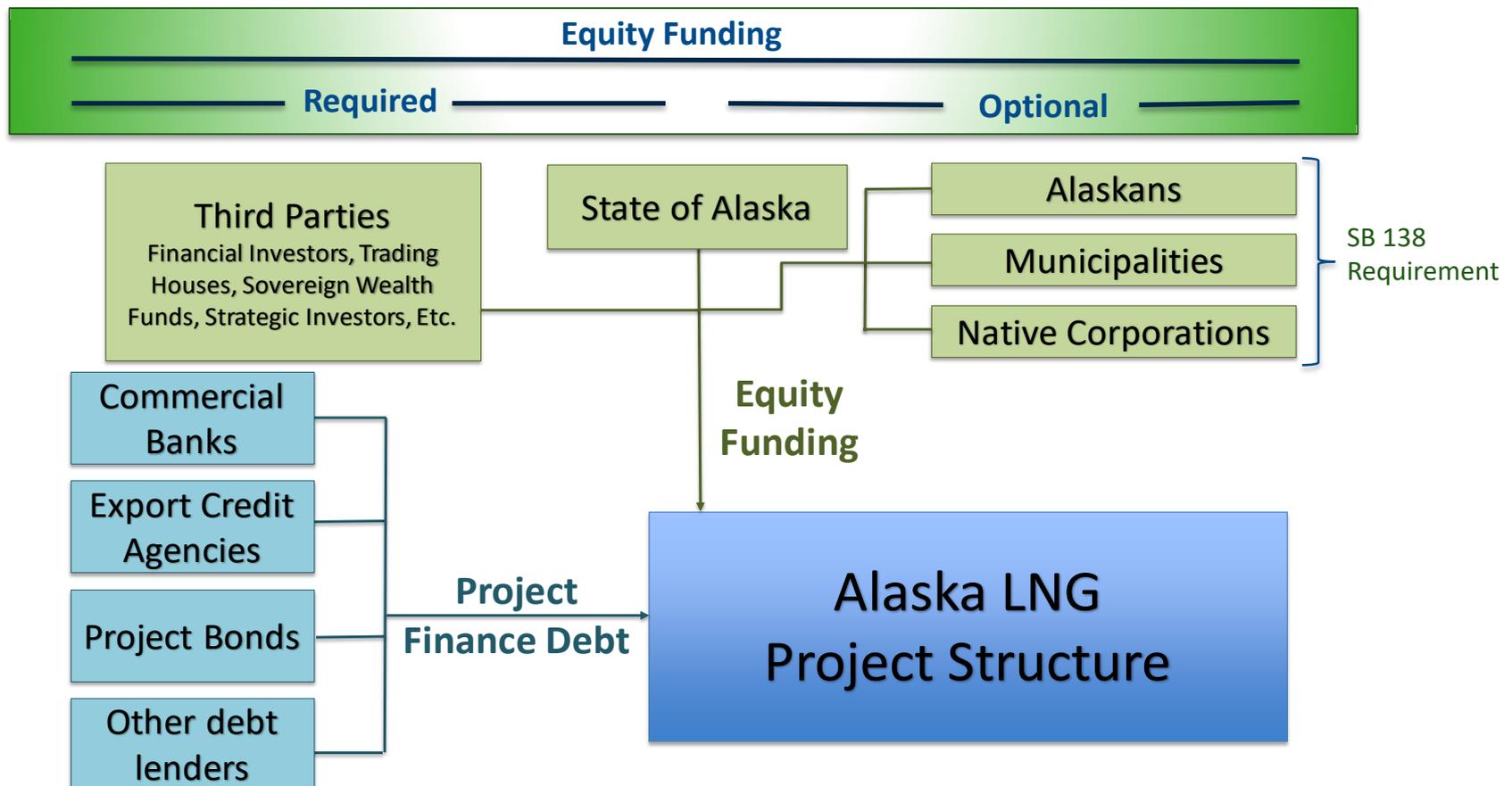


- Projected demand forecast has been expanded to show the range of data from multiple sources.
- 3-train Alaska LNG can be phased into the gap to fit the market.

Source: Global NatGas Advisors, Jan 2018; KPMG Global Energy Institute; IHS Markit.

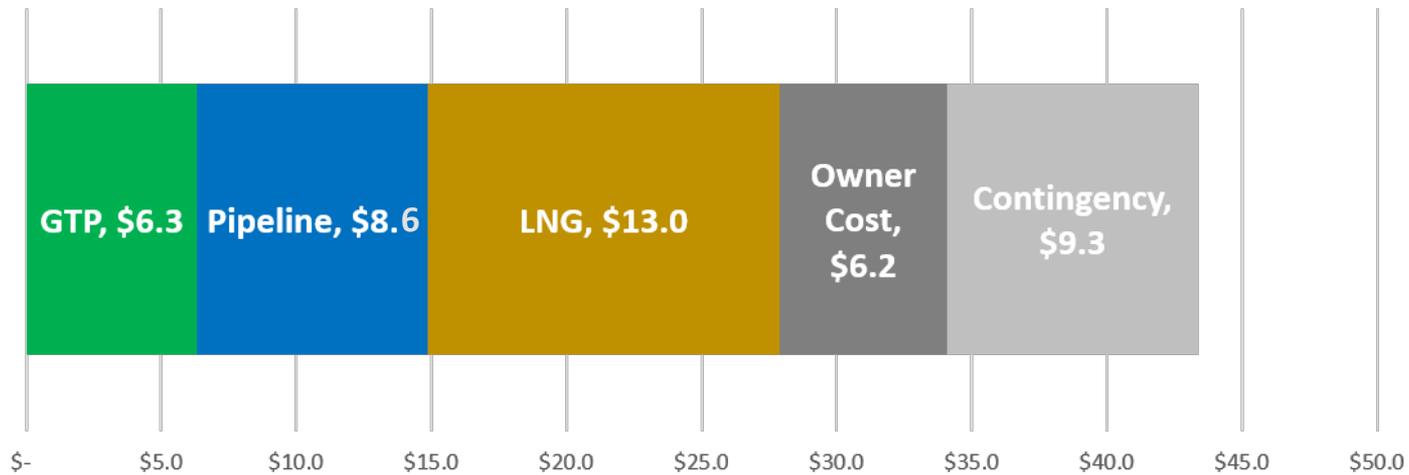
Financing Structure

The project company must be structured to enable third parties to invest in the company.

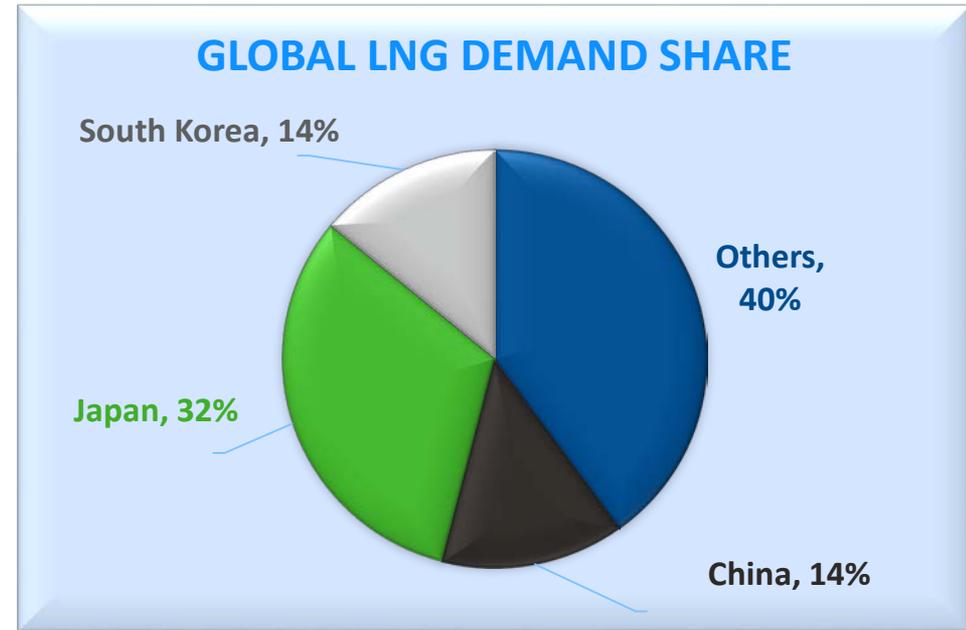


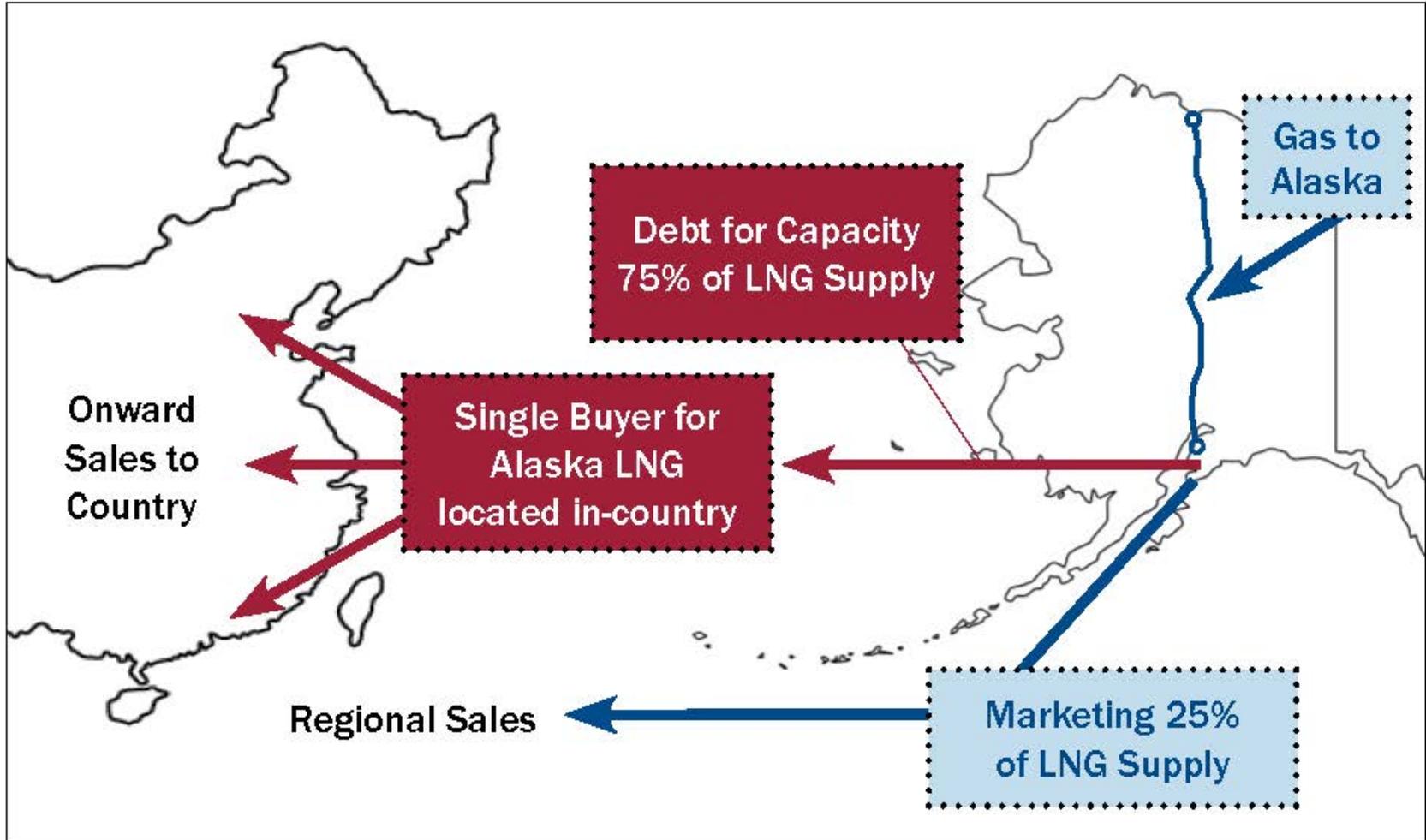
Total Project Cost

**Project cost, including contingencies,
totals \$43.4 Billion*.**



- Asia is the largest LNG market.
- Environmental concerns in China have caused a mandated shift to gas.
- Demand for natural gas has grown dramatically, outpacing the ability to produce domestically.
- LNG import capacity is increasing rapidly to help satisfy future demand.
- Chinese President Xi's address to the 19th Party Congress mentioned "environment" 89 times.
- "China is very serious about constructing an ongoing, mutually beneficial relationship with Alaska," Chinese Deputy Consul General Ren Faqiang.





Commercial Agreements

- **AGDC has signed agreements with:**
 - Japan – Tokyo Gas Co., Ltd.
 - Vietnam – PetroVietnam Gas.
 - South Korea – Korea Gas Corporation (KOGAS).
 - China:
 - Sinopec: World’s largest integrated oil company.
 - Bank of China: World’s 4th largest bank.
 - CIC Capital: World’s 3rd largest sovereign wealth fund.



AGDC and Tokyo Gas Co., Ltd. sign LOI in Tokyo, Japan;
December 4, 2017.



Joint Development Agreement signing in Beijing, China; 2017.



AGDC and KOGAS sign MOU in Washington,
D.C.; June 28, 2017.

- **In-state Gas:**

- Discussions with in-state gas users to advance initial commercial agreements.

- **Agreements:**

- Long-term contracts are still being, and will continue to be, beneficial to both buyers and sellers.
- Alaska LNG can compete on a variety of fronts as demonstrated by the agreements signed thus far.

- **Asia is the largest LNG market:**

- Demand for natural gas has grown dramatically, outpacing the ability to produce domestically.
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Balancing three drivers to make the project economic to all stakeholders:



Permitting

- **FERC Letter**
 - Federal Energy Regulatory Commission (FERC) application submitted.
 - In the request, FERC asks AGDC to respond to 289 questions in order for the agency to continue analysis of the Alaska LNG project.
 - Currently reviewing FERC's request for additional information and will provide the agency with a schedule for submitting responses to their questions.
- **Alaska Stand Alone Pipeline Project:**
 - U.S. Army Corps of Engineers publishes Final Supplemental Environmental Impact Statement.
 - Complete wetlands mitigation plan.
 - USACE and other federal agencies issue Records of Decision.
- **Alaska LNG Project:**
 - Kenai Spur Highway:
 - Currently evaluating alternatives two proposed alternatives: West and East.



For More Information

907-330-6300

- Questions? Give us a call.

agdc.us

- Learn more about who we are, what we do, and what the project means for Alaska.
- Commercial and financing information.

Alaska-LNG.com

- Updated project and permitting information.
- Interactive route map.

facebook.com/AKGaslineDevelopmentCorp

- Follow us on Facebook to track our progress and get breaking news.

Joint Development Agreement

A Unified Buyer/Lender Proposal

