# Trapper Creek Community Meeting

The Stars are Aligned for Alaska LNG February 2018

Rosetta Alcantra, VP of Communications



## Alaska Gasline Development Corp.



#### 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.



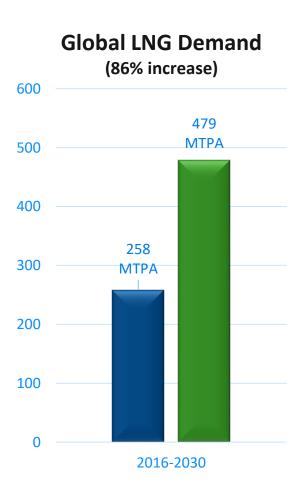
#### What is LNG?



## LNG = Liquefied Natural Gas.

- Natural gas is the cleanest burning fossil fuel.
- LNG emits 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 \$250 Billion annual by 2030.





## Benefits for Alaskans



#### **CLEAN ENERGY. STABLE GAS SUPPLY. JOBS FOR ALASKANS.**

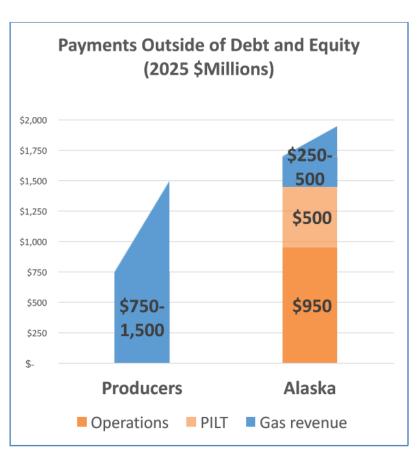


In-service 2024 - 2025.

## Non-Equity Benefits to Alaska



## The gasline and LNG infrastructure provides enormous value to Alaska; there is a significant opportunity cost of not developing the project.



ltem	Annual Value	State's Share/yr	
Gas Resource	1 TCF/yr @ \$1-2/Mcf =\$1-2 Billion	25%	\$250-500+ MM
PILT	\$450-500 MM	100%	\$450-500 MM
Operations	\$950 MM	100%	\$950 MM
Equity Return	\$1.1 Billion	0 to 100%	
Net Revenue After Debt Retirement	\$6 Billion	0 to 100%	

- Opportunity for the State to generate \$1.6-\$2.0B per year upon project completion.
- Alaska can elect to be an equity investor.
- Significant upside opportunity given long-term LNG price forecasts.

#### **Gas Treatment Plant**

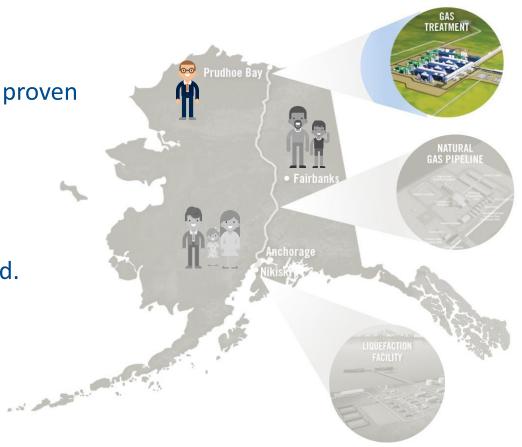


#### Alaska's North Slope

- 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.

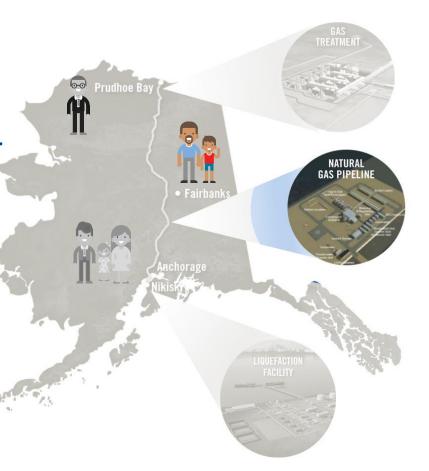


## Pipeline



#### 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.

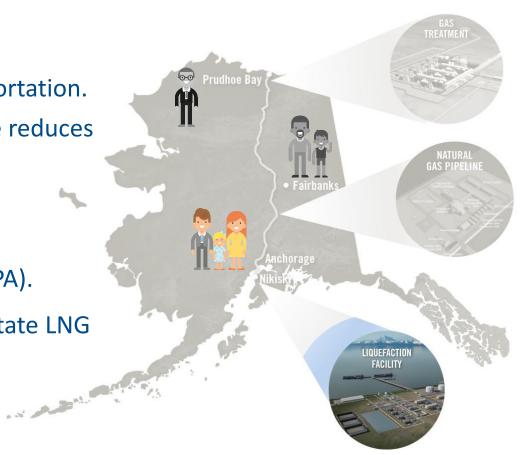


#### **LNG Plant**



#### 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 Metric tons per annum (MTPA).
- Opportunity for small scale in-state LNG distribution.

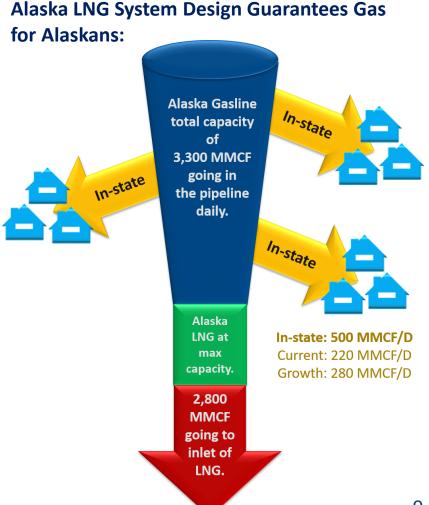


### Gas for Alaskans



#### **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.



## 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 CO<sub>2</sub> per Year.



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







## Training and Jobs for Alaskans



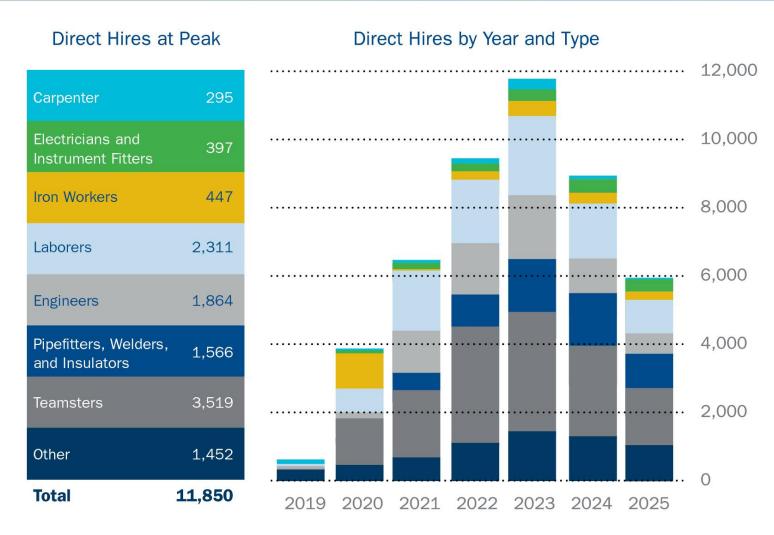
- Alaska LNG will create a construction employment boom with a long-term employment future:
  - **12,000** jobs during construction.
  - **1,000** long-term operations jobs.





#### Jobs for Alaskans



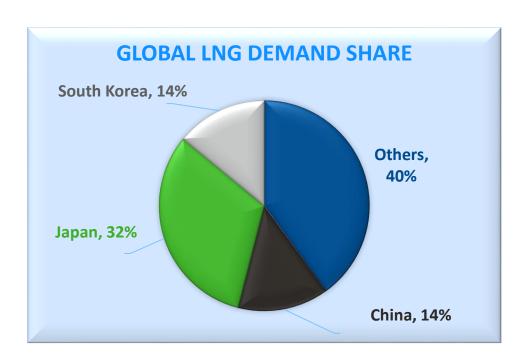


Every trade will be needed to construct the Alaska LNG.

### Asia's LNG Demand



- 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 4<sup>th</sup> largest bank.
  - CIC Capital: World's 3<sup>rd</sup> largest sovereign wealth fund.





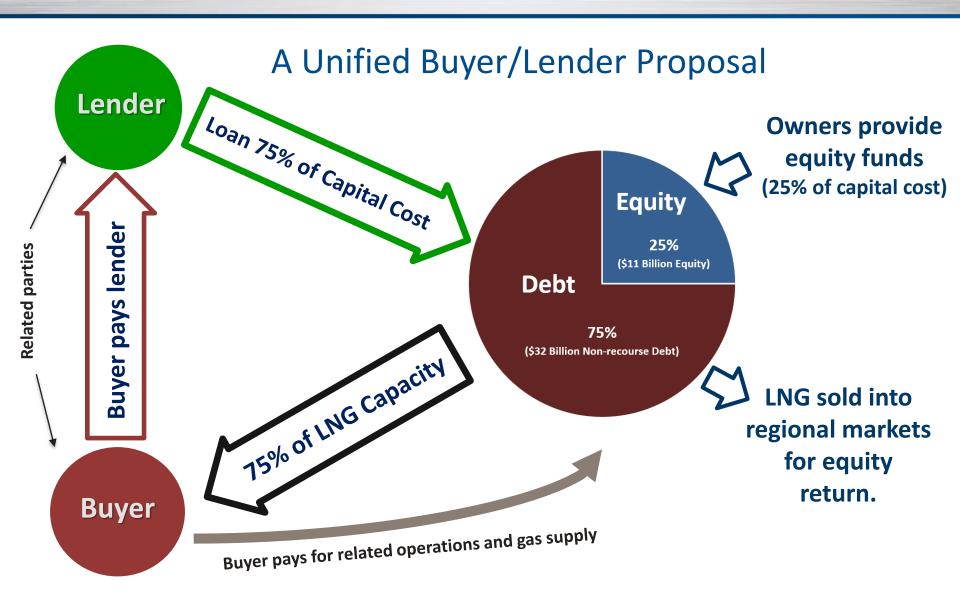
AGDC and Tokyo Gas Co., Ltd. sign LOI in Tokyo, Japan; December 4, 2017.



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

## Joint Development Agreement





## **Total Project Cost**



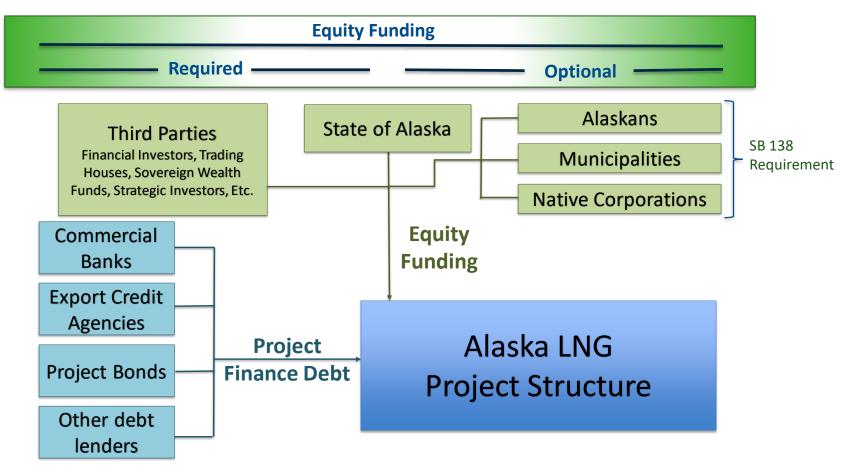
# Project cost, including contingencies, totals \$43.4 Billion\*.



## Financing



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



#### Investment in Alaska's Future



- Alaska LNG will be the biggest **economic driver in Alaska** since the construction of the Trans-Alaska Pipeline System (TAPS).
- Alaska LNG project will spur new resource development projects.
- Low cost, clean burning natural gas will spur economic development for the next generation.



## 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.
- Environmental approval is in process.
- In-service 2024/2025.



## Follow the Alaska LNG Project



#### 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.

#### Alaska-LNG.com

- Updated project information.
- Interactive route map.

#### facebook.com/AKGaslineDevelopmentCorp

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





## The stars are aligned, seize the opportunity.



Big project. Achievable. Alaskans have done it before.

Get Involved.
Get Ready.
Get Engaged.



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Alaska Gasline Development Corporation