Alaska LNG Project Update

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Introduction



- Introduction
- LNG Market
- Stars Aligned
- Commercial & Financing
- Technical & Regulatory
- Benefits to Alaska



Alaska Gasline Development Corp.



Alaska Gasline Development Corporation (AGDC):

- Independent, 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 LNG & Alaska Stand Alone Pipeline:

AGDC is advancing two pipeline projects that will provide gas to Alaskans, but only one pipeline project will be built. While Alaska LNG moves forward as AGDC's priority project, AGDC will continue to advance the ASAP project to a Record of Decision.

AGDC Takes Lead of Alaska LNG



2017 –

- Took the lead of Alaska LNG at the end of 2016.
- Introduced project to market for the first time in 2017.

2018 –

- Advancing Alaska LNG through regulatory process.
- Working toward definitive commercial agreements.





Golden Heart of Alaska (LNG)



- Alaska Gasline Coalition members united to support project.
 - Fairbanks positioned to benefit from clean, affordable natural gas, construction and operations jobs, and revenue to the State of Alaska.























LNG Market



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Hydrocarbon Evolution



World is moving to cleaner fuels:

- Coal to oil to natural gas.
- Methane (natural gas) is the simplest, cleanest hydrocarbon.
- Global demand for natural gas is booming as countries seek to meet energy demands and environmental goals.





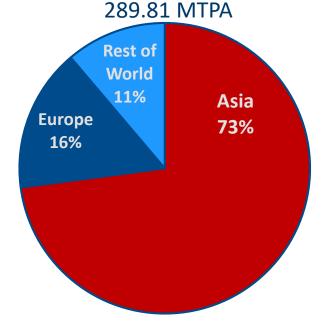
LNG Market Overview

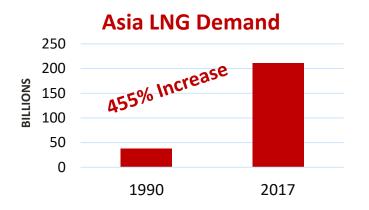


LNG Supply-Demand Forecast:

- LNG is a growth industry (\$250 Billion annually by 2030).
- Asia is the largest LNG market.
- Alaska is Asia's regional supplier.

Global LNG Demand- 2017



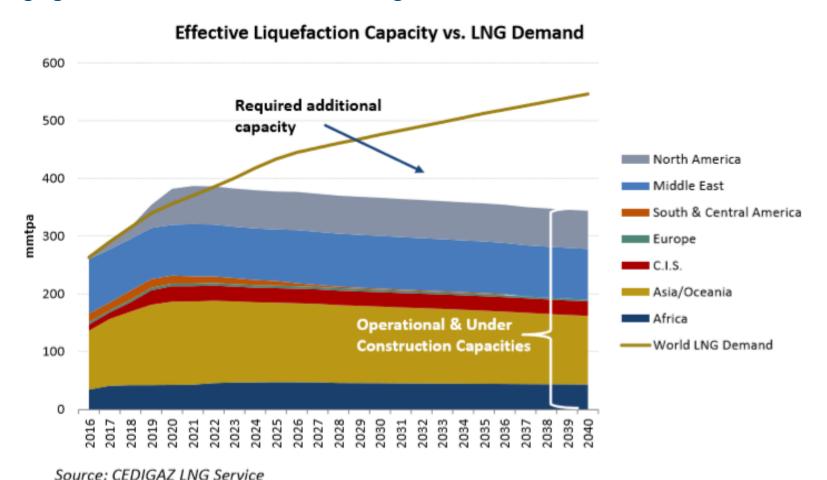




Alaska's Market Window



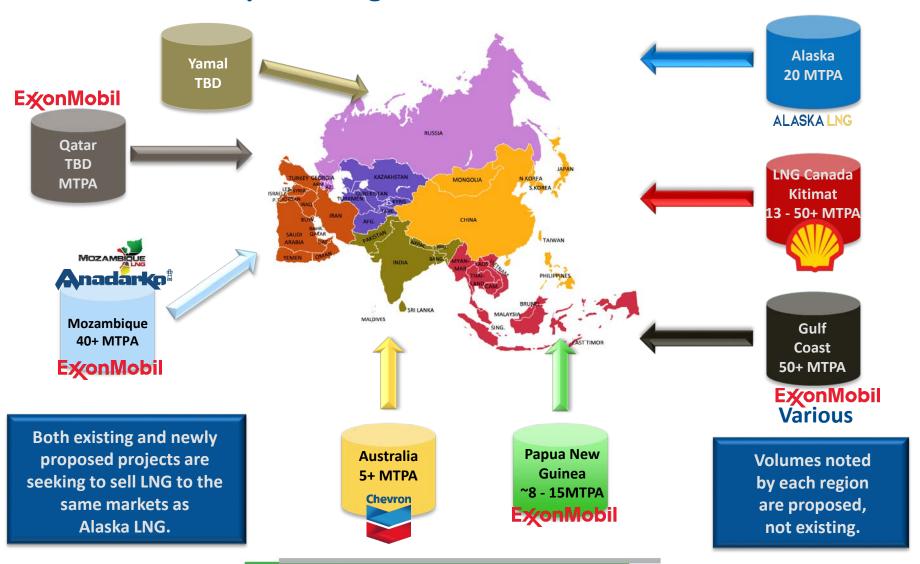
Gap between global LNG demand and supply in 2025 ranges from 50-100 million tonnes per annum (MTPA), with long-term demand driven by China, India, and other emerging markets across the Asia-Pacific region.



Competition and Tracking



Alaska must compete in a global market.



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U.S. Administration

ALASKA GASLINE * * DEVELOPMENT CORP. * *

"If you look at our trade balance, there's one geographic source of our imbalance and that's most importantly China."

- Commerce Secretary Wilbur Ross

"The only path for energy dominance is a path through the great state of Alaska."

- Interior Secretary Ryan Zinke





America's Project



PROPOSED GAS LINE



Large construction.

Resource development.

Energy export.



AMERICA'S LARGEST ENERGY EXPORT PROJECT

TRANSFORMING ALASKA GAS INTO JOBS AND EXPORTS TO THE ASIA-PACIFIC REGION

Alaska holds America's largest concentration of proven, conventional, but stranded gas supply. Through the development of an 800-mile pipeline and LNG facility, Alaska can supply domestic projects and can provide a stable source of gas supply to our allies in the Asia-Pacific region. With expedited regulatory approval the project can finalize commercialization and begin construction.

This LNG project will create 10,000 direct jobs and up to 70,000 total jobs without burdening the taxpayers, increase our national energy production capacity, and strengthen commercial ties with our allies.

Alaska gave birth to the US-Japan LNG trade and now seeks to be the strategic supplier to the region.

ALASKA MOVING FORWARD

NEW ENERGY INFRASTRUCTURE

70,000 NEW CONSTRUCTION & RELATED JOBS

STRENGTHENS ENERGY TIES WITH OUR ALLIES

IMPROVES TRADE BALANCE WITH ASIAN MARKETS

Alaska LNG will be pivotal and profitable for America.



Alaska Gasline Development Corporation 907.330.6300 | www.aqdc.us

China Demand for Natural Gas



Natural gas will improve air quality in cities across China...



...and Fairbanks.

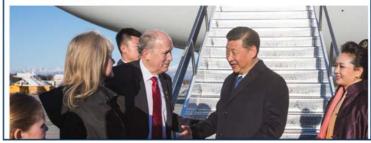
Alaska and China Establish Ties



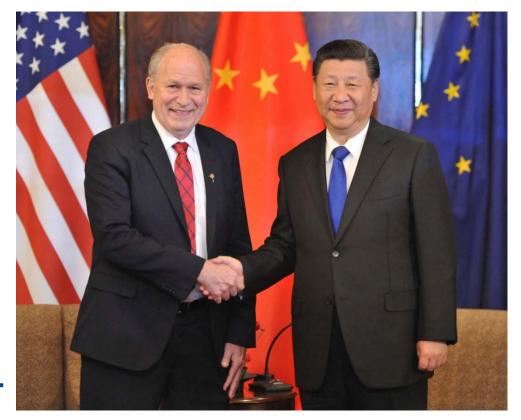
Consensus reached that LNG is an area of cooperative trade

A surprise guest: Chinese president makes
Anchorage stopover, meets Gov. Walker and
takes in some sights

Author: Jeannette Lee Falsey Updated: April 8 Published April 7



China is the natural market for Alaska's abundant North Slope gas.



Joint Development Agreement





THE RIGHT COMPANIES TO ADVANCE THE PROJECT.











Financing & Commercial

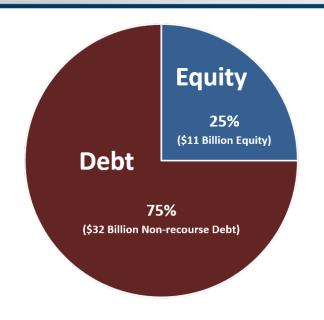


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Alaska LNG Capital Structure

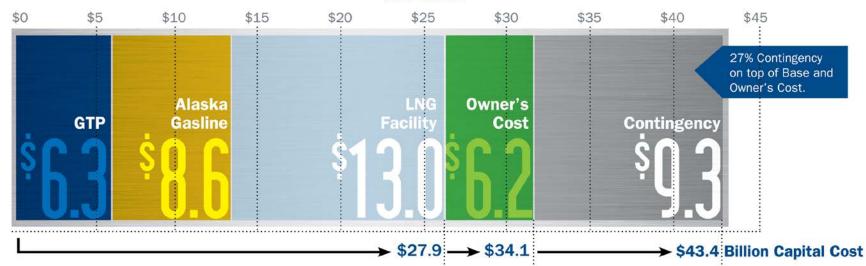




\$Billions

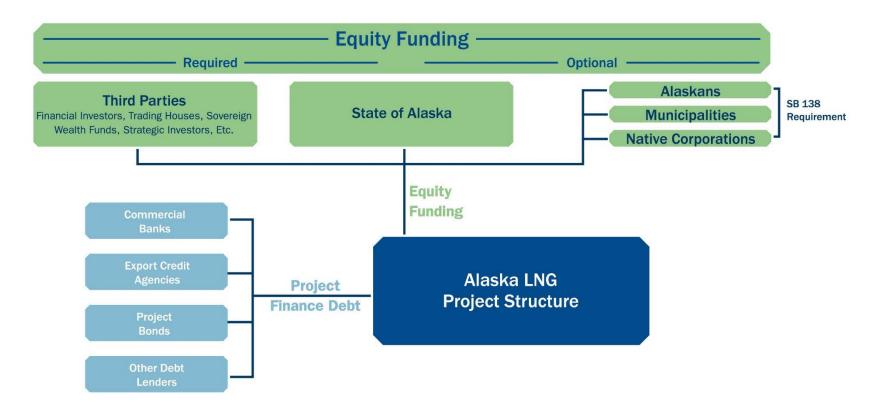
- \$27.9 Construction Cost
- \$ 6.2 Owner's Costs
- \$ 9.3 Contingency
- \$43.4 Potential Total

\$ BILLIONS



Financing Structure







Senate Bill 138: Municipalities, Alaska Native Corporations, and Alaska residents should have the opportunity to acquire ownership interest in North Slope natural gas pipeline projects.

Balancing Three Drivers



• All infrastructure and resource development projects have similarities.

• Three key drivers have to be balanced to make the

project economic.

Resource Owner/SOA

Acceptable netback and PILT.

Customers:

Product delivered at a market clearing price.

Customers Finance

Financing:

Adequate pricing for debt and equity markets.

Status of Documents



2018 is a year of paperwork:

- Regulatory is progressing; FERC schedule, ASAP.
- Advancing definitive LNG sale agreements.
- Goldman Sachs and Bank of China engaged as lead project capital coordinators for debt and equity financing.

ALASKA LNG



- 15 LOIs/MOUs concluded, moving to SPA.
- Strategic participation opportunities.



Seeking portions of financing connected to offtake.



 Project structure to allow segment investment.

Financing & Commercial



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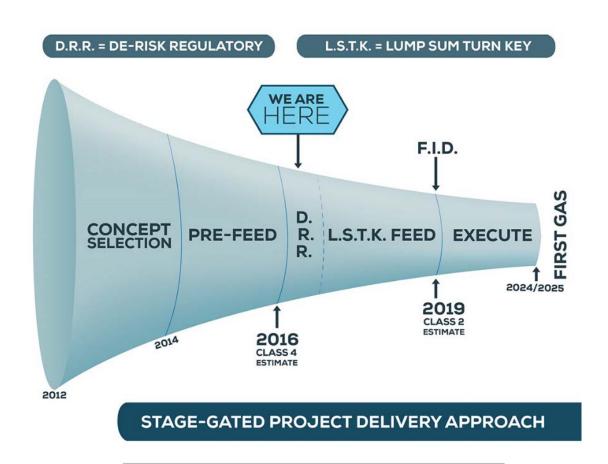


Alaska LNG Project Development



2018 Technical/Regulatory Focus:

Actively De-Risking the Project through Regulatory Process.



Technical & Regulatory Update



Advancing Regulatory Actions

Federal:

- Federal Energy Regulatory Commission.
- Department of Interior.
- Army Corps of Engineers.
- Environmental Protection Agency.

State:

- Department of Environmental Conservation.
- Department of Natural Resources.
- Department of Transportation & Public Facilities.

FERC Schedule Published



ALASKA LNG PERMITTING TIMELINE			
2014 – 2016 Producer Led Effort	\$600 million of engineering, environmental, and science completed to advance permitting of Alaska LNG under Producer Led Effort.		
2017 and Beyond AGDC Led Effort	December 2016	AGDC takes the lead of Alaska LNG project	
	April 2017	AGDC Files FERC Application	
	August 2017	FAST Act Acceptance	
	August 2017	Presidential Executive Order	
	November 2017	Joint Development Agreement	
	March 2018	FERC publishes EIS schedule	
	March 2019	Draft Environmental Impact Statement	
	December 2019	Final Environmental Impact Statement	
	March 2020	FERC authorization to construct	

ASAP Right-of-Way



- U.S. Army Corps of Engineers Releases
 Final Supplemental Environmental
 Impact Statement for Alaska Stand
 Alone Pipeline Project (ASAP).
- The ASAP Project and Alaska LNG
 Project both include buried pipelines,
 share a common mainline alignment
 for over 80 percent of the route, and
 provide gas to Alaskans.
- The ASAP Final SEIS and forthcoming Record of Decision, will result in three additional federal authorizations that will provide tremendous benefit to both projects.







Alaska LNG Project Technical Actions



- Construction Execution Plan completed.
- Lump Sum Turn Key (LSTK) Contracting Strategy.
 - Engineering, Procurement and Construction (EPC) Contractors.
- Sinopec Technical Team Interactions:
 - Pipe and Steel Mill Inspections U.S. and China.
 - Pipeline Right of Way, Gas Treatment and Liquefaction Plant Sites and AVTEC.



Benefits to Alaska

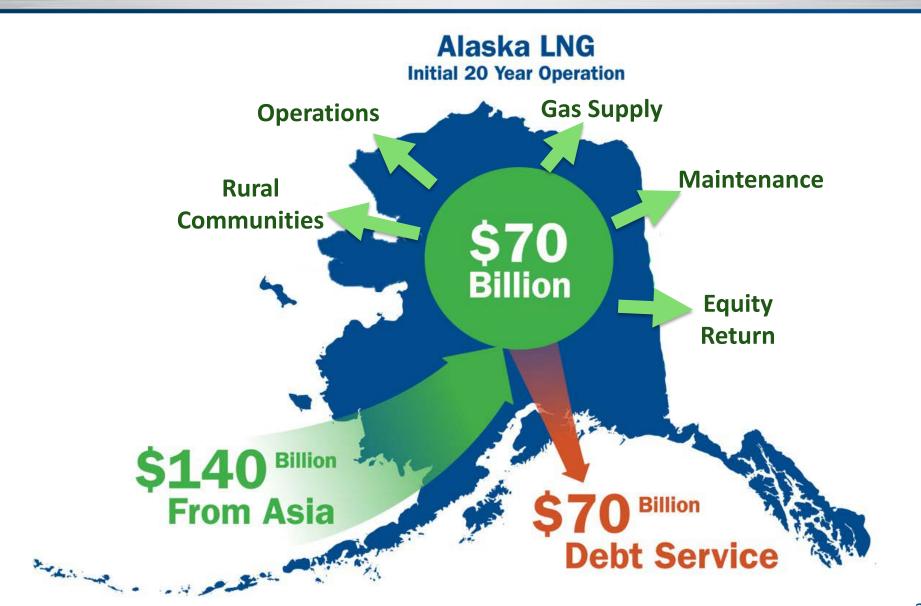


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Benefits to Alaskans: Economy





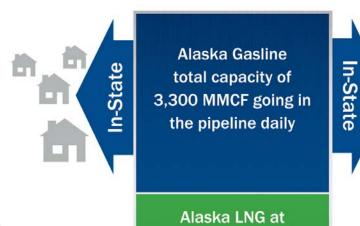
Benefits to Alaskans: Gas for Fairbanks



Designed to serve in-state needs before gas is delivered to the Liquefaction Facility.



- Stable Prices.
- **Energy for all of Alaska:**
 - Offtakes to communities and projects along the Alaska Gasline.



max capacity

2,800 MMCF going to

inlet of LNG

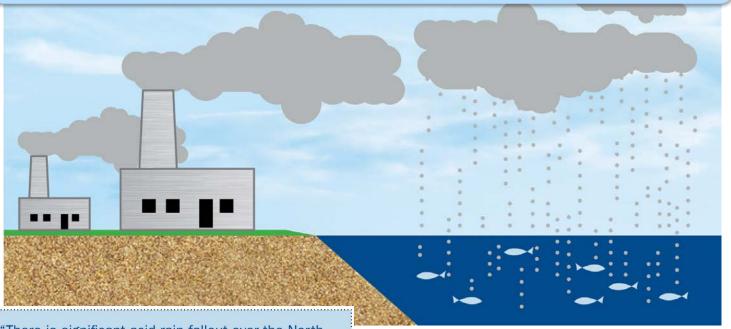
In-state: 500 MMCF/D **Current:** 220 MMCF/D

280 MMCF/D Growth:

Benefits to Alaskans: Environment



Alaska LNG will bring clean air and blue skies to Alaska and the world.



"There is significant acid rain fallout over the North Pacific due to air pollution in Asia. Cleaner air in Asia will lead to cleaner oceans and healthier fish in Alaska. It is a win-win situation for all of us."

Ricky Gease,

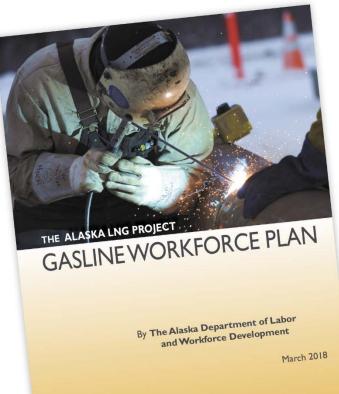
Executive Director, Kenai River Sportfishing Association

Alaska LNG will offset 80 million tonnes of CO₂ per year going into the atmosphere.

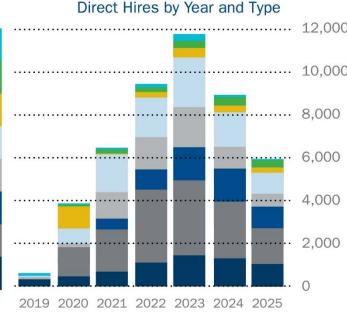
Benefits to Alaskans: Jobs



Project labor agreement will ensure Alaskans will be first in line to work on Alaska LNG.



Carpenters	295
Electricians and Instrument Fitters	397
Ironworkers	447
Laborers	2,311
Engineers	1,864
Teamsters	3,519
Pipefitters, Welders, and Insulators	1,566
Other	1,452
Total	11,850



Summary



- Progressing on all fronts.
- Large project: lots of agreements and process.
- Largest LNG market is in our back yard.
- Alaska is able to compete.
- Transformational benefits to Alaska for generations:
 - Gas for Alaskans.
 - Environment.
 - Jobs.
 - Economy.
 - Revenue to the state.











