Presentation Overview

- Global LNG.
- Stars aligning.
- Financing.
- Export powerhouse.

Mission: 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.
LNG is a Growth Industry

- LNG is a growth industry ($250 Billion annual by 2030).
- Asia is the biggest LNG market.
- Asia is Alaska’s regional market.

**Global LNG Demand - 2016**
- Asia, 181.9 MTPA
- Europe, 40.0 MTPA
- Rest of World, 36.1 MTPA

**Global LNG Demand - 2016, 2030**
- 2016: 258 MTPA
- 2030: 479 MTPA

86% Demand Increase

Source: Bloomberg
Global Positioning

Alaska is Asia’s closest and most direct source of U.S. LNG.

7 to 9 days shipping.

Direct route; no third nation or canal.

Alaska’s economic ties are with Asia. Alaska’s political ties are with the United States, but our economic ties are with Asia.  - The Hon. Walter J. Hickel
AGDC’s immediate focus was Asia.

- Build awareness.
- Correct misperceptions.
- Engage customers.
Stars Aligned

A number of external factors aligned favorably for Alaska LNG.
China needs to buy more from the U.S.

Paving the path to U.S. energy dominance

‘Energy Week’ highlights the role of American resources in securing prosperity

Economist.com
"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
In-depth Washington Engagement

• AGDC has significantly ramped up its presence and efforts in Washington.

• Regular meetings and dialog with:
  – Alaska Congressional Delegation.
  – Secretary Ross and U.S. Commerce Dept.
  – Secretary of Interior Ryan Zinke.

• Fast track status for federal approvals.
• IRS Tax-exempt status.

• Excellent fit in the U.S. strategy of trade improvement with China and energy dominance.
America’s Project

- Large infrastructure.
- 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 LNG will be pivotal and profitable for America.

Alaska Gasline Development Corporation
907.330.6300 | www.agdc.us
China Demand for Natural Gas

Meanwhile... Environment is a priority.

OCTOBER 25, 2017

China leads the growth in projected global natural gas consumption

<table>
<thead>
<tr>
<th>Natural gas consumption in selected regions, IEO2017 Reference case (2015-40) billion cubic feet per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
</tr>
<tr>
<td>2015 consumption</td>
</tr>
<tr>
<td>projected growth through 2040</td>
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<tr>
<td>19</td>
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<tr>
<td>38</td>
</tr>
</tbody>
</table>
Common Ground

LNG? It’s a deal!

Trump-Xi Deal Could Fuel A U.S. LNG Boom

By Irina Slav - May 16, 2017, 4:00 PM CDT
Alaska and China Establish Ties

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

Author: Jeannette Lee Folley  Updated: April 18  Published: April 7
Trips, Meetings, Presentations
U.S. Trade Mission to China

We’re in!
- 100 applied.
- 30 on short list.
- 12 finalists.
Joint Development Agreement
A large, state-owned, single buyer supports debt financing for associated capacity provided from in-country lender.

Remaining capacity is equity funded and sold into regional markets.

Onward sales in country

Regional sales

Aggregated Chinese Buyers

75% Capacity

Regional Buyers

25% Capacity
PetroVietnam Gas

- Wholly owned by nation of Vietnam.
- Responsible for all oil and gas resources.
- Developing two LNG receiving terminals in Vietnam.

From PetroVietnam Press Release:
The LNG import projects including Son My LNG terminal project play a significant role to PetroVietnam/PV GAS in specific and to the energy industry of Vietnam in general by diversifying the gas sources as well as meeting the growing demand of LNG/gas and electricity in Vietnam in the years to come for the benefit of the national energy security and food security.

The MoUs signing ceremony is part of the remarkable collaborative activities during the very first visit to Vietnam of the US President Donald Trump, setting the milestone for a tighter collaboration in economic development between the US and Vietnam in the coming time.
Korea Gas Corporation (KOGAS)

- MOU sets framework for cooperation in several areas of Alaska LNG, including:
  - Korean investment.
  - KOGAS cooperation on EPC of project components and operation.
- KOGAS is the world’s largest single company buyer of LNG in the world.

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

KOGAS technical team inspects Nikiski LNG site; November 6, 2017
Tokyo Gas Co., Ltd.

- One of the largest energy utilities in Japan.
- Letter of Intent sets forth the basic principles upon which AGDC and Tokyo Gas Co., Ltd. agree to collaborate on the following:
  - Purchase of LNG from AGDC.
  - Possibility of other opportunities to advance Alaska LNG.
- Continuation of decades-long relationship between Alaska and Tokyo Gas.
- Helps round out sales volumes from Alaska LNG.
Alaska LNG Capital Structure

- Base case: 42-inch, three train, 20 Mtpa design.
- Total Capital Cost = $43 Billion.
- Potential for phased development.

Equity

- 25% ($11 Billion Equity)

Debt

- 75% ($32 Billion Non-recourse Debt)

Total Capital Cost = $43 Billion

- GTP $5.9
- Alaska Gasline $7.6
- LNG Facility $12.8
- Owner’s Cost $6.4
- Contingency $10

30% Contingency on top of Base and Owner’s Cost.
Capacity Allocation

Capacity and Capital Cost
(Total 20 MTPA; $43 Billion)

Debt
- 75% of capital cost.
- Being exchanged for 75% of capacity for life of loan up to 30 years.
- Plus 75% of operating expense.
- Plus cost of gas.

Equity
- 25% of capital cost.
- 25% of capacity.
- 100% of project ownership.
- 25% of operating expense.
- Plus cost of gas.

Debt
- $32 Billion
- 15 MTPA

Equity
- $11 Billion
- 5 MTPA

Strategic debt provider takes 75% of project capacity for life of loan to retire debt. Equity owners can sell 25% of capacity to generate equity return.
The project is economic to all stakeholders under the current structure.
Equity investment in the project will be required; pursue a development path to provide the State with an ability to invest, but not the requirement to invest; Alaskans also to have investment option.

- Structure to receive third-party funds.
- Equity offering in-state, then beyond.
Investment Profile – State of Alaska

Equity-only ROE:
- 8% through initial period.
- 10% life of project.

Equity ROE plus RIK/TAG and PILT:
- 13% during initial period.
- 15% life of project.
The gasline and LNG infrastructure provides enormous value to Alaska; there is a significant opportunity cost of not developing the project.

- 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.

### Payments Outside of Debt and Equity (2025 $Millions)

<table>
<thead>
<tr>
<th>Item</th>
<th>Annual Value</th>
<th>State's Share/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas Resource</td>
<td>1 TCF/yr @ $1-2/Mcf = $1-2 Billion</td>
<td>25%</td>
</tr>
<tr>
<td>PILT</td>
<td>$450-500 MM</td>
<td>100%</td>
</tr>
<tr>
<td>Operations</td>
<td>$950 MM</td>
<td>100%</td>
</tr>
<tr>
<td>Equity Return</td>
<td>$1.1 Billion</td>
<td>0 to 100%</td>
</tr>
<tr>
<td>Net Revenue After Debt Retirement</td>
<td>$6 Billion</td>
<td>0 to 100%</td>
</tr>
</tbody>
</table>
Jobs for Alaskans

- Alaska LNG will create a construction employment boom with a long-term employment future.
- Alaskans can begin training; demand for employment is expected to outstrip available trained workforce.
- Indirect and induced jobs will spread the benefit of the Alaska LNG project to even more Alaskans.
- Every trade will be needed to construct the Alaska LNG project.
Gas for Alaskans

• Lower cost energy for Alaskans.

For the past 30 years, China has tapped coal for about two-thirds of its energy needs, resulting in carbon dioxide and particulate emissions that have significantly degraded the nation’s air quality and impacted the global climate.

In an effort to address both concerns and provide a backup fuel for intermittent renewables, China is working to increasingly replace coal with cleaner-burning natural gas. As a first step, the government aims to boost the share of natural gas in its primary energy supply from 6 to 10 percent by 2020.

• Blue sky for Beijing and clean air for Fairbanks.

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

Alaska LNG can improve China’s Air Quality and offset 80 million tonnes of CO2 per Year.
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**, including mining projects and other industrial and commercial developments.

• Low cost, clean burning natural gas will spur **economic development for the next generation**.
Focus: China
China: Alaska’s Export Partner

China is Alaska’s Biggest Trade Partner

Trade with China directly benefits thousands of Alaskans, including fishermen and miners.

- China: 57%
- Japan: 27%
- South Korea: 27%
- Canada: Other Nations

Seafood 57%
Metal Ores 27%
Oil and Gas
Timber
Other
China as a Resource Buyer

China is a major consumer of raw materials that can be produced in Alaska.

China share of world raw material consumption

- Population: 20%
- Economy (GDP): 13%

- Concrete: 60%
- Copper: 48%
- Coal: 49%
- Rice: 30%
- Aluminum: 54%
- Steel: 46%
- Uranium: 13%
- Corn: 22%
- Nickel: 50%
- Gold: 23%
- Oil: 12%
- Wheat: 17%
Alaska as a Resource Neighbor

- Alaska is a resource development state.
- 4 trillion tons of high quality coal: one ninth of world’s known coal resource.
- World-scale lead/zinc deposits: including the world’s largest zinc mine.
- World-scale gold and copper mines: numerous existing and potential.
- Graphite: America’s highest grade and largest, large flake graphite deposit.
- Significant rare-earth deposits.
U.S. Export Engine

- Major resource base in many commodities.
- Gas, oil, and coal for energy buyers.
- Mining projects, enabled by Alaska LNG will further enhance trade.

Alaska can be the resource export powerhouse for the United States.
Conclusion

• Big project.
• Achievable.
• Alaskans have done it before;
  ▪ LNG at Nikiski,
  ▪ Pipeline down the corridor,
  ▪ Gas treating on the North Slope.
• Asia is the customer.
• Future opportunities beyond LNG.

The stars are aligned, seize the opportunity.
Get Involved.

Get Ready.

Get Engaged.

www.agdc.us

Facebook.com/AKGasline DevelopmentCorp.