

Alaska LNG Project Update

Frank T. Richards, P.E., AGDC President
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Who is AGDC?

The Alaska Gasline Development Corporation (AGDC):

- Independent, public corporation owned by the State of Alaska
- Created by the Alaska State Legislature
- Currently lead party for developing the Alaska LNG Project

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

Alaska LNG System

North Slope Gas Supply

- 40 Trillion cubic feet (tcf) of discovered, conventional, and developed North Slope associated gas from Prudhoe Bay and Point Thomson
- This gas is stranded and can be produced at a low incremental cost

Gas Treatment Plant

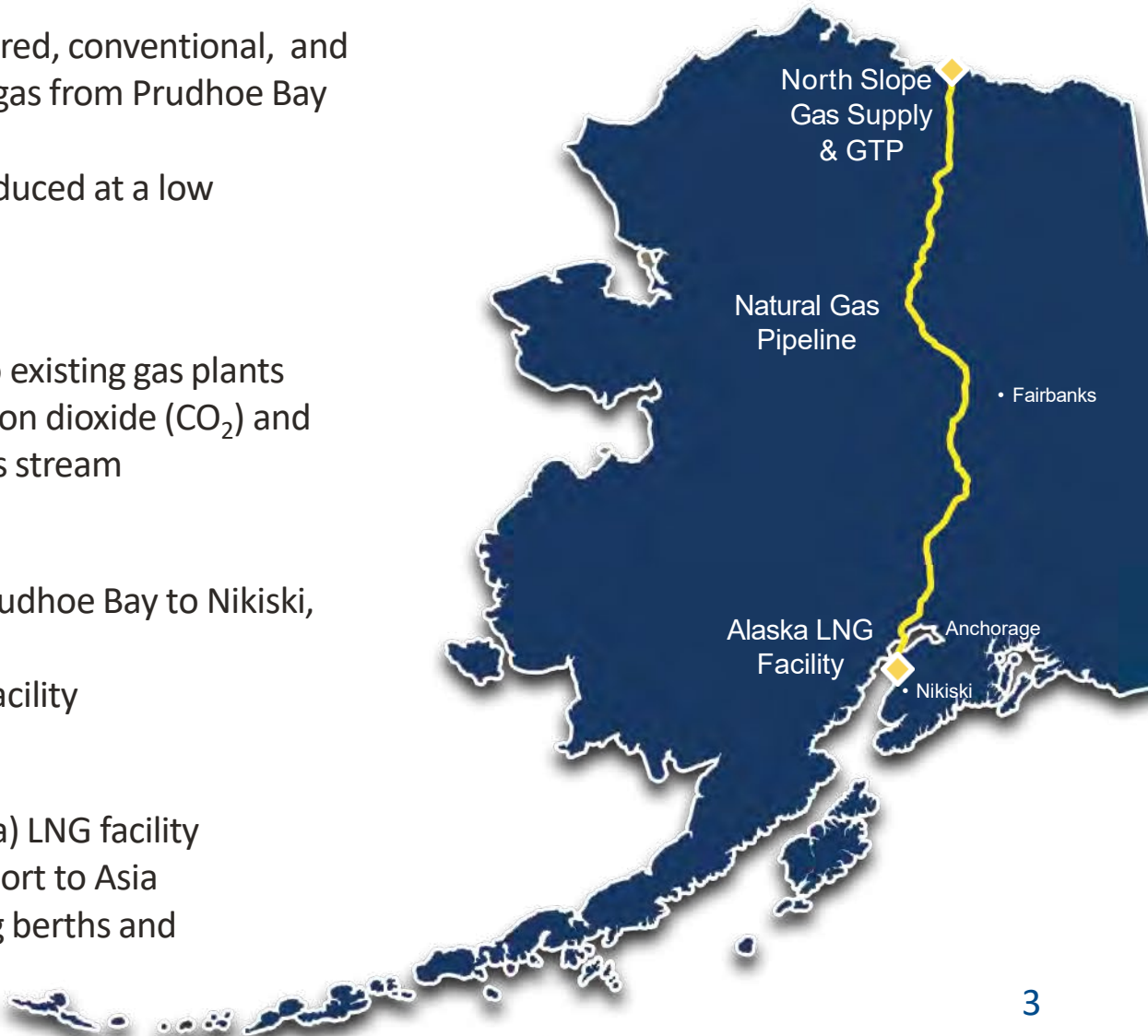
- Located in Prudhoe Bay adjacent to existing gas plants
- Removes and uses/sequesters carbon dioxide (CO₂) and hydrogen sulfide (H₂S) from raw gas stream

Natural Gas Pipeline

- 807-mile, 42" dia. mainline from Prudhoe Bay to Nikiski, following TAPS and highway system
- Provides gas to Alaskans and LNG facility

Alaska LNG Facility

- 20 Million tonnes per annum (Mtpa) LNG facility
- Converts natural gas to LNG for export to Asia
- 3 liquefaction trains, jetty, 2 loading berths and 2 x 240,000 m³ LNG tanks



Alaska LNG Status

Strong Economics

- Alaska LNG has lower costs than its key competitors
- Cost of supply independently verified

Federal Permits

- Federal government has approved construction of Alaska LNG
- Acquiring permits took significant effort and they are valuable

Environmental Benefits

- Alaska LNG will reduce global greenhouse gas emissions
- LNG will continue to be an important energy source through energy transition



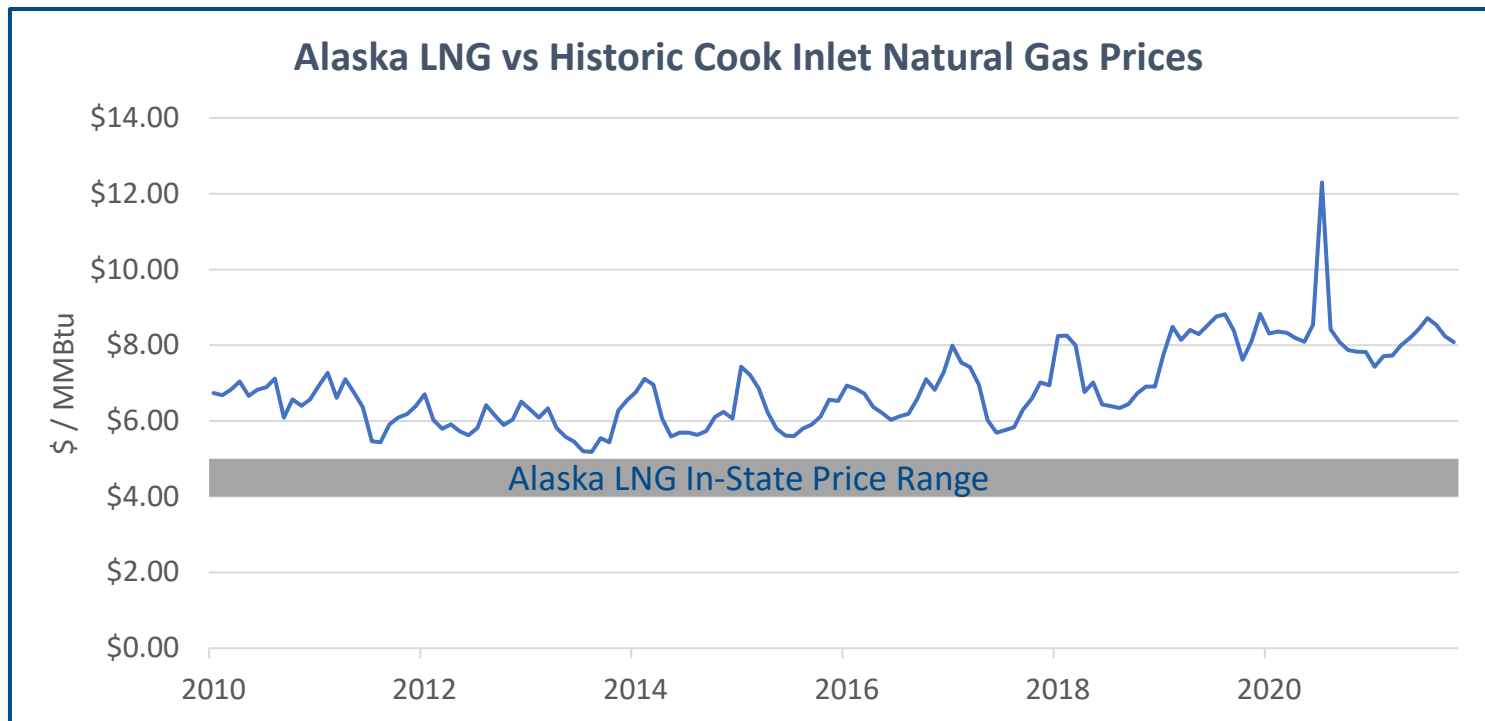
Purpose: In-State Gas & Export

Low-Cost Gas for Alaskans

- The Alaska LNG in-state price is estimated to be between \$4 - \$5 per MMBtu
- Significant reduction from current prices, saving Alaskans hundreds of dollars per year

Enough Gas Supply for Alaskans

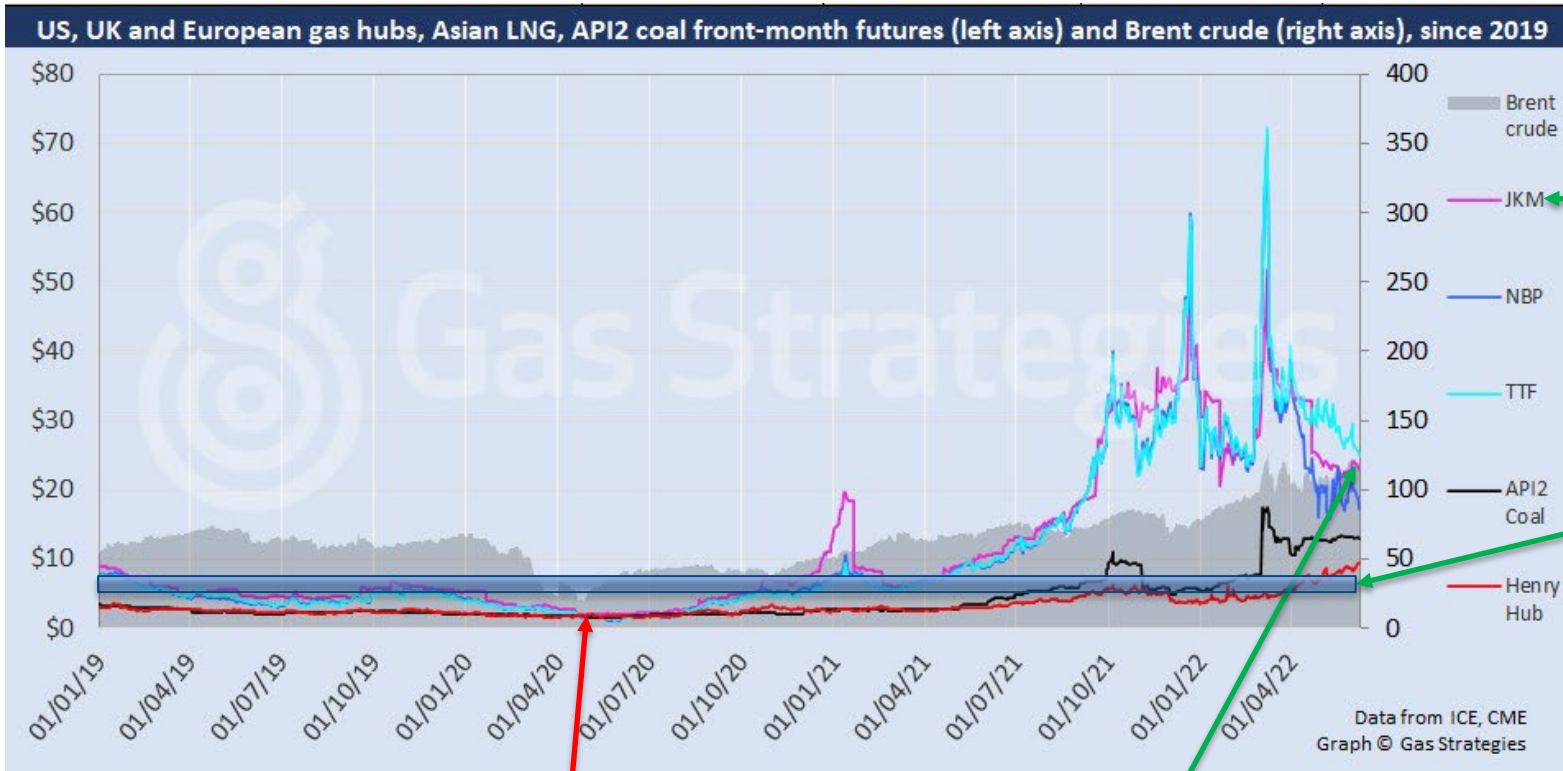
- The pipeline is designed to supply more natural gas than the LNG plant needs
- Enough capacity for in-state demand to more than double



Source: EIA

The LNG Market Update

LNG and natural gas spot prices remain high and are expected to stay high for the foreseeable future. This creates an opportune environment for development of Alaska LNG.



Japan, Korea
Market
(spot price)

Alaska LNG
Target Range

Summer 2020

LNG: \$2.00

Henry Hub: \$2.00

June 6, 2022

LNG: \$23.36

Henry Hub: \$9.32

- Best market in recent history for LNG developers – speed is important
- The pace of new projects and agreements has picked with high LNG prices and the move away from Russian LNG supply
 - Venture Global took FID on Plaquemines LNG and is commissioning Calcasieu Pass (US Gulf Coast)
 - Tanzania signs framework with Equinor and Shell to advance LNG project
 - TotalEnergies awarded stake in Qatar’s LNG expansion project
- Move away from Russian LNG is remaking the LNG map
 - Europe is still buying pipe Russian gas, scrambling to import more LNG
 - IOCs and LNG buyers are pulling out of Russian LNG projects and looking for new opportunities
 - JBIC suspends investment in Arctic LNG
- “Liquefied Natural Gas Prices will Steam Up Again” – Wall Street Journal, June 13, 2022

LNG Demand Forecast

LNG Market is Still Growing

- Demand growth will outpace current and planned LNG capacity
- LNG growth expected as part of energy transition as natural gas emits half the greenhouse gases as coal

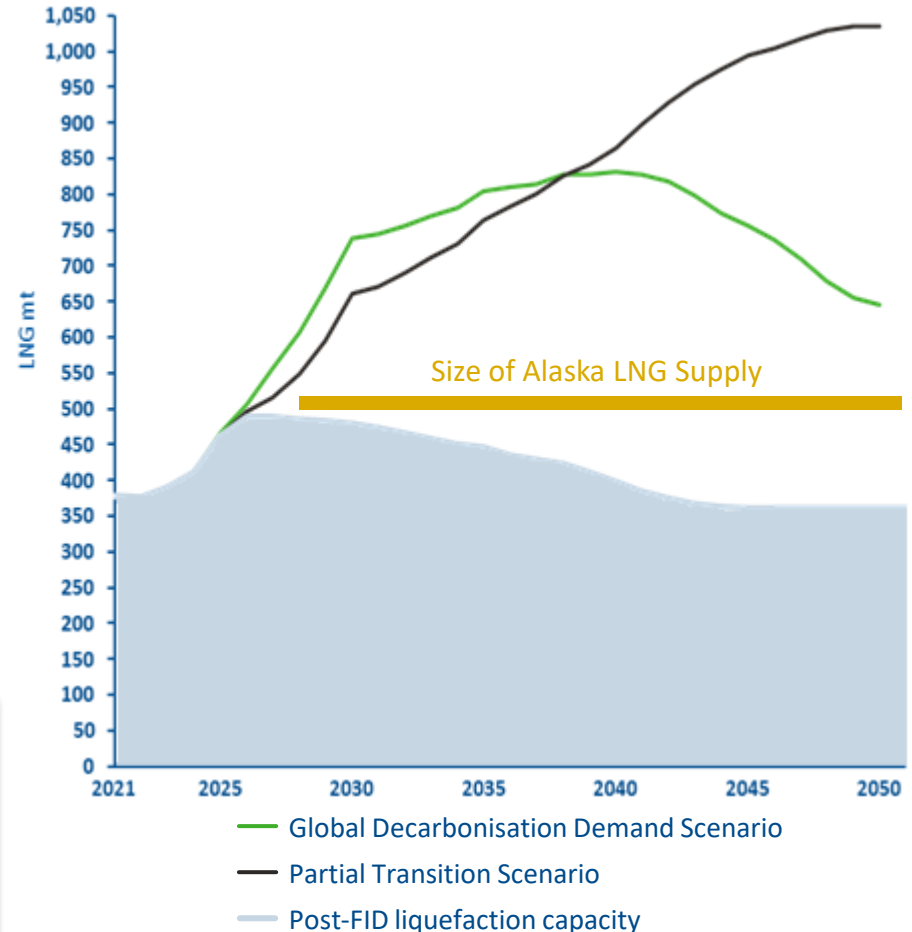
Investors and Buyers want LNG

- New LNG projects expected to be sanctioned in 2022
- Most new projects have some degree of energy transition planning
- Under both energy transition scenarios, LNG demand exceeds supply for the expected life of the Alaska LNG Project

“...raising capital for these very capital-intensive [LNG] projects has not really been that much of a challenge to the industry. I think that sends a strong signal of confidence that this [LNG] is going to be around for a while.”

-Dan Brouillette, President of Sempra Infrastructure on NPR's Marketplace (Jan 3, 2022)

Global LNG Supply/Demand Balance Forecast, 2021-2050



Source: Gas Strategies

Cook Inlet Gas Supply

- Railbelt Utilities Announced Working Group:
 - Includes all major railbelt utilities
 - Assessing future gas supply needs and energy security in Cook Inlet
- AGDC met with utility group:
 - Provided project update
 - Offered to provide detailed cost and economic information
- The Alaska LNG Project and the pipeline are the best option to replace Cook Inlet gas:
 - Secure, low-cost supply for Alaskans
 - If not constructed, Alaska may need to import LNG to replace Cook Inlet gas



Wood Mackenzie Cost of Supply

Wood Mackenzie Updated their 2016 Alaska LNG Competitiveness Analysis

- Wood Mac independently calculated Alaska LNG cost of supply
- AGDC took on the recommendations from the 2016 report to reduce the cost of supply

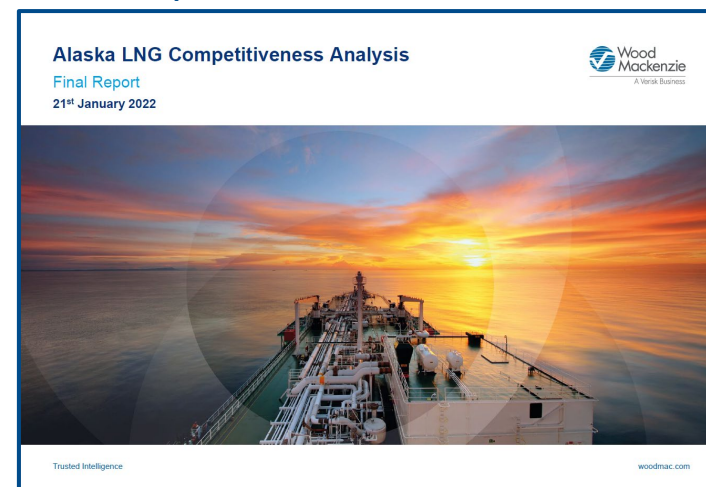
Wood Mackenzie's 2022 Report Verified that Alaska LNG Cost of Supply is now Competitive

- Transition from 100% equity funding to non-recourse project finance with a tolling model largest driver of cost reduction
- Since 2016 report, this sort of commercial model has been used to finance the growth of the U.S. LNG industry

2016 Report



2022 Update



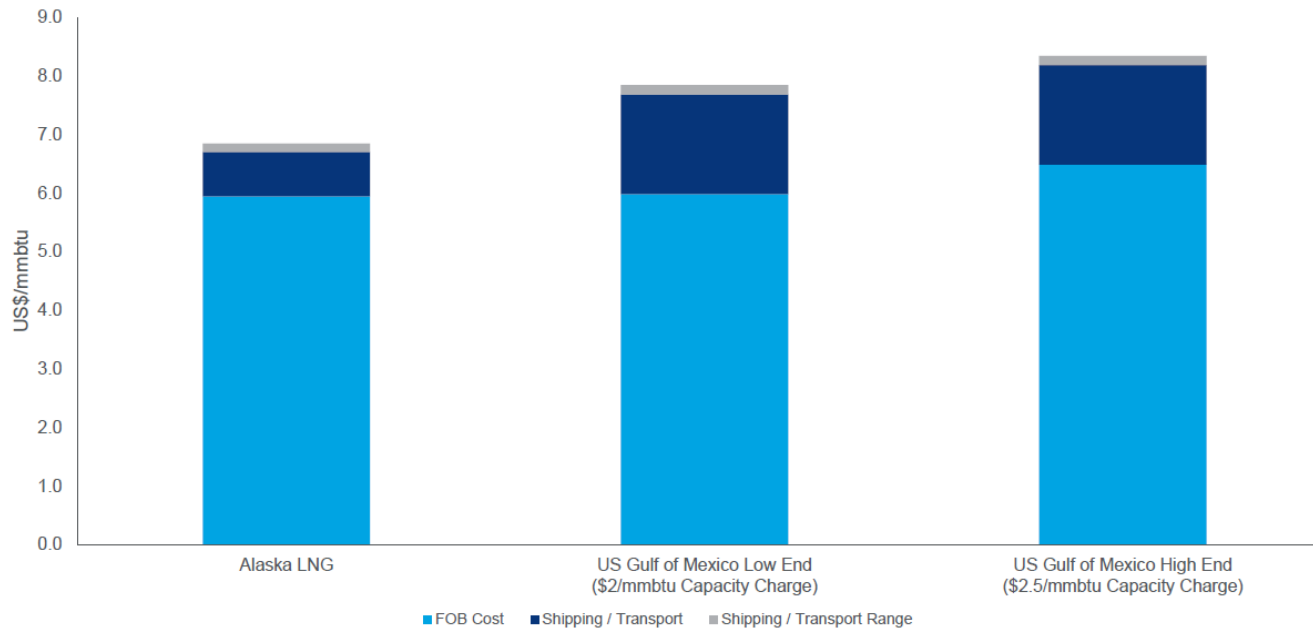
Wood Mackenzie Cost of Supply

With the cost optimization and new debt structure, Alaska LNG is competitive against US Gulf Coast LNG Projects

woodmac.com



Comparison of Breakeven cost of supply for delivery into North Asia



Source: Wood Mackenzie

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*Slide from 2022
Wood Mackenzie
Alaska LNG
Competitiveness
Analysis*

Federal Loan Guarantee

The full faith and credit of the United States will be pledged to pay the principal and interest on \$26.3 billion of Alaska LNG debt in the event of a default

The Infrastructure Bill includes a loan guarantee for Alaska LNG

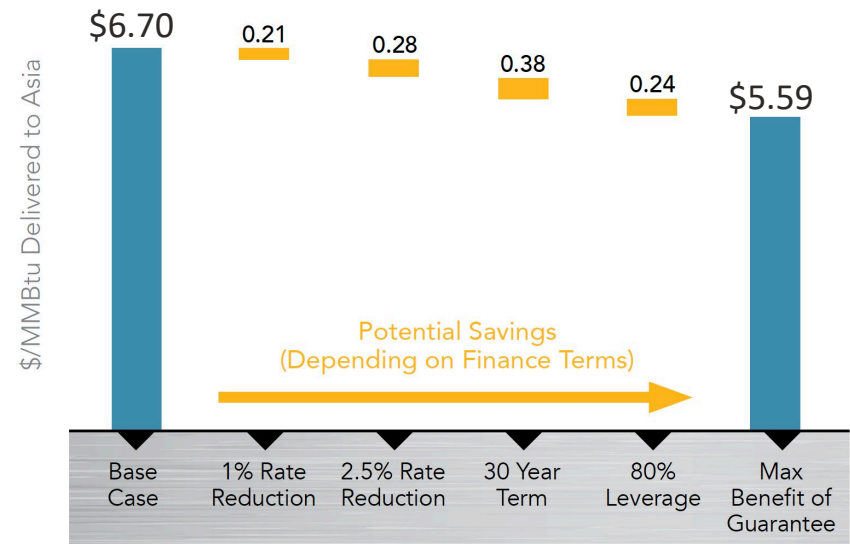
- Principle amount of debt guaranteed up to \$26.3 billion (adjusted for inflation)
- Up to 80% of the capital cost
- Term of up to 30 years
- Loan guarantee will be subject to credit terms and requirements of the loan program

Benefits of the loan guarantee

- Reduced cost of supply
- Completion risk mitigation
- Federal government support and “skin in the game”

Reduced Cost of Supply

- Interest rate reduction of between 1 and 2.5%
- Potential for longer term debt
- Potential for higher debt/equity ratio

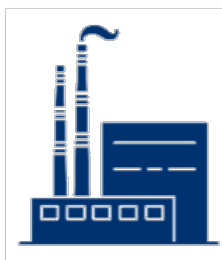


Greenhouse Gas Emissions

A lifecycle analysis of Alaska LNG shows it reduces greenhouse gas emissions for electric power generation by more than 77 million metric tons of CO₂e per year in comparison to Asian coal derived power

Alaska LNG will have the same GHG impact as:

Eliminating



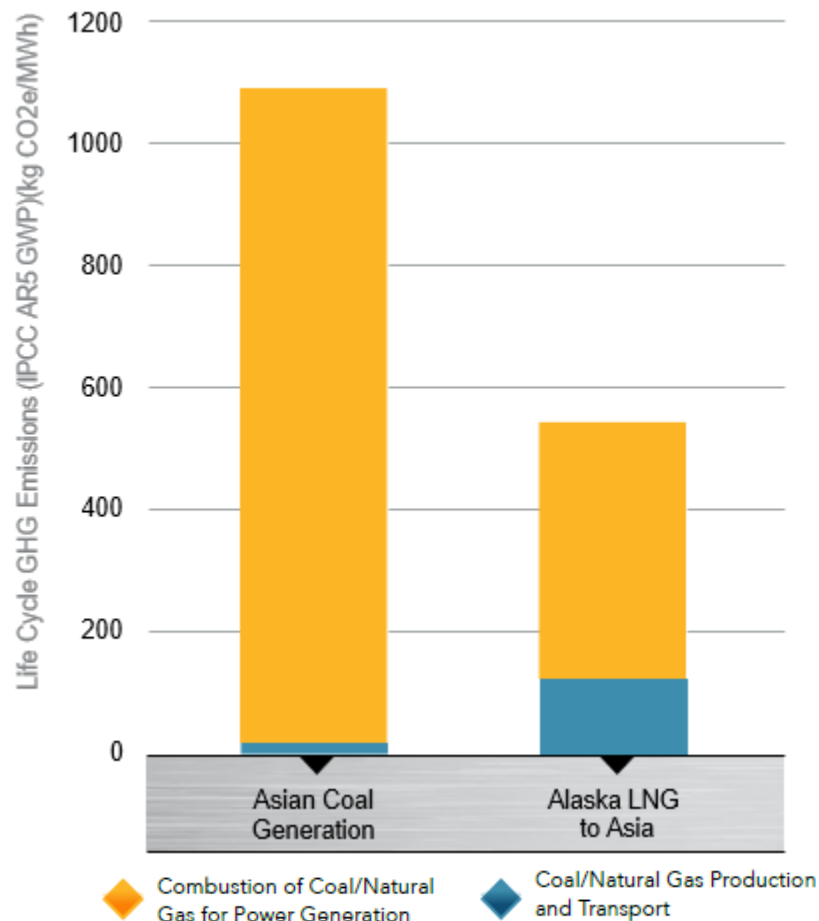
19 coal
power
plants

Constructing



16,000
Wind
Turbines

Lifecycle GHG Emissions for Natural Gas vs. Coal Power



Source: Greenhouse Gas Lifecycle Assessment: Alaska LNG Project

Transition to Private Developers

Replacing the Producers with Infrastructure Developers is critical to improving project economics and continuing to move Alaska LNG forward

2013 - 2016

Producer Led

Producers provided initial scoping and engagement – important demonstration of producer support

2017 - 2022

State Led

State-led initial design, permitting and authorization – important demonstration of state support

2022 - onward

Developer Led

Handoff to infrastructure developers who require lower profits and lower risk – reduces the cost of the project and improves economics

Alignment of Strategic Parties

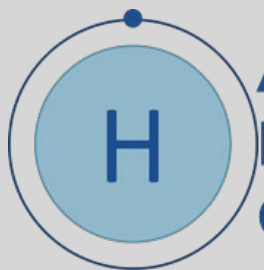
- Advancing the structure and leadership of the project with Strategic Parties consisting of:
 - North Slope producers
 - A major pipeline developer (Enbridge)
 - LNG buyers
 - Banks and financial corporations
- These parties have the technical and financial capacity to bring this project to completion
- Strategic parties have a combined market capitalization of \$1.25 trillion
- Focus is an LNG Facility Strategic Party with significant market capitalization and an LNG development track record

- Japan Trade Mission with Governor Dunleavy:
 - Purpose of trip was to invite Japanese companies to join a consortium to advance Alaska LNG and invite support from government entities for Japanese investment in the Alaska LNG Project
 - AGDC President and Venture Development team accompanied
 - Presented Alaska LNG Project and Alaska's ability to supply LNG and ammonia to meet Japan's energy transformation goals
 - Opportunity for executive follow-up on past commercial discussions
 - Attended meetings with government entities that can provide financial support to a Japanese consortium's investment in Alaska

Meetings held with:

- | | | |
|--------------|-------------------|--------------------|
| ▪ JERA | ▪ METI | ▪ TOYO Engineering |
| ▪ Tokyo Gas | ▪ JOGMEC | ▪ Chiyoda |
| ▪ INPEX | ▪ JBIC | ▪ MOL |
| ▪ Mitsubishi | ▪ U.S. Ambassador | |

Alaska Hydrogen Opportunity



Alaska Hydrogen Opportunity

50 years ago, the modern LNG industry was created in Alaska. For many of the same reasons, the clean hydrogen industry can also be created here in Alaska.

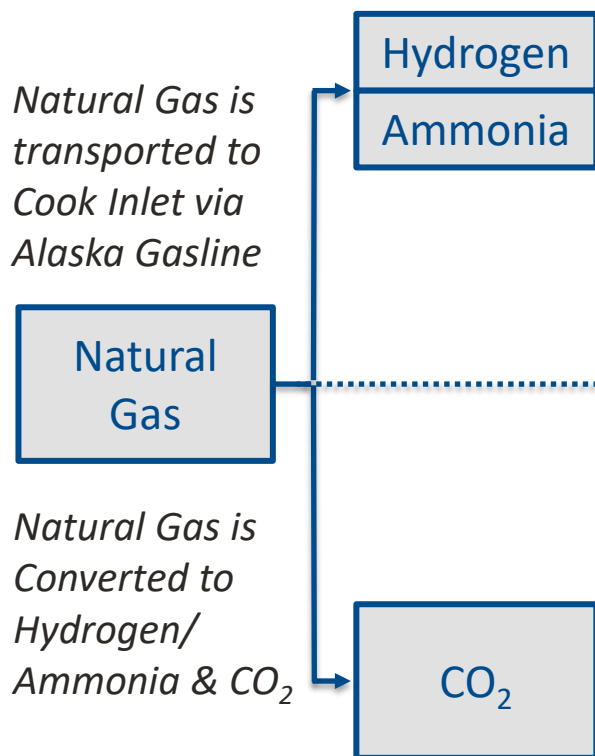
**Carbon Storage and
Sequestration at the Project Site
on Tidewater**

**Short Distance to Growing Clean
Hydrogen Markets in Asia**

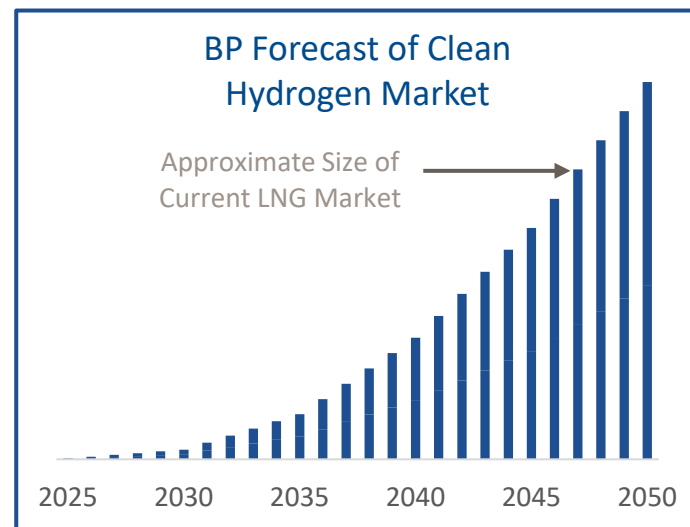
**Low-GHG Natural Gas from
Conventional Supply**

**Existing Ammonia Plant well
Positioned to be First Mover in
Market**

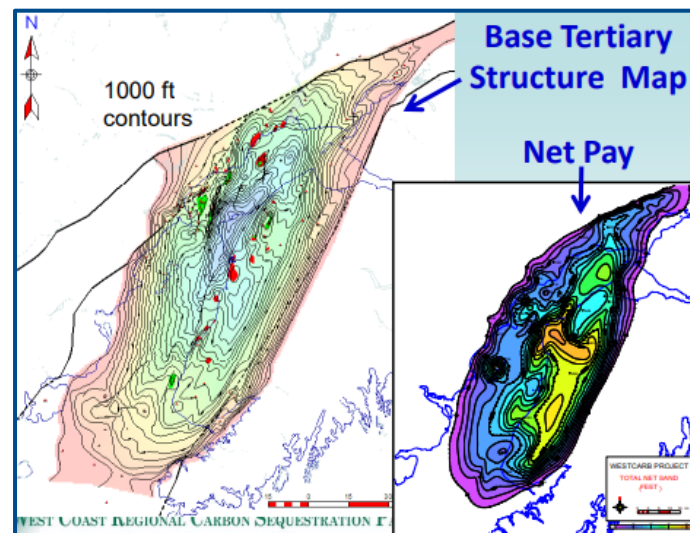
Alaska Hydrogen Opportunity



- Hydrogen/ammonia are clean energy sources
- Key Asian markets forecast rapid demand growth
- Infrastructure funding available for investment in Alaska



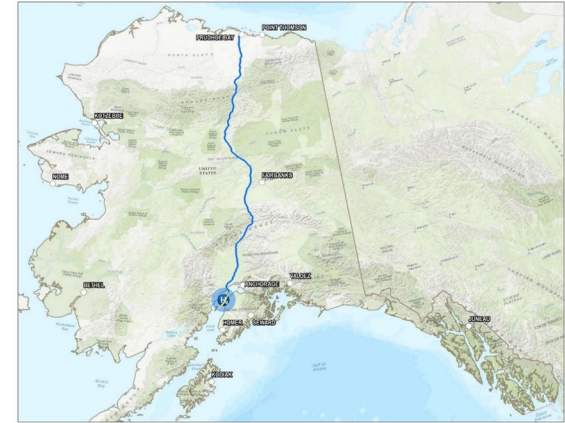
- Cook Inlet has the best carbon sequestration potential on the Pacific Coast of North America
- Allows for “future-proofing” Alaska LNG with transition to net-zero hydrogen/ammonia production



Source: West Coast Regional Carbon Sequestration Partnership

Alaska H2Hub Proposal

- Letters of Intent with private parties in progress
- \$625K of proposal development funding secured from Legislature and Governor
- DOE Notice of Intent (NOI) issued June 6, 2022
- Next milestone will be Funding Opportunity Announcement (FOA) and go/no-go stage gate



- Alaska LNG is economic and needed to fill projected LNG demand
- Alaska LNG has all federal permits
- Alaska LNG will contribute to significant reductions in world-wide greenhouse gas emissions
- Alaska LNG will provide energy security for Alaska and our country's allies
- Working with world-class private-sector Strategic Parties to provide investment and lead the Alaska LNG Project forward
- Encouraging Alaskans to rally behind the project

ALASKA
GASLINE
DEVELOPMENT CORP.

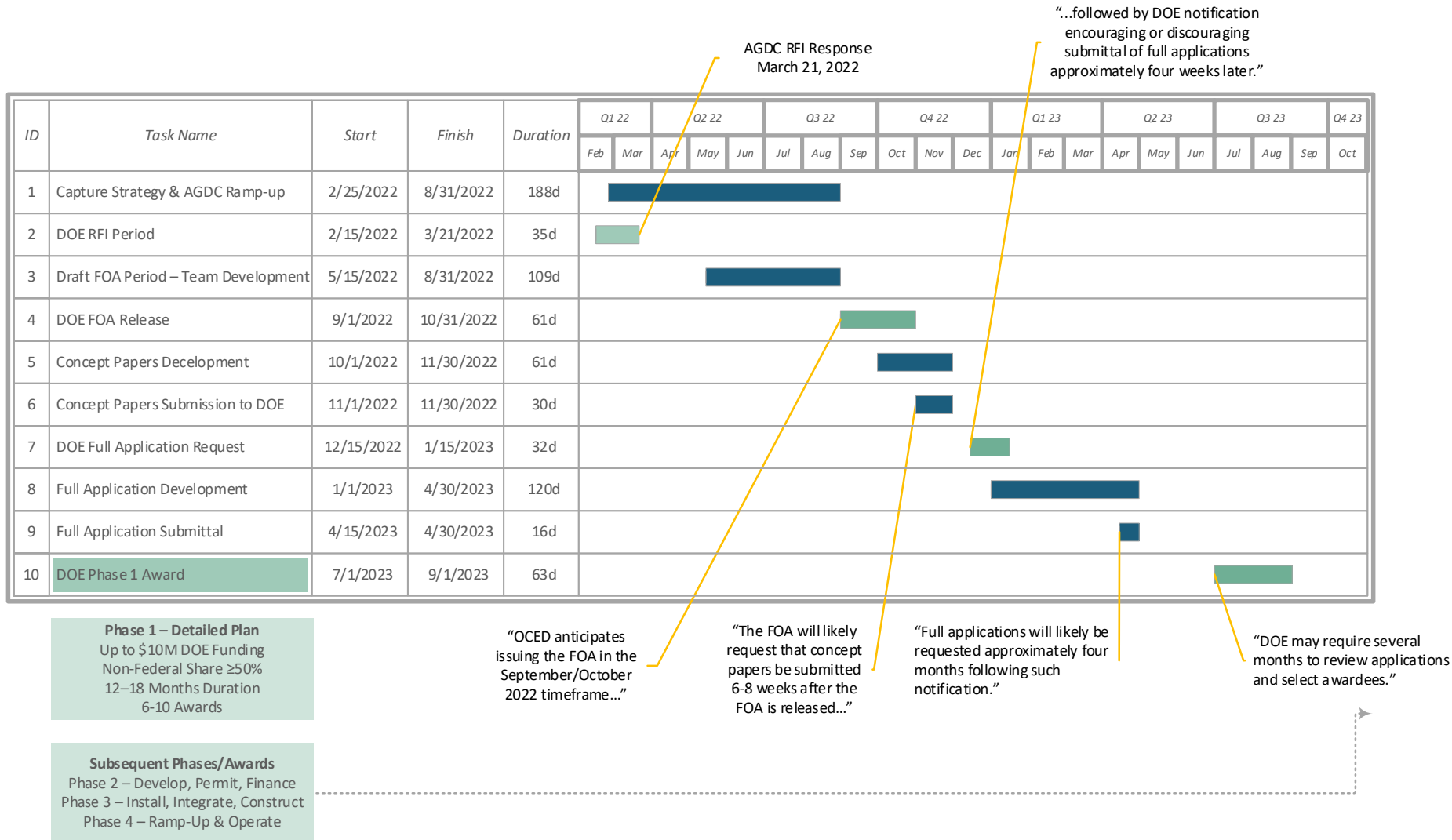


Backup Slides

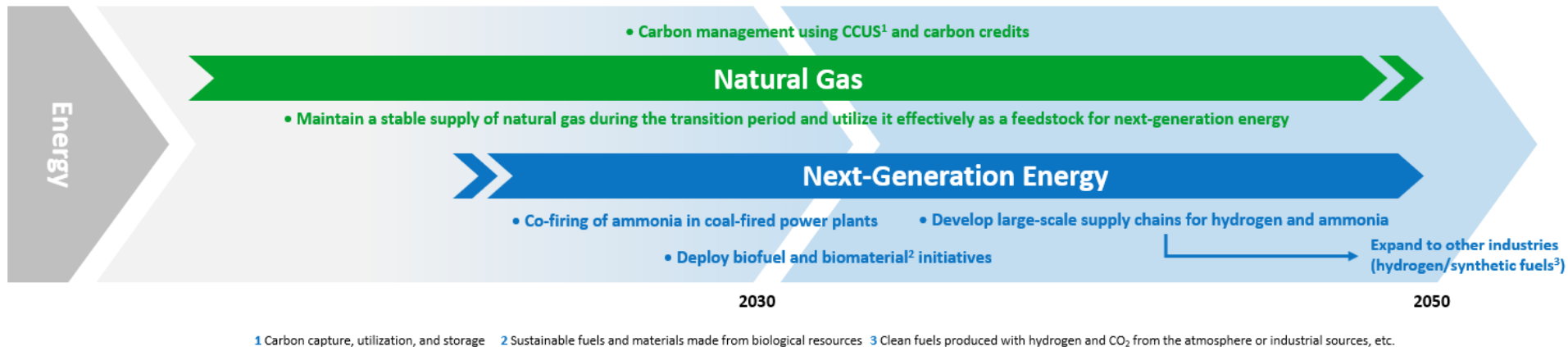
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Alaska H2Hub Proposal Schedule



Japanese Approach to Energy Transformation



Alaska can provide what Japan needs for energy transformation:

- Stable long-term supply of LNG
- Transition to supply of clean supply of ammonia
- Carbon capture and sequestration

- Working with Senator Murkowski on federal options to support Alaska LNG Project
- Senator Sullivan's message on Alaska LNG during congressional visit to Japan and Korea:
 - U.S. has shared values and provides geopolitical stable source of energy
 - Energy supply from strategic partner
 - Strengthens trade relationships
 - Alaska LNG is fully permitted project
 - Alaska has best carbon sequestration potential on Pacific coast of North America

North Slope Production

Stranded

- Alaska LNG is the only permitted opportunity to monetize
- No commodity price exposure or risk
- Supply price will reflect stranded gas assets

Proven

- Approximately 40 tcf of proven reserves
- 8.5 bcf is reinjected into fields daily
- Unit owners are ExxonMobil, ConocoPhillips, Hilcorp (formerly BP)

Conventional

- No enhanced recovery or "fracking" required
- Existing gas on State of Alaska lands
- Limited new drilling required

ExxonMobil

Hilcorp

ConocoPhillips

Alaska's Oil & Gas Company

Upstream infrastructure and large-scale production facilities are already in place on the North Slope.

At the request of the producers, Alaska authorities approved natural gas sales to Alaska LNG.

Revenue from gas sales will offset declining oil revenues.

Prudhoe Bay Production

