# Senate Resources Committee Meeting

January 27, 2025



#### AGDC



#### The Alaska Gasline Development Corporation (AGDC)

- Independent, public corporation owned by the State of Alaska (SOA)
- Created by the Alaska State Legislature

#### Mission

 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

#### Current Owner and Developer of the Alaska LNG Project

Transitioning project to private ownership under qualified developers





#### Alaska LNG Overview



#### North Slope Gas Supply

- 40 Tcf of gas reserves in PBU and PTU
- 122 Tcf of total "Proved Producing Reserves" in Alaska\*
- Early Supply from Great Bear Pantheon

#### Arctic Carbon Capture (ACC)

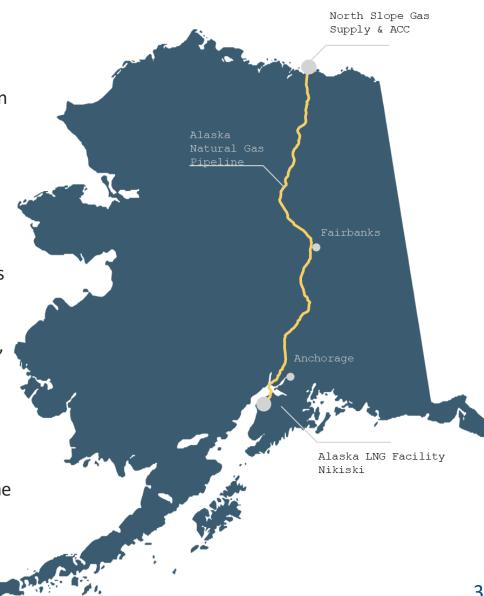
Adjacent to existing PBU gas plants, will remove and sequester CO<sub>2</sub> from raw gas stream and condition gas to LNG specifications

#### Natural Gas Pipeline

807-mile pipeline from Prudhoe Bay to Nikiski, follows existing oil pipeline and highway system, with gas delivered to Alaska communities and the LNG plant

#### Alaska LNG Facility

20-MTPA LNG facility located in Nikiski near the legacy Kenai LNG Plant



#### Phase 1 of Alaska LNG

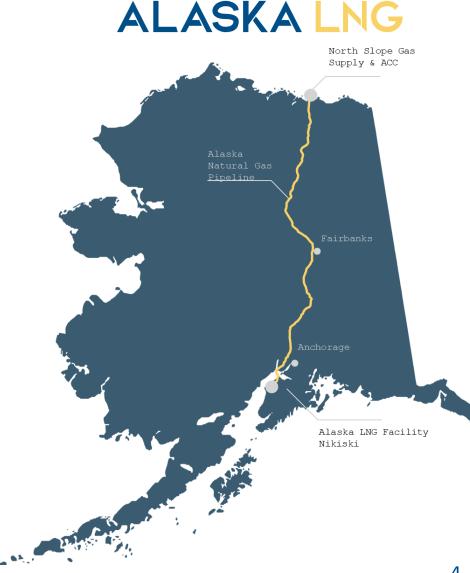


Alaska LNG is a fully permitted integrated LNG export, pipeline, and gas treatment project

**Phase 1** is the pre-build of the pipeline from the North Slope of Alaska to Southcentral Alaska

**Phase 2** is the construction of North Slope gas treatment and LNG export facilities

By phasing Alaska LNG, Alaska can utilize existing permits to quickly provide gas for Alaskans and provide infrastructure for future LNG exports and industrial use



# 2024 Legislative Intent Language



"It is the intent of the legislature that the Alaska Gasline Development Corporation continue to work towards meeting the critical energy needs of Alaskans by advancing a pipeline project proposal which would deliver North Slope natural gas to Alaska's utilities, businesses, and homeowners. Further, it is the intent of the legislature that the Alaska Gasline Development Corporation complete an independent third-party review of a project proposal that would commercialize North Slope gas and present that analysis to the legislature by December 20, 2024. It is the further intent of the legislature that if analysis shows a positive economic value to the state, all parties would work toward Front End Engineering and Design for Phase 1 of a pipeline project."

At the direction of the Alaska Legislature, Wood Mackenzie was contracted to complete an independent third-party economic assessment of the Alaska LNG Phase 1 Pipeline.

The analysis shows a positive economic value to the state.

# Economic Value to the State of Alaska



# Wood Mackenzie Study



- At the direction of the Alaska Legislature, AGDC contracted with Wood Mackenzie to perform an independent third-party economic assessment of the Phase 1 gas pipeline
- Wood Mackenzies key findings are:
  - The Phase 1 pipeline can match or beat the cost of imported LNG
  - The Phase 1 pipeline will create significant new jobs and economic activity in Alaska



Economic viability assessment and economic value of Alaska LNG project - Phase 1

**Final Draft** 

September 2024

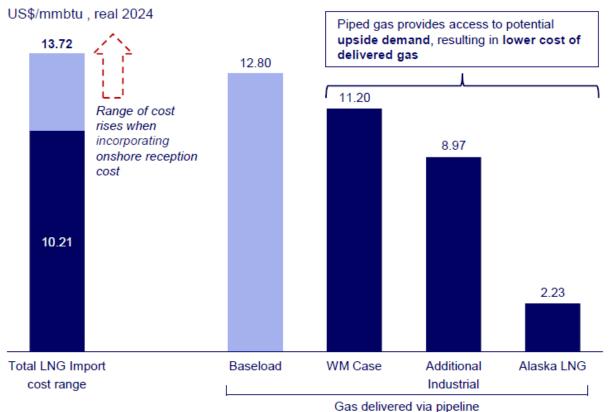


# Wood Mackenzie Analysis



The Wood Mackenzie Analysis shows that the Phase 1 pipeline can deliver gas at or below the cost of imported LNG with just domestic demand. As new Anchor Customers develop, Alaskans will benefit from lower cost energy.

#### LNG Import cost comparison vs Gas delivered via pipeline



#### Phase 1 Jobs



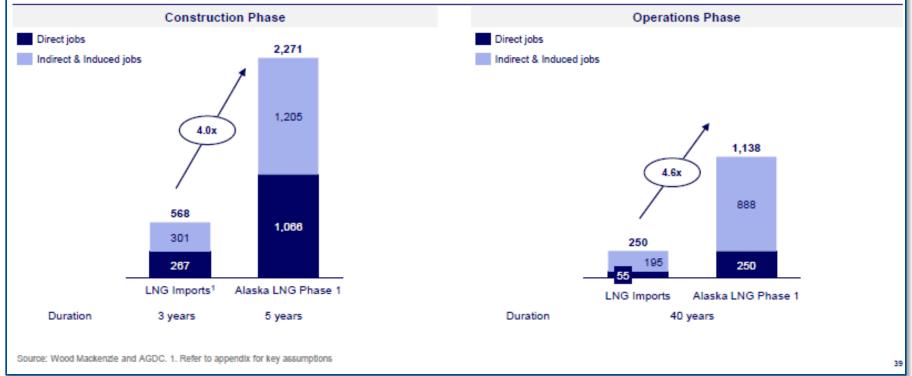
Economic Impact of LNG Pipeline Phase 1



The impact in jobs created from Alaska LNG Phase 1 is 4x larger than the LNG imports alternative mainly due to a larger in-State construction scope

Economic Impact Comparison – LNG Imports vs Alaska LNG Phase 1

Average jobs per year - Direct, indirect, and induced



## **Economic Impact**

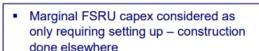


Economic Impact of LNG Pipeline Phase 1

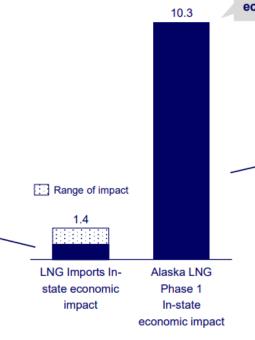


Economic impact for Alaska LNG Phase 1 is 7x - 10x larger than the LNG imports alternative with the additional benefit of potential lower gas cost via industry expansion and upside demand

Economic Impact Comparison – LNG Imports vs Alaska LNG Phase 1 GVA in US\$ billion. 2024 Real



- No upside for gas demand outside of current baseload consumption
- Impact mainly considering:
  - Dock construction
  - FSRU and dock required labor
  - Local services and materials suppliers
  - Local businesses stimulated



Phase 1 costs are offset by roughly equivalent economic impacts

- Pipeline construction related activity and capital spend directly impacting Alaska economic activity
- · Lifetime operational expenditure
- Government revenue from project's corporate taxes
- Government take from upstream gas monetization
- Upside for gas demand (additional industrial) and Fairbanks gas switch from higher emissions fuels

Source: Wood Mackenzie

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# **Developer-Led Project**



# **Evolution to Private Developers**



2013 - 2016

2017 - 2022

2023 – Onward

#### **Producer-Led**

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

#### **State-Led**

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

#### **Developer-Led**

Transition to world-class private parties for construction and operations

# **Equity Offer for Investors**



# AGDC is raising development capital to take Alaska LNG to Final Investment Decision (FID)

#### Alaska LNG is an attractive investment:

- Best economics of any North America project
- Has all major permits
- Beneficial equity terms
- Local support

#### **AGDC** equity offer highlights

#### Majority ownership and control of Alaska LNG in exchange for:

- Funding development costs to FID
- Commitment to move Alaska LNG forward on fast timeline
- Preferential in-state gas supply
- Opportunity for Alaska to invest

### Introduction to Glenfarne



#### Glenfarne Mission and Vision





Glenfarne is a global energy transition specialist that is guided by its core mission and vision.

**Mission:** To realize the potential of the world's energy transition.

**Vision:** Responsibly grow our renewables, grid stability, and flexible fuels businesses to provide economically viable solutions to our communities and customers to realize the potential of the world's energy transition.

Glenfarne believes that its core competence is its ability to develop local platforms in end markets (by leveraging assets, knowledge and relationships), built around a core understanding that the market's energy transition journey will be driven by the interaction of domestic gas and global LNG.

#### Glenfarne at a Glance







- 1. Includes 68 MW of Solar PV under construction.
- 2. FERC-approved capacity.

#### Glenfarne Term Sheet



This Term Sheet memorializes certain obligations and key timeframes for the Alaska LNG Project, with key milestones for phased project development and the overall goal to have the Alaska LNG project constructed and operational by 2030, and through which Glenfarne will:

- 1. Commit to capitalize the project in sufficient amounts to fund and resource the successful development of the project to FID of each subproject
- 2. In return for project leadership and investment in project development, obtain a 75% equity position across the 8 Star structure, while carrying AGDC's 25% equity to FID
- 3. Achieve agreed milestones to:
  - 1. Enter Front-End Engineering Design (FEED) on the Phase 1 pipeline
  - 2. Market sufficient volumes and prepare for FEED on the gas treatment and LNG plants
  - 3. Enter FEED on Phase 2 LNG exports

# FEED Backstop and Phase 1 Development

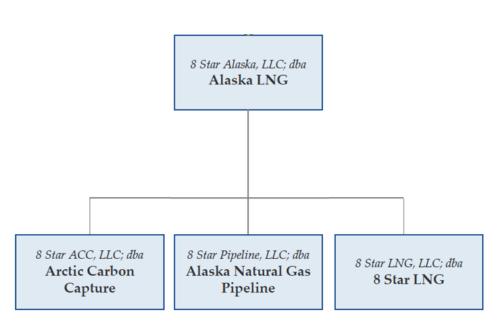


# Alaska LNG Corporate Structure



# AGDC will use the project company 8 Star to hold Alaska LNG assets, raise capital, and provide collateral to AIDEA

- AGDC is a state-owned corporation and cannot sell or transfer ownership shares of itself
- AGDC created "8 Star Alaska, LLC"
   (8 Star) as the vehicle for bringing in third-party investment and control of Alaska LNG
- All Alaska LNG assets (permits, rights-of-way, agreements) are held by 8 Star
- Project components are structured to allow separate economics at the project level while holding the integrated permits at the 8 Star level



## **FEED Backstop Timeline**



- 1. December 4: AIDEA Board Resolution authorizing AIDEA Executive Director to negotiate and execute binding agreements contemplated in MOU
- 2. After AIDEA Resolution: The following agreements are all dependent on each other and no agreement is effective until all three are executed
  - AIDEA and 8 Star execute Development Finance Agreement
  - 8 Star and Pipeline Company execute FEED Backstop Agreement
  - AIDEA and Pipeline Company execute AIDEA Credit Facility
- 3. Upon execution of the three FEED Agreements: Pipeline Company commences work to update the FEED Scope of Work and Budget at their own expense
- **4. Within 120 days of execution of FEED Agreements:** Parties agree upon an updated FEED Scope of Work
  - Pipeline Company commences FEED Work
  - AIDEA Credit Facility is in Effect
  - Development Finance Agreement is in Effect

# **Understanding FEED**



"FEED" is the final step before Final Investment Decision (FID) and construction can start on the Alaska Gas Pipeline



real is a technical term used in the oil and gas industry for the final stage before an FID & construction



FEED stands for "Front-End Engineering Design"



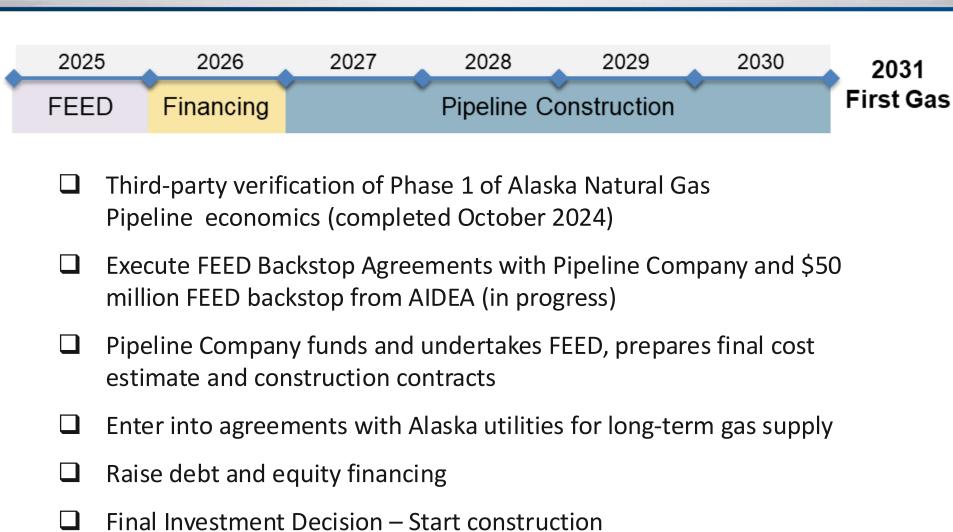
estimate and construction contracts ready to be executed

As extensive engineering, design, and permitting has already been completed on Alaska LNG and the pipeline:

- FEED scope is largely comprised of updating final cost estimates and construction contracts
- The cost maximum is \$50 million and can be completed in 12-18 months

## Actions to Build the Pipeline



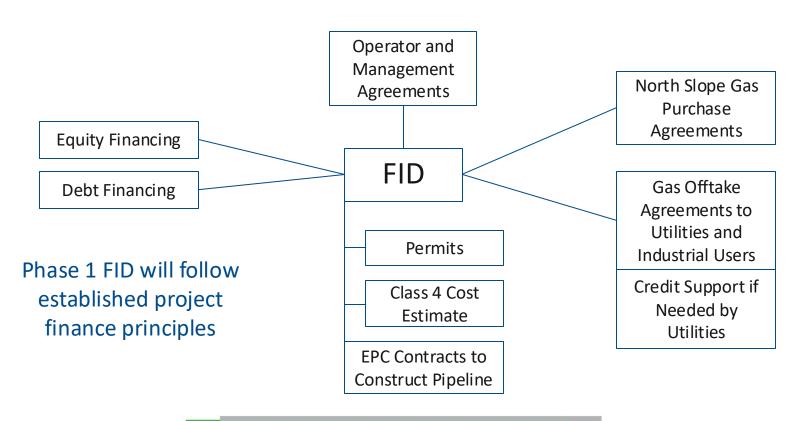


#### Conditions to Enter FID



FID occurs when all commercial agreements needed to underpin financing are in place and all debt and equity capital necessary to fund the entire project construction is fully committed.

FID is not simply a "decision" to build—it requires full construction funding committed and deployed by third parties.



# North Slope Gas Supply



# **Preferred Gas Supply:**Great Bear Pantheon

These fields are still in development, so back up supply agreements from Prudhoe Bay and Point Thomson are required

<\$1.00 per MMBtu

- Cheaper to supply gas to pipeline than reinject
- Price to be reduced based on cost-savings

Low-Cost Access

- Does not require any CO<sub>2</sub> removal
- Located adjacent to pipeline, no new infrastructure needed

### "Back Up" Gas Supply: Producing North Slope Fields

These fields are currently producing gas but will have a higher price and require additional infrastructure

Prudhoe

Bay

Largest gas field in North America

Needs gas treatment to remove CO<sub>2</sub>

Point

Selling gas unlocks liquids production

**Thomson** 

Requires new 63-mile pipeline

Satellite

Fields

Endicott and North Star

Needs gas treatment to remove CO<sub>2</sub>

"America's Gasline"



# Unleashing Alaska's Extraordinary Resource Potential



#### Administration Prioritizes Alaska LNG Development in Executive Order

- Section 2(d) Prioritize the development of Alaska's liquified natural gas (LNG)
- Section 3(a)(ii) Prioritizes the permitting of all necessary pipeline and export infrastructure related to the Alaska LNG Project
- Section 3(a)(xxiii) Identify and assess the authorities, public and private resources necessary to immediately achieve the development and export of energy resources from Alaska

#### From Department of Energy Nominee, Chris Wright

"Tremendous resources in Alaska of oil, natural gas, minerals, mining, logging, geothermal. You've got it all. You've got it all. And to grow natural gas production in Alaska and build infrastructure to export that to the world, given how close it is to the biggest, fastest growing markets in the world in Asia, I think it's a tremendous idea. Great for our country. Great for Alaska. I'm confident that President-elect Trump will be a champion of these ideas of growing American energy production and influence in the world."

## National Priority, Local Benefits



# Alaska LNG benefits from strong federal, state, and local support:

- Robust federal support from two presidents backed by a unified, vocal Congressional Delegation
- Stability and continuity from three successive state executives
- Uncommon community support including leading business, Alaska Native, and labor voices



#### Trump Vows Long-Delayed Alaska LNG Export Project Will Be Built

Ari Natter & Ruth Liao Nov. 8, 2024, 7:58 PM EST



Biden administration backs Alaska LNG in new environmental study

Linda F. Hersey Jul 1, 2022 Updated Jul 13, 2022

#### Poll Results: What do Alaskans Want?

- 87% of residents support the construction of a natural gas pipeline for in-state use and export
- High level of support (59%) for state incentives to private companies and utilities to identify and pursue projects to ensure energy deliverability

Cook Inlet Gas Shortage – Legislative Options to Address the Issue House Resources Hearing, March 24, 2024

### Role of AGDC



## Transition to Lead Party

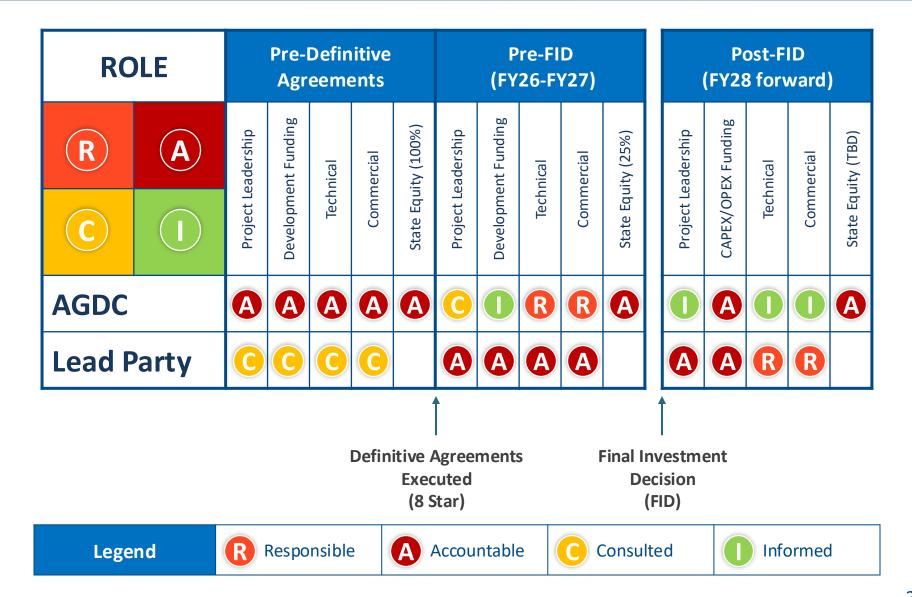


#### **Key Milestones:**

- Pre-Definitive Agreements: AGDC is leading and funding Alaska LNG
   Project development
- Pre-FID: Lead Party assumes 75% equity in 8 Star upon signing Definitive Agreements and is responsible for funding all project development costs to FID
- Pre-FID: The State's equity in 8 Star is carried at 25% through Pre-FID and AGDC is responsible for project transition functions
- Post-FID: The State has the option to invest in up to 25% of capital to construct the Alaska LNG subprojects and AGDC will represent the State's interest

# Transition to Lead Party





AGDC.us



# **AGDC Common Acronyms**



ACC	Arctic Carbon Capture	FEED	Front End Engineering Design
AFN	Alaska Federation of Natives	FERC	Federal Energy Regulatory Commission
AGDC	Alaska Gasline Development Corporation	GTP	Gas Treatment Plant
ANCSA	Alaska Native Claims Settlement Act	НН	Henry Hub
ANVCA	Alaska Native Village Corporation Association	Kbblsd	Thousand Barrels per Day
AOGCC	Alaska Oil and Gas Conservation Commission	LNG	Liquefied Natural Gas
Bbl	Barrel	LOI	Letter of Intent
Bblsd	Barrels per Day	$m^3$	Cubic Meters
Bcf	Billion Cubic Feet	MMBtu	Metric Million British Thermal Unit
Bcfd	Billion Cubic Feet Per Day	MT	Metric Tons
BLM	Bureau of Land Management	MTPA	Million Tonnes Per Annum
CCS	Carbon Capture and Sequestration	NETL	National Energy Technology Laboratory
CO <sub>2</sub>	Carbon Dioxide	NPR-A	National Petroleum Reserve - Alaska
CO <sub>2</sub> E	CO <sub>2</sub> Equivalent	ROW	Right-of-Way
DOE	Department of Energy	TAPS	Trans-Alaska Pipeline System
EA	Environmental Assessment	Tbtu/yr	Trillion British Thermal Units per Year
EIS	Environmental Impact Statement	Tcf	Trillion Cubic Feet
EPC	Engineering, Procurement & Construction	TPA	Tonne per Year