

# Alaska LNG Project Update

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House Finance Committee

May 3, 2023



# ALASKA GASLINE DEVELOPMENT CORP.

## 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 Project

The Alaska LNG Project is not the project you heard or read about over the last 20 years.

## Today's Project:

- Cost competitive
- Benefits the state
- Transitions to the private sector
- Environmentally friendly
- Has all major permits and authorizations



## North Slope Gas Supply

- 40 Tcf of natural gas stranded in Prudhoe Bay and Point Thomson
- Equal to over 10 years' worth of Japan's total consumption\*

## Arctic Carbon Capture (ACC) Plant

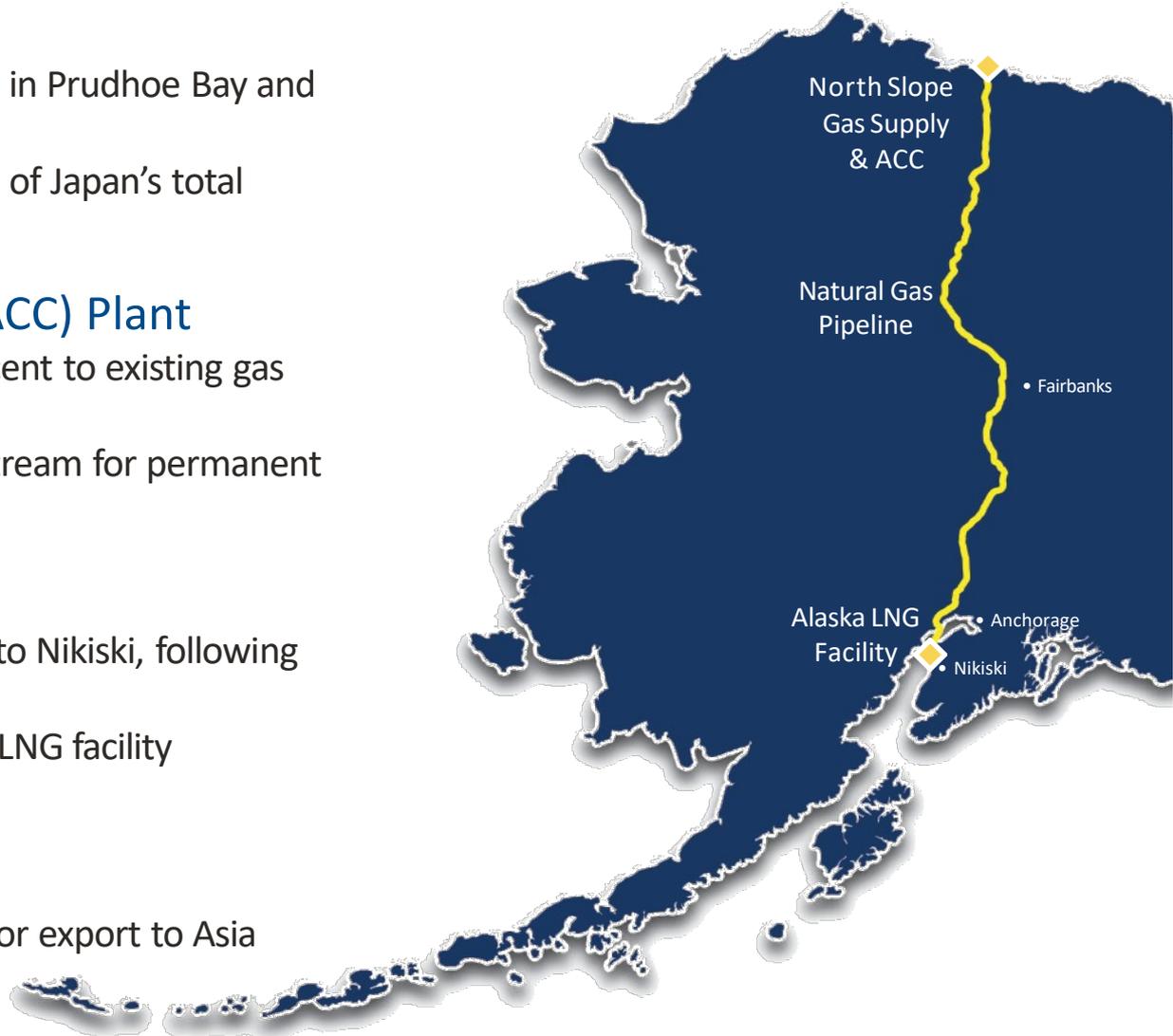
- Located in Prudhoe Bay adjacent to existing gas plants
- Removes CO<sub>2</sub> from raw gas stream for permanent sequestration

## Natural Gas Pipeline

- 807 miles from Prudhoe Bay to Nikiski, following TAPS and highway system
- Provides gas to Alaskans and LNG facility

## Alaska LNG Facility

- 20-MTPA LNG Facility
- Converts natural gas to LNG for export to Asia



\*Energy Information Administration

“We are seeing key stakeholder alignment in ways we have never seen before”

- Senator Dan Sullivan

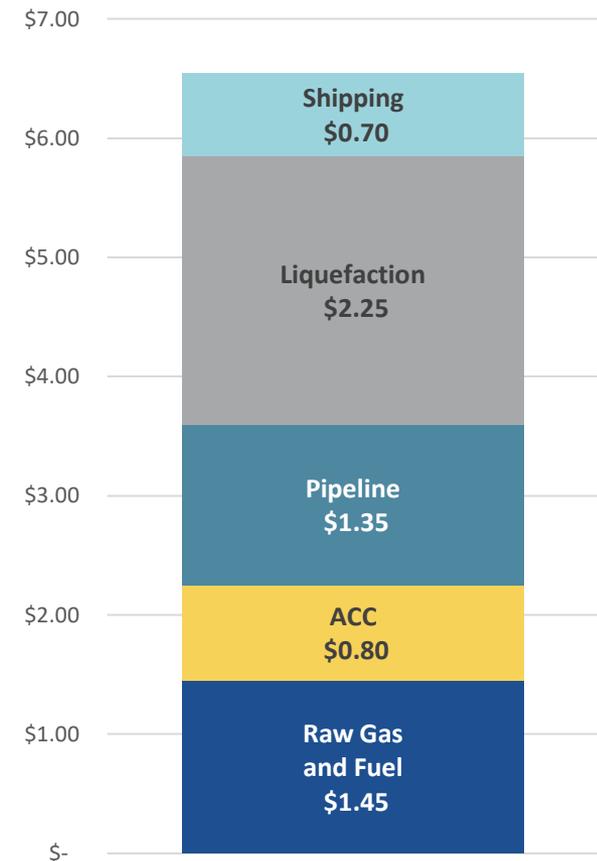
Joint session of Alaska Legislature Feb. 6, 2023

## Alaska LNG's Cost of Supply is Well Below Market Prices

- \$6.55 cost of supply delivered to Asia is lower than competing market prices\*:
  - Brent Linked: \$9.00 ( $\$75 \text{ Brent} \times 12\%$ )
  - U.S. Gulf Coast: \$7.30 ( $\$2.30 \text{ Henry Hub} + \$5.00$ )
  - JKM: \$11.50 (*spot price*)
- LNG will be sold at market prices, providing for significant financial upside to Alaska LNG investors and the State of Alaska
- 2023 update to account for recent construction inflation, 45Q tax credits, and financial return expectation

\*As of May 1, 2023

### \$6.55: Delivered Cost of Supply



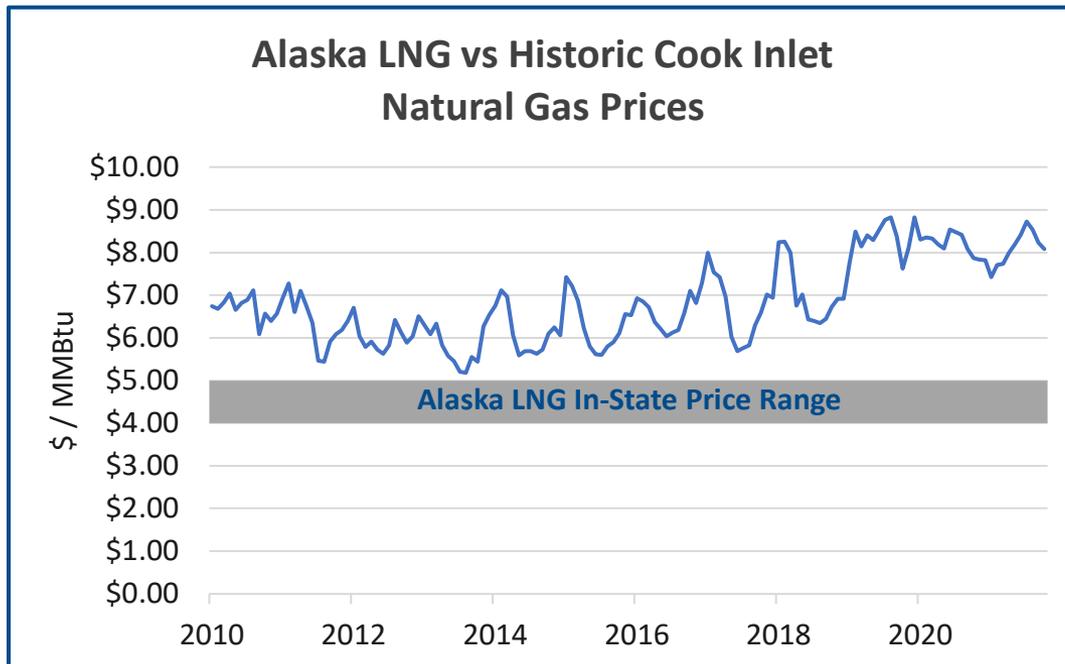
# Lower Cost Energy for Alaskans

## 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\*

## Significant Energy Savings

- Southcentral households can save up to \$1,000 in energy costs (more in the Interior)
- Communities without access to natural gas will benefit from Rural Energy Fund



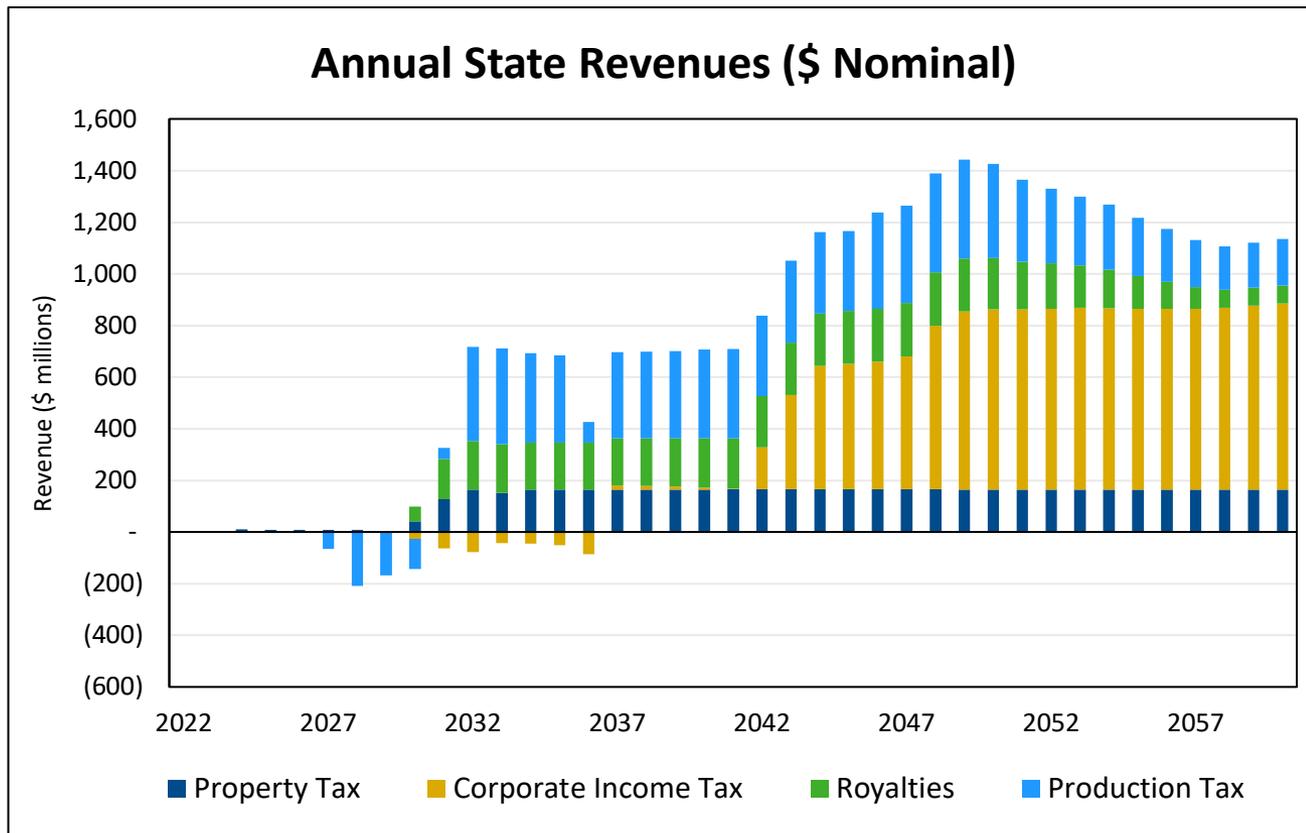
Not all Alaskans use natural gas. This table converts the price of natural gas to other energy sources used in Alaska.

<b>Natural Gas</b>	<b>Heating Oil</b>	<b>Electricity</b>
<i>\$/MMBtu</i>	<i>\$/gal</i>	<i>\$/kWh</i>
5.00	0.69	0.02
10.00	1.38	0.03
15.00	2.07	0.05
20.00	2.76	0.07
25.00	3.45	0.09
30.00	4.14	0.10

\* Source: Energy Information Administration

# Alaska LNG: New State Revenue

**Significant revenue generated by Alaska LNG, even with no State of Alaska investment in construction.**



State of Alaska  
Department of  
Revenue Analysis  
(April 2023)

*\*Does not include AGDC revenue from return on investment-to-date or future State investments.*

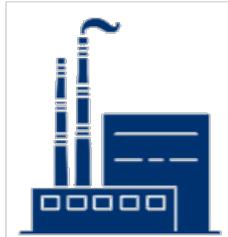
# Positive Climate Impact

Alaska LNG can reduce GHG emissions by more than 77 million tonnes of CO<sub>2</sub> per year.

Alaska LNG can have one of the greatest GHG benefits of any project in the world.

Alaska LNG will have the same GHG impact as:

Eliminating



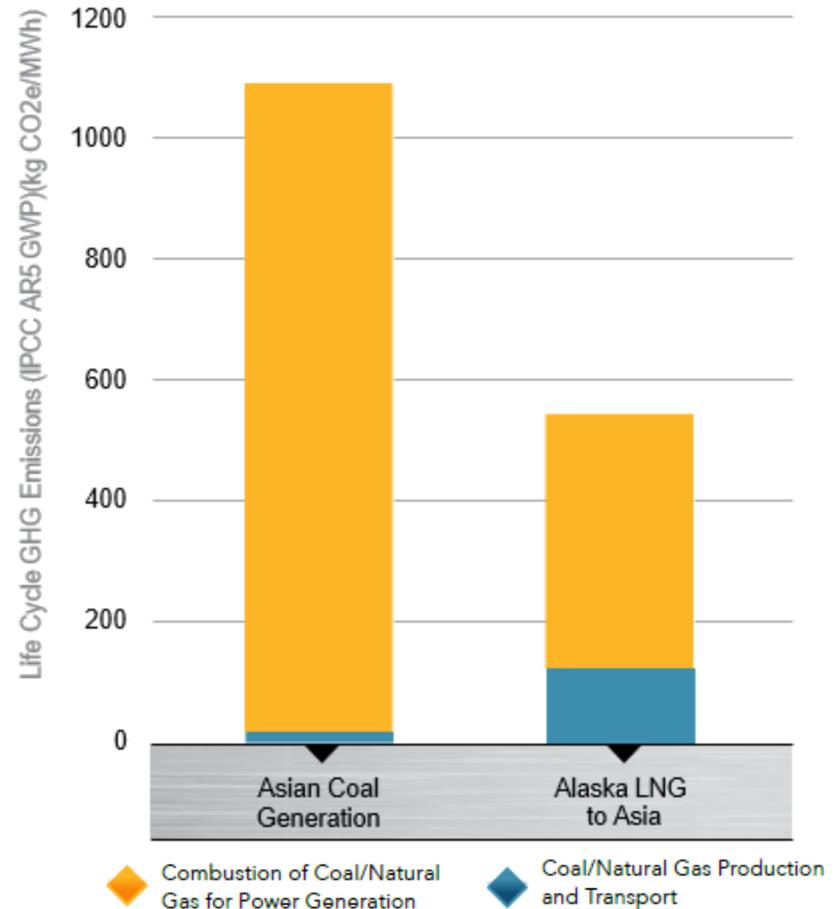
19 coal power plants

Constructing



16,000 Wind Turbines

## Lifecycle GHG Emissions for Natural Gas vs. Coal Power



Source: Greenhouse Gas Lifecycle Assessment: Alaska LNG Project

# Major Permits and Authorizations

## Completed

- Federal Energy Regulatory Commission (FERC) Environmental Impact Statement (EIS) and Order
- Department of Energy (DOE) Supplemental EIS and Export Orders
- Land rights-of-way (ROW): about 93% of Project area
- Approved Cultural Resources Management Plan
- Arctic Carbon Capture Facility Air Permit
- Liquefaction Facility Air Permit

ALASKA LNG		Federal Permits and Authorizations	
Permit/Authorization	Date Obtained	Complete	
Presidential Finding Concerning Alaska Natural Gas - President Reagan	1/12/1988	✓	
BLM Right-of-Way - Grant Offer	1/1/2021	✓	
BLM Right-of-Way Record of Decision	7/23/2020	✓	
Cultural Resources Management Plan	6/24/2021	✓	
DOD Letter of Non-Objection	3/10/2020	✓	
DOE Natural Gas Export Order (Free Trade) Order No. 3554	11/21/2014	✓	
DOE Natural Gas Export Order (Non-Free Trade) Conditional Order. 3643	5/28/2015	✓	
DOE Natural Gas Export Order (Non-Free Trade) Order No. 3643-A	8/20/2020	✓	
DOE Order on Rehearing (Non-Free Trade) Order No. 3643-B	4/15/2021	✓	
DOE Natural Gas Export Order (Non-Free Trade) Order No. 3643-C	4/13/2023	✓	
EPA Section 401 Water Quality Certification	6/22/2020	✓	
FAA Determinations GTP	5/6/2021	✓	
FAA Determinations LNG	1/5/2021	✓	
FERC Final Environmental Impact Statement	3/6/2020	✓	
FERC Order Granting Authorization under Section 3 of the Natural Gas Act <sup>1</sup>	5/21/2020	✓	
FERC Programmatic Agreement - Cultural Resources	6/24/2020	✓	
NMFS Biological Opinion AKRO-2018-01319	6/3/2020	✓	
NMFS Cook Inlet Marine Mammals (whales/seals) Incidental Take Rule	8/17/2020	✓	
NMFS Cook Inlet Marine Mammals (whales/seals) Letter of Authorization	9/15/2020	✓	
NMFS Prudhoe Bay Incidental Harassment Authorization Marine Mammals (whales/seals)	2/16/2021	✓	
NPS Right-of-Way Permit	1/5/2021	✓	
NPS Right-of-Way Record of Decision, DNPP	7/23/2020	✓	
PHMSA Siting Letter of Determination and Analysis - Liquefaction Facility	2/4/2020	✓	
PHMSA Special Permit - Crack Arrestor Spacing	9/9/2019	✓	
PHMSA Special Permit - Mainline Block Valve Spacing	9/9/2019	✓	
PHMSA Special Permit - Pipe-in-Pipe	4/27/2020	✓	
PHMSA Special Permit - Strain-Based Design	9/9/2019	✓	
PHMSA Special Permit - Three-Layer Polyethylene Coating	9/9/2019	✓	
USACE Record of Decision Section 404 Wetlands Permit	6/24/2020	✓	
USCG Bridge Permit - Deshka River	9/11/2020	✓	
USCG Bridge Permit - East Fork Chulitna	9/11/2020	✓	
USCG Bridge Permit - Middle Fork Chulitna	9/11/2020	✓	
USCG Bridge Permit - Sag	9/11/2020	✓	
USCG Bridge Permit - Tolovana	9/11/2020	✓	
USCG Letter of Recommendation Regarding the Waterway Suitability Assessment	8/17/2016	✓	
USCG Waterway Suitability Assessment	3/18/2016	✓	
USFWS Biological Opinion	6/17/2020	✓	
USFWS Cook Inlet Incidental Take Rule Marine Mammals (sea otters)	8/1/2019	✓	
USFWS Eagle Take Permit	6/23/2020	✓	
USFWS Incidental Take Rule Marine Mammals (polar bear)	8/5/2021	✓	

- AGDC is seeking private investors to take Alaska LNG through Front-End Engineering and Design (FEED) and to a Final Investment Decision (FID)
- Goldman Sachs is under agreement to raise investment capital for Alaska LNG
- AGDC is targeting approximately \$150M development capital to get to FID
  - 3rd Party FEED costs, project management, legal/commercial, 8 Star Alaska overhead
  - Investors will receive majority interest in 8 Star Alaska and Alaska LNG
- **Capital Raise Process:**
  - Goldman Sachs has set out a structured capital raise process and leading financial investment engagement
  - Goldman Sachs is only engaging with investors with the financial strength and expertise to advance the project



## Alaska LNG CIM (Confidential Information Memorandum)

- Developed by Goldman Sachs
- Distributed to potential investors under confidentiality agreements
- Contains 60+ pages of detailed financial projections, commercial status, and investment terms

## **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
  - Have major federal and state permits and authorizations
  - Beneficial equity terms
  - Local support
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## **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



## AGDC's Role: Transition to Private Investors

- AGDC is seeking qualified partners and investors to advance Alaska LNG to FID
- AGDC created the project company 8 Star Alaska, LLC (8 Star) to function as the parent company of the project
- AGDC is transitioning Alaska LNG assets under 8 Star and is selling 75% equity ownership of the company to investors in exchange for taking the project to FID
- AGDC will retain a 25% carried interest in 8 Star

## 8 Star's Role: Manage Alaska LNG through FID

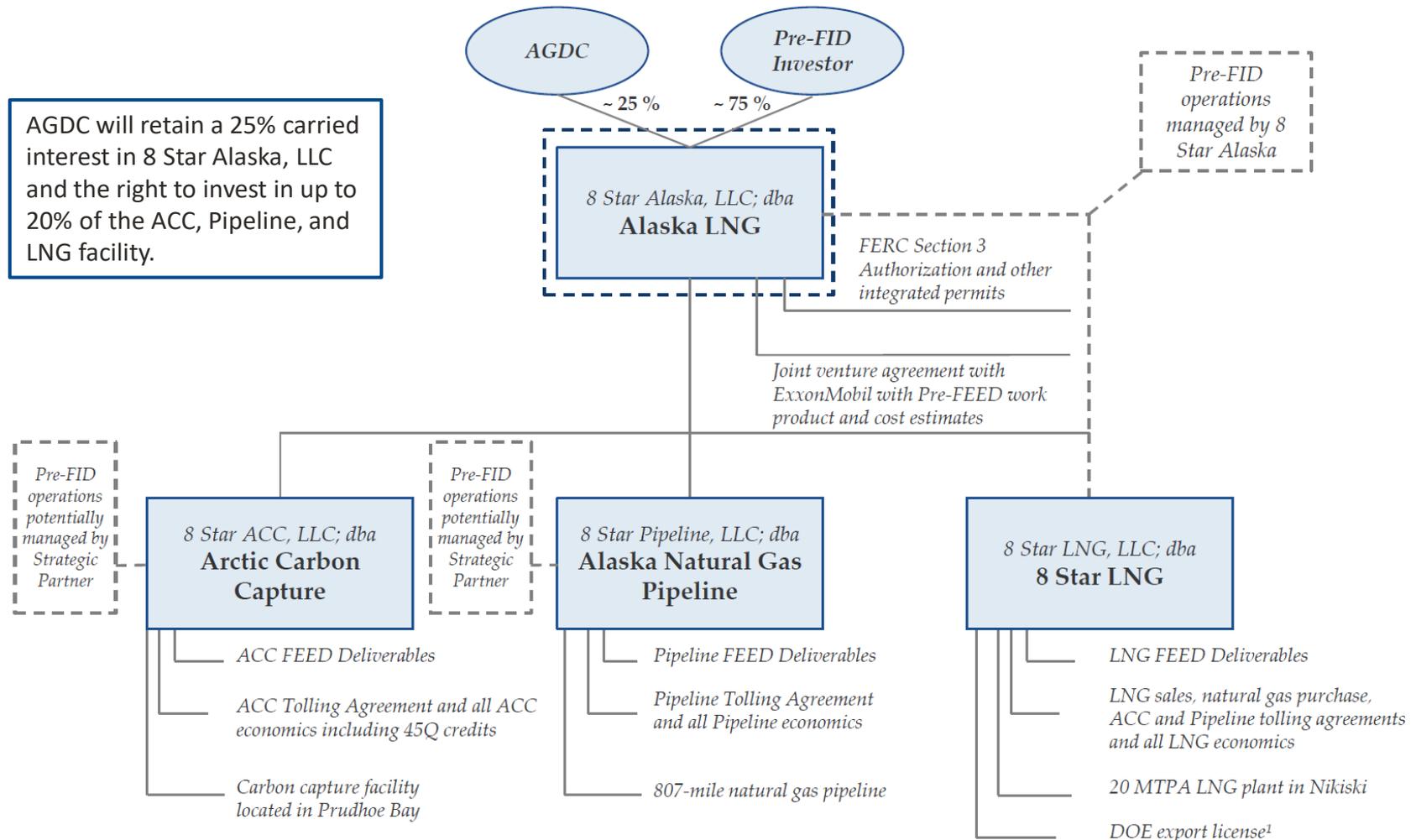
- 8 Star will be managed by private investors with AGDC being a minority owner
- 8 Star will be the project manager and retain oversight of all 3 aspects of the project through to FID
- 8 Star ownership is likely to consist of one "lead party" with other strategic partners owning minority stakes
- At FID, 8 Star will raise the construction capital for each of the three project subcomponents

**Now**  **After Investment**

# Simplified Alaska LNG Structure

## From the Alaska LNG CIM

A Series LLC is being used so that the FERC license and other key permits can be held by the Parent LLC and shared by the Series subsidiaries, and to promote integration and full project success.



<sup>1</sup> DOE export license currently held by Alaska LNG Project Co. LLC, expected to be transferred to 8 Star LNG LLC at FID.

# Investment Highlights

## *From the Alaska LNG CIM*

- 1 Significant Recent Tailwinds Driving Project Towards FID**  
Combination of US government support, macroeconomic factors driving demand for LNG and long-term North Slope E&P operators underpins attractive outlook for Alaska LNG development

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- 2 Abundant Stranded Gas Reserves with no Commodity Linkage**  
Significant volume of low-cost gas with no link to volatile commodity prices or need for fracking

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- 3 Proximity to Asia Reduces Cost of Supply and Transportation Bottlenecks**  
Short shipping route, direct to Asian markets minimizing shipping (only 7-9 days)

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- 4 Most Economic North American LNG Project**  
Delivered cost of supply is competitive with other pre-FID projects globally, targeting \$6.50 per MMBtu delivered to Asia

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- 5 Offtake Agreement Flexibility Will Spur Contracting Momentum**  
Low cost of supply and lack of commodity linkage enables pricing structure flexibility for offtakers

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- 6 In Discussions with World-Class Partners**  
Group of IOCs, pipeline specialists, upstream operators, and LNG offtakers

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- 7 Significant Existing Value from Regulatory Approvals, Permitting and Due Diligence**  
Major government approvals obtained including FERC Order, DOE export license, Corps of Engineers wetland permit, air permits for both major facilities, and lease / Right of Way agreements covering ~93% of the Project footprint

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- 8 Attractive Pre-FID Returns**  
Significant project tailwinds towards FID with potential to unlock significant value for pre-FID equity

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- 9 Leading Low-Carbon LNG Profile**  
Amongst the leading projects globally for low-carbon emissions, access to world-class potential Carbon Capture and Sequestration (CCS) and a ready opportunity to expand into hydrogen

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- 10 Local Support Incentivizing Project Development**  
Alaska LNG has strong local support, Alaska Native land claims resolution, and commercial relationships with Alaska Native Corporations

# Utility Supply Agreement

- AGDC offered agreements to Alaskan utilities that will ensure they receive gas supply on preferential terms from Alaska LNG.
- These agreements are with 8 Star Alaska, LLC and will bind future investors in Alaska LNG
- Key Terms
  - Alaska utilities will be provided natural gas from Alaska LNG on priority terms to supply residential, commercial, and small industrial customers
  - The price will be no higher than that paid by the LNG facility for natural gas supply (lowest cost possible)
  - In the event of an interruption, Alaska utilities will be prioritized over LNG exports
  - Ensure utility demand growth up to 500 MMcfd, over 2x growth
  - Ability to adjust take-or-pay commitments in response to changes in demand or new renewable sources of energy

- Required by Alaska Statute 37.05.610
- The purpose is to provide a source of funds for appropriation to develop infrastructure to deliver **energy** to areas of the state that do not have direct access to the Alaska LNG pipeline
- The Alaska Affordable Energy Fund is to receive an annual deposit of 20% of state royalty revenue after paying into the Permanent Fund

- Investors have identified that gas supply terms are needed prior to investing development capital
- Securing these agreements is a top priority for AGDC
- Need for gas supply terms has been communicated to the Producers
  - DOR Commissioner Crum and DNR Commissioner Boyle joined meetings to stress the importance of the project to Alaska
  - Goldman Sachs joined meetings to communicate investors' views on the importance of gas supply
- AGDC has transmitted gas supply precedent agreements to Producers
  - 8 Star Alaska, LLC is the buyer in the agreements so it will be binding on future investors
  - Establishes, price, term, volume, and commitment to buy and sell gas
  - Fully-termed gas supply agreements will be negotiated by the private project developer prior to FID
  - Mixed level of engagement from the Producers

- Active negotiations with multiple LNG offtakers/buyers are underway
  - Negotiations are fairly advanced with ongoing price discussions
  - Buyers include traditional Asian utility buyers, LNG traders, and oil and gas companies
  - All buyers are credit worthy and large-scale market participants
- Alaska LNG is uniquely able to offer a combination of prices
  - Brent-linked, Henry Hub, JKM, and fixed-price offering
  - 20-year term with an aggregate price floor that can cover system tolls and debt service
- Some buyers are considering “equity offtake” where they would invest in the project at FID in exchange for LNG supplied at cost
- In total, AGDC is currently in discussions for 125% of project capacity (25 MTPA)
- All conversations under confidentiality agreements

# FY24 Operating Budget Submittal

## FY24 Operating Budget Request

Personal Services	\$1,801.1
Travel	\$ 47.6
Services (contracts)	\$1,197.4
Commodities	\$ 40.0
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Total	\$3,086.1

## AGDC Submitted 2 Change Records

1. Moving \$86.0 from services to personal services to align with anticipated costs
2. Changing the Fund Source from AK LNG Fund to General Funds

## Additional Requests

1. Authorization to receive \$4M federal receipts
2. \$2.5M General Funds match

# How to Contact AGDC

Alaska Gasline Development Corporation [www.agdc.us](http://www.agdc.us)

Alaska LNG Project [www.alaska-lng.com](http://www.alaska-lng.com)

## *Social Media*

Twitter <https://twitter.com/alaskalng>

Facebook <https://www.facebook.com/akgaslinedevelopmentcorp>

LinkedIn [www.linkedin.com/in/alaska-gasline-development-corporation-607418245](http://www.linkedin.com/in/alaska-gasline-development-corporation-607418245)

Board of Directors meetings are public meetings and are also available on Zoom.

The next meeting is anticipated to be June 9, 2023 at 6pm. Links to participate will be posted on at <https://agdc.us/about-us/board-meeting-schedule-materials/> or AGDC.us (click on Resources & Publications, then click on Board Meeting Schedules and Materials). You can also find information from previous board meetings here.

Phone: 907-330-6300

Toll-Free: 855-277-4491

Contact Mary Siroky, [msiroky@agdc.us](mailto:msiroky@agdc.us) or 907-321-0550 for scheduling meetings/presentations or any questions you may have.

AGDC.us

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ALASKA  
GASLINE  
DEVELOPMENT CORP.

The logo for Alaska Gasline Development Corp. features the text "ALASKA GASLINE DEVELOPMENT CORP." in a blue, sans-serif font. To the right of the text is a stylized outline of the state of Alaska, composed of several blue stars of varying sizes arranged to form the state's shape. A single blue star is positioned above the main outline.

# AGDC Common Acronyms

ACC	Arctic Carbon Capture	GTP	Gas Treatment Plant
AFN	Alaska Federation of Natives	HH	Henry Hub
AGDC	Alaska Gasline Development Corporation	Kbblsd	Thousand Barrels per Day
ANCSA	Alaska Native Claims Settlement Act	LNG	Liquefied Natural Gas
ANVCA	Alaska Native Village Corporation Association	LOI	Letter of Intent
AOGCC	Alaska Oil and Gas Conservation Commission	M3	Cubic Meters
Bbl	Barrel	MMBtu	Metric Million British Thermal Unit
Bblsd	Barrels per Day	MT	Metric Tons
Bcf	Billion Cubic Feet	MTPA	Million Tonnes Per Annum
Bcfd	Billion Cubic Feet Per Day	NETL	National Energy Technology Laboratory
BLM	Bureau of Land Management	NPRA	National Petroleum Reserve Alaska
CCS	Carbon Capture and Sequestration	ROW	Right-Of-Way
CO2	Carbon Dioxide	TAPS	Trans-Alaska Pipeline System
CO2E	CO2 Equivalent	Tbtu/yr	Trillion British Thermal Units per Year
DOE	Department of Energy	Tcf	Trillion Cubic Feet
EA	Environmental Assessment	TPA	Tonne per Year
EIS	Environmental Impact Statement		
EPC	Engineering, Procurement & Construction		
FEED	Front End Engineering Design		
FERC	Federal Energy Regulatory Commission		