

Alaska LNG Project Update

House Finance Subcommittee

February 9, 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



Alaska LNG: Gas for Alaskans & Export

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

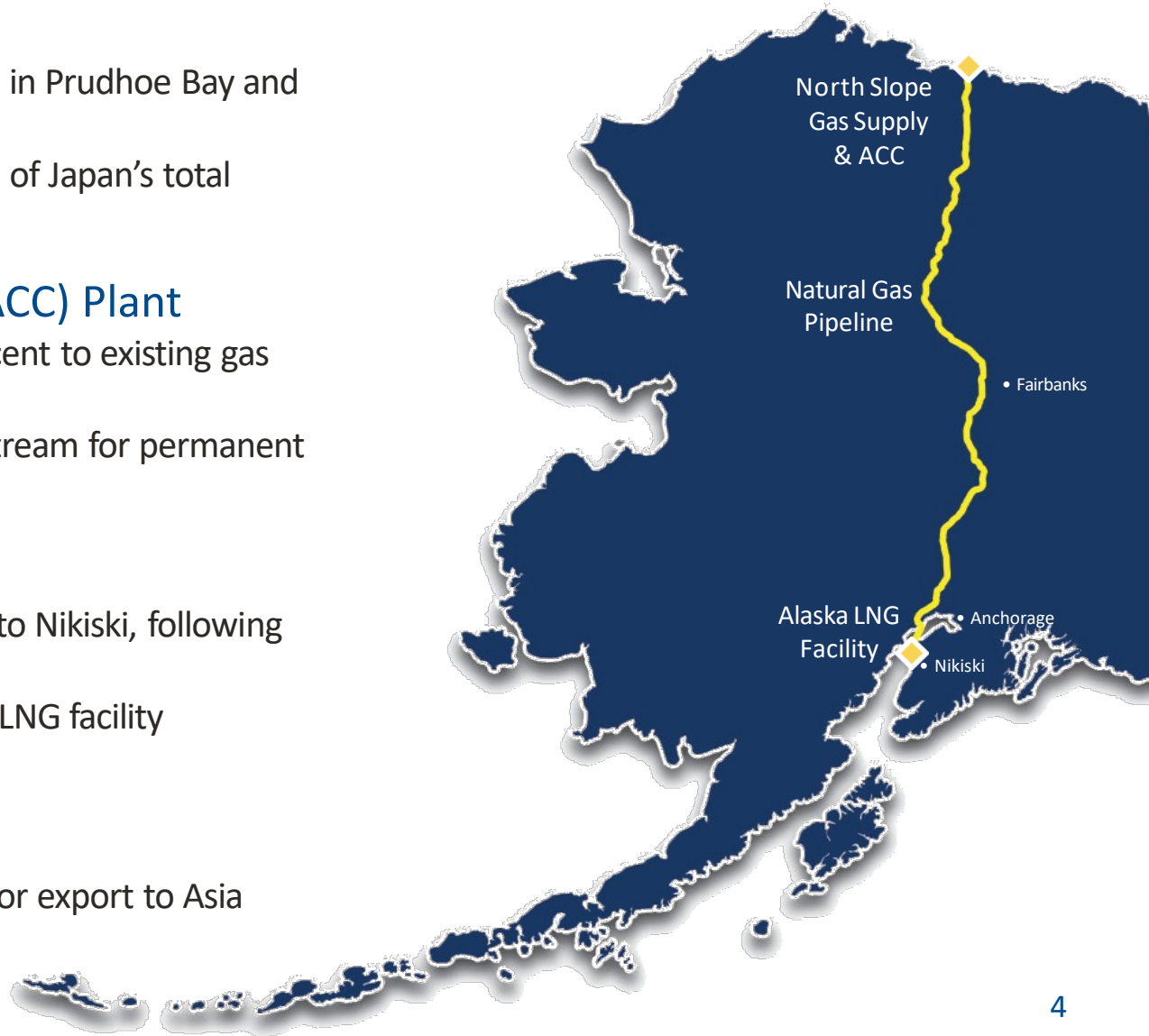
- Located in Prudhoe Bay adjacent to existing gas plants
- Removes CO₂ from raw gas stream for permanent sequestration

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



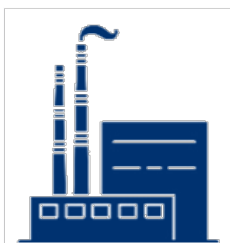
Positive Climate Impact

Alaska LNG can reduce GHG emissions by more than 77 million tonnes of CO₂ 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



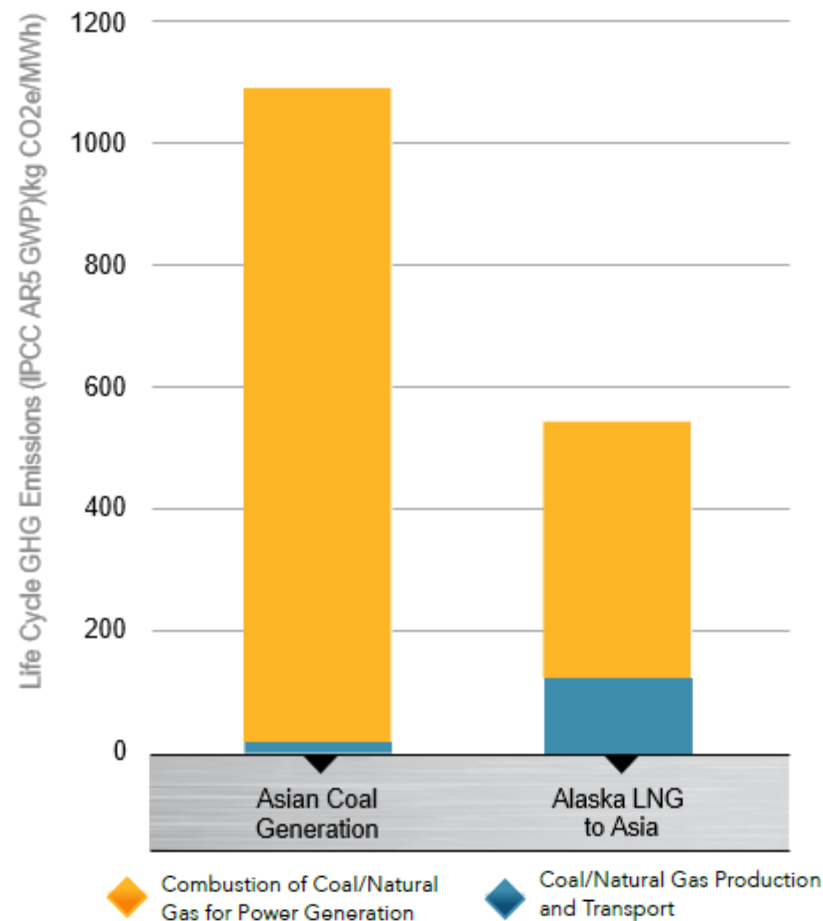
19 coal power plants

Constructing



16,000 Wind Turbines

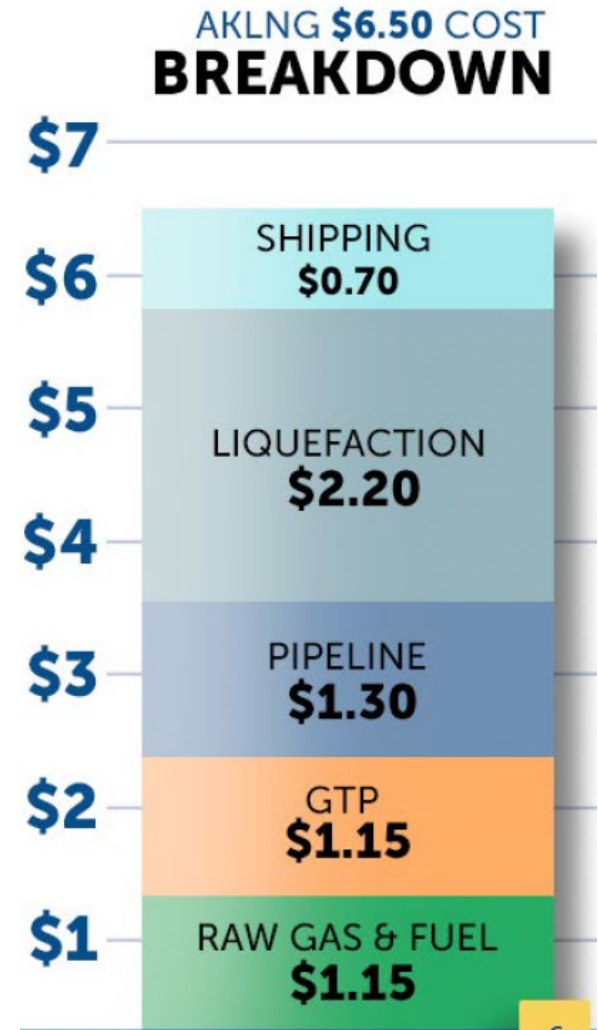
Lifecycle GHG Emissions for Natural Gas vs. Coal Power



Source: Greenhouse Gas Lifecycle Assessment: Alaska LNG Project

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

- \$6.50 cost of supply delivered to Asia is lower than competing market prices:
 - Brent Linked: \$9.60 ($\$80 \text{ Brent} \times 12\%$)
 - U.S. Gulf Coast: \$9.00 ($\$4 \text{ Henry Hub} + \5.00)
 - JKM: \$12.00 (*spot price*)
- Verified by Wood Mackenzie
- 2023 update to account for recent construction inflation, 45Q tax credits, and financial return expectation – remains largely unchanged.

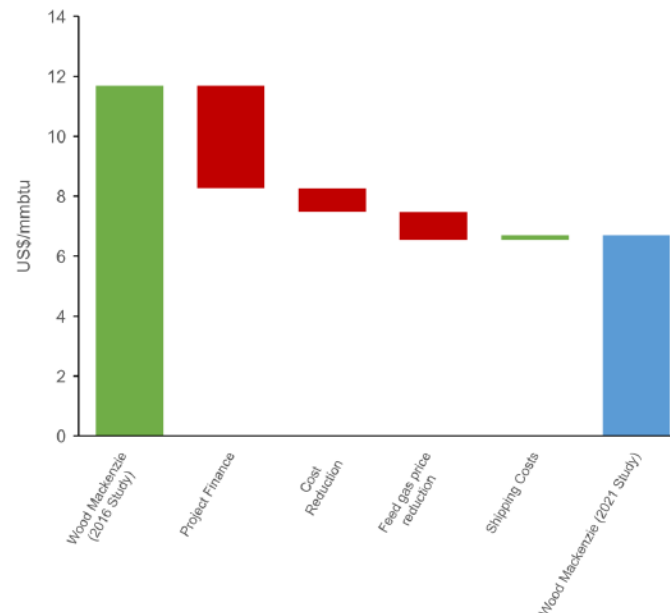


CoS is now 43% lower vs. 2016 due to lower CAPEX and feedgas price, and the use of a non-recourse debt funded 3rd party tolling structure

Understanding the difference

- **Project Finance** - introduction of a non-recourse 70% debt-funded third-party tolling structure for the GTP, LNG Facility and Pipeline
- Total **Capital costs** have been reduced from US\$45 billion to US\$38.7 billion
 - GTP/Pipeline costs have been reduced from US\$25 billion to US\$21.8 billion
 - LNG Facility costs have been reduced from US\$20 billion to US\$16.8 billion
- **Feed gas prices** have been reduced from US\$2.09/mmbtu to US\$1.15/mmbtu
- **Shipping Costs** have increased from US\$0.60/mmbtu to US\$0.76/mmbtu

Breakeven cost of supply comparison



Slide from 2022
Wood Mackenzie
Alaska LNG
Competitiveness
Analysis

- Cook Inlet gas supply is uncertain
- Utilities are evaluating potential for LNG import
- The Alaska LNG Project is the best option to replace Cook Inlet gas
 - Secure, low-cost supply for Alaskans
 - Alaska LNG will ensure priority natural gas supply for Alaskans

ANCHORAGE DAILY NEWS

Energy

Hilcorp warns Alaska utilities about uncertain Cook Inlet natural gas supplies

By Alex DeMarban

Updated: May 17, 2022

Published: May 17, 2022

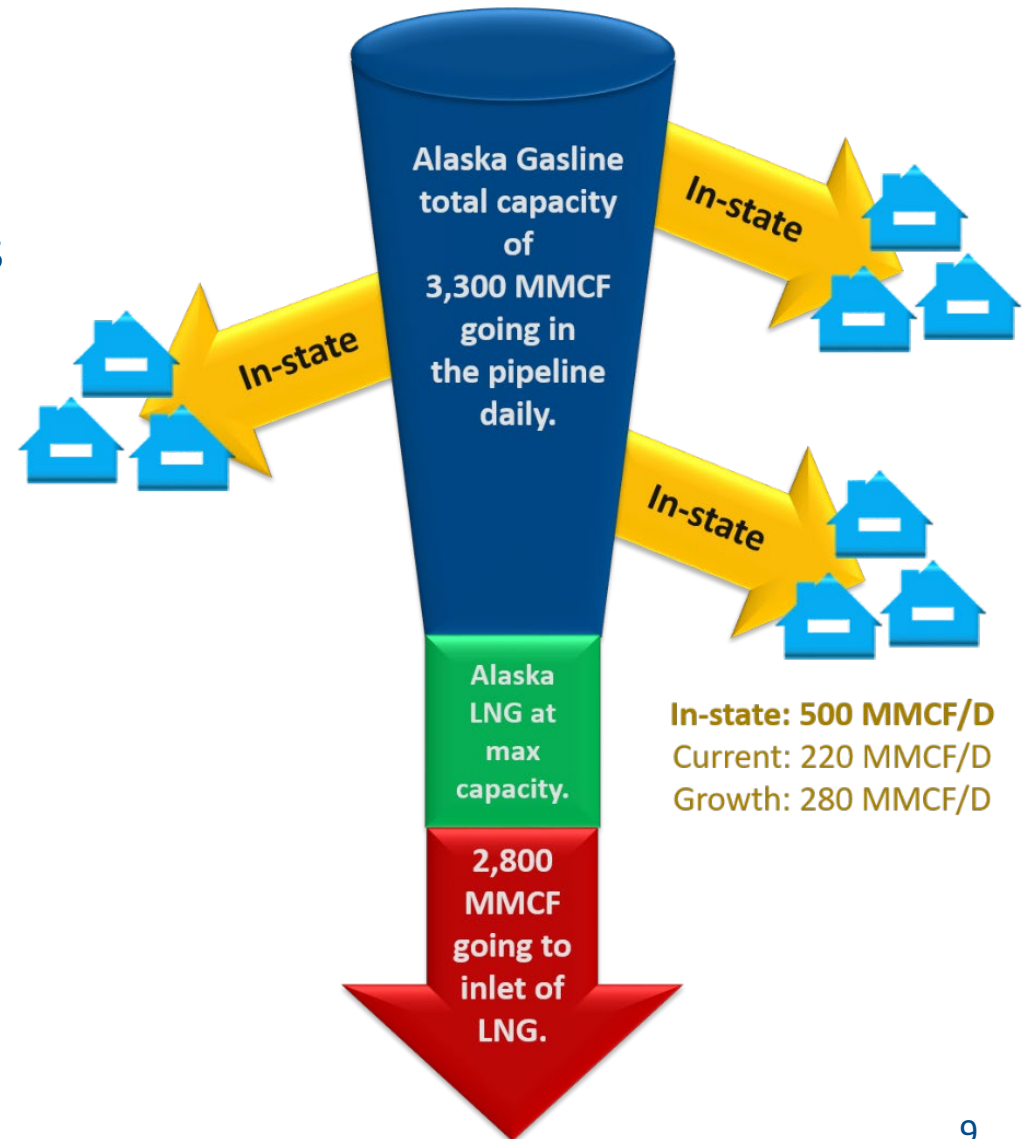


Exhaust from the Southcentral Power Project in Anchorage is lit by the setting sun on Friday, Jan. 11, 2019. (Loren Holmes / ADN)

Officials with several Alaska utilities say they've been informed by Hilcorp that the company does not currently have enough natural gas reserves in Cook Inlet to provide for new gas contracts. Those contracts face renewal in the next two to 11 years.

Priority Supply for Alaskans

- Alaska LNG is designed to provide system capacity to ship natural gas to Alaskans
- The pipeline has 500 MMcfd of capacity in excess of the LNG plant's needs
 - All 500 MMcfd is prioritized for Alaskans
 - Current Alaska natural gas demand is about 220 MMcfd
 - Allows for long-term Alaska natural gas demand growth



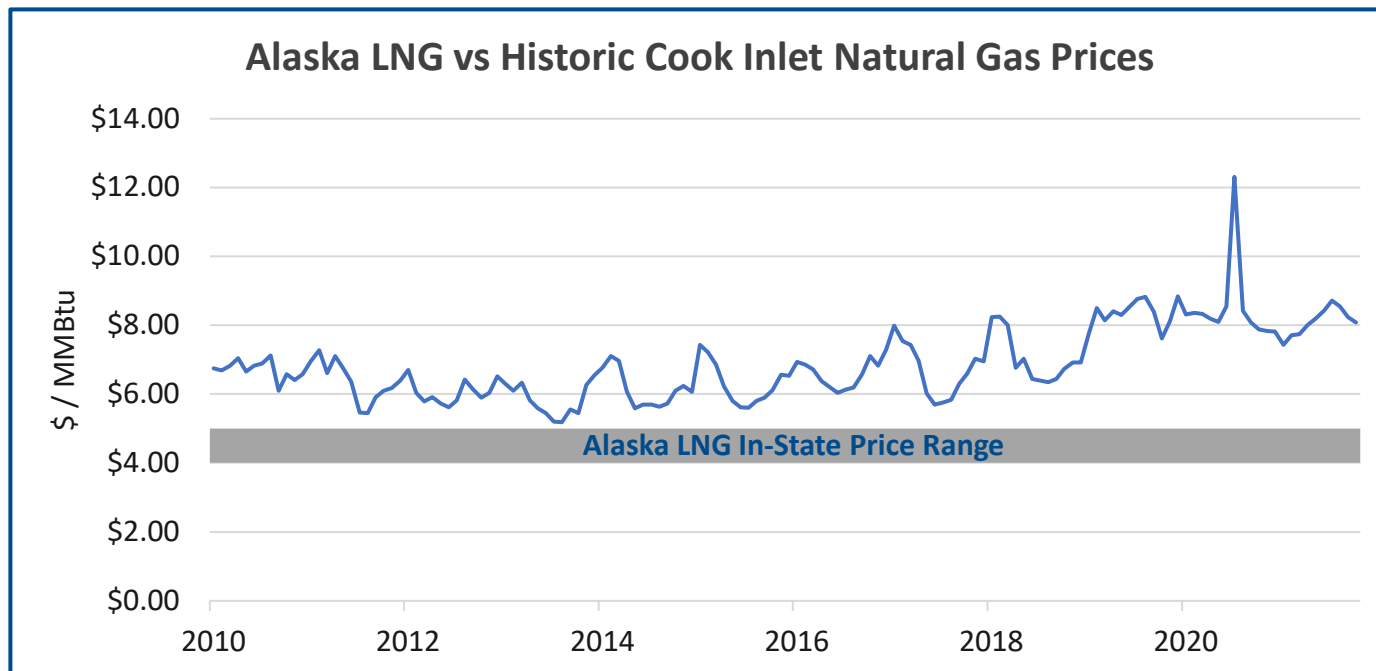
Lower Cost Energy for Alaskans

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 expect to save up to \$1,000 in heating and electric costs
- Interior households could save much more



Source: EIA

AGDC will offer agreements to local utilities that will ensure that they will receive gas supply on preferential terms from Alaska LNG.

These agreements will be through the Alaska LNG project company and will bind future investors and developers.

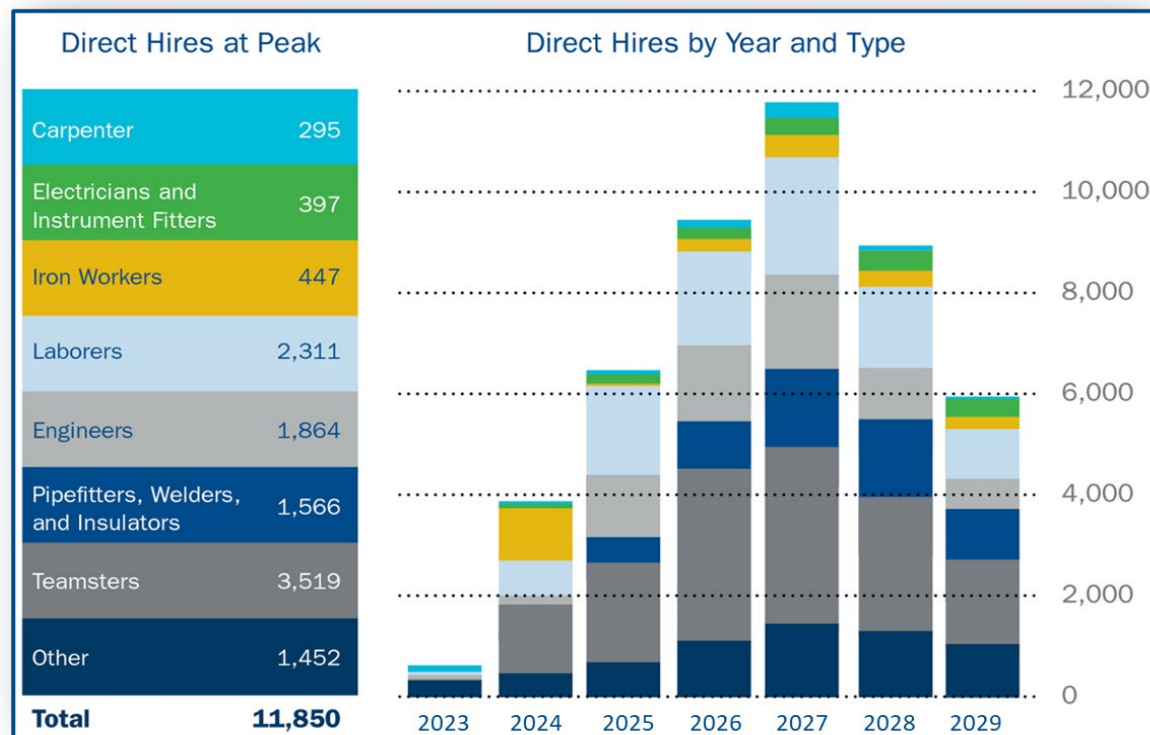
Key Terms

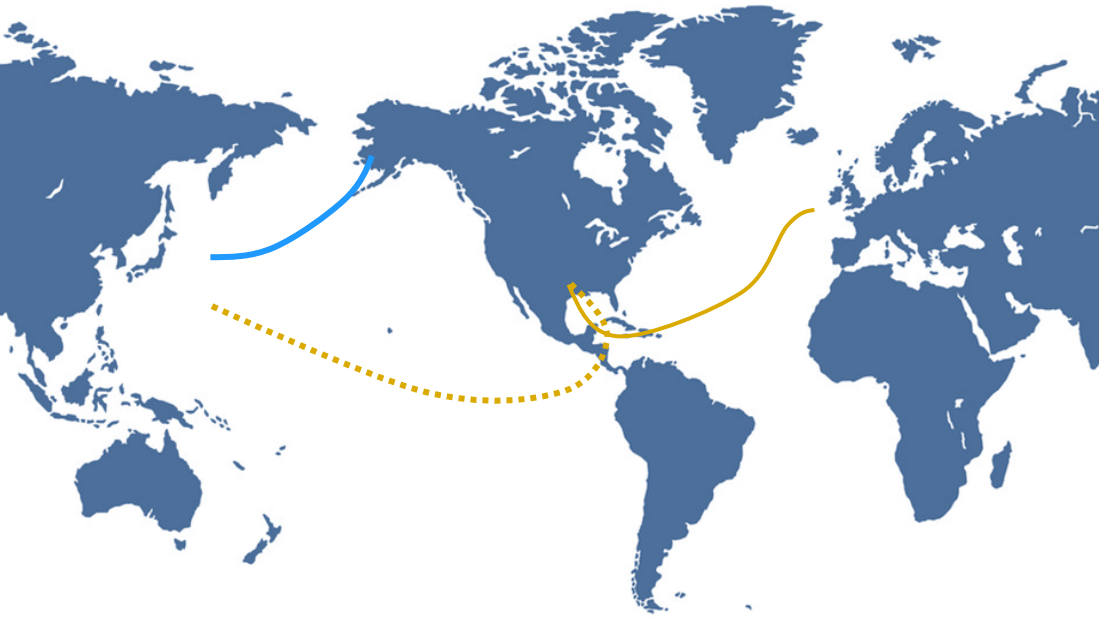
- Alaska utilities will be provided natural gas from Alaska LNG on priority terms to supply residential, commercial, and small industrial customers
- The price will be no higher than that paid by the LNG facility for natural gas supply
- In the event of an interruption, Alaska utilities will be prioritized over LNG exports
- Alaska LNG will ensure utility demand growth up to 500 MMcfd, over 2x growth

- 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.

The Alaska LNG Project Creates Jobs

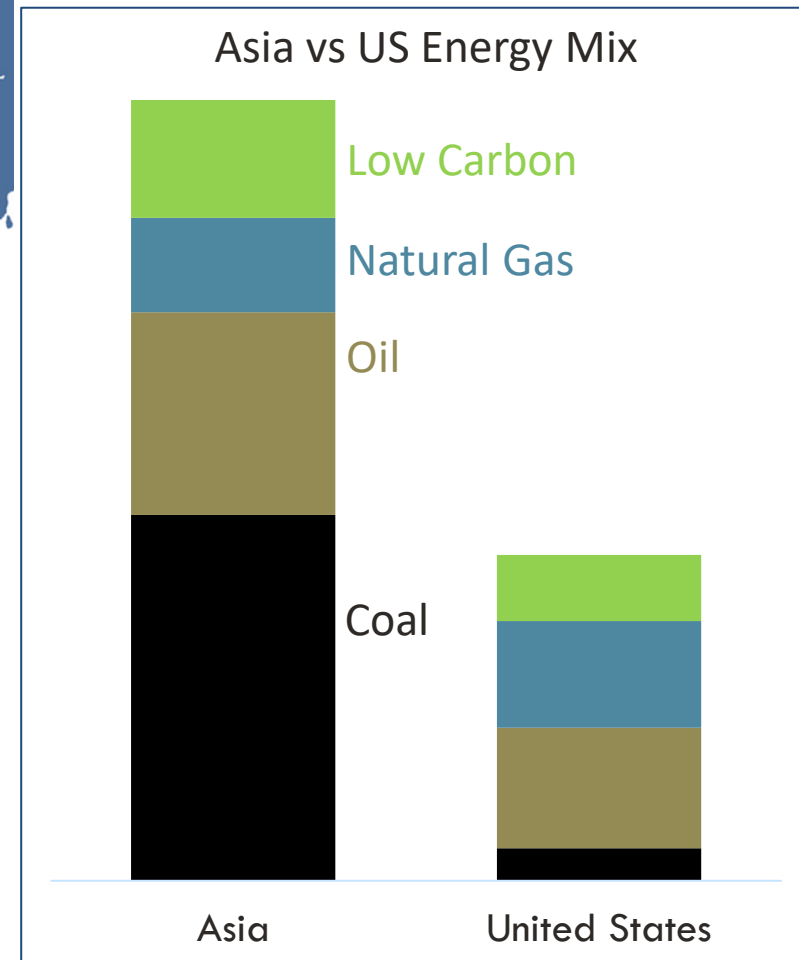
- Almost 12,000 direct jobs at peak of construction
- 1,000 long-term operations jobs
- Significant indirect jobs during construction and operations





- The war in Ukraine disrupted European natural gas supply
- US LNG has been diverted to keep the heat and power on in Europe
- This dynamic increases the need for US supply from Alaska to meet the long-term energy security needs of Asia

Coal to Gas Switching in Asia is a Massive Market



Evolution to Private Developers

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

2023 – onward

Developer-Led

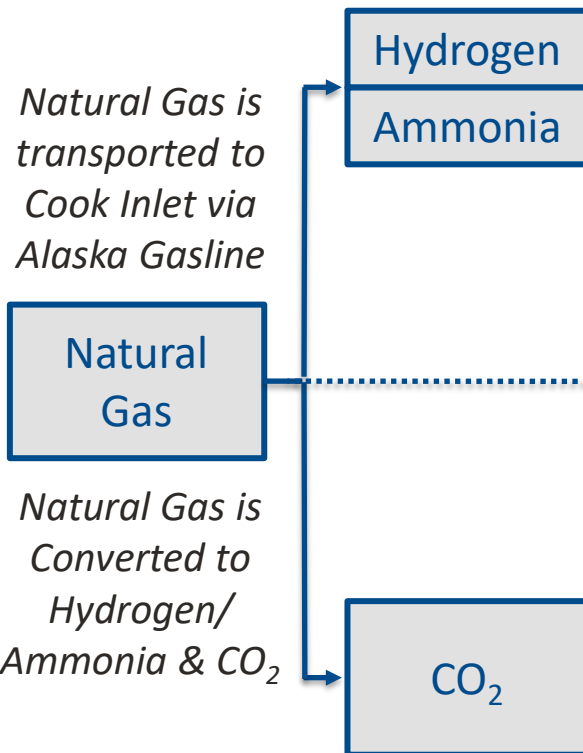
Transition to world-class private parties for construction and operations

Recent federal actions have supported the Alaska LNG Project:

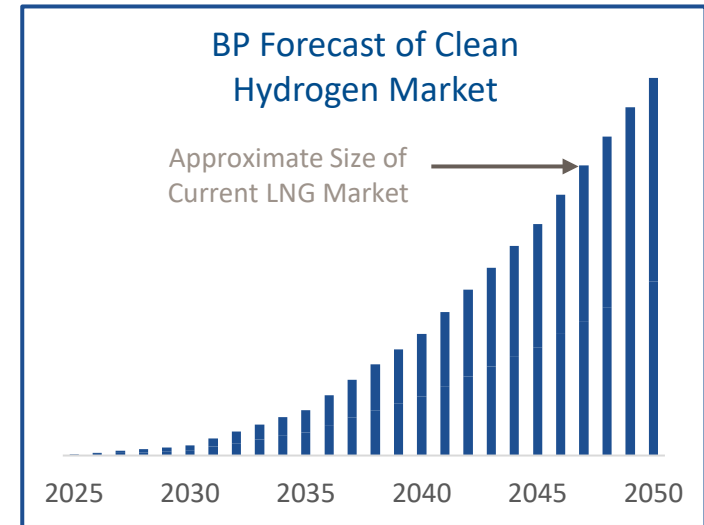
- Federal Loan guarantees - \$29 billion
- Ambassador Emanuel Tokyo Summit
- U.S. Export Import Bank – letter of intent
- Department of Energy Final Supplemental Environmental Impact Statement
- FFY 23 Appropriation - \$4 million
- 45Q Tax Credits - \$600 million/year; \$6+ billion total

- Senators Murkowski and Sullivan supported U.S. EXIM letter of support for Alaska LNG
- Senator Sullivan continues to promote Alaska's huge natural gas resources
 - Actively engaged with U.S. Embassy in Japan and Korea on Alaska LNG opportunities, emphasizing:
 - U.S. has shared values and provides geopolitically stable source of energy
 - Energy supply from strategic partner
 - Strengthens trade relationships
 - Alaska LNG has all federal permits
 - Alaska has best carbon sequestration potential on Pacific coast of North America
 - ***“We are seeing key stakeholder alignment in ways we have never seen before”, February 7, 2023***

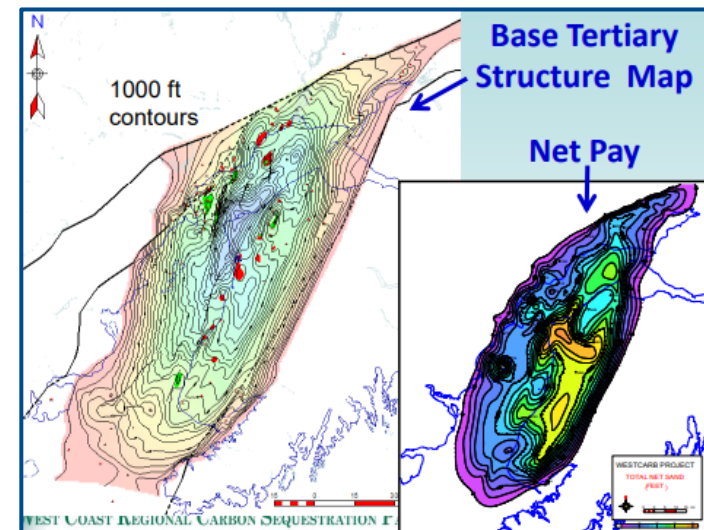
Alaska Hydrogen Opportunity



- 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

Major Permits and Approvals

Completed

- Federal Energy Regulatory Commission (FERC) Environmental Impact Statement (EIS) and Order
- Major federal permits and authorizations
- Land rights-of-way (ROW): about 93% of Project area
- Approved Cultural Resources Management Plan
- ACC Plant Air Permit
- Liquefaction Facility Air Permit

ALASKA LNG		Permits and Authorizations	
Permit/Authorization	Date Obtained	Complete	
Presidential Finding Concerning Alaska Natural Gas – President Reagan	1/12/1988	✓	
Alaska Department of Environmental Conservation – Gas Treatment Plant Air Permit	8/13/2020	✓	
Alaska Department of Environmental Conservation – Liquefaction Facility Air Permit	7/7/2022	✓	
Alaska Department of Environmental Conservation – Section 401 Water Quality Certification	6/19/2020	✓	
Alaska Department of Natural Resources Leases	4/13/2021	✓	
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)	11/21/2014	✓	
DOE Natural Gas Export Order (Non-Free Trade) ¹	8/20/2020	✓	
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 ²	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	✓	

FY24 Operating Budget Submittal

FY24 Operating Budget Request

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

AGDC submitted 2 change records

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

In HB39 sec. 25, AGDC receives authorization to receive statutory designated program receipts and federal funds in Fiscal Year 2023

Appropriations to the Alaska LNG Project Fund (AS 31.25.110)

Appropriation (\$ millions)	From the General Fund	From Fund 1229 In-State Natural Gas Pipeline Fund
SB119 - Ch. 18 SLA14 Sec. 24(c) – Initial capitalization	\$69.8	
SB3001 – Ch. 1 TSSLA15 Sec. 5(a) – TransCanada buyout	\$64.6	
SB138 – Ch. 2 4SSLA16 Sec. 32(a)	\$4.1	
SB138 – Ch. 2 4SSLA16 Sec. 32(b)		\$26.0
HB286 – Ch. 17 SLA18 Sec. 23(j)		\$11.9
Total deposited to the Alaska LNG Project Fund		\$176.4
Expenditures from the Fund (\$ millions)		
Project costs (TransCanada buyout, etc.)		\$134.1
Operating expenditures FY2014-FY2022		\$31.9
Total Expenditures from the Alaska LNG Project Fund		\$166.0
Remaining Fund balance as of 6/30/2022		\$10.4

AKLNG Fund and Cash Balances

As of June 30, 2022:

GeFonsi Account	\$6,004,421
<u>AKUSA FCU Accounts</u>	<u>\$4,434,210</u>
Total	\$10,438,631

As of January 31, 2023:

GeFonsi Account	\$2,337,071
<u>AKUSA FCU Accounts</u>	<u>\$4,310,485</u>
Total	\$6,647,556

FY23 Board Authorized:

Operating Expenses	\$3,086,100
<u>Capital Expenses</u>	<u>\$5,249,000</u>
Total	\$8,335,100

Projected June 30, 2023 Balances:

GeFonsi account	\$1,000,000
<u>AKUSA FCU Accounts</u>	<u>\$450,000</u>
Total	\$1,450,000

How to Contact AGDC

Alaska Gasline Development Corporation www.agdc.us

Alaska LNG Project 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

Board of Directors meetings are public meetings and are also available on Zoom. The next meeting is anticipated to be in March 2023. Previous meeting information is available at <https://agdc.us/about-us/board-meeting-schedule-materials/>

Phone: 907-330-6300

Toll-Free: 855-277-4491

Contact Mary Siroky, mpsiroky@agdc.us or 907-321-0550 for scheduling meetings/presentations or any questions you may have.

AGDC.us

ALASKA
GASLINE
DEVELOPMENT CORP.

The logo features a stylized outline of the state of Alaska, composed of several blue stars of varying sizes arranged to form the state's shape.

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		