

Alaska LNG Project

Path to the Future

Alaska Sustainable Energy Conference

Panel: Increasing Production and Minimizing Impact

May 24, 2023



Alaska LNG: Gas for Alaskans & Export

North Slope Gas Supply

- 40 Tcf of natural gas stranded in Prudhoe Bay and Point Thomson
- More than enough gas for 30 years

Arctic Carbon Capture (ACC) Plant

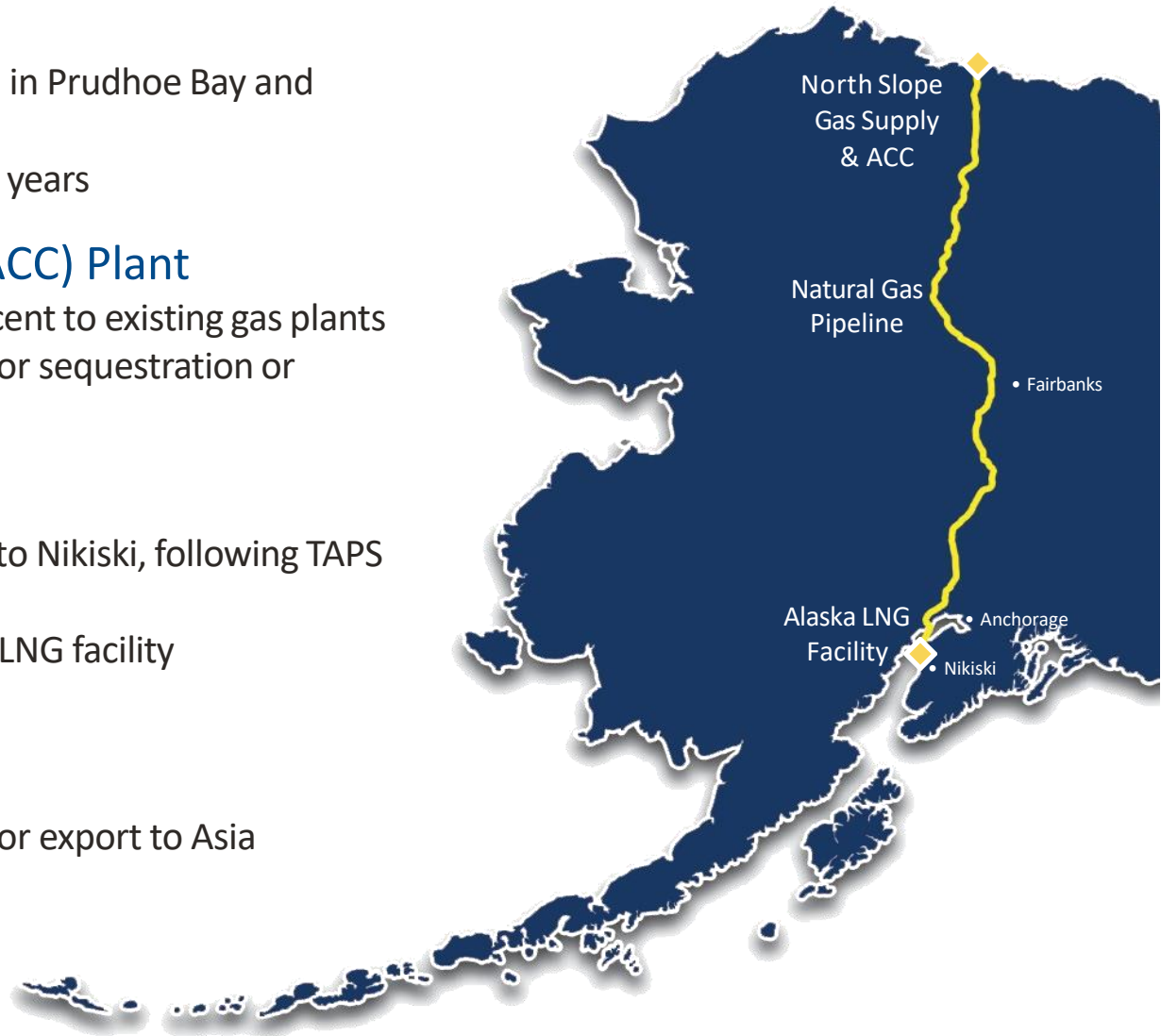
- Located in Prudhoe Bay adjacent to existing gas plants
- Removes CO₂ from feed gas for sequestration or enhanced oil recovery

Natural Gas Pipeline

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

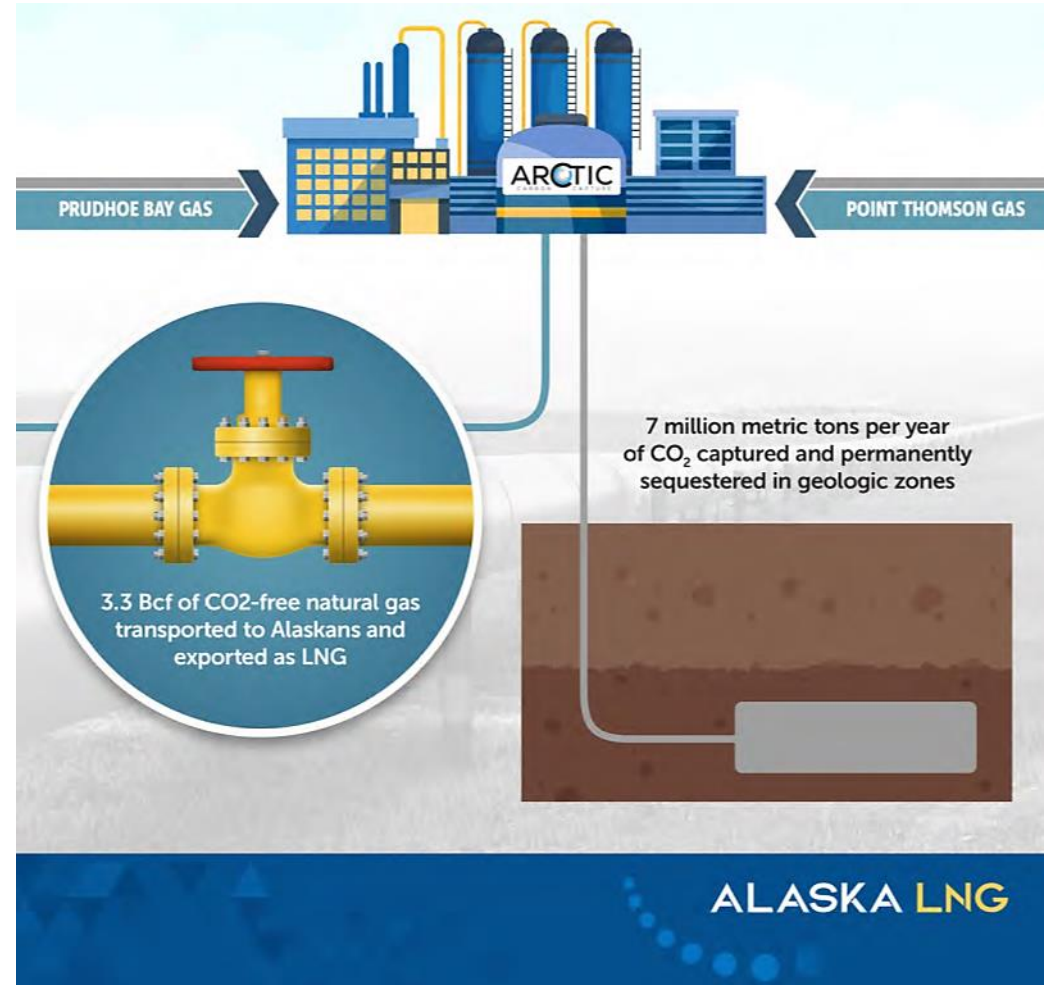
Alaska LNG Facility

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



Arctic Carbon Capture Plant

- Gas treatment located in the Prudhoe Bay Unit
- 7+ million tons of process CO₂ per year
- North Slope CO₂ utilization and/or storage
- U.S. Department of Energy CO₂ capacity study
- Eligible for 45Q tax credits



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



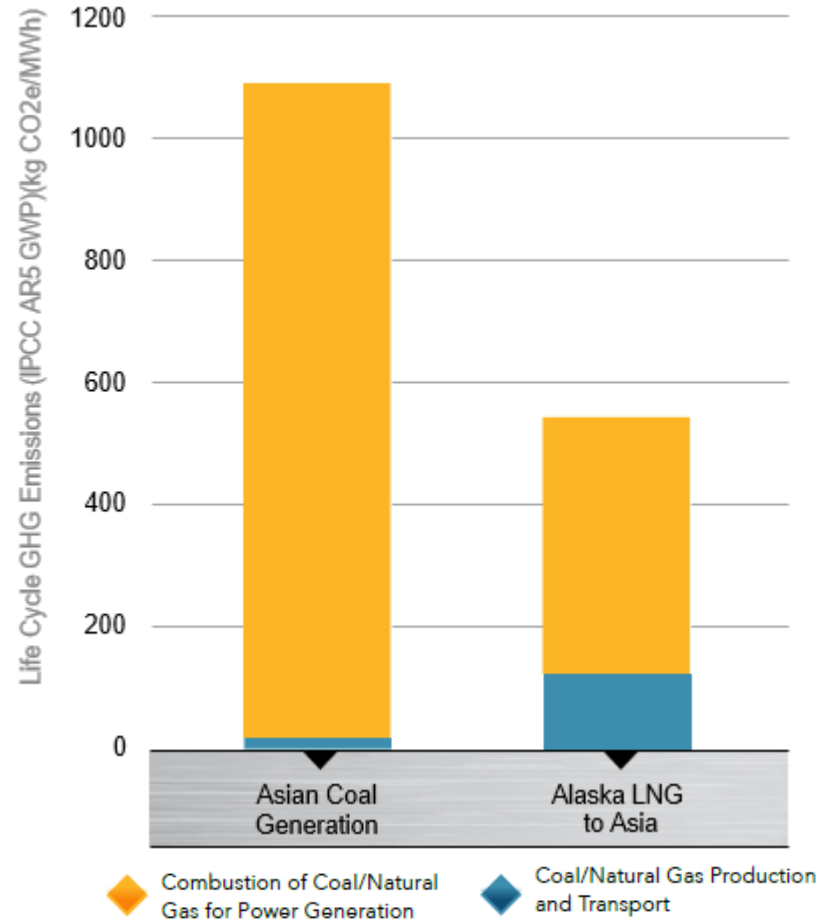
19 coal power plants

Constructing



16,000 Wind Turbines

Lifecycle GHG Emissions for Natural Gas vs. Coal Power



Source: Greenhouse Gas Lifecycle Assessment: Alaska LNG Project

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
- Major Facility Air Permits

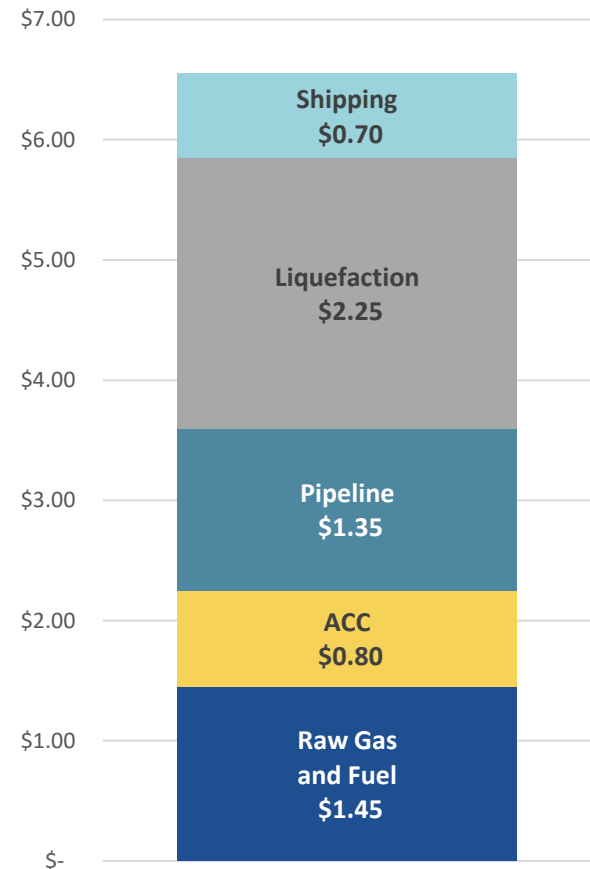
ALASKA LNG		Federal Permits and Authorizations	
Permit/Authorization	Date Obtained	Complete	
Presidential Finding Concerning Alaska Natural Gas - President Reagan	1/12/1988	✓	
BLM Right-of-Way - Grant Offer	1/1/2021	✓	
BLM Right-of-Way Record of Decision	7/23/2020	✓	
Cultural Resources Management Plan	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 ¹	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	✓	

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: \$9.24 ($\$77 \text{ Brent} \times 12\%$)
 - 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 8, 2023

\$6.55: Delivered Cost of Supply



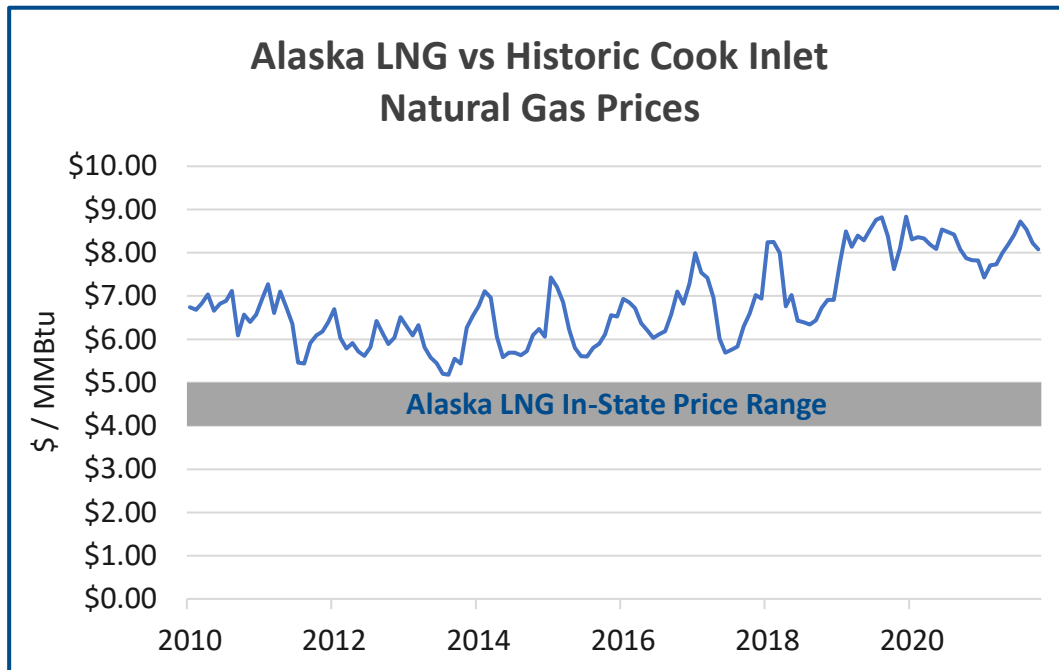
Lower Cost Energy for Alaskans

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

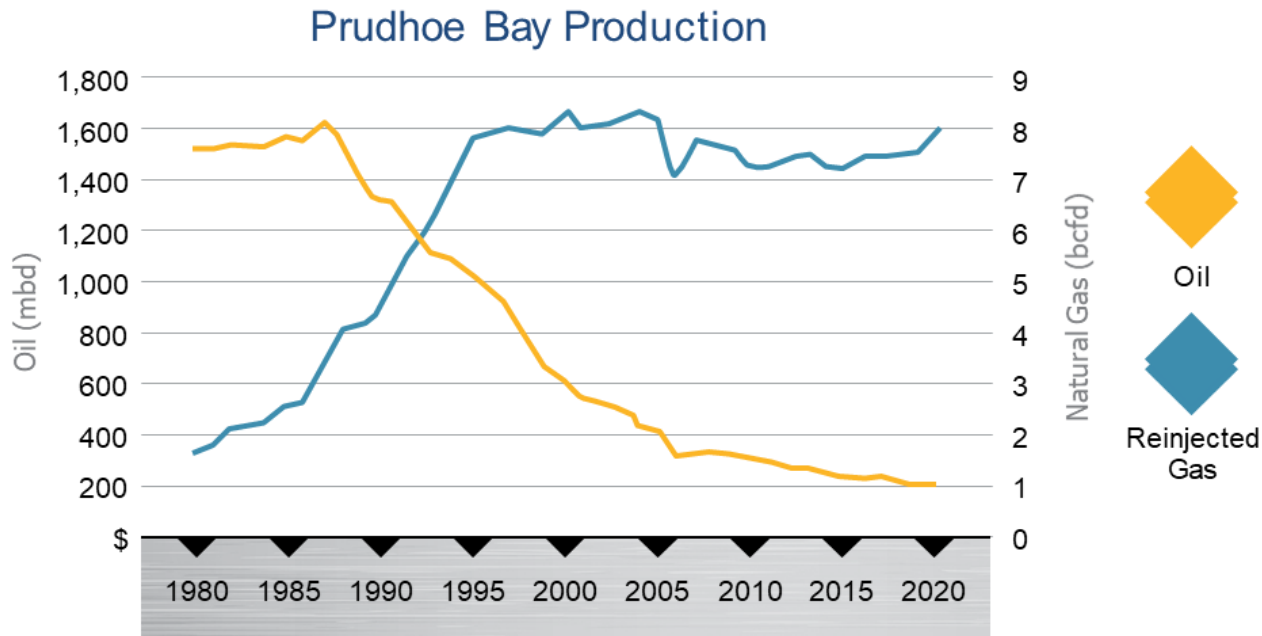


Not all Alaskans use natural gas. This table converts the price of natural gas to other energy sources used in Alaska.

Natural Gas	Heating Oil	Electricity
\$/MMBtu	\$/gal	\$/kWh
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

Revenue from gas sales will offset declining oil revenues



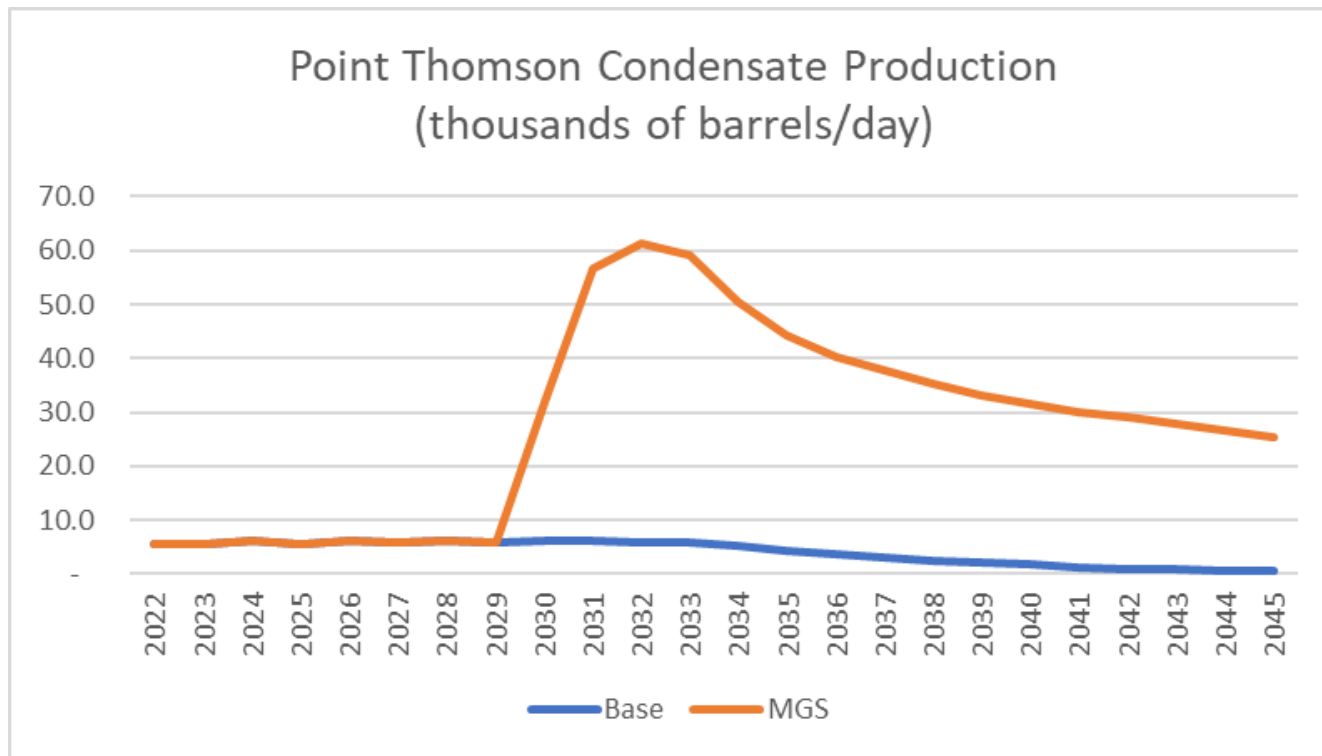
Project maximizes use of existing oil and gas infrastructure

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

Condensate Production

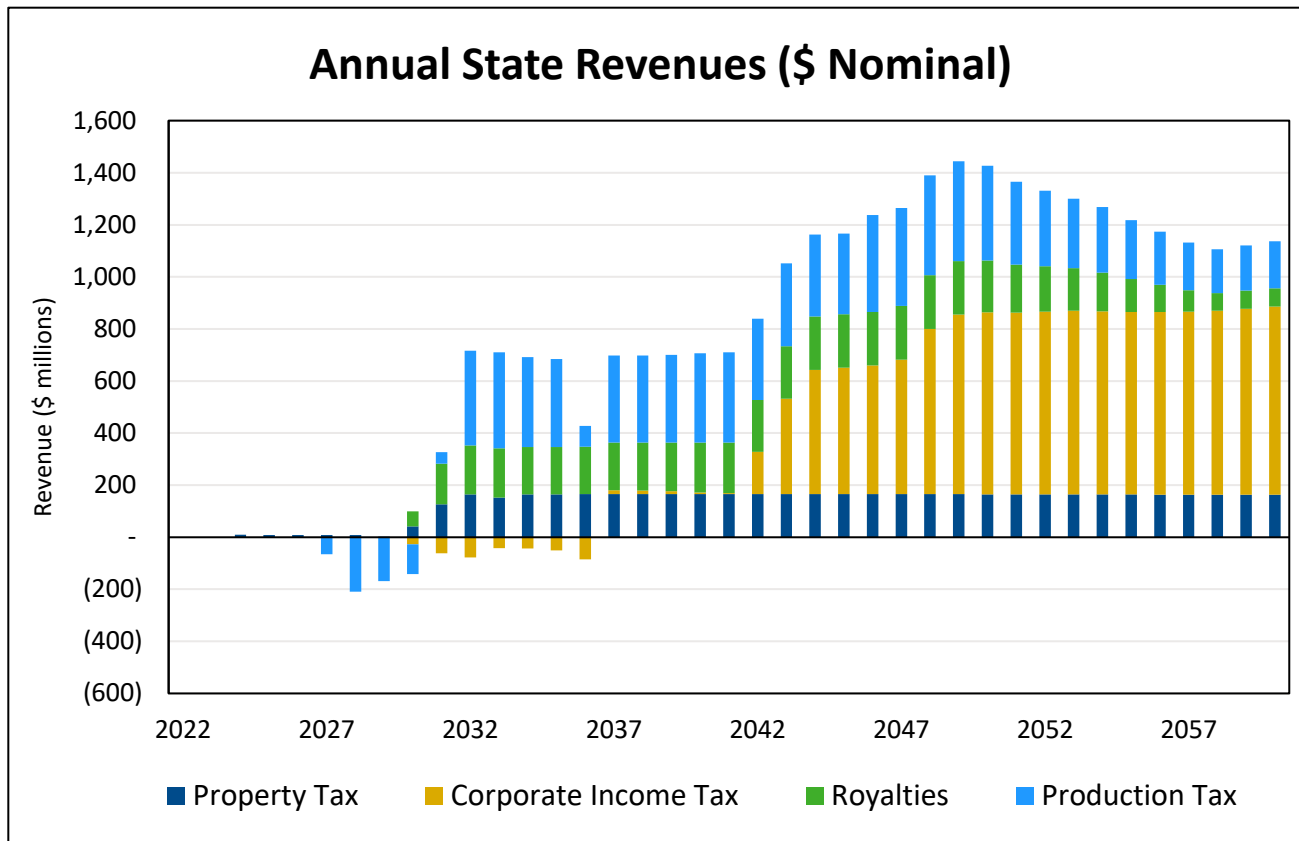
Major Gas Sales Increases Condensate Production Significantly

- Estimated at more than 200 million additional barrels



Alaska LNG: New State Revenue

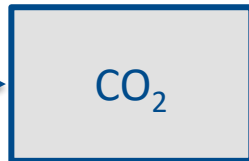
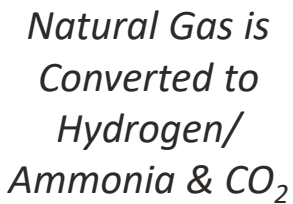
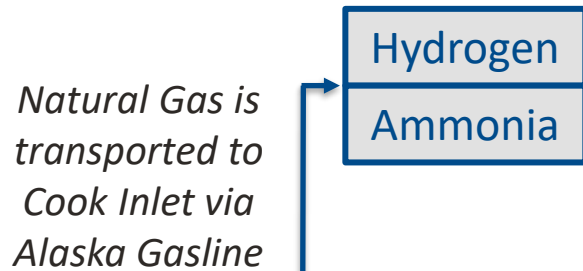
Significant revenue generated by Alaska LNG, even with no State of Alaska investment in construction.



State of Alaska
Department of
Revenue Analysis
(April 2023)

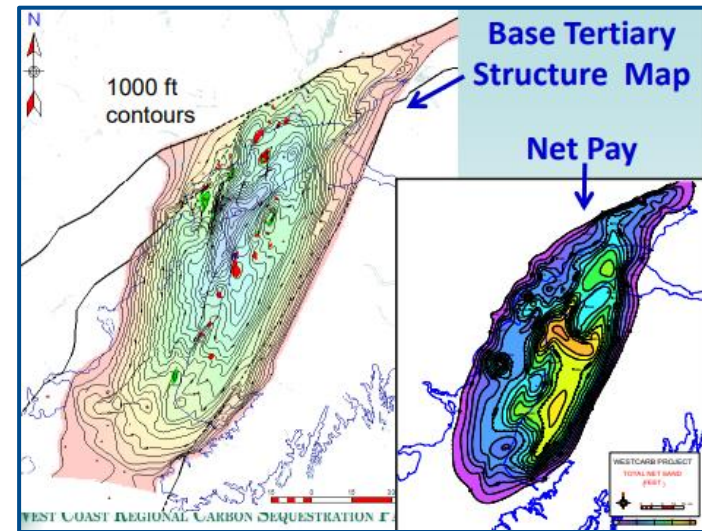
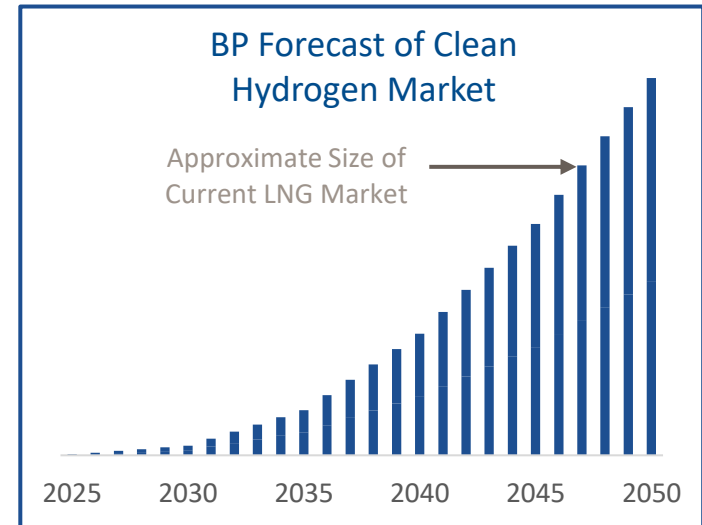
**Does not include AGDC revenue from return on investment-to-date or future State investments.*

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

Increases Production:

- Provides infrastructure to get stranded gas to market
- Provides another 30+ years of North Slope production and increases condensate production
- Provides lower cost, clean-burning gas for Alaskans (no imports needed)
- Contributes to state revenue
- Provides bridge to ammonia and hydrogen production

Minimizes Impacts:

- Extensively scrutinized with multiple requirements to minimize impacts
- Maximizes use of existing infrastructure and resources
- Lowers global greenhouse gas emissions
- Uses existing corridors – TAPS, utility corridor, highway
- Regulated under strict U.S. and Alaska legal requirements

AGDC.us

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.