

# Alaska LNG Project Update

---

Frank Richards, President

Presented to Fairbanks Economic Development Energy Task Force

February 1, 2022



## Summary:

Alaska LNG is an economic project.

*“Alaska LNG is now competitive against the US Gulf Coast LNG projects, which are expected to act as the long-term marginal supply.”*

-Wood Mackenzie, January 2022

# 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 Report verifies 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 US LNG industry

### 2016 Report



### 2022 Update



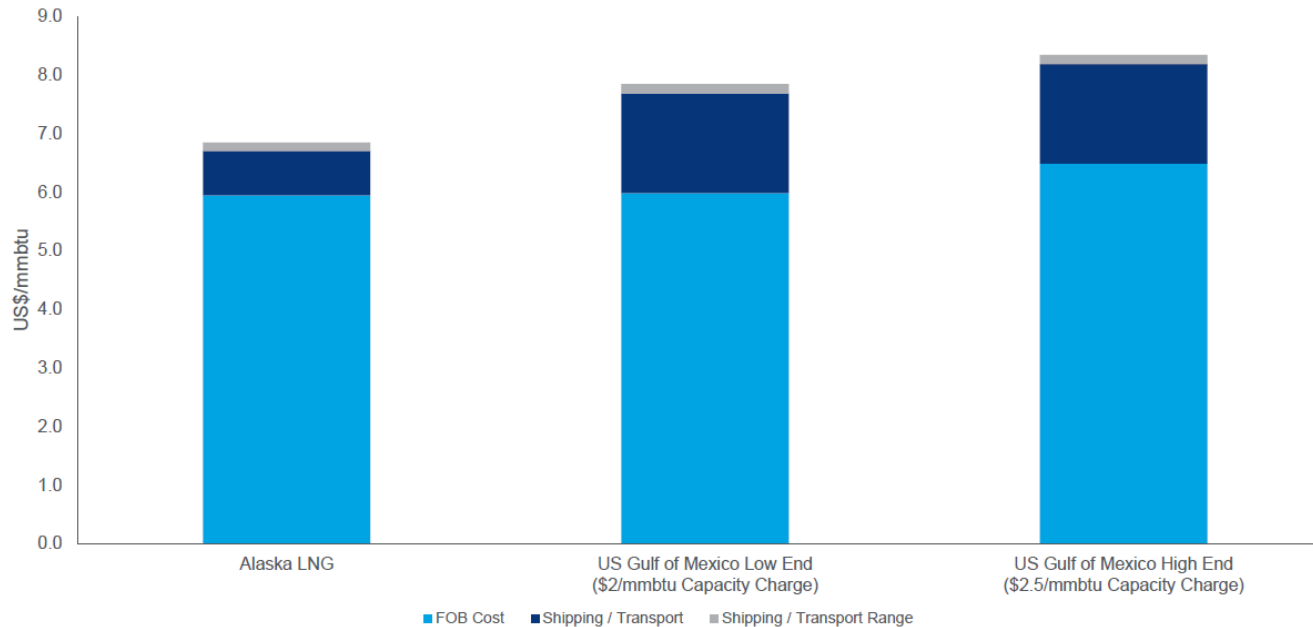
# Wood Mackenzie Cost of Supply

**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

10

*Slide from 2022  
Wood Mackenzie  
Alaska LNG  
Competitiveness  
Analysis*

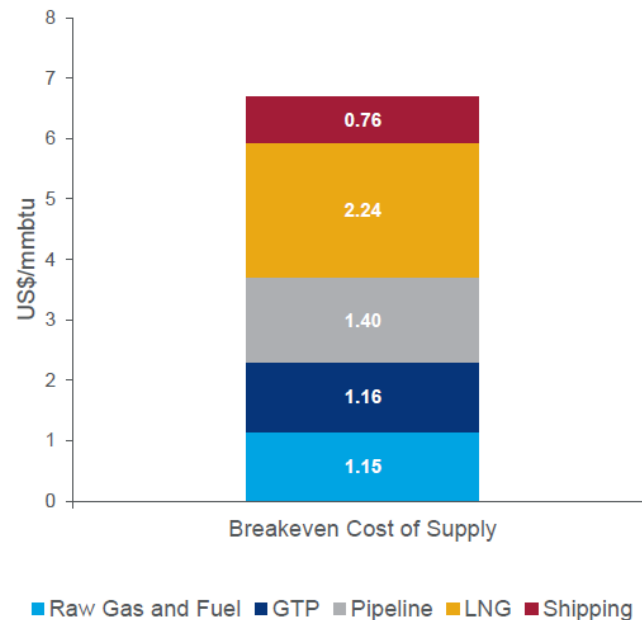
# Wood Mackenzie Cost of Supply

The new optimized CoS is estimated to be ~US\$6.7/mmbtu

## Assumptions

- The following capital costs in our base case use data provided by AGDC
  - LNG Facility – US\$16.8 billion
  - Pipeline – US\$12.7 billion
  - GTP – US\$9.2 billion
- The capex for the LNG facility, Pipeline and GTP have been financed with a 70:30 debt to equity ratio. Debt has an 18-year term at a 5% interest
- Raw gas purchased from Prudhoe Bay and Point Thomson for US\$1.0/mmbtu\* with no commodity price link. Assumed to escalate at 2% per year. Including fuel usage this is US\$1.15/mmbtu
- Shipping Costs from Alaska to East Asia assumed at US\$0.76/mmbtu, which is the average shipping costs of potential destinations in Japan, China, and Thailand
- Volumes of 3 bcf/d with ~13% used as fuel
- Domestic Market allocation: 300 mmcfd/day

## Breakeven cost of supply



Note: Capital costs are in 2019 real terms; Refer to Appendix for shipping costs; \*Raw gas prices provided by AGDC and are subject to negotiation

9

Slide from 2022  
Wood Mackenzie  
Alaska LNG  
Competitiveness  
Analysis

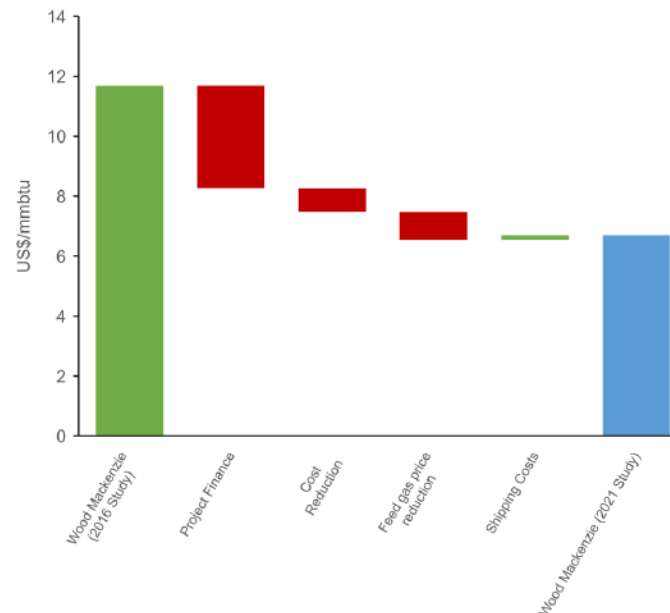
# Wood Mackenzie Cost of Supply

CoS is now 43% lower vs. 2016 due to lower CAPEX and feedgas price, and the use of a non-recourse debt funded 3<sup>rd</sup> 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

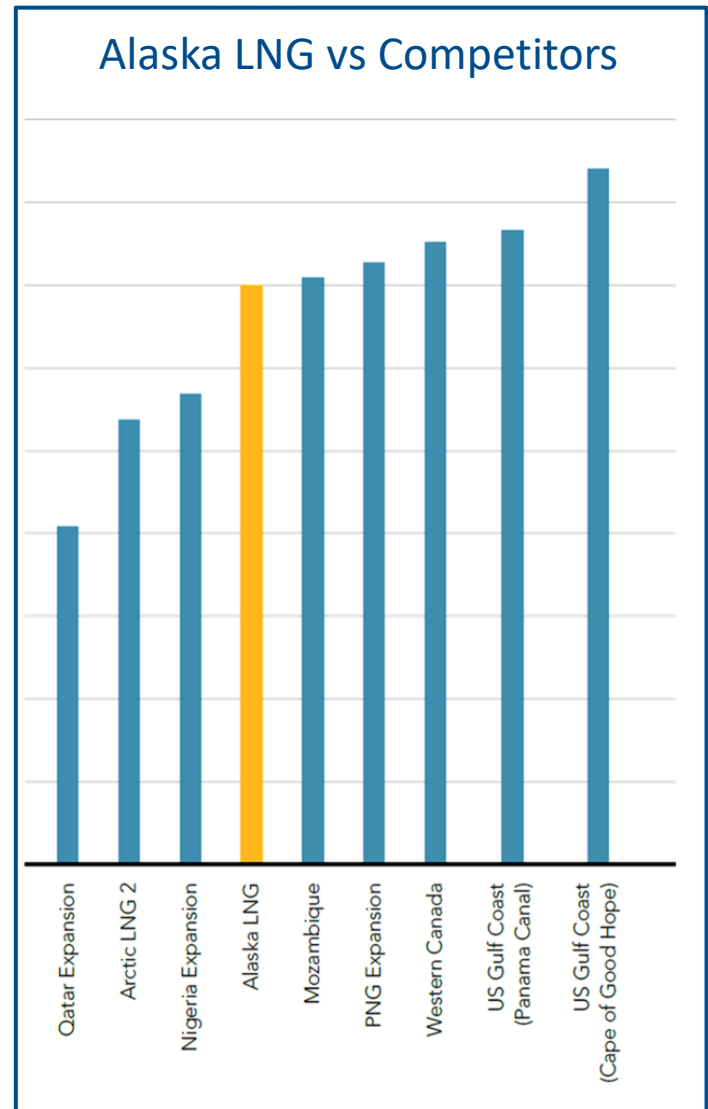
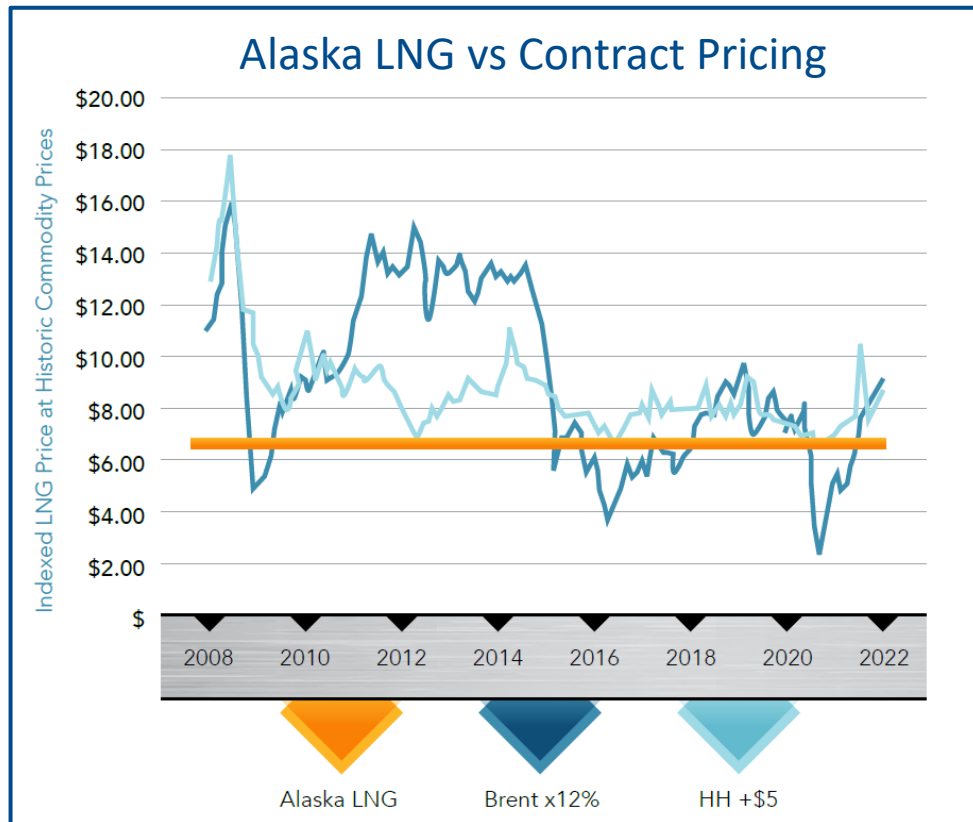


Slide from 2022  
Wood Mackenzie  
Alaska LNG  
Competitiveness  
Analysis

# Alaska LNG vs Competitors

## Cost of Supply: \$6.70

- Alaska LNG's delivered cost of supply is lower than most global competitors and contract pricing
- The cost of supply is stable and increases at about 1% per year, providing buyers a predictable cost energy source.



Comparative Cost of Supply to Asia  
Source: Gas Strategies



# 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

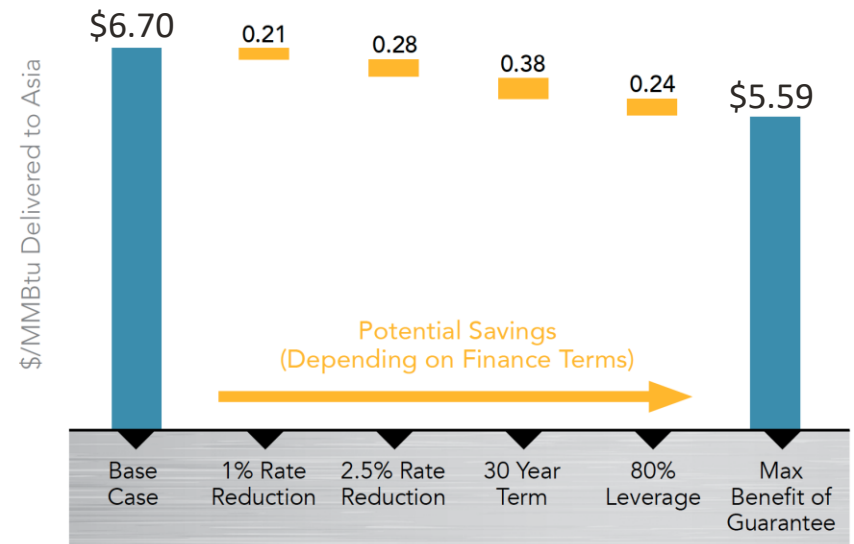
- Principle amount of debt guaranteed up to \$26.3 billion (adjusted for inflation)
- Up to 80% of the capital cost
- Term of up to 30 years
- Loan guarantee will be subject to credit terms and requirements of the loan program

## 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





# Property Tax Benchmarking

The property taxes that Alaska LNG would pay under current statute are 10 times higher than Alaska LNG's competitors

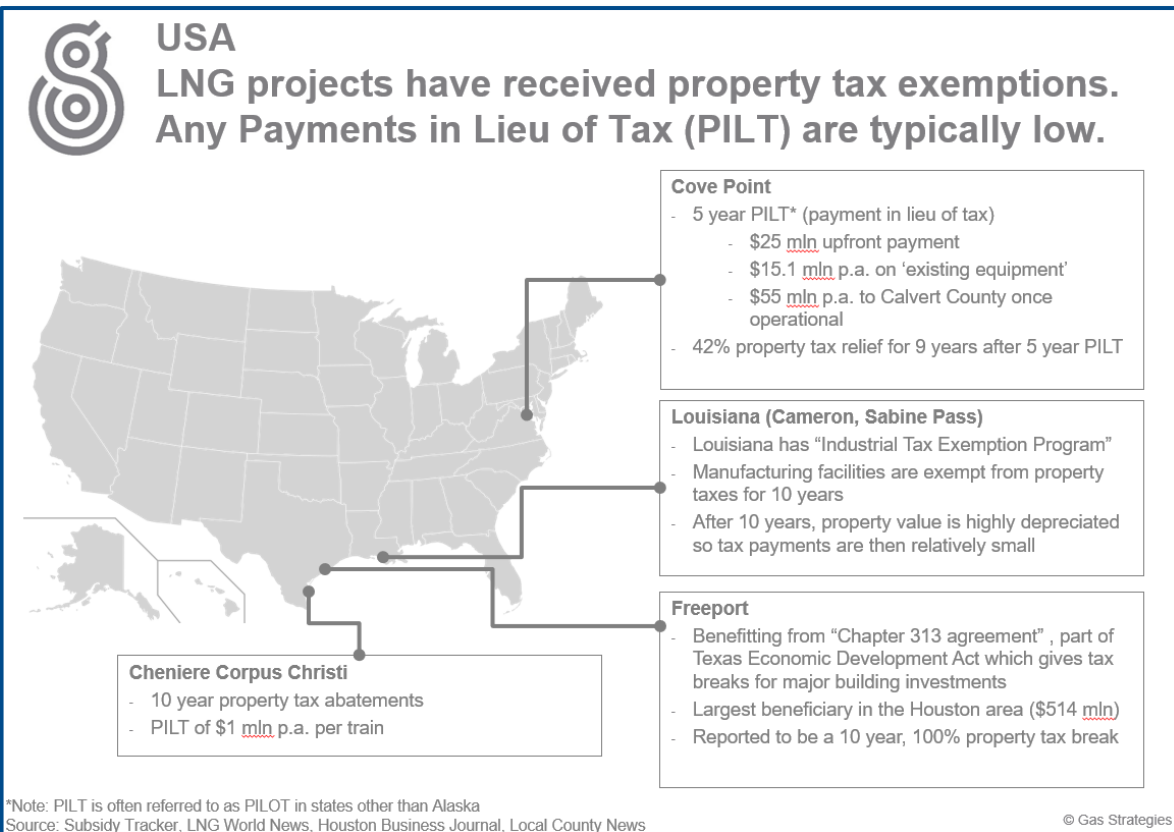
## Most of Alaska LNG is subject to 20 mill property tax

- Equates to almost \$800 million per year – over 10x higher than other projects
- Challenges project economics
- The LNG plant may be subject to lower property tax rate but higher municipal taxes

## Property Tax Changes

- As contemplated in SB 138, changes to property taxes are expected prior to project sanction
- Current cost-of-supply assumes a property tax in-line with competitors
- 20 mill property tax equates to a 9% cost of supply increase

## US LNG Project Property Tax Regimes



# Strong LNG Market

## 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 gasses as coal

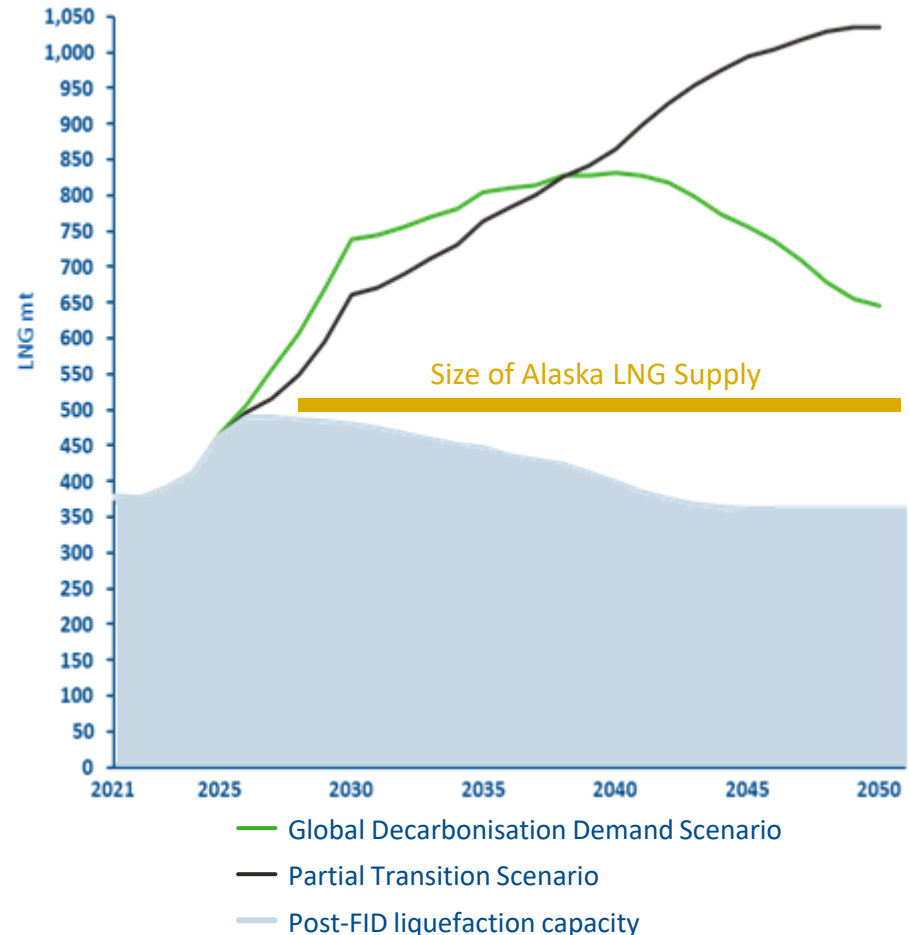
## Investors and Buyers want LNG

- New LNG projects expected to be sanctioned in 2022
- Most new projects have some degree of energy transition planning

“...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

## Summary:

Transition from Producers to the State to  
Infrastructure Developers unlocks Alaska LNG

# Transition to Private Developers

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

*2013-2016*

## **Producer Led**

Challenged because the producers do not like investing in large pipelines – they needed higher profits and accept more risk

*2017-2019*

## **State Led**

Challenged because AGDC does not have the expertise to construct and operate Alaska LNG

*2020 - onward*

## **Developer Led**

Promising because infrastructure developers require lower profits and lower risk – this reduces the cost of the project and improves economics

Non-recourse project financing under a tolling model was not widely- used for LNG prior to 2016. Since, it has been used for almost all US LNG capacity.

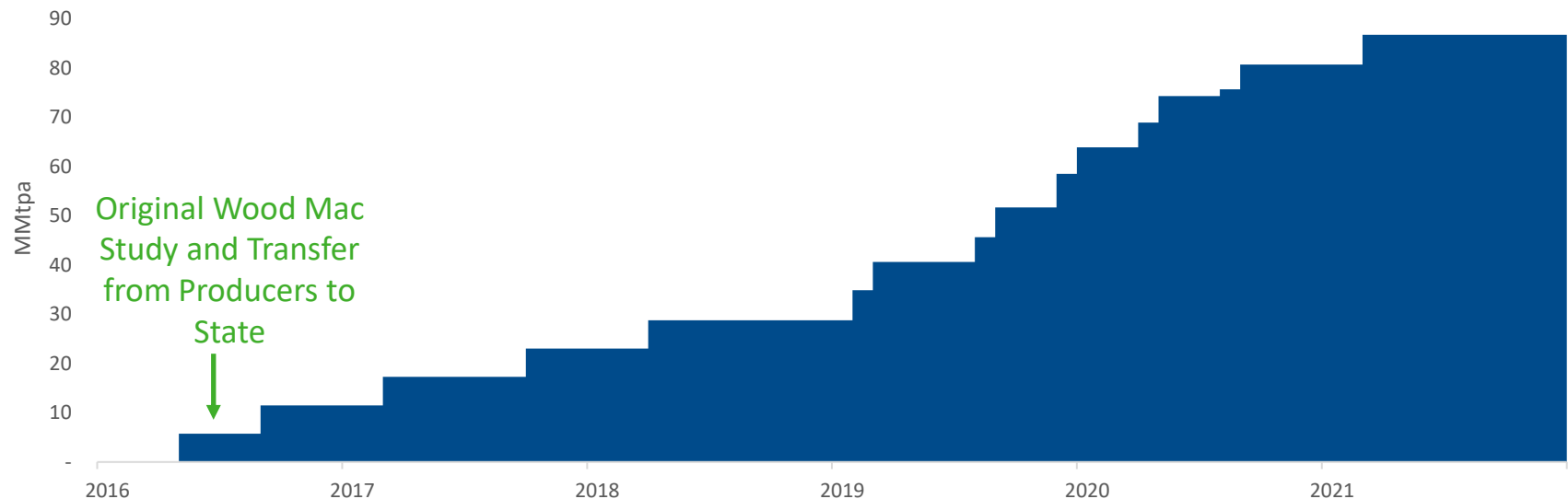
## Prior to 2016

- Virtually all LNG projects developed by oil and gas companies without true project financing
- No tolling/capacity charge included in LNG price, LNG sold indexed to oil
- No US LNG exports

## After 2016

- The US LNG industry grows to nearly the largest LNG export in the world
- All LNG plants built by developers with project finance model, not oil and gas companies\*
- LNG prices include tolling/capacity charge

## US LNG Export Capacity Since 2016



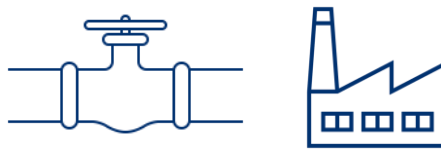
\*Golden Pass LNG is owned by Qatar Energy and ExxonMobil, currently under construction in Texas

# Commercial Structure

The Alaska LNG commercial structure places qualified developers and operators in the specific roles they are best suited for.



North Slope producers  
sell natural gas at outlet  
of GTP



Proven private developers  
build and operate the  
pipeline and LNG plant



Asian LNG buyers  
purchase LNG under  
long-term contracts

## Key Benefits

Does not require North Slope  
producers to make large  
infrastructure investments

Infrastructure developers  
operate large-scale assets with  
financing secured by credit  
worthy LNG buyers

Low-cost LNG with stable  
pricing available from a source  
in the North Pacific is  
appealing to Asian Buyers

## Criteria

- Demonstrated track record of building and operating applicable infrastructure (pipeline and LNG plant)
- Access to adequate financing
- Investors seek infrastructure rates-of-returns

## Process

- Partnered with Pipeline Lead Party to advance early gas option, long-term interest in Alaska LNG
- Created LNG Lead Party Confidential Information Memorandum (CIM) and went on a “Road Show” to meet with LNG Developers

## Progress

- Pipeline Lead Party under agreement
- Potential LNG Lead Parties identified, working to select and contractually secure

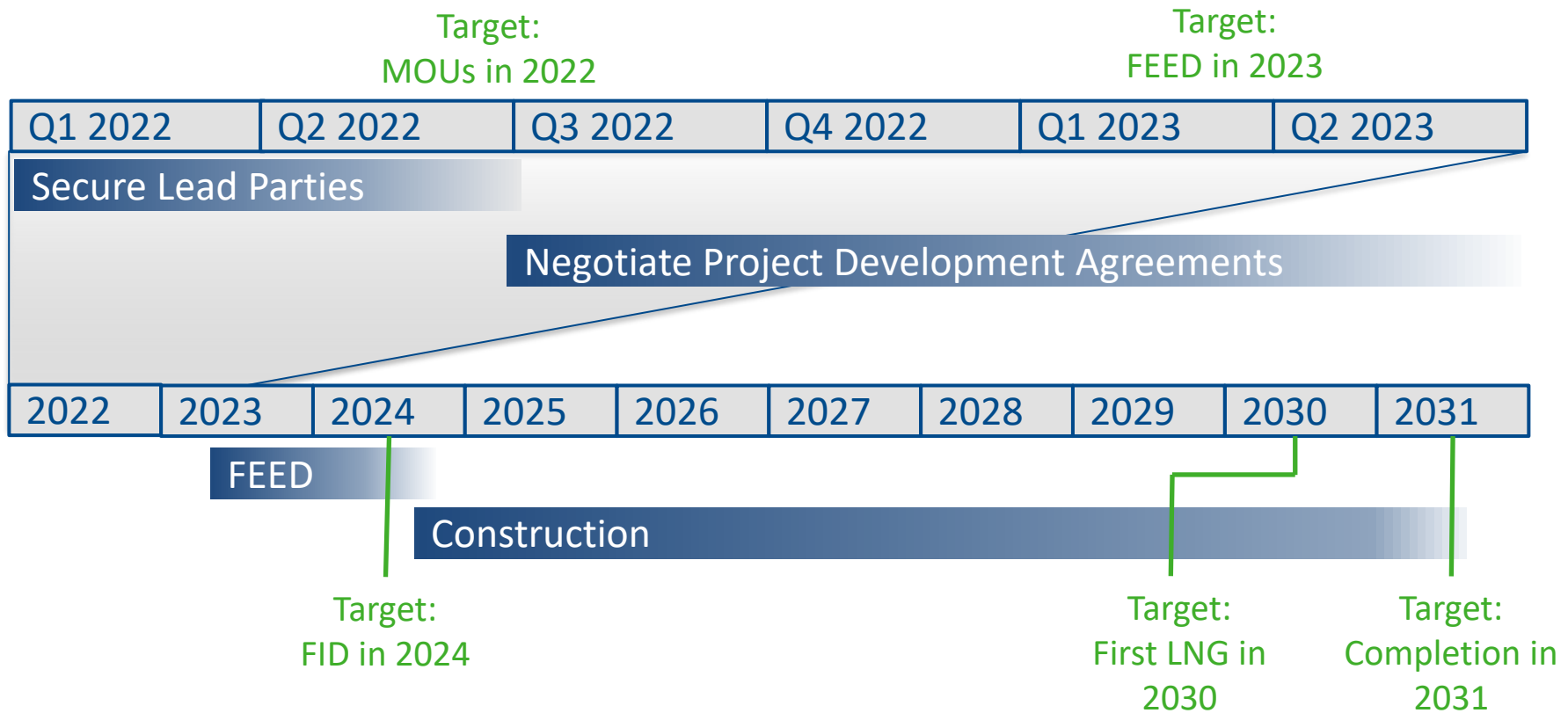
## The LNG Lead Party CIM





# Timeline

Alaska LNG is large and complicated. It will take time to develop as participants work to find alignment. Doing it right is more important that doing it fast.

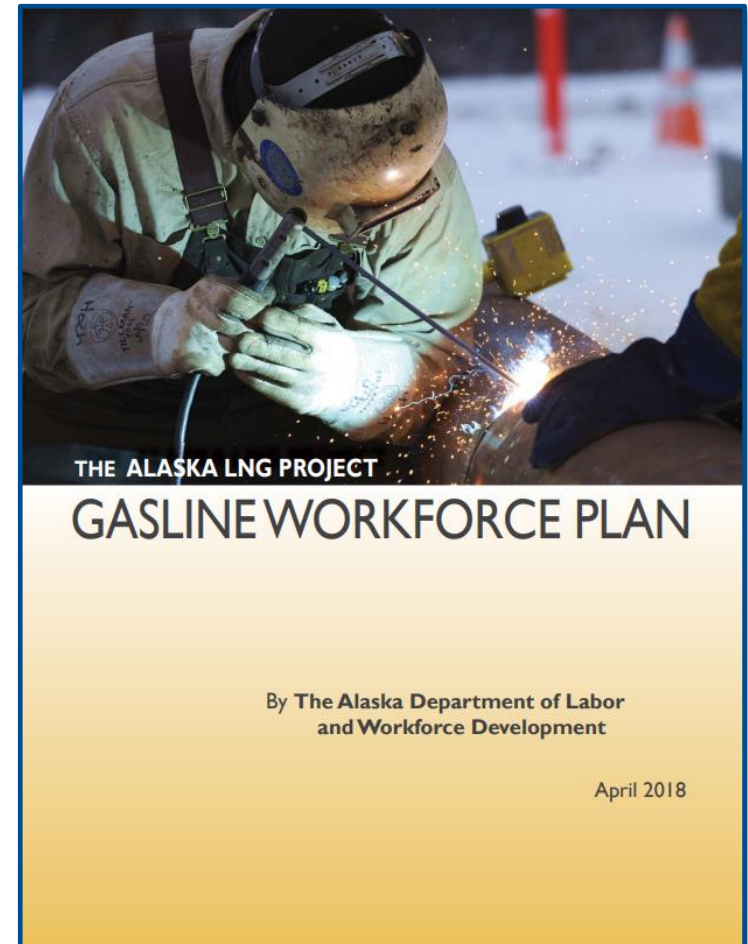
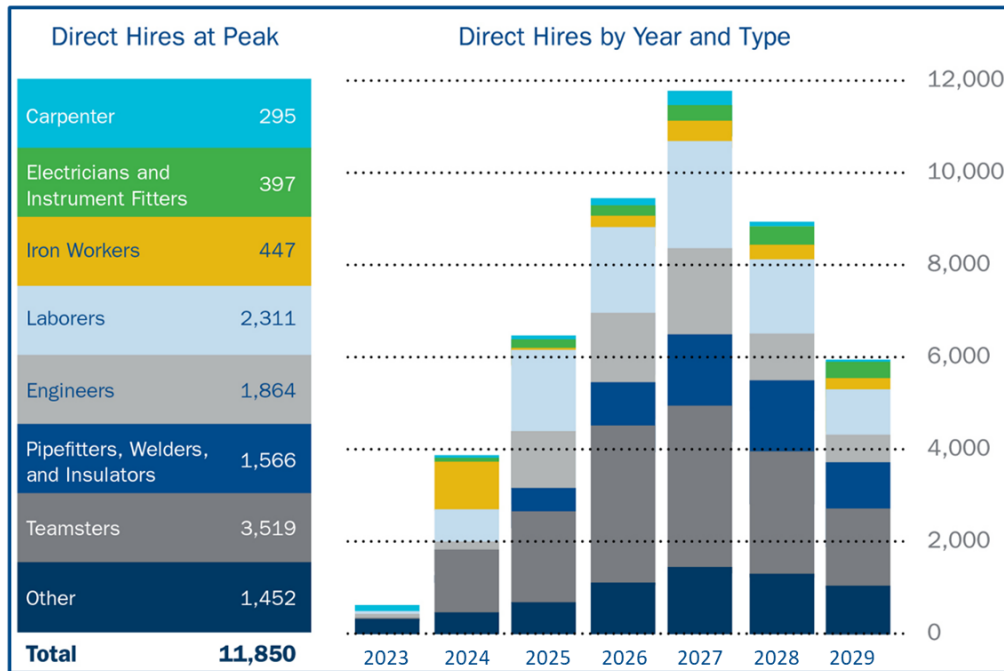


## Summary:

Alaska LNG will create jobs, lower the cost of energy in Alaska, and generate needed State revenue.

## Alaska LNG Job Creation

- Almost 12,000 direct jobs at peak of construction
- 1,000 long-term operations jobs
- Expect 6,000 indirect jobs during construction and 500 during operations

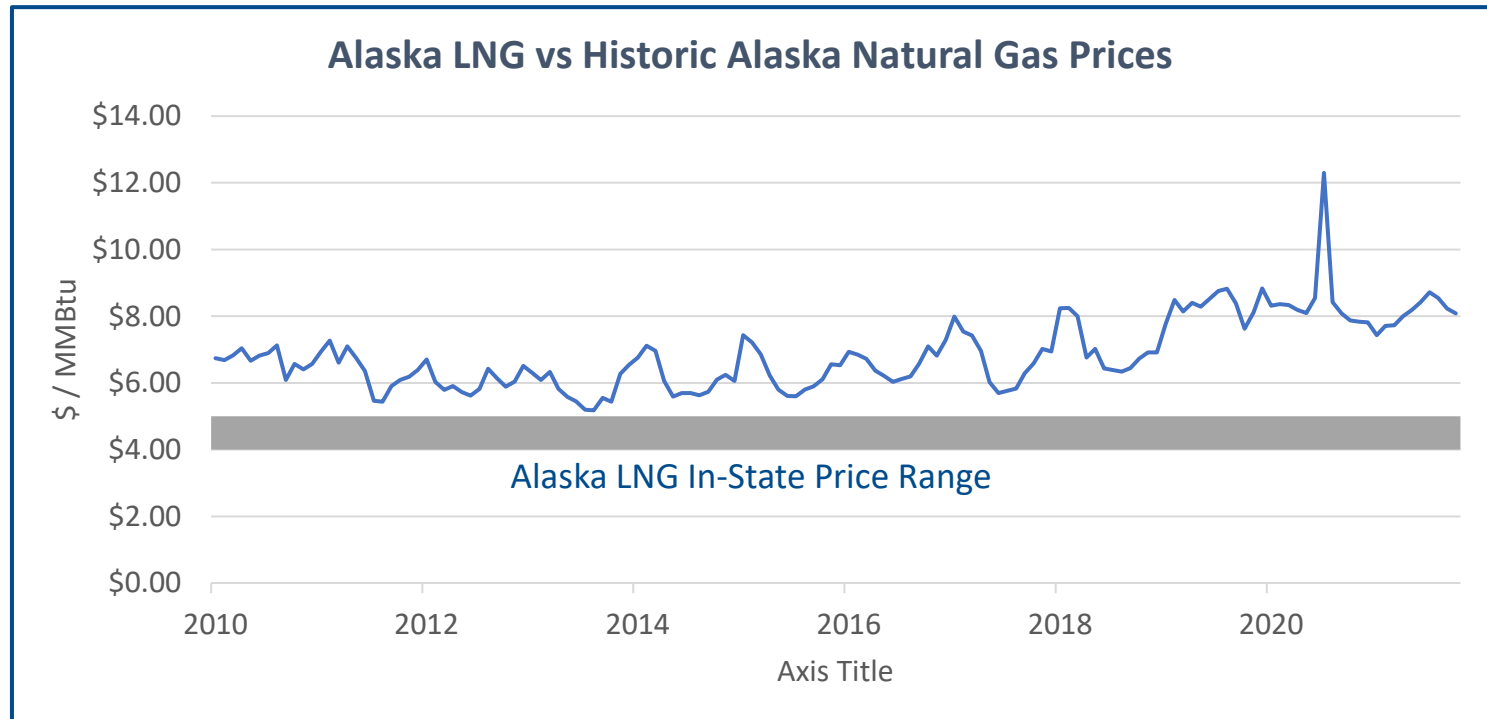


## Low-Cost Gas for Alaskans

- 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

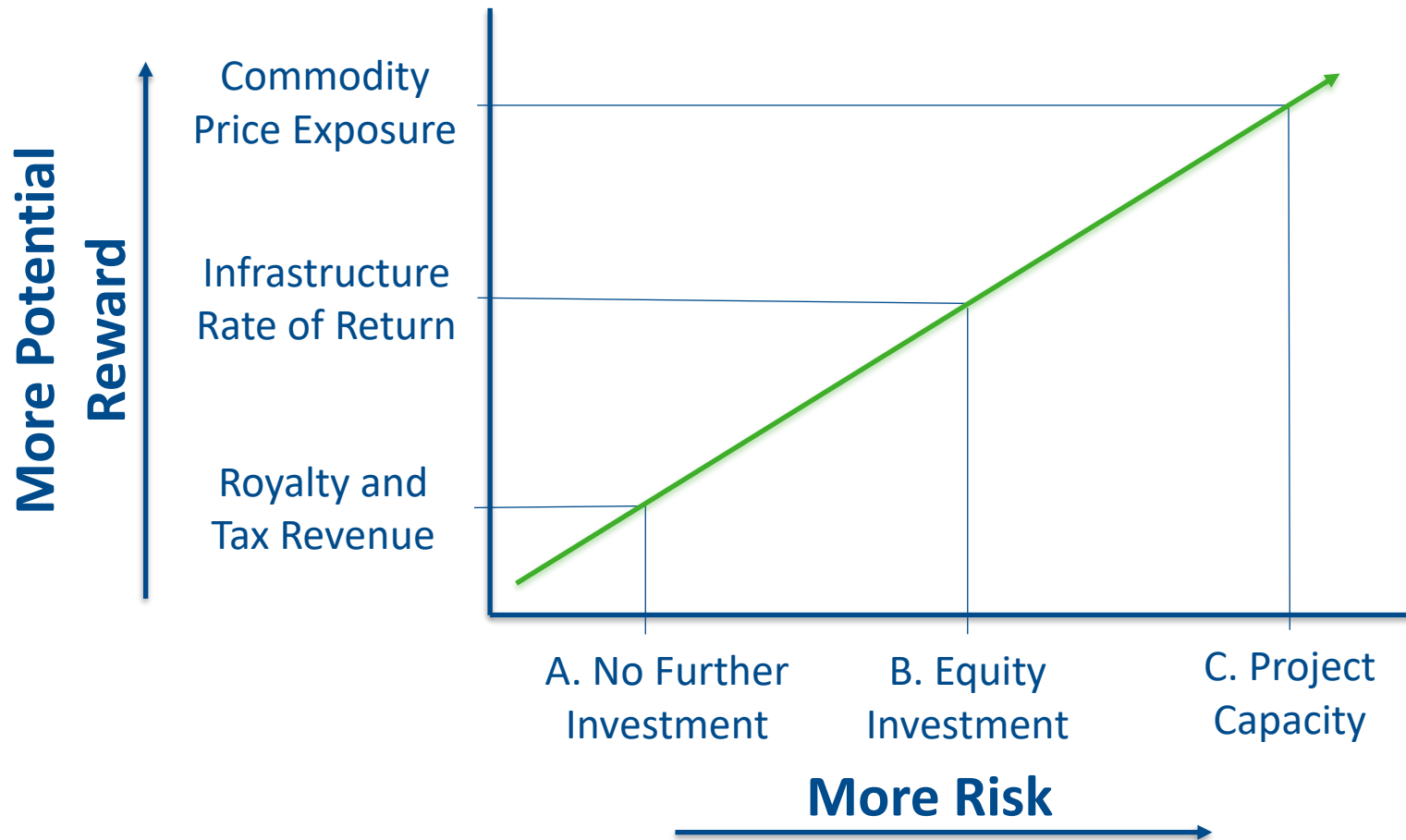
- The pipeline is designed to supply more natural gas than the LNG plant needs
- Enough capacity for in-state demand to more than double



Source: EIA

# SOA Revenue Opportunities

The State's Alaska LNG revenue will be dependent on its investment and risk exposure.





ALASKA  
GASLINE  
DEVELOPMENT CORP.

