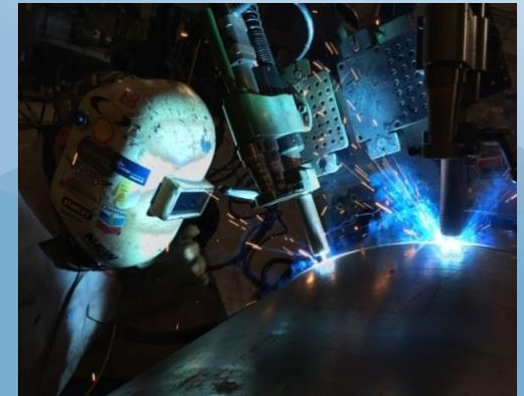


Alaska LNG™

Fueling Alaska's Future



SEPTEMBER 2015

Project Update

Alaska LNG – Project Overview

Alaska LNG™

An integrated liquefied natural gas export project providing access to gas for Alaskans

Gas Treatment Plant (GTP)

- 3.3 BCFD peak winter rate
- Three trains with compression, dehydration and chilling for gas conditioning (remove impurities)
- CO₂ removed and compressed for injection at PBU



LNG Storage & Marine Terminal

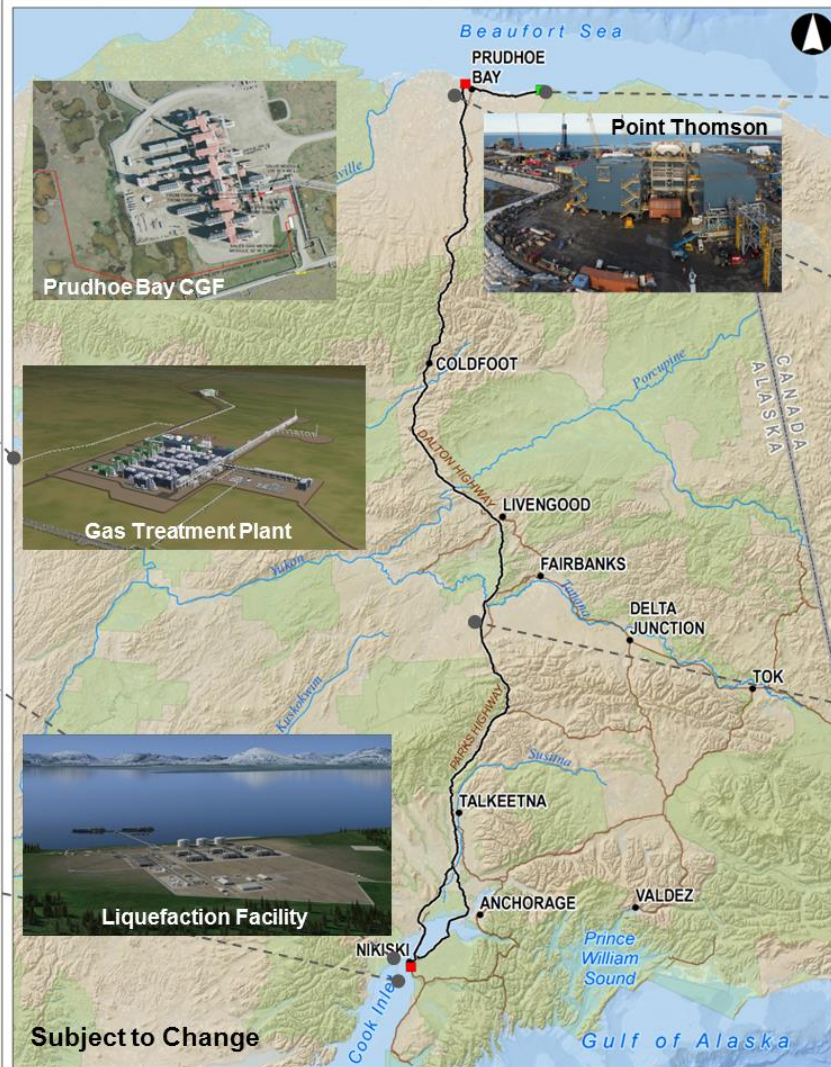
- LNG storage tanks
- Two jetties to accommodate 15-20 LNG carriers per month

Liquefaction Facility

- Natural gas is cooled to -260 degrees to condense the volume 600 times
- 3 trains dehydrate, chill and liquefy gas to produce up to 20 million tons of LNG each year



Subject to Change



Point Thomson Gas Expansion*

- New wells
- New gas processing facilities

Prudhoe Bay Tie-In*

- Gas delivery to new gas treatment plant (GTP)
- Integration with existing CGF
- Injection of CO₂ from GTP

Gas Pipeline

- 800+ mile 42" diameter gas pipeline from gas treatment plant to liquefaction facility
- 3.3 BCFD capacity
- 8 compressor stations
- ~ 5 in-state off-take points

* Prudhoe Bay and Point Thomson Modifications/New Facilities are managed by Prudhoe Bay Unit and Point Thomson Unit Operators, respectively, and are closely coordinated with the Alaska LNG Project.

Artists renditions of LNG and GTP

Alaska LNG – Project Overview

Safety, Health and Environment Report:

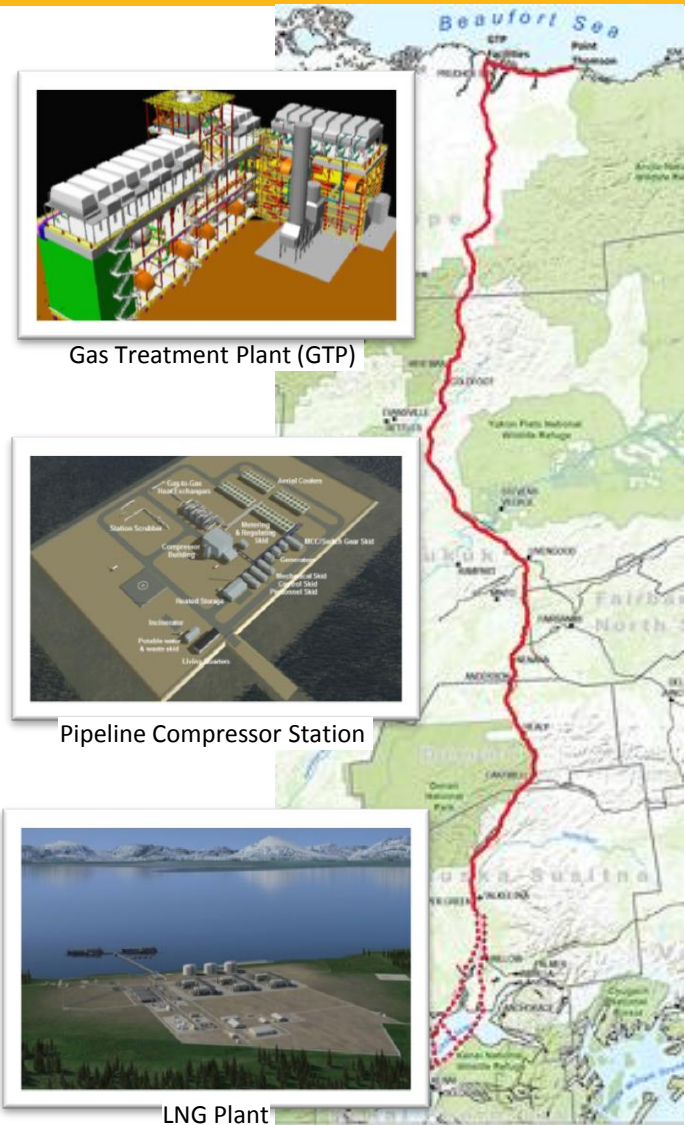
- ✧ Building culture of caring – tracking near misses and first aids

Executive Summary:

- ✧ Spend: \$243M on pre-FEED through July 2015
- ✧ Initial design scope ~75% complete, 2015 field work ~50% complete
- ✧ Finalizing project design/execution basis (cost and schedule estimates)
- ✧ Ongoing collaboration with regulators at local, State and Federal levels
- ✧ Community open-house sessions continuing with FERC participation
- ✧ Progressing work to evaluate SoA request for a 48" pipeline system
- ✧ Developing 2016 Work Program and Budget

Key Messages:

- ✧ Alaska LNG is an integrated LNG project – *plants plus pipeline*
 - Regulated under FERC Section 3; allows design integration
 - Integrated design includes ~ 5 off-take points for in-state supply
- ✧ Focus on lowest cost of supply to compete in a global market
- ✧ Alignment, risk and cost reduction (ARC) remain key to success



LNG Plant and Marine Terminal Update Alaska LNG™

Initial design scope 72% complete through end of July

Actively acquiring land, purchased ~600 acres in Nikiski

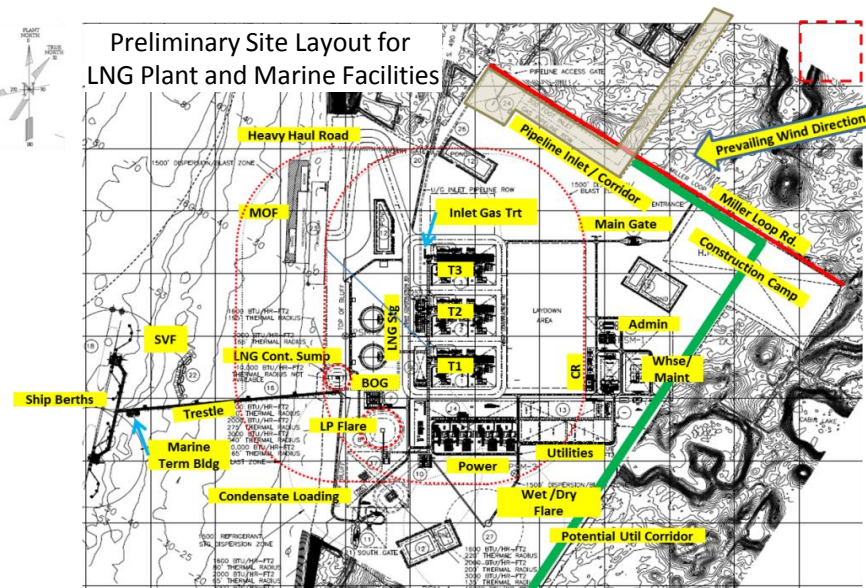
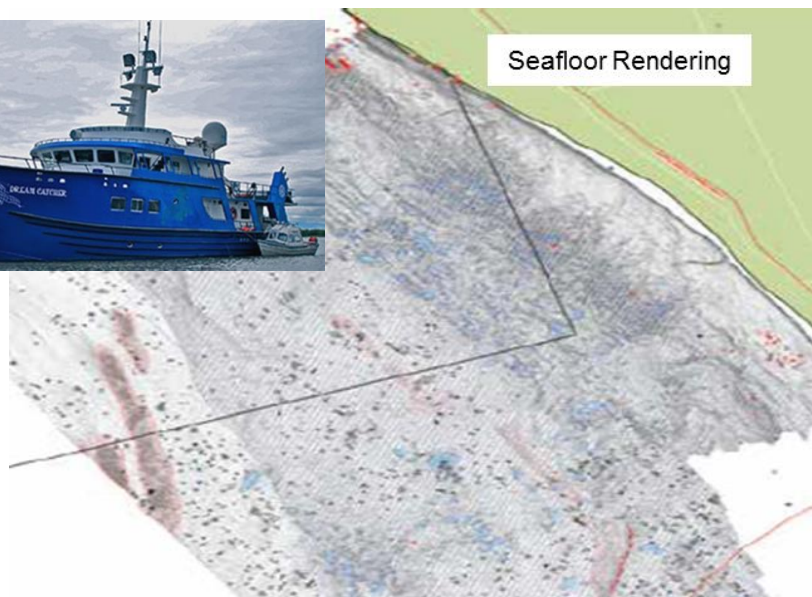
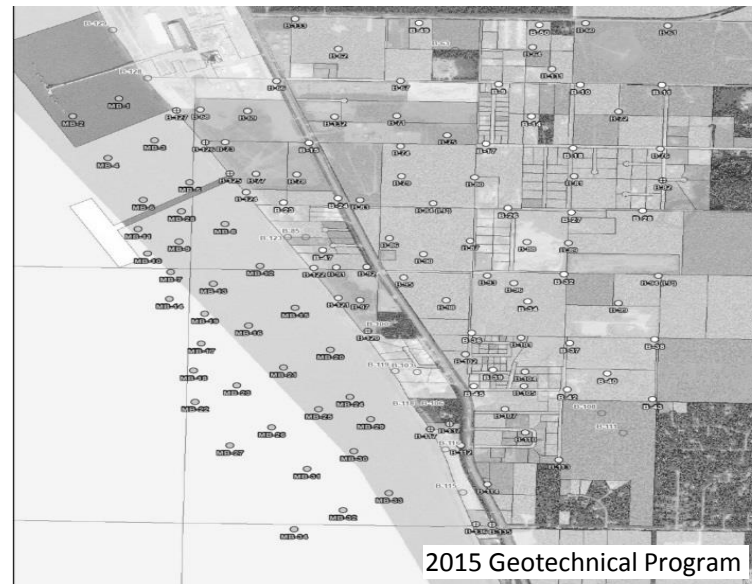
Evaluating alternative layouts, driver selection complete

Continuing to improve marine facility design and operations

- ✦ Collecting sea floor and metocean data
- ✦ Incorporating findings from navigation simulation

Continuing geotechnical assessment onshore and offshore

Focusing on fabrication / modularization to reduce costs



Pipeline Update

Initial design scope 78% complete through end of July

Pipeline materials design and testing in progress

- ✧ Evaluating weld development / procedures
- ✧ Evaluating alternative coating designs / applications
- ✧ Ordering 48" test materials (targeted 1st arrival 1Q16)

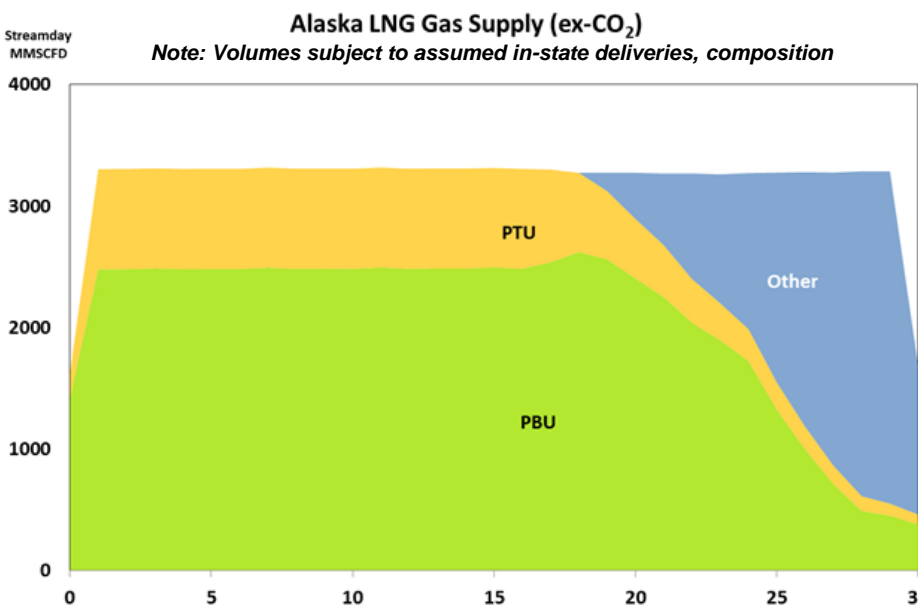
Working with federal pipeline regulator (PHMSA) to confirm design basis and align on special permit conditions

Continued data exchange / collaboration with AGDC on route, design, execution planning and in-state offtakes

Evaluating cost / schedule impacts of a 48" pipeline system



42" Pipeline Testing Program



	42" PIPELINE	48" PIPELINE
Design Peak Capacity from GTP	3.3 BCFD	3.3 BCFD
Peak to LNG (Annual Average)	2.8 BCFD (2.7 BCFD) <i>(Net of fuel and in-state gas)</i>	2.8 BCFD (2.7 BCFD) <i>(Net of fuel and in-state gas)</i>
Capex / Opex	Lowest capex	Higher capex, lower opex
Compression	Base: 8 stations - Operating redundancy	Base: 4 - 5 stations - Less fuel
Expansion	Single train expansion with 10 additional stations	Single train expansion with 5 additional stations
Construction Risk	More construction risk than typical pipelines in U.S. - pipe 22% heavier than other NA gas pipelines	More construction risk than 42", 59% heavier than typical - more equipment, gravel, truckloads - CI crossing complexity
N American Content	Available for non-strain based design sections (~ 80 - 90%)	No relevant experience suitable for Alaska today
Schedule	Base Case	Potential 6-8 month impact to FEED decision

Gas Treatment Plant Update

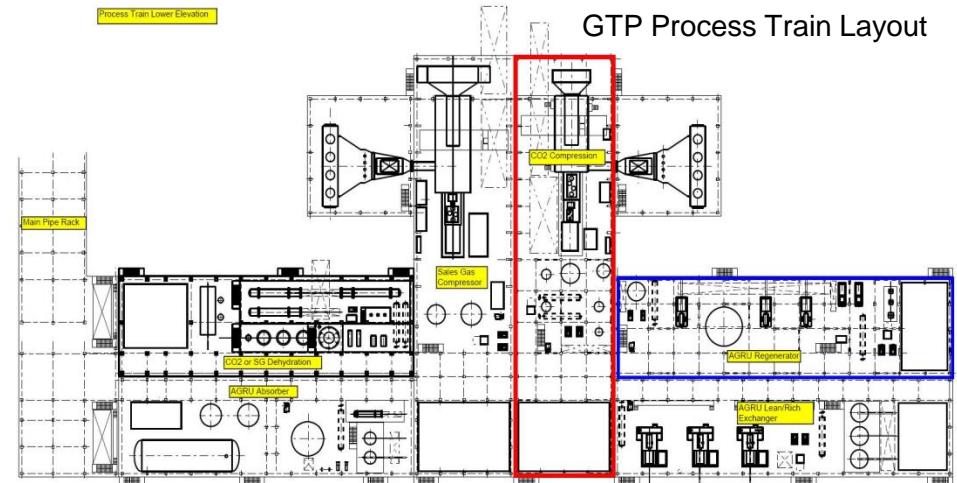
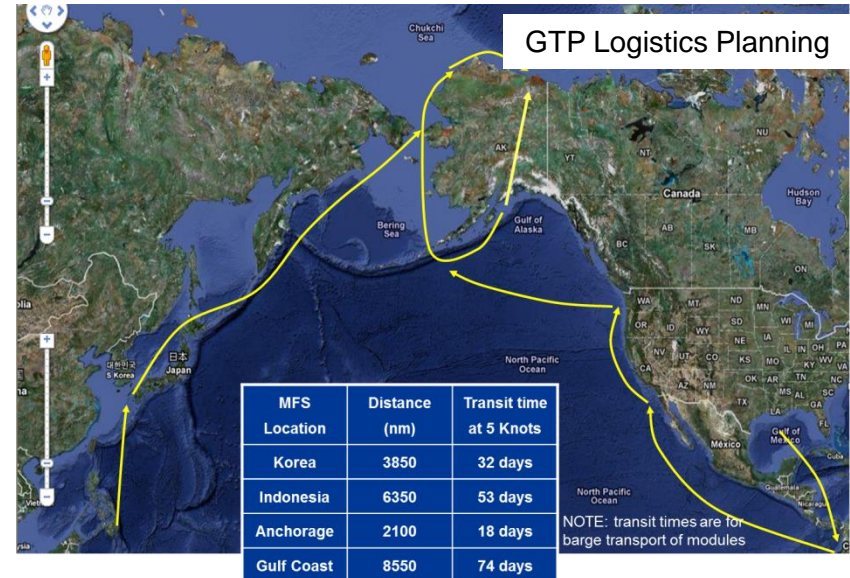
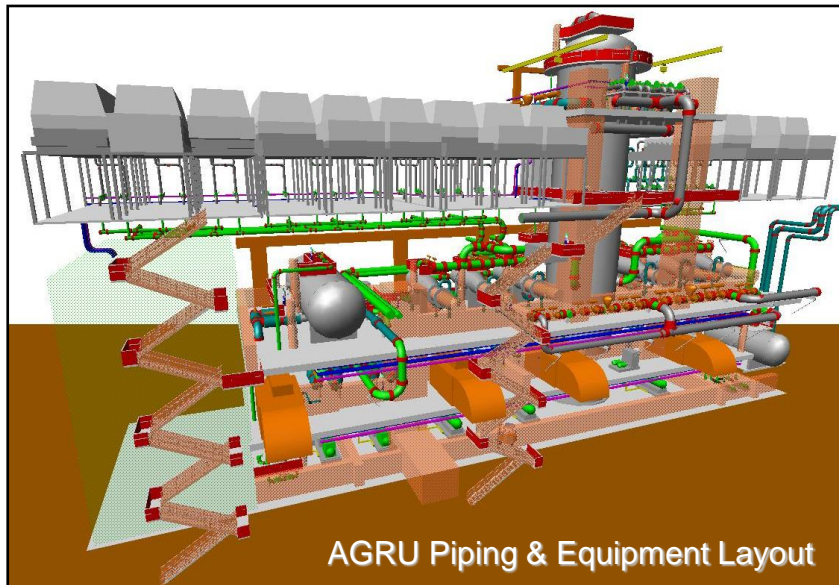
Initial design scope 86% complete through end of July

Completed geotechnical assessment, confirmed soils, access to gravel, water resources

Using 3D modeling of Acid Gas Rejection Unit (AGRU), CO₂ compression piping and equipment layout for cost estimates and constructability.

Working integrated design issues with PBU

Working with FERC to define engineering information required to complete NEPA process



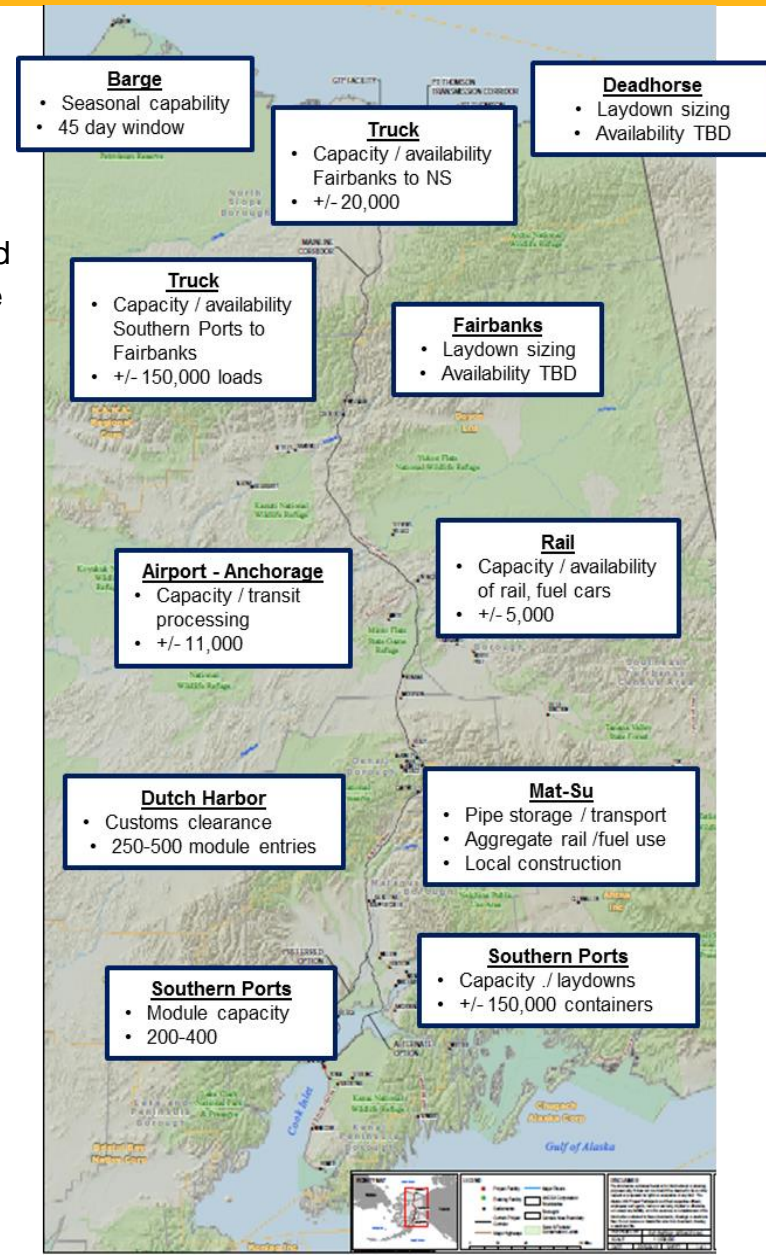
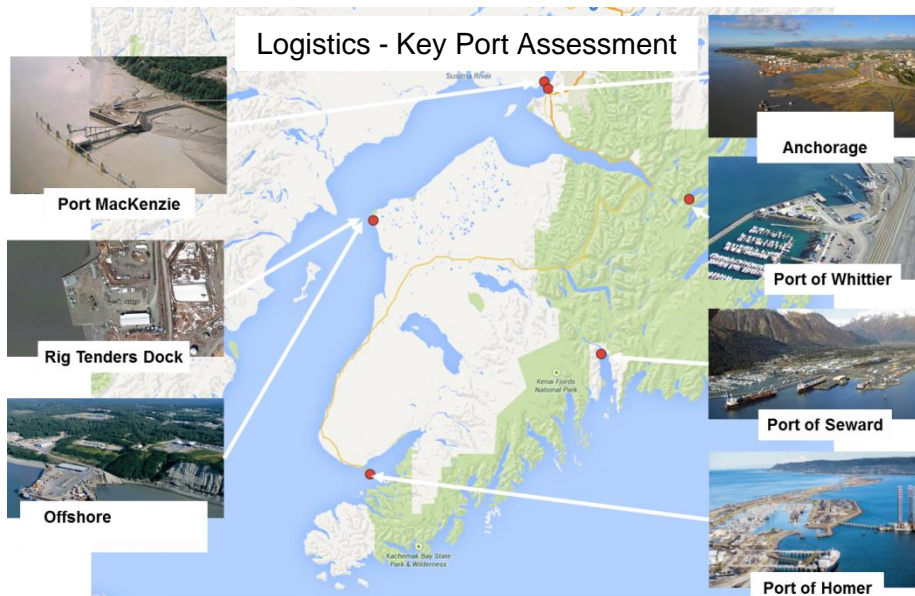
Integrated Logistics Update

Initial logistics and infrastructure analysis complete (roads, trucks, ports, marine vessels, airports, rails, fuel, etc.)

Preliminary findings include:

- ✧ Sufficient capacity in key ports with some modernization already planned
- ✧ Potential pinch points identified with Alaska based trucking, railroad pipe cars, air transport capacity for personnel, camp infrastructure and the Alaska Marine Highway – developing plans to resolve
- ✧ Jones Act compliant vessels for pipe, break-bulk cargo are limited

Modeling costs / schedule implications of existing infrastructure



Integrated Labor Update

Progressing labor analysis with key stakeholders:

- ✧ Labor unions and merit based associations,
- ✧ Alaska Department of Labor, State representatives
- ✧ Alaska Native regional and village corporations
- ✧ Federal officials, national databases

Initial Focus on 9 Key Craft Types: Boilermakers, Carpenters, Electricians, Insulators, Iron Workers, Laborers, Operating Engineers, Pipefitters, Teamsters

Maximize use of qualified Alaska Hires

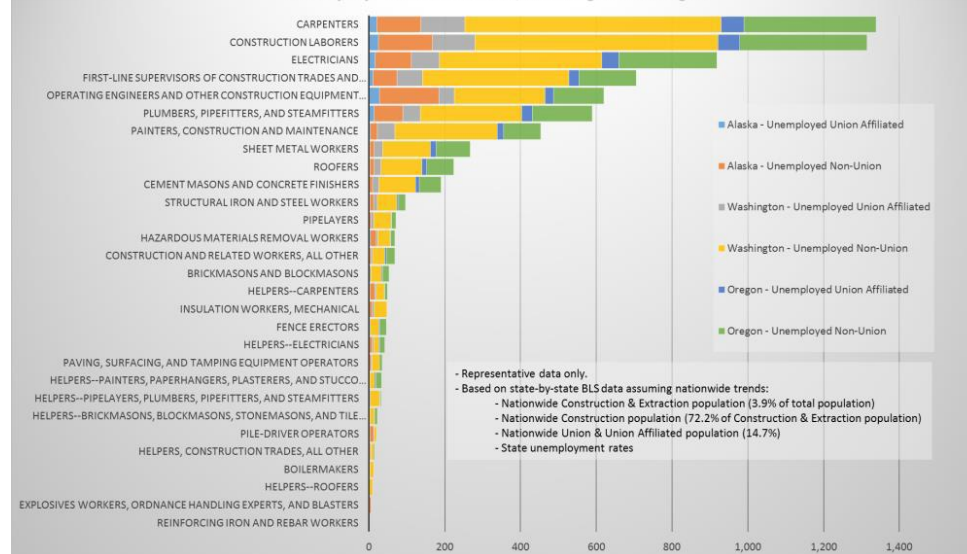
Work in progress (complete by YE15), early findings:

- ✧ Construction demand significantly greater than currently available Alaskan workforce
- ✧ Access to all sources of Alaskan labor required
- ✧ Risk from competing industrial demand to be mitigated

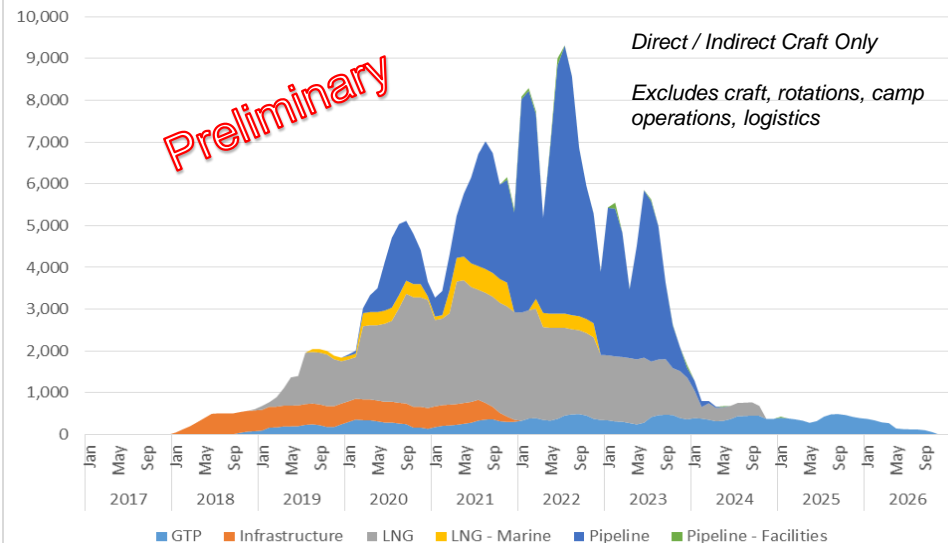
Labor Strategy Development



Unemployed Craft in Alaska, Washington & Oregon



AKLNG



Summer Field Season / Regulatory Work **Alaska LNG™**

200+ people / 225,000+ hours in the field

- ☀ Collected engineering, environmental, social, and cultural data to support regulatory filings and permitting
- ☀ Supported the routing and siting of Project facilities

Engineering and Field Work to support National Environmental Policy Act (NEPA) underway

- ☀ Developing second draft Resource Reports 1-12 with updated analysis of project impacts (1Q2016 submittal)
- ☀ Timing allows stakeholder input for October 2016 filing

Pre-Filing

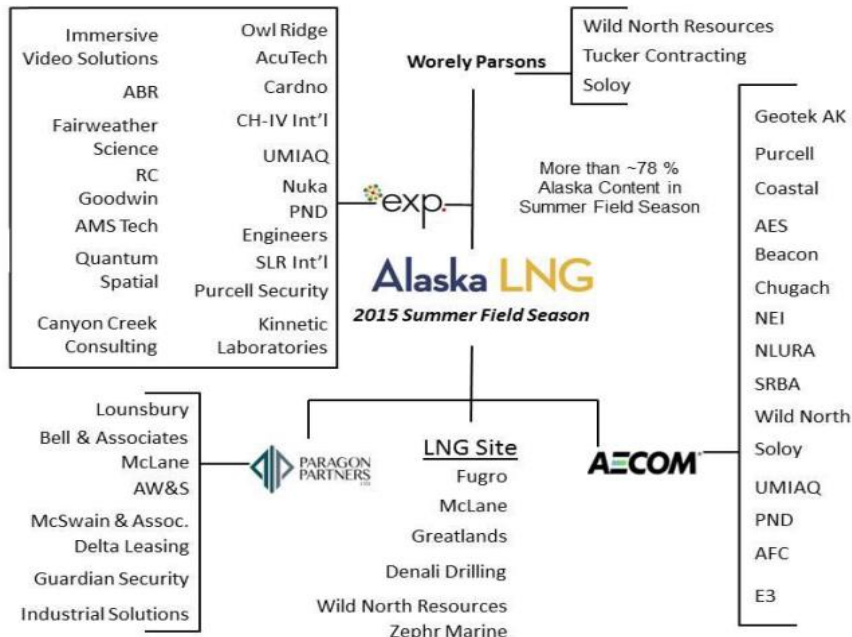
Draft Resource Reports

1. Project Description
2. Water Use & Quality
3. Vegetation & Wildlife
4. Cultural Resources
5. Socioeconomics
6. Geological Resources
7. Soils
8. Land Use, Recreation & Aesthetics
9. Air & Noise Quality
10. Alternatives
11. Reliability & Safety
12. PCB Contamination
13. LNG Information

Filing – planned October 2016

Natural Gas Act Section 3 Application

- Exhibit A -- Articles of incorporation and bylaws
- Exhibit B -- Statement of corporate and financial relationships
- Exhibit C -- State authorization
- Exhibit D -- Agreement between the applicant and border facilities
- Exhibit E -- Safety and reliability statement
- Exhibit E-1 -- Earthquake hazards and engineering
- Exhibit F -- “Final” Resource Reports**
- Exhibit G -- Location of facilities
- Exhibit H -- Statement regarding additional federal authorizations



External Engagement

Community

- ✳ 90+ community sessions in last 12 months
- ✳ Community meetings continuing to support summer field program
- ✳ FERC scoping meetings planned for fall 2015
- ✳ Legislative & media tours: 4
- ✳ Communications tools: newsletter, ak-lng.com, toll-free line

Alaska Businesses

- ✳ Using Alaska vendors, equipment, residents provides access to valuable local expertise, can reduce cost
- ✳ Business information sessions in Barrow, Fairbanks, Kenai and Anchorage in April with ~ 700 participants
- ✳ Over 500 businesses registered at ak-lng.com
- ✳ Labor & logistics studies

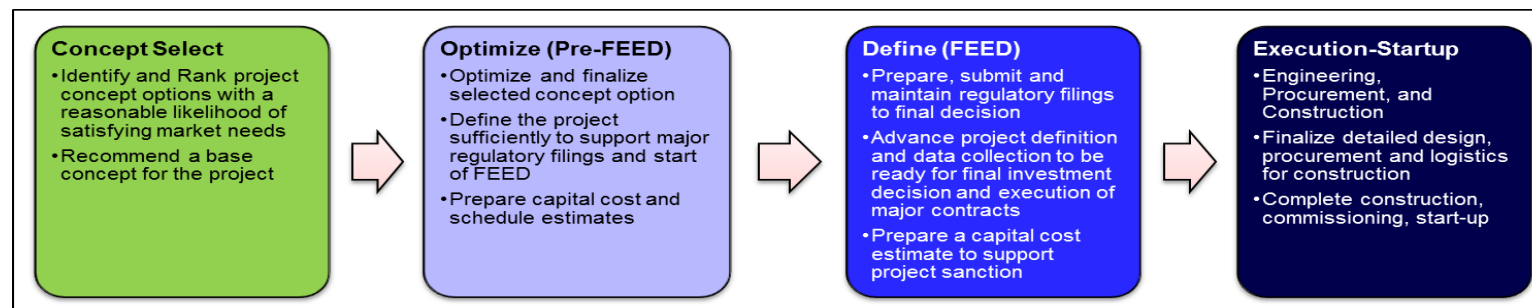
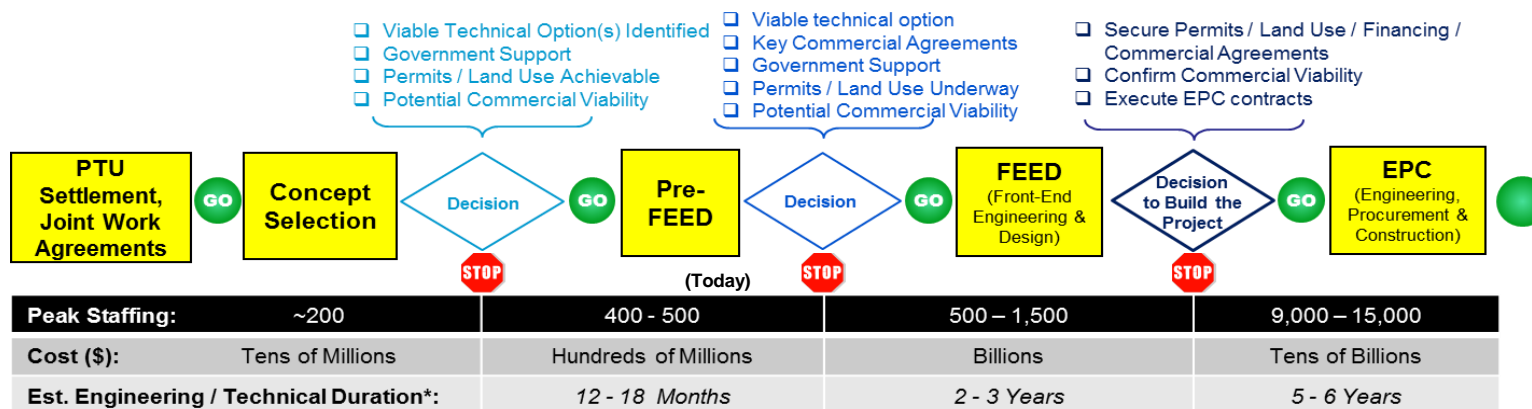
Alaska Native Groups

- ✳ Village and tribal outreach ongoing
- ✳ Engagement with Alaska Native Regional Corporations
- ✳ Involvement in 2015 AFN Conference

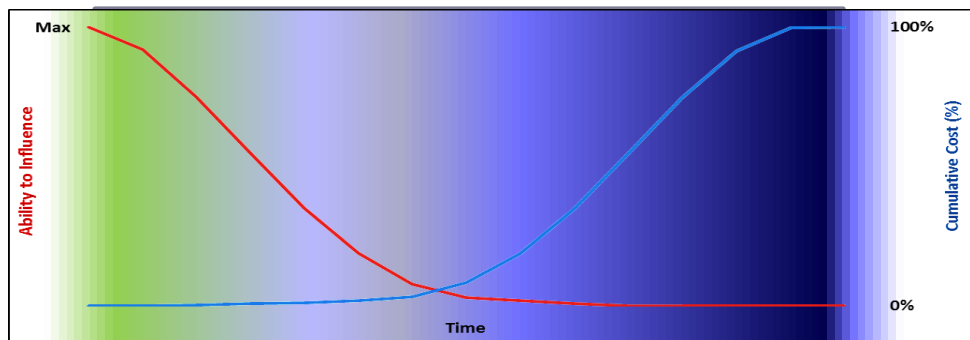


Project Development Phases

Alaska LNG – Phased/Gated Project Management Process (Oct 12)



Project Influence Curve



Alaska LNG by-the-numbers

Technical and field progress

- ✧ \$243M + on pre-FEED through August 15
- ✧ 570+ acres purchased in Nikiski, Alaska
- ✧ 130+ full-time personnel on Alaska LNG Project
- ✧ 200+ people in the field (80 scientists)
- ✧ 950+ acres of topographic survey
- ✧ 15,500+ acres of cultural surveys
- ✧ 148,000+ feet of shallow seismic completed
- ✧ 250 boreholes drilled
- ✧ 100+ environmental site assessments completed
- ✧ 2,000+ helicopter flying hours, 87,000+ miles driven
- ✧ 1,100+ field check points set/confirmed

Regulatory

- ✧ 2 DoE conditional export licenses (FTA / non-FTA)
- ✧ 10,000+ pages of regulatory filings

Engagement

- ✧ 90+ community outreach events
- ✧ 100s of Alaska entities involved in logistics and labor studies
- ✧ ~700 Alaska businesses – information sessions
- ✧ 40+ meetings with Alaska Native regional and village corporations and tribal entities



The logo for Alaska LNG features the word "Alaska" in a dark blue serif font and "LNG" in a bold, yellow sans-serif font. Below this, the tagline "Fueling Alaska's Future" is written in a smaller, dark blue sans-serif font. The background of the slide is a geometric pattern of overlapping triangles in various shades of blue.

Alaska LNG

Fueling Alaska's Future

AK-LNG.COM

Questions