



ALASKA MOVING FORWARD:

ALASKA LNG PROJECT UPDATE

HOUSE RESOURCES COMMITTEE

JANUARY 23, 2017



www.agdc.us

- **AGDC History and Responsibilities**
- **Introduction of AGDC Board of Directors**
- **Alaska LNG Project Update**
- **AGDC Commercial Update**

AGDC HISTORY and RESPONSIBILITIES

2009: Legislature begins taking deliberate steps to develop an in-state pipeline, independent of other producer led North Slope commercialization efforts.



2011: **Alaska Stand Alone Pipeline (ASAP)** plan developed and delivered to the Legislature. Plan further optimized during 2012.



2013: **Alaska Gasline Development Corporation (AGDC)** established as an independent, public corporation - \$355+ million investment towards **ASAP (HB 4)**.



2014: State participation in **Alaska LNG** project authorized (*SB 138*), **Joint Venture Agreement** executed and Pre-Front End Engineering and Design (**Pre-FEED**) begins.



2017: AGDC progressing the Alaska Liquefied Natural Gas (LNG) Project.

AGDC Board of Directors



Dave Cruz
Chairman



Hugh S. Short
Vice-Chairman



Joey Merrick
Secretary-Treasurer



Heidi Drygas



Marc Luiken



David Wight



Warren Christian

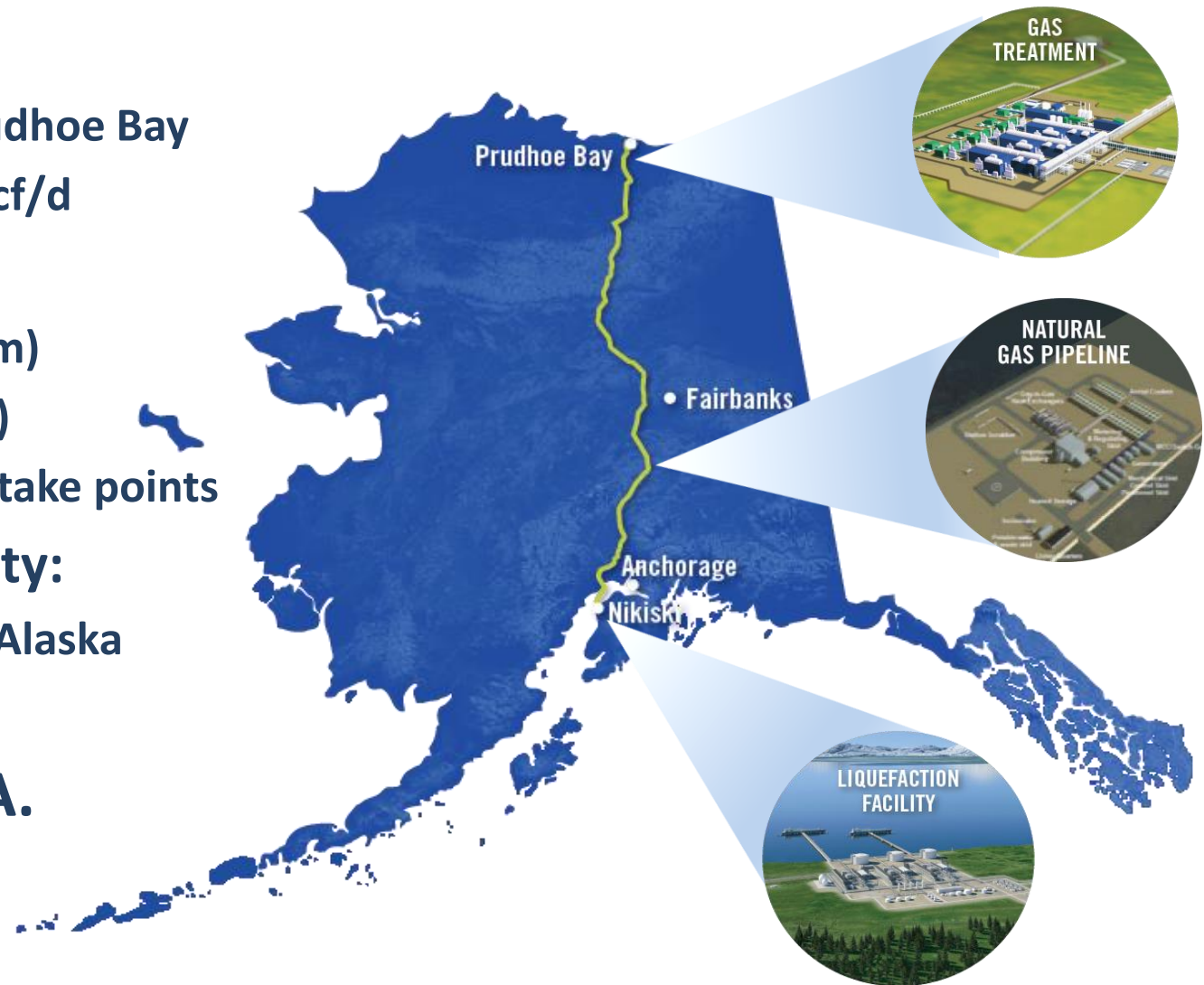
Alaska LNG Project Update

ALASKA LNG PROJECT

Integrated Gas Infrastructure Project:

- **Gas Treatment Plant:**
 - 200 acre site at Prudhoe Bay
 - Deliver up to 3.5 Bcf/d
- **Pipeline:**
 - 800-miles (1,287 km)
 - 42-inch pipe (1.1m)
 - Several in-state offtake points
- **LNG Production Facility:**
 - Located in Nikiski, Alaska
 - 600 acre site

Produce up to 20 MMTPA.



Bcf = Billion cubic feet MMTPA = Million Metric Tons Per Annum

ALASKA LNG PROJECT STATUS

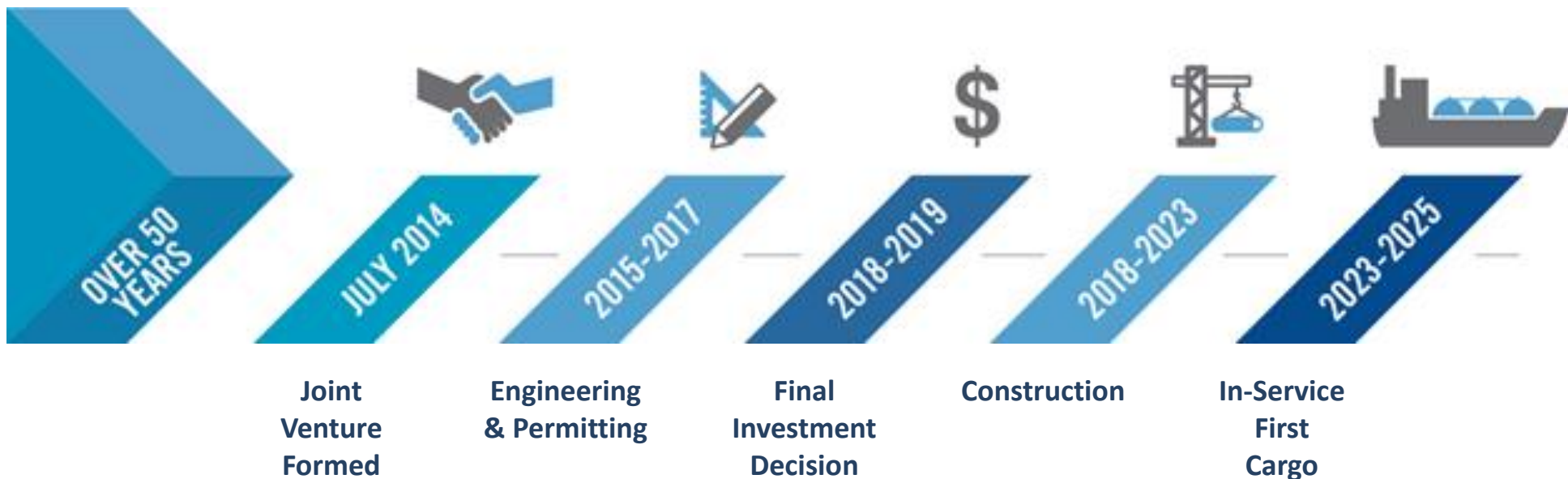


- Pre-Front-End Engineering & Design (Pre-FEED) is formally complete.
 - Pre-FEED Joint Venture Agreement (JVA) was terminated effective December 31, 2016.
- Deliverables are complete and were accepted by co-venture parties (AGDC, ExxonMobil, BP and ConocoPhillips).
- Transition to AGDC project complete and project data transferred to AGDC systems.
- Other co-venture parties have withdrawn but supporting AGDC taking the role of sole project applicant for the Federal Energy Regulatory Commission (FERC) filing.
- ~\$500M investment in data, engineering, designs, and plans.
 - Design is a 3-train Gas Treatment Plant, 42-inch diameter pipeline, and 3-train LNG Plant.
- AGDC has unrestricted rights to Alaska LNG data.

ALASKA LNG PROJECT STATUS

2017 Priorities:

- Progress the FERC Natural Gas Act (NGA) Section 3 application.
- Pursue alternatives to reduce cost of supply and align the project schedule with the market.
- Progress project priorities within current AGDC funding through calendar 2017.
- Engage potential customers and partners.



- FERC ensures the safe operation and reliability of LNG terminals in the U.S.
- FERC comprehensive siting process requires close collaboration between Federal, State, and local regulatory agencies.
- FERC review process ensures LNG terminals and associated LNG vessel traffic meet safety and environmental requirements during construction and operation.
- FERC is the lead federal agency that will prepare an Environmental Impact Statement (EIS) for the integrated Alaska LNG project.

Pre-Filing:

- Used to ensure project information will be acceptable to FERC.
- Draft Resource Reports are modified in response to agency comments.
- No set timeframe required.

Draft EIS:

- FERC reviews NGA Section 3 application.
- 3rd party contractor drafts EIS document.
- 18 months from application submittal.

6 months to Final EIS:

- 3rd party contractor drafts EIS document.
- FERC approves application and issues Record of Decision (ROD).
- 6 months from issuing the Draft EIS.



Draft FERC Resource Reports:

- Developed to identify environmental, technical, and economic factors contributing to potential environmental and social impacts.
- Used by FERC and other agencies for National Environmental Policy Act (NEPA) review and development of the EIS.

Revision 2 of Draft Resource Reports were submitted in 2016.

Draft Resource Reports 1-13 become Exhibit F of the NGA Section 3 Application.

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

FERC multi-agency review and comments returned to AGDC in January 2017:

- 2,943 individual FERC comments received to date.

3rd Party Contractor (ERM) funded by AGDC for continuity.

AGDC, as applicant, is responsible for responding to comments.

- Led by AGDC's internal Project Management Team.
- Contracting for external subject matter expertise as necessary.

FERC Comment Categories:

Editorial: Generally minor changes to Resource Reports.

Pre-FEED: Additional work to clarify Resource Reports.

FEED: Would require further data, studies, designs, or reports.

AGDC will engage with FERC through the Pre-Filing period:

- Anticipated schedule January-June 2017

The Natural Gas Act (NGA) Section 3 application to FERC ends the Pre-Filing period and allows FERC to initiate work on the Draft EIS.

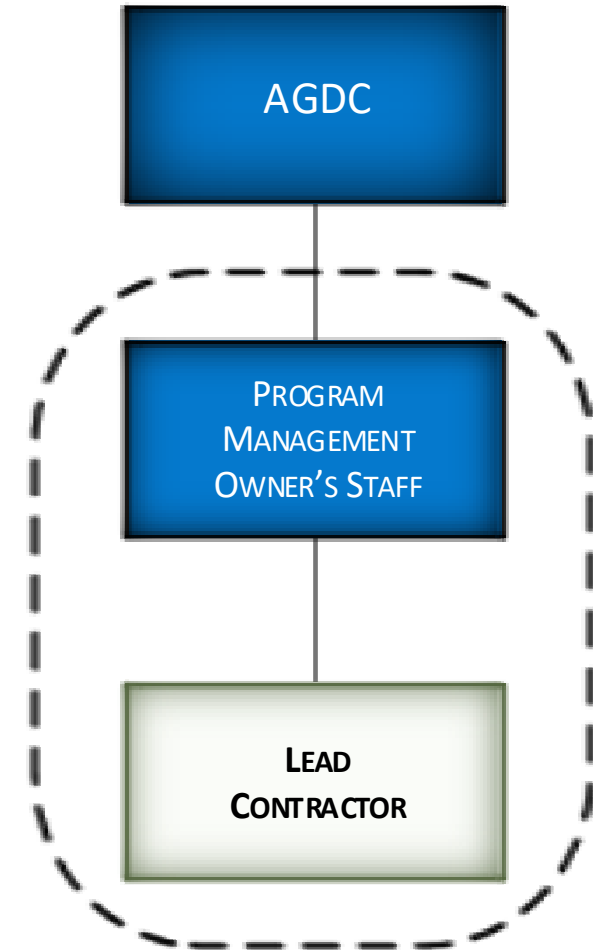
Targeting NGA Section 3 application to FERC Section 3 on June 30, 2017.

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

AGDC Project Management Team (PMT):

- AGDC staff provide owner's oversight.
- Lead Contractor provides bulk of resources in an integrated team.

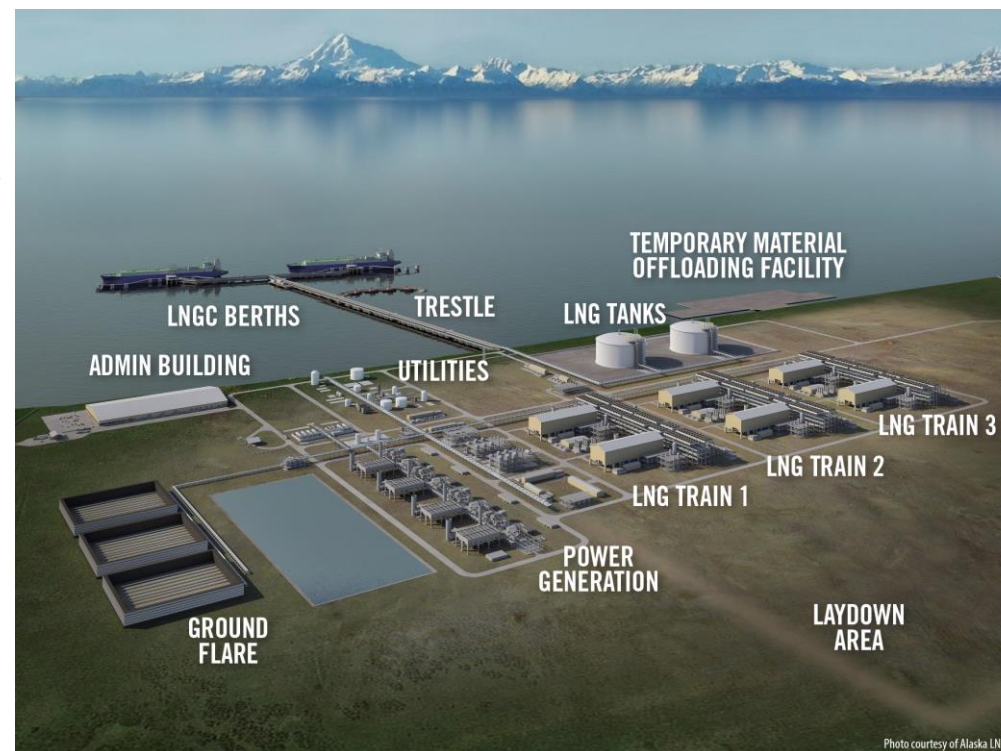
Project Management Team
(PMT)



PROJECT MANAGEMENT APPROACH

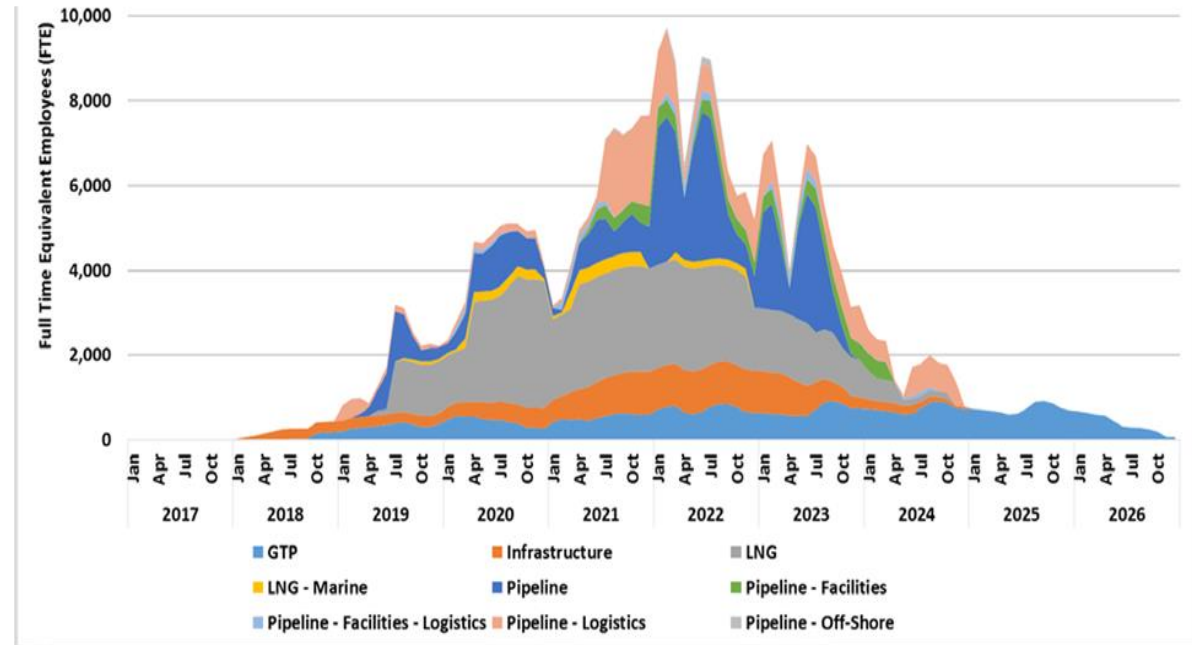
Strategic partnership with Lead Contractor:

- Support FERC NGA Section 3 application.
- Complete Class 3 and Class 2 cost estimates.
- Provide project management systems and controls.
- Manage engineering, procurement, and construction (EPC) contractors.
- Provide lump-sum, turn-key contract.
- Assign cost and schedule risk.



VALUE TO ALASKA

- Monetize North Slope gas.
- Provide gas to Alaskans.
- Generate thousands of engineering and construction jobs.
- Increased exploration and production contracting opportunities in Alaska.



ALASKA'S STRATEGIC ADVANTAGE

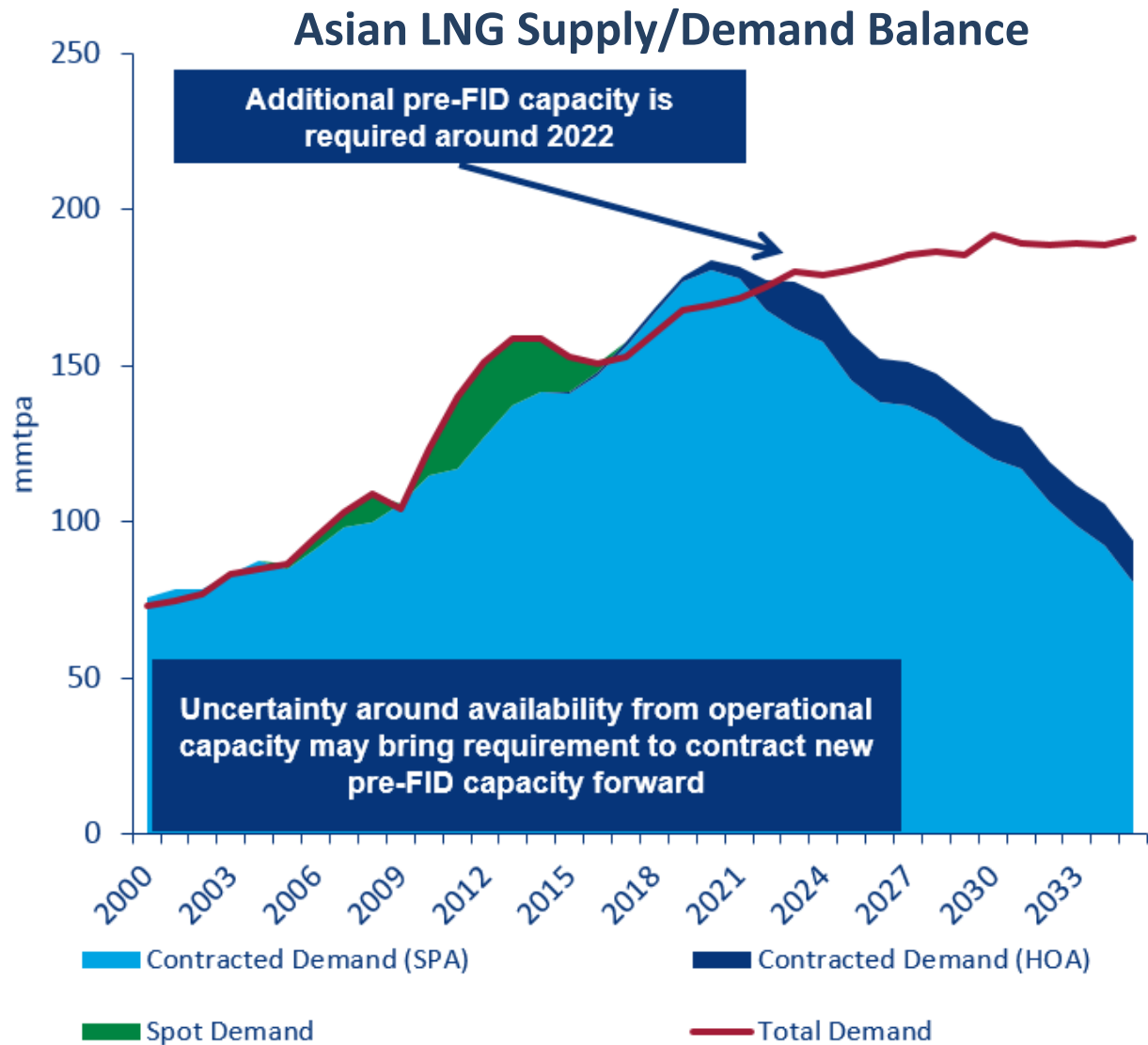
- Location advantage: 7 to 9 days to market.
- Temperature advantage: Cold temperature provides efficient LNG production.
- Political stability.
- Proven conventional resource.



A position in Alaska provides for optimized logistics

AGDC Commercial Update

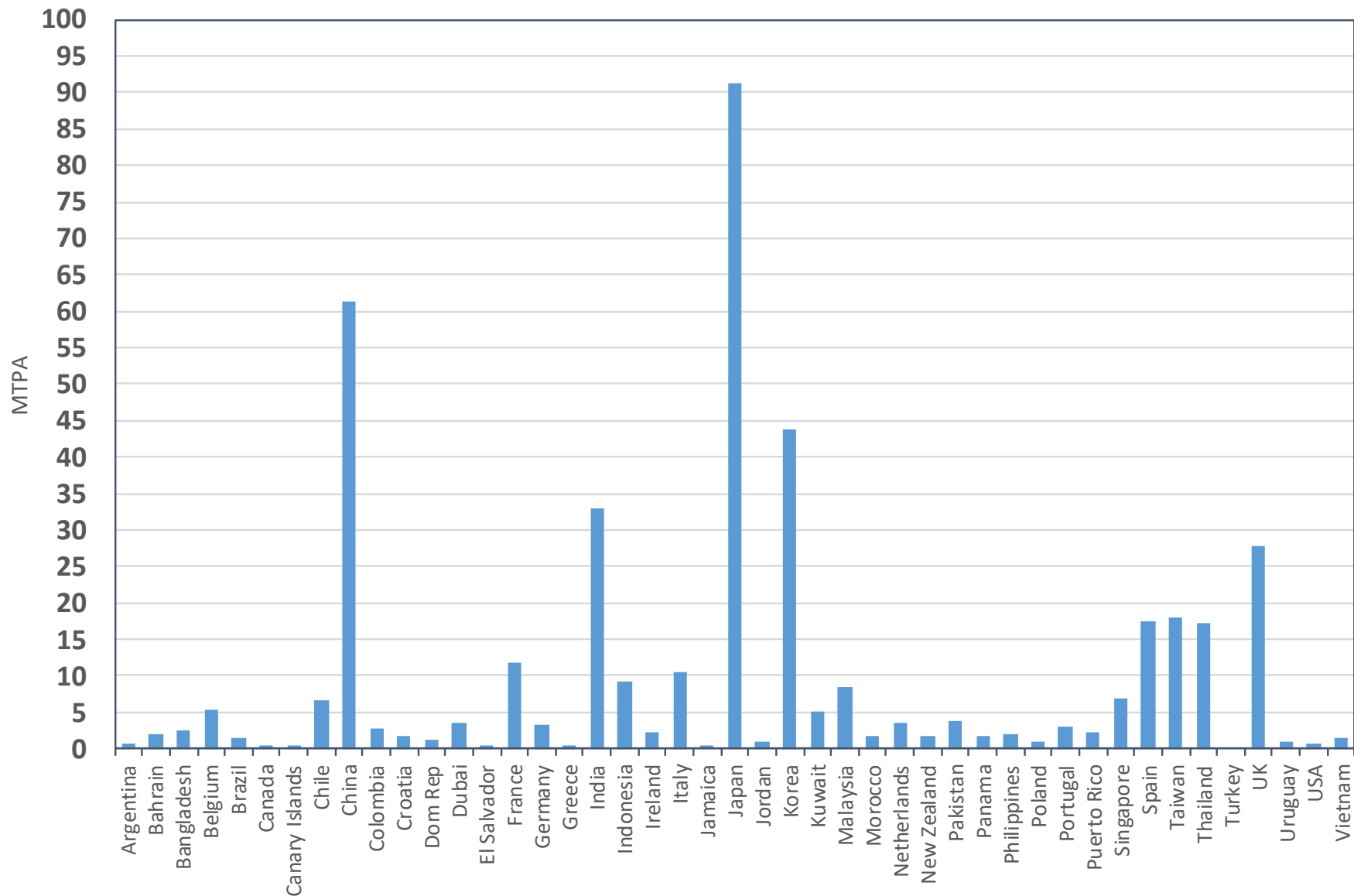
- Current global surplus.
- Equilibrium in early 2020's; new supply needed 2021-2025.
- Many supply projects chasing demand.
- Sellers must compete on more than just price.



Source: Wood Mackenzie

GLOBAL DEMAND

LNG Demand in 2025 by Country

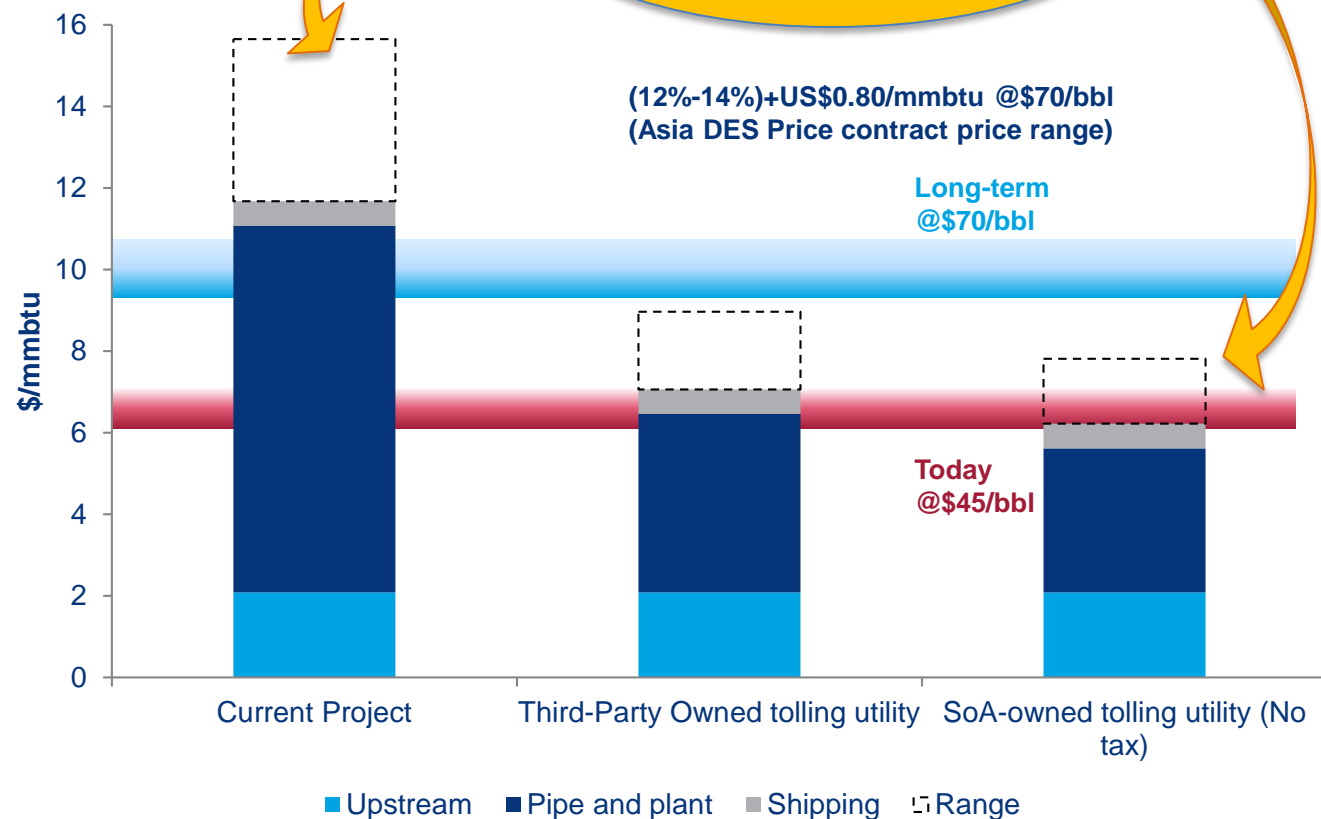


REDUCING THE COST OF SUPPLY

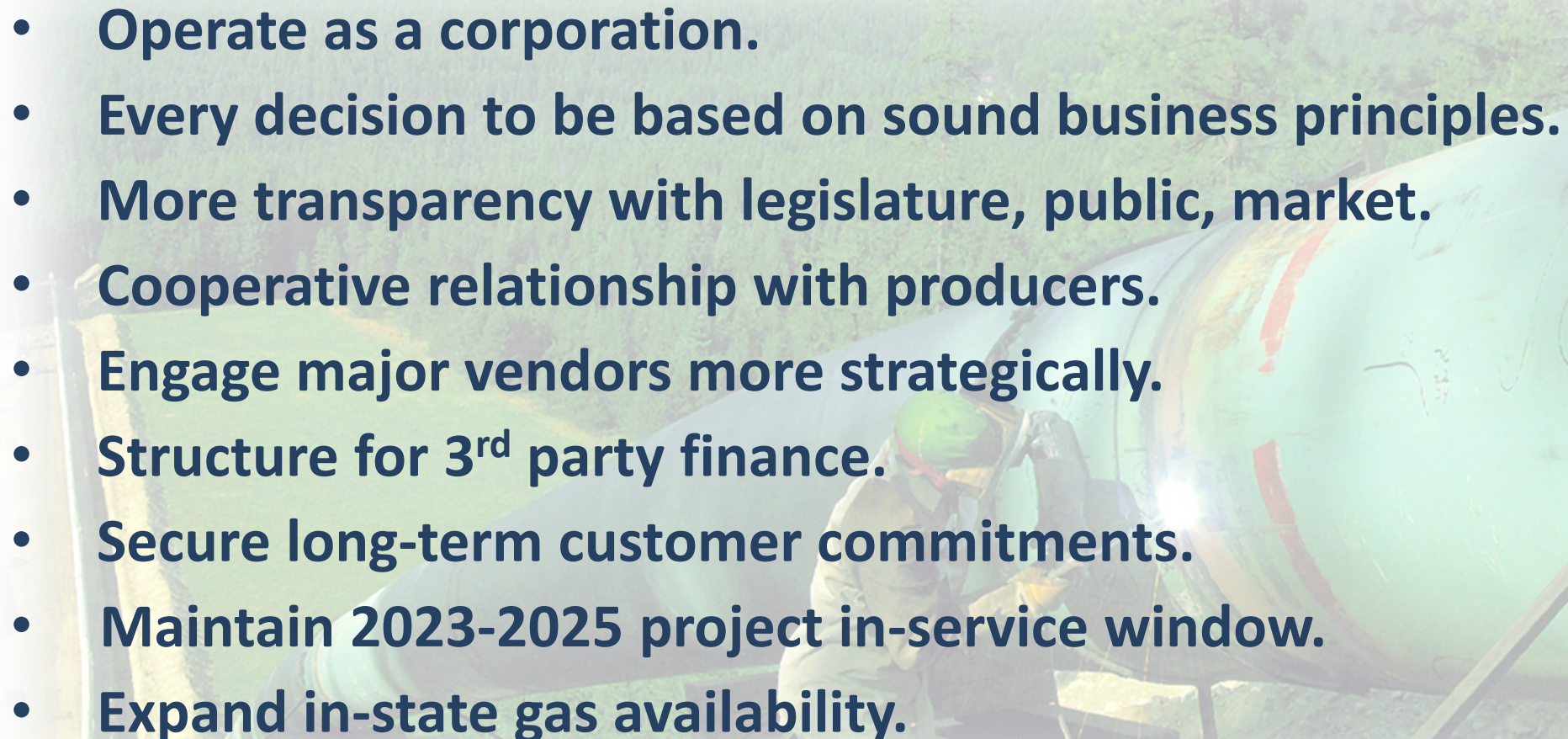
The introduction of State ownership

- Third party financing reduces cost.
- Tax exempt state ownership reduces cost of supply even further.

From here...
to there



OBJECTIVES AT AGDC

- 
- Operate as a corporation.
 - Every decision to be based on sound business principles.
 - More transparency with legislature, public, market.
 - Cooperative relationship with producers.
 - Engage major vendors more strategically.
 - Structure for 3rd party finance.
 - Secure long-term customer commitments.
 - Maintain 2023-2025 project in-service window.
 - Expand in-state gas availability.

2017 CORPORATE OVERVIEW

Three primary focus areas for 2017:

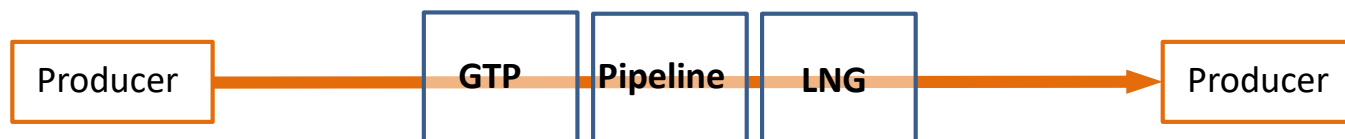
- **Commercial – Potential LNG and system customers actively engaged.**
 - Implement market intelligence strategy.
 - Open Houston and Tokyo satellite offices.
 - Complete land and export license agreements.
 - Augment contract staff in the commercial and finance arenas.
 - Secure conditional tolling and/or wellhead and offtake commitments.
 - Alaska LNG Summit.
- **Financial – Investment banker engaged for structured finance; EPC contractor.**
 - Secure financial advisor.
 - Commence investor presentations.
 - Complete project financing plan.
- **Regulatory – FERC filing**
 - Project website.
 - File FERC NGA Section 3 application.



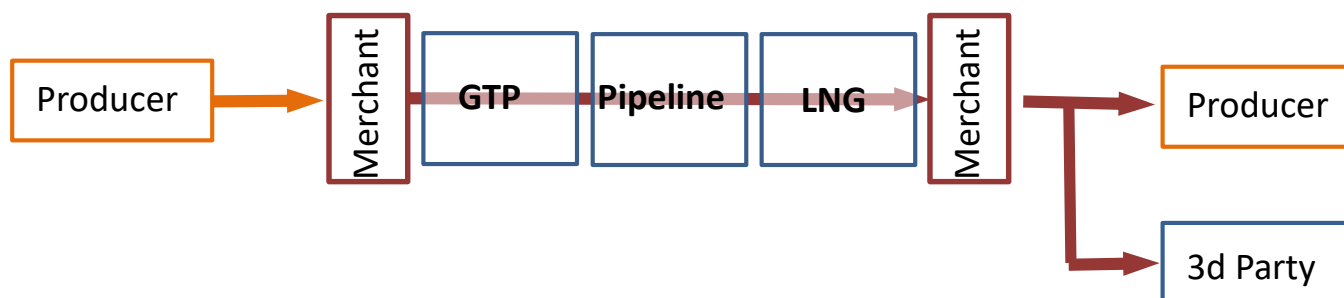
- **Primary objective is to secure tolling agreements sufficient to underpin financing.**
- **Tolling structure is the basic commercial structure whereby customers contract for capacity on the segment components.**
 - **Most common system in the US gas pipeline arena.**
 - **Used for the majority of US LNG import and export capacity.**
 - **Well understood and accepted by financial community.**
- **Tolling customer contracts underpin low cost project financing and reduce owner risk.**

THREE BASIC SERVICE MODELS

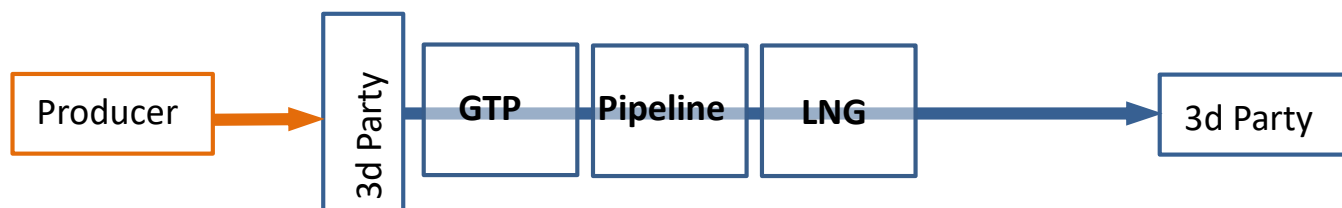
Producer as Toller



Merchant as Toller



Third Party as Toller



The integrated pipeline and LNG project will provide multiple opportunities for stable infrastructure investment.

State led project opens the doors for diverse third party investors:

- Sovereign wealth funds
- Infrastructure funds
- Regional corporations
- Other interested parties



The Alaska LNG project is Alaska's project; it will be structured to be an attractive investment, and will welcome Alaskan investors.

HOUSTON-BASED LNG TEAM



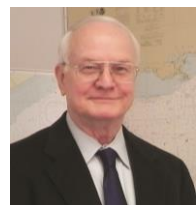
John Godbold: Over 20-years energy industry experience including El Paso Energy, Enron and as President and/or COO of various LNG development companies, specializing in early-stage project development strategy implementation for onshore and offshore LNG import and export facilities, commercial and technical contract negotiations, and regulatory permitting.



Ian Salmon: Over 20-years energy industry experience including multiple LNG projects (Bear Head LNG, Pangaea LNG, and several Qatar trains), specializing in project-finance structuring and commercial negotiations, Chinese speaker knowledgeable in commercial communications with Chinese and other Asian LNG markets.



John Hattenberger: Over 39-years experience in the global LNG and natural gas businesses, including Gazprom, BP, El Paso, Marathon, and the Government of Oman. Mr. Hattenberger specializes in commercial negotiations, marketing and trading, new business development, advises global clients regarding marketing, structuring, drafting, negotiating and closing commercial agreements for LNG projects in all global markets.



Terry Mitchell: Over 35-years' energy industry experience, including Amoco (BP), and independent power developers Calpine and Shell-Bechtel venture InterGen, specializing in energy-project infrastructure development, gas supply and transportation contracting, energy-market analyses, natural gas asset optimization, gas-portfolio strategic planning and LNG-project development and marketing.



Chip Schuppert: Over 30-years energy industry experience in the upstream and mid-stream sectors of the oil and gas industry with ConocoPhillips, specializing in LNG project development, negotiation of LNG Sale and Purchase agreements and commercial optimization, facilitating LNG customer relationships, development and alignment of project co-venturers, and navigation of host government regulatory processes.

TOKYO, JAPAN OFFICE



Masatoshi (Nick) Shiratori: Over 37-years of experience in the oil and gas industry. Mr. Shiratori has worldwide knowledge of LNG commerce including trading business as well as shipping aspect as an Executive Vice President at the Mitsubishi Corporation Headquarters. He advises on the marketing and networking in Japan for AGDC projects. He is native speaking Japanese and fluent in English.

AGDC LEADERSHIP OF AKLNG PROJECT



- AGDC leadership of the Alaska LNG project makes it more competitive.
- AGDC will advance the Alaska LNG project in 2017 and beyond.
- AGDC is governed by a Board of Directors, and staffed with employees and contractors who have the experience and expertise to advance the commercial, financial and regulatory priorities.
- AGDC works, communicates and collaborates with State partners – DNR, DOR and DOL.
- AGDC will communicate often with legislature and the public as we advance the project.

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