

**01/23/2017**  
**Presentation:**  
**Alaska LNG**  
**Project Update**

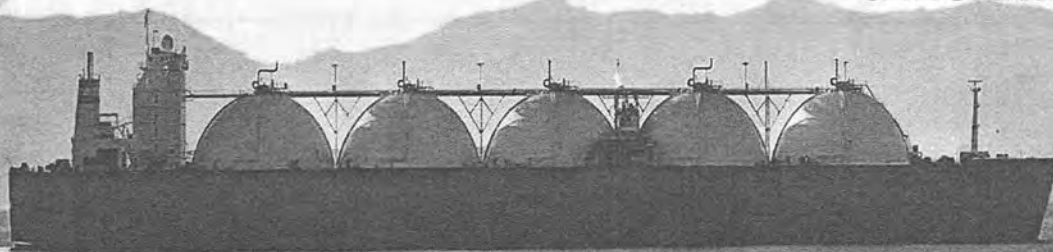
<TARGET><BILL></BILL><SUBJECT>01-23-2017 Presentation  
Alaska LNG Project  
Update</SUBJECT><COMM>SRES30</COMM></TARGET>



# **ALASKA MOVING FORWARD: *ALASKA LNG PROJECT UPDATE***

***SENATE RESOURCES COMMITTEE***

**JANUARY 23, 2017**



**[www.agdc.us](http://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.

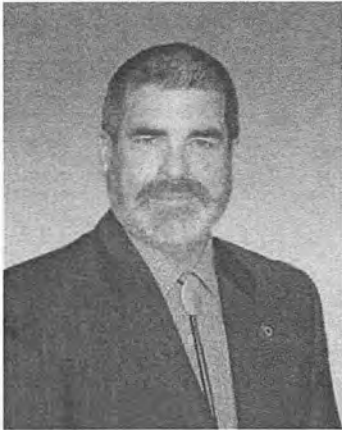
**2013:** **Alaska Gasline Development Corporation (AGDC)** established as an independent, public corporation - \$355+ million investment towards **ASAP (HB 4)**.

**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 is Alaska's natural gas infrastructure development company.*

# AGDC Board of Directors



**Dave Cruz**  
Chairman



**Hugh S. Short**  
Vice-Chairman



**Joey Merrick**  
Secretary-Treasurer



**Heidi Drygas**



**Marc Luiken**



**David Wight**



**Warren Christian**

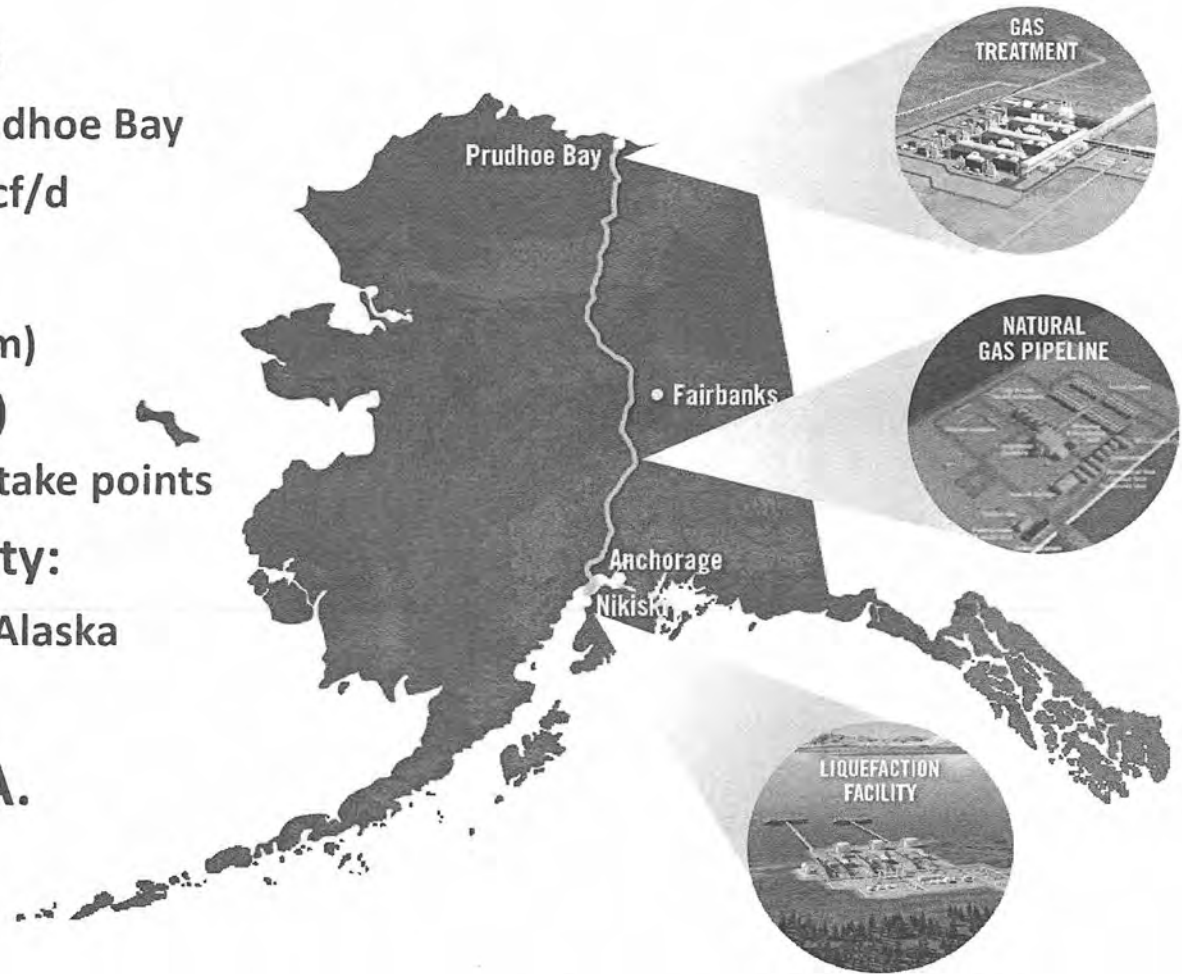
*AGDC is Alaska's natural gas infrastructure development company.*

# Alaska LNG Project Update

## 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

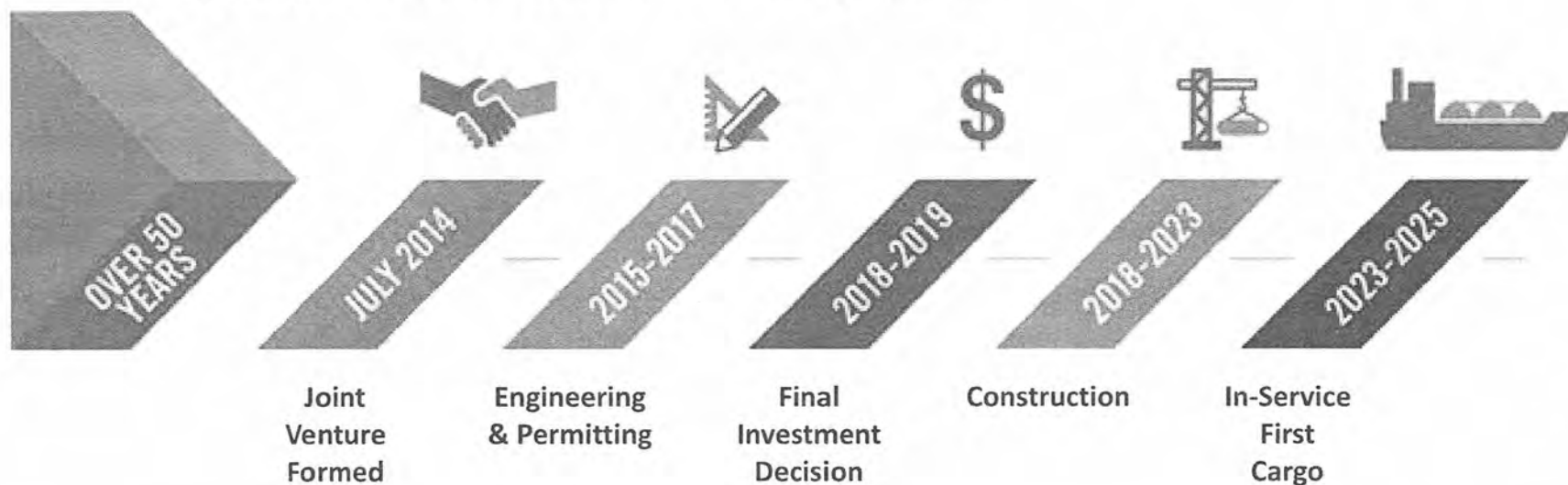
# ALASKA LNG PROJECT STATUS

- **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.
- 3<sup>rd</sup> party contractor drafts EIS document.
- 18 months from application submittal.

## 6 months to Final EIS:

- 3<sup>rd</sup> 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.**

**3<sup>rd</sup> 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.**

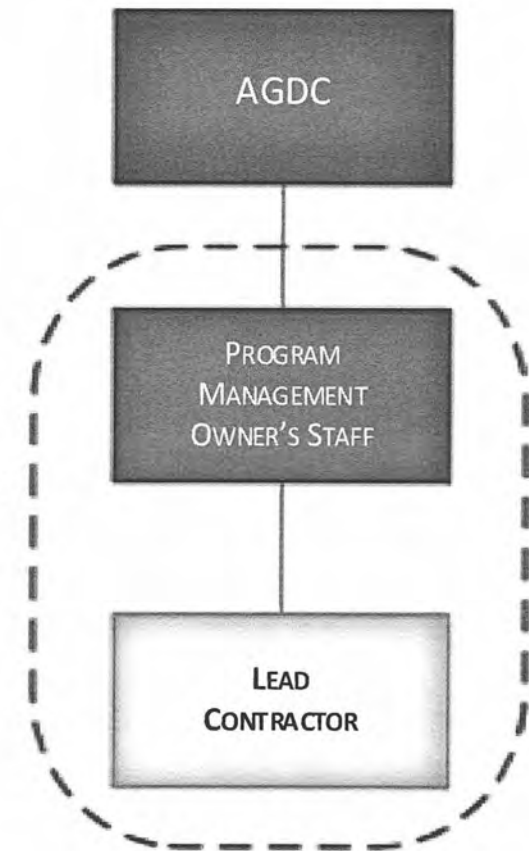
**Targeting NGA Section 3 application to FERC Section 3 on June 30, 2017.**

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

## AGDC Project Management Team (PMT):

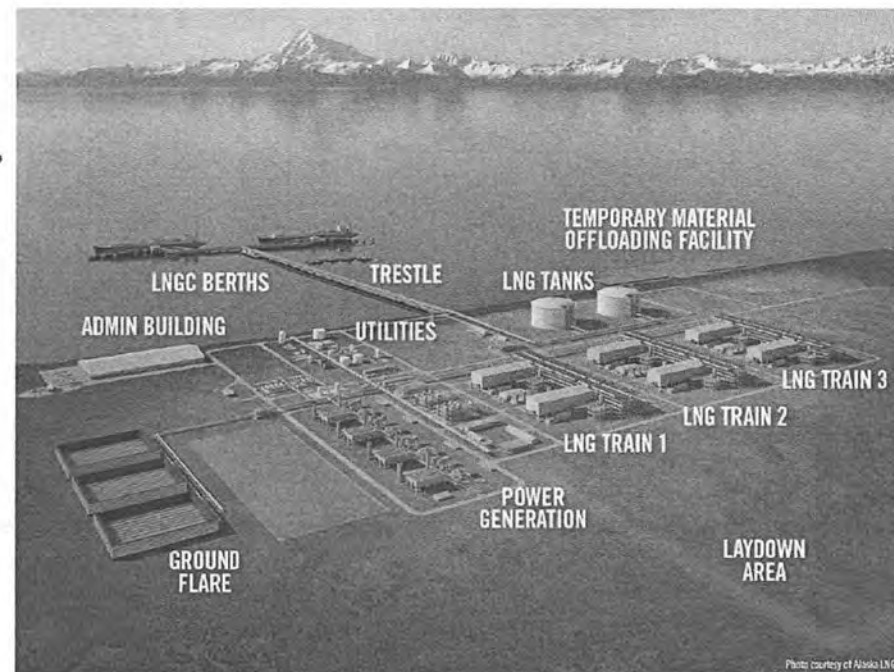
- AGDC staff provide owner's oversight.
- Lead Contractor provides bulk of resources in an integrated team.

Project Management Team  
(PMT)

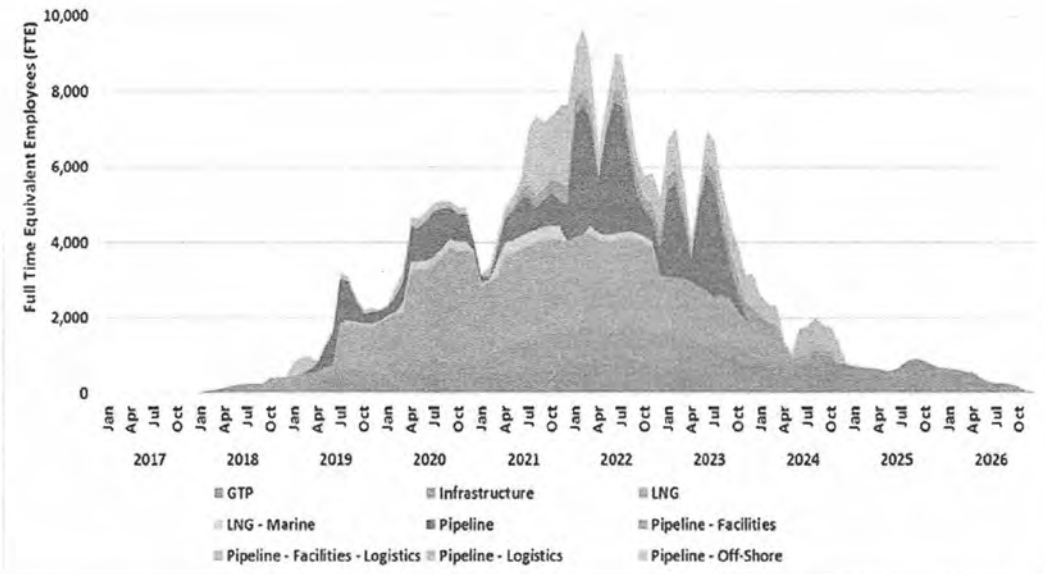


## Strategic partnership with Lead Contractor:

- 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.



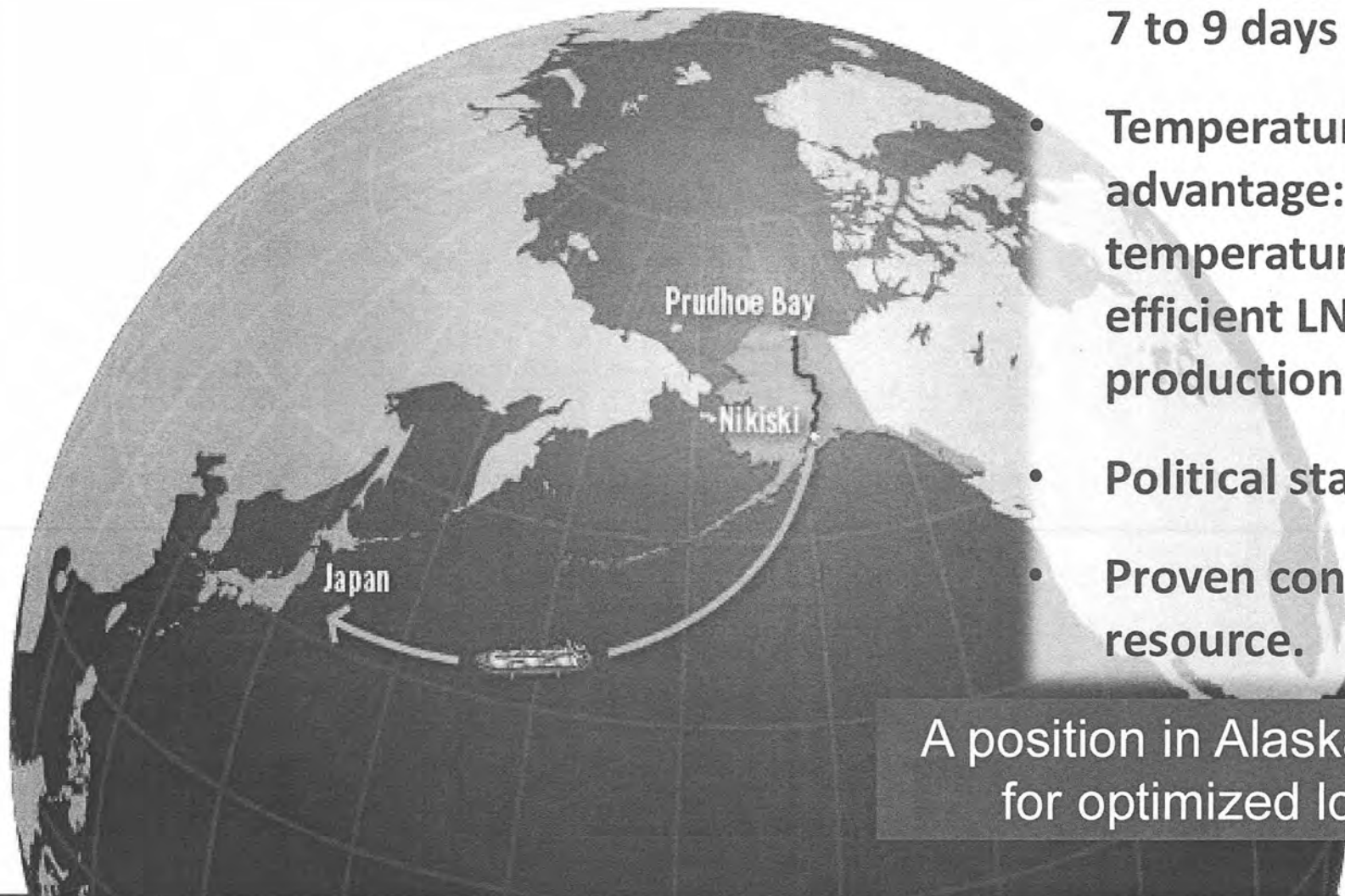
- Monetize North Slope gas.
- Provide gas to Alaskans.
- Generate thousands of engineering and construction jobs.
- Increased exploration and production contracting opportunities in Alaska.



# 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.

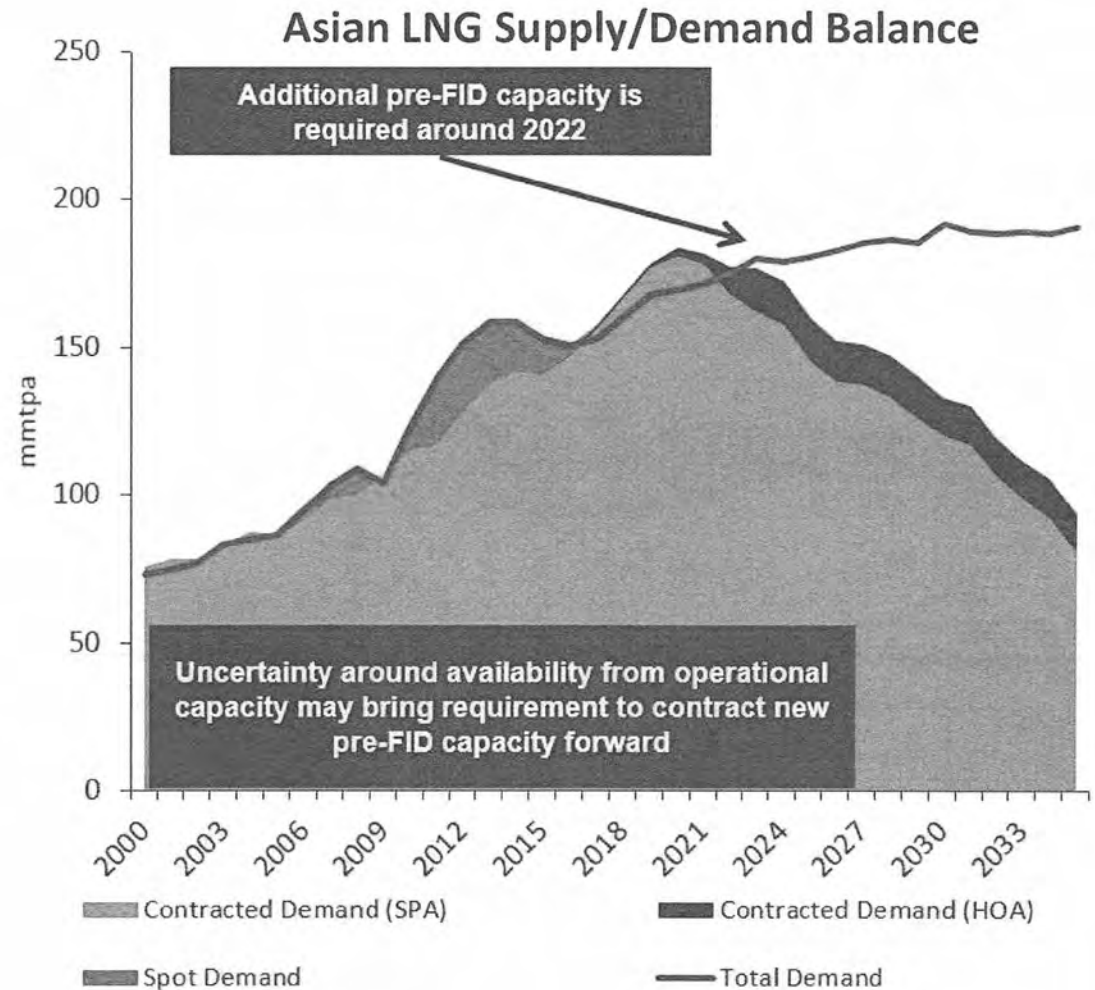


A position in Alaska provides for optimized logistics

*AGDC is Alaska's natural gas infrastructure development company.*

# AGDC Commercial Update

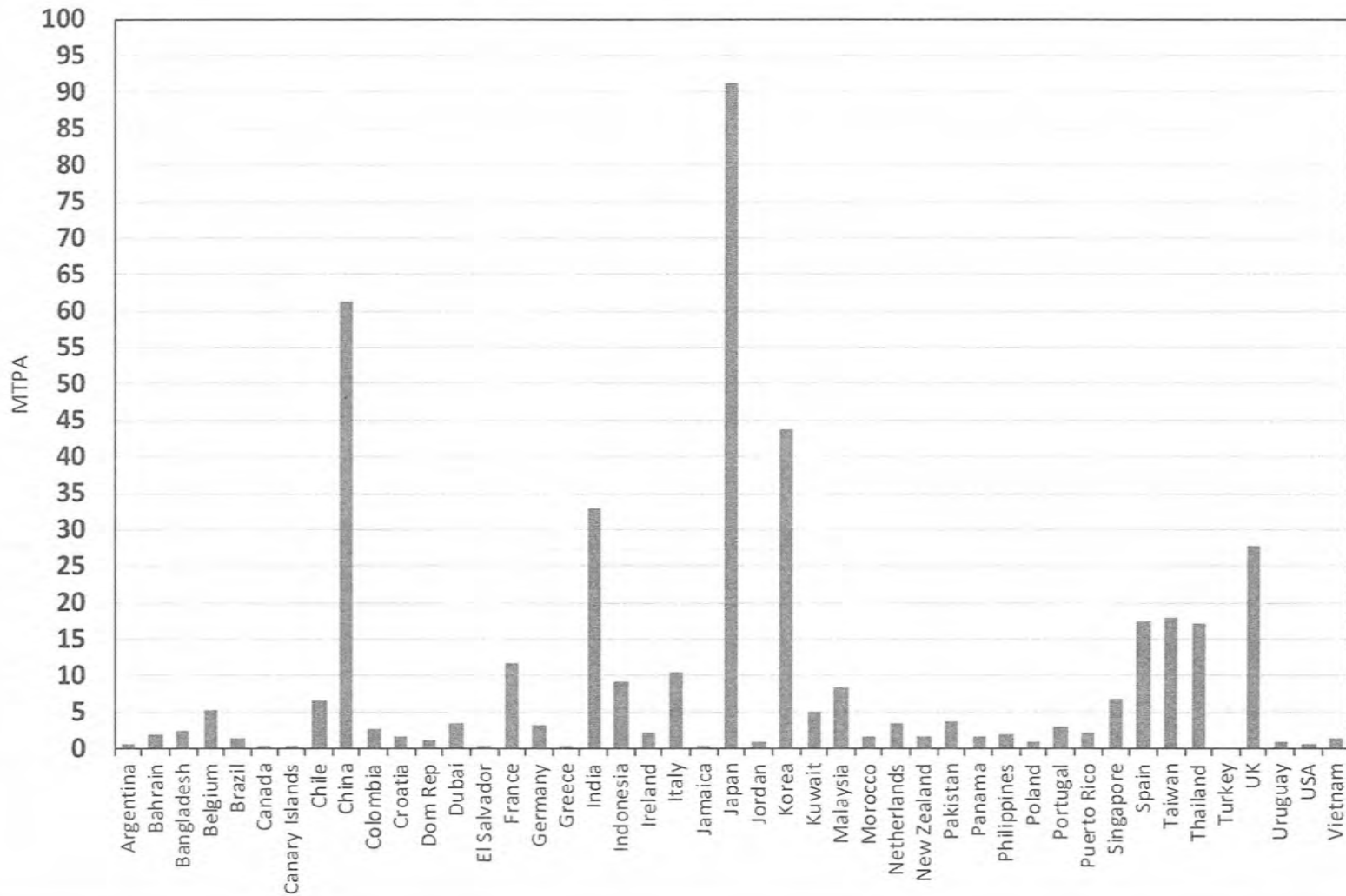
- Current global surplus.
- Equilibrium in early 2020's; new supply needed 2021-2025.
- Many supply projects chasing demand.
- Sellers must compete on more than just price.



Source: Wood Mackenzie

# GLOBAL DEMAND

LNG Demand in 2025 by Country

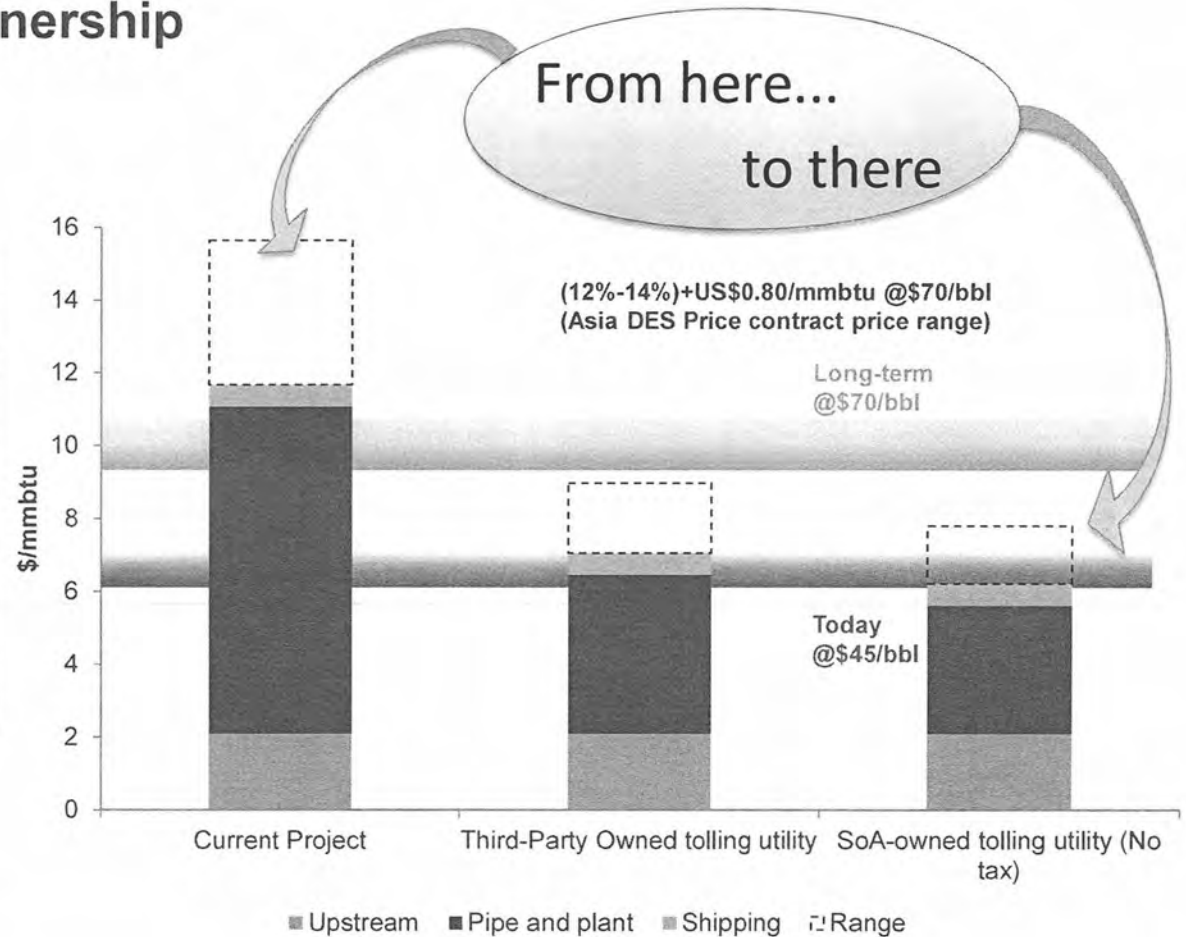


AGDC is Alaska's natural gas infrastructure development company.

# 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.



# 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 3<sup>rd</sup> party finance.
- Secure long-term customer commitments.
- Maintain 2023-2025 project in-service window.
- Expand in-state gas availability.

## Three primary focus areas for 2017:

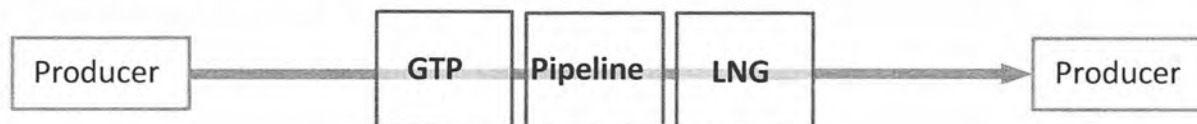
- **Commercial – Potential LNG and system customers actively engaged.**
  - Implement market intelligence strategy.
  - Open Houston and Tokyo satellite offices.
  - Complete land and export license agreements.
  - Augment contract staff in the commercial and finance arenas.
  - Secure conditional tolling 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.



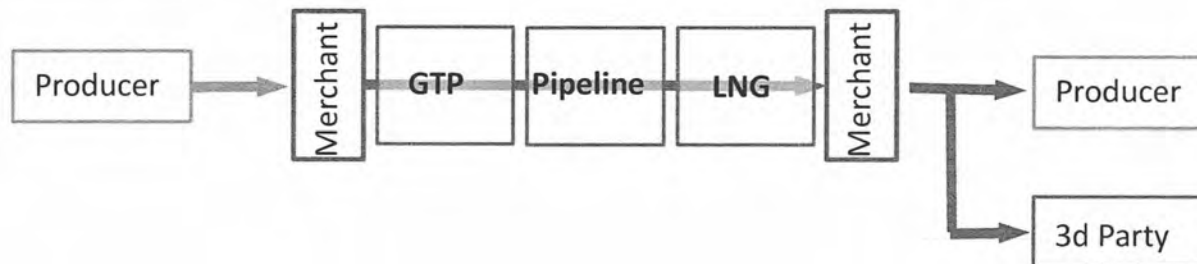
- **Primary objective is to secure tolling agreements sufficient to underpin financing.**
- **Tolling structure is the basic commercial structure whereby customers contract for capacity on the segment components.**
  - **Most common system in the US gas pipeline arena.**
  - **Used for the majority of 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

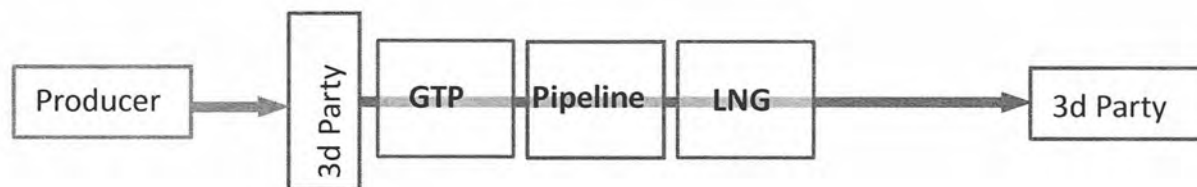
## Producer as Toller



## 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.**

Alaska Gasline Development Corporation  
3201 C Street, Suite 200  
Anchorage, Alaska 99503  
(907) 330-6300  
[www.agdc.us](http://www.agdc.us)

## AK LNG: A REVIEW (2014—2016)

January 2017

Point of departure

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1 Point of departure

1 Where are we now?

2 What comes next?

4 What can we learn from  
2014–2016?

Author

Nikos Tsafos is President  
of analytica.

As 2017 begins, the story of commercializing North Slope gas enters a new phase. For all intents and purposes, the most recent iteration has ended—the project outlined in March 2012 and that ultimately envisioned a liquefied natural gas (LNG) project in south-central Alaska co-owned by ExxonMobil, BP, ConocoPhillips and the State of Alaska. We have a new concept. Analytica has been a consultant to the Legislature since 2014 (and its principals have been involved in Alaska since earlier); based on that experience, this report tackles three questions:

1. Where are we now?
2. What comes next?
3. What can we learn from 2014–2016?

Where are we now?

By year-end 2016, the State of Alaska was in the process of “taking over” the Alaska LNG (AK LNG) project, meaning that the state would become the project lead, and the three producers would no longer be the project’s co-sponsors. How did we get here? The answer depends on who one asks—but the following are beyond dispute:

**First, the market changed.** In March 2012, when the three producers outlined a new concept to then Governor Sean Parnell, Brent was \$125 and had traded above \$100 for over a year. Moreover, higher-cost LNG was the norm: in late 2009, the Gorgon LNG in Australia had reached final investment decision, and its cost, at \$45 billion, was similar to what was envisioned for AK LNG (for a similarly sized project). The market seemed ready for an expensive development such as AK LNG.

In contrast, Brent averaged \$48 and has traded between \$26 and \$66 in 2015–2016. In LNG, the market has shifted from expensive projects in Australia to cheaper ones in the Lower 48, where the midstream portions of LNG projects are often half those of AK LNG. In that world, AK LNG will struggle, no matter its other assets (known resource base, proximity to market, etc.).

**Second, the costs of AK LNG have not come down.** From the beginning, the costs of AK LNG have been pegged at “between \$45 and \$65 billion,” and the project sponsors have tried to narrow this band and even push the cost beyond the lower boundary. Today, the cost is closer to \$45 billion—which is an improvement, but not enough.

**Third, the sponsors were hesitant to move forward.** The producers were not ready to authorize the next stage in the project’s development: the front-end engineering

and design (FEED) phase, which would have entailed a more substantive investment and for a longer period (2-3 years).

In short, AK LNG had reached a roadblock as we entered 2016. Different parties have different views on what could have and should have been done. To understand how we landed on the current path, two things are worth remembering.

**First, the three producers are not unified.** They share interests, of course, but they negotiate with each other as often as they negotiate with the state. As such, they have different approaches and priorities (in turn, those depend on internal deliberations before they become “company policy”). When an obstacle emerges, the producers are likely to see different solutions.

**Second, AK LNG has competed with a state-led project.** It is unfair, of course, to focus solely on the administration’s position to explain why we have reached the current path—the administration negotiated extensively over AK LNG, and many of the unresolved issues do not even involve the state (e.g. how to balance gas from Prudhoe Bay and Point Thomson to create a unified gas stream).

But since 2015, it has been rather clear that if the producers do not progress the project at a timetable acceptable to the state, the state will take it over. In early 2015, this discussion manifested itself in the form of a “Plan B.” In late 2015, there was a threat of a gas reserves tax unless the producers agreed to withdrawal terms, whereby they would make their gas available to a state-led project. In 2016, it was the approval of the plan of development for Prudhoe Bay that was caught up in the argument over gas commercialization. AK LNG has faced intense competition over the past two years.

In short: the market changed; the costs of AK LNG fell but not enough; the producers were not ready to sanction FEED; the challenging environment weakened the resolve and cohesion of the parties; and the state made it clear that delay was not an option and only a transition to a state-led project would be satisfactory. And so, the state is now taking over AK LNG.

#### Where comes next?

The odds of success for a state-led project, as currently envisioned, are low.<sup>1</sup> There are three reasons for this.

**First, the market environment remains difficult.** The price of oil and gas, the costs to construct AK LNG, and the intense competition that AK LNG faces from other projects—none of these have changed just because the state took over the project.

**Second, the project concept put forth by the state is untested.** The case for state leadership rests on the state being able to accomplish most of these objectives:

- (a) Buy the gas from the producers at a commercially reasonable price;
- (b) Find buyers for that gas also at a commercially reasonable price;
- (c) Ensure that the spread between those prices compensates for the risk taken;
- (d) Secure long-term transportation agreements for the state-owned infrastructure;
- (e) Find investors who have capital and will accept lower returns than the producers;

<sup>1</sup> For more: analytica, “Commentary on AK LNG June 2016 update,” July 2016 ([link](#)); analytica, “Pros and Cons of a State-Led Project, August 2016 (link to [report](#) and [PPT presentation](#)).

- (f) Accept itself a lower return than other investors desire for similar projects;
- (g) Secure attractive third-party financing and borrow heavily to cover project costs;
- (h) Insulate the state from cost overruns (without paying a huge surcharge);
- (i) Avoid paying taxes to the federal government;
- (j) Retain control so that no party other than the state can veto the project's progress;
- (k) Avoid any delays to the project.

This wish list is, at best, far fetched, especially if one surveys other LNG projects. The only possible analogs could be the projects developed in the Lower 48. But Alaska is no Lower 48, where there is a liquid market for sourcing gas, where construction and permitting are relatively simpler, and where projects have a clear cost advantage. Just because it works for the Lower 48 does not mean it will work for Alaska.

**Third, the game-plan is unclear.** The end-goal, described above, may be far fetched, but it is clear. What is less clear is the “why” or the “how.” The first allusions to “Plan B” as a state-led project emerged in early 2015; by mid to late 2016, it was obvious that the project was moving in this direction. Yet we know little more about the details than we did in early 2015. The AK LNG structure was based on extensive research, analysis and deliberation—with the pros and cons of various pathways explained and debated. In contrast, the present path is outlined only in the broadest terms, and using analogs, as discussed above, that do not pass muster.

In short: the state has taken over a difficult project; it has proposed a series of steps that could, in theory, advance the project but which are, in practice, unlikely; and it has offered little by way of evidence to explain why its proposed path will succeed.

Where does this leave the project? The worst outcome is this: the progress made so far in the regulatory process stalls, and the state spends months (or years) and tens (or hundreds) of million of dollars to conclude that the assumptions made to justify the “state-led” project were wrong (especially since these assumptions look implausible to begin with).

**Progress from here on can be measured simply:** is the regulatory process moving forward as planned; and is the state, through the Alaska Gasline Development Corporation (AGDC) that is leading the new approach, testing the assumptions that underpin the state-led project?

**For the regulatory process,** the metrics are clear: are reports being filed with the Federal Energy Regulatory Commission (FERC); are issues addressed thoroughly; is there a continued engagement with all the relevant stakeholders; is the timetable for securing permits on track; and so on.

**For process of advancing the new structure,** the metrics are different. To begin with, there is a need for robust evidence and studies to back up the state's preferred path—for example, is there proof that pension funds invest in liquefaction projects and will accept lower returns than the producers; is it typical for governance terms to not include veto rights for parties; what premium do contractors charge for accepting cost risk during construction; and so on. This body of work will help inform which aspects of the proposed path are more likely, and hence delineate what success looks like.

Besides meticulous study, the state would also need to lay out some clear metrics and a timetable for making a go-ahead/stop decision. In any project, it is easy to have good meetings that last years but lead nowhere. Meetings do not mean progress. Progress means money secured, gas bought or sold, capacity reserved for the infrastructure, contractors signed up—and all done in detailed and, ideally, binding, term sheets. Otherwise, this process may never succeed but never fail either.

#### What can we learn from 2014–2016?

AK LNG was designed to avoid the pitfalls that plagued past efforts. In part, it worked, making more progress towards developing North Slope gas than any project before it. But AK LNG, and any effort to commercialize North Slope gas, will need to overcome three core weaknesses.

**First, North Slope gas will need all the stars to align.** Any project to commercialize North Slope gas will be very expensive; as such, success will depend on serendipity. Four stars need to align:

- (a) The market must “need” this gas;
- (b) The parties must have settled on one development concept (is it pipeline or LNG; a big project or a small one; this route or that; etc.);
- (c) The parties must have settled on one project structure (who owns what; how are the pieces connected; etc.);
- (d) The parties must be willing to make concessions to each other—no one wins 100% but all prefer the end result to no deal at all.

In some ways, the stars had aligned with SB 138—although they did not stay aligned long enough for the project to enter FEED (for reasons discussed above). Throughout history, when one star has misaligned, the whole process has fallen into disarray. If the market turns, there are voices which say that the pipeline should become LNG or the LNG should become a pipeline; or that the project should be increased in scale; or that it should be made smaller; or that it needs to take a new route; or that the state should limit its role; or that the state should take it over; and so on. This is a fragile system—hit any roadblock, the whole system falls apart. It is very hard to succeed as long as this remains the case. Some fundamental building blocks are necessary.

**Second, the “gasline consensus” needs to deepen.** Most Alaskans really want this gas to be developed. Yet “gasline” means different things to people; there are some who believe that the project is economic and that the producers just refuse to develop it unless they extract concessions from the state; others see it as a difficult project that will require concessions in order to materialize; others still think it will never happen.

This discord makes it difficult to translate an “agreement in theory” to an “agreement in practice.” For instance, even in this iteration, there was little progress in finalizing an agreement on property taxes or on fiscal stability. Without agreement on fundamental trade-offs that the state might be called to make, it will be difficult to settle on a plan that receives widespread and deep support.

**Third, the state must lead—but can only do when it has its house in order.** There are too many parties, too many sources of contention, and too many complexities in order for the negotiations to naturally produce a settlement. No party can win but all parties have a veto. The state is indispensable—it wields the biggest veto, it has the

most leverage and the broadest toolkit, and it can mediate disagreements between the producers. But the state cannot achieve all it wants—it can nudge the parties, but it cannot wish away the complexity or even go it alone.

But to lead, the state needs to have its own house in order. In all gasoline negotiations, the state is represented by multiple (often contrasting) voices. Managing this “in-house” complexity is always difficult, but it is made more so by staff turnover or power struggles. This is not a unique problem to this iteration, nor is it a problem solely for the state. But in a project where all stars need to align, and where the consensus for the “gasline” is often shallow, these disputes can have compounding effects on the project’s odds of success.

In short: all the stars need to align for North Slope gas to be developed; but when they do, the state needs to be ready by knowing exactly what it wants and have a team in place that is able to lead the parties to a successful conclusion. It is hard to see success in any other way.

## COOPERATION AGREEMENT

### 2017 REGULATORY, COMMERCIAL, AND FINANCING WORK FOR ALASKA LNG PROJECT

This Cooperation Agreement ("Agreement") is entered into as of the 15<sup>th</sup> day January 2017 ("Effective Date") between BP Alaska LNG LLC ("BPALL") and the Alaska Gasline Development Corporation ("AGDC").

#### Recitals

1. AGDC plans to perform certain work and activities to progress the Project in 2017.
2. BPALL desires to provide commercial and regulatory support for AGDC's activities.
3. The Parties desire to cooperate on regulatory, commercial, and financing work, as described below under Article 1.

The Parties agree as follows:

#### 1. SCOPE OF WORK

##### 1.1. Regulatory

- 1.1.1. Subject to internal management and other approvals and necessary funding, AGDC shall prepare an NGA Section 3 application consistent with the policy FERC adopted in its Hackberry LNG Terminal order (101 FERC ¶ 61,294 (2002)).
- 1.1.2. Subject to internal management and other approvals and necessary funding, AGDC shall lead the regulatory process and maintain the FERC Docket for the Project including submitting required FERC documents.
- 1.1.3. BPALL shall provide commercial and regulatory support to AGDC in support of Article 1.1.1. and 1.1.2.

##### 1.2. Commercial and Financing

- 1.2.1. BPALL and AGDC shall work together to identify a commercial structure and financing strategy for the Project as described in Appendix 1 and 2.

#### 2. COST SHARING AND COMPANY RESOURCES

- 2.1. The Parties may agree to hire third-party contractors or consultants to support the work. The Parties shall determine how third-party contractor or consultants costs will be allocated between them for all regulatory, commercial, and financing activities under this Agreement.

#### 3. TERM AND TERMINATION

- 3.1. This Agreement begins on the Effective Date and will terminate on December 31, 2017.
- 3.2. A Party may terminate this Agreement after July 1, 2017, by giving 30 days' advance Notice to the other Party.
- 3.3. BPALL may terminate this Agreement by giving Notice to AGDC if:
  - (a) AGDC submits a FERC application for the Project other than as per Article 1.1.1 above; or
  - (b) AGDC enters into a Project FEED Agreement before December 31, 2017; or
  - (c) BP or its Affiliate is or becomes subject to a gas reserves ad valorem tax.

**4. ASSIGNMENT**

4.1. A Party may assign this Agreement to an Affiliate, if:

- (a) the assignor remains liable for performance under this Agreement if its assignee fails to perform; and
- (b) the other Party gives its approval, which approval cannot to be unreasonably withheld or delayed.

A Party may assign this Agreement to a non-Affiliate only if the other Party gives its approval, which approval is within the other Party's sole discretion of each.

**5. LIABILITY**

A Party is not liable to the other Party for any of the following losses or damages arising out of or relating to this Agreement.

- (a) Punitive, special, incidental, indirect, or consequential damages; or
- (b) The loss of profits, the loss of production, or business interruption.

**6. APPLICABLE LAWS AND DISPUTE RESOLUTION**

6.1. Law. Alaska law governs this Agreement and its interpretation.

6.2. Disputes Procedures. Any dispute arising out of or relating to this Agreement, including its breach, termination or validity, must be resolved according to the procedures in Section 6.3.

6.3. Negotiation. If a dispute between the Parties is not resolved in the normal course of business, a Party may give the other Party Notice of the dispute. The Notice shall include:

- (a) a statement of the position of the Party raising the dispute and a summary of arguments in support of its position; and
- (b) the name and title of the executive who will represent that Party and of any other person who will accompany the executive.

Within 15 days after delivery of the Notice, the receiving Party shall submit to the other a response. The Notice and response must include:

- (aa) a statement of the Party's position and a summary of arguments supporting its position; and
- (bb) the name and title of the executive who will represent that party and of any other person who will accompany the executive.

The Parties shall attempt to resolve the dispute promptly by negotiation between executives who:

- (aaa) have authority to settle the controversy; and
- (bbb) are at a higher level of management than the persons with direct responsibility for administration of this Agreement.

Within 30 days after delivery of the initial Notice, the executives shall meet at a mutually acceptable time and place, and thereafter as often as they reasonably deem necessary, to attempt to resolve the dispute. A negotiation under this Section 6.3 is confidential and is to be treated as a compromise and settlement negotiation under applicable rules of evidence.

A failure on the part of the aforementioned executives to resolve the dispute in a mutually agreeable manner within 90 days of the Notice shall result in a termination of this Agreement.

**7. DEFINITIONS**

7.1. "Affiliate" means:

- (a) for BPALL, any legal entity that controls, is under common control, or is controlled by BPALL by an indirect or direct, beneficial interest of 50% or more of the voting rights in the legal entity; and
- (b) for AGDC, any legal entity that is directly or indirectly, controlled by AGDC.

7.2. "Agreement" means this Cooperation Agreement.

7.3. "FERC" means Federal Energy Regulatory Commission.

7.4. "NGA" means Natural Gas Act.

7.5. "Notice" is defined in Article 6.

7.6. "Party" means AGDC or BPALL, and "Parties" means both of them.

7.7. "Person" means any person, company, firm, partnership, limited partnership, association, governmental agency, or other legal entity not a Party to this Agreement.

7.8. "Pre-FEED JVA" means the Alaska LNG Project Pre-FEED Joint Venture Agreement signed by each Party on June 30, 2014.

7.9. "Project" means collectively, the five project segments consisting of an LNG plant, a gas pipeline, the gas treatment plant, the PBU gas transmission line, and the PTU gas transmission line as they were defined in the Pre-FEED JVA.

7.10. "Project FEED Agreement" means Engineering, Procurement, Construction (EPC) agreement between AGDC and a contractor to progress detailed engineering scope of work.

**8. NOTICE**

8.1. Each Party giving or making a notice, request, demand, or other communication (each, a "Notice") under this Agreement shall:

- (a) give the Notice in writing; and
- (b) deliver it to the other Party at its address listed in Article 8.2.

8.2. A Notice is effective only if the Party giving Notice has complied with Article 8.1 and the Notice is:

- (a) delivered in person;
- (b) sent by registered or certified mail;
- (c) sent by a nationally recognized overnight courier; or
- (d) sent by email with an automatic delivery confirmation.

8.3. Addresses:

AGDC:  
Attn: Mr. Keith Meyer, President  
Address: Alaska Gasline Development Corporation  
3201 C Street, Suite 200  
Anchorage, Alaska 99510  
Facsimile: 907-330-6303  
Email Address: kmeyer@agdc.us

BP Alaska LNG LLC:  
Attn: VP, Commercial Ventures (currently Damian Bilbao)  
Address: BP Exploration (Alaska) Inc.  
P.O. Box 196612  
Anchorage, AK 99519-6612  
Facsimile: 907-564-5598  
Email Address: [damian.bilbao@bp.com](mailto:damian.bilbao@bp.com)

The Parties' representatives have signed this Agreement as of the Effective Date.

**AGDC**

By: 

Name: Keith Meyer

Title: President

Date: January 22, 2017

**BP Alaska LNG LLC**

By: 

Name: Damian F. Bilbao

Title: Vice-President, Commercial Ventures

Date: January 22, 2017

## APPENDIX 1 – 2017 COMMERCIAL STRUCTURE WORK PROGRAM

### OBJECTIVES

- To progress the effort to utilize third-party infrastructure funding sources as a means to reduce the cost of service on the Project infrastructure.
- Refine understanding of tolling structures to identify a viable and competitive structure for Alaska or identify alternative structures that may be viable.
- Map out an agreement framework & phasing required to successfully execute and operate the Project.
- Assist AGDC in developing the Project on an expeditious timeline within AGDC's target in-service date of 2023-25.

### SCOPE OF WORK

- Using internal and external analysis as deemed appropriate by the Parties, evaluate and rank different mechanisms to reduce the Project's cost of supply, based on value and probability
- Assess risks along the value chain, from FEED through operations, associated with the work scope, identify mitigation options, and recommend actions
- Refine tolling structure elements or define alternatives:
  - a. Incorporate recommendations from funding & regulatory work programs
  - b. Use risk evaluation to inform how structure may equitably accommodate all participants
  - c. Evaluate impact of alternative structures on cost of supply and select optimal blend
  - d. Address parallel service requirements for in-state gas and LNG tollers over time
- Identify suite of agreements necessary to enable the Project, this work may include phasing of agreements from principles to heads-of-agreements to final agreements.

### GUIDELINES

- Target delivery of a project model with a sustainable, competitive cost of supply and returns
- Base line assumptions:
  - a. Single regulation of the entire system (FERC NGA Section 3)
  - b. Tollers will initially source gas from the Prudhoe Bay and Point Thomson units
  - c. A separate State entity will support approximately 10% of the GTP and pipeline capacity for its own in-state gas sales
- Use pre-FEED deliverables and publicly available data for any economic or financial modelling
- Follow industry recognized project management best practices
- Enable adequate funding cover for State as infrastructure owner and anticipate requirements of financiers

### TIMELINE

- Deliver a management presentation no later than 2Q 2017 on the status of the work effort, options identified to date, and definition of a competitive cost of supply
- The remainder of 2017 may be spent negotiating principles of the critical agreements required to underpin funding and regulatory activities as well as support a FEED decision.

## Appendix 2 – 2017 Finance Advisory Work Program

### OBJECTIVES

- Identify likely funding sources for FEED and confirm need for new equity investors
- Introduce common language for discussing risk allocation in commercial structure
- Identify possible long-term financing structures to reduce project cost of supply

### SCOPE OF WORK

- Develop a Finance Plan for AK LNG for the FEED phase.
- Develop a Finance Strategy for AK LNG for the construction and term financing of the Project. Estimate the amount of potential funds that could be obtained from these groups and outline expectations on a security package for each.
- Analyze key risks for each financing stage and identify options for commercial risk mitigation, including the impacts of those mitigations on overall finance costs.

### GUIDELINES

- Financing should allow for 100% direct State ownership through the Alaska Gasline Development Corporation.
- Financing sources could come from commercial lenders, export credit and multilateral agencies, and public bond markets (tax exempt or taxable).
- Security for debt may include federal loan guarantees.
- Credit support for debt provided by project sponsors would be unconditional, several and not joint, from a creditworthy affiliate.
- The proposed equity structure should accommodate State ownership, corporate sponsors, private equity investors, and retail investors.

### COMMERCIAL FRAMEWORK ASSUMPTIONS

- Tolling revenue will be received by the Project company through a conventional toll or merchant structure. In both cases, ship-or-pay amounts will cover fixed costs (including debt and an appropriate DSCR).
- Tollers will initially source gas from the Prudhoe Bay and Point Thomson units.
- A separate State entity will support in-state gas sales.

### TIMELINE

- A financial advisor is expected to be retained by AGDC to provide advice on financing the Project.
- The financial advisor should issue a draft report and hold a presentation of its findings no later than 2Q 2017. Following the review, any modifications to the report should be completed within a reasonable time period.

## **BP AK LNG Testimony to House and Senate Resource Committees**

**Damian Bilbao, BP**

**January 20, 2017**

House Resources Committee – 1:00 pm, Monday, January 23, 2017 in Juneau, Alaska

- Co-Chair Tarr, Co-Chair Josephson and members of the House Resources Committee, for the record, my name is Damian Bilbao.

Senate Resources Committee – 3:30 pm, Monday, January 23, 2017 in Juneau, Alaska

- Chair Giessel and members of the Senate Resources Committee, for the record, my name is Damian Bilbao.

I am the Vice President of Commercial Ventures for BP here in Alaska. I first arrived in Alaska to work for ARCO Alaska as an intern and fell in love with this State. My family and I have lived in Alaska for almost 10 years with interruptions for overseas assignments.

I would like to first follow Bill's remarks by recognizing the great work done by the Joint Project Team under ExxonMobil's leadership. Steve Butt and the team delivered exactly what they were asked to do when the Pre-FEED JVA was signed, and then some. They did that work safely, professionally, on schedule and on budget. BP thanks them.

My responsibilities within BP include Alaska LNG, our North Slope fields operated by other companies and our interest in the Trans-Alaska Pipeline. I would like to pause and recognize that along with the

Prudhoe Bay field, TAPS is celebrating a 40 year anniversary in 2017. I would also like to recognize that this past December 18th Alaska celebrated the 45<sup>th</sup> anniversary of the signing of the Alaska Native Claims Settlement Act. Without the tremendous support and license from Alaska's native communities, the State would have a much different history. I would ask that as we discuss Alaska LNG today we remember that this State only has the luxury of discussing an Alaska LNG project because of cooperation shown in establishing ANCSA. Ensuring another 40 years of economic security for Alaska will require collaboration to find common ground.

It is for this reason, the future economic health of Alaska and BP's participation in that opportunity, that BP continues to support an Alaska LNG project led by the State of Alaska. BP's support derives from three important beliefs:

- 1) The resource opportunity in Alaska is strong, the talent is deep and there is a history of coming together to fix big problems.
- 2) The demand for LNG will continue to grow in Northeast Asia beyond 2025, and much of that growth will come from players like China.
- 3) Alaska LNG **can** compete for the growing demand, as was shown in the Wood Mackenzie report presented before the legislature in August 2016; however certain non-technical solutions are required for that to be achieved.

The State is positioned to lead this commercial effort in three focus areas:

- 1) The competitiveness of a tolling model where gas owners pay a utility-like company to transport their gas to the Cook Inlet, liquefy the gas and load it on to ships.
  - 2) Preserve the federal regulatory schedule, because failure to do so could add years to the schedule and impact the reputation of the project, and
  - 3) Identify options to fund both the next phase of the project, Front End Engineering and Design or FEED, as well as the most financially demanding phase, construction, which would occur after a Final Investment Decision, or FID.
- BP **does not** believe these three areas will require contracting with large companies to begin the process of purchasing pipe or steel, but rather will require deep analysis by subject matter experts familiar with commercial aspects of the LNG business.

Now, while BP supports a State led project, we believe it is also important for BP to do more than sit back and wait for AGDC to answer these three questions. BP must actively support AGDC. I am very pleased to share with you that AGDC and BP have signed a Cooperation Agreement that will bring together our efforts and resources on the three focus areas that I outlined above: 1) assessing a tolling model, 2) preserving regulatory progress and 3) identifying financing options for the path forward. BP is committing people and funding to this joint effort although it will be an effort led by a much smaller group of people

than completed the Pre-FEED deliverables which Bill McMahon just summarized.

BP appreciates AGDC's commitment to working together and we look forward to updating the legislature over the course of the year.

This is an important year for BP in Alaska and we look forward to celebrating the anniversary of Prudhoe Bay and TAPS **first** 40<sup>th</sup> anniversary. While BP has worked with our co-owners to produce over 12 billion barrels of oil from Prudhoe Bay, there are still billions more in Prudhoe and across the North Slope. As the Governor's Chief Advisor on Oil and Gas, John Hendrix, said during his recent speech at Meet Alaska on January 13<sup>th</sup>, we must all pursue our future as "One Alaska". BP agrees. It is only as One Alaska that the State will continue to solve big problems. BP looks forward to continuing to work with this legislature, the administration, Alaska's native corporations, our contractors and upstream co-venturers in support of a One Alaska future. Thank you.

TESTIMONY – ConocoPhillips prepared Remarks

January 23, 2017 – Senate Resources

January 23, 2017 – House Resources Committee

- Good afternoon, Madame chair and members of the committee. For the record my name is Darren Meznarich, and I am the ConocoPhillips Manager for Alaska North Slope gas.
  - Building on my colleagues' comments, which address many of my remarks, I'll be brief
  - As we have said in the past, ConocoPhillips is supportive of the State's efforts to try and move a project forward.
  - We support a state-led project because there are certain things that only the state can do which will make an ANS Gas project more competitive and lower its cost of supply
  - AGDC has discussed these as key elements in their plan:
    - First, structuring for federal and state tax efficiencies – including seeking federal tax exempt status. We think this could be a significant opportunity ... and we support AGDC pursuing this.
    - Also, Advancing low cost financing and investor options,
- These key elements could be foundational to a competitive project, even in this environment. And, they could provide a compelling story to LNG Buyers and project lenders and investors.
- As we've said before, we intend to make our gas available to a state-led project on mutually agreed commercially reasonable terms.
  - In summary, we are continuing to work to support AGDC as it executes this plan, we are working to make our gas available and taking other steps so the state, including AGDC and other parties, can go forward.

## *Alaska LNG Project*

# **Senate Resources Testimony**

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Senate Resources Committee – 3:30 pm, Monday, January 23, 2017 in Juneau, Alaska

- Chair Giessel and members of the Senate Resources Committee, for the record, my name is Bill McMahon.
  - I am a Sr. Commercial Advisor and have 34 years of experience with ExxonMobil and have worked on commercializing Alaska natural gas since 1992.
- Thank you for the opportunity to address the committee this afternoon. My testimony will be given in two parts:
  - The first part will be on behalf the Alaska LNG Project (AKLNG) participants – AGDC, ExxonMobil, BP and ConocoPhillips. The four parties have worked hard to complete the technical and regulatory handover and the commercial transition of AKLNG to a State LNG project run by AGDC. I will be sharing our progress since September.
  - The second part will be sharing ExxonMobil's perspectives on a State Alaska LNG project and how our company is supporting the AGDC effort.
  - Following my testimony, Damian Bilbao and Darren Meznarich will be sharing BP and ConocoPhillips perspectives, respectively.
  - As always, we look forward to answering your questions.
- Following the Administration's decision to pursue a State LNG project, ExxonMobil, as Lead Party under the Pre-FEED JVA (Joint Venture Agreement), completed an extensive handover process with AGDC for all the Pre-FEED JVA work products, including the underlying technical data. In addition, on behalf of the applicants in the FERC pre-filing, ExxonMobil also met with regulators and AGDC to discuss the coming changes. On January 4<sup>th</sup>, the FERC was advised by letter that ExxonMobil, BP and ConocoPhillips have withdrawn from the Pre-File Docket, leaving AGDC as the sole applicant.
- During testimony on August 25, the key components of the technical and regulatory handover and the commercial transition were shared. Today, I would like to list the achievements since that time:
  - All 77 Pre-FEED deliverables agreed under the AKLNG Joint Venture Agreement are finished and have been distributed to AGDC, ExxonMobil, BP and ConocoPhillips.
  - The final two draft Resource Reports (11 and 13) were submitted by the applicants to FERC, completing the draft Resource Reports required to advance the EIS pre-file process.
  - FERC and the other coordinating agencies have provided over 2,700 comments on the twelve Resource Reports that were submitted.
  - The AKLNG project team provided a summary of all of the comments and questions to all parties, including AGDC.

- The AKLNG project team completed dozens of project technical and regulatory handover sessions with AGDC, including weekly sessions and extended workshops.
- These handover sessions, which were completed prior to year-end 2016, provided a smooth and efficient handover of activities to AGDC for a State LNG project. AGDC is now positioned to take on the full responsibility for the technical and regulatory aspects of its project.
- Agreements were executed prior to year-end as part of the commercial transition from AKLNG to a State LNG project. These agreements provide for the use of historical and Pre-FEED data and information by all the Pre-FEED JVA parties for any project, including a State LNG project.
- Work continues on agreements for AGDC to acquire ownership of an LLC held by ExxonMobil, BP and ConocoPhillips affiliates and provide interim access to some of its assets. The LLC owns land in Nikiski and DOE LNG export authorizations.
- Before I move on to my ExxonMobil comments, I will pause and see if there are any questions about the AKLNG accomplishments in 2016.

- 
- Changing hats, I will now share ExxonMobil's perspectives on a State Alaska LNG project and how our company is supporting the AGDC effort.
  - As you know, one of the motivations for the Administration to assume control of the project was to assess the potential advantages that may only be available to a State project.
  - These potential advantages, as expressed by the Administration, include reducing the cost of supply through a tax-exempt project structure and using low cost funds from third party investors willing to take a utility rate of return on a government-backed project.
  - Both of these opportunities could potentially make a significant reduction in the cost of supply for Alaska LNG, as highlighted in the Wood MacKenzie study commissioned by AGDC, ExxonMobil and BP, and as presented to this committee by David Barrowman of Wood Mac on August 24, 2016. Cost of supply is a key measure of competitiveness in the global LNG market.
  - In addition to opportunities to reduce cost of supply, a State backed LNG project also has the potential to reduce regulatory risks through government to government cooperation.
  - ExxonMobil wants a project to succeed and is willing to pursue all commercially viable alternatives to develop Alaska resources on mutually-agreed terms.
  - While AGDC is now responsible for advancing a State LNG project, ExxonMobil will still have a major role in the development of Alaska North Slope natural gas. First, through continued investment to develop Prudhoe Bay and Point Thomson and, second, by making gas available for sale for the project.
  - To date, the Producers have invested billions of dollars at Prudhoe Bay and Point Thomson to successfully develop these fields. Investments continue at these fields to support the ongoing operations.

- ExxonMobil will continue to make its gas available to any project under bilateral, mutually-agreed and commercially-reasonable terms.
  - In 2015 when Governor Walker sought assurances from each producer about gas availability, ExxonMobil immediately established a negotiating team, executed a confidentiality agreement with the Administration and had several preliminary meetings.
  - With completion of the handover to a State LNG project, ExxonMobil remains ready to re-engage on negotiations for gas sales and purchase agreements.
  - These commercial and fiscal terms will need to be predictable and durable so all of the parties' involved, including potential buyers and financiers, understand the underlying framework, particularly given the magnitude of the required investments and commitments, which are measured over decades
- In closing, ExxonMobil wants to help make a State LNG project successful.
  - We are pleased to have participated in the successful handover from AKLNG to a State project.
  - ExxonMobil is committed to work towards completion of the required transactions with AGDC on the Alaska LNG Project LLC (ALPL).
  - We are ready to re-start bi-lateral discussions on purchasing ExxonMobil gas from PBU and PTU for a State project.
  - Lastly, ExxonMobil looks forward to the progress of a State LNG project. If AGDC can adequately achieve cost reductions, secure regulatory approvals, advance through the project gates to a final investment decision (FID) and complete project execution and construction, everyone will benefit.
- Before I turn the microphone over to Damian Bilbao of BP, I would be happy to answer any questions that you may have.