Heads of Agreement
A Presentation to the Senate Finance Committee

January 27, 2014

Department of Revenue
Angela M. Rodell
Commissioner

Department of Natural Resources
Joe Balash
Commissioner
What is a *Heads of Agreement*?

Definition:

“A non-binding document outlining the main issues relevant to a tentative partnership agreement. Heads of agreement represents the first step on the path to a full legally binding agreement or contract, and serves as a guideline for the roles and responsibilities of the parties involved in a potential partnership before any binding documents are drawn up.”

www.investopedia.com

HEADS OF AGREEMENT

By and Among

THE ADMINISTRATION OF THE STATE OF ALASKA

ALASKA GASLINE DEVELOPMENT CORPORATION

TRANSCANADA ALASKA DEVELOPMENT INC.

EXXONMOBIL ALASKA PRODUCTION INC.

CONOCOPHILLIPS ALASKA, INC.

BP EXPLORATION (ALASKA) INC.

FOR THE ALASKA LNG PROJECT
The Heads of Agreement is for the Alaska LNG Project

**Attachment 2**

**Alaska Southcentral LNG – Project Concept Description**

**Liquefaction Plant**
- **Capacity:** 15 – 18 million tonnes per annum (MTA)
- 3 trains (5-6 MTA / train)
- **Potential areas:** 22 sites assessed in Cook Inlet, Prince William Sound and other Southcentral sites
- **Footprint:** 400 - 500 acres
- **Peak Workforce:** 3,500 - 5,000 people
- **Required Steel:** 100,000-150,000 tons

**Storage / Loading**
- LNG Storage Tanks, Terminal
- **Dock:** 1 - 2 Jetties
- **Design based on 15 - 20 tankers**
- **Peak Workforce:** 1,000 - 1,500 people

**Producing Fields**
- ~35 TCF discovered North Slope resource
- Additional exploration potential
- Anchored by Prudhoe Bay and Pt. Thomson with ~20 years supply available
- Use of existing and new North Slope facilities
- Confirmed range of gas blends from PB/PTU can generate marketable LNG product
- **Peak Workforce:** 500 - 1,500 people

**Pipeline**
- **Large diameter:** 42" - 48" operating at >2,000 psi
- **Capacity:** 3 - 3.5 billion cubic feet per day
- **Length:** ~800 miles (similar to TAPS)
- **Peak Workforce:** 3,500 - 5,000 people
- **Required Steel:** 800,000 - 1,200,000 tons
- **State off-shore:** "5 points, 300-350 million cubic feet per day, based on demand

**Gas Treating**
- **Located at North Slope or Southcentral LNG site**
- **Remove CO₂ and other gases and dispose / use**
- **Footprint:** 150 - 250 acres
- **Peak Workforce:** 500 - 2,000 people
- **Required Steel:** 250,000 - 300,000 tons
- Among largest in world

**Estimated Total Cost:** $45 - $65+ Billion

**Peak Construction Workforce:** 9,000 - 15,000 jobs

**Operations Workforce:** ~1000 jobs in Alaska

Descriptions and costs are preliminary in nature and subject to change. Cost range excludes inflation.

Source: Letter dated October 1, 2012 to Governor Parnell (Exhibit I-B of HOA)
Organization of the Heads of Agreement:

The Heads of Agreement (HOA) is broken into 16 sections that include:

- Recitals of recent events and understandings between the parties.
- 13 Articles covering guidelines for the development of the project and the roles and responsibilities of the Parties to the agreement.
- An appendix articulating access and expansion principles for the project.
- An exhibit that provides copies of the 3 letters to Governor Parnell from the Producer Parties and TransCanada.
Guide to who is being referred to in the Heads of Agreement

“The Administration”

- Includes:
  - Department of Natural Resources (DNR)
  - Department of Revenue (DOR)

- References may also be made to “Commissioners” or the “State” in the HOA.

“The Parties” or “Party”

- Includes:
  - The Administration
  - The Alaska Gasline Development Corporation (“AGDC”) or an AGDC Subsidiary
  - TransCanada Alaska Development Inc. (“TADI”)
  - ExxonMobil Alaska Production Inc. (“EMAP”)
  - ConocoPhillips Alaska, Inc. (“ConocoPhillips”)
  - BP Exploration (Alaska) Inc. (“BP”)

Source: Page 2 of the Heads of Agreement
Guide to who is being referred to in the Heads of Agreement

“Alaska LNG Parties”
- Includes:
  - The Alaska Gasline Development Corporation ("AGDC") or an AGDC Subsidiary
  - TransCanada Alaska Development Inc. ("TADI")
  - ExxonMobil Alaska Production Inc. ("EMAP")
  - ConocoPhillips Alaska, Inc. ("ConocoPhillips")
  - BP Exploration (Alaska) Inc. ("BP")

“Producer Parties”
- Includes:
  - ExxonMobil Alaska Production Inc. ("EMAP")
  - ConocoPhillips Alaska, Inc. ("ConocoPhillips")
  - BP Exploration (Alaska) Inc. ("BP")

Source: Page 2 of the Heads of Agreement
Recitals:

The purpose of the Recitals section, found on pages 2 through 4 of the Heads of Agreement, is to provide context for the agreement, describe recent events and articulate certain roles, goals and direction for the Alaska LNG Project and Alaska Stand Alone Pipeline (“ASAP”) project currently being advanced by the Alaska Gasline Development Corporation (“AGDC”).

1. Recognizes changed circumstances in the Lower 48 natural gas markets led Governor Parnell to call for a change in direction, under AGIA, in the development of North Slope Gas to an LNG project.

2. Recognizes funding by the State under AGIA has supported key activities for the LNG project but that both the Administration and TransCanada believe it is appropriate to transition from the AGIA license to focus on the Alaska LNG project.

3. Recognizes that AGDC is pursuing the Alaska Stand Alone Pipeline (“ASAP”) project and that the Alaska LNG project and ASAP intend to cooperate with one another.

4. The Alaska LNG Parties wish to ramp up the Pre-FEED phase of the Alaska LNG project, which is estimated to cost over $400 million.
**Definitions:**

Article 1 of the Heads of Agreement begins on page 4 and goes through page 7 of the agreement. In Article 1 a reader can find definitions for key terms used throughout the agreement.

It is important to note that when a term is capitalized in the agreement it is referring to a specific term that is defined in Article 1.

1. **“Enabling Legislation”** describes the key components of legislation (described in more detail in Article 7) necessary to advance the project.

2. **“MOU”** refers to the agreement, referenced in Article 5.4, between TransCanada and the Administration to transition from the AGIA license to a commercial relationship.

3. **“Pre-FEED”** means the pre-front-end engineering and design work and activities for the Alaska LNG project that are sufficient to support filings for the Federal Energy Regulatory Commission (FERC).

4. **“RIK”** means Royalty in Kind as described in Article 8.1.1, where in lieu of receiving payments for the value of the State’s royalty, the State takes a share of the gas produced.

5. **“TAG”** means “Tax as Gas” as described in Article 8.1.1, where in lieu of receiving payments for production tax the State would receive a share of the gas produced.
Key Provisions

**Article 2: Principles**

1. Recognizes that if Enabling Legislation is passed that the Parties would negotiate contracts that would incorporate the principles in the agreement.

**Article 3: Benefits of the Alaska LNG Project**

1. **Gas to Alaskans:** The opportunity for competitively priced, reliable in-state gas supply;
2. **Jobs to Alaskans:** Creating jobs for Alaskans in the exploration, development, production and transportation of natural gas.
3. **Revenues to the State:** Additional revenues to the State.
4. **Opportunities for additional gas development:** Infrastructure enhances opportunities for more gas development.
**Alaska LNG Project Work**

Article 4, found on pages 8 and 9 of the Heads of Agreement, describes what work will be conducted during the Pre-FEED stage of the project.

The Pre-FEED stage is expected to take between 18 and 24 months.

The Pre-FEED stage would be followed by a review by each Party, its management and the decision to proceed to the next stage (“FEED”) would be up to each individual Party.

---

**Key Activities**

1. The development of sufficient information for evaluating the technical, cost, and schedule aspects of the Alaska LNG Project.

2. The development of key project services agreements for the State’s gas with TransCanada and AGDC (or an AGDC subsidiary).

3. The Parties would work to develop mutually agreeable gas offtake and balancing agreements.

4. The State and each of the Producer Parties would initiate preliminary, individual LNG or gas sales or shipping efforts.

   1. This may also include the State (directly or through AGDC or an AGDC subsidiary) working with each Producer individually to develop agreements for the disposition of a portion of the State’s LNG (Article 8.3.3).
### Putting Pre-FEED in Context

#### Attachment 3
**Southcentral Alaska LNG – Work Plans / Key Decision Points**

#### Requirements to Take Next Step:
- Visible Technical Option(s) Identified
- Government Support
- Permits / Land Use Achievable
- Potential Commercial Viability
- Visible technical option
- Government Support
- Permits / Land Use Underway
- Potential Commercial Viability
- Secure Permits / Land Use / Financing / Key Commercial Agreements
- Confirm Commercial Viability
- Execute EPC contracts

### Table: Peak Staffing and Cost

<table>
<thead>
<tr>
<th>Stage</th>
<th>Timeframe</th>
<th>Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTU Settlement, Joint Work Agreements</td>
<td>(Today)</td>
<td>Tens of Millions</td>
</tr>
<tr>
<td>Concept Selection</td>
<td>12 - 18 Months</td>
<td>Hundreds of Millions</td>
</tr>
<tr>
<td>Pre-FEED</td>
<td>2 - 3 Years</td>
<td>Billions</td>
</tr>
<tr>
<td>FEED (Front-End Engineering &amp; Design)</td>
<td>5 - 6 Years</td>
<td>Tons of Billions</td>
</tr>
</tbody>
</table>

### Activities

<table>
<thead>
<tr>
<th>Pre-FEED</th>
<th>FEED</th>
<th>EPC (Engineering, Procurement &amp; Construction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluate:</td>
<td>Complete:</td>
<td>Execute:</td>
</tr>
<tr>
<td>Range of technically viable options for major project components</td>
<td>Front-end engineering &amp; design</td>
<td>Final engineering</td>
</tr>
<tr>
<td>Business Structure</td>
<td>Major contract preparation</td>
<td>Financing</td>
</tr>
<tr>
<td>In-state gas / export LNG demand</td>
<td>Business structure</td>
<td>Procurement</td>
</tr>
<tr>
<td>Solicit Interest of Others</td>
<td>Financing arrangements</td>
<td>Fabricate / Logistics / Construct</td>
</tr>
</tbody>
</table>

### Notable Issues
- Competitive oil tax environment; predictable / durable LNG project fiscal terms; AGIA issues
- Secure ability to secure regulatory approvals / permits / land use
- Environmental activities / Technical data collection
- Stakeholder engagement
- File DOE Export License

### Possible Outcomes
- Start individual gas / LNG sales / shipping efforts
- Execute individual gas / LNG sales / shipping agreements
- Implement business structure & agreements

### Commercial Viability
- Screen commercial viability
- Assess commercial viability
- Confirm commercial viability
- Commission / start-up

---

*NOTE:* Duration of various phases may be extended by protracted resolution of fiscal terms, permitting and regulatory delays, legal challenges, changes in commodity market outlook, time to secure long-term LNG contracts, labor shortages, material & equipment availability, weather, etc.

---

**Source:** Exhibit I-B: Page 32 of the Heads of Agreement
State Participation in the Project

Article 5 begins on page 9 of the Heads of Agreement and concludes on page 11 of the agreement. The Article describes broadly the reasons for State participation in the Alaska LNG Project, the Parties support for State participation and how the State would participate in the project.

Additionally, Article 5 also describes how the Administration would participate during the Pre-FEED stage and provides principles for access to information during the life of the project.

Key Provisions

1. State participation in the Alaska LNG Project could yield significant benefits to the State including:
   A. Maximizing the value of the State’s resources for the people of Alaska.
   B. Deliver gas to Alaskans.
   C. Public transparency of State’s approval process.
   D. An opportunity for additional State revenues.
   E. Access and pro-expansion principles for the Alaska LNG Project.
   F. Improving alignment of interests between the State and the Producer Parties.
   G. Reducing valuation and other potential disputes between the Producer Parties and the State.

2. State will participate in the infrastructure by entering into agreements with TransCanada and a Subsidiary of AGDC to carry the State’s interest in the infrastructure.

3. The State’s interest should be consistent with the State’s share of the gas (20%-25%).
Key Provisions

1. **At least** five Alaskan offtake points for Alaskans to get their gas.
2. Locations of offtake points will be developed in consultation with AGDC. AGDC’s work on ASAP will greatly benefit the State and Alaska LNG Project in developing these locations.
3. Each Party’s shares in capacity would be managed on a proprietary basis; essentially creating “projects within a project.”
4. AGDC and TransCanada’s shares of capacity in the project are committed to provide access to third parties on terms developed with the State.
Why expansion principles are important:

- Alaska has significant gas resources on the North Slope.
- Current known reserves are 35 trillion cubic feet (TCF); USGS estimates of technically recoverable conventional gas resources are more than 240 TCF.
- Pro-expansion guarantees Alaskan land beyond Prudhoe and Pt. Thomson continue to be explored for gas and that the gas will get into the line and benefit Alaskans.
Appendix A: Pro-Expansion Principles

A key foundation for Article 6: Regulatory Framework, Access and Expansion is found in Appendix A (pages 21-23) of the Heads of Agreement.

These principles provide high level principles governing the expansion of any component of the Alaska LNG Project.

The Appendix commits the Parties to the principle that components of the Project (treatment plant, pipeline etc.) can be expanded and a new LNG train can be installed.

---

A.1 Alaska LNG Project Expansion. The potential expansion of any component of the Alaska LNG Project (excluding the modification of an installed Alaska LNG Project liquefaction train, or installation of a new liquefaction train) would be addressed in the agreements to be developed during Pre-FEED, reflecting the following principles.

A.1.1 Following start-up of the Alaska LNG Project, any Alaska LNG Party may initiate the process for an expansion of any component of the Alaska LNG Project on which that Alaska LNG Party has an interest, unless that expansion would:

a. Materially and adversely affect or alter the Alaska LNG Project facilities or operations, including technical aspects, or scheduling or quality of deliveries from the Alaska LNG Project facilities;

b. Diminish service to the existing shippers or users of the Alaska LNG Project;

c. Cause the Alaska LNG Project to be in violation of any applicable environmental or safety laws or regulation; or

d. Cause a violation of the Alaska LNG Project right-of-way agreements or any other contractual obligations with respect to the Alaska LNG Project facilities.

Subject to Section A.2 regarding modification of an existing LNG Plant liquefaction train and Section A.3 regarding installation of new LNG Plant liquefaction trains, if an Alaska LNG Project expansion is proposed, all Alaska LNG Parties with an interest in the Alaska LNG Project component being expanded will have the right, but not any obligation, to participate in the proposed expansion (“Expansion Party”). Any Expansion Party may request additional volumes thereby increasing the capacity of the proposed expansion. If, however, as a result of the review of the design and cost of the proposed expansion, all the Expansion Parties determine that they wish to reduce the size of the proposed expansion, then they may do so. An Alaska LNG Party’s ownership interest in the post-expansion Alaska LNG Project component would be equivalent to the proportion of its capacity to the aggregate capacity on the post-expansion Alaska LNG Project component.

Expansions can proceed if they meet the criteria in Section A.1.1 above.

A.1.2 The Expansion Parties will pay all costs related to the expansion and will have access to and share the incremental capacity developed by the expansion, provided terms related to impacts on fuel use for an expansion would be addressed during Pre-FEED by the Parties. Those Alaska LNG Parties that do not elect to participate...
### Enabling Legislation

Article 7 begins on page 12 and continues through page 13 of the Heads of Agreement. The article describes in broad terms the necessary component of “Enabling Legislation” that the Parties believe is necessary to advance through Pre-FEED for the AK LNG Project.

The Article describes a two stage process where:

1. General take terms and mechanisms for State participation are enacted during the 2014 Legislative session.
2. Project enabling contracts are returned to the Legislature for review in a 2015 legislative session.

#### The Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Legislature passes enabling legislation.</td>
</tr>
<tr>
<td>2014 – 2015</td>
<td>Administration and Alaska LNG Project Parties develop project enabling contracts, including, but not limited to, agreements with TransCanada and AGDC for project services for the State Gas Share, gas offtake and balancing agreements with the Producer Parties, and preliminary LNG or gas sales contracts.</td>
</tr>
<tr>
<td>2015</td>
<td>Legislature considers project enabling contracts.</td>
</tr>
<tr>
<td>2015-2016</td>
<td>Parties decide whether to advance to FEED.</td>
</tr>
</tbody>
</table>

---

1. The timeline above assumes a success case.
Royalties and Production Taxes

Article 8 which begins on page 13 and continues through page 15 of the Heads of Agreement describes changes to the State’s royalty and tax system that will facilitate progress on the Alaska LNG Project by creating a predictable State Gas Share.

The State Gas Share is the combination of royalty in kind (RIK) gas and tax as gas (TAG) received by the State for its Production Tax.

The Article also provides guidance for the range of Production Tax (~7%-13%) that the Parties believe will enable the Alaska LNG Project to advance.

Key Provisions

1. Alaska Statute AS 38.05.182(a) provides that “royalties on oil and gas shall be taken in kind unless the commissioner (DNR) determines that the taking in money would be in the best interest of the state.”

2. The November 2013 “Alaska North Slope Royalty Study” performed by Black & Veatch identified potential issues related to the State taking in-kind; primarily those associated with marketing risk.

3. In Article 8.3.3 the Producer Parties commit, if asked by the State to “negotiate separately with the state in good faith to enter into an agreement with the State regarding the purchase or other disposition of a portion of the LNG that is made from the State’s deliveries (RIK + TAG) of natural gas to the Alaska LNG project.”
Other Project Enabling Terms & Additional State Support for the Alaska LNG Project

Key Provisions

1. The Administration, in consultation with local governments, will develop payments in lieu of property tax and impact payments during construction for the project.

2. Project enabling contracts negotiated between the Parties will need to be of sufficient duration to support investment decisions, permit realization of a competitive economic return, to enable necessary financing, and to support gas and LNG sales agreements; all of which are needed by the State as well as the Alaska LNG Project Parties to advance the project.

3. General support for the development of necessary infrastructure and other local, State and federal permitting requirements.

4. A healthy, long-term oil business.

Articles 9 and 10, found on page 15 of the Heads of Agreement detail other terms necessary to advance the Alaska LNG Project through Pre-FEED and into FEED.

Those terms include a broad range of continued State and stakeholder support at the local, state and federal level for the project.
### Key Estimates\(^1\)

<table>
<thead>
<tr>
<th>Category</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Total Cost:</td>
<td>$45 - $65 billion</td>
</tr>
<tr>
<td>Jobs:</td>
<td></td>
</tr>
<tr>
<td>Producing Fields:</td>
<td>500 – 1,500</td>
</tr>
<tr>
<td>Gas Treatment Plant:</td>
<td>500 – 2,000</td>
</tr>
<tr>
<td>Pipeline:</td>
<td>3,500 – 5,000</td>
</tr>
<tr>
<td>Liquefaction Plant:</td>
<td>3,500 – 5,000</td>
</tr>
<tr>
<td>Storage/Loading:</td>
<td>1,000 – 1,500</td>
</tr>
<tr>
<td>Peak Construction:</td>
<td>9,000 – 15,000</td>
</tr>
<tr>
<td>Operations:</td>
<td>~1,000 jobs in Alaska</td>
</tr>
</tbody>
</table>

1. Source: Letter dated October 1, 2012 to Governor Parnell (Exhibit I-B of HOA) and may vary with estimates by Black & Veatch.
“While North Slope gas commercialization is challenging, working together, we can maintain the momentum toward our shared vision for Alaska.”

Source: Letter dated October 1, 2012 to Governor Parnell (Exhibit I-B of HOA)
THANK YOU

Please find our contact information below:

Angela M. Rodell  
Commissioner  
Department of Revenue  
angela.rodell@alaska.gov  
(907) 465-2300

Joe Balash  
Commissioner  
Department of Natural Resources  
joe.balash@alaska.gov  
(907) 465-2400

www.dnr.alaska.gov/AKgas.htm