ALASKA GASLINE DEVELOPMENT CORP.

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Questions and Answers

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Preface

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We hope the information provided will provide clarity and insight with the Alaska Gasline Development Corporation. We are committed to Alaska Moving Forward: Delivering our natural gas and its benefits to Alaska and the World.

AGDC Questions and Answers

1. What is FEED?

FEED stands for Front End Engineering Design. This refers to an amount of engineering work that is more than conceptual but less than detailed. The amount of engineering work involved in FEED can vary depending upon the desires of the project stakeholders including engineering contractors, regulators, and lenders. From Chiyoda, a major LNG contractor, FEED is described as follows: FEED means Basic Engineering which is conducted after completion of Conceptual Design or Feasibility Study. At this stage, before start of Engineering, Procurement, and Construction (EPC), various studies take place to figure out technical issues and estimate rough investment cost.

2. What is happening with FEED for the gas pipeline?

The Alaska LNG project is still in the preliminary stage called Pre-FEED. The Project is in the process of deciding whether to proceed to FEED and under what conditions. Currently, we are working together with the joint venture parties to consider commercial options to improve the project's ability to compete in the global LNG market. The next step is not necessarily to move forward to FEED, but rather restructuring the project to improve competitiveness. As part of the effort to improve the project's competiveness, the parties are working collaboratively to transition the project to State leadership. We are also pursuing alternative commercial structure options and concepts that have been successfully used in global LNG projects to reduce the cost of supply of the project. The goal of the joint venture parties is to have a seamless continuation of the project and maintain project momentum.

3. Does FEED have to happen before construction?

Yes, FEED always comes before construction. In order to avoid changes during a construction process or engineering, procurement, and construction (EPC) phase, FEED work is performed. Typically, enough FEED work is performed to allow major contractors to provide a reliable construction bid. FEED can also take place simultaneously during project development, such as the regulatory filing and marketing of the project.

4. Where are we with the "Stage Gate" decision to move forward?

Currently the Alaska LNG project is in the Pre-FEED stage. The pre-FEED phase of this project has been substantial, involving over $500 million of activity. This extensive level of pre-FEED has provided a reasonably good cost estimate, sufficient to provide pricing

estimates for service. Prior to receiving firm construction bids and signing binding commitments necessary to obtain project funding, the FEED work will need to be performed.

5. Why is the project not going to FEED now? Wasn't that the original plan?

The plan after pre-FEED was to make a decision on whether or not to go forward with FEED. Below is a diagram from the Alaska LNG project that describes the major stages in an equity-funded stage gate process. Looking at the diagram, after the pre-FEED stage is complete, a decision is to be made to either "Go" to FEED, or "Stop." There is no time scale on the diagram, so the decision process to enter FEED can take a long time.

As part of the decision to move forward with FEED, the project developers look at many factors. Some of the factors the participants are looking at are absolute, such as whether the project is technically viable, and others are relative, such as whether the project is commercially competitive in the marketplace or financially practical for them at the present time. LNG projects typically involve large capital expenditures; these large capital projects may have to compete for capital within the organization against other large capital projects, including LNG and non-LNG projects. During times of low energy prices and related revenue, the competition for capital can be intense

The present competitive environment has caused many global LNG project developers to look for ways to make their projects more competitive; Alaska is no exception. The joint venture parties are currently exploring all alternatives to make the project more competitive in the global marketplace. Before we make the "Go" decision to progress with FEED, we need to make the project as competitive as possible from a cost of supply standpoint and explore alternative means to move the project forward.

6. What is the "cost of supply" and how can you reduce it?

From a producer and state perspective, the cost of supply involves the amount they must invest in the project to build it, supply it with gas from North Slope fields, plus ongoing costs of operation and production, including royalties, taxes, and other expenses.

To reduce the amount producers need to invest in order to build the system, we can do two main things: 1) reduce or "optimize" the design and construction costs, which the joint venture parties have already made significant progress in optimizing the system and lowering the expected construction costs, and 2) reduce the financial costs associated with the investment,

finding the parties willing to lend and invest in the midstream infrastructure project at the lowest market rates in exchange for a steady reliable return.

7. Are third-parties willing to invest in the Alaska LNG project?

If we structure the project properly, have support from the producers and the state, secure credit-worthy customers, and engage major construction firms, then we can make the project attractive to infrastructure investors.

Large infrastructure funds, such as pension funds, mutual funds, utility holding companies and other risk-averse investors have demonstrated a significant appetite for U.S. pipeline and LNG projects. These investors are willing to accept lower returns for reduced risk and therefore can reduce the amount of investment required to be made by the project developers. This type of financing is called "project finance" or, in more elaborate programs as expected for this project, "structured finance" as opposed to the "equity finance" model, where project owners simply contribute their share of the project cost.

8. Are we sure it can get financed?

To get the necessary customer contracts and adequate financing lined up to build the project, there is still a considerable amount of work that needs to be done. We do know that the project will benefit from a reduced cost of supply.

One key to project financing is obtaining creditworthy customers to either buy LNG from the project or subscribe to the services that the project provides in order for customers to move gas down the system and convert it to LNG for shipment.

The current Alaskan gas producers could become customers of the system by subscribing to the services of gas treating, pipeline transportation, and liquefaction, or by buying LNG on a bundled basis at the Kenai loading facility. They could also facilitate the commercialization of the system by helping bring customers to the system.

Bottom line: we will need committed customers to get the system financed.

9. How do you get customers to sign up for LNG or services?

Getting customers is the primary objective of the marketing and sales program; without customers, we cannot secure the financing necessary to build the project. The upstream producer parties may be the primary customer base for the project depending upon how they decide to market their gas supply. The AGDC marketing efforts will also help support and augment the marketing activities of the upstream producer parties; these efforts include working in a collaborative manner with the producer parties to help the project become more

competitive from a cost of supply standpoint and in developing service offerings to help commercialize their gas supply.

For third party customers outside of Alaska, AGDC will be promoting the Alaska pipeline and LNG project as a reliable and accessible source of LNG supply. There are many steps in the marketing program, but it begins by promoting the project to increase the awareness of potential customers and demonstrating to them that the project is on the path to be sanctioned. The Alaska LNG project has had very little exposure in the customer marketplace or opportunities to build the confidence of potential buyers that the project will be successfully built. Therefore, we have a lot of work to do to compete in the marketing arena - particularly in the current environment where many projects are competing for the same customers.

Service contracts and supply agreements will be drafted in accordance with accepted industry terms and conditions used elsewhere in large, third-party financed, LNG and pipeline projects, properly tailored for the Alaska project.

Furthermore, two key aspects of service become important for the typical utility buyers – price and reliability of supply. Alaska has an exemplary reputation for LNG supply reliability, and the route from Alaska to Asia is direct. The project components from the point of supply to the LNG delivery point can be designed with a sufficiently high degree of reliability to provide delivery assurance. Therefore, price will become a major focal point in our marketing effort. But, as mentioned, price is only one aspect of marketing.

It will be important to the marketing effort for the project participants and the State of Alaska to communicate support and confidence in the project. LNG purchase decisions are major commitments and undergo a thorough and lengthy review process. Projects that are facing strong headwinds in their home base are viewed much less favorably than projects that receive good local support.

10. What are the advantages of an AGDC-led project?

Federal taxes play a large role in the overall cost of supply. As a tax exempt entity, the state may be uniquely positioned to deliver one of the most impactful cost of supply reductions to improve the competitiveness of the project. Therefore, state ownership through an ADGC-led project may provide significant benefits to the chance of project success.

Additionally, AGDC is the only entity that has a singular mission and vision of maximizing the benefit of Alaska's vast North Slope natural gas resource through the development of infrastructure necessary to move the gas into local and international markets.

11. Is AGDC planning to complete the project on its own?

AGDC is not planning to develop the entire Alaska LNG project on its own. It would not be practical for the full scale integrated project. AGDC is managing the overall process of obtaining contractors, subject matter experts, project component managers, and others necessary to enable the project to move forward on a reasonable timeframe.

12. Are the producers welcome to participate?

The producer parties are absolutely welcome to participate, first and foremost as suppliers of gas and customers of the project. They will also likely have a significant role to play in the guidance of design and execution of the project, as anchor customers of any gas or LNG project do. Even in a state-owned project, there are opportunities to participate in the investment and funding requirements for the project by third parties. However, the return on investment expectation for a global energy production firm is likely higher than for infrastructure investment funds. Therefore, the proportion of their participation may be significantly less than what was originally anticipated under the all-equity model.

13. Will AGDC need to use the permanent fund to pay for the project?

AGDC is not considering use of the permanent fund to develop the project and has not been given any indication that the State of Alaska would consider using the permanent fund.

As part of the overall project funding process, numerous sources of project equity and debt will be considered. As stated above, if the project is structured properly, it will be attractive to infrastructure investors and lenders. If the State of Alaska is to be an equity investor or lender, it will have to address its desired funding mechanism at the appropriate time and in accordance with State law.

14. Will the State have the opportunity to be an investor like the other sovereign entities that invest in LNG projects?

Sovereign ownership is relatively common in LNG facilities; approximately 70 percent of LNG facilities in operation have a portion of ownership held by either the sovereign or a sovereign-controlled entity (30 out of 42 operational projects; source: WoodMackenzie 2016). AGDC feels the State of Alaska should have the first opportunity to invest further and will absolutely be given an equal opportunity to invest in this important project. Other sovereign entities have enjoyed significant returns from their LNG developments. Therefore, the State of Alaska as the project champion must be given that same opportunity.

15. Does AGDC have the experience to oversee such a large construction project?

AGDC does not plan to oversee the construction portion of the project. There are competent organizations with significant experience and expertise that would be contracted to oversee various segments of the project including construction management.

At this time, AGDC has the experience to manage vendors and service providers for the next phases of the project, which includes the FERC application filing, marketing activities, commercial structuring, financial structuring, engineering activities, and near-term project management.

AGDC will augment its current technical, commercial, and project management expertise as necessary, consistent with project progress and funding.

16. What companies build large projects like the Alaska LNG project?

There are a number of large, globally recognized companies capable of managing and building large-scale integrated projects like the integrated Alaska LNG project.

There are several companies that are qualified to handle this type of work, one of them is: Bechtel, who have built over 50,000 miles of pipeline; enough to circle the earth twice. They have also constructed one-third of the global LNG capacity and were involved in the construction management of the pipeline portion of the Trans Alaskan Pipeline System (TAPS). Another is Fluor, who teamed with Bechtel to manage the construction of the TAPS oil pumping stations and Valdez oil terminal.

There are a number of other globally recognized and competent contractors that have been involved in the construction of LNG terminals and pipelines. Global contractors by business volume in 2014 included: ACS (Spain) ranks number one; Bechtel (US) ranks third; Fluor (US) ranks fifth; Technip (France), with US LNG experience, ranks tenth; CB&I (US/Netherlands), an early leader in LNG, ranks 26th; Chiyoda (Japan) who were involved in the Alaska LNG project, ranks 44th. Other major contractors can all contribute to the successful completion of the Alaska integrated infrastructure project.[1]

17. If contractors take some of the project risk, won't they charge for that and won't that increase the cost of the project?

Contractors would charge for accepting some project risk. However, this will help control the exposure to cost overruns. The premiums paid are similar to insurance premiums, and may be offset by standardizing certain design elements to make the project easier to execute and finance. AGDC will conduct a thorough evaluation into the potential benefits and feasibility of

[1] http://www.enr.com/toplists/2015_Top_250_International_Contractors1

distributing project risks to contractors with the goal of placing each type of risk onto the entity best positioned to mitigate it.

18. Does the project have to cost $45 billion or can it be less?

The project team and subject matter experts are working hard to find cost efficiencies and reduce the overall project cost, while also putting controls in place to ensure there are no significant cost overruns. Additionally, the project can be developed in phases, which could significantly reduce the initial cost.

The gas treatment and liquefaction plants are each designed with three production "trains". At this time, the production trains are essentially planned to be constructed simultaneously. A phased approach could extend construction over a much longer period of time. Large scale LNG projects sometimes go through expansion phases separated by years. However, the economy of scale benefit is with full implementation.

The pipeline, similarly, has eight compressor stations which would be installed to match throughput requirements in a phased approach.

If the project was done in phases, the first phase would be less than the $40-45 billion projection, but a tradeoff is that the financial returns and pricing might be less attractive.

19. Don't producers typically own the gas pipelines?

There are very few examples in developed countries where the producers actually own and control gas pipelines. Unlike crude oil, which cannot typically be used by consumers in its raw state, natural gas is useable right off the pipeline for domestic needs such as residential heating and manufacturing. Consequently, pipelines, as the main infrastructure conduit to move the gas to consumers, are typically owned by pipeline companies that provide transportation as a service as their core business.

Prior to 1985, in the United States, pipeline companies were the buyers and sellers of gas in interstate commerce. After 1985 (FERC Order 436), the pipeline industry "unbundled" and pipelines became predominantly transportation companies providing transportation service to producers, end-users, and distribution companies on a contract carriage basis. The pipeline-as-transporter model is now the predominant model used worldwide in the gas transmission business.

20. Do customers often own part of the LNG facility?

The LNG industry has evolved over the last 46 years to a point where many of the major buyers have vertically integrated along the LNG value chain. This means they not only buy LNG, but also own LNG ships and often own a small portion of the LNG production facility and

now even upstream reserves. Of the LNG projects in-service and under development, slightly more than half have a slice of buyer ownership. For those projects where the buyer is a gas or utility company, the ownership slice is typically small, and rarely controlling, but generally gives buyers a sense of comfort to have a "seat at the table" regarding the overall progress of a project.

21. Will customer ownership push down the price?

No, customer ownership does not generally decrease pricing. Competition pushes down the price. LNG sellers, including Alaska, will be price takers more and more. We are competing with other projects and the competition – also known as the supply and demand balance – is what predominately influences the price.

22. If the state owns 100% of the project, how can it avoid the risk?

The mitigation of risk in such a large project will be key to the overall project success. This is true even under the all-equity model where the State was expected to fund 25 percent of the project cost.

There are a number of large LNG projects, even recently, that have experienced cost overruns during construction. In an equity funded project, these costs are typically borne by the project sponsors.

The quantification, distribution, and management of risk is one of the biggest challenges in overall project management. In a third-party structured financed transaction, the risks will be specifically identified, quantified, and distributed to the party best able and willing to manage or absorb the risk.

Any risk that AGDC or the State of Alaska would consider accepting would be subject to a contractual agreement that would be understood and approved by all relevant agencies, legislators, and parties involved in the process.

To ensure clarity, neither AGDC nor the State of Alaska will accept an inappropriate amount of risk for this project.

23. Is it a good time to be bringing an LNG project to market?

It is the best time we have but, unfortunately, it is not a great time to be marketing LNG. Currently, the global LNG market is in surplus because of all the supply projects recently brought on line or currently under construction.

Fortunately, natural gas is in increasing demand worldwide, with Asia-Pacific nations leading the demand pull. It is safe to say by industry consensus that a supply/demand equilibrium will be reached in the early 2020's with more LNG needed by the 2022-25 timeframe.

There are many more supply projects that also desire to come on line to meet that demand. These new projects are all in various stages of development, like the Alaska LNG project, and therefore will be our primary competition.

The global competitive arena will be intense, with major competitors using new and improved tools at their disposal to compete. Customers will be demanding contract terms reflective of a buyer's market. Once the competition is over, and the dust settles, the LNG industry will most likely have existing LNG suppliers that have become stronger, nations that have entered the LNG export scene for the first time, states in the US that are engaged in LNG exports, and contract terms and conditions that favor buyers as well as work against new entrants.

Even though the market is not great for a new supply project, it is as good as it will get. Alaska must leverage its advantages to compete now for the future demand. An LNG purchase contract is a multi-billion dollar purchase commitment that would take an appreciable amount of time to negotiate and approve. AGDC's plan is to begin customer awareness and marketing now, with the intention of securing commitments in 2017/18 that would be necessary to underpin the financing needed to construct the project and reach the 2022-25 window of opportunity.

Although some people may question whether a market window will exist in the mid 2020's, if Alaska is not positioned to compete now, we will certainly miss the opportunity.

24. What benefits does the gasline provide to the State of Alaska?

Alaska LNG will create thousands of local jobs. Based on resource and labor research, the Alaska LNG project will bring 9,000-15,000 new jobs during design and construction. Additionally, about 1,000 jobs during long-term operations will be created. Studies have also shown that each direct job creates a ripple effect in the economy that generates 20 indirect jobs. In addition to workforce opportunities, the potential revenue from natural gas exports can contribute to the State's economy.

In addition to providing added export revenue, the gasline will significantly reduce the barriers to further exploration on the North Slope and provide reliable, reasonably priced, fuel for domestic projects such as mining and processing activities. It will also provide Alaskan residential consumers with additional long-term affordable gas supply for home heating and other needs.

25. What if we do nothing; what if the gasline does not get built?

If Alaska misses the next forecasted demand cycle in 2022-2025, other global LNG projects will capture the market share and further minimize the potential to monetize Alaska's vast natural gas resource for the foreseeable future.

Most likely, the new projects that come on line to serve the mid-2020's demand pull will provide an excess amount of capacity that will take another several years to fully absorb into the market. The 2030's may see another demand pull, but by that time there will be numerous other projects that are looking at expansion phases or are farther along in the development cycle.

26. What are the next steps?

There has been a substantial amount of technical and engineering work performed on the project up to this point. The next steps involve continuing the regulatory application process, structuring the project for tax and other financial efficiencies, securing customers sufficient for financing, identifying and securing parties interested in equity investment in the infrastructure project, identifying and securing lenders for non-recourse project debt finance, and engaging large EPC companies competent to manage the construction of the project which will shoulder a significant part of the construction related risks.

27. Is the Governor directing the plan?

Governor Bill Walker is a strong proponent of the Alaska LNG project, but AGDC has been given the charge and latitude to direct the plan in keeping with industry practices for natural gas infrastructure project development.

In the past, as well as today, the gasline and LNG project is recognized as a major infrastructure project that could literally pay dividends for generations. It will increase the wealth of Alaska, not take from it.

The Governor, as the State's leader, is responsible for appointing AGDC's Board of Directors who are charged with ensuring the corporation is properly staffed and managed to achieve its mission to build a North Slope gas pipeline and LNG infrastructure for the maximum economic benefit of the State and its people. Additionally, the legislature confirms all board members for AGDC.

The corporation is an independent, public corporation of the State of Alaska. It is separate and distinct from the State. Funding for the corporation's operations and accomplishing its mission is appropriated by the Alaska State Legislature. It is by their discretion that the Alaska Gasline Development Corporation continues to operate.

28. What advantage does Alaska have over other suppliers?

Alaska has one of the largest and most reliable supplies of natural gas in the world with a 46 year history of LNG exports. The gas is from a conventional reservoir, not from shale gas. Alaska has an ideal geographic location to serve the major LNG consumption markets in the Asia Pacific region with a direct route to Asian destinations. Alaska is one of the safest and most well-defended places in the world and has a well-developed political and regulatory climate.

All competitive advantages combined, Alaska is an excellent place for a strategic LNG supply location.

29. Does the State have a chance to progress a successful project to completion?

If properly structured, the Alaska LNG project should be attractive to infrastructure investors, private equity funds, retirement funds, and other investment organizations. Yes, we absolutely have a chance, but we have an intense global competition ahead of us amongst the biggest players in the industry. Therefore, we need to be prepared. We need to ensure unified support throughout the state. With all of Alaska behind this project, it will not fail.

30. What can Alaskans do to help support the project?

The most important ways that constituents can support the Alaska LNG project is by staying informed and communicating your support to your representatives.

If you would like to stay informed about AGDC and our projects, please join our email list to receive meeting and event notices, news releases, and other public information. Visit https://agdc.us/updates.php to sign up.