

Alaska Gasline Port Authority

Project Definition



January 2006

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The purpose of this document is to provide background information and assist the recipients hereof in obtaining a general understanding of the Alaska Gasline Port Authority (“AGPA”) and its project. This document is not intended to form a sole basis of any investment decision or other decision to participate in the AGPA project and should not be considered as a recommendation or invitation by AGPA to make such decision. Each recipient hereof must make (and will be deemed to have made) its own independent assessment and appraisal of AGPA and its project after making such investigation, as it deems necessary in order to determine its interest and independently (and at its own cost) to have formed its own opinions and views.

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1. The Alaska Gasline Port Authority

The Alaska Gasline Port Authority (*AGPA*) is a municipal port authority established on October 5, 1999, in accordance with the Alaska Municipal Port Authority Act (AS 29.35.600). AGPA was formed by the municipalities of the North Slope Borough, Fairbanks North Star Borough and the City of Valdez. An election was held in each of those municipalities and the voter approval for the formation of AGPA averaged approximately 80%.

AGPA was formed to develop a project that will commercialize Alaska's North Slope gas. The structure of AGPA's project has been designed to bring significant benefits to all project stakeholders: the North Slope producers, the State of Alaska, the municipalities of Alaska, and gas consumers in Alaska and the lower 48 United States.

AGPA is governed by a nine member Board of Directors, with each of the three member municipalities appointing three members for staggered terms of three years. The Chairman of the Board of Directors is Mayor Jim Whitaker.

Shortly following its formation, AGPA submitted to the Internal Revenue Service an application for a private letter ruling establishing that all of AGPA's income would be tax exempt. On January 24, 2000, the IRS issued the requested private letter ruling declaring that income to AGPA would be exempt from federal income taxes.

2. Project Overview

AGPA intends to build, or cause to build, a trans-Alaska gas pipeline, liquefaction and gas processing facilities and related infrastructure for the transportation of North Slope natural gas to market (the *Project*). The Project consists of:

- ※ **Pipeline:** An 806-mile overland gas pipeline from Prudhoe Bay to tidewater at Valdez that will run parallel to the existing Trans-Alaska Oil Pipeline (TAPS). This will be a dense-phase, 48 inch pipeline, designed to transport North Slope gas that is high in liquids content. The Pipeline will have a capacity of up to 4.5 billion standard cubic feet per day (*Bscfd*) of gas. AGPA is willing to oversize the Pipeline to the Delta Junction beyond its base case design to allow for a future line from Delta Junction along the Alcan Highway.
- ※ **LNG Plant / LPG Extraction Facility:** An integrated liquefaction/fractionation facility in Valdez which will: (a) extract the liquid petroleum gases (*LPGs*) from the gas transported in the Pipeline; and (b) produce liquefied natural gas (*LNG*) for marine transportation to the West Coast of North America. The LNG Plant includes storage facilities and vessel loading facilities for LNG and LPGs.

- * **Glennallen Spurline:** The Pipeline will include a tie-in at Glennallen for a spurline to the Matanuska-Susitna Valley (approximately 125 miles), to connect with the existing South Central natural gas grid and provide up to 0.5 Bscfd of gas to the South-Central Alaska and the Kenai Peninsula.
- * **Gas Conditioning Plant:** A gas conditioning plant (*GCP*) will be built at Prudhoe Bay to remove carbon dioxide, water, and trace amounts of hydrogen sulfide from the natural gas feed and to compress and chill the gas to pipeline specifications. The GCP will also extract heavier (pentanes+) natural gas liquids (*NGLs*), which will be blended into the TAPS flow. The natural gas feed to the GCP will be raw gas, rather than residue gas from the existing gas processing facility at Prudhoe Bay. AGPA has assumed that the North Slope Producers would own and operate the GCP but is prepared to include it in its project scope if so preferred by the Producers.

LNG produced in Valdez will be shipped to regasification terminals on the West Coast of North America. The LPG extracted from the gas will be shipped to the best markets available in Asia or the United States.

AGPA has received Memoranda of Understanding (*MOUs*) from several West Coast receiving terminals in development:

- * Kitimat LNG, located in British Columbia, Canada
- * Crystal Energy LLC, located offshore Southern California
- * Penguin LNG, located offshore Southern California
- * Northern Star Natural Gas, located in Bradwood, Oregon

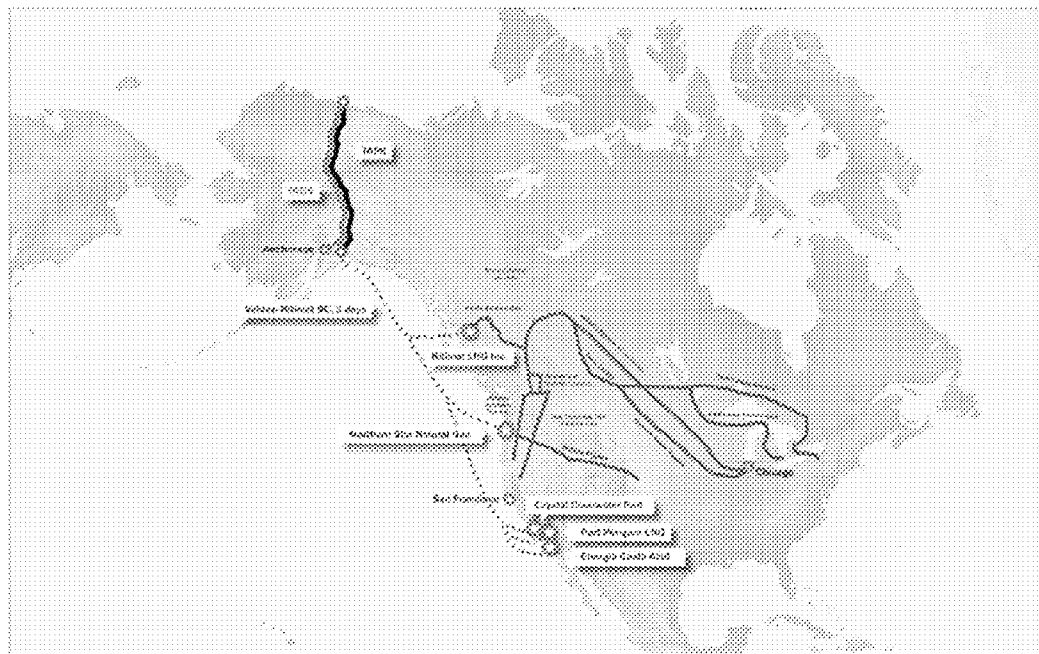
In addition, Sempra LNG continues to express interest in receiving Alaska LNG at its Costa Azul terminal in Baja, Mexico.

The Kitimat LNG terminal is expected to be the first receiving terminal permitted on the West Coast north of Mexico, with final regulatory approval to be obtained in the first quarter 2006. The Kitimat LNG terminal also enjoys the advantage of ready access to existing pipeline infrastructure: regasified LNG from the Kitimat terminal will be delivered to Station 4A on Duke's Westcoast pipeline system, from where it can be transported to Chicago and the Midwestern markets via TransCanada's gas transportation network.

The estimated LNG tanker voyage to the Kitimat LNG terminal and to Southern California is approximately 2 and 4.5 days, respectively. For gas transported to the Kitimat LNG terminal, the Project will not be subject to the Jones Act, as the gas composition will be altered through some liquid extraction at the receiving terminal in Canada. Furthermore, AGPA has received an MOU from the American Shipping Group/Totem Ocean Trailer Express (*TOTE*), a private shipping company serving Alaska since 1975, with the American Shipping Group as its parent company. TOTE has submitted an

MOU and a competitive price quote to AGPA whereby TOTE would provide U.S.-built LNG ships in full compliance with Jones Act for gas shipped to U.S. West Coast LNG receiving terminals.

Figure 1 Destination Markets for Alaska LNG



The AGPA project assumes a phased development, with incremental installation of capacity. The initial phase will install an LNG train with liquefaction capacity for 1.1 Bscfd of gas, or approximately 8 million metric tons (*MMTA*) of LNG. This initial phase will allow the capture of gas markets in a relatively short time horizon, with first gas deliveries commencing as early as 2012.

Project capacity will be expanded through the installation of additional LNG trains in Valdez, additional compression on the Pipeline and additional gas conditioning process trains at Prudhoe Bay. The assumed base case volumes at full project development are 4.3 Bscfd of gas at the Pipeline inlet.

3. Technical Support from the Bechtel Corporation

Shortly after formation, AGPA signed an MOU with the Bechtel Corporation (*Bechtel*) for technical assistance in analyzing the Project. On November 1, 1999, Bechtel initiated and engineering, procurement and construction (*EPC*) study with the following scope:

- * determine engineering basis
- * develop overall execution plan
- * develop an EPC schedule
- * provide preliminary assessment of environmental issues and project risks
- * prepare +/- 20% cost estimate
- * obtain two to three quotes for all major material and equipment

The Bechtel EPC Study was completed at the end of 2000 and was the result of over 55,000 hours of work. Since the original work was completed, the prices of steel, concrete, various equipment, and transportation have increased significantly. In March 2005, Bechtel performed a revision of the cost estimate to reflect these changes in market conditions.

4. Project Permitting

In order to expedite the permitting for the Project, AGPA has entered into an exclusive Option Agreement with CSX to purchase the equity of the entities which own the environmental data, studies, permits, and rights of way developed by the Yukon Pacific Corporation (*YPC*) in connection with an earlier version of the Project. Bechtel's environmental personnel have estimated that the use of this data and rights will enable the Project to save 18 to 30 months in permitting and construction time over any competing project.

YPC was formed in 1982 by two former Governors of Alaska, William Egan and Walter Hickel, for the sole purpose of building a trans-Alaska gas pipeline to tidewater at Valdez for the export of LNG. Over its many years of existence, YPC obtained numerous permits and rights associated with such a project. The following is a list of these permits, in the order in which they were received:

- * FERC Declaratory Order Regarding its TAGS Jurisdiction (May 27, 1987)
- * Presidential Finding Approving Export of Alaska Natural Gas (January 12, 1988)
- * Coastal Zone Consistency Determination (January 20, 1988)
- * TAGS Project-wide Final EIS (June, 1988)
- * Ahtna Corporation Right of Way Agreement (October 14, 1988)
- * Federal Pipeline ROW Grant (October 17, 1988)
- * State of Alaska Conditional ROW Lease (December 10, 1988)
- * DOE/OFE Authorization for Export of Natural Gas (Order 350) (November 16, 1989)

- ※ DOE/OFE Confirmation of Order 350 (March 8, 1990)
- ※ Anderson Bay (LNG Terminal) Final EIS (March, 1995)
- ※ FERC Authorization for Siting LNG/MT Facility (May 22, 1995)
- ※ Anderson Bay LNG/MT Facility Air Quality (PSD) Permit (August 5, 1997)

All of the above permits remain valid today. AGPA anticipates updating the key siting permits with up-to-date environmental and technical information. Certain adjustments will be made to reflect AGPA's plan to shift the market for Alaskan LNG from Asia to the United States or to expand the pipeline facilities.

5. Project Cost

The EPC costs for the Project have been estimated as follows:

- ※ **Liquefaction and LPG extraction facilities:** \$2.1 billion for each process train (or approximately \$280 per ton of installed LNG capacity), with a combined cost of \$6.3 billion for the all three trains.
- ※ **Pipeline:** The cost of the Pipeline capable of carrying the initial phase volumes is estimated to be \$8.6 billion. The incremental cost of installing additional compression to handle the gas for the second and third LNG trains is \$800 million and \$2.4 billion, respectively. The total cost of the Pipeline is estimated to be \$11.8 billion.
- ※ **Gas Conditioning Plant:** The cost of the GCP for the fully ramped-up project is estimated to be \$5.1 billion. The Bechtel EPC cost estimate for the GCP assumes no benefit from the use of existing North Slope infrastructure. The use of such existing infrastructure will reduce costs and improve project economics.

The Bechtel EPC cost estimates include:

- ※ EPC contingency allowances (8%-20%, depending on cost component)
- ※ allowance for cost escalation during construction
- ※ contractor's profit margin

In addition to the Bechtel EPC cost estimates, the following pre-finance owner's costs have been assumed by AGPA:

- ※ owner's contingency, estimated at 5% of EPC cost: \$904 million
- ※ construction insurance, estimated at 1% of EPC cost: \$181 million
- ※ line pack: \$17 million
- ※ O&M mobilization, G&A costs: \$82 million

- * development costs: \$100 million for the full project (\$86 million allocated to Pipeline and LNG plant)
- * impact fees: \$100 million total (\$86 million allocated to Pipeline and LNG plant)
- * permits acquisition payment: \$60 million
- * initial working capital: \$20 million

Financing costs (interest during construction, fees, etc.) add an additional \$3.8 billion to the AGPA Project capital cost.

6. Funding Sources

The capital required for most municipal organizations of this type is typically raised using a 100% debt structure. That debt is usually in the form of municipal bonds – both taxable and tax-exempt. The use of tax-exempt bonds is restricted, with some exceptions, depending on how much of the Project will be used for municipal purposes as opposed to private uses. In this case most of the Project will fall in the private use category. However, one exception to the private use restriction is for port facilities. AGPA believes it can potentially qualify over \$3 billion of the Project bonds for tax-exempt treatment.

In November 2004, legislation was enacted by Congress (Public Law 108-324, the codified version of HR 4837, the Alaska Natural Gas Pipeline Act) which provides for a federal loan guarantee, up to a maximum of \$18 billion, for 80% of the project cost of a qualified Alaska pipeline project selected by the Secretary of the Department of Energy. AGPA intends to apply for a federal loan guarantee under this authority.

AGPA will fund the remaining portion of the Project cost by raising non-guaranteed project debt. As tax-exempt debt cannot be federally guaranteed, AGPA will optimize the allocation of its tax-exempt and taxable debt issues by using the guaranteed debt for the portions of the Project that are not qualified for tax-exempt debt and raising tax-exempt debt for the portions of the Project that are eligible as port facilities or non-private use.

7. Project Schedule

The AGPA Project will enable the timely commercialization Alaska's gas. The use of existing YPC permits will enable the Project to save an estimated 18 to 30 months in permitting and construction time. The AGPA project does not rely on speedy resolution of various Canadian regulatory issues, legal disputes and aboriginal claims issues. Based a 48 month construction schedule and assuming start of construction at the end of 2007, AGPA will be able to deliver gas as early as 2012.

Figure 2 Project Timeline

	2006	2007	2008	2009	2010	2011	2012
Update project scope	■						
Prepare design changes to modify existing permits	■						
Update environmental studies, conduct surveys	■						
Prepare and submit applications	■						
Receive all permits and approvals		■					
Obtain/modify all rights of way as necessary		■					
Negotiate commercial agreements		■					
Obtain loan guarantee		■					
Negotiate financing documentation		■					
Financial Close			◆				
Construction			■	■	■	■	■
First Gas							◆

8. Technical Description and Construction Plan

8.1 Gas Conditioning Plant

The GCP has been designed to remove undesirable components to within LNG specifications. The undesirable components are moisture, carbon dioxide, hydrogen sulfide, benzene, and other heavy hydrocarbons. The GCP will compress and chill the feed gas to pipeline specifications.

The GCP consists of three major process sections: dehydration and mercury removal section, cryogenic process section, and pipeline gas compression and chilling section. There are two refrigeration loops, propane and ethylene, to support the cryogenic process. Complete specifications of utilities are included to make plant operations independent of the existing CGP to the maximum extent possible.

Equipment and piping located outdoors will be designed for arctic operation. In general, low temperature metallurgy will be utilized whenever equipment and material is exposed to low ambient temperatures and where the steel is subjected to operational stress or loading. This includes major structural steel members and pressure retaining parts including piping and vessels. All mechanical, electrical, and safety systems will be designed to withstand extremely low ambient temperatures without experiencing detrimental effects.

The construction execution plan for the GCP is based on modular fabrication at selected yards located world wide. Conventional over-the-road transportation cannot be considered for the prefabricated modules, which will be used to construct this plant due to their extreme weight and dimension. The only practical manner in which to move

cargo of this size to the North Slope is by barge. Timing is an integral part of this plan as the shipping window into Prudhoe Bay is limited to the period when the ice recedes.

The project scheduling plan is to have barges originate from the U.S. Gulf Coast, from Asia Pacific, and from Dutch Harbor Alaska. The plan assumes that all available modules from Asia Pacific and vendor assemblies from the U.S. Gulf Coast will be loaded onto barges directly from their fabrication yards. Some modules and vendor assemblies originating from Europe will be loaded onto heavy lift or roll-on, roll-off (RORO) vessels for shipment to Dutch Harbor Alaska, where they will be transferred to barges for the final leg of their journey.

Each barge will ship to Point Clarence to be properly fitted for the final voyage and to await open water in Prudhoe Bay. As conditions become favorable, the barge fleet will make the final move to Prudhoe Bay with tandem tows. Ice reconnaissance planes will also be deployed to chart ice pack motions and report to the barge fleet for navigation.

Docking facilities in Prudhoe Bay will be limited to the West Dock Two. This is the only dock suitable for unloading modules in Prudhoe Bay. However, the draft at this dock is estimated to currently be between 6-1/2 to 7 feet in depth. This is insufficient for the 400' x 100' barges when fully loaded and will require lightering from these large barges to smaller barges to safely discharge at the West Dock Two.

When the barges arrive at West Dock Two, they will be moored in a load-out position by the barge operator and ballasted to a position level and flush with the dock. There will be sufficient access at the dock for mooring two barges.

Self-propelled modular transporters will be required to move the modules from the barges to the construction site.

The work at Prudhoe Bay will consist of preparing the site, off-loading, setting, and interconnecting all modules, vendor assemblies, and major columns. A small amount of non-module piping will be required. A competent contractor under Bechtel's direction, supplemented by specialty subcontractors, will execute the work at Prudhoe Bay.

Preliminary discussions with existing North Slope contractors indicate that there is sufficient camp capacity at Prudhoe Bay to accommodate the approximately 550 persons required to construct the GCP. The available space is located at the Frontier Camp, several camps near Deadhorse Airport, the ARCO Camp, and the BP Camp. Preliminary planning would house the craft personnel at the Frontier Camp and arrangements would be sought to house the non-manual staff at either the existing ARCO or BP camp. Camp catering, housekeeping, and camp operating services are available locally.

Construction equipment such as hydraulic cranes, tools carriers, and air compressors, are available for lease from several companies operating in Prudhoe Bay. Arctic fuel is produced by both ARCO and BP and is available from local bulk fuel distributors.

Although construction temporary power is currently planned to be provided by diesel generators, electricity is generated at the North Slope.

8.2 Pipeline

The Pipeline is sized at 48-inch outside diameter to accommodate gas volumes of up to 4.5 Bscfd. In the event that the option is selected to oversize the segment from Prudhoe Bay to Delta Junction (to accommodate a future pipeline along the Alcan Highway), the pipeline will have a 56-inch and will be capable of eventually transporting 6-7 Bscfd.

An operating pressure of 2,220 pounds per square inch - gauge was determined, with two compressor stations initially installed along the route to maintain this pressure requirement for the initial volumes. Additional stations will be constructed as volume through the pipeline increases. Compressors will be driven by gas turbines. Compressor stations not needed for the initial flow condition will be equipped with pig traps and valves for station bypass and isolation to facilitate later expansion of the pipeline system.

Routing of the Pipeline is roughly parallel to and in relatively close proximity to the existing TAPS line. It is planned that a minimum 200-foot separation will be maintained between the Project's pipeline and TAPS, except at points where the pipelines may cross.

The Pipeline is assumed to be buried along its entire length, both for safety and to lower the overall cost of the system. Provision was made to operate the line by first chilling the gas to below freezing before introduction into the pipeline to prevent thawing of the permafrost.

Construction personnel will be accommodated in camps to be provided by the Project. A total of twelve camps are anticipated. Each camp will be sized to meet peak demands at its location. Two camps are located in close proximity to the planned location of the two compressor station sites and will be sized to accommodate both pipeline construction and compressor station construction personnel. Overall, camp sizes will range from 600-persons to 1100-persons based on a peak pipeline and compressor station staffing that is estimated to be in excess of 6,000.

Construction of the pipeline will be divided into multiple "spreads" (i.e., major construction segment assigned to one subcontractor). The spread subcontractors will be responsible for provision of all required labor and construction equipment. Sub-tier contractors will be used for specialty work.

A series of craft training programs, such as welder training, will be conducted as a coordinated effort between the prime construction contractor and the spread subcontractors. These training programs are intended to provide opportunities for local Alaska residents to qualify for jobs on the pipeline and to supplement the pool of qualified labor available to the Project.

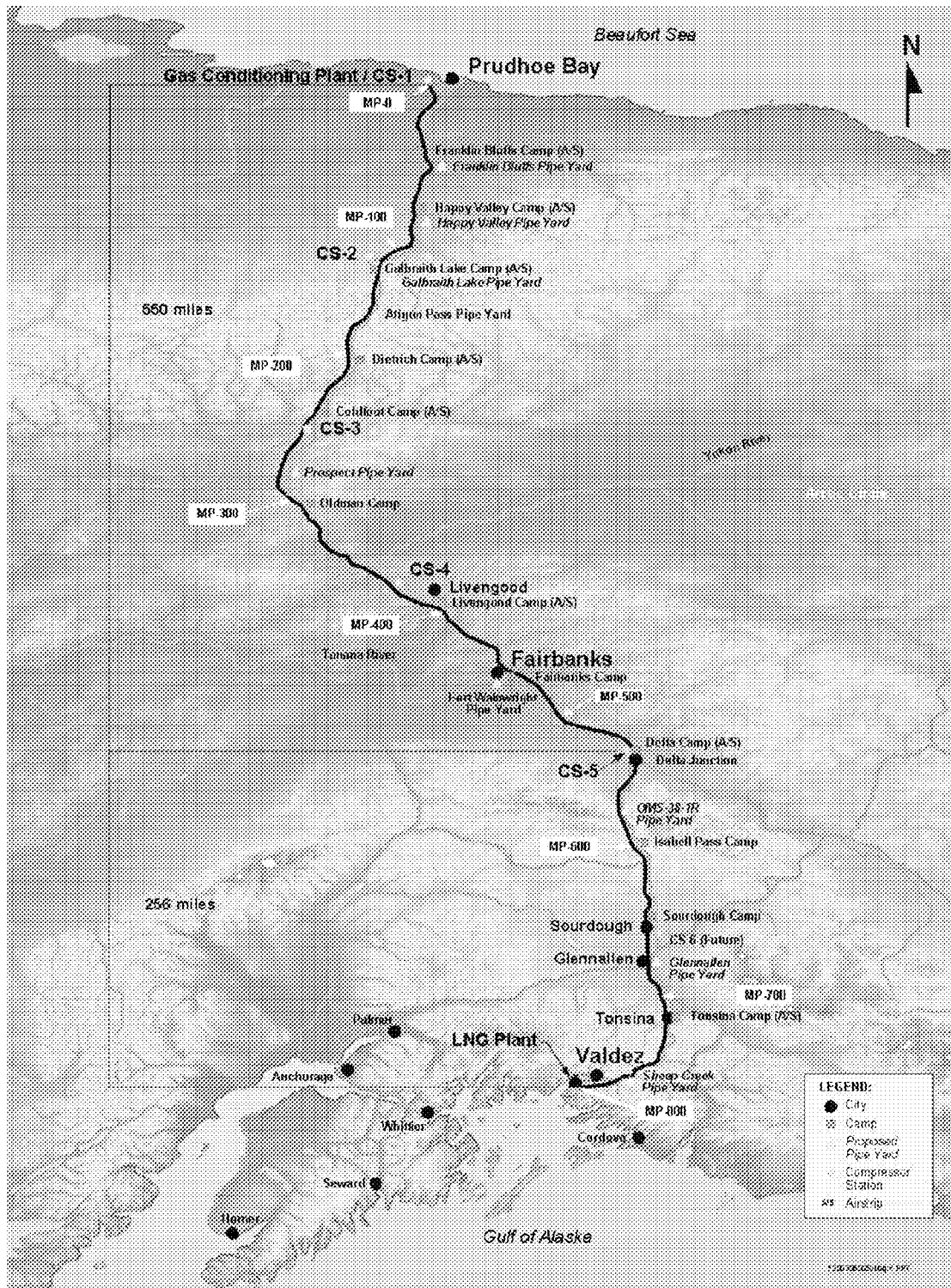
Pipeline construction will utilize a combination of graded right-of-way, snow/ice workpads, and gravel workpads. Automatic welding will be used to improve both the quality and the speed of the welding effort. Ditching will be accomplished by a combination of explosives and by the use of chain-type trenching machines. Crossing of certain rivers and streams (e.g., major rivers, selected sensitive fish streams) may be installed by directional drilling or microtunneling in order to minimize potential environmental impacts. After installation and burial of the pipeline, the right-of-way will be restored in accordance with the Project's environmental plans.

Compressor stations will be constructed on-site in lieu of modularization. Buildings will be shop-fabricated for field erection. Shop prefabrication of some piping may be conducted to save overall capital cost. A concrete batch plant will be located at each station site due to remoteness. These batch plants will also service portions of the pipeline construction effort.

The pipeline and compressor stations will be installed in both the summer and winter seasons to take advantage of each season's unique conditions; i.e., summer's mild temperatures and extended daylight, and winter's cold to protect the permafrost. Whereas all-summer or all-winter construction runs the risk of unusual weather conditions severely impacting schedule, this year-round approach provides the greatest assurance of completing the job on schedule as the Project can better adjust to unusual weather extremes.

The routing of the Pipeline and planned location of construction camps is shown on Figure 3.

Figure 3 Pipeline Route



8.3 LNG Plant and LPG Extraction Facility

Liquefaction capacity will be installed incrementally through the installation of process trains. The AGPA base case envisions three process trains, each adding liquefaction capacity for 1.1 Bscfd volume of gas (approximately 8 MMTA of LNG). The liquefaction facility has been designed on the basis of the Phillips Optimized Cascade process, which is a proven technology.

The Alaska LNG plant feed stream will have a high concentration of LPGs (propane and butane), requiring additional process equipment to strip LPG from the natural gas prior to production of LNG. The base case estimates LPG production of approximately 120 thousand barrels per day.

The LNG facility will include LNG storage tanks and two loading docks for ships. The Valdez site is an ideal harbor for large ocean-going vessels due to the deep water surrounding the site. Loading dock one will be approximately 270 feet long and loading dock two be 500 feet long. The design allows for one docked ship per loading dock with concurrent loading. LNG will be loaded from either loading dock and LPG will only be loaded from loading dock one.

LNG storage tank operating pressure is 15.4 psia. The LNG loading rate is 10,000 cubic meters per hour. Loading arm requirements are for two for loading, and one for vapor return (per loading dock).

During the first year of construction, an access road from TAPS to the LNG site will be constructed. It will be a gravel all weather road to enable the site to receive vehicles and reduce the risk and cost of marine operations. A construction camp for 2500 will be erected. During the first year, the construction activities will be initiated with the clearing and grading of the plant site. Blasting will be performed during the fall and winter months to maintain the schedule. During the blasting operation, the holes for the rock-anchoring program will also be drilled.

During the second year of construction, all of the first train mass foundations will be completed in the summer months and the pedestals will be completed in winter. Permanent steel formwork will be used to maximize productivity. Concrete will be provided from onsite batch plants.

9. Project Economics

The forecast economics of the AGPA Project are robust, providing significant economic benefits to the North Slope Producers and the State and communities of Alaska.

9.1 Gas Purchase Price Methodology

AGPA proposes to purchase North Slope gas at the inlet of the gas conditioning plant on a netback basis, whereby upon receipt of gas and LPG sales revenue, AGPA will pay the Project's operating costs, service its debt obligations, make certain payments to the State and municipalities and provide *all* the remaining proceeds to the North Slope Producers in the form of a netback purchase payment for the gas. The netback price is calculated as:

$$P = N / Q$$

where

P = Purchase price at GCP inlet

N = Netback revenue

Q = Quantity of gas purchased, in million British thermal units (*MMBtu*)

The value of N is calculated as follows:

- (A) aggregate Project revenues from sale of LNG, gas for in-State use, LPG and NGL
- less*
- (B) Project operating costs:
 - (i) O&M expenses
 - (ii) LNG shipping and regasification costs
 - (iii) costs of downstream gas infrastructure access and transportation to market
 - (iv) GCP tolling charges payable to GCP operators
- less*
- (C) interest expense and principal repayment on debt
- less*
- (D) subordinated project expenses:
 - (i) Permits acquisition payments
 - (ii) Payment in lieu of property taxes (PILT)
 - (iii) AGPA distribution to Alaska State and communities
- plus*
- (E) cash in-flows:
 - (i) funds returned from debt service reserve accounts (if any)
 - (ii) interest earnings on cash deposits

9.2 Forecast Netback Prices

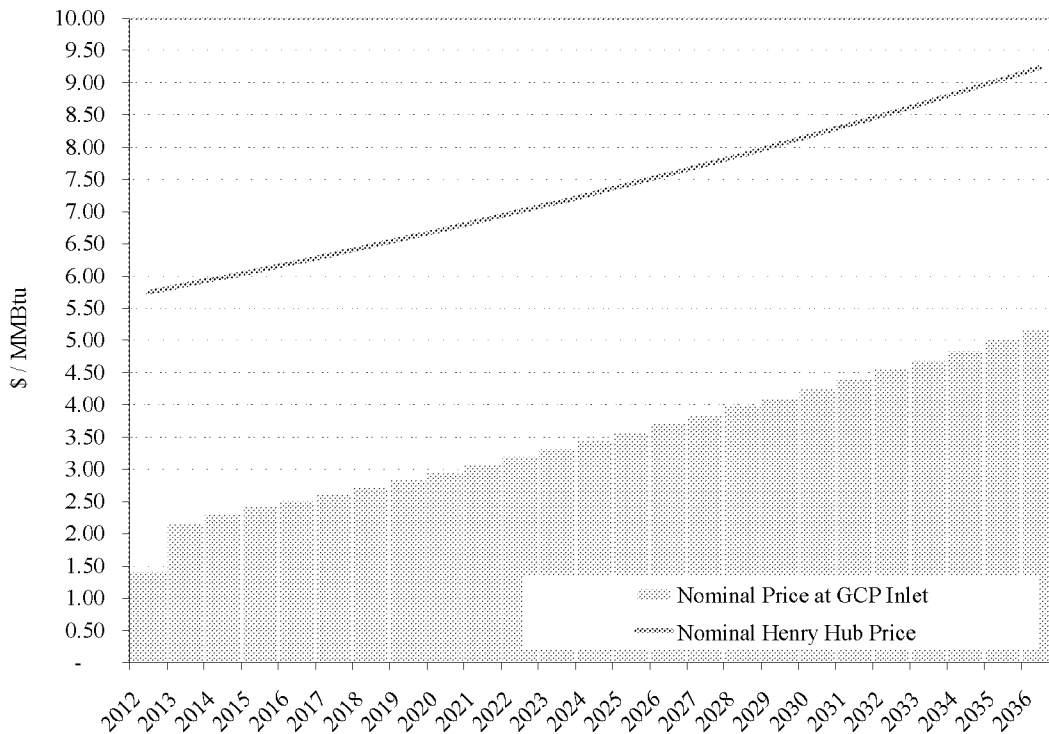
The AGPA base case assumes a Henry Hub gas price of \$5.00 per MMBtu in constant 2005 dollars. Real prices are escalated at an assumed rate of inflation of 2% per annum

to obtain forecast nominal (money-of-the-day) prices for each year of the Project’s operating period.

The forecast netback prices at the GCP inlet depend in part on the location of the receiving terminals and the allocation of LNG volumes to each West Coast terminal for regasification. The netback prices in 2012, during the initial Project phase of one LNG train, are projected to be in the range of \$0.95-\$1.72 per MMBtu, depending on the assumed proportion of LNG allocated to each of terminal.

The base case assumes that equal LNG volumes are regasified at three receiving terminals in the Kitimat, Oregon and Southern California locations, resulting in an initial netback price of \$1.42 per MMBtu in 2012. The netback price increases to \$2.15 per MMBtu in 2013, the assumed start-up date for the second LNG train. The netback price increases further to \$2.31 in 2014, the assumed date of full Project ramp-up. After 2014, the netback price increases every year in increments of \$0.10-\$0.15 per MMBtu. The assumed Henry Hub gas price and base case forecast netback price, in nominal terms, are illustrated below. The projected netback pricing will be adjusted when the regasification capacity allocation utilized by the Project is finalized.

Figure 4 Nominal Henry Hub Price and Resulting Netback Price



The projected netback prices to the North Slope Producers are competitive. AGPA has a lower cost of capital than a private gas transporter, who will likely require a return on equity in the order of 14%), and AGPA income is exempt from income taxes. This

reduces AGPA's cost of service and increases the netback value to the North Slope Producers.

The projected nominal netback revenue to the Producers starts at \$950 million in 2012, increases to \$2.9 billion with the addition of the second LNG train, and increases further to \$4.5 billion in 2014 when the full Project capacity is installed. Nominal netback revenues increase every operating thereafter, averaging \$7.9 billion per year for the remainder of the operating period.

Projected real (i.e., inflation-adjusted) netback revenue to the Producers starts at \$827 million in 2012 and increases to \$3.8 billion at full Project capacity in 2014. Real netback revenues average \$4.8 billion per year for the remainder of the operating period.

10. Benefits to the Alaska State and Communities

The AGPA Project will generate substantial benefits to the State of Alaska and all Alaska communities. The AGPA Project will provide greater revenues to the State of Alaska and all Alaska communities than the proposed alternatives. It will result in significantly greater infrastructure investment in Alaska and will generate significantly greater long-term job creation in Alaska. The Project is expected to generate (a) 550 jobs at the GCP; (b) 7,200-13,200 jobs for the Pipeline; and (c) 2,500 jobs for the LNG Plant. It will also provide more gas for use in Alaska.

As part of its cost structure, AGPA will make two forms of payments to the State and all Alaska municipalities:

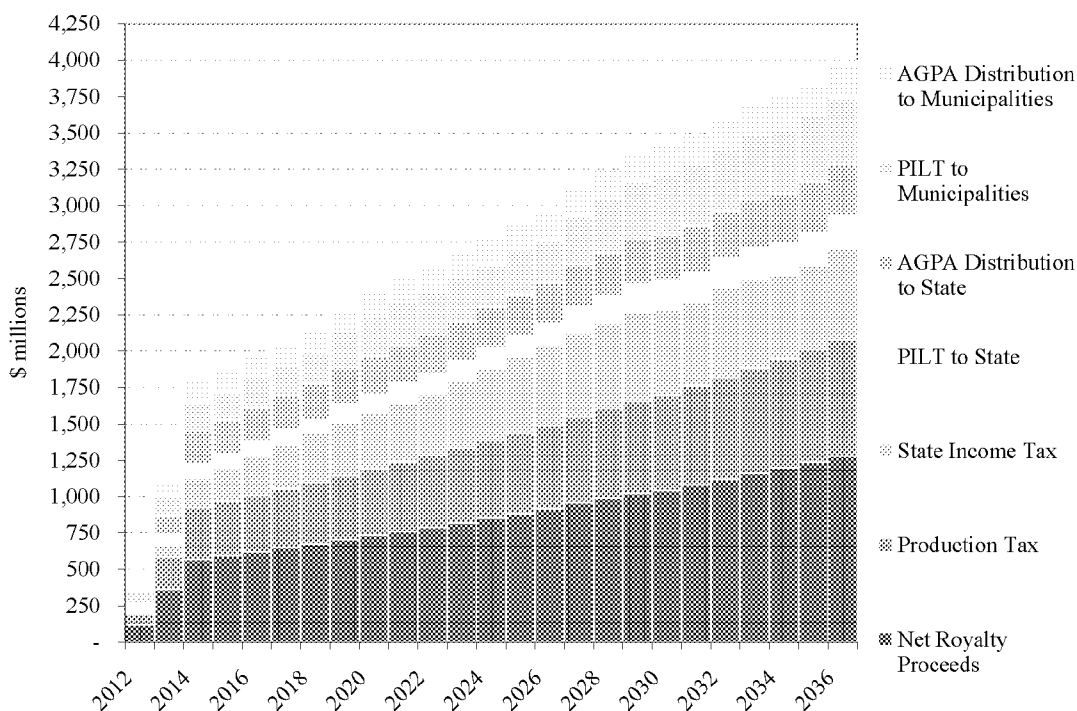
- ※ Payment in lieu of property taxes (*PILT*)
- ※ An annual distribution to the State and all Alaska communities in the amount of \$370 million (the *AGPA Distribution*)

Sixty percent of the AGPA Distribution will be allocated to the State, with the remaining 40% distributed to all Alaska municipalities, based on population. The State will receive PILT payments for the portion of the Pipeline built on State land.

The Project will directly generate substantial revenues to the State from the upstream component of the Project: proceeds from royalty gas and NGL, production tax on gas and NGL, and State income tax on the upstream operations and the GCP (if privately owned). As the AGPA Project will achieve higher netback revenue due to its lower cost structure, the State will realize higher value on its upstream tax proceeds.

Figure 5 shows the projected nominal (money-of-the-day) revenues for the State and communities of the Alaska.

Figure 5 Revenues to the State and Municipalities of Alaska



11. Advantages of the AGPA Project

In marked contrast to the public opposition often found in other jurisdictions when oil and gas development is proposed, the vast majority of Alaskans support the development of the Alaska LNG Project:

- * October, 1999: By an average of 80%, Fairbanks North Star Borough, North Slope Borough and Valdez voters authorize AGPA to build an All-Alaska gasline
- * November, 2002: 62% of statewide voters authorize the Alaska Natural Gas Development Authority to build an All-Alaska gasline
- * September, 2003: Backbone II, a state-wide organization co-chaired by former Governor Walter Hickel, is formed to support an All-Alaska gasline
- * November, 2004: Alaska Municipal League representing over 160 Alaskan municipalities unanimously votes to support this Project
- * November, 2004: Alaska Congressional Delegation clarifies law guaranteeing that federal incentives apply to an All-Alaska gasline

- * May, 2005: A statewide poll concluded that 65% of Alaskans favor an All-Alaska gasline over all other proposed projects. Two former governors, Governor Jay Hammond and Governor Walter Hickel, as well as many prominent Alaskans including politicians and business and labor union leaders, publicly advocate this Project
- * May, 2005: The All Alaska Alliance, consisting of state environmental organizations, organized labor and other state-wide entities have joined in a united effort to promote this Project
- * August, 2005: The Alaska First organization, including of the largest public utilities in the State who depend on natural gas to supply energy to over 400,000 Alaska residents and are concerned about South-Central Alaska's loss of natural gas, was formed to support the Project

The AGPA Project will enable the commercialization of Alaska's North Slope gas on a timely schedule. In addition to preventing the loss of State and municipal revenue resulting from potential delays to competing projects, AGPA would allow Alaska to preserve market optionality for its gas. If the AGPA Project is not implemented quickly, Alaska may lose the West Coast market to alternative LNG suppliers, as the Producers are targeting the West Coast market from other projects.

If the LNG project is implemented first, the Midwest market would remain available for future expansions via the Alcan Highway route. Alternatively, if West Coast market is captured by foreign LNG supplies, Alaska's future gas sales and expansions may be constrained or eliminated. The AGPA Project and the Alcan Highway project are not mutually exclusive:

- * the Y-line concept proposed by AGPA, with a Highway project tie-in at the Delta Junction, would allow both projects to proceed;
- * sharing the line to the Delta Junction would reduce costs for both projects and would increase netback prices; and
- * such a project will provide the greatest optionality to maximize the value of Alaska's gas in all potential markets.

Overall, the AGPA project will provide maximum use of Alaska's resources for the maximum benefit of Alaskans.

12. Project Risks and Mitigants

Cost Overruns and Project Delays

- * The Project benefits from the world-class technical experience of Bechtel. AGPA's capital cost assumptions are based on the extensive technical work performed by the Bechtel engineering team and are conservative, including

sizable contingencies and cost escalation allowances. The AGPA capital cost estimates have been updated to account for recent price increases of materials and equipment.

- ※ Significant portions of the Project will have relatively low risk of overruns due to the use of proven technologies and standardized designs. The liquefaction facilities at Valdez and the cost of LNG marine transportation and regasification will be subject to a relatively low level of cost uncertainty.
- ※ The Pipeline has the highest risk of capital cost overruns, due to challenging terrain and conditions and the recent volatility of the price of steel. The Pipeline represents a smaller portion of the overall cost of the AGPA Project (about 50%) than in the case of competing overland pipeline projects via the Alcan Highway, for which the pipeline represents most of the capital cost.
- ※ The Project has robust pro forma economics, indicating an ability to sustain relatively large increases in capital cost before the netback pricing at the North Slope becomes unprofitable.
- ※ AGPA will implement a comprehensive EPC contracting strategy, seeking to mitigate cost overrun risk through the maximization of lump sum contracting to the greatest extent possible. AGPA will contract with world-class, experienced contractors, such as Bechtel, to manage the construction process.
- ※ AGPA will seek commitments for contingent funding to be available in the event of cost overruns and Project delays.

Operational Performance

- ※ AGPA will contract with experienced, world-class operators to manage the technical aspects of the Project during the operating period.

Gas Market and Price Risk

- ※ AGPA intends to obtain long-term, firm supply commitments for North Slope gas.
- ※ Projected decline in Lower-48 conventional gas production will create a strong demand for the Project's gas.
- ※ The pro forma Project economics are strong and generate high netbacks at conservative base case price assumptions.
- ※ The netback pricing arrangement proposed by AGPA minimizes the financial commitment of gas suppliers and mitigates their risk exposure to cover potential negative netbacks.

- * Upstream investment requirements are relatively small in comparison with the revenue generation capacity of the Project.
- * The relatively low-risk, high-reward upstream economics should provide a strong economic incentive for the gas suppliers to honor their performance obligations under the firm supply contracts.
- * AGPA will contract with experienced gas marketers to maximize the value of Alaska's gas.

LPG Market and Price Risk

- * The Project will maximize the value of Alaska's LPGs as it will be able to sell in the best available market in the Pacific Rim and the US Gulf Coast. Historically, the East Asia has been a premium market for LPGs. In contrast, the competing Alcan Highway projects will sell LPGs in Alberta and the Midwest, which are surplus markets that will not be able to absorb the large quantities of incremental LPGs without a significant increase in price discounts.
- * AGPA will contract with experienced LPG marketers.

Reserves Risk

- * The North Slope contains 35 Tcf of a known discovered gas resource. This gas has been discovered primarily as a result of exploration for oil. It is commonly believed that the undiscovered gas resource on the North Slope is a multiple of the known discovered resource, more than sufficient to supply the Project, with expansions, for decades.
- * The prospect of an imminent trans-Alaska gas pipeline project is expected to spur extensive further exploration for gas on the North Slope in leases with prospective gas accumulations.