

Alaska Gasline Development Corporation - Year 2 In-State Gas Project **FY2012 Request: \$5,500,000**
Reference No: 51753

AP/AL: Appropriation **Project Type:** In-State Gasline
Category: Natural Resources
Location: Statewide **House District:** Statewide (HD 1-40)
Impact House District: Statewide (HD 1-40) **Contact:** Ray Utter
Estimated Project Dates: 07/01/2011 - 06/30/2016 **Contact Phone:** (907)330-8355

Brief Summary and Statement of Need:

This project utilizes State General Funds (GF) to produce by July 1, 2011, "a project plan for developing an in-state natural gas pipeline. The plan must specify and document how an in-state natural gas pipeline can be designed, financed, constructed, and made operational by December 31, 2015. This phase of the project will continue those efforts toward fruition.

Funding:	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>	<u>Total</u>
AHCC Rcpts	\$5,500,000						\$5,500,000
Total:	\$5,500,000	\$0	\$0	\$0	\$0	\$0	\$5,500,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> On-Going
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

Operating & Maintenance Costs:

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
Totals:	0	0

Additional Information / Prior Funding History:

FY2011 \$15,640,600 GF (Chapter 7, SLA 2010)

Project Description/Justification:

The purpose of this project is to support the ongoing effort on the project to plan for the development of an in-state natural gas pipeline.

The projected outcomes are advancements in:

- Engineering data acquisition and refinement of engineering design;
- Permitting;
- Draft Environmental Impact Survey (EIS) (State and Federal);
- Right of Way;
- Subsistence Impact Review;
- Project Risk/Phasing Analysis;
- Commercial Analysis and financing of downstream industrial opportunities;
- Preparation of a comprehensive financing plan; and
- Public Outreach

Program Description:

The project plan must also include an analysis of alternative possible routes and the selection of a route that:

- Is economically feasible;
- Makes natural gas available to residents at the lowest possible cost;
- Allows for connecting lines to serve industrial, residential, and utility customers along the entire route, and in other regions of the state that can be served at commercially feasible rates;
- Uses state land and existing state highway and railroad rights-of-way to the maximum extent feasible; and
- Uses existing highway and railroad bridges, gravel sources, equipment yards, maintenance facilities, and other existing facilities and resources to the maximum extent feasible.

The gas transmission pipeline, together with all related property and facilities, to extend from the Prudhoe Bay Area on the North Slope of Alaska or other regions of the state to a market in the state, or be available to a market in the state, and either to tidewater at a point on Prince William Sound and the spur line from Glenallen to the Southcentral Gas Distribution grid or to Tidewater at a point on Cook Inlet, and includes planning, design, and construction of the pipeline and facilities as described in AS 41.41.010(a)(1)-(5)

Project Features

Pipeline

- Mainline: 737 miles long; 24-inch diameter; 2,500 psi maximum operating pressure.
- Fairbanks Lateral: 35 miles long; 12-inch diameter (tie-in with mainline at MP 458).

Gas Conditioning Facility

- 70-acre site at Prudhoe Bay to remove carbon dioxide, hydrogen sulfide, and other impurities from the gas.

Compressor Stations

- 2 stations required for initial flow of 250 to 500 million standard cubic feet/day.
- Gas-turbine-driven centrifugal compressors
- Two gas-turbine-driven electric power generators per station, each on a gravel pad with pile-foundation within a metal building.

Other Permanent Facilities

- NGL extraction plant near Port MacKenzie.
- Gas take-off facility near Dunbar.
- Custody-transfer gas-metering stations at Dunbar and at Big Lake terminus (2.5 acres each).
- Operation and maintenance centers in Wasilla, Fairbanks, and Prudhoe Bay.

Purpose of the Project

The Alaska Stand Alone Gas Pipeline (the "bullet line") is an in-state gas pipeline to provide long-term, stable supplies of natural gas from the North Slope to the Fairbanks and Cook Inlet areas, as well as to other communities where practicable. In 2010, the Alaska Legislature asked for a Project Plan to be ready by July 1, 2011, for a pipeline that would bring gas to Southcentral Alaska by 2016 to offset projected supply gaps.

The Alaska Stand Alone Gas Pipeline will have a capacity of 500 million standard cubic feet per day (MMscfd) of clean-burning natural gas. The initial flow rate will be 250 to 500 MMscfd, and the line will

be expandable to 1,000 MMscfd. The Project will also support options to export liquefied natural gas (LNG) and market natural gas liquids (NGL) to the U.S. West Coast and/or Pacific Rim markets.

Relationship to Other Pipeline Projects

Two other groups are developing separate projects to export North Slope natural gas via a large-diameter pipeline: the Alaska Pipeline Project [sponsored by the Alaska Gasline Inducement Act (AGIA)], and Denali – The Alaska Gas Pipeline. These projects have longer development timelines; and their focus is transporting the gas outside of Alaska, resulting in uncertainty in planning for in-state gas needs.

The Alaska Stand Alone Gas Pipeline Project is independent of these proposed projects and was conceived as a smaller-diameter bullet line that could be built sooner and help meet the urgent energy needs in Alaska, particularly in the population centers in Fairbanks and the Cook Inlet region. If the large-diameter gas pipeline does not go forward, the bullet line will be able to advance quickly to construction.

Needs Addressed by the Project

Southcentral Alaska relies primarily on the Cook Inlet gas fields for heating and electric power. The deliverable reserves from the developed fields are in decline and are projected to fall short of demand as early as 2013. If investment in these fields is not made to increase supply and if new fields are not found, the gas shortfall will increase.

The Project will provide gas to Alaskan consumers to offset these projected shortages. The Project will meet the region's peak seasonal gas demand and long-term energy needs.

Other developed and developing markets in Alaska, including Fairbanks, the Railbelt, and western Alaska communities, need an abundant, long-term, and affordable energy source to replace oil. Limited amounts of LNG are now trucked to Fairbanks from Cook Inlet, but this is a short-term solution affected by supply shortages. Alternative energy projects, such as geothermal or hydroelectric, have long lead times or may not meet needs.

Economic benefits of the Project include the creation of new jobs and state and local tax revenues. Employment will include temporary jobs during engineering, procurement, and construction, and long-term jobs during pipeline operation. The Project has the potential to stimulate existing industries and encourage new industrial activities, including mining. As shown in the graph on the front page, industrial users are essential to the Project, since the Project's initial capacity exceeds the expected demand for residential use and power generation.

Project History

In 2010, the Alaska Legislature passed House Bill 369 mandating that the State prepare a Project Plan for an in-state natural gas pipeline to be operational by December 31, 2015.

House Bill 369 also established the Joint In-State Gasline Development Team to prepare the Project Plan, which must be submitted to the Legislature by July 1, 2011. The team is led by Alaska Housing Finance Corporation (AHFC), which created a subsidiary corporation, the Alaska Gasline Development Corporation (AGDC), to plan, construct, and finance the Project.

Work on a small-diameter in-state gas pipeline was begun several years ago by Enstar Natural Gas Company. In 2009, the Alaska Legislature passed House Bill 113, which established the Stand Alone Gas Pipeline Project to continue the work on an in-state project. The team for this project analyzed alternatives, performed preliminary engineering, developed cost estimates, and began permitting. AGDC took over the work on July 1, 2010, in accordance with House Bill 369.

Status of Project Plan

AGDC is currently refining the engineering and cost analyses and has completed a Plan of Development for the proposed route. AGDC is also contacting potential pipeline construction and operation companies for interest in developing the Project (this developer would be responsible for final engineering and construction). Financing alternatives are also being investigated. In addition, work is continuing with permitting agencies for rights-of-way and environmental impact statement (EIS) activities.

Future Industrial Demand

The Project's initial gas supply will exceed the demand for power generation and residential heating. As a result, industrial users will be required for efficiently filling the pipeline capacity. Some industrial opportunities include LNG export, NGL sales, GTL (natural gas to liquids) markets, and mining.

The Alaska Stand Alone Gas Pipeline Project: Meeting Demand and Providing Opportunity for Development

The producing gas fields in Cook Inlet are declining and will likely fail to meet demand in the near future. The Project's initial capacity will exceed the expected demand for residential use and power generation, making industrial users essential to the Project. (Note that "Historical Cook Inlet Production" includes LNG export and industrial use in Nikiski.)

Elements of the Project Plan

By July 1, 2011, prepare a project plan specifying and documenting how an in-state natural gas pipeline can be designed, financed, constructed, and made operational by December 31, 2015.

Any project-related assets acquired or developed must be available for transfer or sale to the entity best able to complete the project.

Engineering Plan

- Preliminary Engineering
- Plan of Development
- Alternatives Analysis
- Geographic Information System (GIS)
- Construction Plan
- Studies of Special Design Areas
- Geotechnical Analysis
- Environmental Field Work
- Capital Cost Optimization

Commercial Plan

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- Letters of Intent from Owner/Operator
- Financing alternatives
- Commitments of Interest from Gas Suppliers and Buyers
- Local Hire Strategy
- Cost Optimization
- Economic Feasibility of “Anchor Tenants”
- Cost to Consumer
- Other Considerations:
 - Value-Added Industries
 - Gas-to-Liquids Manufacturing
 - LNG or Propane to In-State Locations
 - Possibility of In-State Global Trading Hub for Gas

Regulatory/Permitting Plan

- Report to Legislature by December 15, 2010, Providing Action Plan
- Regulatory and Permitting Strategy
 - Permit Matrix
 - Agency Coordination
 - Submitted Applications
- Federal and State Right-of-Way Permit Applications
- Environmental Impact Statement
- RCA Certification
- Easements of Private Land