

<b>Alaska Gasline Development Corporation - Year 3 In-State Gas Project</b>	<b>FY2013 Request:</b>	<b>\$21,000,000</b>
	<b>Reference No:</b>	<b>51753</b>

<b>AP/AL:</b> Appropriation <b>Category:</b> Natural Resources <b>Location:</b> Statewide <b>Impact House District:</b> Statewide (HD 1-40) <b>Estimated Project Dates:</b> 07/01/2012 - 06/30/2017	<b>Project Type:</b> In-State Gasline  <b>House District:</b> Statewide (HD 1-40) <b>Contact:</b> Les Campbell <b>Contact Phone:</b> (907)330-8356
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**Brief Summary and Statement of Need:**

Alaska Gasline Project utilizes State general funds (GF) to complete Front End Loading (FEL) segments 2 and 3. The Alaska Stand Alone Gas Pipeline (ASAP) Project Plan is now complete, and serves as a plan for designing, financing, and building the project and making it operational. In developing the plan, AGDC refined engineering and cost analyses and wrote a Plan of Development for the proposed route. Work is continuing with permitting agencies for rights-of-way and environmental impact statement (EIS) activities. The ASAP Project Plan proposes a deliberate approach to defining the project by means of thorough "front-end loading" to make sure that the project is viable before pipe is ordered or ground is turned.

Funding:	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	Total
AHCC Rcpts	\$21,000,000						\$21,000,000
<b>Total:</b>	<b>\$21,000,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$21,000,000</b>

<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
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Additional Information / Prior Funding History:**

FY2012 - \$21,000,000 GF (Chapter 5, Sec 4, Page 137 FSSLA 2011); FY2011 - \$7,200,000 GF (Chapter 5, Sec 13, Page 154 FSSLA 2011); FY2011 - \$15,640,600 GF (Chapter 7 SLA 2010).

**Project Description/Justification:**

**The purpose of this project:**

To support the ongoing effort 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 Statement (EIS) (State and Federal);
- Right of Way;
- Subsistence Impact Review;
- Project Risk/Phasing Analysis;
- Commercial Analysis and review of downstream industrial opportunities;
- Preparation of a comprehensive financing plan; and

- Public outreach.

### **Program Description:**

In 2010, the Alaska Legislature passed House Bill 369, which tasked the Alaska Gasline Development Corporation (AGDC) with producing “a project plan for developing an in-state natural gas pipeline.” The plan was due on July 1, 2011, and was to 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;
- Uses existing highway and railroad bridges, gravel sources, equipment yards, maintenance facilities, and other existing facilities and resources to the maximum extent feasible.”

AGDC completed the ASAP Project Plan on July 1, 2011, and formally delivered it to the Legislature on July 5. The plan may be viewed in its entirety on AGDC’s website at: <http://www.gasline.us.com>.

## **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**

- Cook Inlet Natural Gas Liquids (NGL) Extraction Facility at pipeline terminus near Big Lake.
- Gas off-take facility near Dunbar.
- Custody-transfer gas-metering stations at Dunbar and at Big Lake terminus.
- Operation and maintenance centers in Wasilla, Fairbanks, and Prudhoe Bay.

### **Purpose of the Project**

The Alaska Stand Alone Gas Pipeline (ASAP) is an in-state gas pipeline designed to provide long-term, stable supplies of natural gas from the North Slope. This gas will serve the Fairbanks and Cook Inlet areas, as well as other communities where practical. The ASAP Project will have a capacity of 500 million standard cubic feet per day (MMscfd) of clean-burning natural gas (enriched with natural gas liquids, or NGLs). The project will also support the export of liquefied natural gas (LNG) and NGLs to the West Coast and/or Pacific Rim.

### **Needs Addressed by the Project**

Southcentral Alaska relies primarily on the Cook Inlet gas fields for heating and electric power. The developed fields are in decline and may not meet demand as early as 2014. The ASAP Project will use North Slope gas to help offset these projected shortages after the project is in service. Much of Alaska has no long-term source of fuel other than oil. A long-term, affordable energy source is needed for Fairbanks, the Railbelt, and western Alaska communities. The project could stimulate existing industries and encourage new business development, including mining, gas and oil, and other industry. Industrial users are needed for the project, since the project's capacity exceeds expected demand for residential use and power generation.

### **Relationship to Other Pipeline Projects**

For decades, various sponsors have studied projects to export natural gas from Alaska's North Slope to North America, Asia, or both. To date, none of these projects have been sanctioned.

ASAP is an intrastate project independent of proposed interstate natural gas pipeline projects. The Alaska Pipeline Project (APP), the project sponsored by the Alaska Gasline Inducement Act (AGIA), is studying the feasibility of exporting Alaska's North Slope natural gas via a large-diameter pipeline. The Alaska Legislature started ASAP as a smaller in-state pipeline that could be built sooner and help meet urgent energy needs in Fairbanks and the Cook Inlet region.

### **Project History**

In 2010, the Legislature passed House Bill 369 mandating the State prepare a project plan for an in-state natural gas pipeline. House Bill 369 also established the Joint In-State Gasline Development Team to prepare the plan by July 1, 2011. The team is led by the 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 Legislature passed House Bill 113, which established the Stand Alone Gas Pipeline Project to continue work on an in-state project. The team analyzed alternatives, performed preliminary engineering, developed cost estimates, and began permitting. AGDC took over the work on July 1, 2010.

### **Status of Project Plan**

The ASAP Project Plan is now complete, and serves as a plan for designing, financing, and building the project and making it operational. In developing the plan, AGDC refined engineering and cost analyses and wrote a Plan of Development for the proposed route. AGDC also met with pipeline construction and operation companies about interest in developing the project, and conducted a non-binding Expression of Interest with potential shippers, with favorable results. Ownership and financing alternatives were also studied.

In addition, work is continuing with permitting agencies for rights-of-way and environmental impact statement (EIS) activities. As an important milestone, AGDC has already received the state pipeline right-of-way. The ASAP Project Plan proposes a deliberate approach to defining the project by means of thorough "front-end loading" to make sure that the project is viable before pipe is ordered or ground is turned.

AGDC has found that the project appears to be economically feasible and should be able to provide gas at rates that compete well with imported Liquefied Natural Gas (LNG). AGDC's financial analysis concluded that state ownership makes economic sense, with a private developer building and operating the project. The project will cost \$7.52 billion (in 2011 dollars) with an uncertainty range of plus or minus 30%. The Legislature is currently reviewing the ASAP Project Plan.

### **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, natural Gas to Liquids (GTL) markets, and mining.

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.)

### **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**

- 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
- Regulatory and Permitting Strategy
  - Permit Matrix
  - Agency Coordination
  - Submitted Applications

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- Federal and State Right-of-Way Permit Applications
- Environmental Impact Statement
- RCA Certification
- Easements of Private Land