

01/30/15
PRESENTATION
ALASKA
GASLINE
DEVELOPMENT
CORPORATION
PROJECTS
UPDATE

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ALASKA GASLINE DEVELOPMENT CORPORATION PROJECTS
UPDATE</SUBJECT><COMM>SFIN29</COMM></TARGET>



Senate Finance Committee

AGDC Update

January 30, 2015



Agenda

- AGDC Introduction
- Corporate Initiatives
- Accumulated Corporate Assets
- Alaska LNG
 - State Participation
 - Coordination & Cooperation
 - Recent Activities
- ASAP
 - Class 3 Cost Estimate & Associated Tariffs
 - Design Capacity
 - Revised Spend Plan and Schedule
- Corporate Focus – Near Term
- Project Funding Status

AGDC Introduction

AGDC is a public corporation of the State of Alaska, with a legal existence separate and independent of the State (AS 31.25.010):

- Develop natural gas pipelines, an Alaska LNG project, and other natural gas transportation projects in-state for the maximum benefit of Alaskans
- Finance, construct and potentially operate natural gas and other non-oil energy transportation systems
- Provide economic benefits and revenue to the State
- Assist DNR and DOR in maximizing the value of the State's royalty & tax gas
- Hold the State's equity interest in the liquefaction component of the Alaska LNG project
- Advance an in-state pipeline capable of delivering North Slope natural gas to Fairbanks, Southcentral and other communities within the state at the lowest possible cost

AGDC Objectives

- Commercialize Alaska's North Slope gas resource
- Secure a stable, affordable, long-term energy supply for Alaskans
- Generate revenue, jobs and economic growth
- Facilitate further oil and gas development
- Maximize overall benefit to Alaskans



Corporate Initiatives

Alaska LNG

ASAP

Project Sponsors	State of Alaska (AGDC), BP, ConocoPhillips, ExxonMobil & TransCanada	State of Alaska (AGDC)
Design Objective	Liquefied Natural Gas (LNG) principally for export markets with at least 5 in-state off-takes	Utility grade “lean” gas principally for in-state markets
Facilities		
Gas Treatment	<ul style="list-style-type: none"> GTP at Prudhoe Bay (~200 acres) 8 Compressor Stations (30kHP) 	<ul style="list-style-type: none"> GCF at Prudhoe Bay (~70 acres) Compression at Prudhoe Bay
Pipeline	800 mile, 42” mainline	727 mile, 36” mainline 29 mile, 12” lateral to Fairbanks
LNG Plant	LNG plant, 3 storage tanks and 2 tanker berths at Nikiski (400-500 acres)	N/A
Terminus	Nikiski (Kenai Peninsula)	Near Big Lake (ENSTAR’s Beluga line)
Design Capacity	~ 3.3 billion cubic feet/day at GTP ~ 2.2 billion cubic feet/day at LNG plant	500 million cubic feet/day
Cost	~ \$45 - \$65 bill	~ \$10 bill (+/- 20%)
Workforce	Peak: 9,000-15,000 Operations: ~1,000	Peak: 8,000 Operations: ~150
Construction	5-6 years (after FID in 2019)	3.5 years (after FID in 2019)
Completion	2025-2026	2024

Accumulated Corporate Assets

- State Right-of-Way - 413 miles
- Final Environmental Impact Statement (FEIS) – Oct 2012
- Supplemental Environmental Impact Statement (SEIS) initiated – Aug 2014:
 - Plan of Development (POD)
 - Environmental Evaluation Document (EED)
 - Public Scoping Report Published
- Along entire pipeline route:
 - River and stream crossings surveys and designs
 - 2-D terrain unit mapping
 - Cultural resource surveys
 - Wetlands delineation and jurisdictional determinations

Accumulated Corporate Assets

- 400+ geotechnical boreholes drilled
- 128 material source sites identified
- Air quality monitoring data and permit for Gas Conditioning Facility
- Purchased Strain Based Design (SBD) pipe for:
 - Small and medium scale material testing
 - Automatic weld procedure validation
- Line-pipe specifications
- Safety & operational stipulations with PHMSA
- Final biologic assessment report
- Final essential fish habitat report
- Project Execution Plan (PEP) including:
 - Construction execution plan
 - Project logistics plan

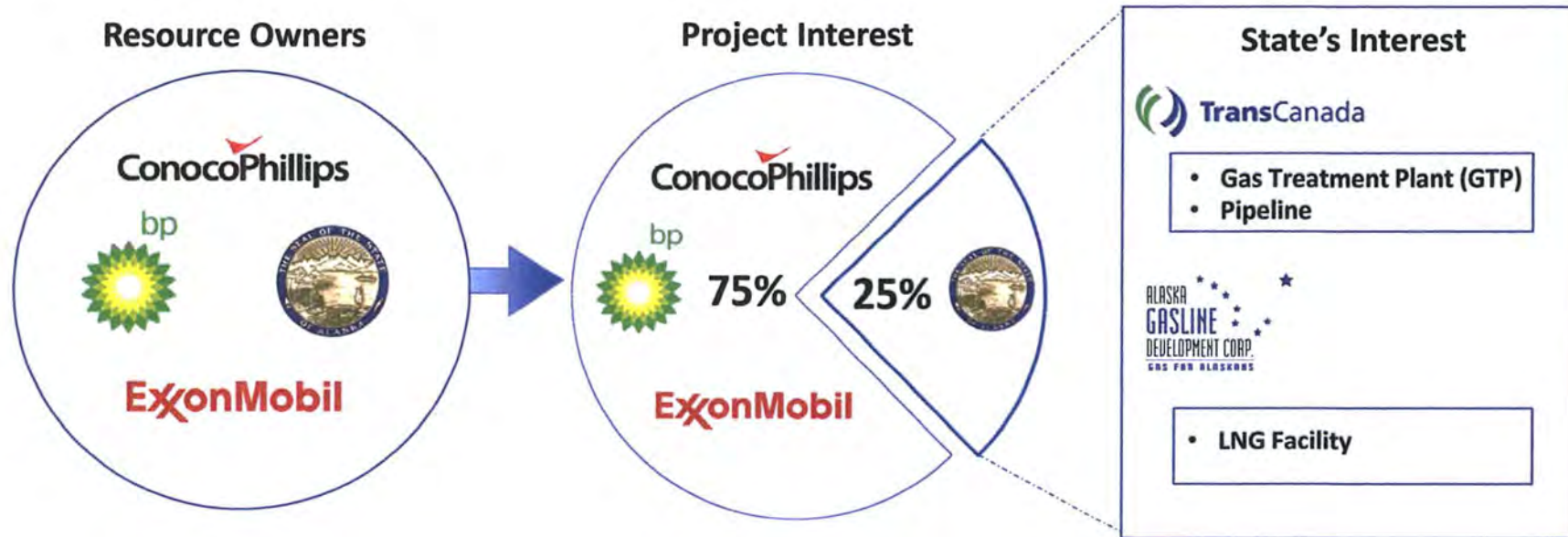


Approximate Pipeline Land Ownership

To Last Common Milepost

Ownership	%
State	54.7%
Federal	29.7%
Sub Total:	84.4%
Muni/Borough	6.6%
Native Corp	4.7%
Native Allotment	0.3%
Private	3.9%
Total:	100%

Alaska LNG Project Participation



- TransCanada holds State's interest in GTP and Pipeline
- AGDC holds State's interest in LNG Facility

Alaska LNG Recent Activity

- **AGDC Board approved Calendar Year 2015 budget of \$39.8 million**
 - Joint workshop between Alaska LNG and AGDC on sharing data and engineering
 - Historical data exchanged, future activities being coordinated
- **Alaskan Hire** comprised 80% of 250+ person workforce for the 2014 Summer field season
 - Alaska LNG is actively soliciting Alaskan vendor participation through its website
- **Engineering contracts** have been awarded and design work is underway for:
 - Gas Treatment Plant: URS w/CBI and ASRC Energy Services (AES)
 - Pipeline: Worley Parsons
 - LNG Plant: CBI w/Chiyoda and ASRC Energy Services (AES)
 - Marine Facilities: CH2M Hill
- **Regulatory**
 - Depart of Energy authorized LNG exports to Free Trade Agreement countries
 - Federal Energy Regulatory Commission (FERC) approved Pre-Filing request on Sep 8
 - 60 public meetings already conducted to engage Alaskans
 - Resource reports provide baseline environmental and socio-economic data
 - First draft of resource reports targeted for 1Q15
 - FERC pre-scoping meetings and project open houses to take place 1st half 2015

Alaska LNG /ASAP Coordination

All participants are interested in progressing each project in an efficient, cost effective manner and eliminating duplication of effort

Background

- Significant amount of baseline data and engineering exists from previous pipeline projects: *TAPS*, *APP*, *Denali* and *ASAP*
- Parties have developed a framework for sharing data and coordinating work efforts going forward



Objectives

- Maximize existing historical data and work product
 - *Geotechnical, hydrological, environmental, cultural and routing information*
- Eliminate duplication of work between the ASAP and Alaska LNG projects
- Establish common pipeline route
- Reduce cost, environmental impacts and safety risks
- Save time and advance schedules

Coordination Activities

- ✓ Identifying existing datasets and common work product
- ✓ Establishing data sharing protocols
- ✓ Coordinating 2015 field seasons and work activities
- ✓ Conducting routing workshop to compare pipeline alignments
- ✓ Discussing joint trenching equipment testing program

ASAP Class 3 Cost Estimate

\$ millions

Cost Estimate Component	2012 Estimate	2012 Inflated*	Class 3	Variance (Class 3 -2012)
Capital Cost (Total Installed Cost)	\$6,370	\$6,692	\$9,107	
Contingency	<u>\$1,330**</u>	<u>\$1,397**</u>	<u>\$861</u>	
TOTAL	\$7,700	\$8,089	\$9,968	\$1,879
Operations & Maintenance (O&M) <i>(Annual Average)</i>	\$152	\$160	\$147	\$(13)
Dismantle, Remove & Restore (DR&R) <i>(End of Life Costs)</i>	Not Estimated	Not Estimated	\$324	\$324
State of Alaska Development Costs	\$353	\$353	\$353	\$(0)

Capital Cost (TIC) Allocations	Class 3	%
Gas Conditioning Facility (GCF)	\$3,180	32%
Pipeline and Other	\$6,788	68%
Total	\$9,968	100%

* Adjusted for 2.5% annual inflation

** Previous contingency estimate not generated using P75 risk-based Monte Carlo analysis

ASAP Estimated Tariffs

Based on updated Class 3 cost estimate at 500 MMscf/d capacity
 (\$/MMBtu)

Fairbanks	2012	2014
Tariff Rate	\$ 4.25 - \$ 6.75	\$ 5.50 - \$ 6.75
Burner Tip Cost	\$ 8.25 - \$10.00	\$11.50 - \$14.00
Anchorage		
Tariff Rate	\$ 5.00 - \$7.25	\$ 8.00 - \$ 9.75
Burner Tip Cost	\$ 9.00 - \$11.25	\$11.50 - \$14.50

Major Assumptions:

- 70/30 Debt to Equity
- 12% Return on Equity
- 5.7% construction financing cost
- 25 year depreciation

- Tariff model assumes there is sufficient demand (e.g. industrial, export, etc.) to place the entire 500 MMscf/d
- Burner Tip includes estimate for cost of gas and local distribution costs:
 - Cost of Gas: \$2.00-\$3.30
 - Local Distribution Cost:
 - Anchorage - \$1.50
 - Fairbanks - \$4.00
- Burner Tip excludes any conversion costs at customer's end

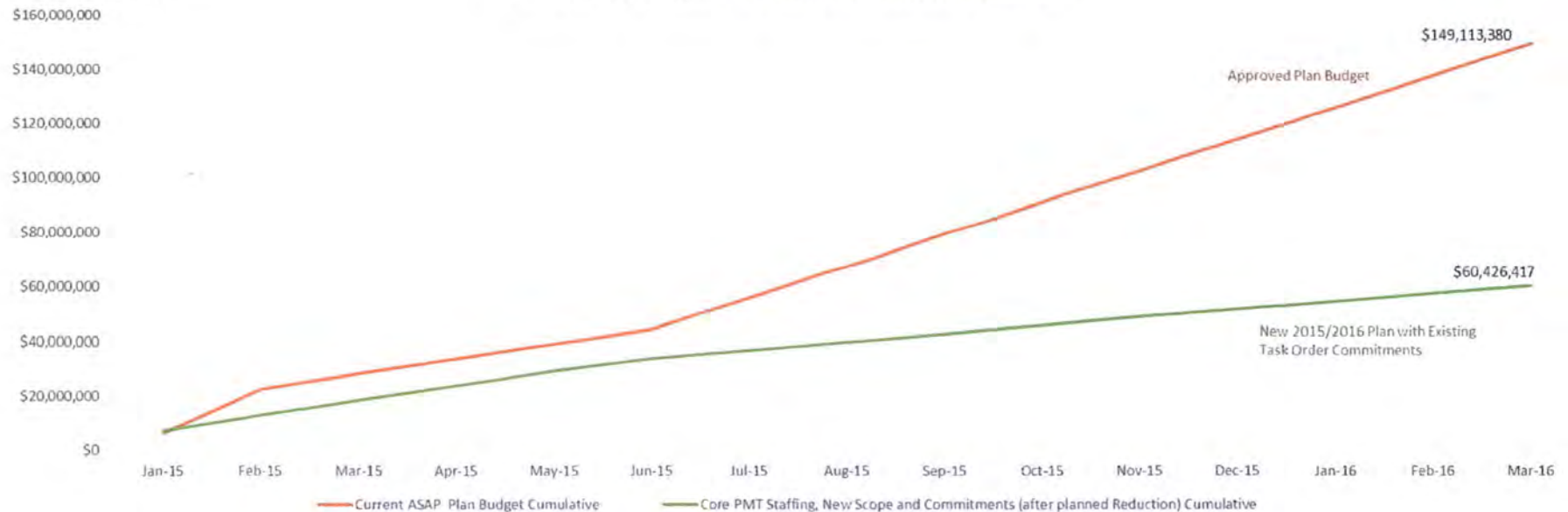
ASAP Design Capacity

- SOA issued TransCanada AGIA license AS 43.90 - Dec 2008
- AGIA statutes limited in-state pipeline capacity to 500 MMscfd
- ASAP project planning, engineering and permitting proceed with 500 MMscfd design constraint
- SOA signs MOU with TransCanada regarding Alaska LNG – Dec 2013
- Seven participating parties in Alaska LNG sign HOA establishing project framework and roadmap – Jan 2014
- Legislature authorizes State participation in Alaska LNG (SB138) – May 2014
- SOA and TransCanada agree that Alaska-Alberta project is uneconomic, abandon the project and terminate AGIA license – Jun 2014
- ASAP is no longer statutorily constrained to 500 MMscfd
- Changes could be made in compression, pipe strength and treatment capacity to increase throughput and improve project economics

ASAP Revised Spend Plan

New 2015/2016 Plan with Existing Task Order Commitments

ASAP Budget and Committed Values with 2015/2016 Work Plan



- Work aligned with anticipated 1Q16 AKLNG FEED decision
- Essential tasks, durable work and transferable data beneficial to both projects
- Delay ASAP commercial activities – recourse tariff filing and open season
- Scale ASAP activities to those necessary to maintain viability and readiness if Alaska LNG does not proceed

ASAP Revised Schedule

Milestone	Original Timeline	Current Timeline
Alaska LNG FEED Decision	N/A	1Q 2016
ASAP Redesign Complete	N/A	2Q 2017
RCA Recourse Tariff Filing	4Q 2014	3Q 2017
Open Season Complete	3Q 2015	2Q 2018
Project Sanction	4Q 2016	1Q 2019
Project Complete/First Gas	4Q 2021	3Q 2024

- Work scaled and scoped to align with Alaska LNG FEED decision 1Q16
- ASAP commercial activities – tariff filing and open session – delayed
- If Alaska LNG doesn't proceed to FEED:
 - 1 year to finalize ASAP design and prepare RCA filing
 - Three and half years to construct
 - Project completion and first gas 3Q24

Corporate Focus – Near Term (1Q16)

- Accelerate cooperation – maximize State resources, eliminate duplication of effort, align work efforts and routing
- Adjust work plans, budgets and timelines to align ASAP with Alaska LNG FEED decision
- Develop durable work and transferable data that can be used on either project
- Protect the State’s interest in the Alaska LNG project – currently the LNG Plant
- Progress both projects to provide more information for the State in making future policy and investment decisions
- Maintain State’s leverage and continue to build assets the State can bring to either project
- Maintain viability and readiness of ASAP as an alternative

Corporate Focus – Near Term (1Q16)

- Quantify in-state gas demand
 - Collect and compile existing gas demand data
 - Research potential for new users/communities
 - Model realistic demand scenarios/estimates
 - Estimate usage and cost of service
 - Estimate variations in usage/storage requirements
 - Identify best delivery mechanism
- Plan, site and develop in-state gas access points
 - Design equipment required for off-take points
 - Develop detailed cost estimates for the equipment
- Coordinate with AEA, AIDEA and DNR regarding policy and infrastructure issues associated with increasing in-state gas access

Project Funding Status

Alaska LNG

ASAP

Alaska Liquefied Natural Gas Project Fund (AS 31.25.110)	
(\$ Millions)	
Total Legislative Appropriations	\$ 69.8
Expenditures through FY14	\$ (1.0)
Forecast Expenditures: FY15	\$ (25.1)
Forecast Expenditures: FY16	\$ (43.7)
Projected Funds @ AK LNG FEED	\$ 0.0

The Alaska LNG Project Fund was established in 2014 (SB 138)

In-State Natural Gas Pipeline Fund (AS 31.25.100)	
(\$ Millions)	
Total Legislative Appropriations*	\$ 419.8
Expenditures through FY14	\$ (120.0)
Forecast Expenditures: FY15	\$ (98.0)
Forecast Expenditures: FY16	\$ (51.0)
Projected Funds @ AK LNG FEED	\$ 150.8

The In-State Natural Gas Pipeline Fund was established in 2013 (HB 4)
** \$419.8 represents all appropriations towards ASAP from FY10-FY14*

- Alaska LNG Pre-Feed activities currently projected to conclude 1Q16 – AGDC’s participation fully funded
- Modified ASAP work plans now align with Alaska LNG Feed decision and will benefit either project alternative
- \$150 mill in ASAP expenditures delayed pending FEED decision outcome

Questions

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