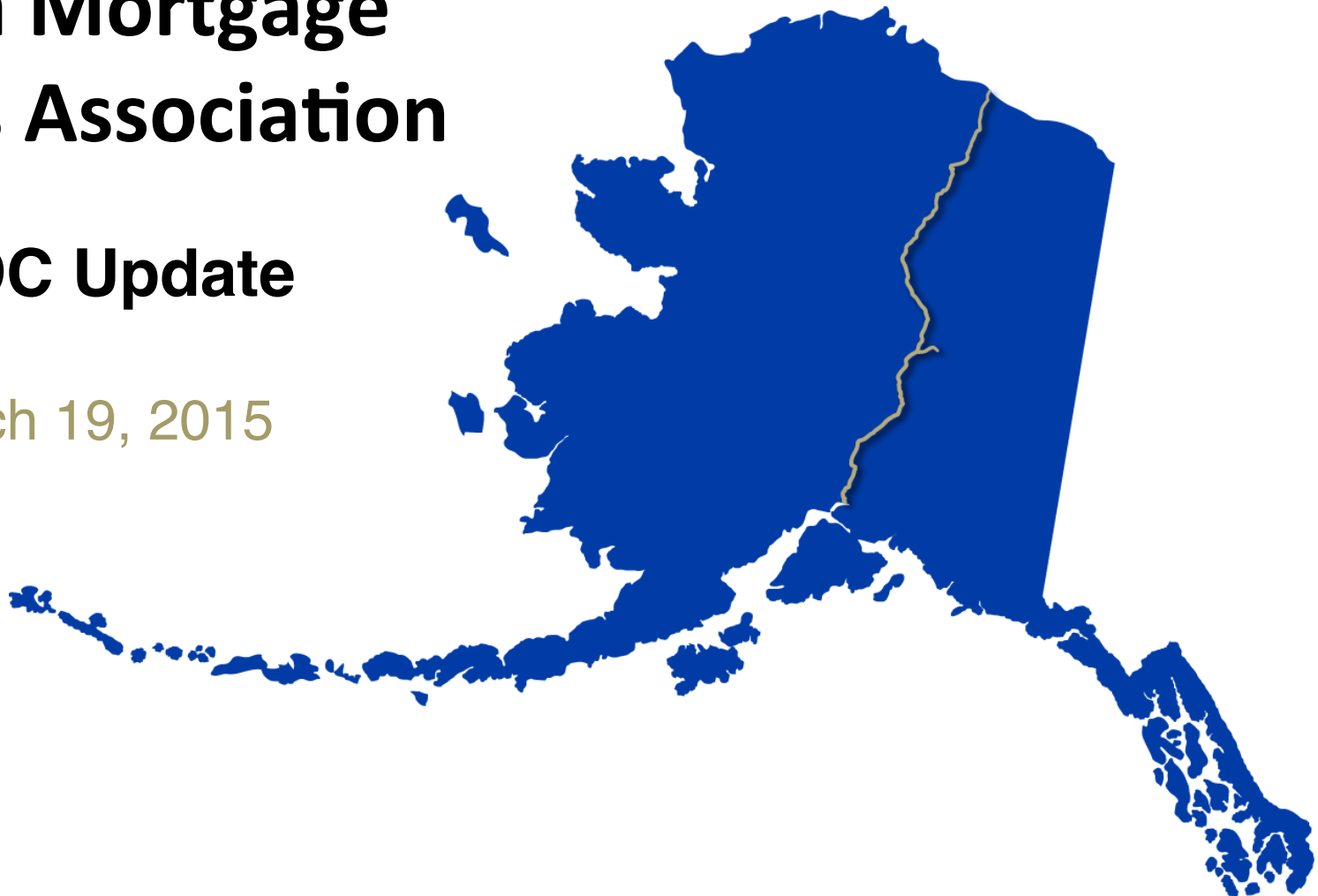




Alaska Mortgage Bankers Association

AGDC Update

March 19, 2015



Agenda

- AGDC Mission & Purpose
- Corporate Initiatives
- Accumulated Corporate Assets
- Alaska LNG
 - State Participation
 - Coordination & Cooperation
 - Recent Activities
- ASAP
 - Class 3 Cost Estimate & Associated Tariffs
 - ASAP Schedule
 - Recent Board Action – ASAP Reconfiguration
- Critical Success Factors

AGDC Mission & Purpose

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 (<i>Kenai Peninsula</i>)	Currently Near Big Lake (<i>ENSTAR’s Beluga line</i>)
Design Capacity	~ 3.3 billion cubic feet/day at GTP ~ 2.2 billion cubic feet/day at LNG plant	Currently 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 (<i>after FID in 2019</i>)	3.5 years (<i>after FID in 2019</i>)
Completion	2025-2026	2024

Accumulated Corporate Assets

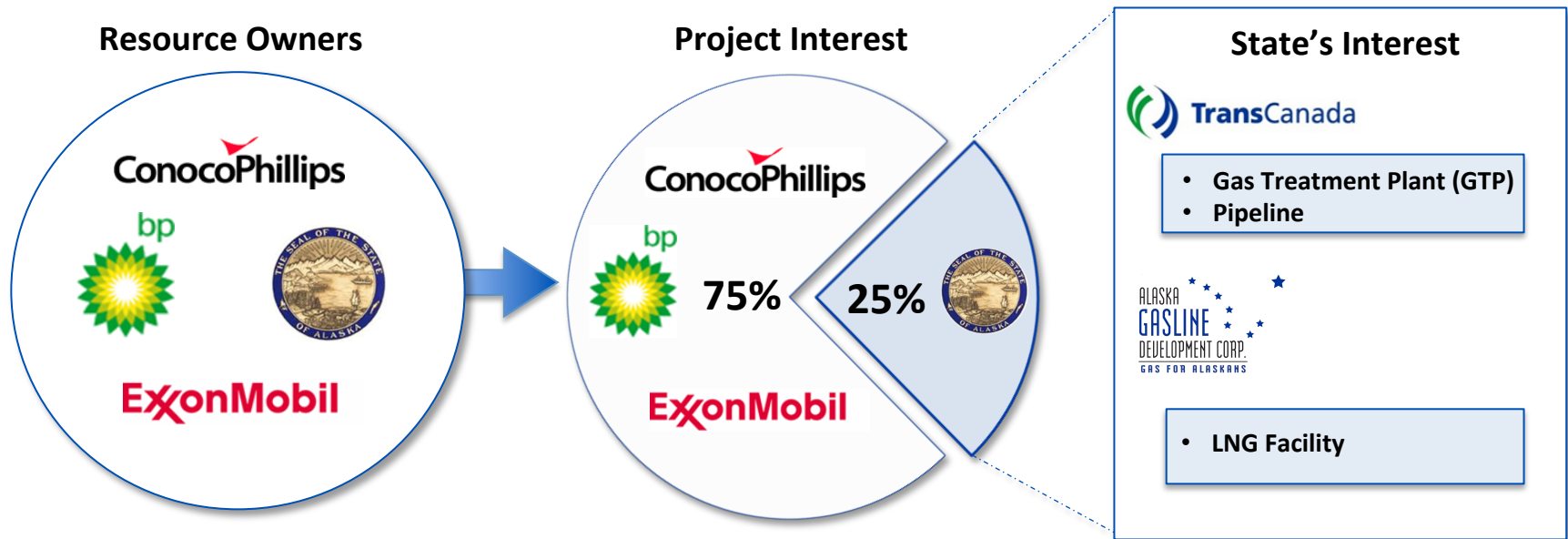
- Plan of Development (POD)
- State Right-of-Way - 413 miles
- NEPA Supplemental Environmental Impact Statement (SEIS) initiated
- River and stream crossing surveys, 2-D terrain unit mapping, cultural resource surveys and wetlands delineation along entire route
- 400+ geotechnical boreholes drilled
- 128 material (gravel & sand) sites identified
- Strain Based Design pipe metallurgy
- Final biologic and fish habitat reports
- Project Execution Plan including:
 - Construction execution plan
 - Project logistics plan



Alaska LNG



Alaska LNG Project Participation



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

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

- ✓ Identified existing datasets and common work product
- ✓ Established data sharing protocols
- ✓ Conducted routing workshops to harmonize pipeline alignments
- ✓ Coordinating 2015 field seasons and work activities

Alaska LNG Recent Activity

- **Alaskan Hire** comprised 80% of 250+ person workforce for the 2014 Summer field season
 - Alaska LNG is actively soliciting Alaskan vendor participation and planning information workshop
- **AGDC/Alaska LNG Coordination**
 - AGDC collecting borehole data for Alaska LNG & ASAP
 - AGDC continuing to design in-state offtake facilities for both AKLNG & ASAP applications
- **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; Non-FTA pending
 - First draft of Resource Reports 1-13 transmitted to Federal Energy Regulatory Commission (FERC) in February. Reports provide baseline environmental and socio-economic data.
 - FERC issued Notice of Intent to prepare Environmental Impact Statement (EIS) on March 4th
 - FERC hosting 3-day cooperating agency meetings in Anchorage & Fairbanks this week
 - FERC pre-scoping meetings and project open houses to take place mid-2015

ASAP



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) (Annual Average)	\$152	\$160	\$147	\$(13)
Dismantle, Remove & Restore (DR&R) (End of Life Costs)	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/MMbtu
 - Local Distribution Cost:
 - Anchorage - \$1.50
 - Fairbanks - \$4.00
- Burner Tip excludes any conversion costs at customer's end

ASAP 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 2Q16
- 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

Recent AGDC Board Direction

- AGDC Board met in Anchorage last week
- Board passed Resolution 2015-01
- Subject to withdrawal or modification of AO 271, directs staff to prepare a rough order of magnitude estimate and schedule associated with developing a Class 3 level estimate for the two scenarios
- Work product expected to be completed prior to the next regular board meeting – April 9th

History of 500MMscfd Design

- 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

Reconfiguration Strategy

- Increase the State's leverage and options
- Expand ASAP volume and capacity
- Extend terminus to tidewater
- Design for both in-state and export markets
- Use existing funds
- Build on existing efforts and work products
- Avoid duplication and competition

Initial Reconfiguration Parameters

- Maintain current 36" diameter pipeline
- Maintain current lean gas specification
- Pursue pipeline and Gas Conditioning Facility (GCF) elements only – no LNG facilities
- Develop Rough Order of Magnitude (ROM) cost and timeline estimates for two increased volume scenarios:
 - 1.4-1.6 Bscfd, ANSI 600
 - 2.4-2.6 Bscfd, ANSI 900
- Present results to AGDC board for review and



Critical Success Factors

- Maintaining alignment between SOA and North Slope producers
- Ensuring SOA's ability to advance independent, economically viable alternative if AK LNG falters
- Obtaining concurrence of AK LNG JVA partners
- Ensuring complementary vs competitive orientation
- Maximizing financial resources to accelerate a FEED decision

Questions

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