

ASAP

Alaska Stand Alone Gas Pipeline/**ASAP**



ASAP Project Update

State of Alaska Senate Resources
Committee

August 15, 2011

Dan Fauske

LEGISLATIVE OVERVIEW

House Bill 369: Project Plan

- Established the mission for the Alaska Gasline Development Corporation (AGDC)
- Required July 1, 2011 Project Plan to develop an in-State natural gas pipeline
- Plan to include project:
 - Design
 - Financing
 - Construction
 - Commercial feasibility
 - Project schedule – operational December 31, 2015

Summary of Legislative Intent

- Evaluate a stand-alone gas pipeline project to transport gas from North Slope to Fairbanks and tidewater
- Work in parallel with large diameter project to keep all options open
- Reduce project risk by:
 - Acquiring major permits
 - Determining cost of transport
 - Optimizing economic feasibility
- Prepare permit and project data package to transfer to a Builder/Owner/Operator

Legislative Update

- The following bills have been introduced on behalf of the ASAP project:
 - HB 189 – exempts AGDC from certain provisions of public records statutes and addresses In-state Team participation (passed by House, referred to Senate Resources)
 - HB 203 – creates dedicated fund for ASAP project. (passed by House, referred to Senate Finance.
 - HB 215 – expedited review of state ROW lease; exempting ASAP from common-carrier requirements (passed by House, referred to Senate Judiciary)

Legislative Funding Update

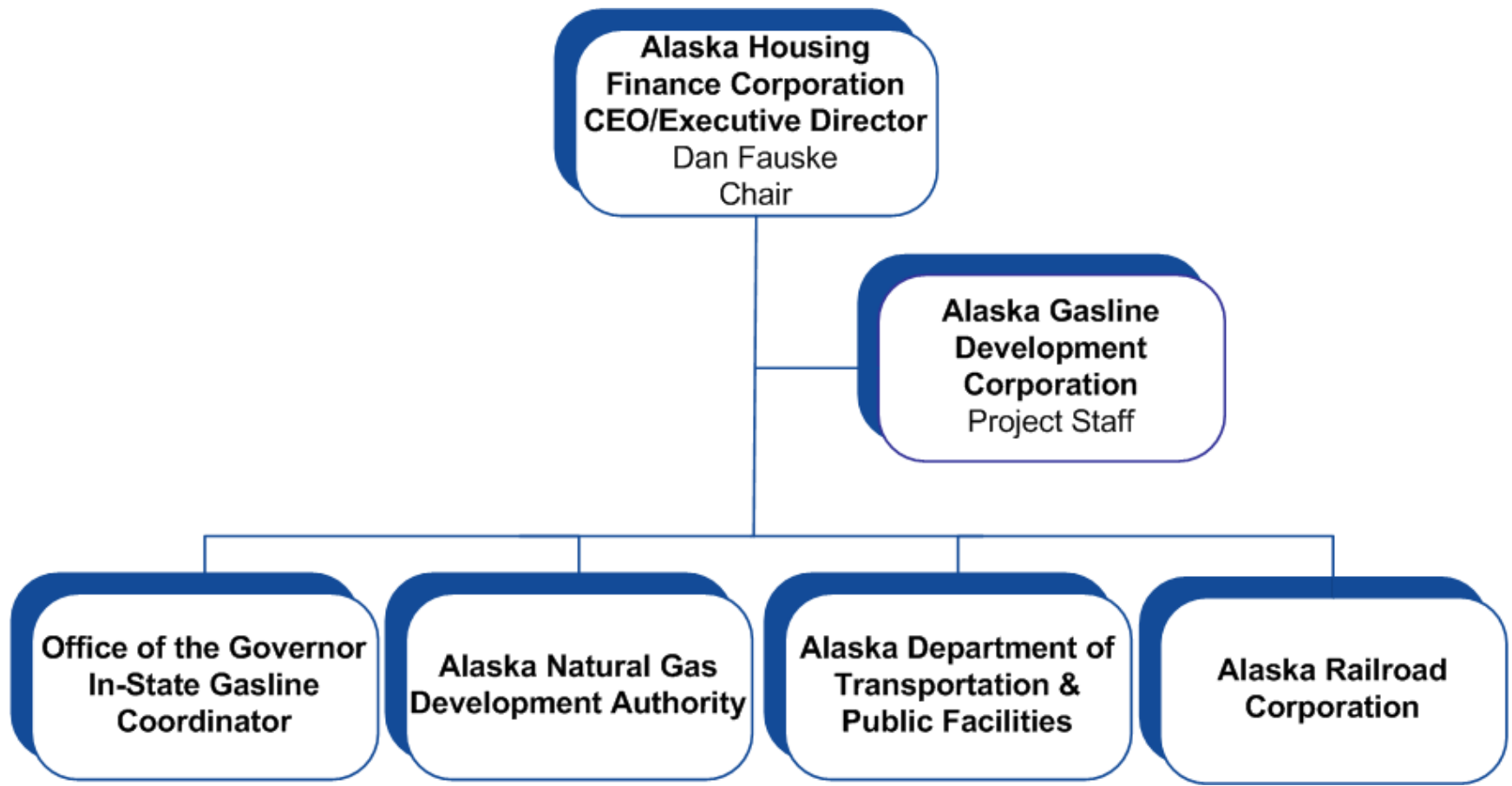
Summary of AGDC legislative appropriations: FY2012

- Operating Budget: \$1,126,300
- Capital Funding: \$28.2 Million
- \$200 Million (appropriated to the in-State Gas Pipeline Fund created by HB203, pending future appropriation)

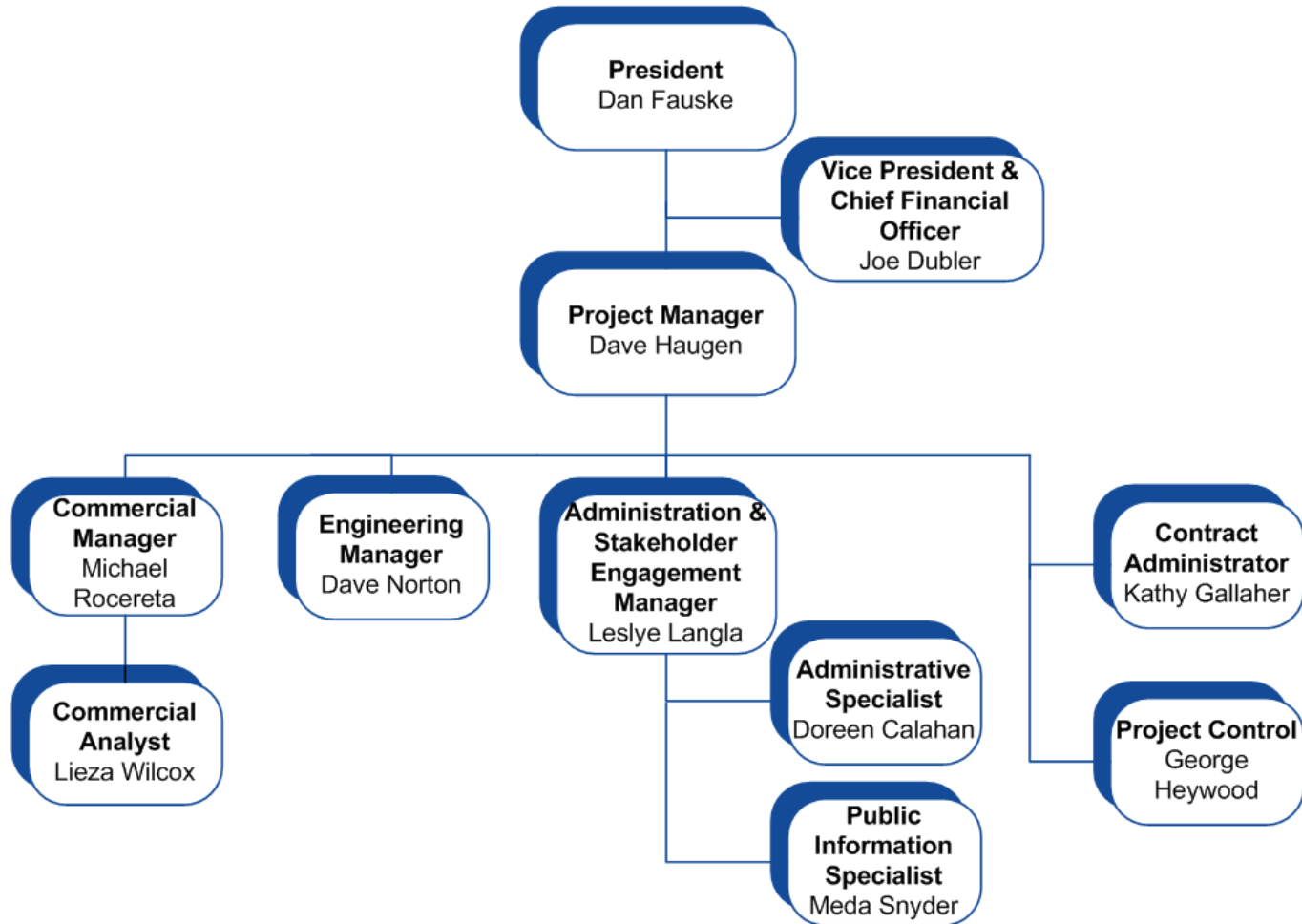
Dave Haugen

PROJECT OVERVIEW

Joint In-State Gasline Development Team



AGDC Project Staff Organization



Project Management/Engineering

ACTIVITY	CONTRACTOR
Project Management	Hawk Consultants LLC
Engineering Services	Michael Baker Jr., Inc.
Legal Services	Birch Horton Bittner & Cherot
Project Pacing and Review	Independent Project Analysis (IPA)
Facilities Peer Review	WorleyParsons

Environmental/Regulatory

ACTIVITY	CONTRACTOR
Environmental Services	ASRC Energy Services (AES)
Third Party EIS	Cardno ENTRIX
Regulatory Advisor	Stoel Rives LLC

Commercial

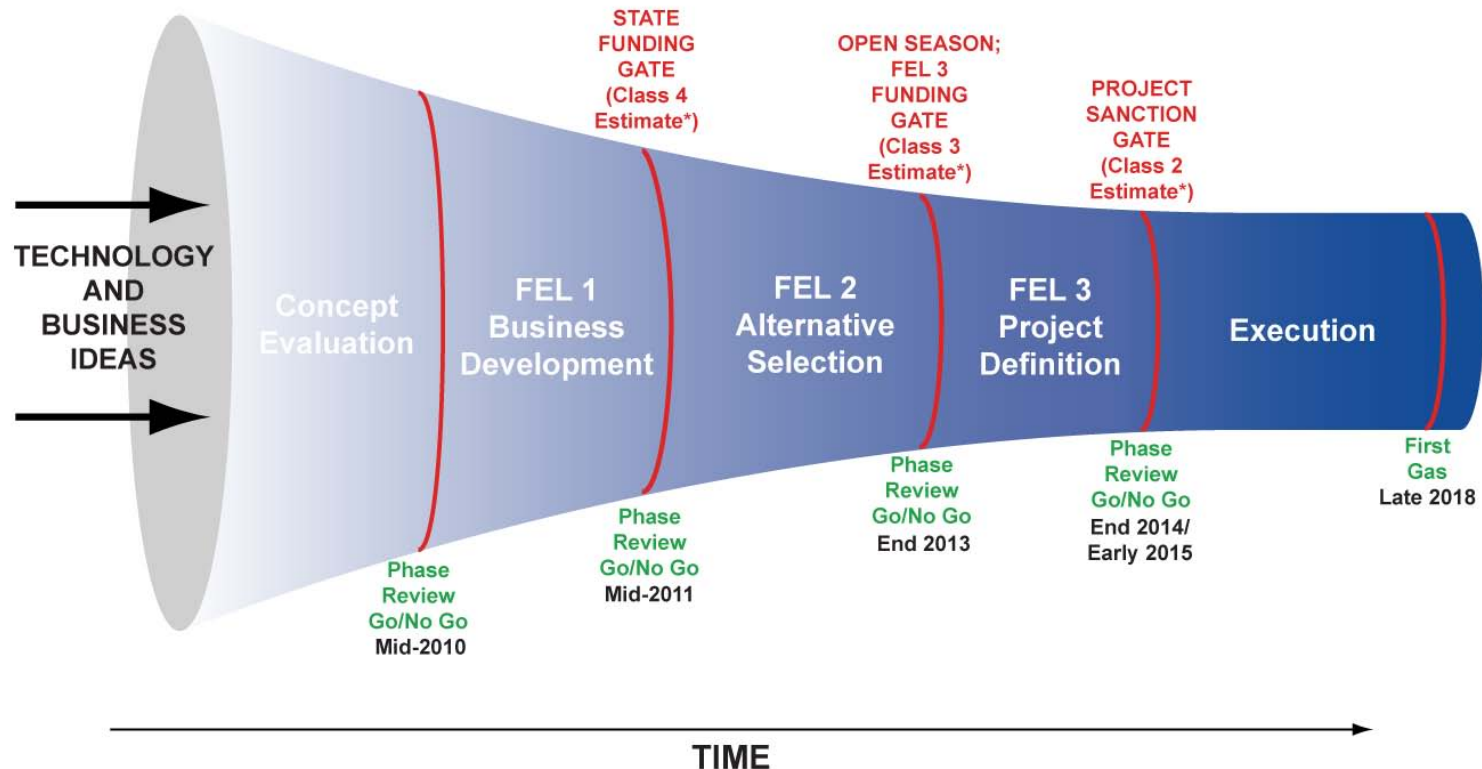
ACTIVITY	CONTRACTOR
Financial Advisor	Citigroup/Ramirez
Tariff Modeling	Black & Veatch
ECONOMIC/MARKET STUDIES:	
Gas to Liquids	Hatch Associates Consultants, Inc.
Liquefied Natural Gas	Science Applications International Corporation (SAIC)
Natural Gas Liquids	R.W. Beck Inc. (SAIC)
In-State Propane Utilization	R.W. Beck Inc. (SAIC)

Independent Project Analysis (IPA)

- Project phases - ASAP early project definition
- Significant work prior to project execution
- ASAP - associated risks inherent with large, complex megaprojects
- Key recommendation: develop a comprehensive project development process based on stage-gate project delivery approach

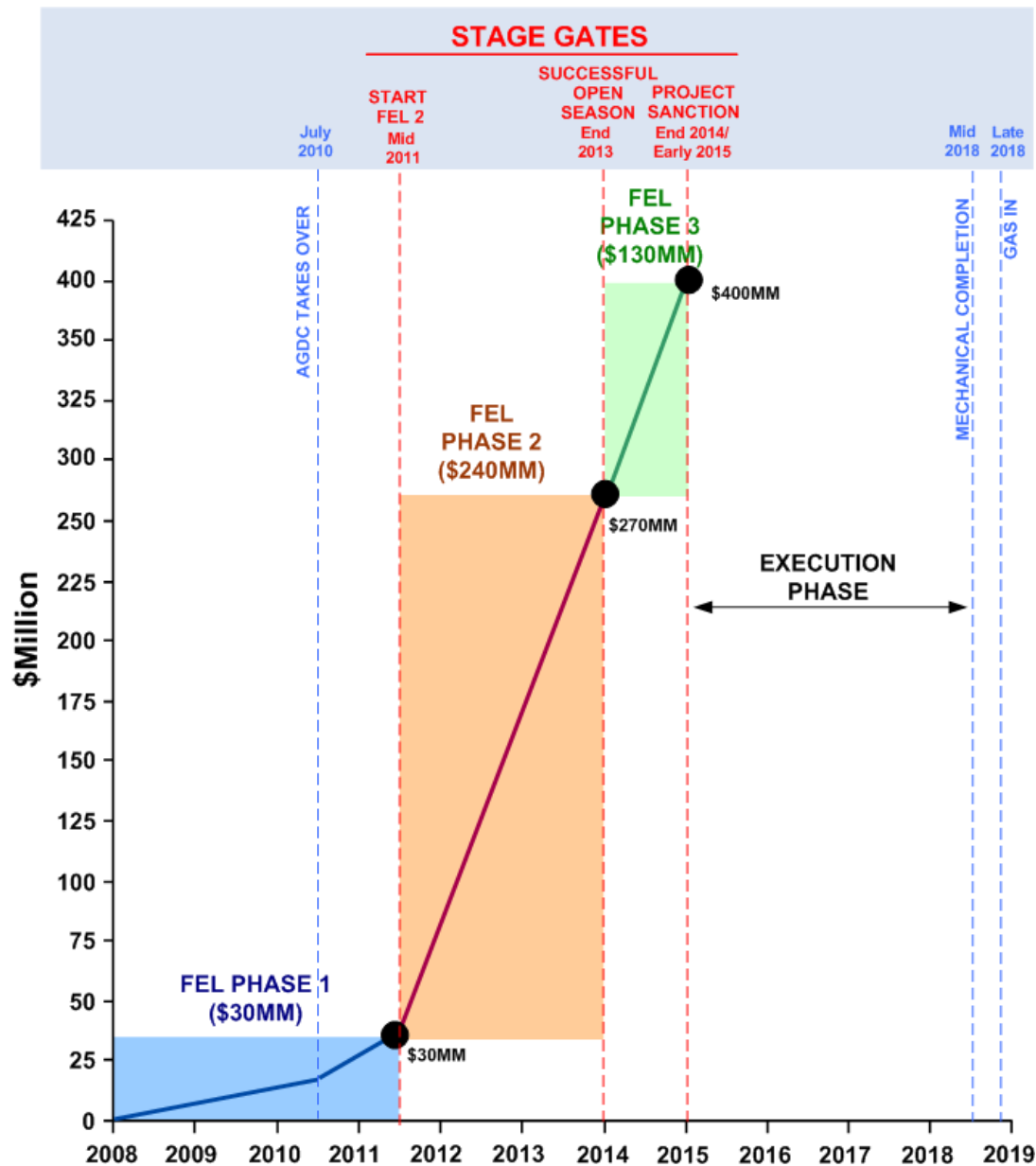
Stage Gate Approach

*Front-End Development Progressively
Narrows Uncertainty of Cost and Schedule*



*Refers to AACE cost estimate classes (Association for the Advancement of Cost Engineering).
The lower the class number, the higher the confidence in the accuracy of the estimate.

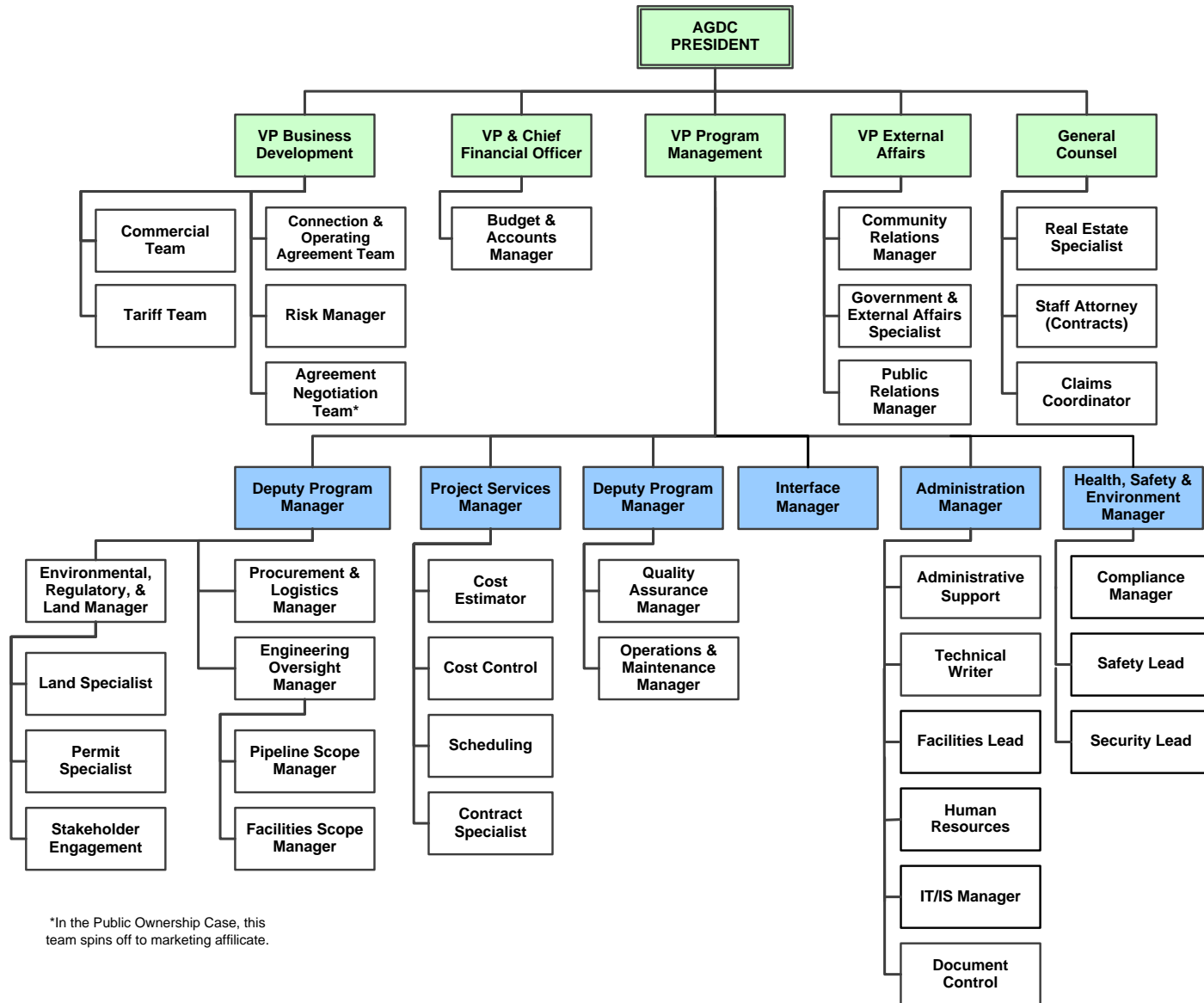
Project Definition Levels



FEL-2 Activities

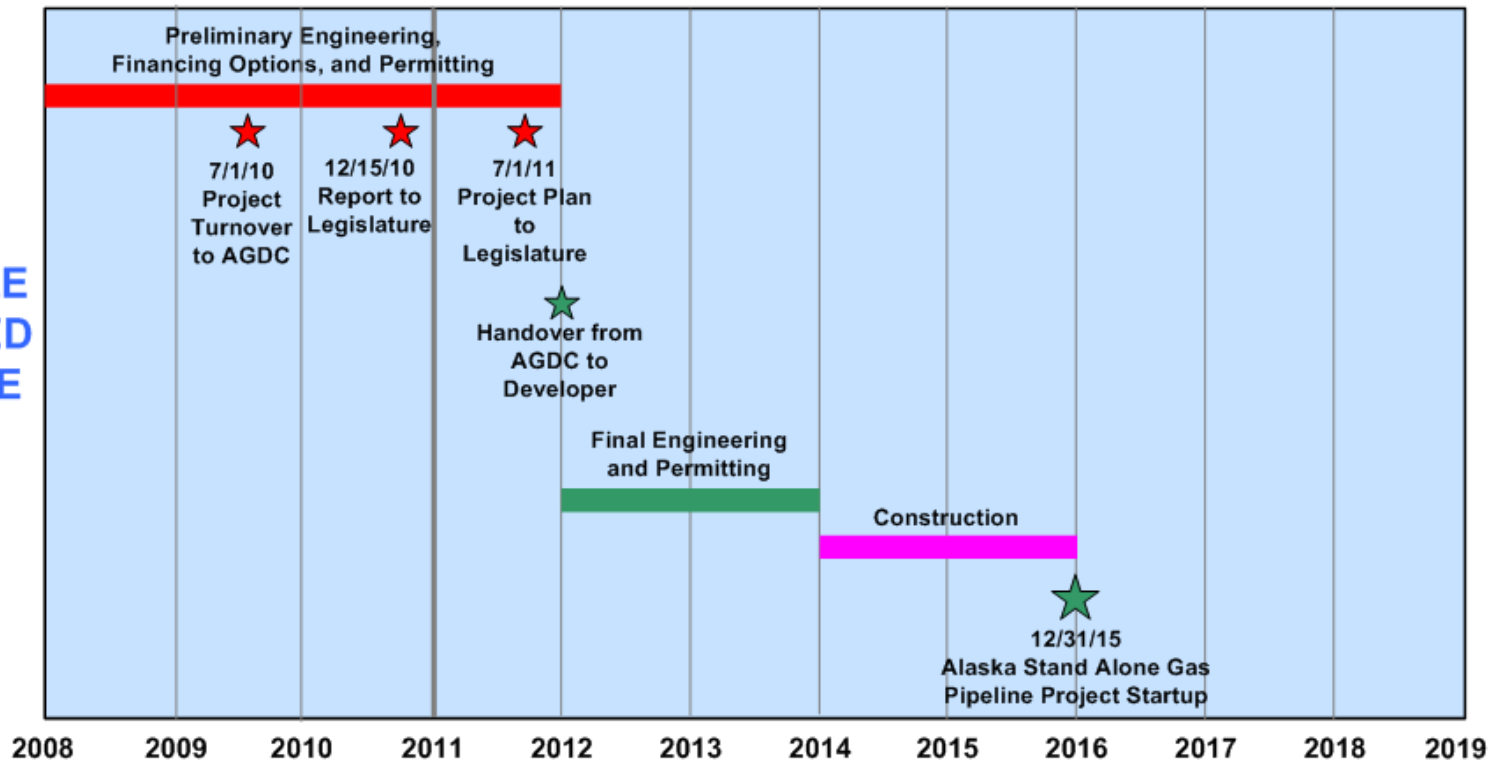
- Decide business model/Select BOO or BO
- Commence negotiations with Foundation Shippers
- Continue permitting studies
- Prepare Open Season package
- Refine estimate to a Class 3 AACE

Proposed FEL 2 Organization

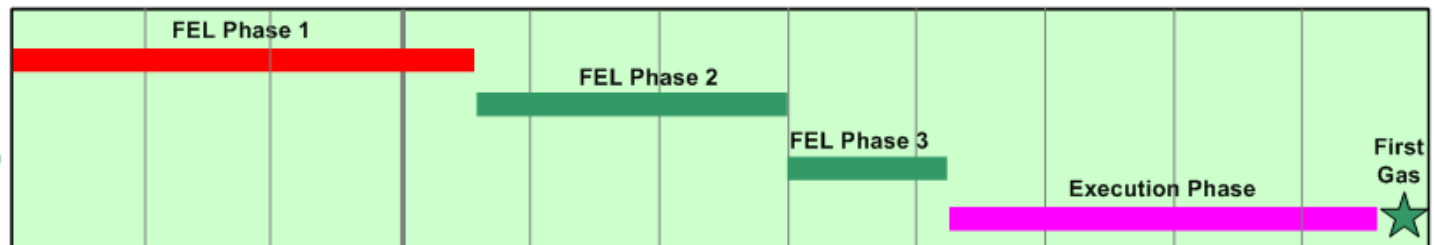


Project Schedule

SCHEDULE MANDATED BY HOUSE BILL 369



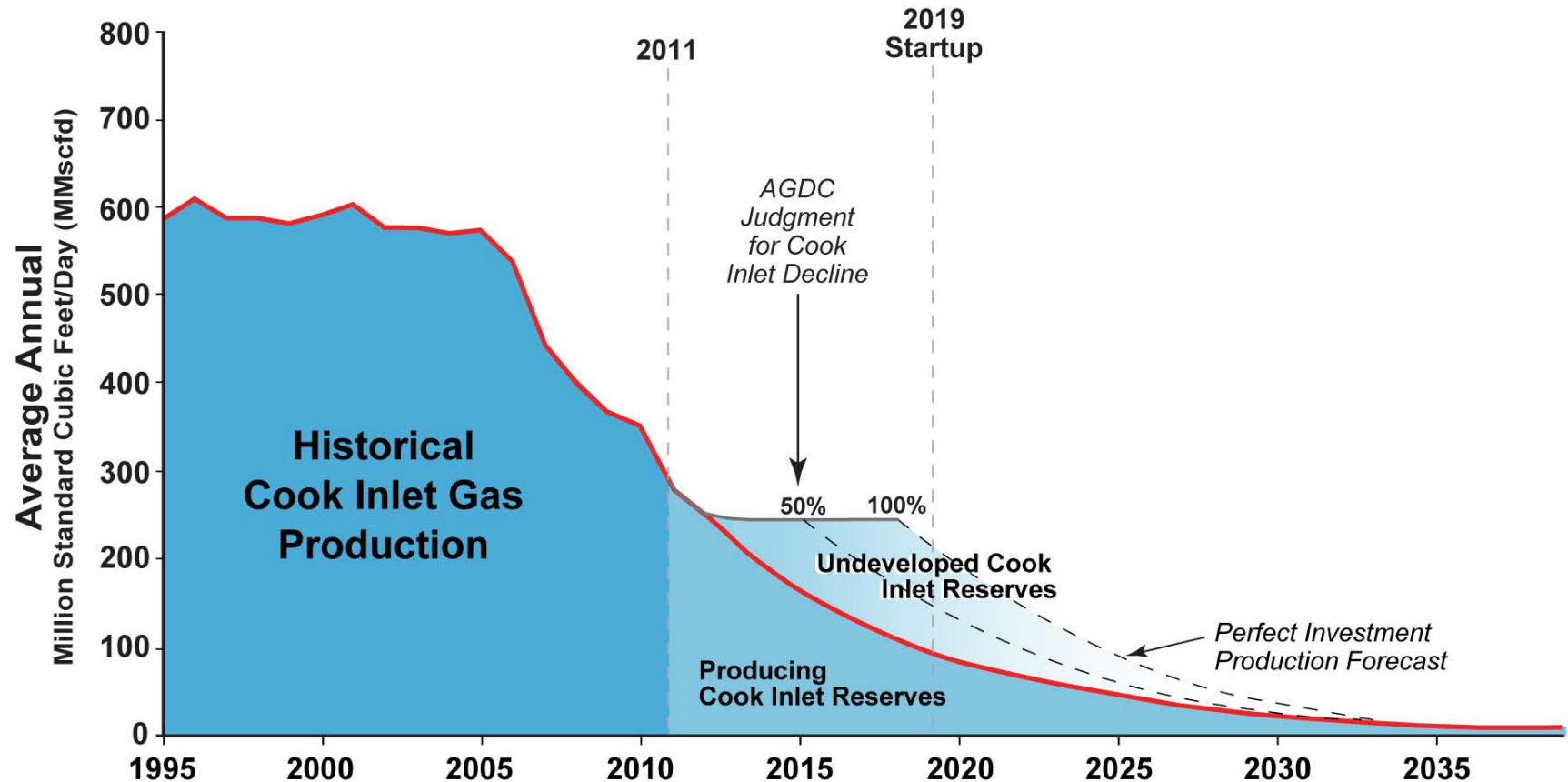
OPTIMIZED SCHEDULE (Front-end loaded)



Lieza Wilcox and Joe Dubler

COMMERCIAL and FINANCIAL REVIEW

AGDC/DNR Cook Inlet Gas Production Forecast



Alternatives/Options

- Import LNG estimate: \$14 -\$19/MMbtu (2011\$) delivered to Cook Inlet local distribution network
- Un-inflated consumer cost – using reasonable set of assumptions
 - Anchorage – roughly \$9.63MMbtu
 - Fairbanks – roughly \$10.45MMbtu
- Other energy options not part of the scope and not considered to be exclusive
 - Renewable energy including Hydroelectric
 - Cook Inlet exploration
 - Coal
 - Natural gas storage

Commercial Viability Defined

- 100% firm transportation commitments at capacity for first 20 years
- Tariff such that:
 - Delivered local gas price less than imported LNG
 - Export options - (industrial anchors)
 - Wellhead netback attracts producers as shippers
- Builder/Owner/Operator requirements are met
 - Risks mitigated
 - Acceptable rate of return

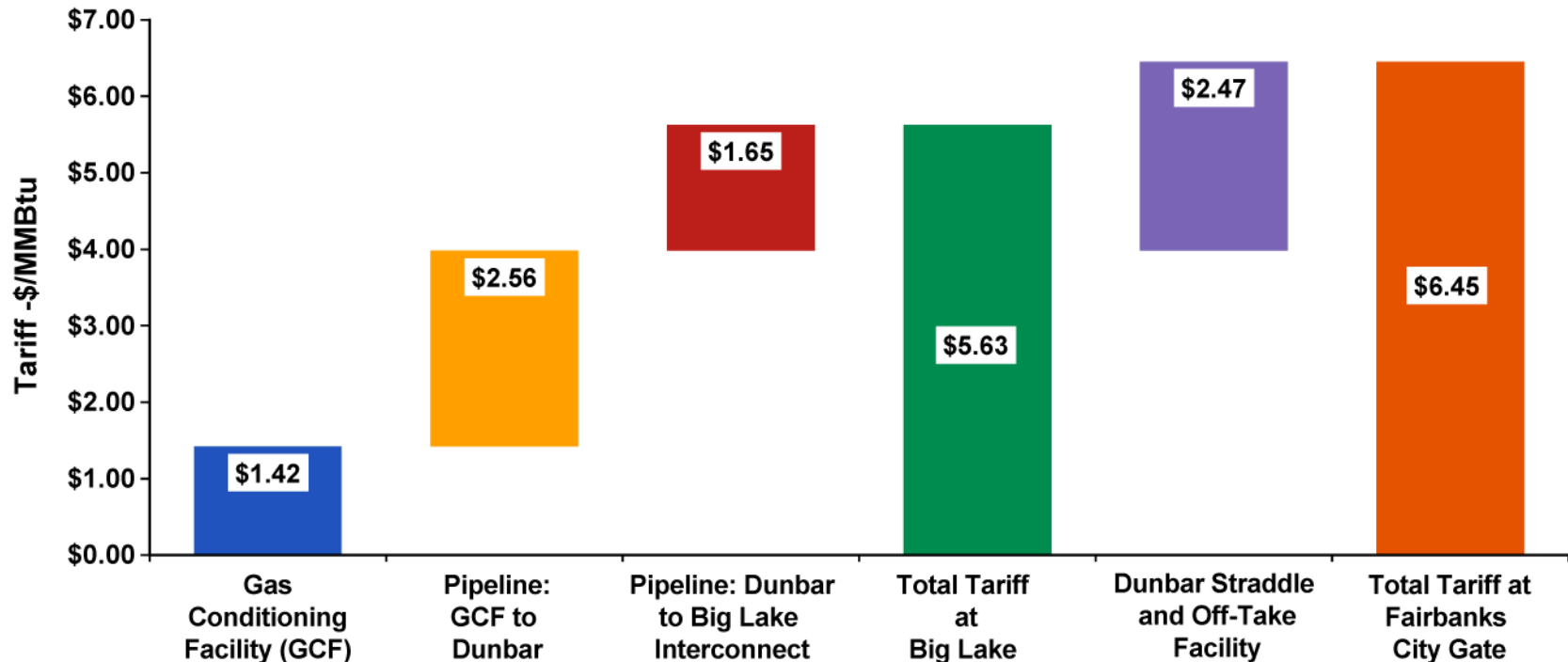
Non-Binding Expression of Interest Results

- Expressions were non-binding and confidential
- Diverse group: producers, utilities, & mining
- Total interest is near pipeline capacity
- AGDC believes full capacity at the open season is achievable
- Estimate of ASAP capacity by 2019 close to expressions of interest in off-taking gas
- Potential gas suppliers expressed interest to negotiate gas supply agreements with interested off-takers

Summary of Activities with Builder/Owner/Operators (BOO)

- Met with 11 pipeline companies and producer affiliates
- Asked for a frank assessment of risks and requirements for participation
- Message:
 - Size and capital availability probably not an issue
 - SOA must carry cost during FEL 2 (until Open Season), maybe FEL 3
 - SOA as firm shipper greatly improves chance of success
 - 100% firm transportation commitments required (common carrier is a non-starter)
 - Transportation costs must be low enough to encourage industrial anchors and shippers
- AGDC will select a BOO during FEL 2

Estimated Tariff Build-Up for Base Case Design with No Inflation from 2011 Dollars (Option 8)

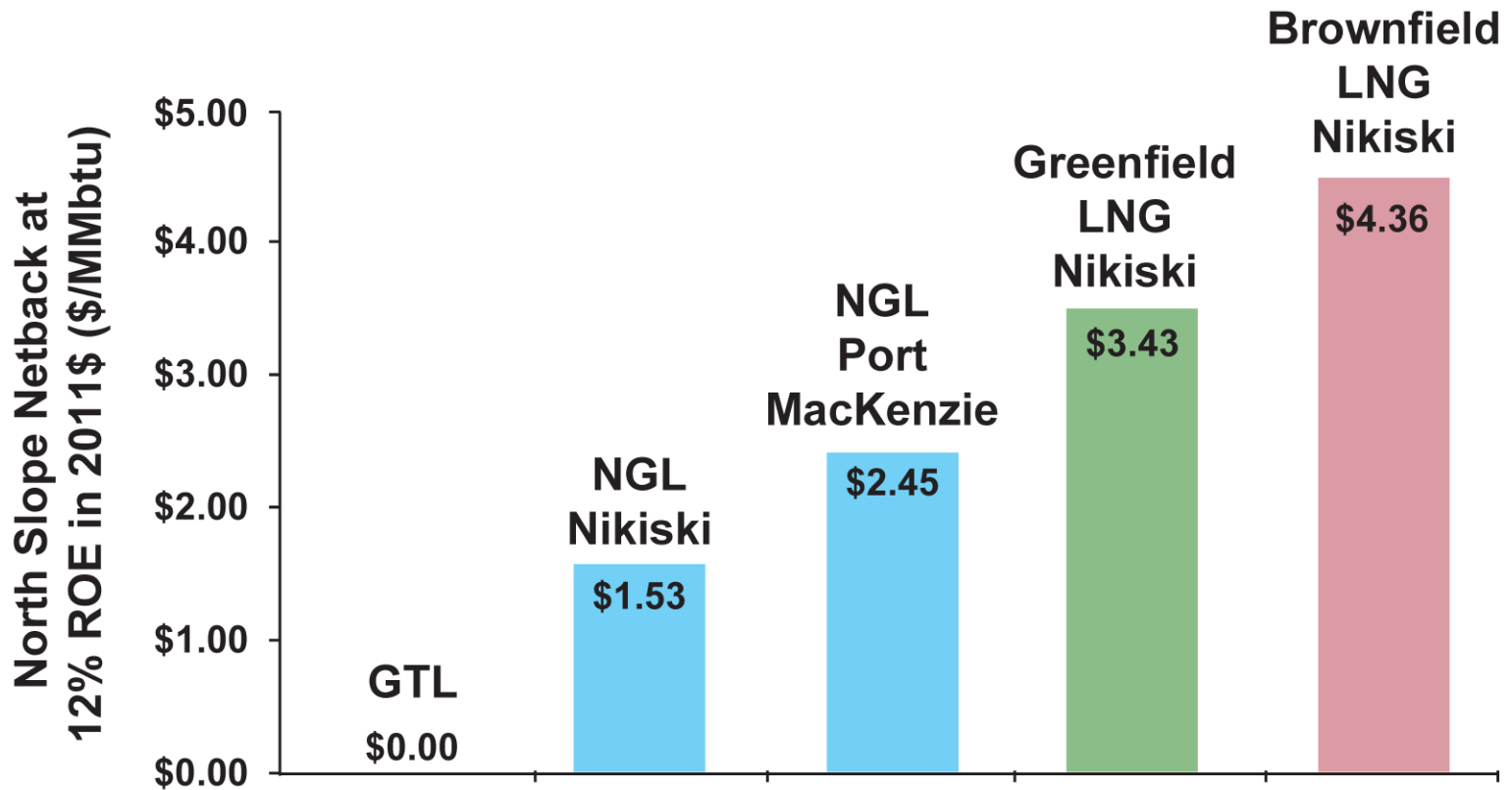


- 20-year levelized tariffs (Black & Veatch)
- Throughput ramps up over 3 years
- 96.5% operating efficiency
- Assumes ~ \$300M funding by the SOA for FEL 1 & 2
- 70 / 30 Debt/Equity; 5.7% Cost of Debt, 12% ROE

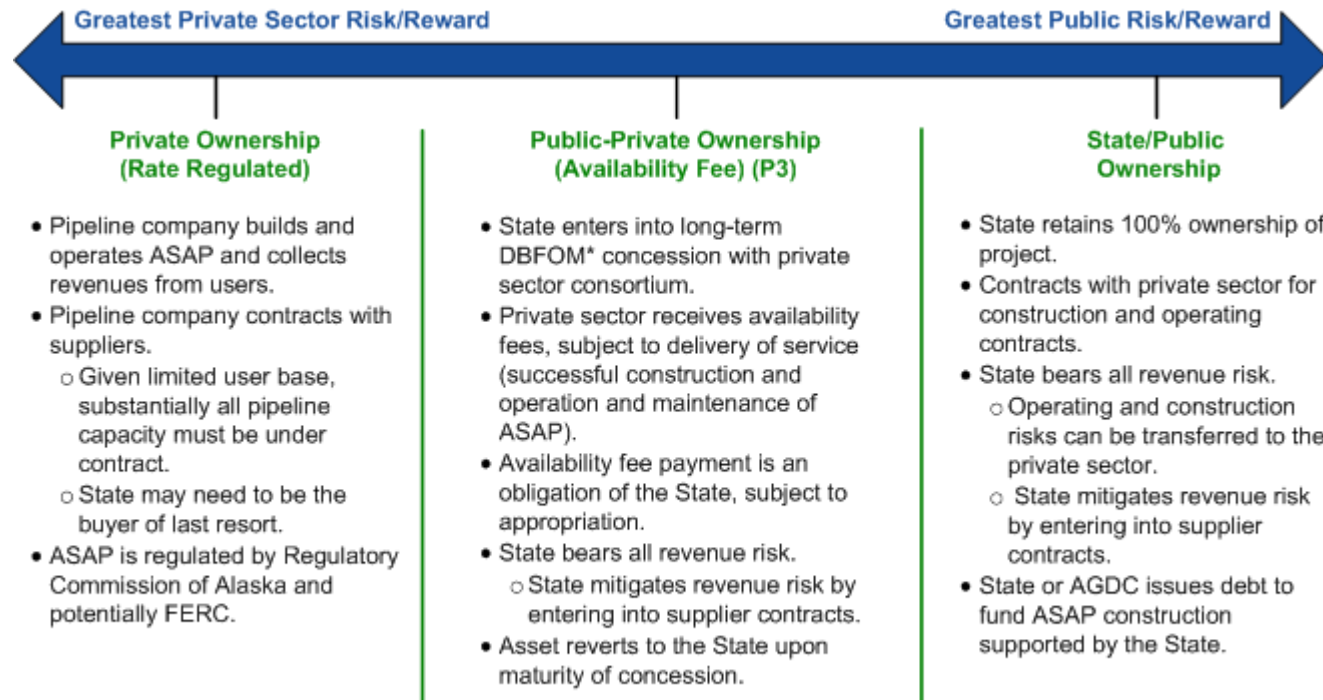
Economic Feasibility Studies

- Market netback value chain approach
- Consistent set of study assumptions
- Market prices tied to \$82.40 (2011\$) WTI Crude
- 12% ROE required by anchor industrial users
- Feasibility Studies Completed
 - LNG, SAIC
 - NGL/Propane, R.W. Beck
 - GTL, Hatch

Industrial Anchor North Slope Netbacks



Potential Capital Structures



*DBFOM = design, build, finance, operate, and maintain

Dave Norton

ENGINEERING, ENVIRONMENTAL, REGULATORY & LANDS

ASAP Features

Mainline:

737 miles long, 24" diameter
2,500 psi max operating pressure

Fairbanks Lateral:

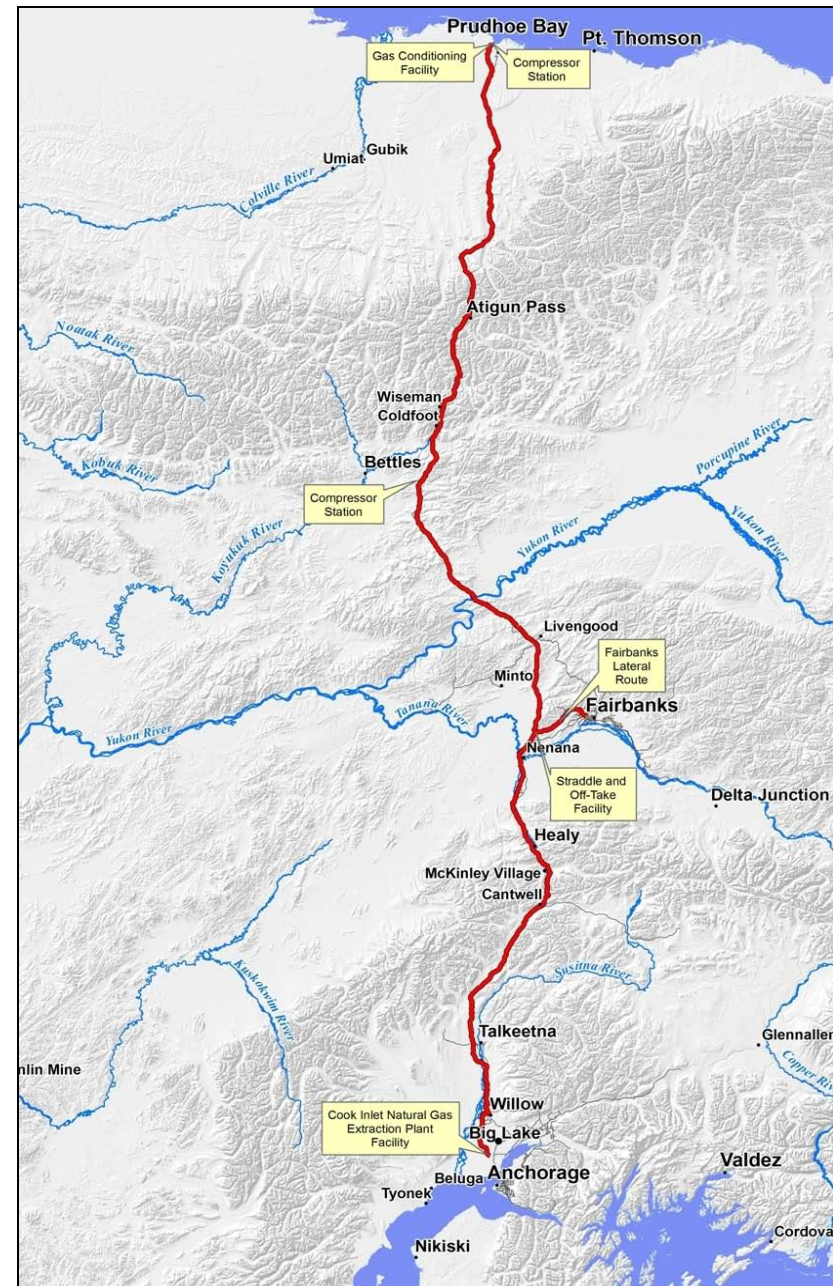
35 miles long – 12" diameter
Tie-in with mainline at MP 458

North Slope Gas Conditioning Facility

Gas Take-off Facility/NGL Straddle Plant

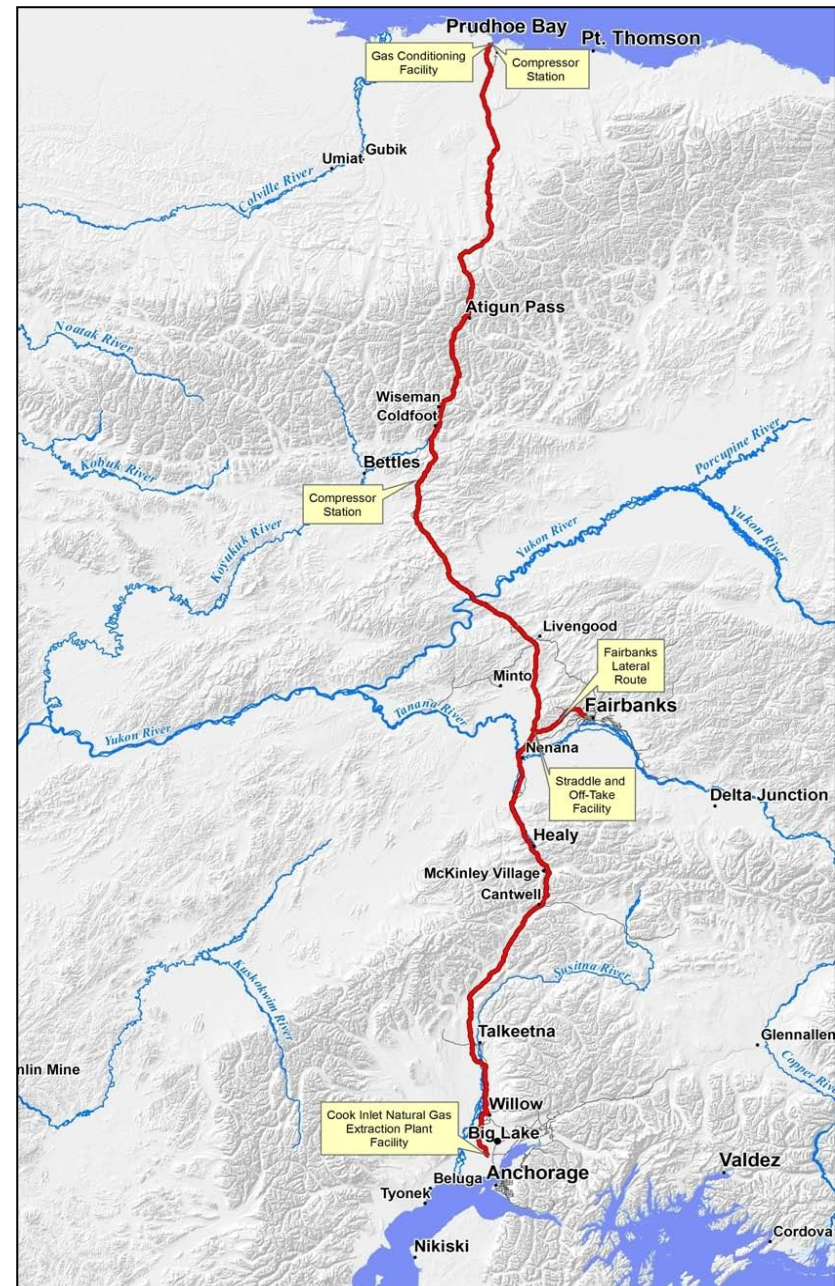
One Compressor Station

Cook Inlet NGL Extraction Plant



Route Characterization

Parallel Encroachment	57%
Major River Crossings	14
Road Crossings	205
Railroad Crossings	10
TAPS Crossings	17
Utility Crossings	68



Current Engineering Activities

- Comprehensive FEL 2 engineering strategy
- APP cost of data acquisition
- Negotiating for Denali data acquisition
- Developing engineering plan for PHMSA

Current ERL Activities

- Developing comprehensive strategic FEL2 plan
- On-going management of 2011 field program
- Land – title issues related to State ROW
- Long-lead permits – ADEC air & USACE wetlands

Environmental Impact Statement (EIS)

- USACE lead agency
- 5 Federal Cooperating Agencies & ADNOR
- Draft EIS schedule
 - Advertised for public comment September 2011
 - 45 day public comment period
- Final EIS schedule
 - Expected first quarter 2012
 - ROD from USACE & BLM first quarter 2012

Tier 1 Project Permits (Major)

Agency	Permit Type	Expected Issuance
ADNR	State Pipeline Right-of-Way Lease	Received July 2011
USACE	Record of Decision (ROD)	First Quarter 2012
BLM	Federal Pipeline Right-of-Way Grant	First Quarter 2012

Leslye Langla

STAKEHOLDER ENGAGEMENT

Stakeholder Approach

- Identify and engage throughout project
- Consistent, timely information
- Educate stakeholders on ASAP progress
- Provide opportunities to comment & learn
- Incorporate meaningful input into ASAP Project
- Develop relationships with impacted groups
 - Minto example
- Treat all stakeholders respectfully

Education Methods

- Community Meetings
 - Tiered approach
- Conference and Speaking Engagements
- Industry and Agency Outreach
- Website Updates
- Reports
- Materials
 - Mailings
 - Project flyers
 - Project Posters
 - FAQ's

Potentially Affected Stakeholders

- Regional, City and Tribal Governments
 - 24 communities along ASAP route
- Federal Agencies
- State of Alaska Agencies
- State and Federal Elected Officials
- Non-government Organizations

Stakeholder Benefits

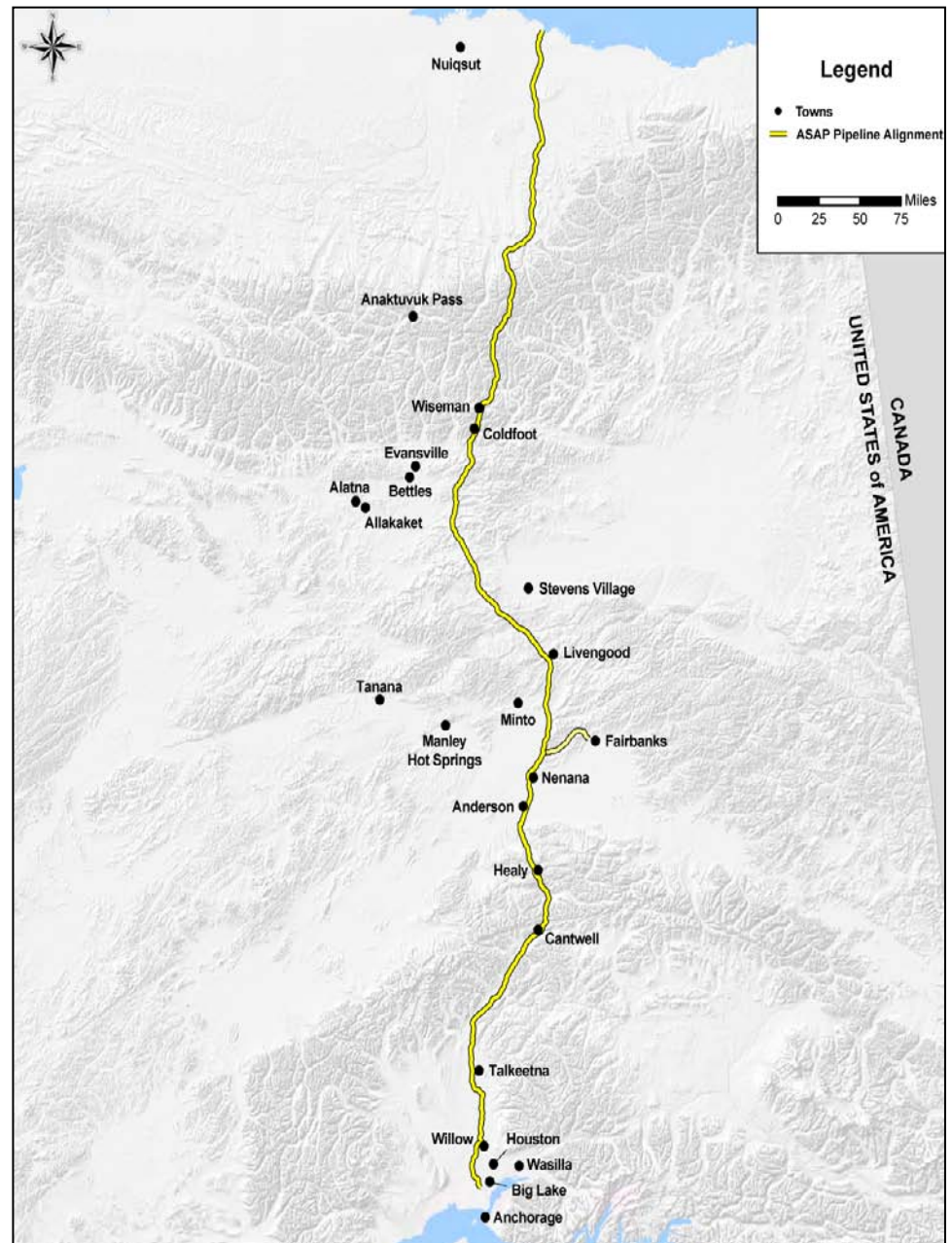
- Tangible value
 - Reduced risk
 - Economic benefits – for ASAP and stakeholders
 - Shared understanding/knowledge of issues
- Government cooperation and collaboration
- Project knowledge/understanding develops trust
- Community support and enthusiasm
- Media message delivered with accuracy

Stakeholder Information Management

- Boundaries of disclosure
- Internet tracking
- Media archives
- Requests for information
- Engagement records
- Incident/issue tracking

24 Affected Communities

- Identify issues
- Establish levels of communication
- Record and respond
- Maintain schedule of engagements



Thank you!

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ASAP Project Plan Findings

- **Cost of Gas to Consumers** – based on reasonable assumptions the tariff models support further ASAP Project work
 - Anchorage \$ 9.63/MMBtu in 2011 dollars
 - Fairbanks \$10.45/MMBtu in 2011 dollars
- **Alternative Project Schedules** – unlikely another single project will address the Cook Inlet energy shortfall in comparable timeframe
- **Project Cost** - \$7.52 Billion, in 2011 dollars - plus/minus 30%

Findings, continued (2)

- **Public Ownership Model** – provides lowest tariff due to lower cost of debt and zero equity
- **Builder/Owner/Operator** – there is interest among Builder/Owner/Operators if private ownership model is selected
- **Anchor Tenants** – LNG anchor tenant appears commercially feasible
- **Business Risks** –
 - Failed open season; increased construction costs; or project delay caused by regulatory/environmental permitting

Findings, continued (3)

- **Route Selection** – Parks meets HB369 requirements and criteria of environmental impact statement
- **Project Schedule** – Optimized to successfully execute an open season and procure financing
- **State Lease ROW** – ASAP granted first non-conditional pipeline right-of-way by the State for the purpose of transporting North Slope natural gas to market

ASAP Recommendations

- **Adjust Project schedule** – first gas 2018, full transmission 2019
- **Fund 2nd phase (FEL2)** of ASAP Project – approximately \$240M
- **Select Ownership Model**
- **Procure Builder/Owner/Operator or Builder/Operator**
- **Execute Plans** included in ASAP Project Plan
- **Refine Alignment**

Thank you!

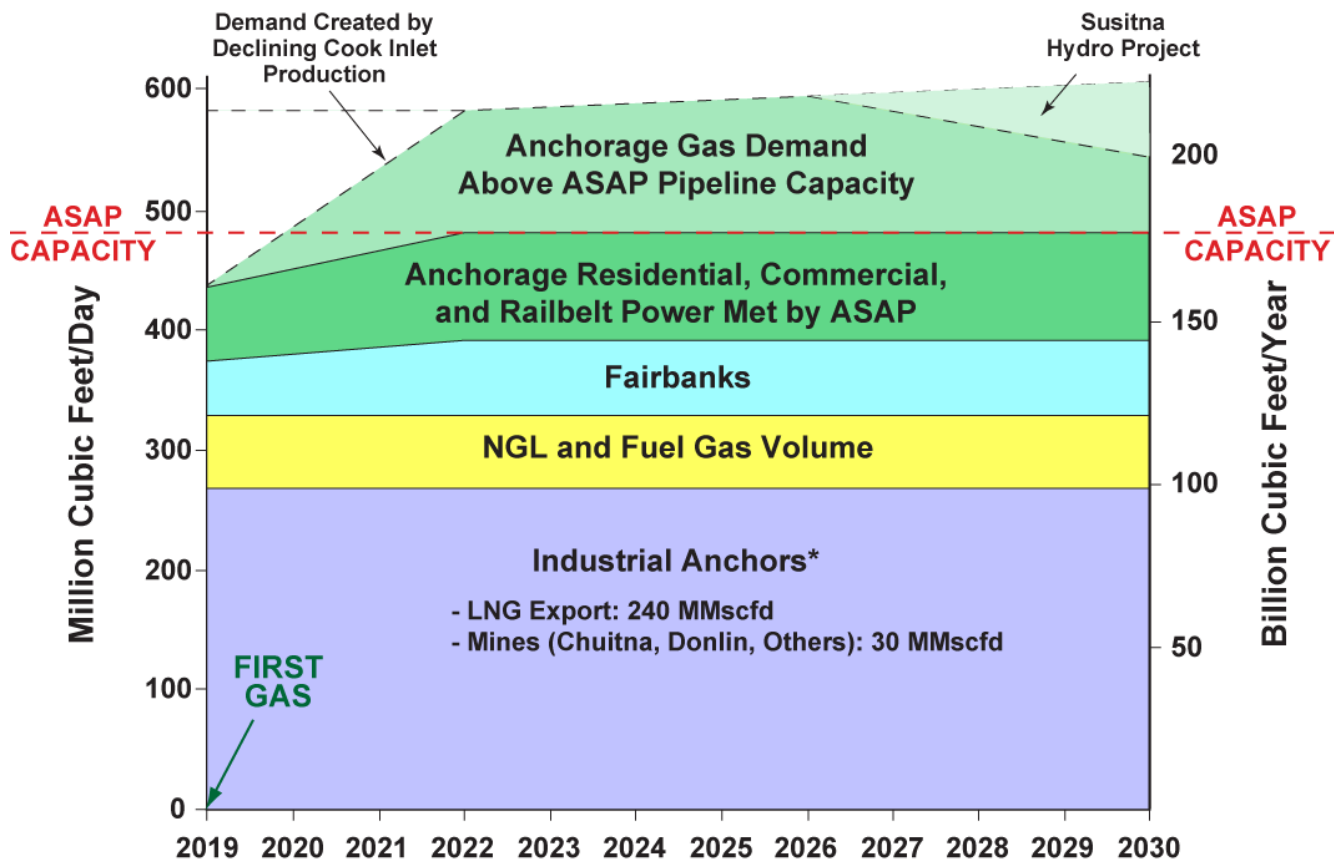
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AGDC Cook Inlet Demand Forecast for ASAP Gas (Demand Net of Cook Inlet Production)



*"Industrial Anchors" wedge assumes only one mining project becomes a gas off-taker for 30 MMscfd.