



# 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

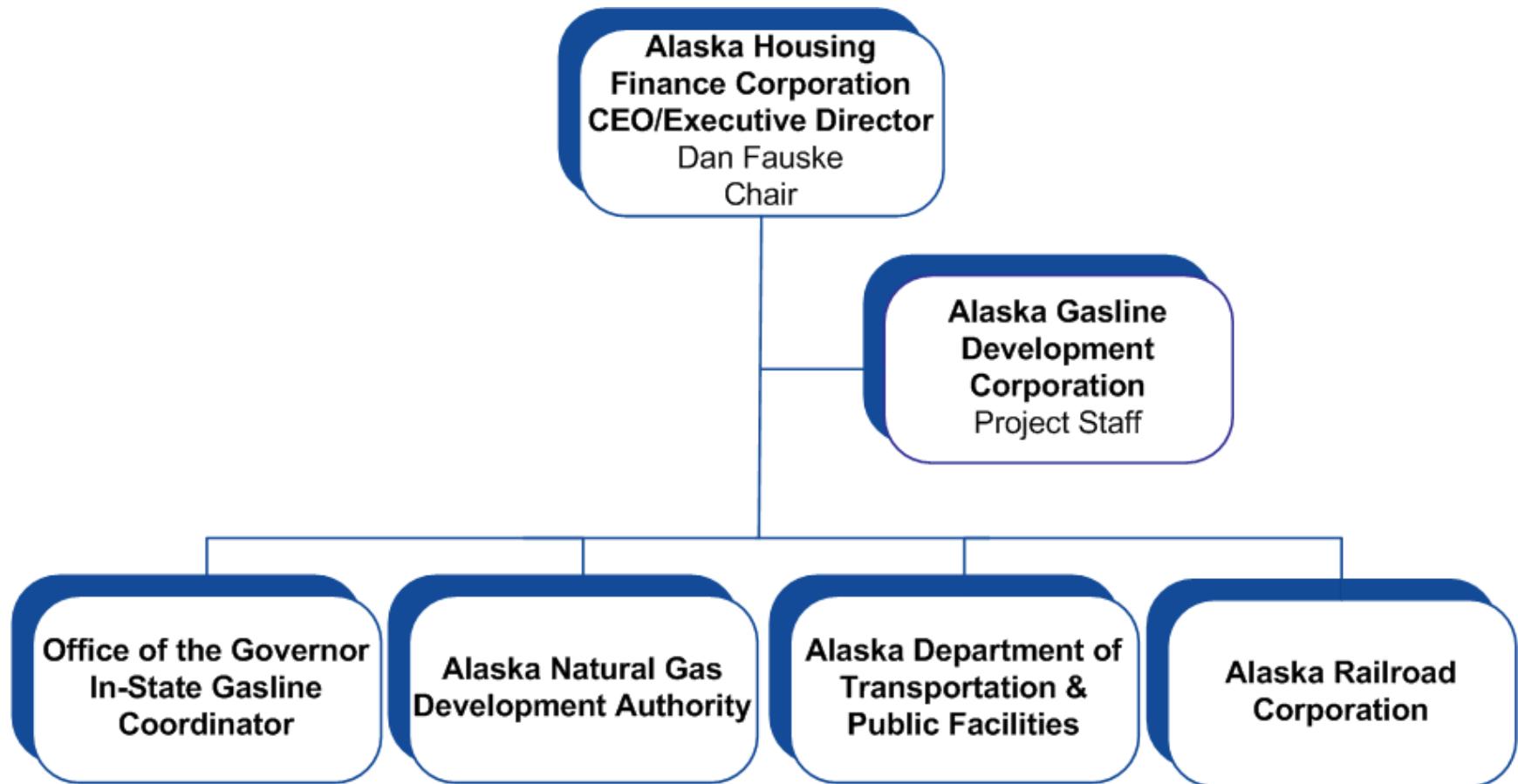
Summary of AGDC legislative appropriations:  
FY2012

- 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)

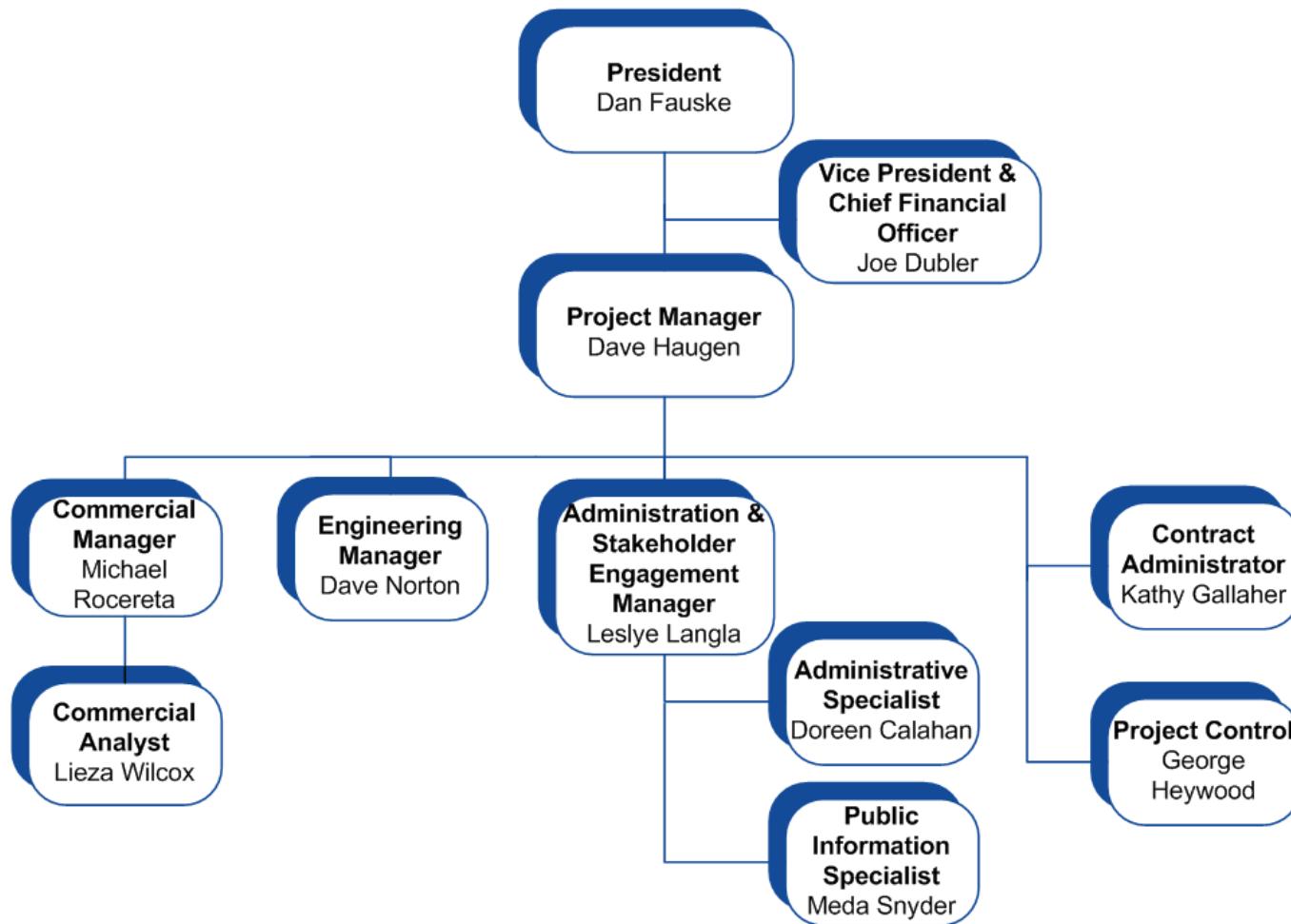
Dave Haugen

# 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

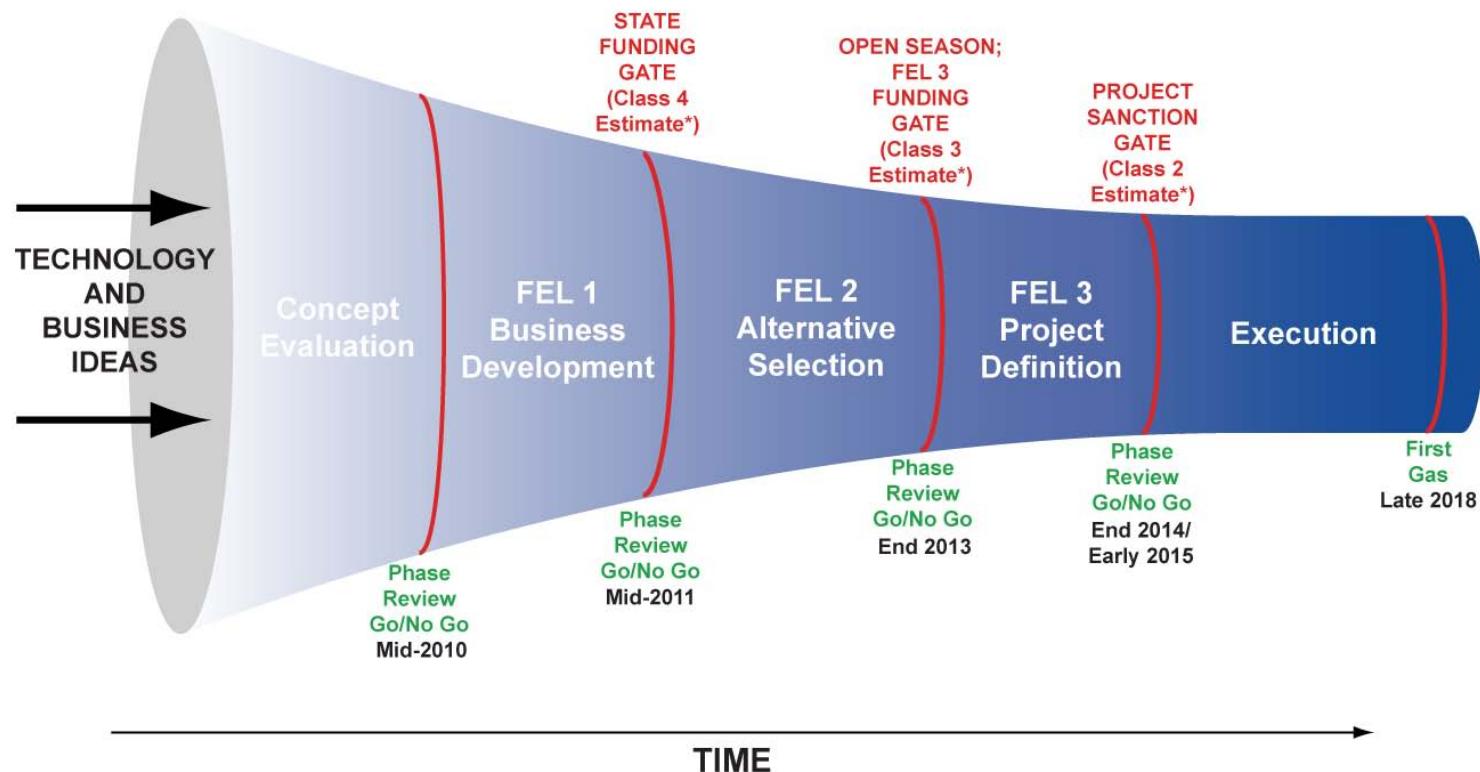
ACTIVITY	CONTRACTOR
Financial Advisor	Citigroup/Ramirez
Tariff Modeling	Black & Veatch
ECONOMIC/MARKET STUDIES:	
Gas to Liquids	Hatch Associates Consultants, Inc.
Liquefied Natural Gas	Science Applications International Corporation (SAIC)
Natural Gas Liquids	R.W. Beck Inc. (SAIC)
In-State Propane Utilization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

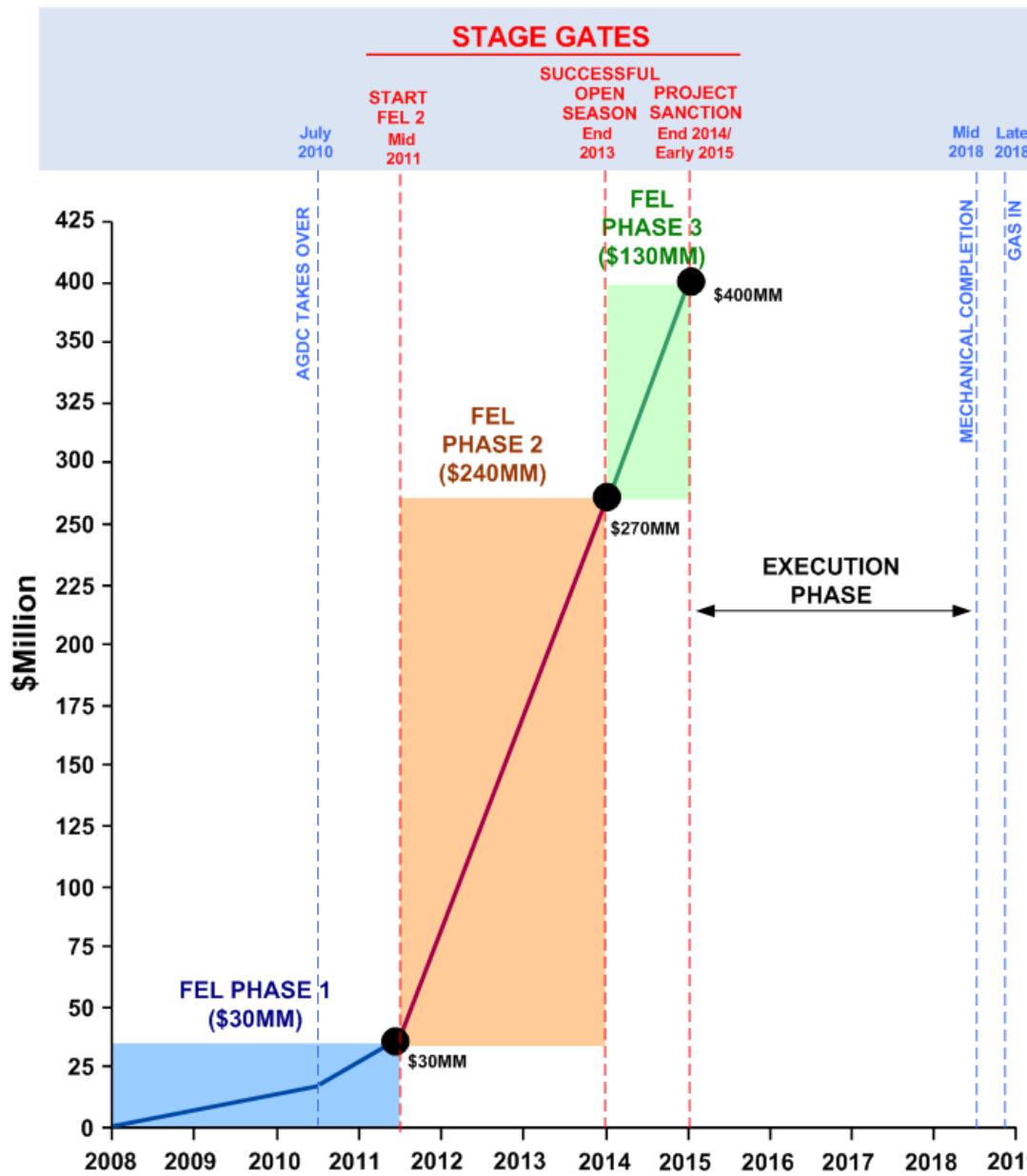
# Stage Gate Approach

*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.

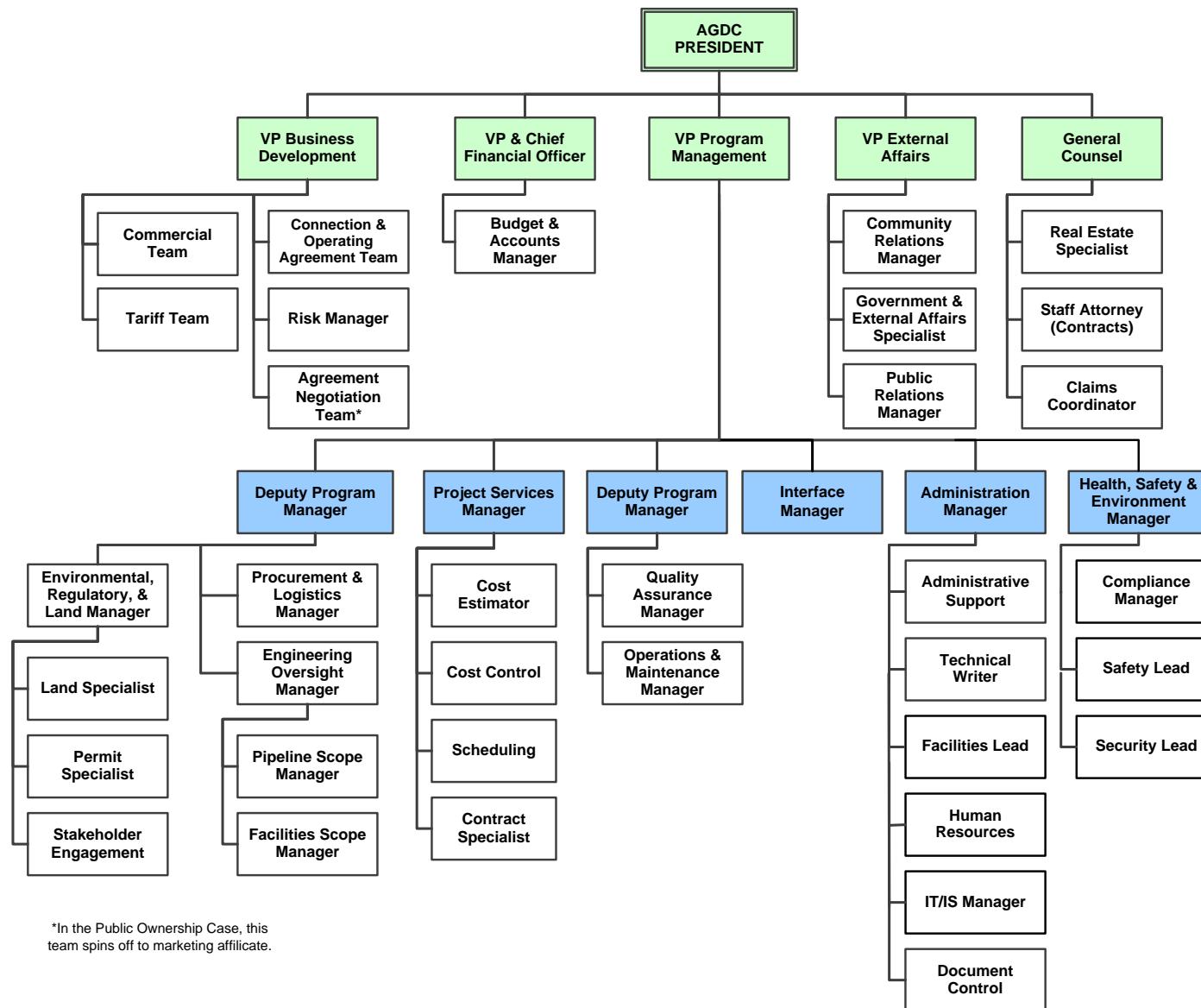
# Project Definition Levels



# FEL-2 Activities

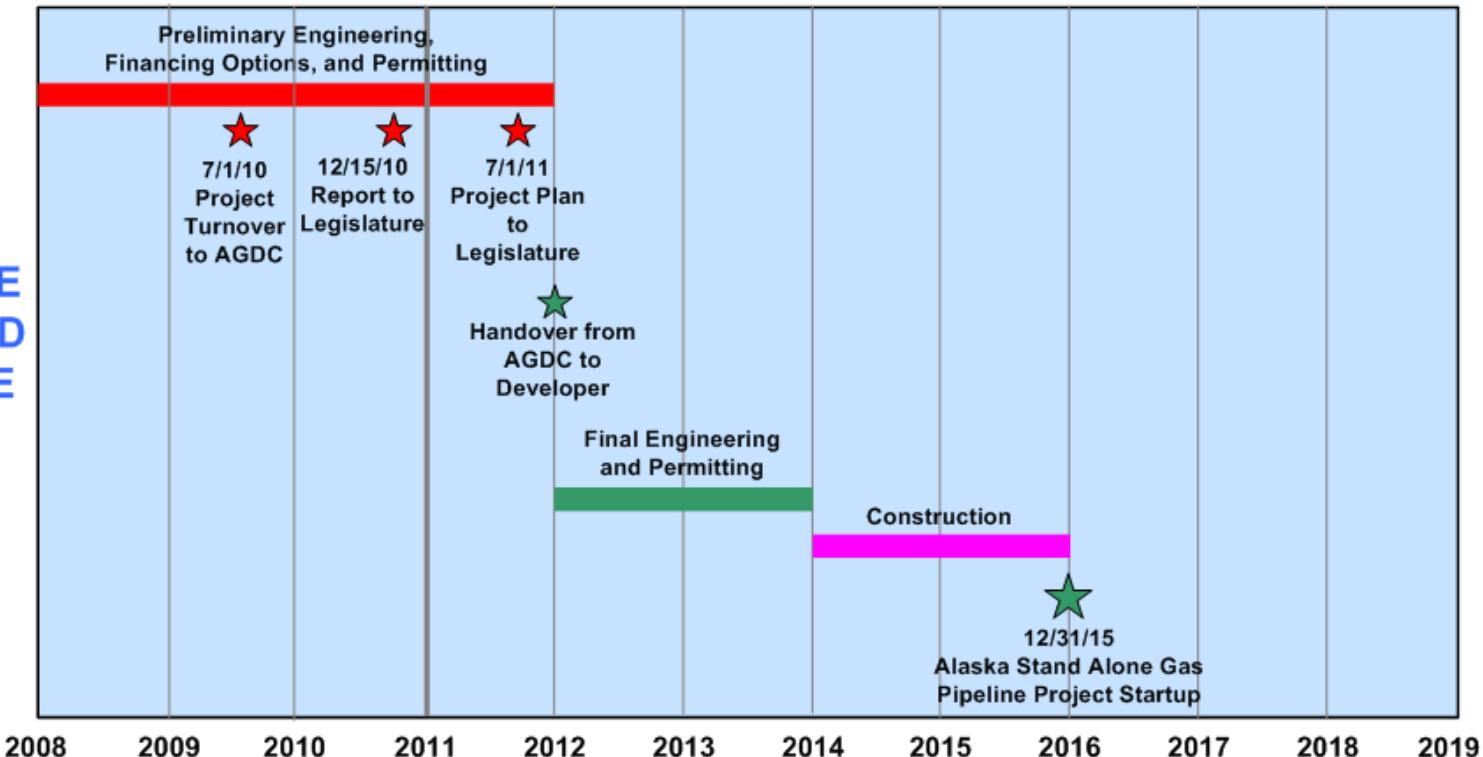
- Decide business model>Select BOO or BO
- Commence negotiations with Foundation Shippers
- Continue permitting studies
- Prepare Open Season package
- Refine estimate to a Class 3 AACE

# Proposed FEL 2 Organization



# Project Schedule

## SCHEDULE MANDATED BY HOUSE BILL 369



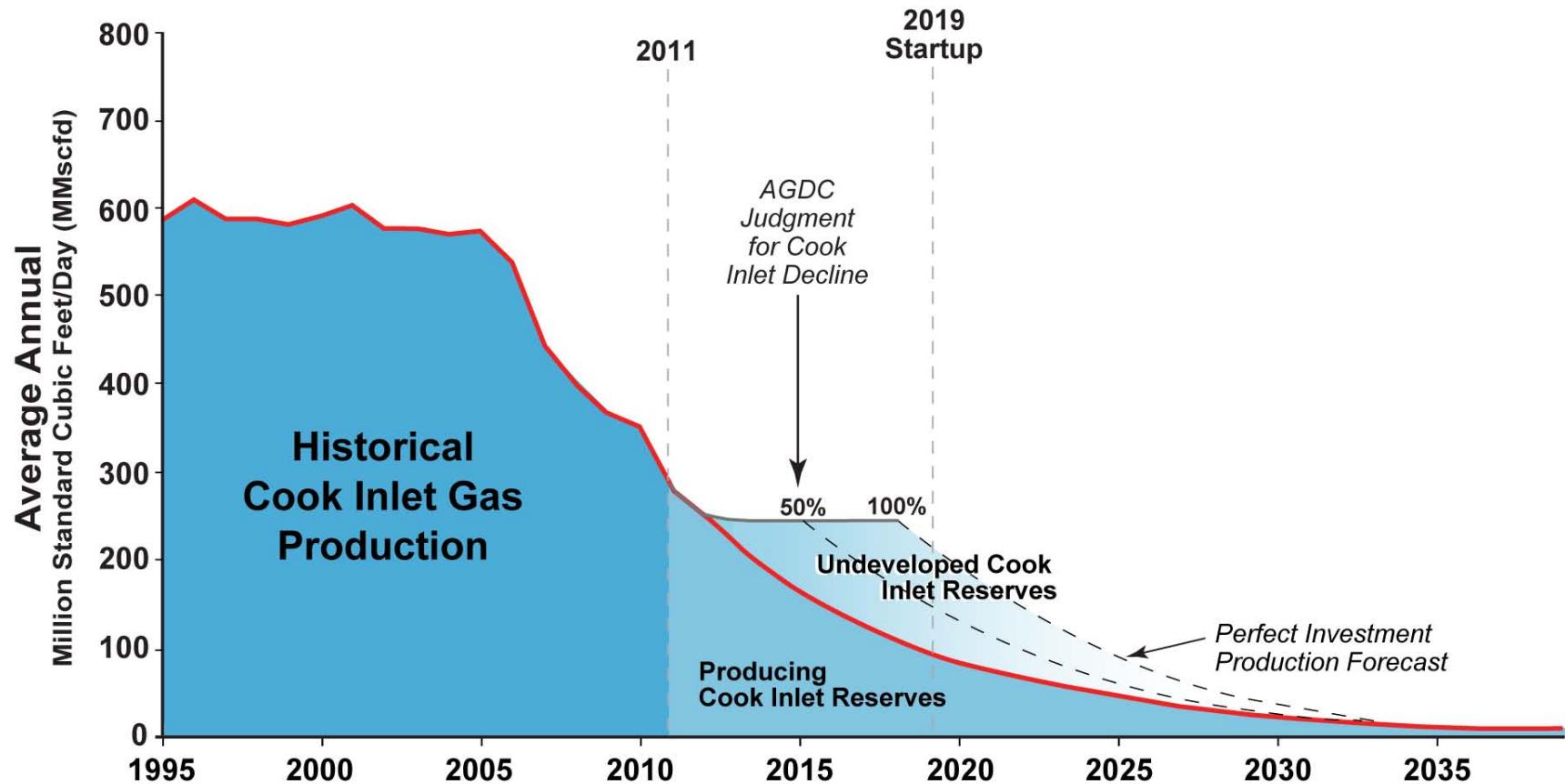
## OPTIMIZED SCHEDULE (Front-end loaded)



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

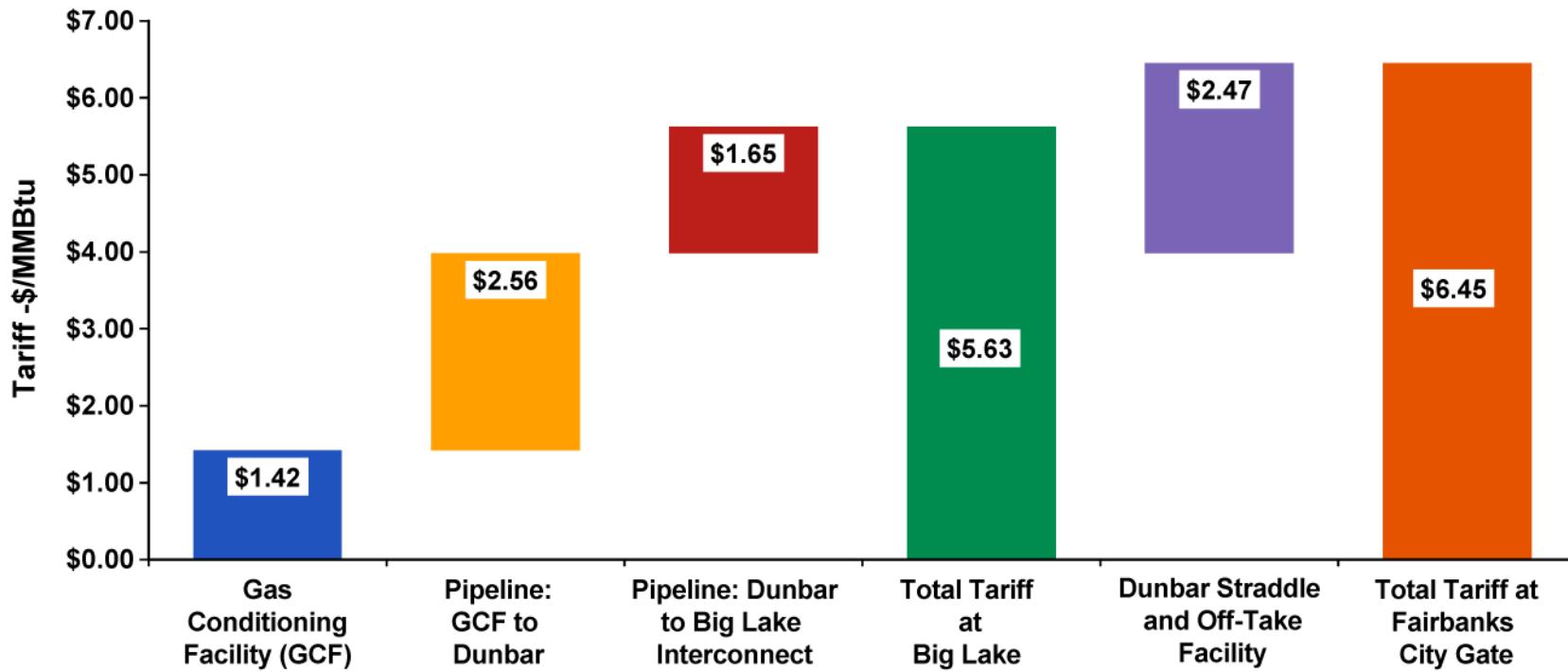
# Non-Binding Expression of Interest Results

- 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)

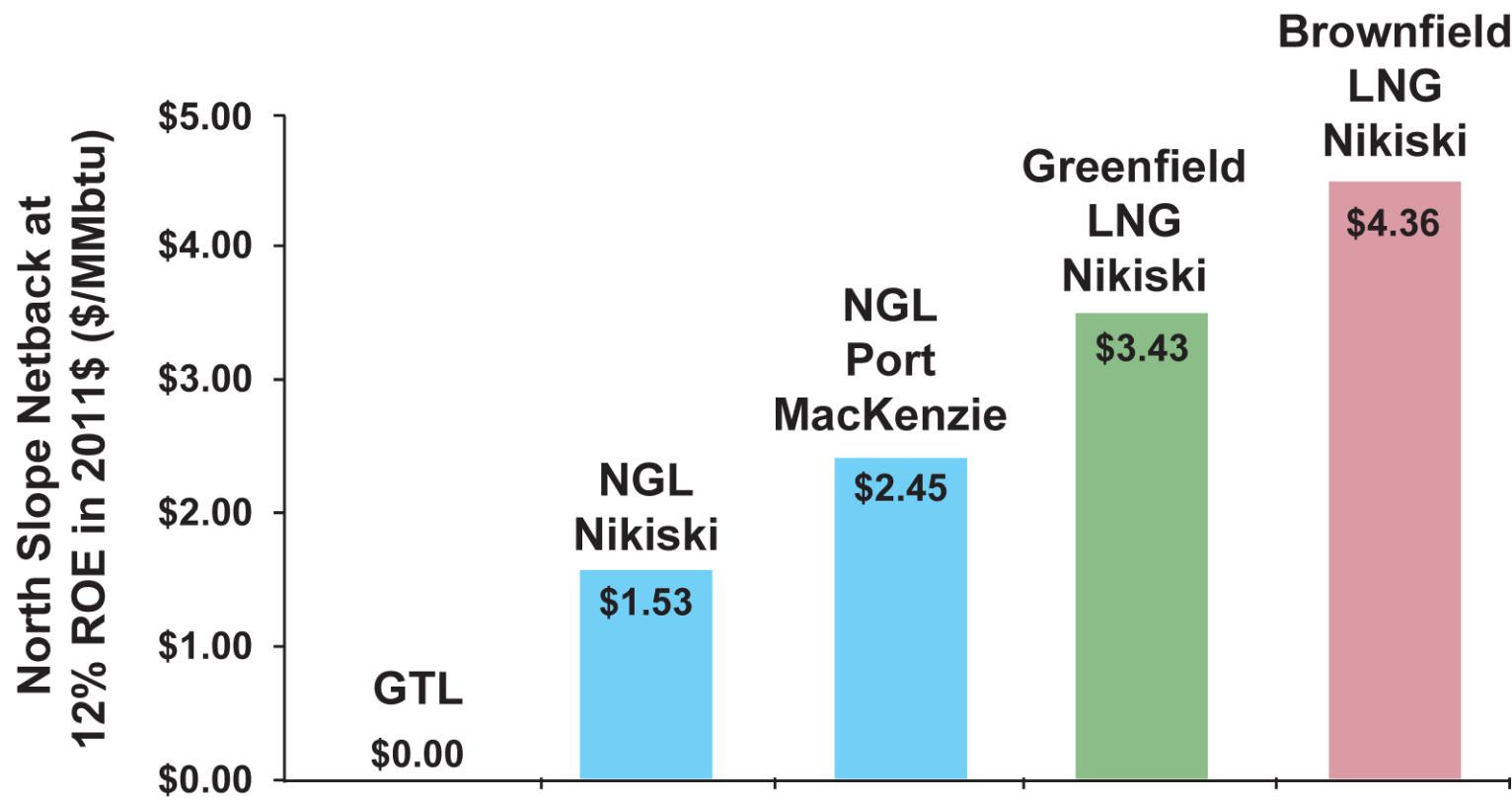


- 20-year levelized tariffs (Black & Veatch)
- Throughput ramps up over 3 years
- 96.5% operating efficiency
- Assumes ~ \$300M funding by the SOA for FEL 1 & 2
- 70 / 30 Debt/Equity; 5.7% Cost of Debt, 12% ROE

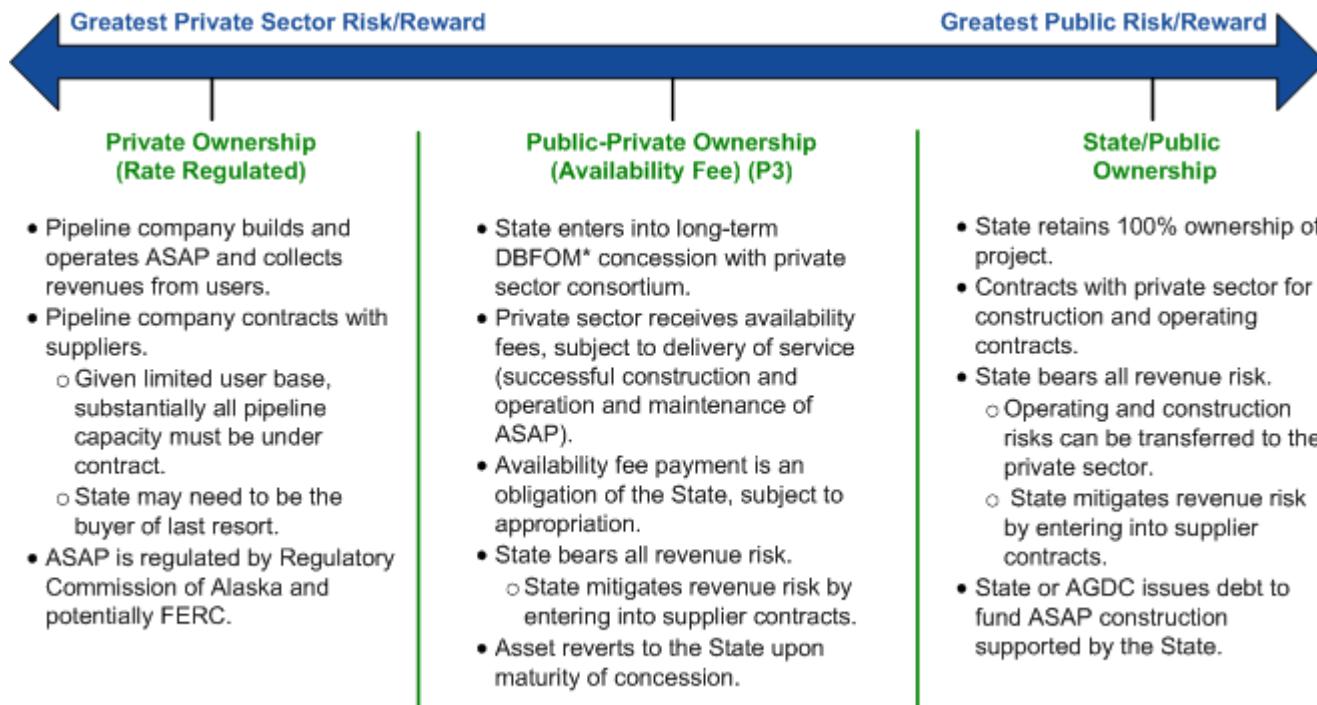
# Economic Feasibility Studies

- 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:

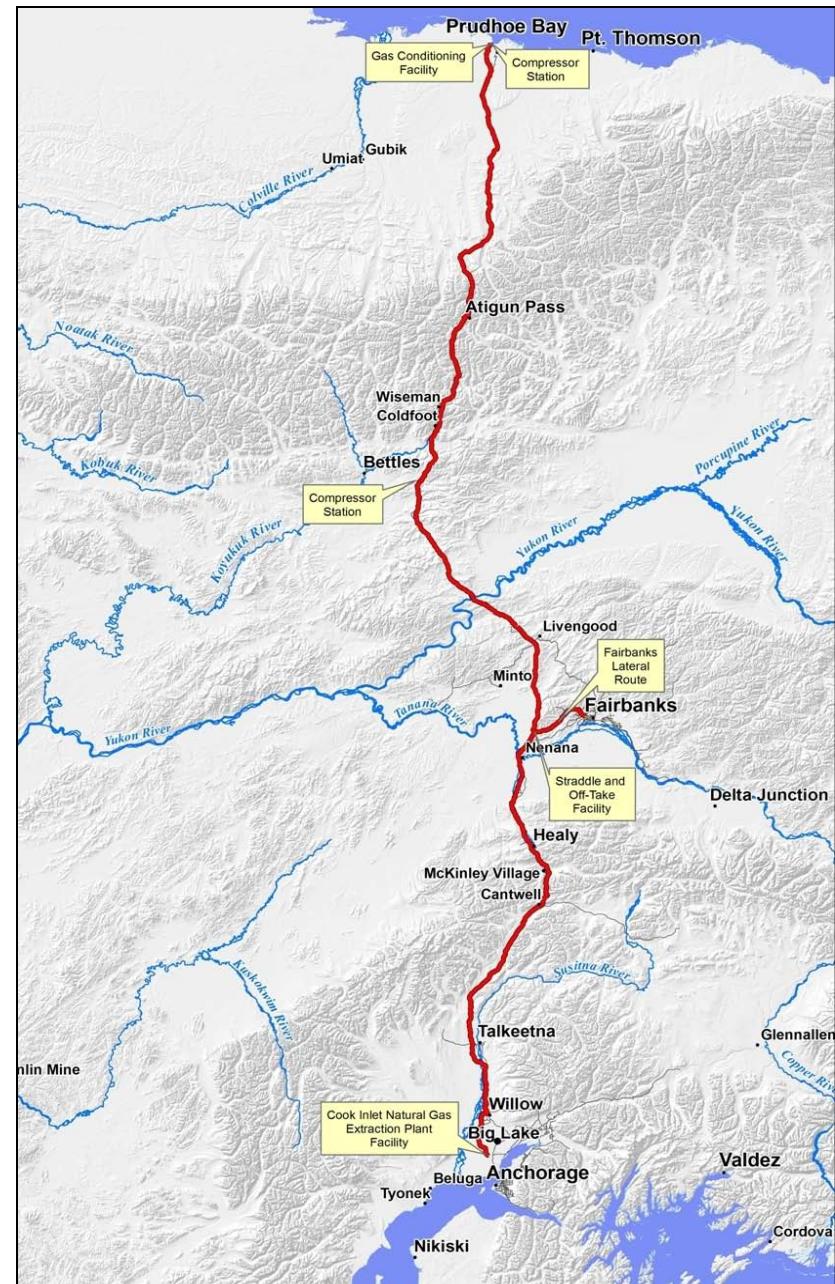
35 miles long – 12" diameter  
Tie-in with mainline at MP 458

## North Slope Gas Conditioning Facility

## Gas Take-off Facility/NGL Straddle Plant

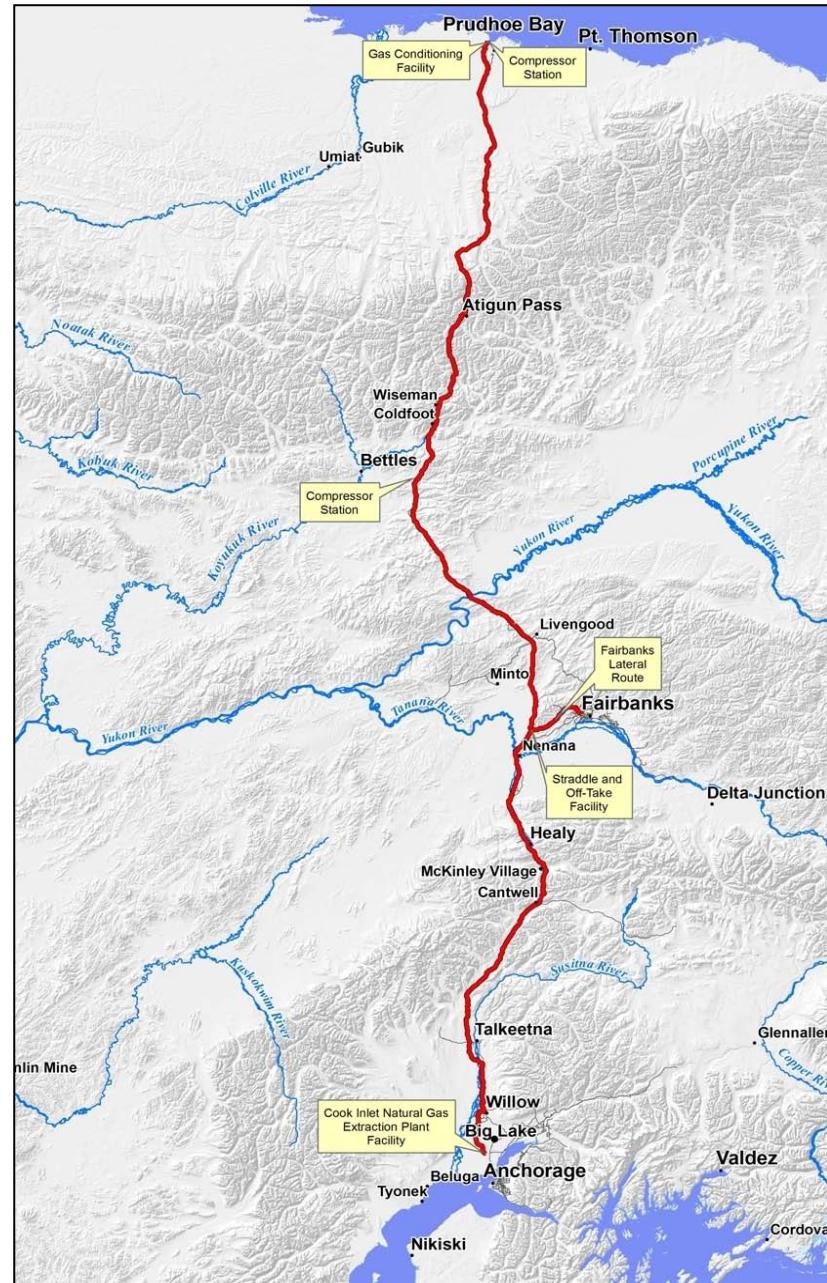
## One Compressor Station

## 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 & ADNR
- 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

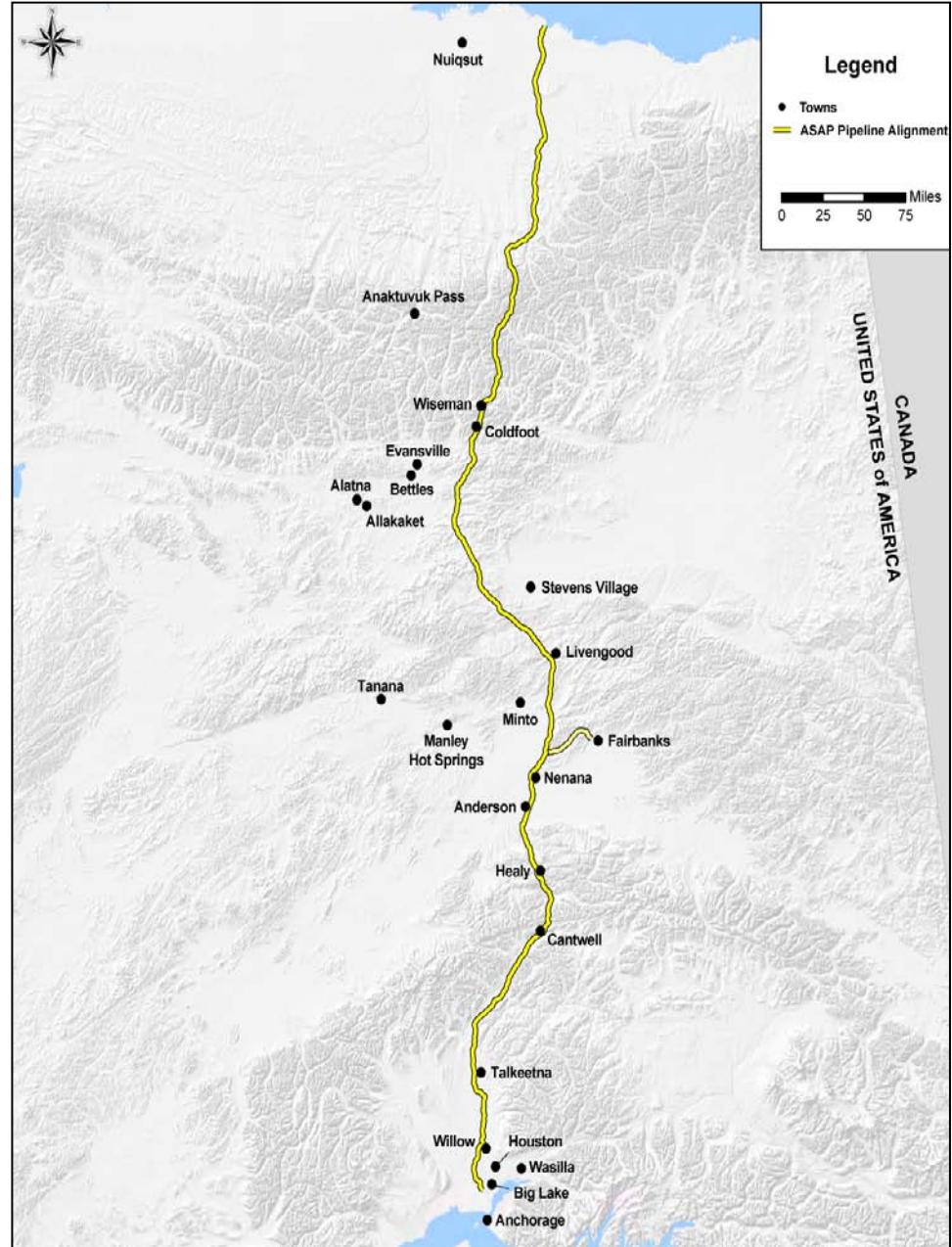
- Tangible value
  - Reduced risk
  - Economic benefits – for ASAP and stakeholders
  - Shared understanding/knowledge of issues
- Government cooperation and collaboration
- Project knowledge/understanding develops trust
- Community support and enthusiasm
- Media message delivered with accuracy

# 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

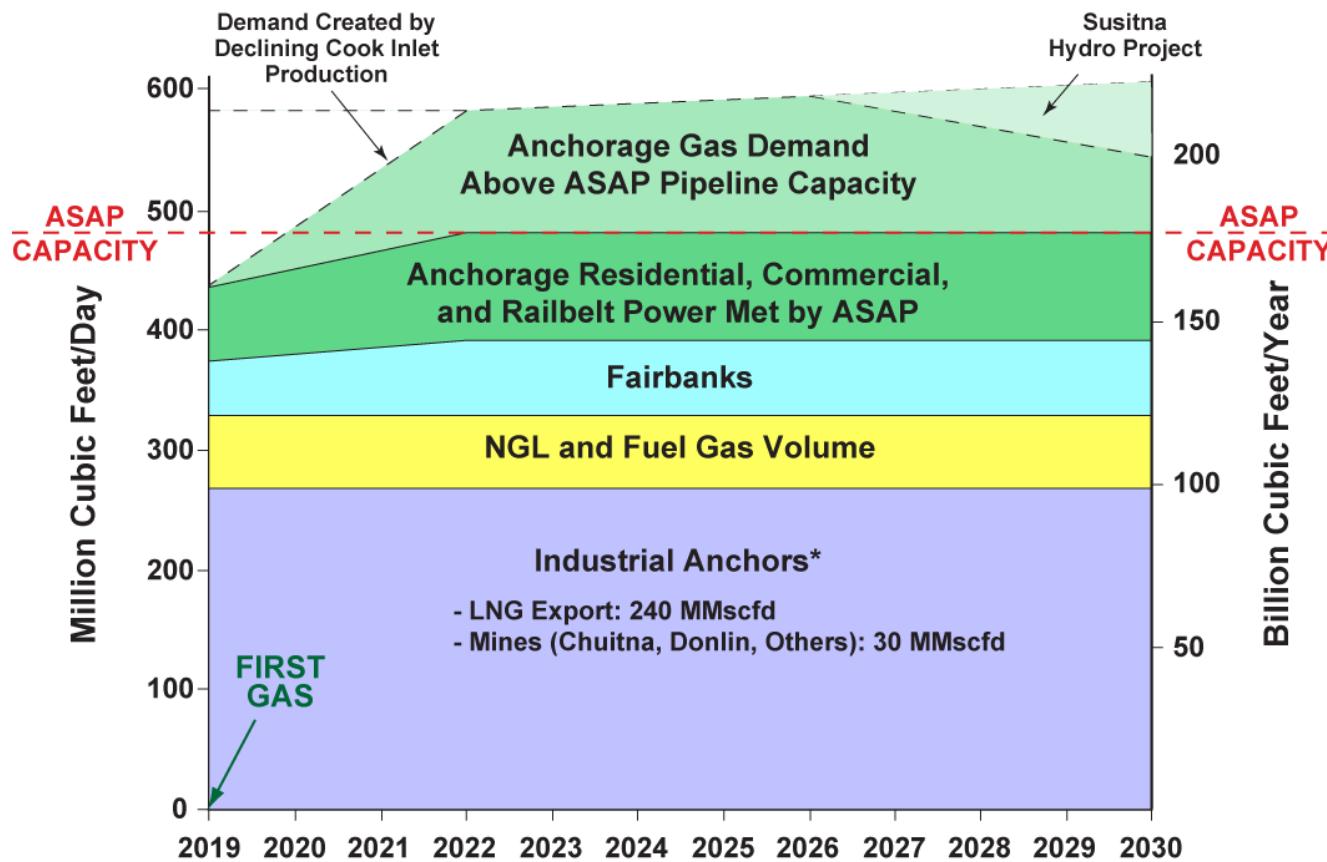
- **Adjust Project schedule** – first gas 2018, full transmission 2019
- **Fund 2<sup>nd</sup> phase (FEL2) of ASAP Project** – approximately \$240M
- **Select Ownership Model**
- **Procure Builder/Owner/Operator or Builder/Operator**
- **Execute Plans** included in ASAP Project Plan
- **Refine Alignment**

# 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.