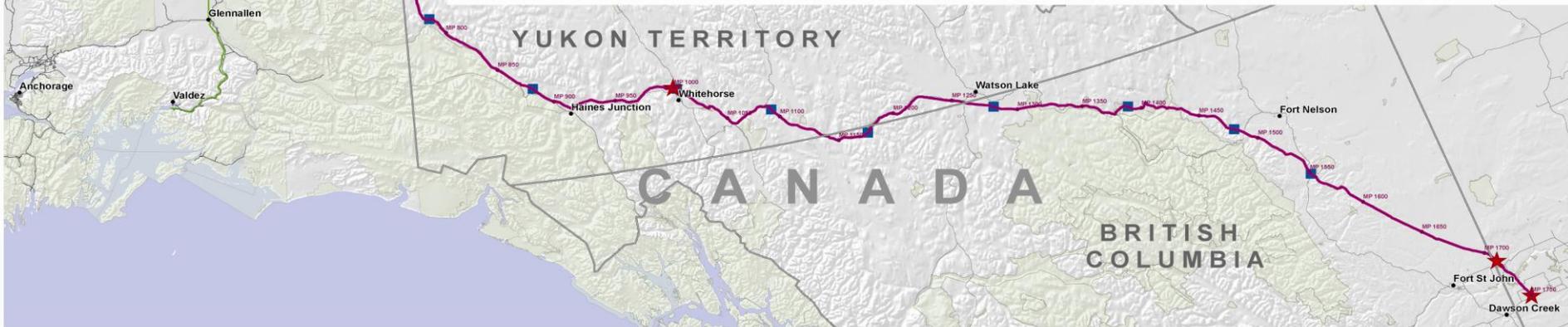




Denali Project Update

House and Senate Resources Committees

June 16, 2010



Presentation Agenda

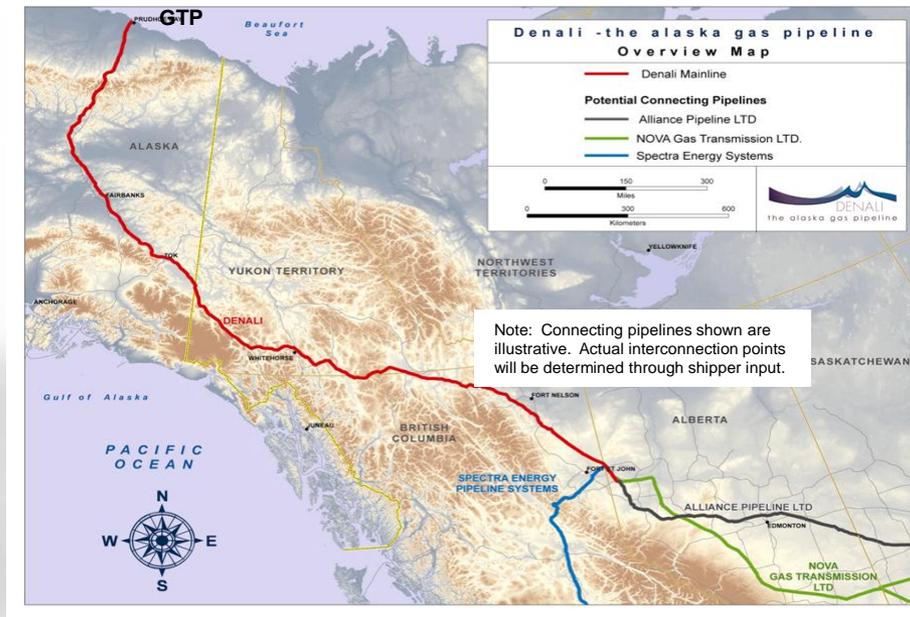
- Introduction
- Overview
- Gas Treatment Plant (Roberto Reichard, VP GTP)
- Mainline (Kris Fuhr, VP Mainline)
- Commercial Offer (Scott Jepsen, VP Business Services)
- Summary

Denali Open Season Plan

- Open season plan approved by FERC
- Open season to ***begin July 6*** and conclude on ***October 4, 2010***
- Denali seeking binding agreements
- High quality design and project execution plan
 - Over \$140 million and 670,000 man-hours invested by Denali since 2008
 - Decades of arctic, mega-project, pipeline experience
 - World-class engineering firms (Fluor/WorleyParsons, Bechtel, CH2MHILL)
 - Field data to support engineering efforts
 - Supported by hundreds of millions of dollars of historical studies
- Enormous undertaking with significant risk
- Competitive commercial offer that recognizes project risks

Project Description

- Designed to deliver 4.5 BCFD to North America
- Planning 6 delivery points in Alaska and 4 in Canada
- Gas Treatment Plant (GTP)
 - Gas treating
 - Compression and chilling
- North Slope Transmission Lines
 - Prudhoe to GTP
 - Point Thomson to GTP
- Mainline
 - Prudhoe Bay to AK/Canada border (730 miles)
 - AK/Canada border to Blueberry Hill, Alberta (1020 miles)
 - Multiple options for shippers at Alberta terminus



Key Metrics

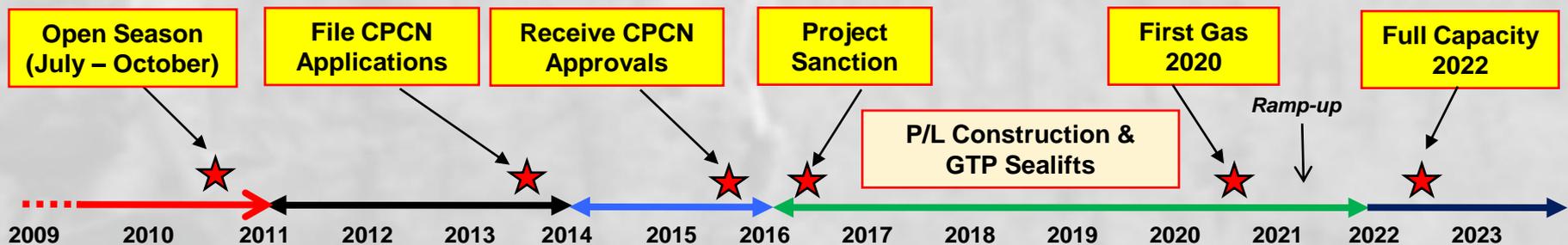
(All costs in 2009 \$)

- High quality Class 4* cost estimate – \$35 billion
- Estimated rate GTP to Alberta \$2.67/MMBtu (excluding fuel)

Cost and Rate Summary

	GTP	Alaska Mainline	Canada Mainline	Total
Cost, \$billions	12.2	10.4	12.5	35
Rate, \$/MMBtu	0.90	0.80	0.97	2.67

- Projected first gas in 2020



* Association for the Advancement of Cost Engineering International

Highly Qualified Team

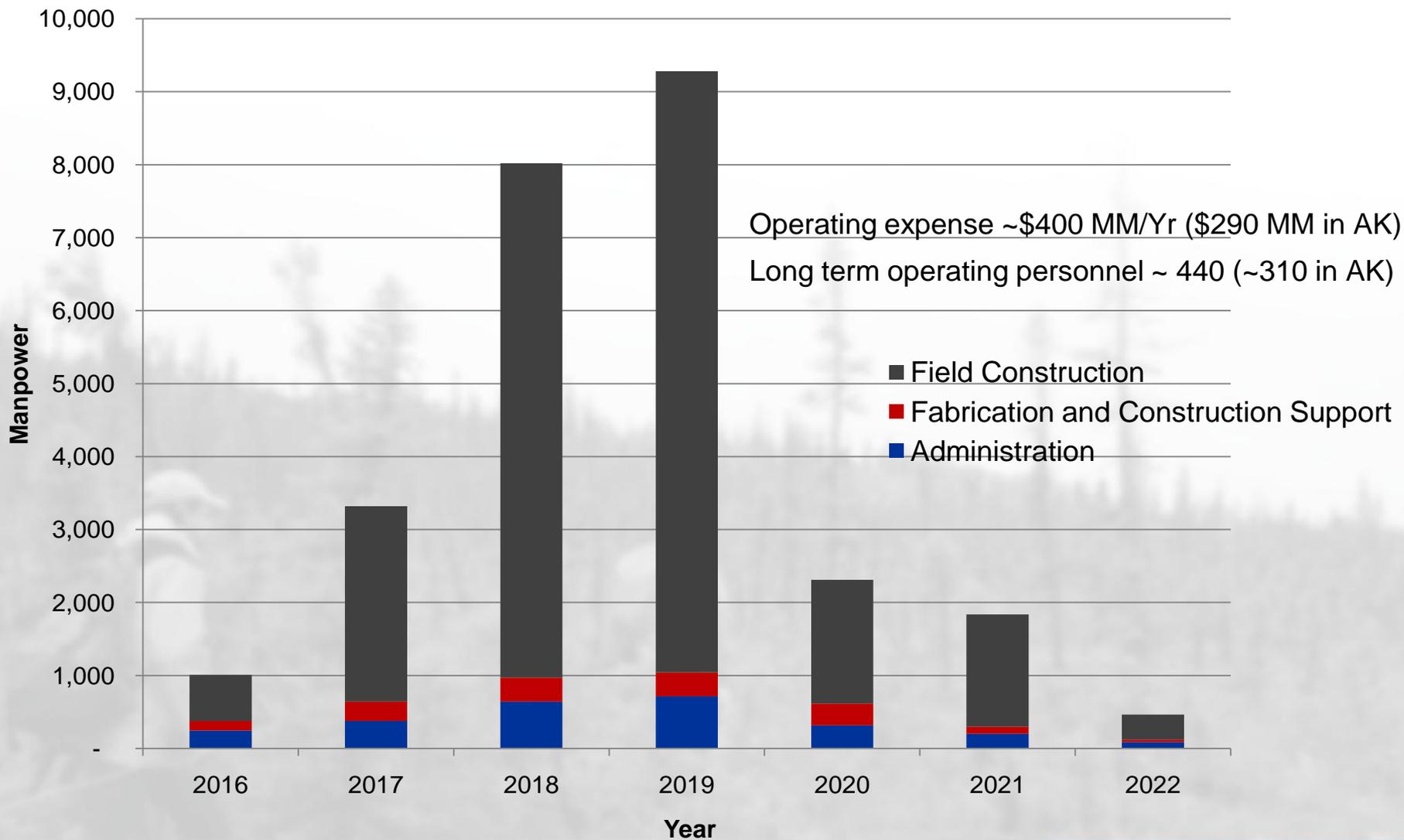
- Leveraged 30 years of historical work
- Experienced core team
 - Decades of projects and engineering experience
 - North Slope, arctic, global frontier mega-projects
- World-class capabilities
 - Management systems, tools and people
 - Pipeline, gas treating and processing technologies
- Experienced and highly regarded contractors
 - Pipeline engineering, pipeline construction, compressor station design, civil, and environmental
 - Geotechnical, GIS, logistics, and regulatory
 - Gas plant engineering and construction, facility modularization, sealift expertise
- Virtually every major project constructed on the North Slope managed and operated by BP or ConocoPhillips



Denali has dozens of contractor companies supporting its work



Construction Manpower (Alaska)



Gas Treatment Plant (GTP)

- World-scale modularized plant to condition gas
 - Four processing trains of activated amine to remove CO₂ and H₂S
 - Dehydration, compression and chilling
 - 4.5 BCFD sales gas into the mainline
 - 0.3 BCFD treated fuel gas for North Slope users
 - CO₂ and H₂S returned for enhanced oil recovery, sequestration or other uses
 - Expandable to 5.8 BCFD sales gas
- Unbundled service options
 - Gas treating (CO₂ and H₂S removal)
 - Compression and chilling
 - Treated fuel gas



Gas Treatment Plant

State-of-the-Art Design

- Emphasis on safety and environment
 - Latest Inherently Safer Design Norms
 - Energy efficiency
- High reliability and availability
- Meet steady state pipeline demand throughout the year, with ability to repack
- Expandable with additional trains
- Incorporate lessons-learned from arctic as well as other operating gas treatment plants



Gas Treatment Plant

Key Deliverables and Studies

- Key Deliverables

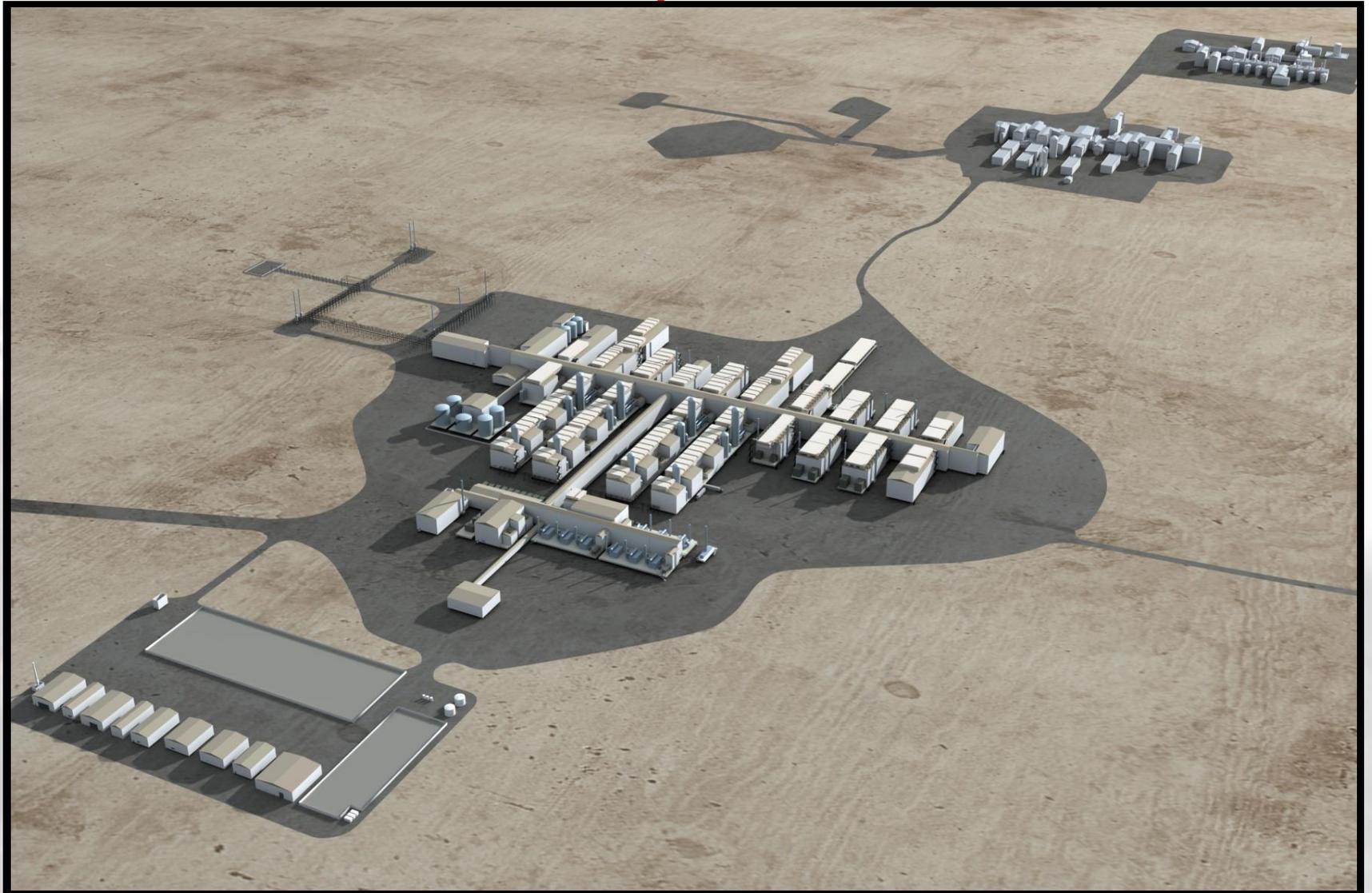
- Process Flow Diagrams
- Utility Flow Diagrams
- Material Selection Diagrams
- Case for Safety
- Master Equipment List
- Electrical Single Lines
- Telecommunications drawings
- Site and plot plans
- Structural/Civil drawings
- Module plan and elevation drawings
- Data Sheets for key equipment
- Design Basis
- Operations and Maintenance Strategy
- Cost Estimates (CAPEX and OPEX)
- Schedule
- Execution Plan

- Key Studies Completed

- Central Power – energy optimization
- Alternate AGR technologies
- Alternate aMDEA configurations
- Amine regeneration
- Driver/Driven equipment studies
- AGRU train size and configuration
- Utilities – make up water
- Flare sizing study
- Module size/weight and layout
- Logistics/Constructability
- NS & L48 construction
- HAZID, consequence analysis and QRA
- Materials of construction
- Deliverability and RAM
- Alternate refrigerants
- Energy optimization studies

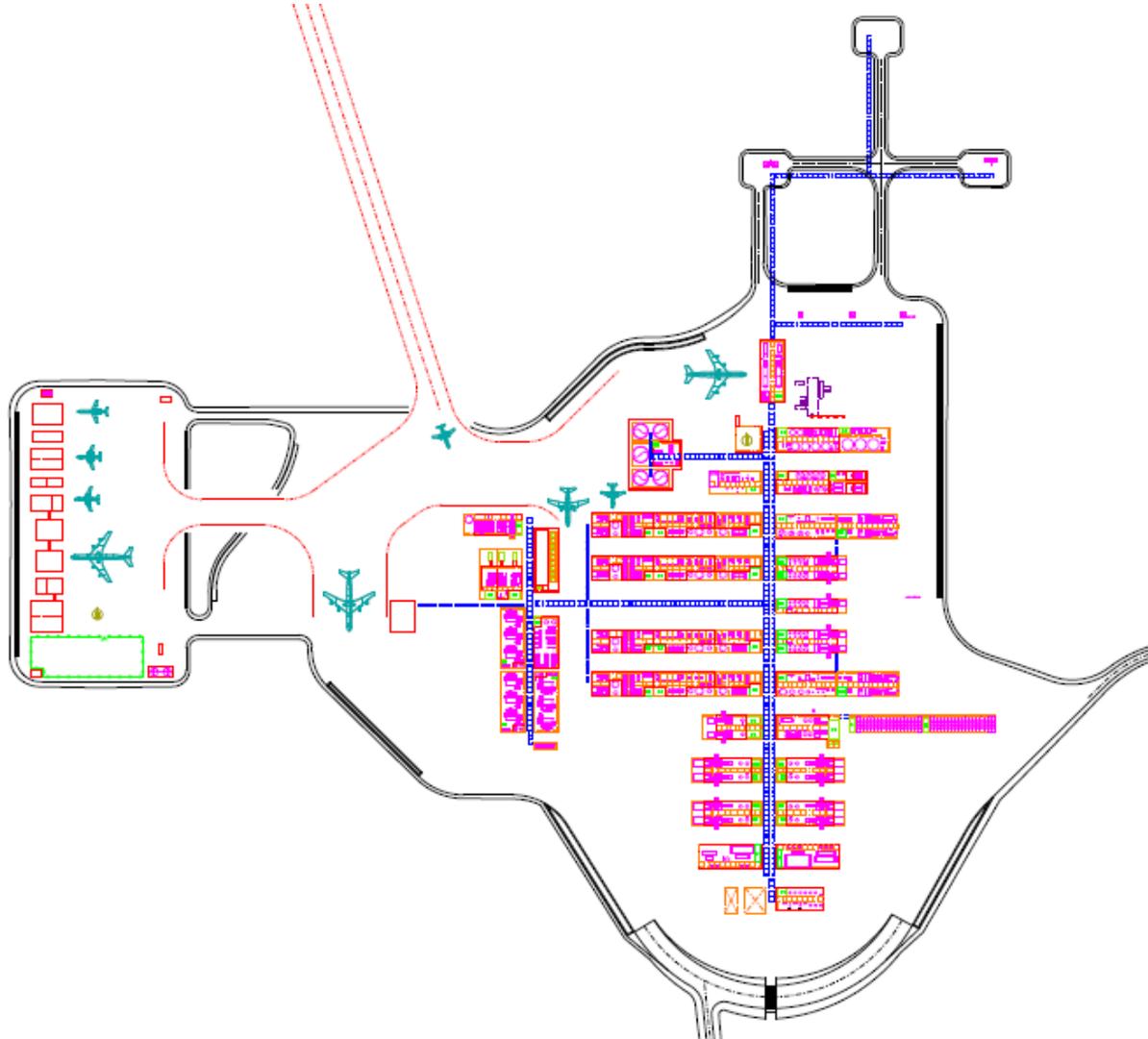
Gas Treatment Plant

Fly-Over



Gas Treatment Plant

Plot Plan (aircraft for scale only)



Gas Treatment Plant *Construction Sequence*

Fabrication Site



Module Loadout



Module Sealift



Final Location



Transportation to Site

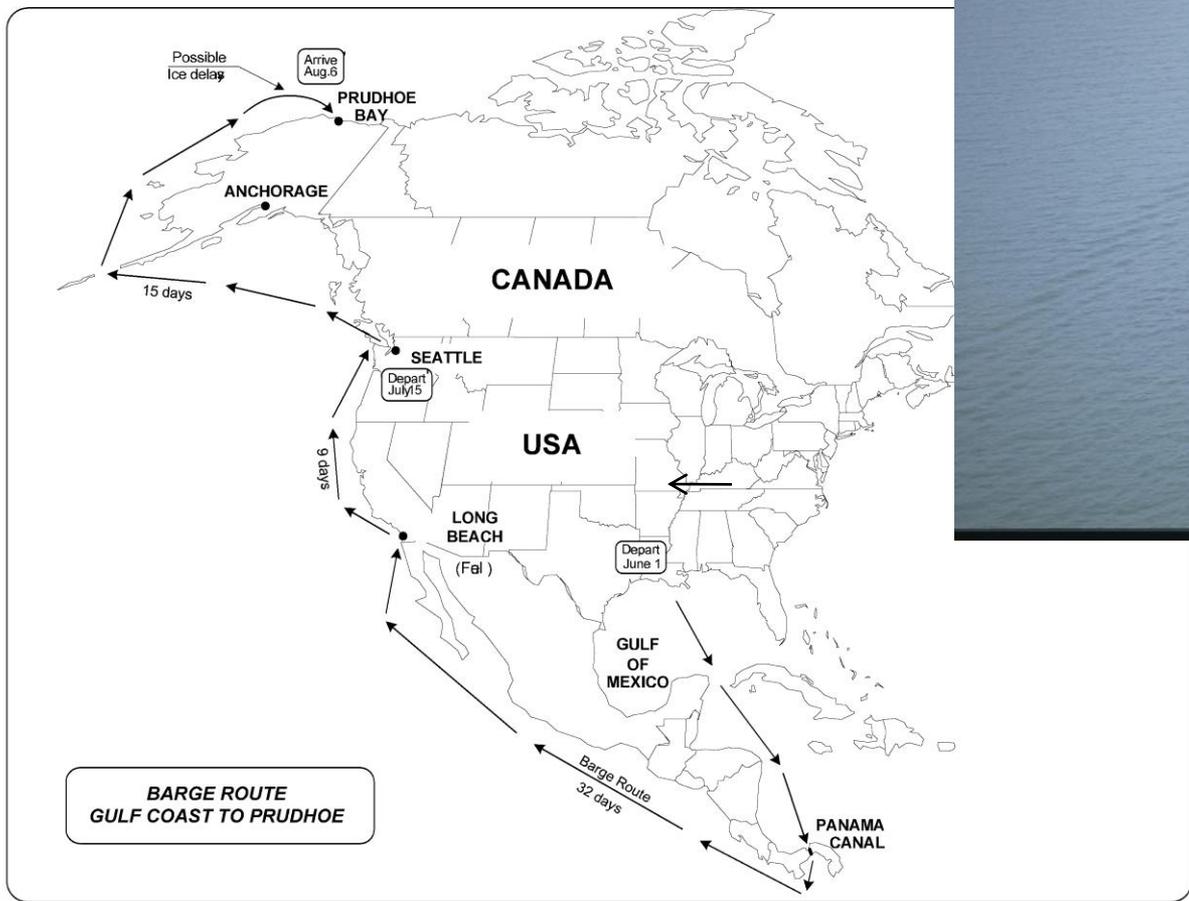


Module Offload



Gas Treatment Plant

Sealifts - Gulf Coast to Prudhoe Bay



Gas Treatment Plant

The Largest of its Kind

- 270,000 tons of modules (92)
 - Single heaviest module 8,200 tons
 - 137,000 tons of structural steel
- > 600,000 ft of pipe (50,000 tons)
- 2.5 MM cubic yards of gravel
- 250+ pressure vessels
- 230+ pumps and drivers
- 30+ compressors
- 850,000 horsepower
- 140 MW electrical
- Estimated job-hours:
 - 43 MM for module fabrication/assembly
 - 3.4 MM for North Slope installation
 - 5 MM for construction management services (L48 & NS)
 - 5 MM for engineering & procurement services



Gas Treatment Plant *Summary*

- Mega-project – largest of its kind
- World-class team
- State-of-the-art design
- High quality Class 4 capital cost estimate - \$12.2 Billion (2009 Dollars)



Mainline and Transmission Lines

Description

- Transmission lines
 - Prudhoe: 1 mile, 60”
 - Point Thomson: 62 miles, 36”
 - Conventional above ground pipelines
- Mainline
 - 48”, 2500 psi, buried
 - Base design 4.5 BCFD annual average sales
 - 6 compressor stations in Alaska, 15 overall
 - Expandable to 5.6 BCFD with added compression
 - 730 miles in Alaska; 1020 miles in Canada
 - Terminus Blueberry Hill, Alberta
- Multiple delivery points
 - Planning 6 delivery points in Alaska
 - Planning 4 delivery points in Canada
 - Additional delivery/receipt points possible based on shipper input



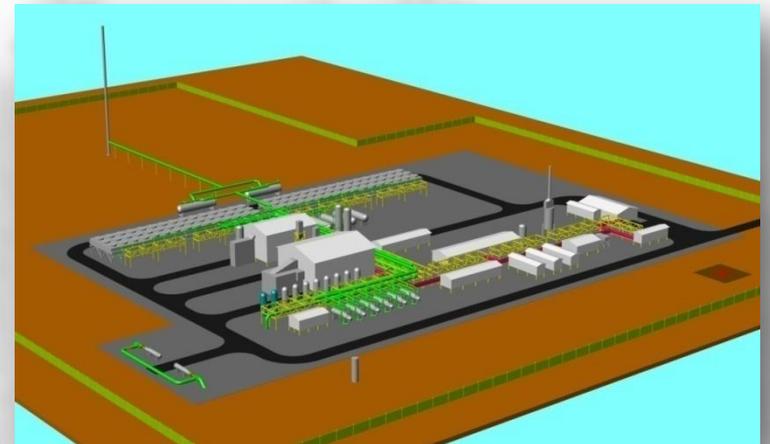
2001 -2002 trenching trials

Mainline Engineering

- Integration with GTP
- Route Engineering
 - Proprietary thermo/hydraulics
 - 12,000 boreholes
- Pipeline Design
- Compressor Station Design
- River Crossings
- Fault Crossings
- High Strength Steel
- Proprietary Geospatial System

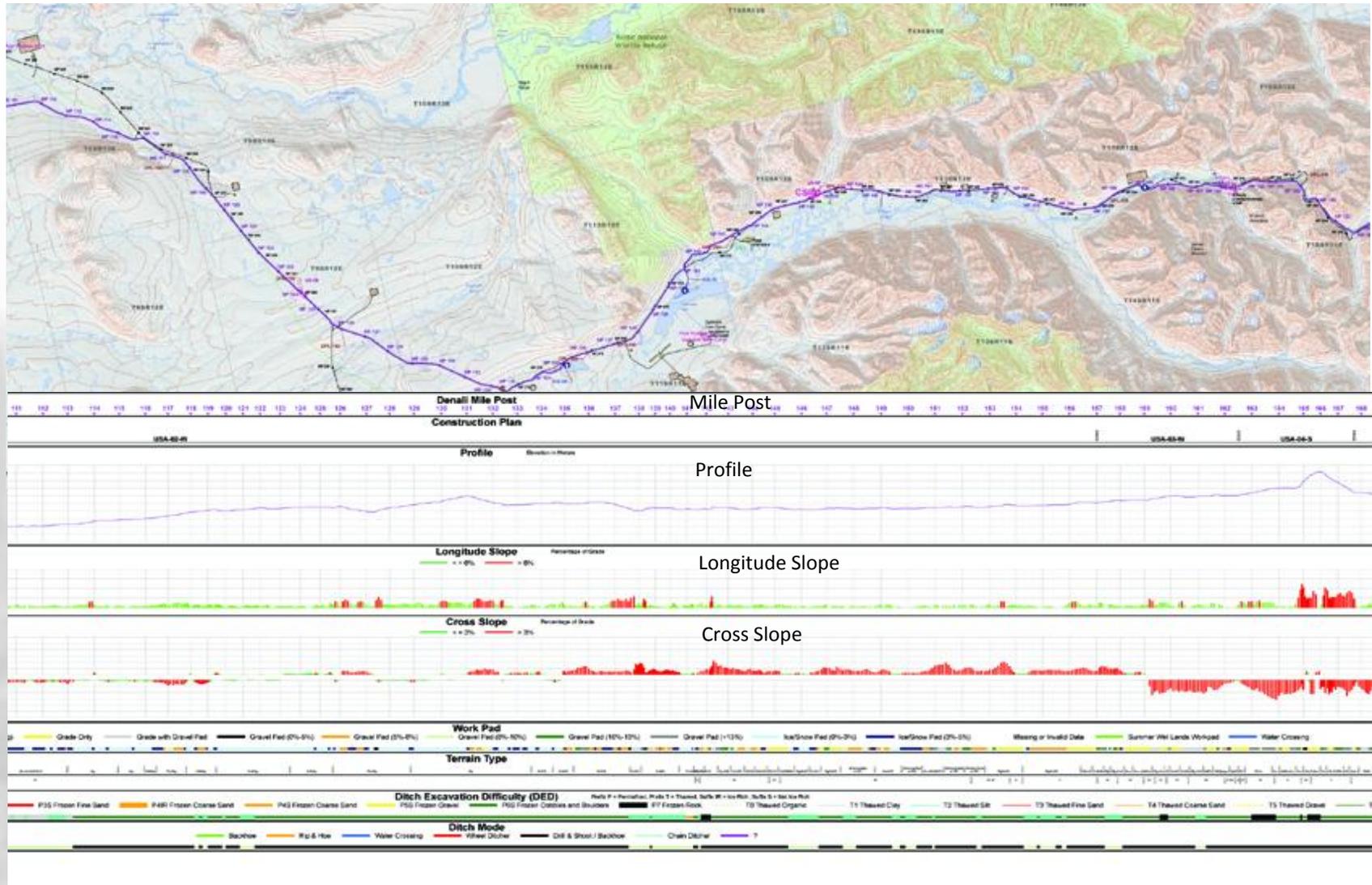


Aerial photo with proposed pipeline route



Schematic of refrigerated compressor station

Mainline Route Characterization and Alignment



Mainline Construction

Mega-Project

ITEM	ALASKA	CANADA	TOTAL
Mainline block valves	38	52	90
Concrete weights	16,183	38,994	55,177
Major river crossings	22	59	81
Gravel Summary – Cubic Yards	10,439,274	10,124,278	20,563,552
Road, railroad, pipeline crossings – significant (total)	246 (752)	455 (920)	701 (1,672)
Crack arrestors	7,492	3,861	11,353
Pig launchers and receivers	7	11	18
Access Roads (miles)	49	231	280
Processed Bedding and Padding (Cubic Yards)	1,610,318	3,778,896	5,389,214
Pipe quantities (tons)	947,164	1,289,079	2,236,243

Mainline Construction

Multiple Activities

- Survey
- Access road
- Clearing
- Graded ROW
- Gravel work pad
- Frost packing
- Ice or snow pad
- Stringing
- Bend and set up
- Line up and weld
- AUT inspection
- Crack arrest
- Field coating
- Trenching
- Drill and shoot
- Hoe ditch
- Bedding/padding production
- Bedding
- Lower in
- Padding and backfill
- Stream and river crossing
- MLV installation
- Tie-in
- Clean up
- Restoration
- Camp move
- Construction support
- Contractor staff
- Denali inspection
- Clean, hydro-test and dry
- CS Fabrication
- CS construction

Mainline Cost Estimate

Crew Method

- Productivity benchmarking
- Lay rate assumptions
- Winter/summer season length
- Construction plan and schedule by season
- Terrain conditions
- Joint length
- Spread length



Mainline Cost Estimate

Vendor Request for Information

Mechanized Welding Equipment

- RMS Welding Systems
- CRC Evans Automatic Welding
- SERIMAX North America
- Vermaat Technics, B.V.

Aut Contractors

- Shaw Pipeline Services
- TEAM / AITEC
- UT Quality, Inc.
- Weldsonix, Inc
- RTD Quality Services
- RTD Pipeline Services USA, LP

Trenching Contractors

- ARB, Inc
- H. L. Chapman Pipeline Construction
- Sheehan Pipeline Construction Co.
- US Pipeline, Inc.
- Welded Construction, L.P.
- ECC-VECO
- Snamprogetti Canada (Saipem)

Bending Equipment

- CRC
- IPEC
- Worldwide Machinery

HDD Contractor

- Direct Horizontal Drilling
- Laney Directional Drilling Co.
- Michels Corporation
- Southeast Directional Drilling

Trenching Manufacturers

- Vermeer Manufacturing Co.
- Tesmec Usa, Inc.
- Rocksaw International, Inc
- Aztec Underground
- Trenchor, Inc.
- Mastenbroek, Ltd

Equipment Purchase And Rental Rates

- Equipment Watch – Online Service
- Bechtel Pipeline Construction Group
- Caterpillar
- John Deere
- Komatsu
- Worldwide Machinery

US Pipeline Contractors

Pica (Union) Affiliated

- ARB, Inc.
- Associated Pipe Line Contractors
- Price Gregory Construction, Inc
- Price Gregory International, Inc.
- Sheehan Pipeline Construction Co.
- US Pipeline, Inc.
- Welded Construction, L.P.
- AES-Houston Contracting Company
- Appalachian Pipeline Contractors,
- Henkels And Mccoy, Inc.
- Latex Construction Company
- Michels Corporation
- Minnesota Limited, Inc.
- Precision Pipeline, Llc
- Rockford Corporation
- Willbros Construction (US) LLC

Non-union Affiliated

- Rogers Phillips, Inc.
- Ledcor (Us)

Mainline Cost Estimate

Vendor Request for Information

US Civil Contractors Union Affiliated

- Ahtna Construction
- Alaska Frontier Constructors
- Brice Companies
- Cruz Construction
- Granite Construction
- Great Northwest Inc
- Quality Asphalt Paving
- Kiewit Pacific Company
- Goodfellow Bros., Inc.

US Civil Contractors Non-union Affiliated

- ASRC Energy Services, Inc.
- Conam Construction Company
- Peak Oilfield Service Company
- AES-Houston Contracting
- Alaska Interstate Construction, LLC
- Brice Companies
- Cruz Construction
- Peak Oilfield Service Company
- Alaska Frontier Constructors/Nanuq

Canadian Pipeline Contractors

- Ledcor Pipeline, Ltd
- Robert B. Somerville Co., Ltd.
- North American Construction Group
- OJ Pipelines
- Waschuk Pipeline Construction, Ltd.
- Willbros Canada
- Banister/Louisbourg Group
- Michels Canada Company
- Aecon Civil And Utilities Group

Canadian Civil Contractors

- Ledcor Pipeline, Ltd.
- North American Construction Grp, .
- Flint Energy Services, Ltd.
- PCL Constructors
- Graham Industrial
- Peter Kiewit Sons
- Stuart Olson
- Sureway Construction
- Voice Construction
- Aecon Civil and Utilities Group



Mainline Cost Estimate

Material Vendor Quotes

Mainline Pipe

- Sumitomo
- JFE
- Nippon
- Europipe
- Welspun

Pipeline Compressors

- General Electric

Air Cooler Heat Exchangers

- Hudson

GTG

- Solar Turbines

Heavy Wall Vessels

- ATB
- Cessco
- Dacro
- Daekyung
- HICO
- IPS
- Taylor Forge

Glycol Heaters

- BIH
- HRC
- Pig Launcher
- TD Williamson

Propane Refrigeration Package

- Solar Turbines (Elliott compressor)
- General Electric

HP Chillers

- Koch Italy
- Hughes Anderson

Light Wall Vessels

- Custom Fab
- Hanover
- Melloy
- Lisung
- HICO

Buildings

- CH2M Hill
- ASRC
- Tarpon
- Brytex Bldg.

Custody Meter System

- Daniel

Diesel Engineering Generator Sets

- NC Power Systems Co.

Fuel Gas Conditioning Skid

- Cobey

Oil Handling and Storage Skids

- Cobey

Instrument Air Compressor Packages

- Atlas Copco

Flare Stack

- Callidus

SCADA

- Bechtel Historical

Telecommunication

- AT&T
- GCI

Atigun Pass Fly-Through



Mainline Cost Estimate *Summary*

- Non-factored
- Resource loaded
- Construction modes defined
- Equipment loaded
- Quantity based
- Mile by mile design
- Current industry cost and productivity inputs were benchmarked
- World class team - major US and Canadian pipeline construction contractors integrated into project team
- High quality Class 4 capital cost estimate - \$22.9 Billion (2009 Dollars)
 - \$10.4 billion in Alaska
 - \$12.5 billion in Canada



Commercial Offer

(All costs in 2009 \$)

- High quality Class 4* cost estimate – \$35 billion
- Estimated rate GTP to Alberta \$2.67/MMBtu (excluding fuel)

Cost and Rate Summary

	GTP	Alaska Mainline	Canada Mainline	Total
Cost, \$billions	12.2	10.4	12.5	35
Rate, \$/MMBtu	0.90	0.80	0.97	2.67

- Denali offering multiple services

- Prudhoe Bay and Point Thomson transmission lines (0.4¢, 26¢/MMBtu)
- Unbundled GTP services; treated gas for North Slope use
- Distance sensitive rates for in-state deliveries

GTP Services	
Treating \$/MMBtu	0.67
Compression \$/MMBtu	0.23

In-State Deliveries (Pipeline only)	
Fairbanks \$/MMBtu	0.50
Delta Junction \$/MMBtu	0.59

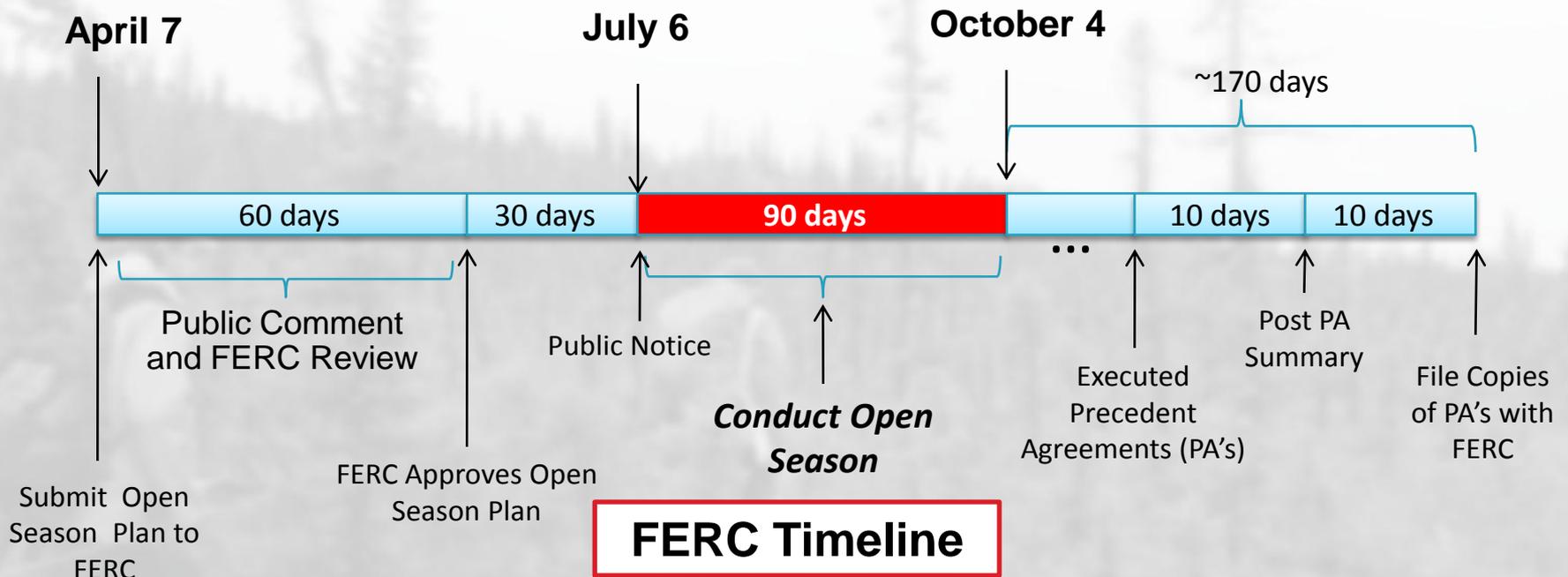
* Association for the Advancement of Cost Engineering International

Key Terms

- **Key Foundation Shipper qualifications**
 - Meet credit worthiness standards
 - Execute precedent agreement—minimum term 20 years
 - No minimum volume requirement
 - Denali terms encourage smaller leaseholders, State, explorers, end users to participate in open season
- **Foundation Shipper benefits**
 - 5 year extension option
 - Negotiated, levelized rates
 - “Most favored nation” clause
 - Recognition of project uncertainty - decision points as new information is developed
- **Depreciation over 25 years**
 - Denali taking risk that remaining 20% of capital can be recovered from late life shippers
 - Unrecovered depreciation recouped over remaining life
- **Responsive to shipper concerns**
 - Denali will not require existing shippers to subsidize expansion shippers
 - Willing to consider project alternatives (e.g., reduced capacity project, LNG pipeline)

Open Season

- Open season provides:
 - Open access to capacity on the pipeline
 - Customer/transporter negotiations
 - Binding commitments for the next steps in project development
- Overseen by the FERC in the U.S. and by the NEB in Canada
- Simultaneous open season process in Canada



Key Elements for Success

- Cost and schedule management
- Defined regulatory processes
- Commercial agreements with customers
- Resolution of stakeholder interests
- Attractive financing
- Resolution of State of Alaska issues
 - Resource uncertainty
 - Fiscal terms
- Natural gas market outlook

Summary

- Denali's Open Season Plan approved by FERC
- Denali's open season scheduled to begin July 6, 2010
- Quality cost estimate and execution plan to provide customer confidence
- Attractive commercial terms designed to recognize risks
- Open season results should signal market's assessment of Alaska North Slope gas competitiveness
- Next steps will be determined by level of customer support

For additional information, please visit:

www.denalipipeline.com

. . . and sign up to receive email updates