








# Resource Development Council

January 15, 2009

**Curtis W. Thayer**

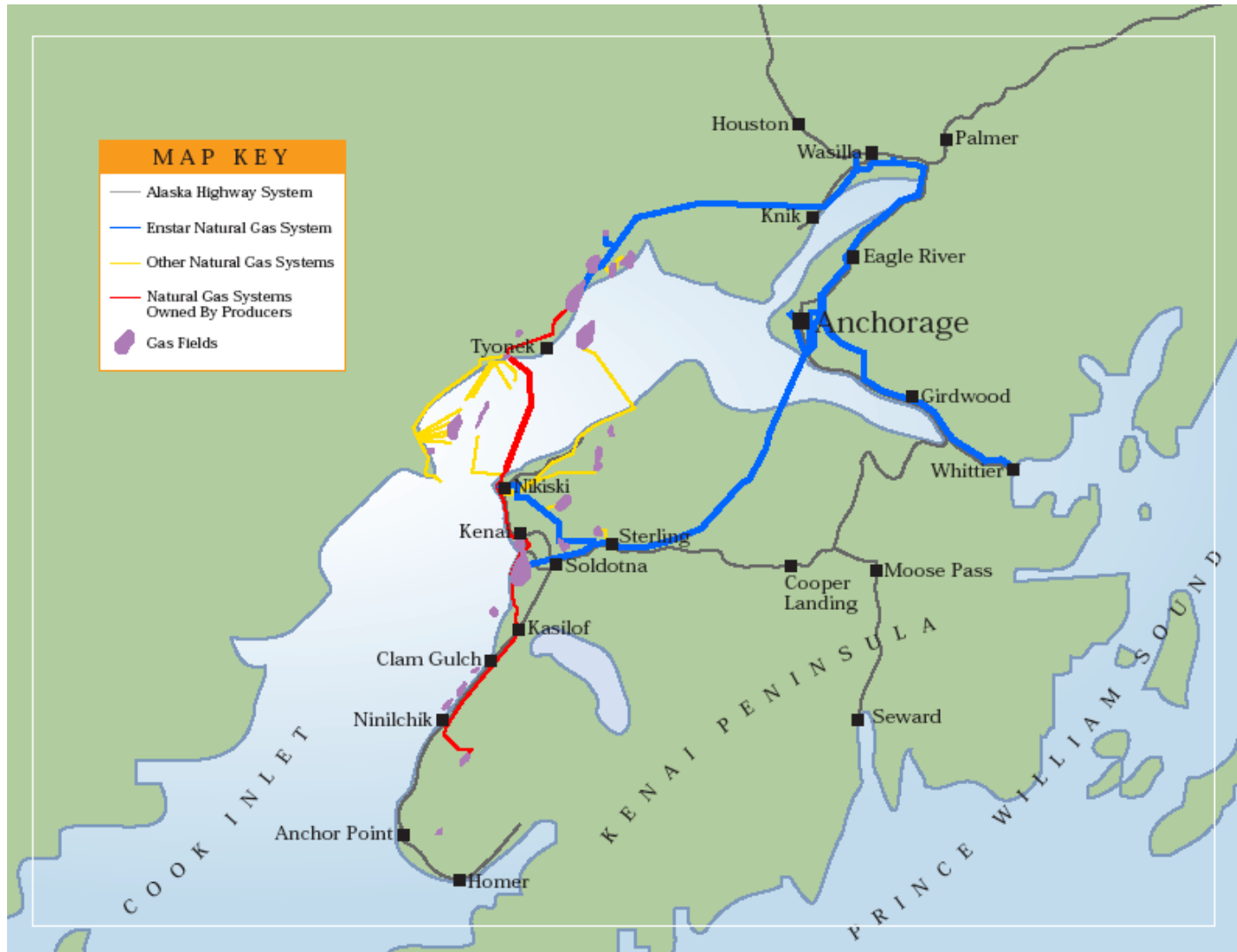
**Director, Corporate & External Affairs**

# Who We Are – ENSTAR Facts

-  Established **1961**
-  Number of Meters – **128,000+**
-  Number of Alaskans Served\* - **345,600**
-  Miles of Distribution Mains and Transmission Mains – **3,100**
-  Direct Impact on Alaska's Economy - **\$306 mil**
-  Number of ENSTAR Employees – **180**
-  Rank among Alaskan energy Utilities – **1**
-  New Customers in 2007 – **2,376**

\* 128,000 Meters x 2.7 Alaskan Consumers per Meter

# South Central Gas Distribution



# System Record Set Jan. 3, 2009

- ENSTAR Throughput (Record): 314.5 MMcf/d
- ENSTAR Gas Purchases (Record): 234.6 MMcf/d
  - Residential & Commercial Customers
- Commercial Transport: 21Mmcf/d
- Power Transport: 55.9MMcf/d
- Industrial Transport: 4 MMcf/d
- Average Temp. for Day: -11° F
- New Record Minimum High for the Day: -6° F

Note: Volume Information is Preliminary Based upon ENSTAR SCADA

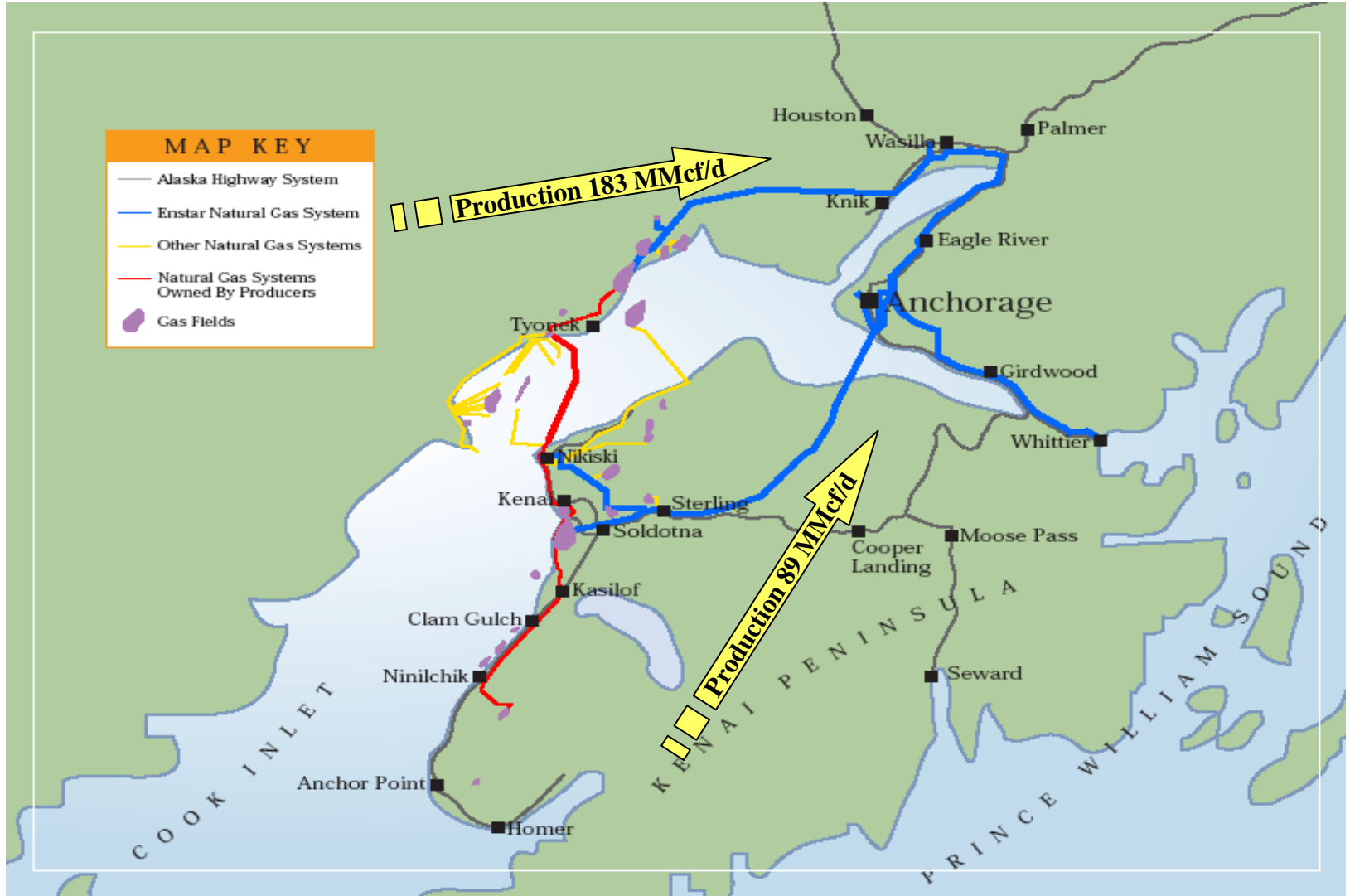
# ENSTAR System Peak Day Comparison

Volumes in MMcf

	<b>2/3/99</b>	<b>1/9/07</b>	<b>1/3/09</b>
<b>Average Temp</b>	<b>-19° F</b>	<b>-10° F</b>	<b>-11° F</b>
<b>ENSTAR Throughput</b>	<b>272</b>	<b>292</b>	<b>314</b>
<b>ENSTAR Gas Sales</b>	<b>187</b>	<b>227</b>	<b>235</b>
<b>Commercial Transport</b>	<b>29</b>	<b>16</b>	<b>21</b>
<b>Power Transport</b>	<b>56</b>	<b>44</b>	<b>56</b>
<b>Industrial Transport</b>	<b>0</b>	<b>5</b>	<b>4</b>

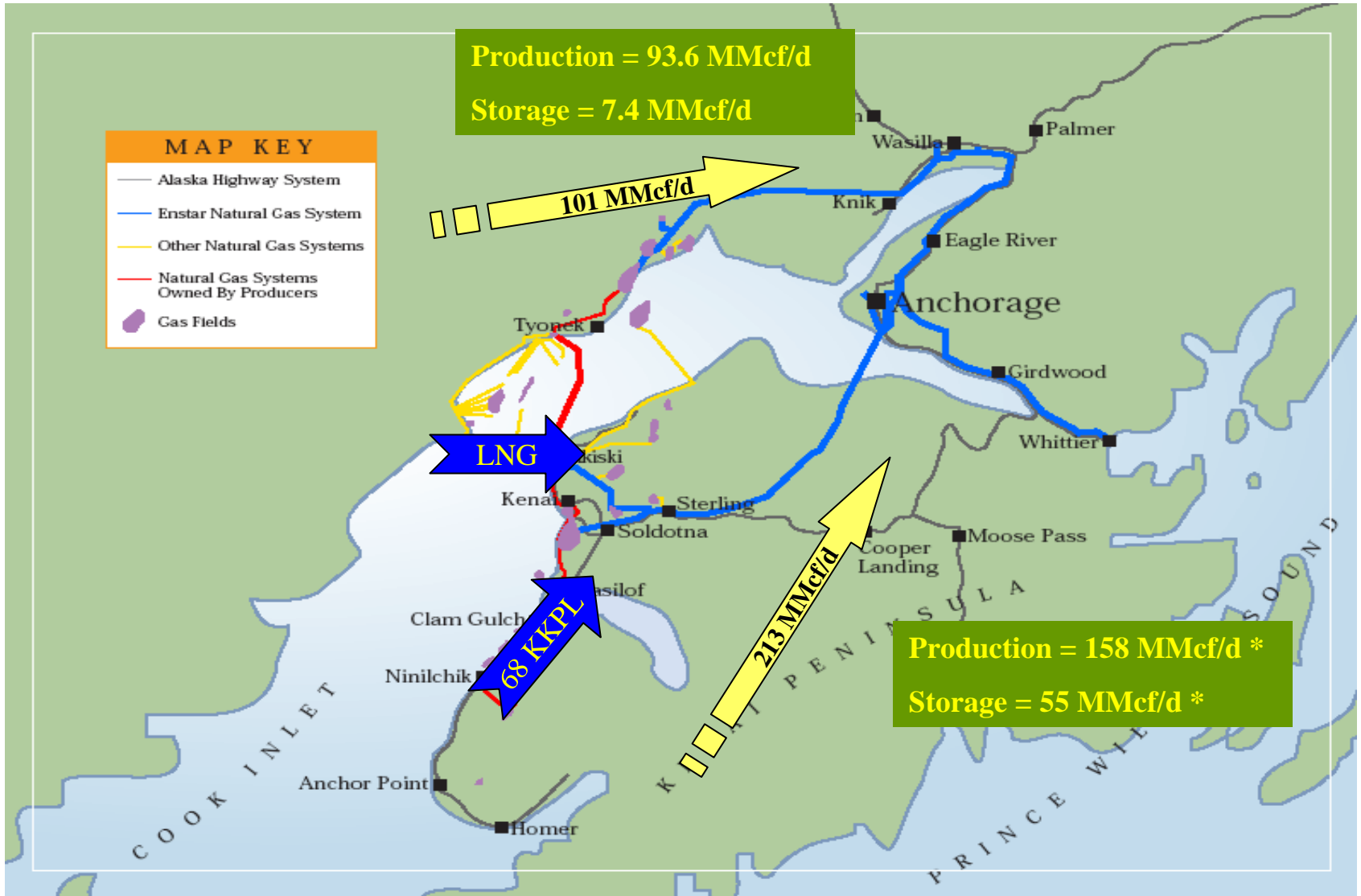
# February 3, 1999

## 272 MMcf/d (-19° F)



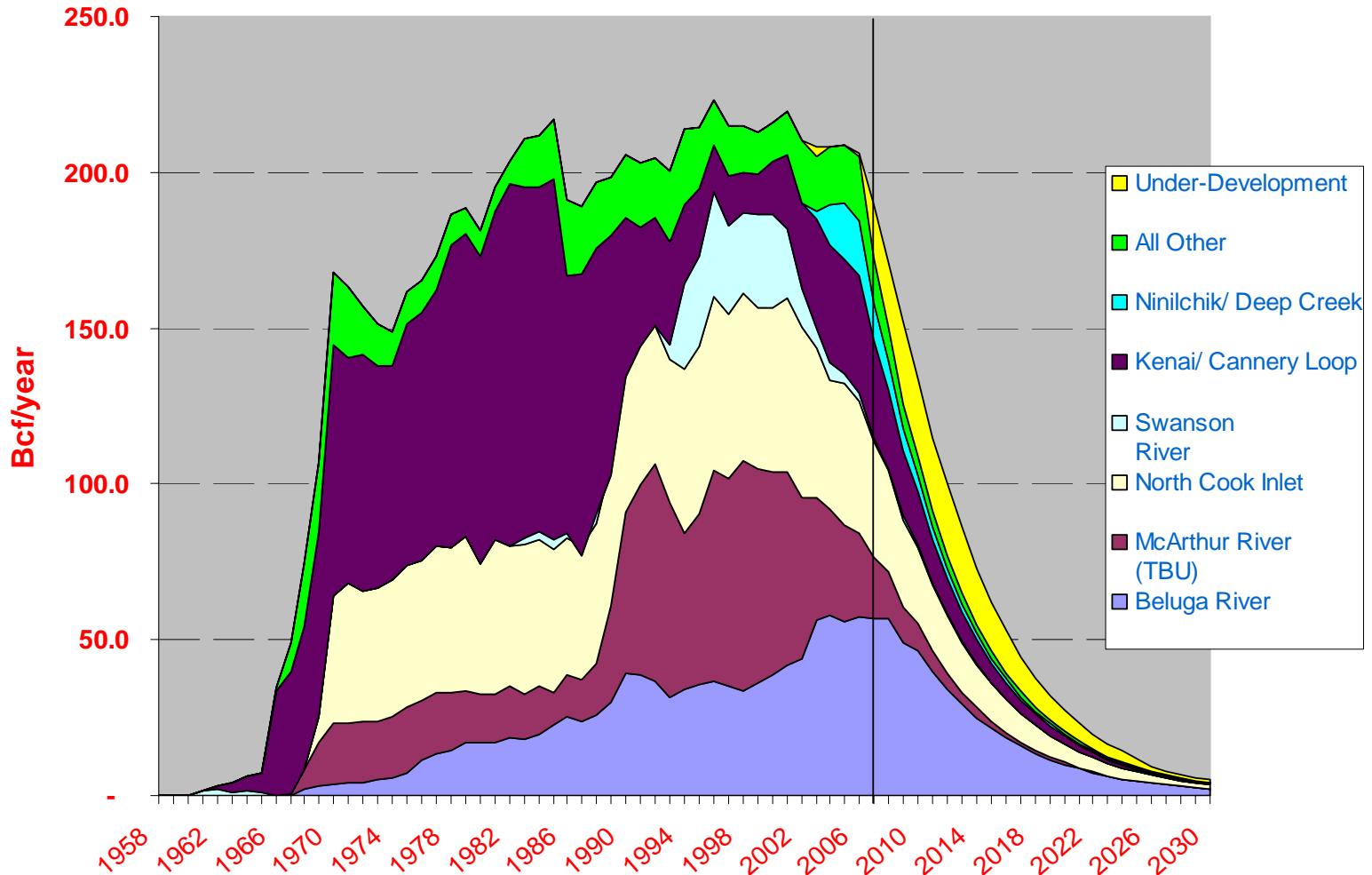
# January 3, 2009

314 MMcf/d (-11° F)



# Historic & Projected Natural Gas Production (Bcf/Year)

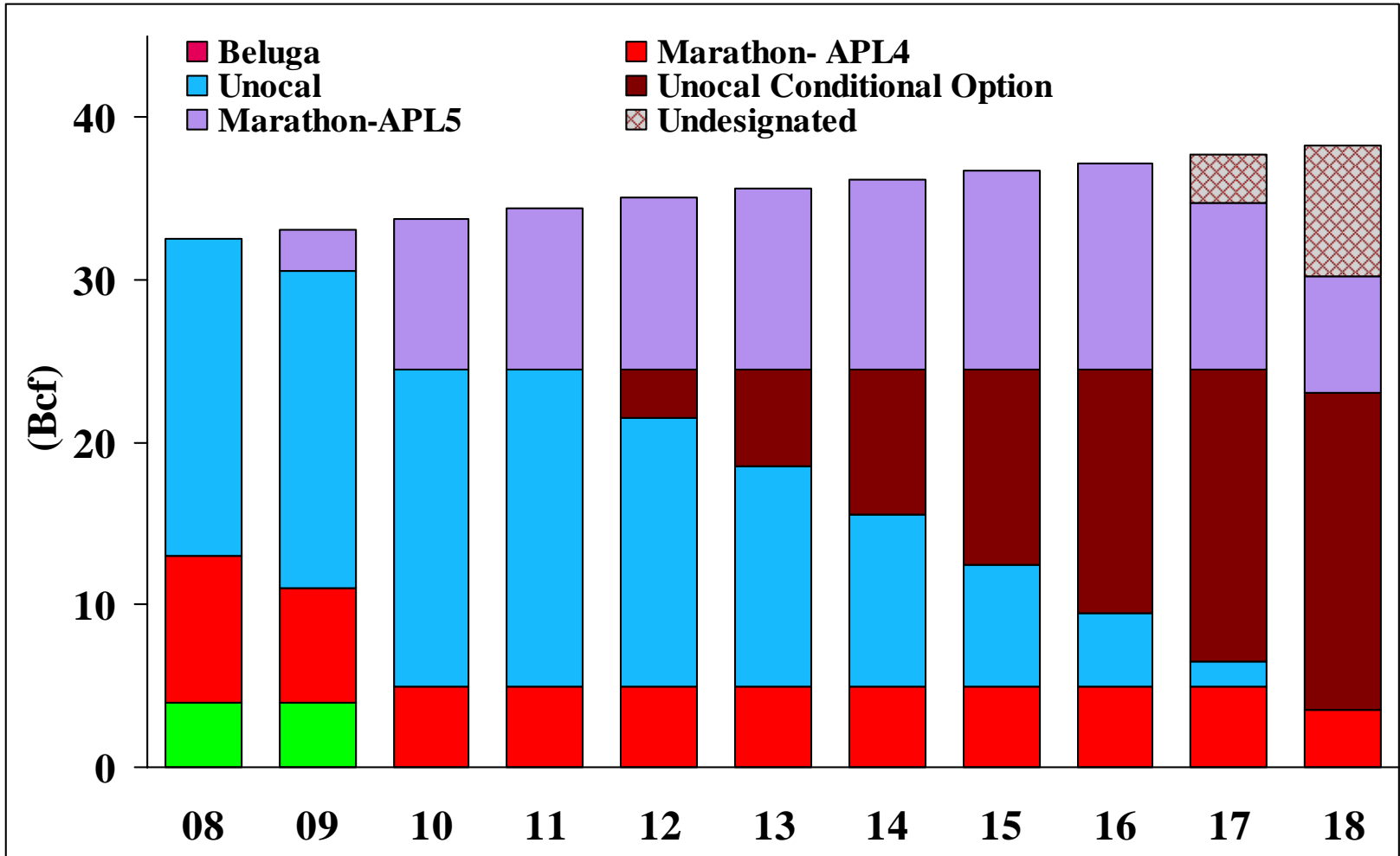
Source: Division of Oil & Gas Report 2006





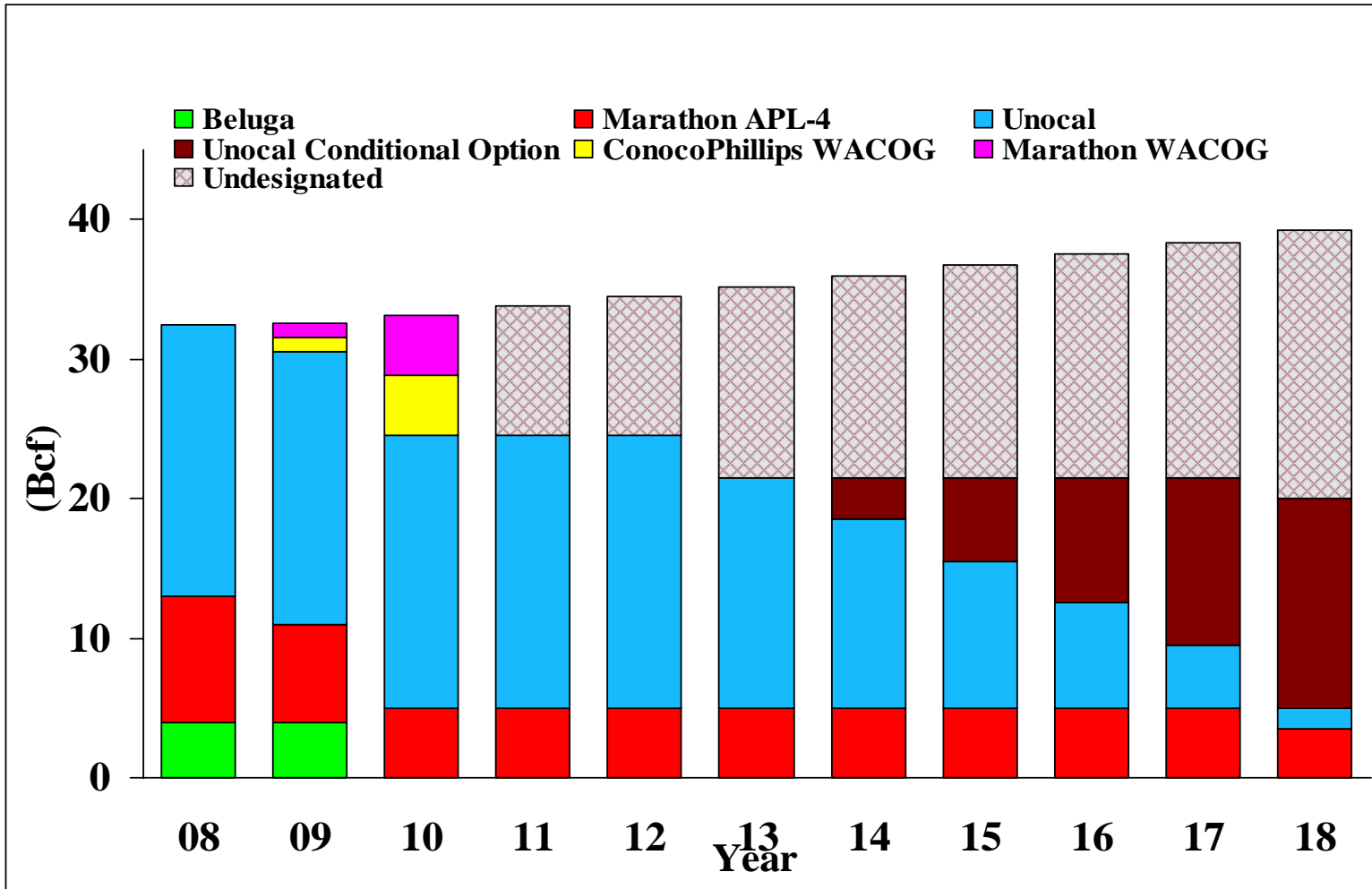
# Gas Supply

## Marathon Contract (APL5)



# Gas Supply

## Dec 22, 2008 Outlook

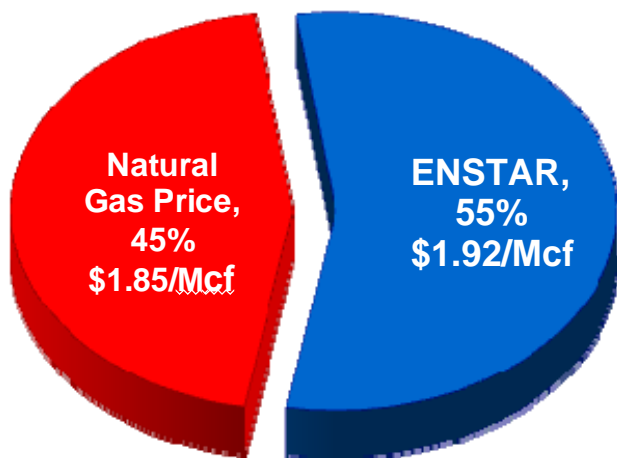


# Cost Comparison

## Percentage of Annual Bill

### Cost Comparisons 1998

Average Bill = \$3.77/Mcf

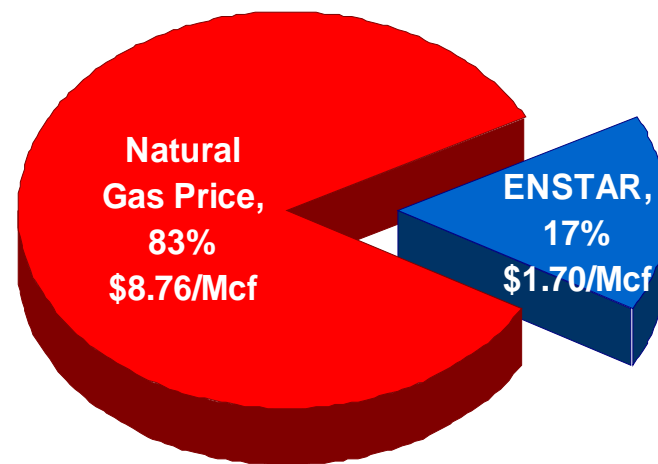


\*Average Consumption per household in 1998 = 179 Mcf

\*Average Annual Bill = \$675.00 (\$56.25/month)

### Cost Comparisons 2009

Average Bill = \$10.46/Mcf\*



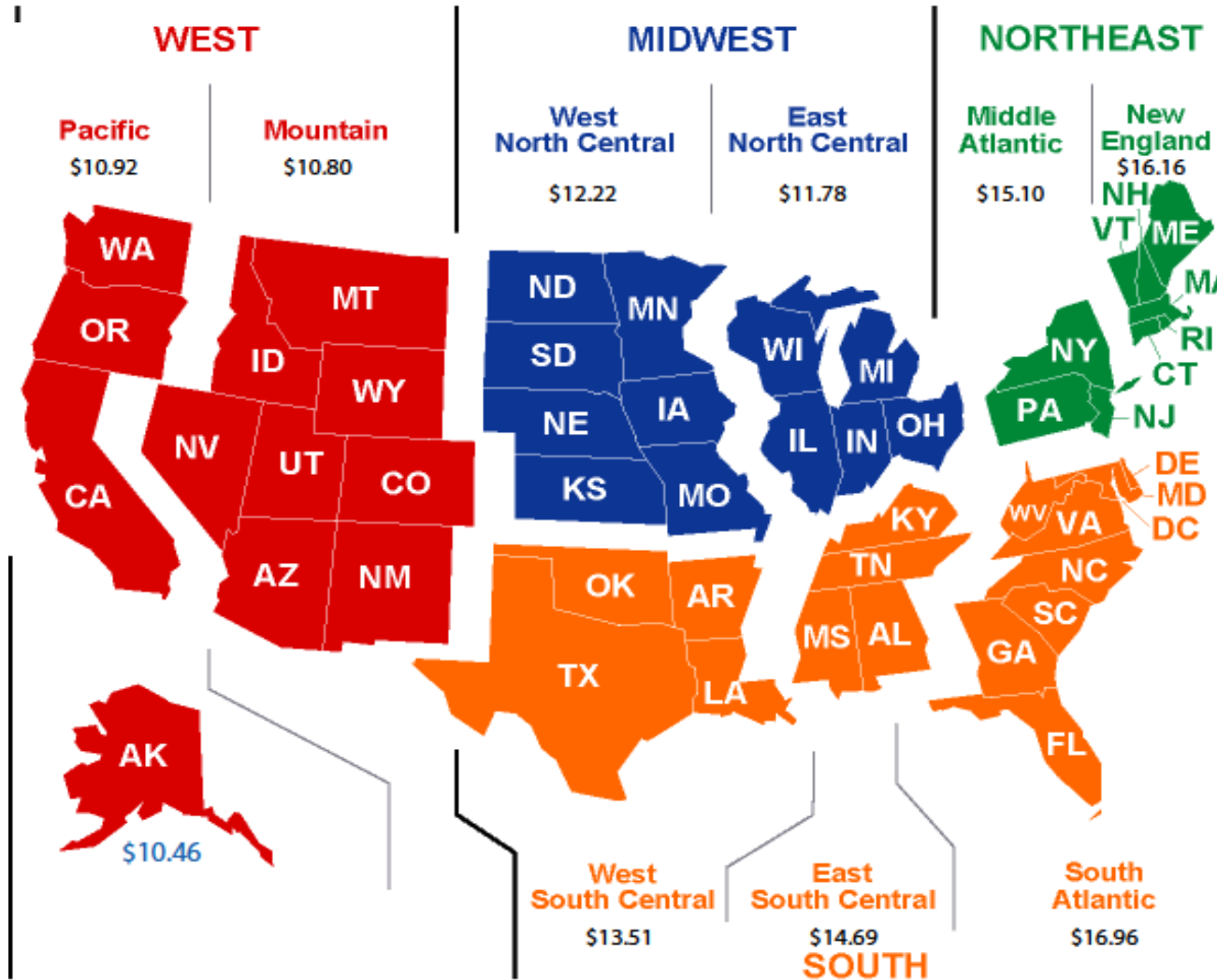
\*Average Consumption per household in 2009 = 169 Mcf

\*Average Annual Bill = \$1834.00 (\$153.00/month)

# Residential Costs by Region

Average Natural Gas Cost for 2009(\$/Mcf)

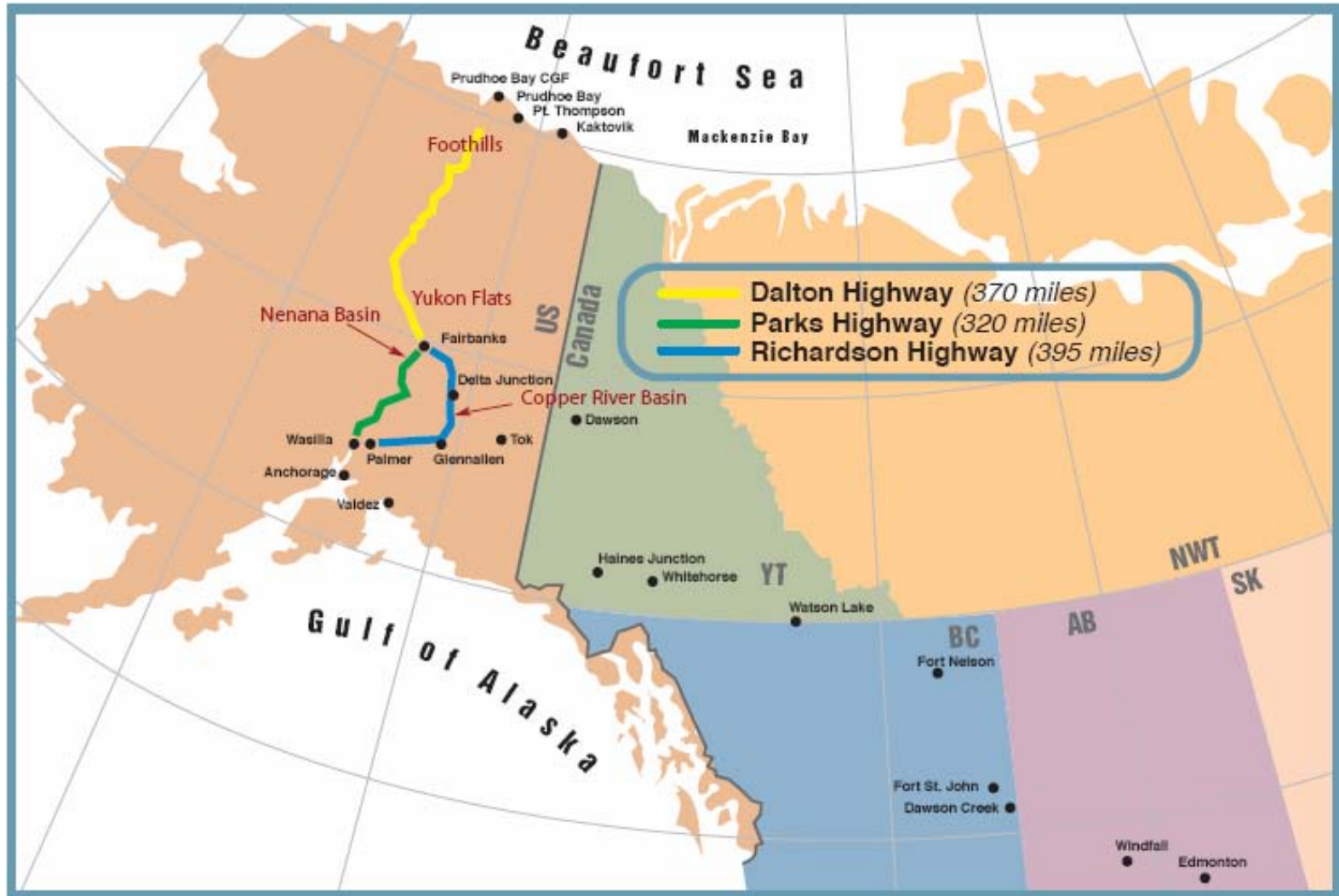
Source: EIA of DOE



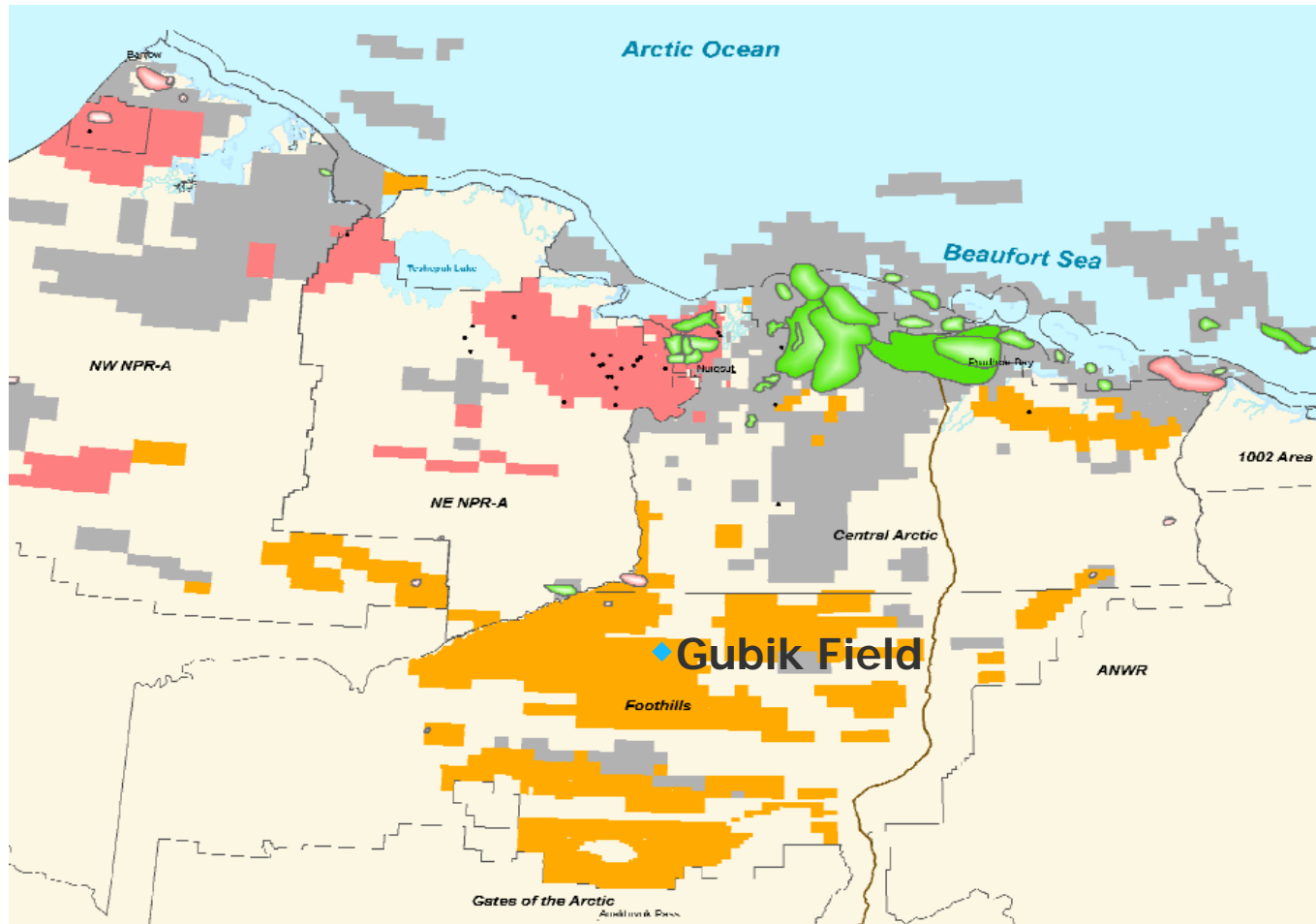
# Where Your Heating Dollar Goes



# Natural Gas Options for Southcentral Alaska



# Foothills Unit Area Map

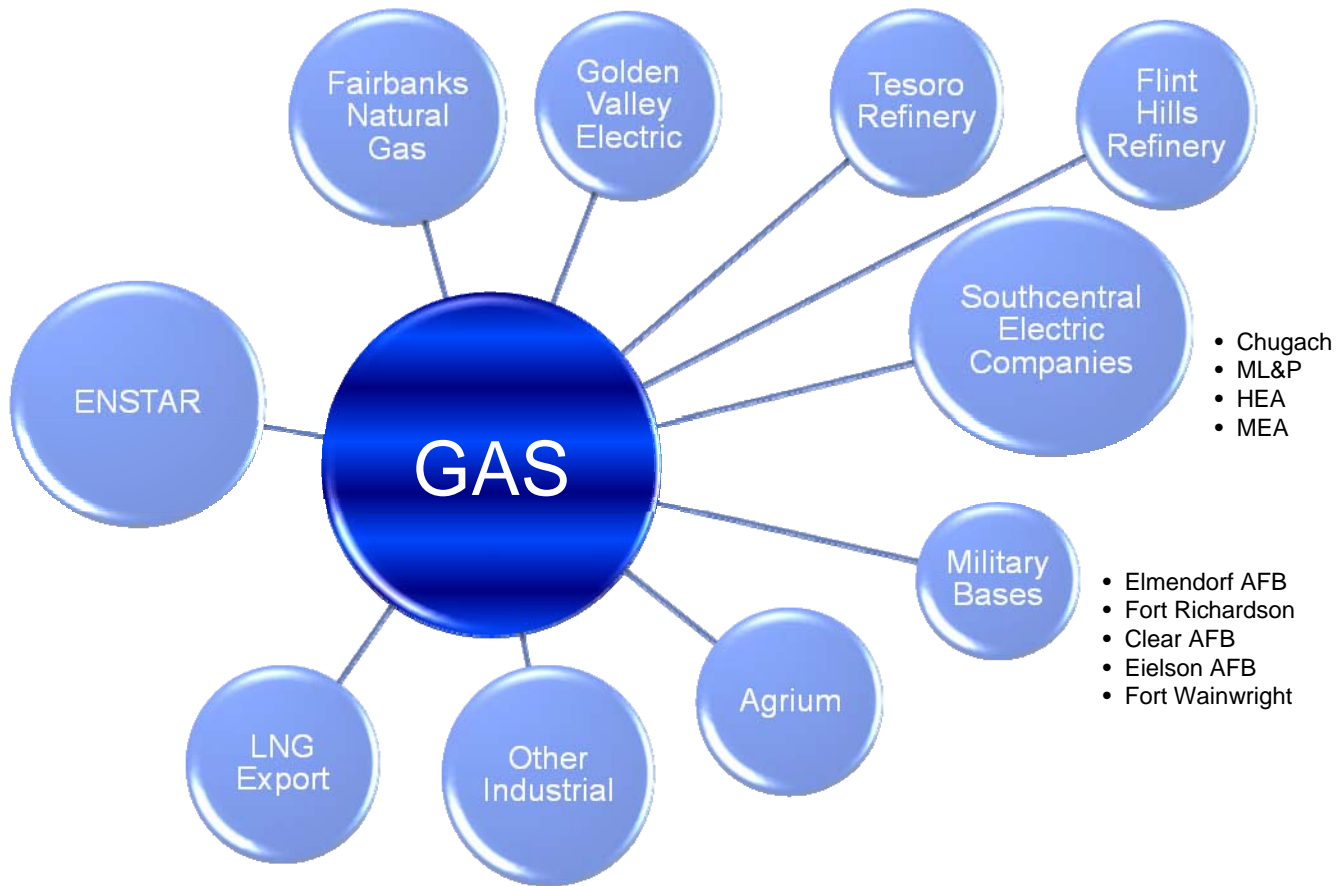


# Advantages of the In-State Pipeline

- Timing
- Alaska controls its own destiny
- Long-term supply solution for the railbelt communities
- Not mutually exclusive with pipeline to Lower 48
- Compliments AGIA and the DENALI project
- Could revive Agrium plant
- Could extend life of Kenai LNG plant
- Creates opportunities for natural gas-based industrial growth in South-Central Alaska
- In-state markets qualify for lower tax burdens under Alaska's ACES
- Achieves reasonable end-user pricing for Alaskans
- Ensures sufficient wellhead prices for exploration & development




# Accessible In-State Market



# ENSTAR Team

## Primary Project Consultants











- Michael Baker Jr., Inc. – Engineering 
- ASRC Energy Services – Environmental & Regulatory



## Other Specialized Consultants

- DEM Services – Cost Estimating & Construction Planning
- HC Price/CONAM – Cost Estimating & Constructability Review
- Ward Whitmore & Associates – Pipeline Hydraulics & Station Design
- Mike Metz & Associates – Geotechnical & Seismic Consulting
- AeroMetric – Aerial Photography & Lidar
- True Nature 3D – Graphics
- Ray Krieg & Associates – Permafrost & Terrain Unit Mapping

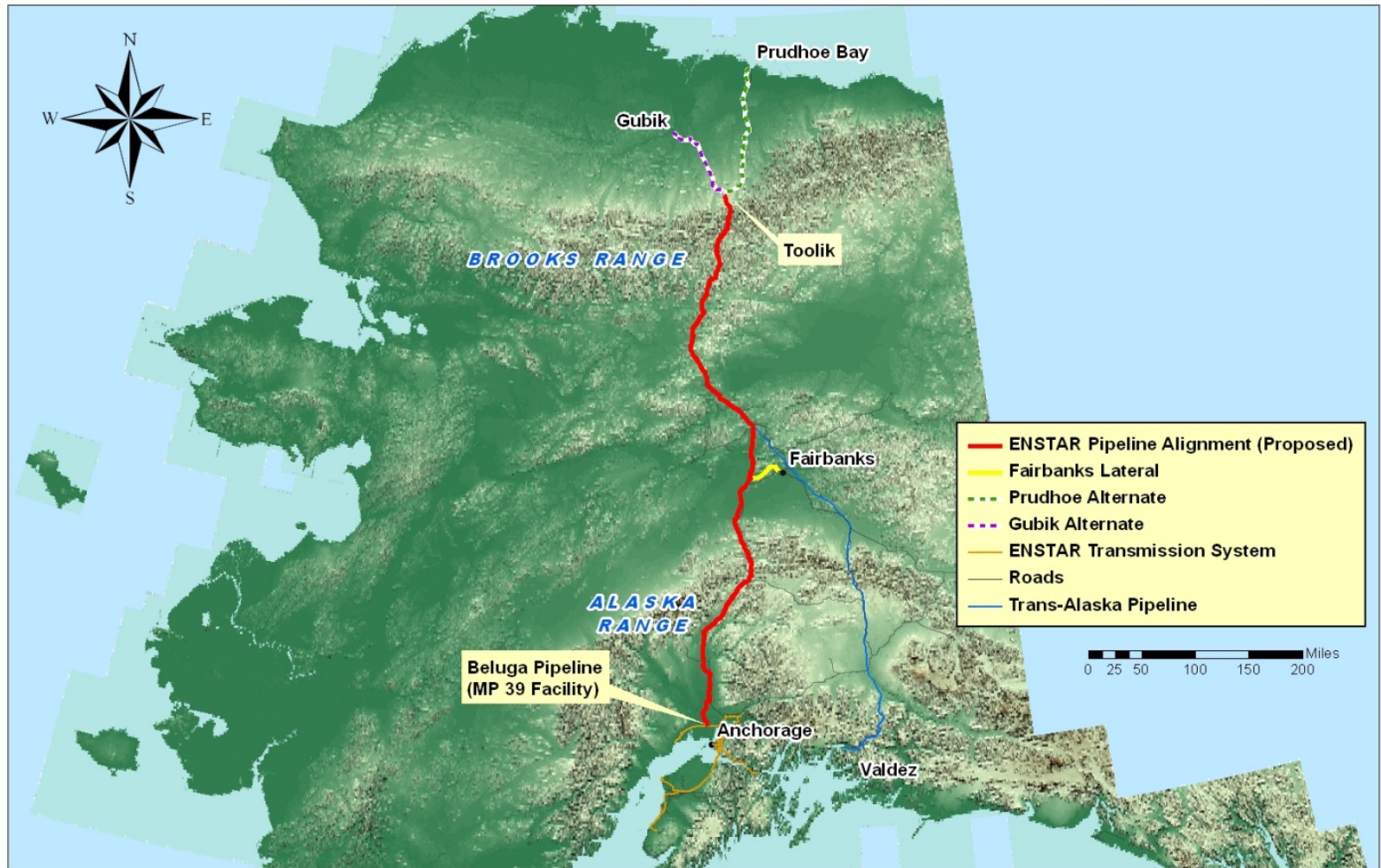
# ENSTAR Pipeline

-  Pipeline – 690 miles
-  Product\* - Sales Quality Natural Gas
-  Gas Source\*\* - Gubik (in Foothills near Umiat)
-  Diameter - 20 inch
-  Wall Thickness - 0.496 inch
-  Unit Weight – 104 plf
-  Steel Grade - API 5LX70
-  MAOP - 2,500 psig
-  Flow - 500 mmscfd
-  Stations - 1-3 for startup (7 for full build out)

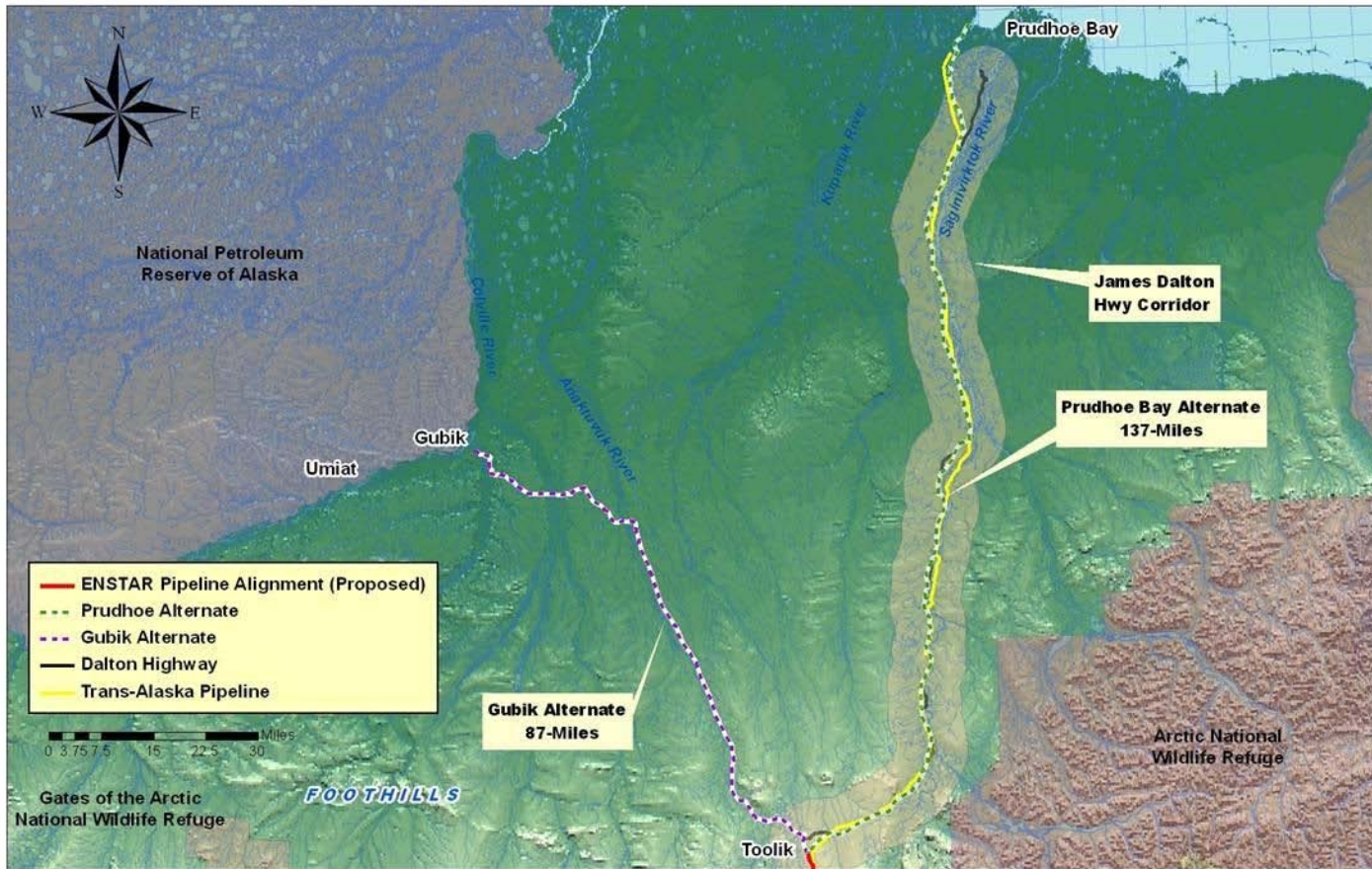
\* Operating pressure & design allow for additional hydrocarbon spiking

\*\* Alternate source is Prudhoe Bay area gas

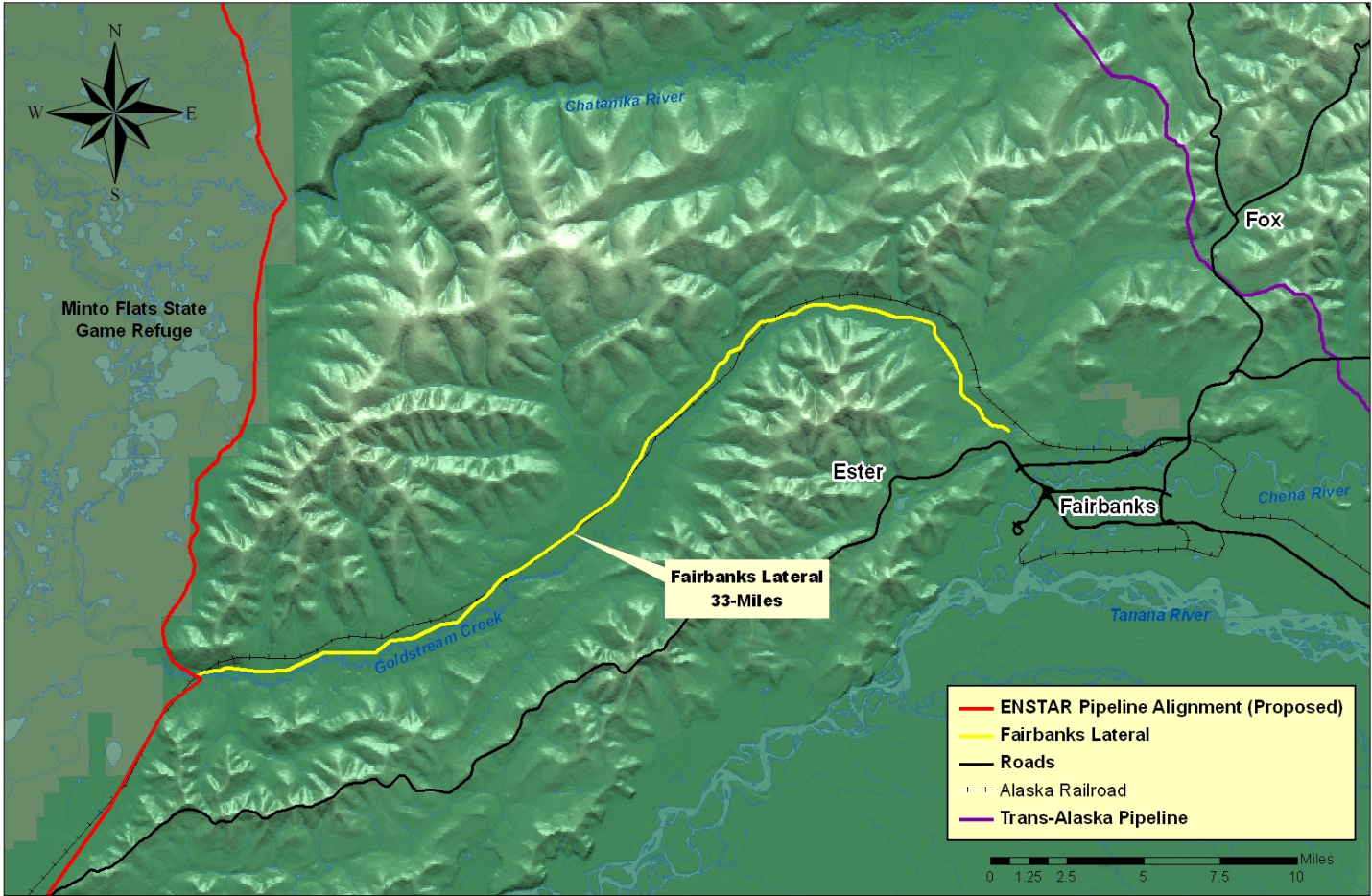
# Proposed Route



# Mile Post One



# Interior Alaska



# Pipeline Route & Cost



## Parks Highway to Fairbanks

- Approximately 320 Miles
- Cost \$970 million



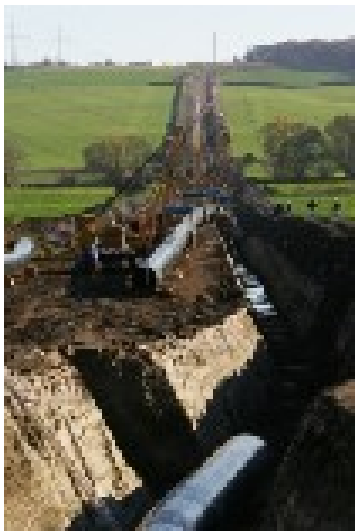
## Richardson Highway to Fairbanks

- Approximately 395 Miles
- Cost \$TBD



## Fairbanks to the Foothills

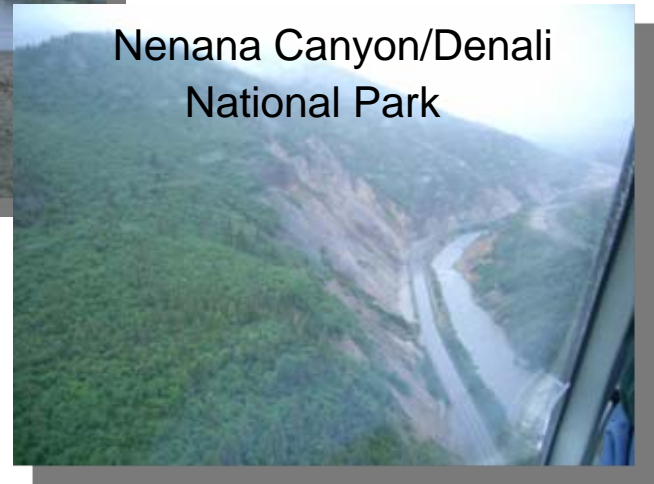
- Approximately 370 miles
  - Dalton Highway Route
- Cost \$2.3 Billion



Total Project Cost - \$3.8 (+/-) Billion for 20" Diameter

New updated cost estimate due out in Q1 2009

# Challenges and Pinch Points





# 2009 Development Plan

## 2009

- Complete Cost Estimate (March)
- Submit ROW applications (April)
- Submit DRAFT Environmental Evaluation Document (May)
- Environmental & Engineering Field Programs (May-Sept)
- Prepare economic & financial models
- Continue public outreach & public involvement
  - Alaska Support Alliance, Fairbanks Economic Development Corporation, Rotary Clubs, South Central Chambers, ASRC, CIRI, Doyon, KTUU, KTVA, Anchorage Daily News, Fairbanks Daily News Miner, Peninsula Clarion, Talk Radio Programs, Platts Gas Daily
  - Field Trips w/State DNR and Legislators (continuing in Spring, 2009)

# Key Milestones for First Gas by 2015

- 2009
  - Field Work
  - File State and Federal Applications
  - Complete Environmental Evaluation Document (EED)
  - Preliminary Engineering
  
- 2010
  - Permit Support
  - Complete EIS => Record of Decision
  - Preliminary/Detailed Engineering
  
- 2011
  - Detailed Engineering
  - Begin Procurement
  - RFP => Issue NTP
  - Preliminary Construction
  
- 2012-2014
  - Pipeline Construction
  
- 2014-2015
  - Pipeline Startup

# Questions and Comments

