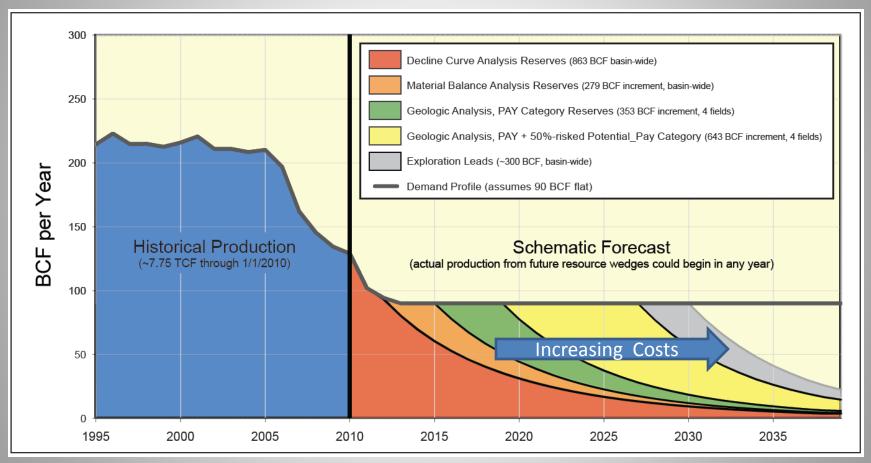


# IN-STATE GAS PIPELINE PROJECT UPDATE

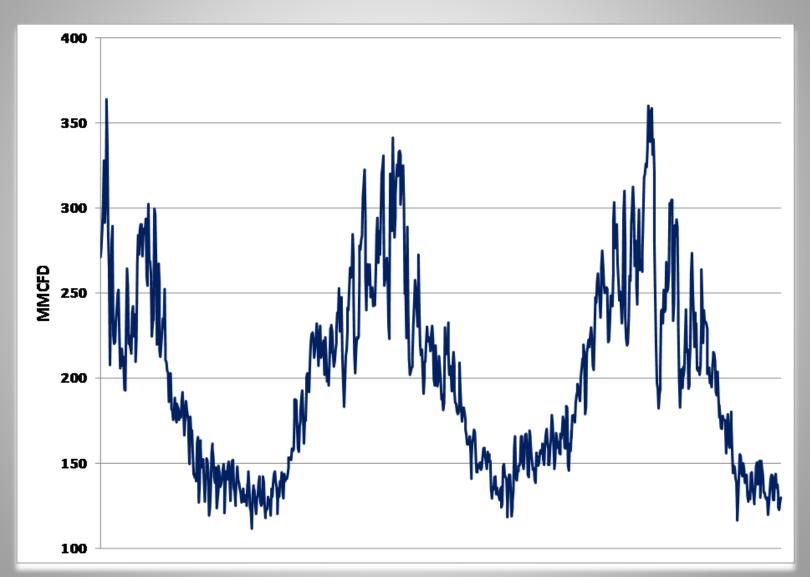
March 11, 2010

#### The Problem: Cook Inlet Production Forecast

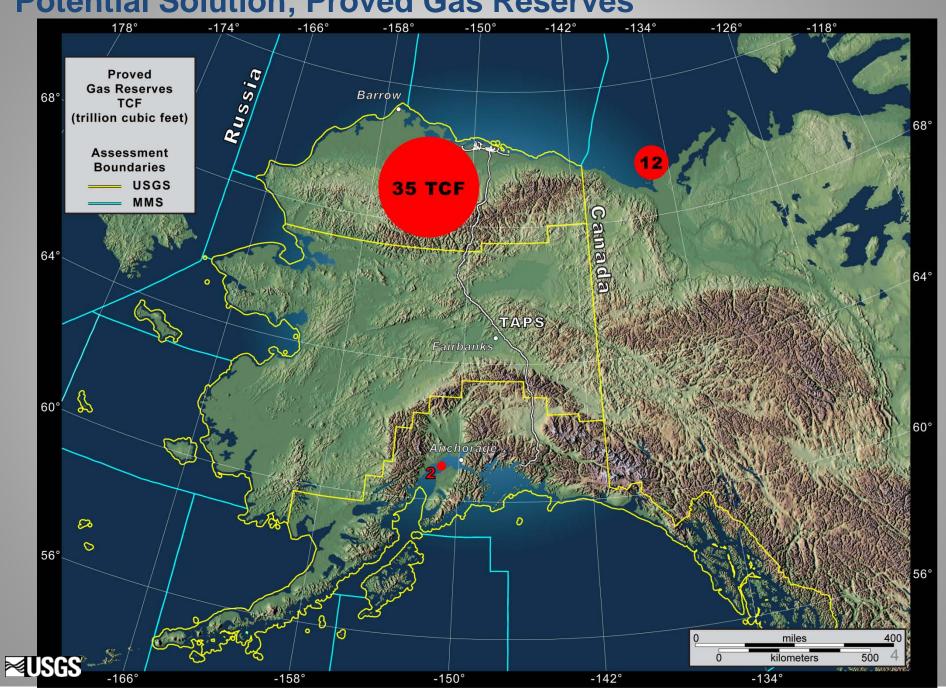


Division of Oil & Gas, Dec. 2009

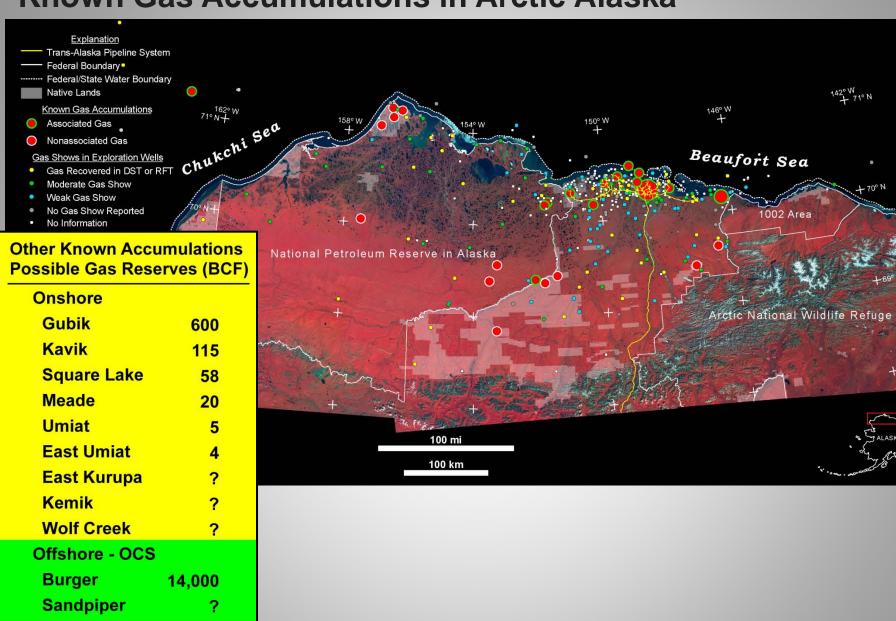
## Historical Daily Gas Usage for Power and Heating in Southcentral Alaska



#### **Potential Solution; Proved Gas Reserves**

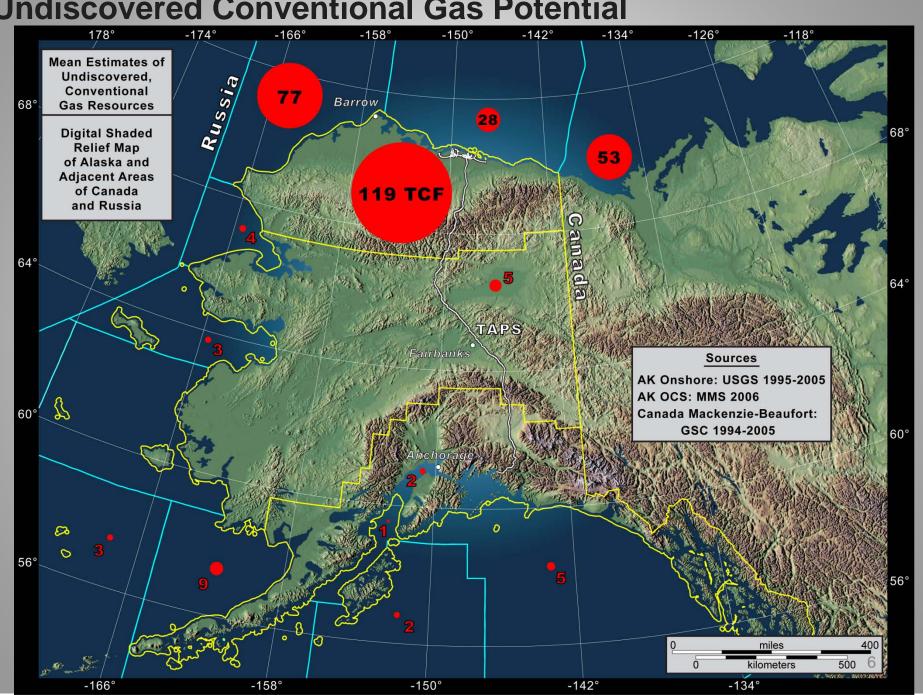


#### **Known Gas Accumulations in Arctic Alaska**

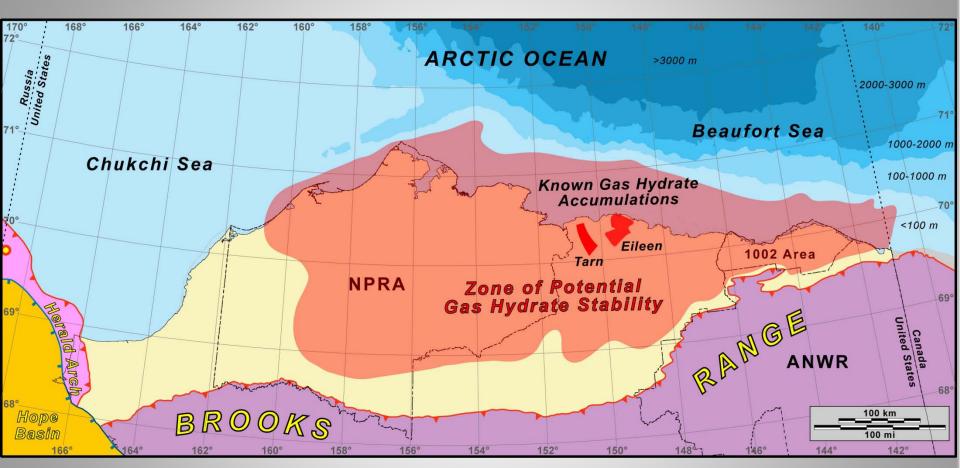


Data from Thomas et al., 1996 (DOE) Craig & Sherwood, 2004 (MMS) Bird, pers. comm., 2008 (USGS) +68° N

#### **Undiscovered Conventional Gas Potential**



# Gas Hydrates Northern Alaska Zone of Potential Hydrate Stability

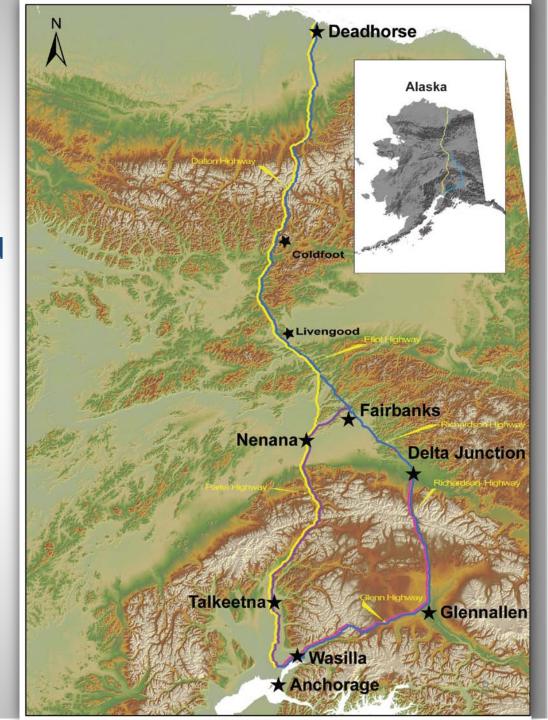


Information from Tim Collett (USGS)

#### Potential Infrastructure; Small Diameter In-State Pipeline

#### **Alternate Routes Evaluated**

- Spur Routes
  - Richardson
  - Parks
- Stand Alone
  - Richardson
  - Parks
- Pre- Build
  - Richardson
  - Parks



### Purpose of the State's effort

- Evaluate a Stand-Alone gas pipeline project that transports gas from the North Slope to tidewater at Cook Inlet
- Provide back-up plan for Large diameter gas line with spur lines to southcentral for in-state use
- Reduce risk to potential project by acquiring major permits, determining cost of transport, and economic feasibility
- Prepare permit and project data package to transfer project to pipeline developer

### **Methodology**

#### The Program was set-up to Reduce Risk by:

- Defining Costs
- Acquiring Major Permits
- Acquiring Letters of Intent
  - Bring Buyer/Sellers together
  - Let the market place decide scope and timing

### **Work Completed**

- Route Alternative Analysis Parks and Richardson Highway routes:
  - Associated comparative pipeline cost estimates
  - Environmental Surveys
- Initial Project Description (for permitting)
- Commercial Group Scoping Document
- Initial Review of ENSTAR Capital Cost Estimate –
   Pipeline
- Major permits applied for

### **Work Underway**

- Updating pipeline cost estimates
- Developing cost of facilities
- Cost of transport analysis
- Preparing detailed project description
- Continued engineering support for EIS and ROW process
- Identify commercial entities to finalize costing and permitting for construction sanction
- Developing data package for full economic analysis
- Work with producer group and identify new market potential.

### **Facilities Scenarios Identified**

- CGF Residue Gas only, North Slope Gas Conditioning, Cook Inlet NGL Extraction
- CGF Residue Gas only, Cook Inlet Gas Conditioning and NGL Extraction
- CGF Residue Gas Only, North Slope Gas Conditioning, North Slope NGL Extraction
- CGF Residue Gas spiked with CGF Stabilizer
   Overhead Gas, North Slope Gas Conditioning,
   Cook Inlet NGL Extraction
- Each scenario evaluated at 250, 500, 750 and 1000 MMscfd

### **Cost of Transport Analysis**

- 16 Material Balances
  - 4 Scenarios
  - 4 Flow Rates per scenario (250mmscfd each)
- Match Facility Component Cost to Each Balance
- Generate Annual Schedules for Capital Outlays, Revenues and Expenses
- Feeds Data To Economic Analysis

### **Permit Status**

- U.S. Army Corps of Engineers Section 404/10
  - Filed November 16, 2009
  - Expect 404/10 permits shortly after NEPA Record of Decision
- State of Alaska Title 38 Right-of-Way
  - Filed November 25, 2009
  - Review timeline undefined
- Bureau of Land Management Right-of-Way
  - Filed November 25, 2009
  - Expect ROW approval shortly after NEPA Record of Decision

### **State's share of Project Costs**

- FY10 -- \$8.3 mm (projected)
- FY 11 -- \$ 6.5 mm (requested)
- Negotiated use of ENSTAR data
- Expenses reimbursed upon transfer to commercial entity

#### Time Line Ranges

#### Stand Alone Gas Pipeline Project

Fast Track Schedule\*

DRAFT

	$\overline{}$	2009	2010	2011	2012	2013	2014	2015	2016	
SCHEDULE			Q1 Q2 Q3 Q4							
SCHEDULE Q1 Q2 Q3 Q4 Q1 Q2 Q3										
Design Basis	^									
Corridor Selection	=>									
Conceptual Design	=>	=====		=						
Alternatives Analysis		==								
Project Description (fling)	=>	===								
Final Project Description			=====							
Cost Estimate & Logistics	=>		======							
Project Documentation Package			=======	=						
Permitting										
COE 484		=								
Federal and State ROW		=								
Draft EIS			X							
Final EIS			X							
Additional Permits and NTP's										
Project Review & Sanction										
Company Due Diligence			==	===						
Transfer of Permits				==						
Project Sanction					X					
Detailed Engineering Design										
Pipeline				=====		==== = = =	=====	=====		
Facilities				=====		==== = = =	=====	=====		
Cost Estimate & Logistics					======	==== = =	=====	=		
GCP Construction										
Order Equipment					X					
Fabricate Modules						=====				
Pre-construction Preparation										
Module sea-lift								==		
Install & Testing	_							==	====	
Compressor Stations										
Order Equipment					X					
Fabricate Skids						=====		==		
Pre-construction Preparation							======	==		
Construction & Testing									====	
Pipeline										
Order Pipe and Valves					X					
Pre-construction Preparation						======	======			
Construction & Testing									=====	
NGL Plant & Storage										
Order Equipment					X					
Fabricate Skids						=====		==		
Pre-construction Preparation								==		
Construction & Testing										
Start-up										
Start-up & Operations									==:==X	
	-									

Assumes timely availability of fabrication facilities, equipment and craftsman for GCP

#### Time Line Ranges

#### Stand Alone Gas Pipeline Project

Alternative Schedule\*

DRAFT

	_	2009	2010	2011	2012	2013	2014	2015	2016	2017
SCHEDULE										Q1 Q2 Q3 Q4
Engineering Support										
Design Basis	=>									
Corridor Selection	=>									
Conceptual Design	=>	=====	=======	==						
Alternatives Analysis		==								
Project Description (filing)	=>	===								
Final Project Description			======							
Cost Estimate & Logistics	=>		=======							
Project Documentation Package			=======	====						
Permitting										
COE 404		=:	=======	====						
Federal and State ROW		=:	=======	====						
Draft EIS			X							
Final EIS				x						
Additional Permits and NTP's			======	=======		=======	=======	=======	=======	
Project Review & Sanction										
Company Due Diligence				=====						
Transfer of Permits					==					
Project Sanction						х				
Detailed Engineering Design										
Pipeline					======		==:= = = =	=====	=====	
Facilities					======		==:= = = =	=====	=====	
Cost Estimate & Logistics						==:======	==:= = = =	=		
GCP Construction										
Order Equipment						х				
Fabricate Modules							=====	=======	=====	
Pre-construction Preparation										
Module sea-lift									==	
Install & Testing									==:	=====
Compressor Stations										
Order Equipment						х				
Fabricate Skids							=====	=======	==	
Pre-construction Preparation									==	
Construction & Testing									======	====
Pipeline										
Order Pipe and Valves						х				
Pre-construction Preparation							======	======		
Construction & Testing								======		=====
NGL Plant & Storage										
Order Equipment						х				
Fabricate Skids							=====		==	
Pre-construction Preparation								======	==	
Construction & Testing	1									=====
Start-up										
Start-up & Operations										==: ==x
	-									

<sup>\*</sup> Assumes timely availability of fabrication facilities, equipment and craftsman for GCP

#### Time Line Ranges

#### Stand Alone Gas Pipeline Project

Extended Schedule\*

DRAFT

	2	1009	2010	2011	2012	2013	2014	2015	2016	2017	2018
SCHEDULE				Q1 Q2 Q3 Q4							
Engineering Support											
Design Basis	=>										
Corridor Selection	=>										
Conceptual Design	=>			==							
Alternatives Analysis		==									
Project Description (filing)	=>	===									
Final Project Description											
Cost Estimate & Logistics	=>										
Project Documentation Package				====							
Permitting											
COE 404		=		====							
Federal and State ROW		=		====							
Dreft EIS			X								
Final EIS				X							
Additional Permits and NTP's			======								
Project Review & Sanction											
Company Due Diligence**				=====	==						
Transfer of Permits					===						
Project Sanction						X					
Detailed Engineering Design											
Pipeline								=====	=====	=====	
Facilities								=====	=====	=====	
Cost Estimate & Logistics								=====	=		
GCP Construction											
Order Equipment						X					
Fabricate Modules							==				
Pre-construction Preparation											
Module sea-lift										==	
Install & Testing										==	
Compressor Stations											
Order Equipment							X				
Febricate Skids										==	
Pre-construction Preparation										==	
Construction & Testing											=====
Pipeline											
Order Pipe and Valves							X				
Pre-construction Preparation	_								======		
Construction & Testing											=====
NGL Plant & Storage											
Order Equipment	_						X				
Fabricate Skids											
Pre-construction Preparation										==	
Construction & Testing											=====
Start-up											
Start-up & Operations***	lacksquare										=====x

<sup>\*</sup> Assumes limited availability of fabrication facilities, equipment and craftsman for GCP due to competition with other world projects

<sup>\*\*</sup> Assumes longer time frame for private industry decision to proceed with project

<sup>\*\*\*</sup> Assumes start up delays of GCP and NGL Plant

### **Questions / Comments**