

Concerns on the Use of North Slope Natural Gas in Alaska

**Alaska Natural Gas Development Authority
(ANGDA) at the
Commonwealth North Forum -- July 11, 2006**

Presenters Are:

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CEO of ANGDA

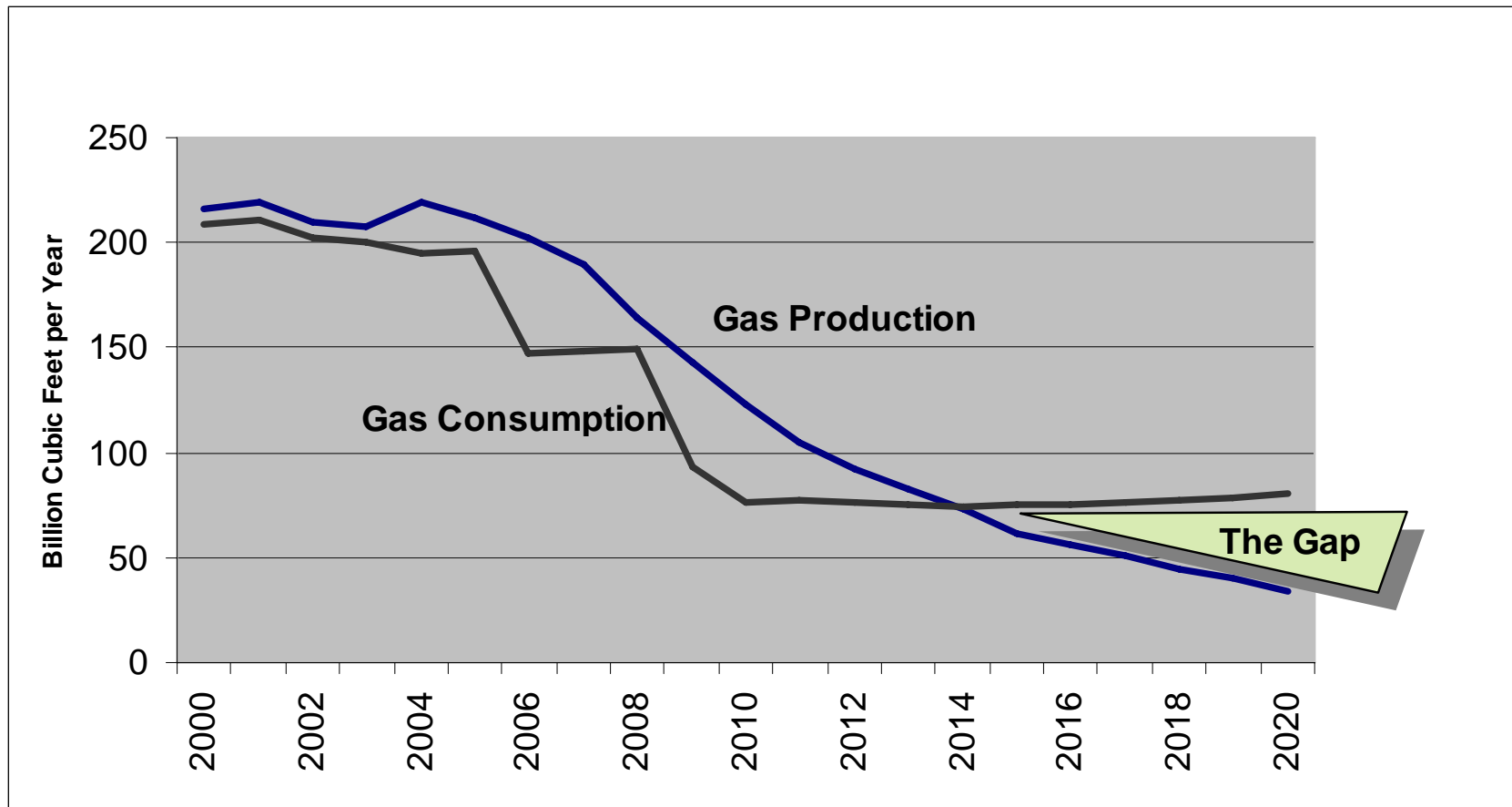
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Principal of Dunmire Consulting

Presentation Outline

- **Cook Inlet Gas Supply / Demand Balance**
- **Energy Alternatives for Cook Inlet**
- **In-State Gas Use Portion of the “Contract”**
 - **Understanding an “Open Season”**
 - **Gas Off-Take Points & Spur Line**
 - **Utility Commitment Required – Size & Timing**
 - **State Gas & NGL Transportation & Marketing**
- **Suggested Contract Modifications & To Do List**

Cook Inlet Natural Gas Supply / Demand Balance



Source data: Alaska Department of Natural Resource. Division of Oil and Gas. 2004 Oil and Gas Report.
U.S. DOE National Arctic Energy Technology Laboratory. South-Central Alaska Natural Gas Study.

Top Alternatives from Dunmire Report

- **Near term:** Gas Conservation and Increased Production in Cook Inlet would prolong gas supplies and buy time to select long term option and raise investment funds.
- **Intermediate term:** Coal Gasification could keep industrial facilities operating and provide electric power. Feasibility depends on proving process output and cost-effectiveness with Alaskan coals.
- **Long term:** Enriched Gas Line may be better investment than Bullet Line. Coal and Wind development strong second.
- **Spur Line tops the list if pipeline carrying North Slope gas is built through Alaska.**

Summary CI Gas Demand in 2025

<u>SECTOR</u>	<u>GAS DEMAND</u>	<u>MAX PRICE</u>
Residential / Commercial	135 MMcf/d	\$8.50
Power Sector	135 MMcf/d	\$5.20
Petrochemical Plant	120 equiv – C ₂	\$4.60
LPG	115 equiv – C ₃	\$4.20
LNG	210 MMcf/d	\$3.20
GTL	480 MMcf/d	\$3.20
Ammonia / Urea	145 MMcf/d	\$2.80

Based on Table 1 of DOE Report in June 2006 "Alaska Natural Gas Needs and Market Assessment"

Gas Contract Provisions **for In-State Use**

- **Article 1 - Definitions**
- **Article 7 - State Ownership**
- **Article 8 - Regulation Of & Access to Project**
- **Article 9 - In-State Markets**
- **Article 10 - Capacity Management**
- **? Voting Influence in Gasline Ownership LLC**
- **? State Gas Marketing Policies**

The “Open Season” Process

- **Sealed bid auction of volumetric shipping capacity in gas pipeline**
- **Tariff to delivery points known**
- **Shipper makes a firm multi-year commitment in a “ship or pay” contract**
- **Creditworthiness of shippers is essential since committed capacity is design basis**
- **Results of process are public & regulators hear complaints before certification of the project**

North Slope Gas Production

State Regulatory Process Needs to Operate Within Federal Process Timelines. Will we be ready?

Yukon River

Fairbanks

24" Southcentral Ak Spur Line

Federal Open Season Access Rules for Alaska Apply

56" Pipeline to Canada/Chicago Available 2016

State Access Rules Apply to Facilities Used Solely for In-State Transport

Note: FERC Rules for an Alaska line are unique and only apply to Alaska

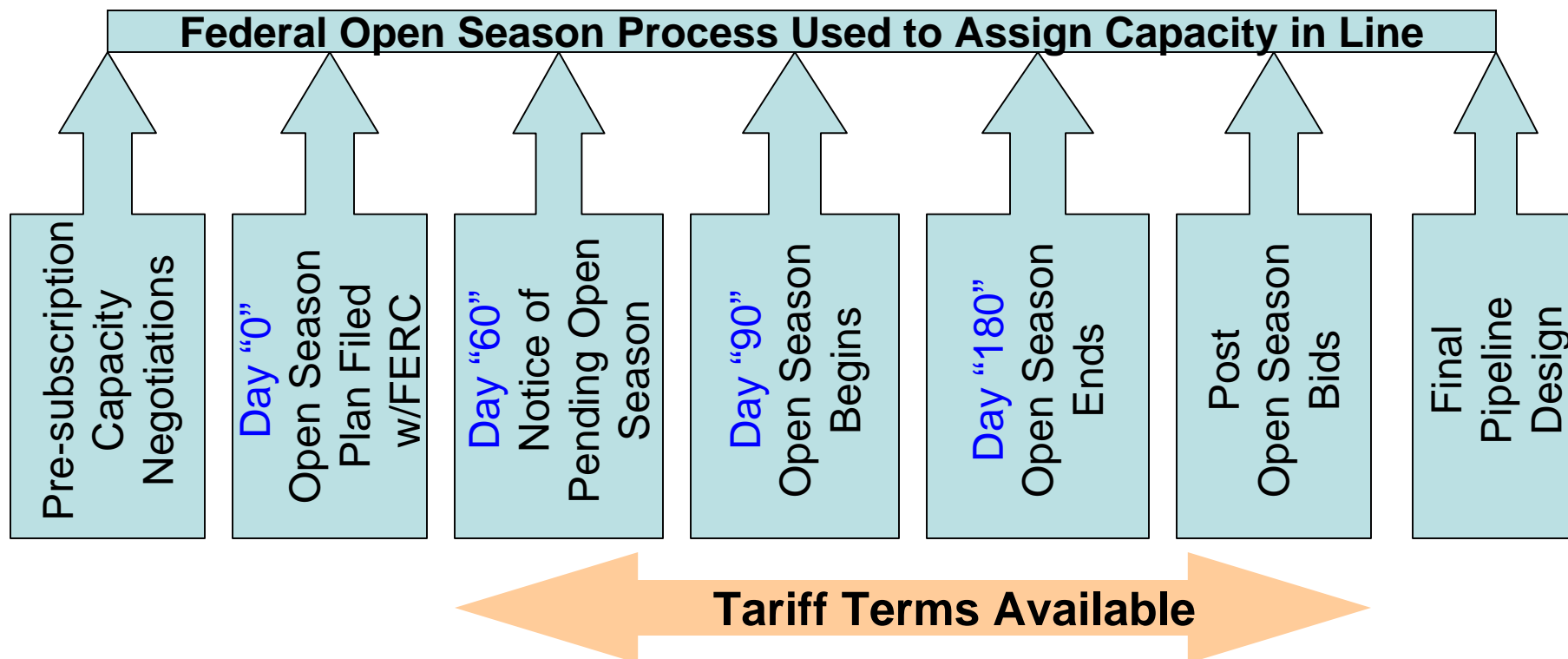
Alberta; Chicago

Federal Open Season Process

Question: When will the Producers begin this process?

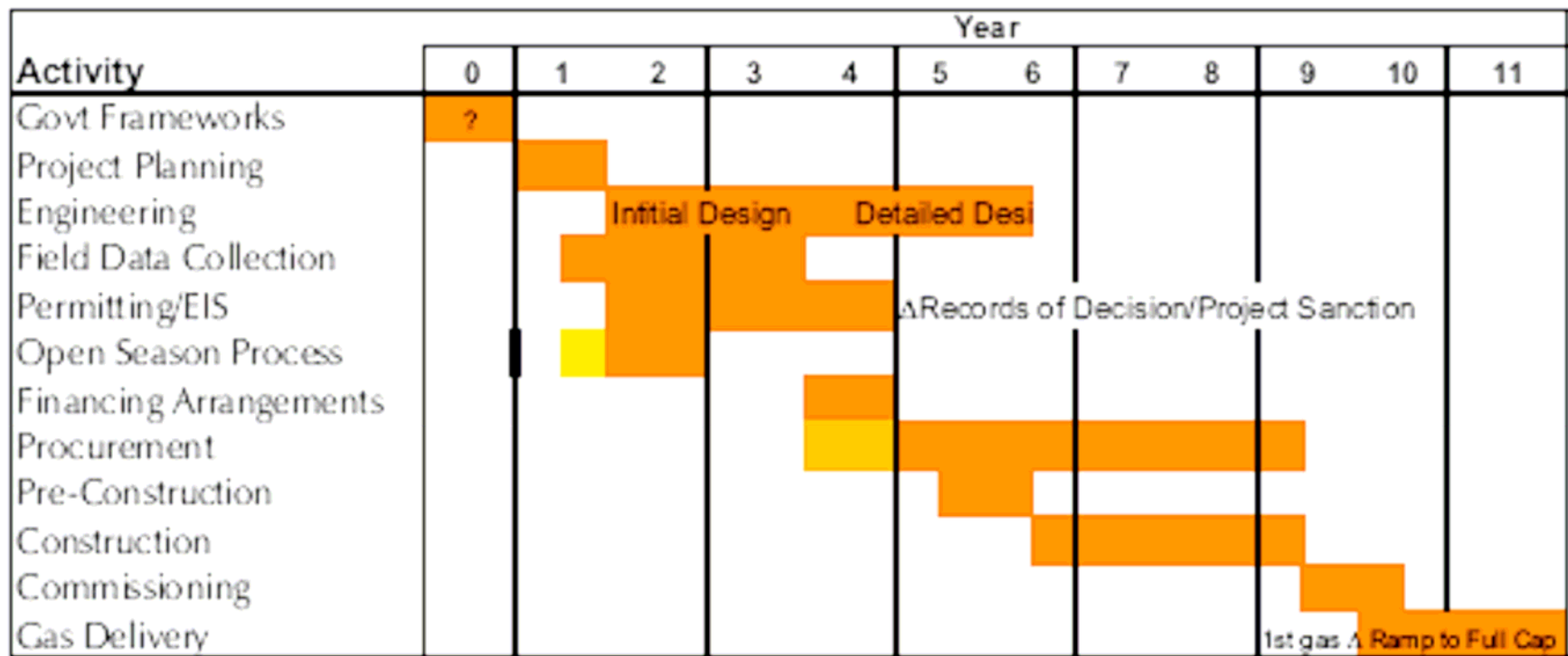
Spring '07

Winter '07



Timing of the Open Season

Figure 13. Sponsor Group Conceptual Project Timeline



Source: Based on Sponsor Group's SGDA Application.

In-State Gas & NGL Stakeholders

- **Gas Utilities – (Enstar, Fairbanks Gas Co.)**
- **Electric Utilities – (CEA, MLP, GVEA, MEA, Copper Valley)**
- **Rural Energy Co-ops**
- **Propane Companies**
- Commercial/Industrial – (Conoco LNG, Agrium)
- Exploration & Production Companies
- New Petrochemical Entities
- **RCA**
- **Regulatory Affairs and Public Advocacy Section**
– Alaska Dept. of Law
- Others

Alaska Utilities

Commitment at Open Season

Ratio of Commitment Liability to:

<u>Alaska Utilities</u>	<u>Commitment (\$ million)</u>	<u>ASSETS</u>	<u>NET PLANT</u>	<u>DEBT</u>	<u>SALES</u>
Heating	2,927	2.9	5.1	6.6	4.8
Power	3,515	2.1	2.2	3.6	6.1
TOTAL	6,442	2.4	3.4	4.5	5.4

NOTE: Commitment calculated by assuming that 75% of gas need is supplied by new North Slope gas purchase and transportation contracts totaling \$5.50 /mmbtu over the 15 year period 2015 thru 2030

Steps for a Utility to Get NS Gas

(Some steps may occur simultaneously)

Utilities interested in using North Slope gas:

- **Negotiate for gas supply before Federal open season**
- **Bid on Spur Line capacity during Intra-State open season**
- **Bid on In-Alaska capacity for “Main 52-inch Line” during Federal open season**
- **Negotiate a shipping contract on either inter-state and/or intra-state gas pipelines before or during the open season**
- **Obtain RCA approval for gas costs to be passed through to customers, including take or pay purchase contracts and ship or pay transportation contracts**

Gaps In FERC Order 2005

Who will be ready to bid for In-State Delivery of Gas During Open Season?

- “Bidding on In-State capacity must be conducted independent of out-of-state deliveries during a prospective applicant’s open season.” Paragraph 7.
- “If the open season ends without any successful bids for in-state deliveries, applicant need not voluntarily propose in-state service as part of its application.” Paragraph 103.

NGL's Processing In-State

- **Main 52-inch gas lines will be carrying 200,000 bpd of ethane & 100,000 bpd of propane + butane**
- **Extracting the 20% State share and shipping in the gas “spur line” to tidewater will allow petro-chemical manufacturing and LPG delivery to rural / coastal / river communities of Alaska**
- **State must maintain this as its unilateral option**

Making In-State Gas Offtake Work

- **Have “spur line” project ready to build**
- **Open a docket with RCA to start review**
- **Develop a cohesiveness amongst utilities**
- **Start conversations with FERC on in-Alaska gas off take issues faced by Alaska utilities**
- **Amend State law to simplify open season process**
- **Provide Alaska utilities with a preference on gas availability & pricing and State backing of long-term financial commitments for NS gas**

Summary of Stranded Gas Act and Contract Issues

- **Amend Contract definition of “State” to exclude existing public corporations and consumer advocate organizations of Alaska**
- **Detail State’s option to extract and use NGL’s from its in-kind gas at its sole option**
- **Recite understanding of current FERC rules & jurisdictions in Alaska and drop legal challenges**
- **Maintain sole discretion on studies of in-State gas use and NGL extraction & use**

Summary of Recommended State Actions

- **Amend Alaska Pipeline Act to simplify in-Alaska open season process**
- **Pledge one-quarter of State's in-kind gas volume for use in Alaska on a first-call basis**
- **Decide on in-kind gas pricing policy for in-State utilities**
- **Extend North Slope gathering system tax credits to in-State energy distribution infra-structure developers (pass through)**
- **Delineate roles of proposed State pipeline owner corporation and gas marketing corporation with existing State corporation ANGDA (All in-state)**
- **Extend plans for all Alaska communities to have the benefits of plentiful & affordable energy**

