

THE FAIRBANKS PIPELINE COMPANY

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The Arctic Fox Pipeline

AN ALASKAN SOLUTION

The Competition, Markets, Product & Service, Capital & Equity Profile and Supplier Incentives

A conceptual presentation for Commonwealth North addressing In-State energy requirements and public policy

3/25/2011

The Goals

- Lower Interior Alaska's energy costs by at least half and install an Alaskan Hub at a strategic location to control the future value of ANS and Cook Inlet gas resources into the next century
- Provide the State and Producers a means to monetize ANS gas resources in a manner that extracts the highest net value for ANS gas per unit produced over time while leaving enough in the ground for future generations
- Retain a higher proportion of our wealth-in-resources in Alaska by commercializing ANS gas through a publicly owned natural gas transmission pipeline.
 - Alaskans benefit from the transportation as well as the value of the resource
 - Equity and future earnings are retained in Alaska by Alaskans
 - Transportation cost can be minimized
- Initiate a low risk investment plan for all Alaskans by offering partnership shares in the pipeline company returning a minimum annual return on investment of 11% with 0% volatility on share equity
- Improve Alaskan air quality by 2015 to lower health risk and to circumvent the potential loss of Federal appropriations in PM 2.5 non-attainment areas such as the FNSB
- Support future economic growth and attract new industry to the State through lower energy costs.

The Options: Interior & South Central Markets

Case 1 \$716 million capital cost

Moves 19 Bcf /Year through 12" pipeline from PB to the Interior

Total cost of gas to Interior of \$9.66/mcf with \$5.44 COS

Case 2 \$1,002 million capital cost or \$286 more than Case One

Moves 19 Bcf/Year through 18" pipeline from PB to Livengood Hub

Total cost of gas to Interior of \$9.66/mcf with a \$9.02 COS

(Needs \$286 million up front or \$3.58/mcf buy-down over time)

Case 2 A \$1,084 million capital cost

Moves 91 Bcf/year through 418 mile, 18" pipeline from PB through Hub to CI

91 Bcf to Livengood Hub

\$5.90/mcf with a \$1.68/mcf COS

Moves 19 Bcf through 90 mile, 12" pipeline from Hub to Interior

12" at 19 Bcf from Hub to Interior

COS of \$1.14/mcf, this segment

19 Bcf net both segments to Interior

\$7.04/mcf with a \$2.84/mcf COS

Moves 72 Bcf/year through 328 mile, 18" pipeline from Hub to CI

(including compression from the Livengood Hub)

18" at 72 Bcf from Hub to Anchorage

COS of \$2.37/mcf, this segment

72 Bcf net both segments to CI

\$8.27/mcf with a \$4.05 total COS

Case 2 A

Cook Inlet Bundled Price Collar or Deliveries = \$8.27/mcf

Treated and Compressed Prudhoe Bay Gas
\$4.22/mcf

12" or 18" pipeline

18" Livengood Hub price of bundled gas
Case 2A - \$5.90/mcf with \$1.68/mcf COS

Fairbanks

12" North Pole Terminus

Case 1 - \$9.66/mcf with \$5.44/mcf COS

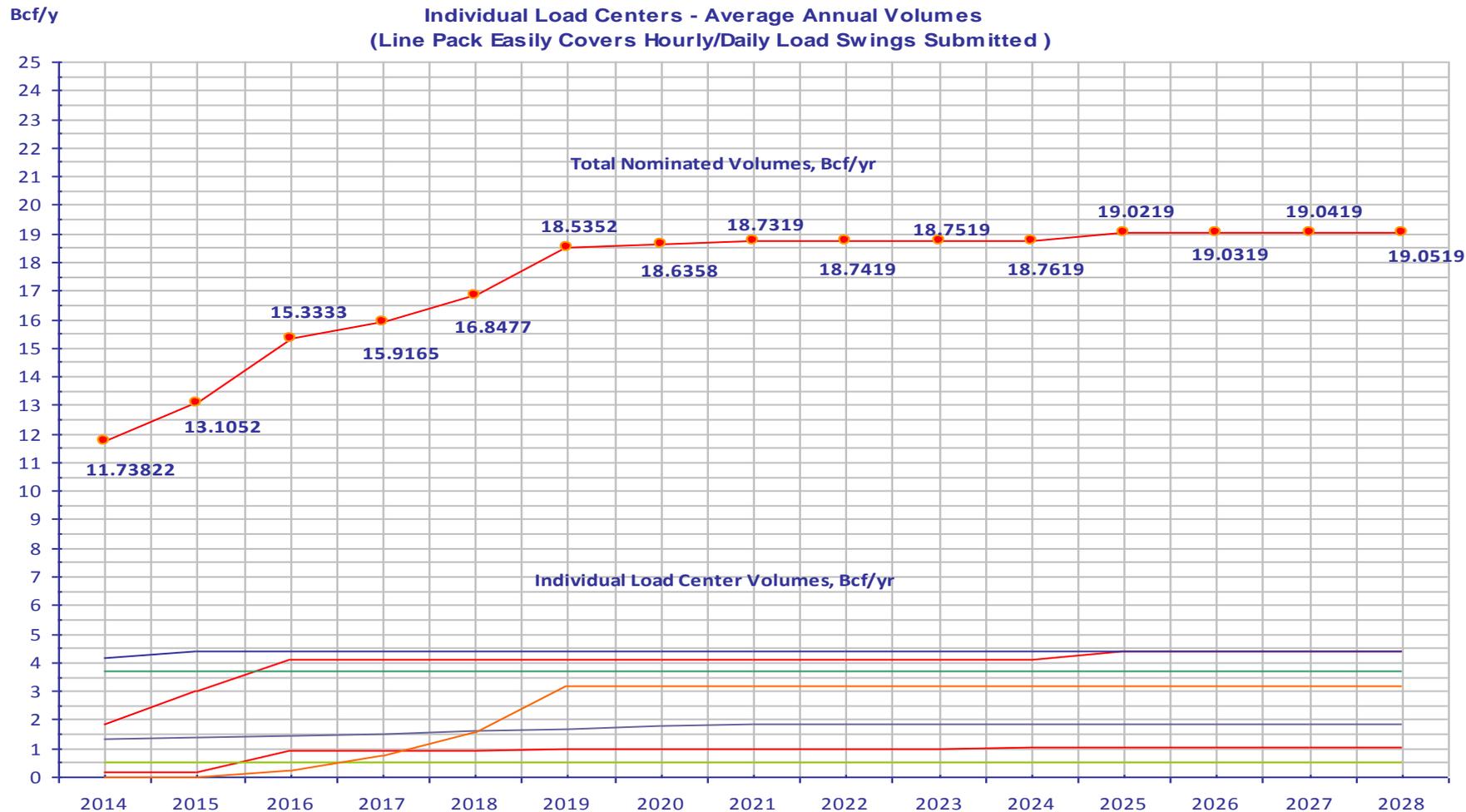
Case 2A - \$7.04/mcf with \$2.84 COS

5" Outreach pipelines
(COS dependent on length and volumes nominated)

Annual Gas Volume Curves From Non-Binding Open Season

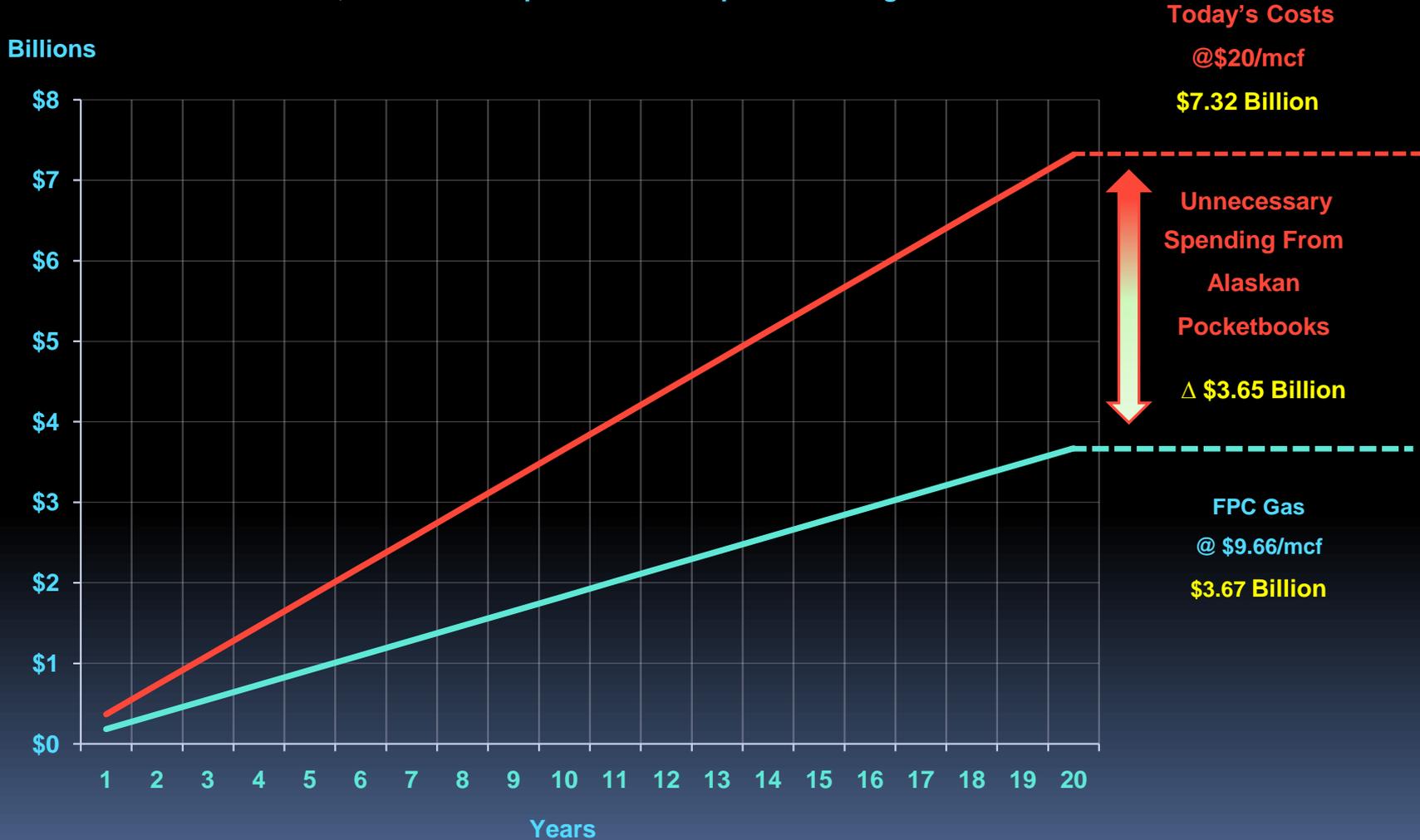
Fairbanks Pipeline Company - Annual Gas Volume Curves

11/29/10 - Still Pending Nominations



FPC's Competition Assuming Today's Nominations

Scenario One, 12" North Slope to Interior Pipeline Moving 19 Bcf/Year



FPC's Interior Market Profile

Declining Wages/Unemployment

- While Alaskan wages remained above average for many years, the Interior's average per capita income declined below the US average several years ago.
- Almost half of the Interior's payroll are State and Federally funded. It's military bases are now being scrutinized for down-sizing and/or closure
- The Interior's number of unemployment checks increased by 69% between 2008 and 2009.

Energy Costs and Availability

- Our State's largest refinery has cut production and its long term viability is in question.
- Interior households pay \$24/mcf for gas, \$23/mcf BOE for heating oil, and their electricity provider GVEA, is paying in excess of \$20/mcf BOE for their naphtha fuel today. On current nominations of 19 Bcf/yr , FPC gas would cost \$9.66/mcf today.
- The need for affordable energy supplies in the Interior is growing ever more critical as crude has now surpassed \$100/Bbl.
- Barriers to entry. A power study done last year for a large new mine compared the cost of commercial power from GVEA when generated on the basis of their \$19/mcf fuel (at the time) versus self- generating its power on FPC's gas priced at \$7.50/mcf. **The difference was close to \$3/4 billion over twenty years.** If crude climbs to \$130/Bbl as now predicted, the difference will easily surpass **\$1 billion.**

FPC's Cook Inlet Market Profile

Cook Inlet Price Escalation

- Future Cook Inlet deep-gas production price implications range from \$5/mcf to \$13/mcf over the next decade according to ADNR
- FPC's projection on the future median price escalation for Cook Inlet Gas through the next decade is lower than ADNR's. It estimates the impacts of diminishing supplies from Cook Inlet's legacy fields along with the increased cost of deep-gas productions will most likely result in prices between \$8.25/mcf to \$10.75/mcf in this decade.

The Price Collar

- With future Cook Inlet gas supplies suffering upside price pressure, there is incentive to increase FPC's gas line from 12" to 18" down to Livengood (77 miles north of Fairbanks), where a future outtake flange can be installed to firmly collar future price escalation for an additional cost of \$286 million.
- The outtake flange in Livengood moves ANS gas 418 miles closer to Anchorage and caps future Cook Inlet prices at \$8.27/mcf (in 2010 dollars). The flange is sized to serve 100% of Cook Inlet's demand for gas as it exists today. When ramped against ADNR's Cook Inlet decline curve, this Alaskan Gas Hub could support Cook Inlet demand well into the next century
- The State is currently offering significant incentives for new Oil and Gas plays in the Cook Inlet. Incentives and discounted royalties need to be factored into Cook Inlet's future cost of gas. When doing so, Energia Cura estimates that the price of ANS gas sourced from the Livengood Hub will be at par with Cook Inlet gas as early as 2016 - 2018. The Livengood Hub can be installed by 2015. If the State chooses, deliveries to Anchorage could start as early as 2017 if implemented through an 18", 320 mile pipeline from the Livengood Hub to Cook Inlet for \$1.1 billion in 2010 dollars.

Summary of FPC's Interior and Cook Inlet Market Pricing Structure

Assumptions

Current Cook Inlet Gas Demand	72 Bcf/Year
FPC Interior Gas Demand	19 Bcf/Year
FPC Interior and Cook Inlet Gas Demand	91 Bcf/Year

Estimated Cost of Treated and Compressed Gas **\$4.22/mcf**

COS (Cost of Service or Tariff) Delivered		To Interior	To Cook Inlet
Case 1	FPC 12" Pipeline Stands Alone at 19 Bcf/yr	\$5.44/mcf	N/A
Case 1 – A	FPC 12" Pipeline Stands Alone at 30 Bcf/yr	\$3.43/mcf	N/A
Case 2	Install 18" Pipeline & Livengood Hub	\$9.02/mcf	(State buys-down final COS)
Case 2 - A	Install 18" Pipeline to Cook Interior	\$2.82/mcf	\$4.05/mcf
Total Cost of Bundled Gas (COS + Gas)			
Case 1	FPC 12" Pipeline Stands Alone at 19 Bcf/yr	\$9.66/mcf	N/A
Case 1 - A	FPC 12" Pipeline Stands Alone at 30 Bcf/yr	\$7.65/mcf	N/A
Case 2	Install 18" Pipeline & Livengood Hub	\$9.66/mcf	(State buys-down final COS)
Case 2 – A	The Cook Inlet Price Collar or 91 Bcf deliveries	\$7.04/mcf	\$8.27/mcf

Product and Service Basis - Bundled Gas

Bundled Gas = Total Costs Delivered to Load Center, otherwise expressed as:

COS (Cost of service or tariff) Plus COG (Cost of Gas & NGL)

COS = Capex (Capital Amortization) Plus Opex (Operating Costs) Plus ROR (Rate of Return)

**COG = [Avg US Well Head Value] Less [Quality] Less [Shared Capex Risk]
Plus [Compression] Plus [Treatment]**

Why Has FPC Employed This Basis, Discounts and Premiums on its COG Pricing Structure?

US Avg Well Head Value

It is a published valuation index for gas in the ground

Quality Discount

Raw ANS gas is of poor value, comprised of 12.3% inert CO₂

Shared Capex Risk

AVG. US Gas Well Head Value is based on an average of gas wells located closer to existing transmission networks & markets than ANS gas. Alaska has no transmission network (yet) and its markets are located roughly 508 miles away for Case 1 and/or 836 miles away for Case 2. It stands to reason that sellers of the resources should share in the capital risk to transport them to markets.

FPC's Bundled Gas (cont.)

Why Has FPC Employed Compression and Treatment Premiums on its GC Pricing?

Compression

To move gas or dense phase products requires compression. Compression costs are a function of Capex repayment, Opex including the energy to run compressors & fair margins (profit) for those undertaking its Capex and Opex risks.

Treatment

To remove CO₂ and other contaminants from ANS gas requires treatment facilities. Treatment costs are a function of Capex repayment, Opex including energy to run the facilities and fair margins (profit) for those undertaking its Capex and Opex risks.

Why Not Have FPC Install (Capex) and Operate its Own Compression and Treatment Facilities (Opex) to Save Profits Offered to the Producers?

Capex

FPC has estimated its Capex costs for installing a single compression station and skid-mounted treatment facilities on the North Slope to treat and move 19 Bcf to Interior markets. FPC expects that Producers' ability to modify its existing facilities including new facilities required will cost about the same, if not lower than FPC's because they can leverage their existing physical and human resources on the North Slope to install these facilities .

Opex

*FPC has estimated its Opex costs for operating compression and treatment facilities on the North Slope. FPC expects these costs to be significantly higher than Producers' due to their leveraging advantages. They already have the camps, the crews and other facilities to undertake their operation and maintenance far cheaper than FPC. In summary, FPC expects **Producers' Capex + Opex + Margins is less than FPC's own Capex + Opex.***

FPC's Negotiation Target for its Final COG - \$4.22/mcf

Details of final GC pending completion of negotiations with British Petroleum, ConocoPhillips and ExxonMobil.

Capitalization and Equity Distribution

FPC (the operating company) will be wholly owned by the Alaska Holding Company (the equity company).

Ownership of the Alaska Holding Company's (AHC) and its future earnings will be assigned to:

- Alaskan Residents
- The State of Alaska Permanent Fund
- Alaskan companies hiring Alaskans and those making in-kind-contributions to the project
- The Fairbanks Pipeline Company's customers

Capital stocks (common shares) in the Alaska Holding Company will be issued at **\$100 par value**.

- No preferred or other classification of shares will be offered
- Par values shares are based on the original capital paid into or invested in the business by its founders
- The Fairbanks Pipeline Company requires **\$716,000,000** to build and start its operations
- This transcribes into **7,160,000** total shares in the Alaska Holding Company at par value

The State of Alaska Permanent Fund will first be given **515,520** (7.2% of total) shares in exchange for the State's in-kind contributions such as pipeline easements, environment al permits, geophysical, survey, and LIDAR data. This leaves **93% or 6,644,480 shares** available to offer Alaskan residents and companies

- The Alaska Holding Company will return dividends of **\$11.07 per year, per share**.
- This is an **11.1% annual ROI (return on investment for case 1)** in a utility company whose sales are guaranteed by its owner's own energy requirements, otherwise a very safe investment.

Summary - Equity Distribution in AHC/FPC

Share Volumes Based on Case 1 or 1A, the Stand Alone 12" Pipeline

- AHC/FPC will employ a tiered capitalization and equity acquisition model aimed at maximizing Alaskan ownership of the companies to improve our State's economy by adding monies into local circulation
- The model integrates the characteristics of both a publicly owned private company and a cooperative company owned by its direct customers . Again, the company = **\$716 ,000,000 or 7,160,000 shares**

Tier 1 Comprised of Alaskan residents and companies hiring Alaskans (the publicly owned private Co.)
*Estimated at **4,983,360 shares** (see Tier 2) available for purchase. In-kind-contributions from qualified Alaskan engineering, logistic and construction is being evaluated using shares instead of cash for issue of payments. FPC expects to release its detailed sweat-equity plan in April, 2011.*

Comprised of the State of Alaska Permanent Fund for Transfer of Existing Assets
*The Permanent Fund will be given **515,520, shares** (\$100/Share). This 7.2% share limit may grow if ADOT offers to install additional pits along the Dalton and Elliot Corridors to sell gravels to the project*

Tier 2 Comprised of Companies Purchasing FPC Gas (the cooperative side of the company)
*Purchase Limit = the proportion of specific gas volumes nominated by each customer relative to FPC's entire total nominated gas volumes times **6,644, 480 shares** (**7,160,000 shares less the State's 51,552,000, shares**). FPC estimates that only about 30% of total available equity (**6,644,480 shares**) will be purchased by these companies, **leaving the bulk of equity (4,983,360 shares) available to Alaskan residents and Alaskan companies***

All shares issued will return yearly dividends paying an 11.1% annual return on investment

Supplier Incentives – What’s in it for the Producers?

Assumptions

Their Potential Exportation Markets
Possible Cook Inlet Market
FPC’s Interior Market
FPC and Cook Inlet Gas Demand

Uncertain at Best
72 Bcf/Year
19 to 30 Bcf/Year
91 to 102 Bcf/Year

Estimated Price Point for Treated and Compressed gas
(All treated, but compressed only to the Livengood Hub)

\$4.22/mcf at \$3.67 AWHV

Producer sales on 20-Year Contract (Will increase/decrease based on US Average Well Head Value Index)

Case 1 at 19 Bcf/yr	\$1.6 Billion	\$80,180,000 per year
Case 1A at 30 Bcf/yr	\$2.53 Billion	\$126,600,000 per year
Case 2A at 92 Bcf/yr	\$7.77 Billion	\$388,240,000 per year
Case 2 A at 102 Bcf/yr	\$8.61 Billion	\$430,440,000 per year

Estimated Profits Net Back to Producers’ Costs

Information pending completion of negotiations with British Petroleum, ConocoPhillips, and ExxonMobil. Energia has concluded introductory meetings and is planning on completing its negotiations in March or April with 20 year contract/s in hand

FAQs:

- **I hear other projects talking about \$7 Billion, \$20 Billion, and even \$50 Billion price tags. How can FPC do it for so little (\$716 Million)?**

The price of steel is a very large cost factor. The amount needed is reduced by a factor of Pi (3.14) with the diameter. Using the Dalton Hwy Corridor with EA data already available is also a large savings. The cost of exportation facilities are not needed for in-state Use.

- **I don't have natural gas at my business or house. How am I going to benefit from this?**

Primarily by the reduction in electrical power cost to residents and businesses. New infra-structure will be built after NG becomes available.

- **Why are you waiting on the State of Alaska? Why don't we just proceed without direct involvement from the State?**

We need the Dalton Hwy Easement and associated data for permitting. There is a need to provide benefit to the entire State. We don't need financial support (subsidies) from the State, but we do need approval (sanction) from the State. Private industry may step in and do it, but costs and benefits to Alaskans will be very different than presented here.

- **How are two guys in a little office in Fairbanks going to pull this off?**

We're not! We're getting the ball rolling. As the project picks up we will back out while major engineering and construction companies do their work. Our role will be limited to broad oversight to keep the project on track.

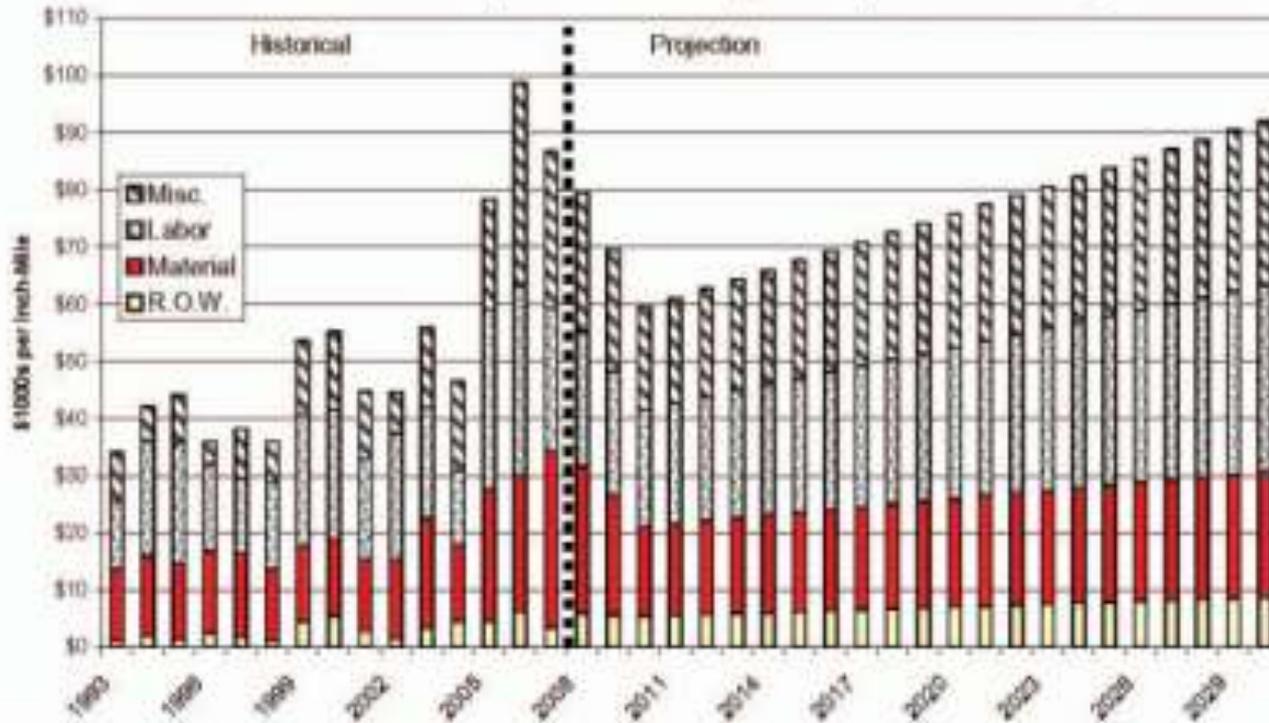
- **Is it safe to put a gas pipeline next to the roadway?**

Yes, piping is buried and well protected. It facilitates access for construction and maintenance, and reduces the impact on the wilderness environment. It's common practice throughout the lower 48 and in Alaska.

- **Sounds like a great project... but where are you now?**

Yes, it is a great project. Supply & demand are clearly defined and we've completed detailed pipeline modeling and economics. We're looking for verbal support from the State, industry, businesses, and residents to make the next step

Figure 24
Natural Gas Pipeline Costs (\$1000 per inch-mile)



Average of large-diameter gas pipelines 30 to 36 inches. FERC data compiled by CV & Gas. Source: 2010 to 2030 projections by cost component is based on trends from 1989 to 2004. Miscellaneous includes include: surveys, engineering, supervision, interest, administrative, overheads, contingencies, allowances for funds used during construction (AFUDC) and FERC fees.

Arctic Fox - \$716 Million / (12" x 418 miles) = \$142,700 per inch/mile

Energy Conversions

<u>Product</u>	<u>BTU</u>	<u>kWh</u>
Natural Gas (1 Mcf)	1,000,000	293.0
Kerosene/HO (1 gallon)	135,000	39.5
Naphtha (1 gallon)	118,000	34.5
LNG/LPG (1 gallon)	95,000	28.0
Coal (1 lb)	9,000	2.6

1 Mcf
(1000 standard cubic feet) =

7.5 gallons of Kerosene	@ \$3.50/gallon	\$25.9/mmBTU
8.5 gallons of Naphtha	@ \$3.00/gallon	\$25.4/mmBTU
10.5 gallons of LPG	@ \$4.00/gallon	\$42.0/mmBTU
111.0 lbs of coal	@ \$70.00/ton	\$3.9/mmBTU