



The Arctic Fox Natural Gas Pipeline

the arctic fox natural gas pipeline

# THE FAIRBANKS PIPELINE COMPANY

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**AN ALASKAN SOLUTION**

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**No. 3**

**FPC Revenues, Expenses and Organization**

**Presentation for the Alaskan Banking and Accounting Community**

**1/11/11**



The Arctic Fox Natural Gas Pipeline

www.enr.com/energy/2011/02/01/

# FPC's UTILITY MODEL

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# Product and Service Basis - Bundled Gas

**Bundled Gas = Total Cost of Gas Delivered**

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**Bundle = COS (Cost of service or tariff) Plus GC (Gas & NGL Cost)**

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

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**GC = Avg US Well Head Value  
Less  
Quality  
Less  
Shared Capex Risk  
Plus  
Compression  
Plus  
Treatment**

# Review of Configuration Options and Associated Criteria

## Case 1

- 482 mile 12" pipeline all the way moving 19 Bcf/year or:

## Case 1 A

- 482 mile 12" pipeline all the way moving 30 Bcf/year  
*(Treatment and compression imbedded within gas cost)*

## Case 2

- 418 mile 18" to Livengood, with 64 mile 12" to Interior moving 19 Bcf /year or 30 Bcf/year  
*(Treatment and compression imbedded within gas cost)*

## Case 2 A

- 758 mile 18" to all the way to Anchorage moving 72 Bcf/year with 64 mile 12" to Interior moving 30 Bcf/year  
*(Treatment imbedded within gas cost to Anchorage. North Slope compression satisfies only the Livengood segment, requires FPC add two compressor stations to move gas from Livengood to Anchorage. Thus, this segment has a higher Capex and COS cost per mile)*

# The Pictograph of Options

**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 102 Bcf/year through 418 mile, 18" pipeline from PB through Hub to CI

102 Bcf to Livengood Hub \$5.73/mcf with a \$1.51/mcf COS

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

12" at 19 Bcf from Hub to Interior

19 Bcf net both segments to Interior

COS of \$1.14/mcf, this segment

\$6.59/mcf with a \$2.65/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

72 Bcf net both segments to CI

COS of \$2.37/mcf, this segment

\$8.10/mcf with a \$3.88 total COS

**Case 2 A**

**Cook Inlet Bundled Price Collar or Deliveries = \$8.10/mcf**

**Treated and Compressed Prudhoe Bay Gas**  
\$4.22/mcf

**18" Livengood Hub price of bundled gas**  
Case 2 A - \$5.73/mcf with \$1.51/mcf COS

**Fairbanks**

**12" North Pole Terminus**

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

Case 2 A - \$6.45/mcf with \$2.23 COS

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

# Summary of FPC Pricing Structure

## Assumptions

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

Estimated Cost of Treated and Compressed Gas **\$4.22/mcf (Adder to all Cases Below)**

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	<b>\$2.82/mcf</b>	<b>\$4.05/mcf</b>
<b>Total Cost of Bundled Gas (COS + Gas)</b>			
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	<b>\$7.04/mcf</b>	<b>\$8.27/mcf</b>



# Revenue and Margins

Revenue and Margins

# FPC's Revenue and Expense Basis

**Total Revenues = COS (cost of service) + GC (compressed and treated gas cost)**

The GC is primarily a pass-through cost carrying no margins. It's basis varies as follows:

- Gas treatment cost is fixed, varying only with inflation
- Compression cost is fixed, varying only with inflation and volumes transported
- The cost of the gas itself will vary with US Average Gas Well-Head Value (AWHV)
- Again, no margins are derived from revenues based on the GC, so they do not increase with volumes.
- The COS (transportation) includes a 12% rate of return to fund dividends. As a result, FPC margins increase on the basis of additional volumes.

*At the current AWHV, FPC's GC is close to \$4.22/mcf. When total revenues are shown on the following slides, their basis is annotated to reflect this current "bundled" price point*



# Sale Price/Unit, Annual Revenues and Margins on Gas Bundle

Assuming a pass-through GC (cost of treated and compressed gas) of \$4.22/mcf

		COS & GC Price Bundle \$/mcf	Revenue \$/Year	Margins \$/Year
Case 1	FPC 12" Pipeline Stands Alone at 19 Bcf/yr	\$9.66	\$183,517,664	\$2,970,500
Case 1 - A	FPC 12" Pipeline Stands Alone at 30 Bcf/yr	\$7.65	\$229,937,664	\$2,970,500
Case 2	Install 18" Pipeline & Livengood Hub <i>(with State buy down, same as above)</i>			<i>(with State buy down, same as above)</i>
Case 2 – A	The Cook Inlet Price Collar or 102 Bcf deliveries			
	30 Bcf/yr to Interior through 12" from LVGD	\$7.04	\$148,294,536	
	72 Bcf/yr to Cook Inlet through both 18" from NS	\$8.27	<u>\$627,576,705</u>	
			<b>\$775,871,241 Total</b>	

*Note that revenues are currently based on GC pass-through of \$4.22/mcf  
Negotiations with Producers are on-going*

# Sale Price/Unit, Annual Revenues and Margins on COS (transportation)

*(Margins are the same as previous slide)*

		<u>COS</u> \$/mcf	<u>Revenue</u> \$/Year	<u>Margins</u> \$/Year
Case 1	FPC 12" Pipeline Stands Alone at 19 Bcf/yr	\$5.44	\$103,337,665	\$2,970,500
Case 1 - A	FPC 12" Pipeline Stands Alone at 30 Bcf/yr	\$3.43	\$103,337,665	\$2,970,500
Case 2	Install 18" Pipeline & Livengood Hub <i>(with State buy down, same as above)</i>			<i>(with State buy down, same as above)</i>
Case 2 – A	The Cook Inlet Price Collar or 102 Bcf deliveries			
	30 Bcf/yr to Interior	\$2.40		
	72 Bcf/yr to Cook Inlet	\$4.05		
	Blended Total, Case 2-A:		<b>\$345,431,242</b>	<b>\$28,073,700</b>



# Revenues and Expenses

## REVENUES and EXPENSES

# Total Annual Revenues Less Total Annual Expenses on COS

Not including pass-through gas cost (GC) of \$4.22/mcf

		<u>Revenues \$/Year</u>	<u>Expenses Avg \$/Year</u>	<u>Margins Avg \$/Year</u>
Case 1	FPC 12" Pipeline Stands Alone at 19 Bcf/yr	\$103,337,580	\$100,367,165	\$2,970,500
Case 1 - A	FPC 12" Pipeline Stands Alone at 30 Bcf/yr	\$103,337,580	\$100,367,165	\$2,970,500
Case 2	18" Pipeline & Livengood Hub with Interior Deliveries			<i>(with State buy down, same as above)</i>
Case 2 – A	The Cook Inlet Price Collar or 102 Bcf deliveries to Interior and CI			
	30 Bcf/yr to Interior	\$66,635,002	\$58,483,185	\$4,145,294
	72 Bcf/yr to Cook Inlet	<u>\$278,796,240</u>	<u>\$258,874,357</u>	<u>\$23,928,406</u>
	Blended Total, Case 2-A:	<b>\$345,431,242</b>	<b>\$317,357,542</b>	<b>\$28,073,700</b>

# Annual COS Expense Breakdown

	Capex (or Dividends) \$/Year	Opex \$/Year	Capital Reserve Fund \$/Year	Total Expenses \$/Year
Case 1 12" at 19 Bcf/yr	\$95,857,207	\$3,615,458	\$3,865,000	\$103,337,665
Case 1 - A 12" at 30 Bcf/yr	<i>same as above</i>	<i>same as above</i> <i>(shrinkage for hp ignored)</i>	<i>same as above</i>	<i>same as above</i>
Case 2 (With State buy-in or buy-down) 18" Livengood Hub	<i>same as above</i>	<i>same as above</i>	<i>same as above</i>	<i>same as above</i>
Case 2 – A 30 Bcf/yr to Interior	\$58,395,955	\$3,463,897	\$4,145,294	\$66,635,002
72 Bcf/yr to Cook Inlet	<u>\$239,611,837</u>	<u>\$15,885,853</u>	<u>\$23,928,406</u>	<u>\$278,796,240</u>
102 Bcf Deliveries	\$298,007,792	\$19,349,750	\$28,073,700	\$345,431,242



# CAPITAL and EQUITY

CAPITAL and EQUITY

# Capitalization and Equity Distribution

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

FPC's goal is to capitalize the project with 100% equity, 0% debt through par share offerings 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 Industrial Load Centers (customers)

Only common shares will be issued at \$100 par value

The Fairbanks Pipeline Company requires \$716,000,000 to build and start operations (12", 19 Bcf)

At \$100 par value, this transcribes into 7,160,000 total shares in the Alaska Holding Company

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, environmental 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 (12", 19 Bcf)

Par shares will be the currency basis for in-kind contributions issued as payments for services rendered by Alaskan companies participating in FPC's in-kind-contribution program

# Equity Distribution

Share Distribution estimates below are based on the Stand Alone 12" Pipeline flowing at 19 Bcf/yr or 30 Bcf/yr

Total Capitalization/Equity = \$716,000,000 or 7,160,000 par shares

## ESTIMATED PAR SHARE DISTRIBUTION AND SEQUENCE

1	State of Alaska Permanent Fund <i>(In exchange for the State's in-kind-contributions)</i>	<i>(up to)</i>	<b>515,520</b>
2	Companies purchasing FPC gas <i>(purchased shares)</i>	<i>(up to % of gas nominated vs. FPC total gas)</i>	<b>1,771,158</b>
3	Alaskan engineering, construction, logistics and financial companies <i>(shares purchased or earned through in-kind-contributions)</i>		<b>1,698,800</b>
4	Alaskan residents and companies hiring Alaskans		<b>3,174.522</b>





# PV and NPV Analysis

# The Socio-Economic Perspective on Present and Net Present Value

The PV and NPV analysis on the FPC model can be viewed from several perspectives:

1. The value FPC's business model adds to monies in local circulation increasing the velocity of monies in Alaska. We call this socio-economic metric "Alaskan Value" or "Value to Alaskans"
2. Value or monies accruing from FPC's business model. In spite of public ownership, no socio-economic factors are applied to the analysis – this is just a conventional money in, money out evaluation that weighs the model's revenue, expense and margin streams over time
3. The same as bullet 2, except the pipeline's business model would be developed by private enterprise operating in a regulated environment using a 14.3% ROR hurdle
4. The same as above, except as the pipeline's business model would be integrated into a total value chain including upstream, midstream , and downstream components adding 25% value to the fundamental commodity (gas)

# The Socio-Economic Perspective on Present and Net Present Value

In the socio-economic perspective, Value to Alaskans is calculated using the following formula:

$$AV \text{ (Alaska Value)} = AEC \text{ (Avoided Energy Costs)} + DE \text{ (Dividend Earnings) from FPC ownership}$$

Where:

AEC = Monies Alaskans will spend without benefit of ANS gas

At 19 Bcf/yr, the AV is approximately \$123 million per year

At 30 Bcf/yr, the AV is approximately \$252 million per year

*(the 102 Bcf case delivering gas to the Interior and the Cook Inlet is left out of this analysis)*

And,

DE = FPC dividend distributions of \$95,857,207 per year

*(State Royalties from Alaskan gas sales are also Alaska Value, but it is left out of this analysis for simplification)*

# The Socio-Economic Perspective on Present and Net Present Value

Alaska Value at 19 Bcf/yr sums to a retained cash flow of \$218,972,807/year

The Present and Net Present Value to Alaskans thus calculates to:

## Present Value

20 Years	35 Years	65 Years	Caeteris Paribus
<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(Years)</u>
<b>\$3.660</b>	<b>\$6.492</b>	<b>\$13.506</b>	<b>6.23</b>

## Net Present Value

20 Years	35 Years	65 Years	Caeteris Paribus
<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(Years)</u>
<b>\$0.813</b>	<b>\$0.933</b>	<b>\$0.955</b>	<b>7.8</b>

# The Socio-Economic Perspective on Present and Net Present Value

Alaska Value at 30 Bcf/yr sums to a retained cash flow of \$348,676,207/year

The Present and Net Present Value to Alaskans thus calculates to:

## Present Value

20 Years	35 Years	65 Years	Caeteris Paribus
<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(Years)</u>
<b>\$6.258</b>	<b>\$11.488</b>	<b>\$21.948</b>	<b>4.16</b>

## Net Present Value

20 Years	35 Years	65 Years	Caeteris Paribus
<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(Years)</u>
<b>\$1.720</b>	<b>\$1.912</b>	<b>\$1.947</b>	<b>2.61</b>

# Present and Net Present Value on the Raw FPC Business Model

Discounting improvements to the velocity of monies circulating within Alaska (AV), the FPC business model's revenues, expenses and margins generate the following present and net present values:

At either 19 Bcf/yr or 30 Bcf/yr

## Present Value

20 Years	35 Years	65 Years	Caeteris Paribus
<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(Years)</u>
<b>\$1.260</b>	<b>\$2.741</b>	<b>\$5.705</b>	<b>14.78</b>

## Net Present Value

20 Years	35 Years	65 Years	Caeteris Paribus
<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(\$ Billion)</u>	<u>(Years)</u>
<b>\$0.738</b>	<b>\$0.808</b>	<b>\$0.823</b>	<b>18</b>



**Debt / EBITDA**  
Dεpƒ \ EBILDΛ

# The Measure of Profitability on the 20-Year Model, 19 Bcf/yr or 30 Bcf/yr

**The 20-Year EBIT**

**\$174,676,737**

**The 20-Year EBITDA**

**\$2,091,820,867**

**The 20-Year Debt / EBITDA**

**0.916**





# The Annual Slice

The Annual Slice

# The Measure of Profitability on the 20-Year COS Model, 19 Bcf/yr or 30 Bcf/yr

The GC (cost of gas) is pass through, so not included in the revenue stream

## The Average Annual Income Statement through the first 20-Year run

(Project Capex satisfied after 20-years, but \$95,857,207 per year dividend distributions are on-going through year 65)

<b>Sales</b>	<b>\$103,337,665</b>
<b>COGS (<i>dividend distributions in this case</i>)</b>	<b>\$95,857,207</b>
<b>Gross Profit</b>	<b>\$7,480,458</b>

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<b>S, G&amp;A</b>	<b>\$4,509,958</b>
<b>EBITDA</b>	<b>\$103,337,665</b>
<b>Depreciation</b>	<b>\$11,015,385</b>
<b>Amortization + Depreciation</b>	<b>\$106,872,591</b>
<b>EBIT</b>	<b>\$101,156,358</b>
<b>Interest Expense @ 12% on 20-Years</b>	<b>\$60,057,207</b>
<b>Non-Operating Income @ 4.7% on CFR</b>	<b>\$2,328,652</b>
<b>NPBT</b>	<b>\$9,809,110</b>
<b>Taxes @ 35%</b>	<b>\$3,433,188</b>

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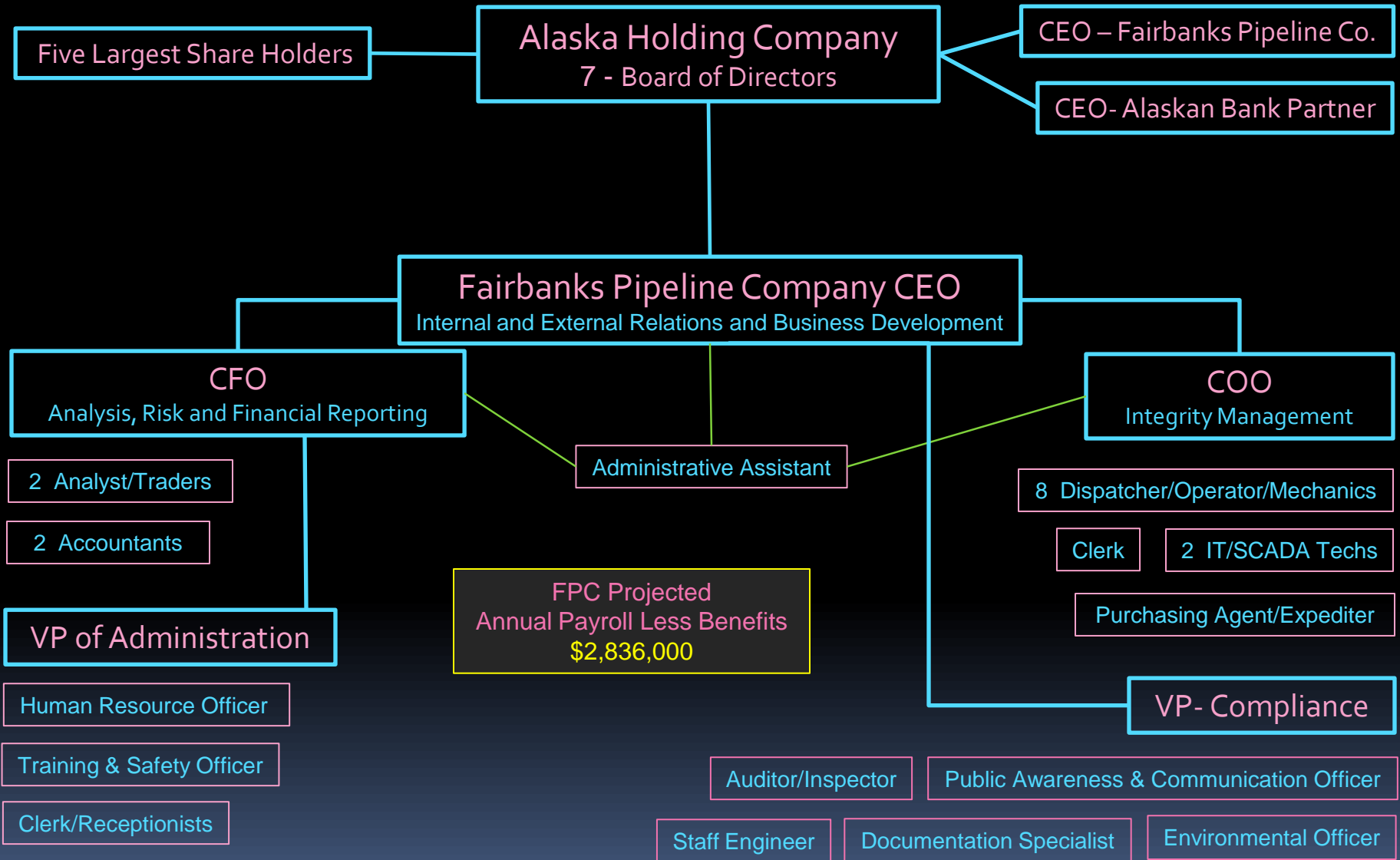
<b>Net Average Profit per Year</b>	<b>\$6,375,921</b>
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# ORGANIZATION

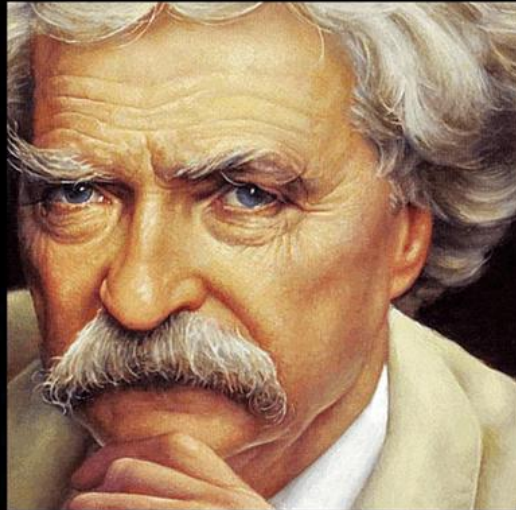
# ORGANIZATION

# The AHC Board and FPC Organization



## The AHC Board of Directors Will Set Crucial Policy

The organization of the AHC Board remains in evaluation as further discussed in the next presentation



“ All good things arrive unto them that wait - and don't die in the meantime ”