

August 17, 2011

Senate Resources Testimony

Mr. Chairman, members of the committee, my name is David Gottstein. I am the President and Chief Investment Officer of Dynamic Capital Management, a registered investment advisory firm headquartered across the street, here in Anchorage. I have been a successful professional large company stock and market analyst for over twenty years, and an expert in logistics and supply chain management from my management positions as a chief procurement officer and distribution manager for Carr-Gottstein company. I appreciate the opportunity to share with you today my thoughts surrounding the development of a gas pipeline, and what role the State of Alaska might responsibly take in order to facilitate the prudent development of a gas pipeline.

I am going to describe (1) The dimension of the problem facing Alaskan residents regarding our long term fiscal future. (2) The current problem facing the development of a gas pipeline. (3) What a prudent investment and serious due diligence effort would look like regarding the development of a gas pipeline, i.e. one that would generate the greatest wealth and lowest cost energy. And (4), briefly introduce an option of how to actually get an efficient pipeline financed and built.

Let me start by saying that absent our North Slope resources of oil, gas and coal, the remaining parts of our economy would not be large enough, vibrant enough and profitable enough that we could tax the non-North Slope economy enough to pay for state government. Only through the prudent management of Alaska's natural resources will we be able to fund State Government long-term, including the accounting for population growth and inflation.

Please turn to the first page of the handout after my prepared remarks, labeled "Permanent Fund Value Forecast". This chart is intended to paint a broad picture of a twenty-five year fiscal future for the State of Alaska. On the top left hand corner you see various assumptions, including population growth of 1% per year, inflation at 2.5%, an annual decrease of oil flow in TAPS at a -4% per year, which some would argue is too optimistic. There is also an annual

price increase forecast of crude oil at 5% per year. If you look at the lower right hand corner of the chart, there is a 25 year forecast for the price of oil that reaches about \$300 per barrel. Because alternative energy solutions become more viable as oil prices rise above \$150 per barrel, there is a significant possibility that oil will not reach that high of price, suggesting that this forecast is optimistic at best.

At the time of this analysis, Alaska had over \$39 billion in the Permanent Fund, and over \$9 billion in the Budget Reserve; a total close to \$50 billion.

To the right of the assumptions for Population Growth, Inflation, etc. is a chart titled Permanent Fund Return Forecast that describes the asset allocation of the Permanent Fund in dollars and percentage, an expected return after fees, and an attribution analysis that generates about a 7% composite return forecast as of 2-21-11. (The 2nd column below).

What this analysis attempts to do is calculate a 25 year forecast taking into account over time, the annual returns of the combined savings accts, i.e. the Permanent Fund and the Budget Reserve, a forecast of State oil revenue, the growth in the State funded portion of the budget, population growth and inflation, along with dividend distributions.

If you do the math, assuming all we do is maintain the status quo, and don't either increase the flow of oil dramatically, generate other sources of revenue, or drastically cut State spending, all our major savings accounts will be exhausted within 25 years. Alaska is already in crisis mode, and in less time since we began pumping our first oil in 1977, our State is heading for failure on many levels.

If we do not improve dramatically the management of our natural resources, we are facing very serious consequences. Therefore it is critically important we build this gas pipeline right.

The problem with the lack of pipeline process isn't AGIA, but rather the price of natural gas. In order to generally finance a pipeline in North America, in today's market, you must "Fill it Before You Build It". What I mean is at any time, a delicate set of economic alignments

must ordinarily be in place in order to attract the debt and equity capital necessary to finance a capital intensive project such as a natural gas pipeline.

One must have enough proven reserves matched with enough bona fide demand from credit worthy purchasers, like utilities, and value added processors, such as a mining operation or a fertilizer producer, who's credit standing is of a stature that allows defined benefit pension funds to purchase the debt instruments (or bonds) with a certainty that their pension beneficiaries will receive their monthly checks. That is what we refer to as investment grade bonds.

In addition, the volume of gas committed for purchase and sale during the Open Season process, must be of sufficient quantity to justify a large enough pipe, that generates enough economies of scale, resulting in a low enough tariff or transportation cost, making the purchase price the best deal for the buyers. The well-head value must also be high enough for the producers to recover their costs and garner their desired rates of return.

Unfortunately the minimum price necessary for all these economic factors to be satisfied is between \$6-7 per mcf, according to industry and government information. And the board of directors of these major companies will not even consider allocating significant resources for such a project until after their internal forecasters predict the price of gas will be above \$6-7 per mcf, 80% over the life of the project. And there is no forecast on when there will be a forecast of that price scenario. Therefore it is critically important to understand that in the traditional fill it and then build it business model, there is no project.

That delicate set of circumstances does not exist, and there is no forecast as to when it will. That is why Denali pulled out, the producers are resisting gas commitments, and TransCanada can't create a market of buyers and sellers. The pipeline must be sufficiently filled with tariff producing gas volumes to cover the debt service, operations and maintenance, and provide the guaranteed rate of return. The inability of the market to produce willing sellers of natural gas at current forecasted low prices explains the lack of

progress on TransCanada's part. It's not AGIA, but rather low gas prices.

The problem is how does Alaska get an efficient pipeline constructed in a low price environment? If we don't understand the problem, we can't devise a solution. In the meantime, a proper analyses should be undertaken to assess what the best options are regarding the development of a gas pipeline, hopefully long before our potential demise in less than 25 years.

In my opinion, the Alaska Gasline Pipeline Development Corporation team did an admirable job under the "Limiting" circumstances of what they were asked to do. Unfortunately, they were only asked to deliver a recommendation on how to get North Slope gas to tidewater in the quickest and lowest cost manner. They were not asked to compare the benefit of efficiencies and economies of scale, and the potential of larger projects, against any possible time increase and associated costs. No analysis of any alternative projects were considered, even those requiring an extra year for design and construction including the cost for importing LNG, regardless of a final outcome that would likely give the State billions of dollars in additional wealth. This approached eliminated 90% of the potential opportunity set for maximizing our State wealth.

What I am offering you today is a much broader analysis approach that should be made available to the State before any serious decisions are made. When added to the already excellent work delivered by the Alaska Gasline Development Corporation, when teamed with other resources readily available to the State, this analysis could be accomplished within six months by building on the work already accomplished. This comprehensive comparative analysis would identify the best options available to maximize our natural resource benefits for all Alaskans.

The Proposed Alaska Energy Complex Project Analysis chart included in your packet represents a Blue-Print Financial Analysis that would ordinarily be a standard private sector analysis tool necessary for any serious due diligence process involving billions of dollars of investment. At a minimum the State of Alaska should

prepare a 30 year cash-flow analysis including tariffs that might be forthcoming to the State should it participate in a pipeline, any enhanced oil and gas revenues, plus the energy cost savings through lower cost energy made possible by a more efficient gas pipeline distribution network. Every dollar increase in tariffs reduces dramatically the number of value added processors that are able to utilize North Slope gas as a competitively priced feedstock in their product offerings. This analysis envisions 24 scenarios; twelve distinct options, each including assumptions with the Susitna hydro project, and without.

The Scenarios are the following:

- Base case for importing LNG indefinitely.
- Forecasts regarding the new jack rigs and their potential success.
- Small diameter or so called "Bullet-line".
- Initial small diameter line; larger line later assuming export markets come to fruition.
- 36 inch pipe.
- Initial 36 inch pipe; additional pipe for exports.
- North Slope to Fairbanks gas pipeline – Hub Concept with conditioning plants with sufficient capacity to fill the pipeline
- North Slope to Fairbanks gas pipeline – Hub Concept with staged capacity conditioning plants.
- Small diameter oil pipeline and a conversion of TAPS to gas.
- North Slope LNG due to Global Warming
- The All Alaska Line
- Gas to Liquids

- With each prior scenario duplicated with and without Susitna assumptions.

By having the proper inputs, such as those suggested in the Proposed Energy Complex Project Analysis, we can forecast and stress test assumptions that will lead to results such as the Internal Rates of Return prospects and probabilities for each scenario, on a cash out, cash in basis for the State, and the prospective rates of return for extra dollars invested when compared with importing LNG. Through this kind of standard analysis, one can better calculate an optimal solution. I would respectfully urge the committee to move in a direction of expanding the already completed analysis to include the Alaska Energy Complex Project scenarios. If done efficiently and in the proper manner, this analysis could yield far superior decision information in as little as six months.

To conclude, I want to suggest an approach that is mentioned in the scenario set:

The North Slope to Fairbanks Gas Pipeline - Hub Concept

This is a gas pipeline "Build it and then Fill It" development project and Plan of Finance that proposes the State of Alaska does the Least necessary to insure that an export capacity gas pipeline is built that delivers Alaskan gas to Alaskans in the shortest amount of time possible, while maximizing the opportunity for exporting gas in the most economical fashion, if and when an export market comes to fruition, while doing so in a way that does not compete with the private sector. In a manner that requires no State subsidy, but instead is likely to generate high returns. This is a tall order, but we can do this. The alternative is failure.

The approach is to have the State of Alaska partner with TransCanada, through a re-negotiation of the AGIA licensee, as permitted by the license, to build such a pipeline. Through these renegotiations, Alaska could eliminate the 500,000 per day mcf limitation. Let me be clear; The State of Alaska does not design, build, own, or operate the pipeline in this approach. That could still be left to TransCanada. Instead, in this approach, in exchange for loan guarantees likely to cost no more than \$2-3 Billion in cash over time,

the State of Alaska, through a security interest, owns the rights to the excess capacity of an export sized gas pipeline from the North Slope to Fairbanks that neither the pipeline owners nor other interested parties, wish to absorb or incubate. The State would commercially release the excess capacity into the market, when the market has the ability to absorb that capacity. Allowing local utilities the opportunity to work with private sector partners, such as TransCanada or other pipeline companies, to develop a companion project allowing connection to the Hub concurrently, will likely be a considerably lower cost option in securing affordable long-term gas supplies when compared to importing LNG or the building of an inefficient small diameter pipeline that does nothing to enhance North Slope oil recovery.

Let me also offer, in terms of the re-negotiation of the TransCanada license. TransCanada can't forward any hint of a lack in project economics, as it might risk losing their monopoly license if they do. On the other hand, I would suggest that they would respond to a private request for re-negotiation in a way that could serve the State's interests much better, and allowing them to maintain the license.

For as little as a \$2-3Billion investment, the State of Alaska could alter our future from having a 90% chance of failure in the next 25 years, to a 90% chance of vibrant success. A full list of the benefits of such an approach is included in your packet. Let's do a proper analysis, make a decision, and get going please. I am available to the committee to discuss further details at some future date on how to insure that an economically efficient pipeline actually gets built.

Thank you!

Goetzstein Permanent Fund Value Forecast 02-21-11

Category	Value	PF Allocation	PF Allocation %	Expected Ret.	Attribution
Population Growth	1.0%	\$6,153,500,000	15.5%	4.5%	0.7%
Inflation	2.5%	\$6,686,400,000	16.9%	8.5%	1.4%
Oil Flow Annual Decay	-4.0%	\$8,226,600,000	20.7%	9.5%	2.0%
Annual Oil Price Rise	5.0%	\$4,808,100,000	12.1%	9.5%	1.2%
Current PF Value		\$1,037,200,000	2.6%	5.0%	0.1%
Budget Reserve		\$3,528,500,000	8.9%	6.5%	0.6%
		\$1,482,300,000	3.7%	1.5%	0.1%
		\$4,706,600,000	11.9%	6.0%	0.7%
		\$3,020,100,000	7.6%	4.5%	0.3%
		\$39,650,300,000	100.0%		7.1%

Year	Current State Savings	Net Fee Return Perm. Fund	State Oil Rev + 1.0%	State Portion of Budget Growth(Pop+Inf) 3.5%	Surplus Bud. To P. Fund	Dividend% Of PF Earnings After Inflation 25%	Perm. Fund Inf. Proofing	Price per Barrel
1	48,150,300,000	3,477,450,301	6,000,000,000	5,500,000,000	500,000,000	562,175,700	1,226,757,500	\$91.00
2	49,088,124,300	3,473,061,273	\$6,060,000,000	\$5,692,500,000	397,500,000	561,464,541	1,227,202,107	\$95.55
3	48,894,159,758	3,459,337,980	\$6,120,600,000	\$5,891,737,500	228,862,500	559,245,986	1,222,353,994	\$100.33
4	48,563,776,262	3,435,962,833	\$6,181,806,000	\$6,097,848,313	33,857,688	555,467,107	1,214,094,407	\$105.34
5	48,092,186,843	3,402,595,732	\$6,243,624,060	\$6,311,376,503	(67,752,443)	550,072,890	1,202,304,171	\$110.61
6	47,474,341,509	3,358,883,627	\$6,306,060,301	\$6,532,214,681	(226,214,380)	543,006,272	1,186,858,538	\$116.14
7	46,705,120,857	3,304,460,067	\$6,369,120,904	\$6,760,904,295	(391,783,391)	534,208,011	1,167,628,021	\$121.95
8	45,779,129,454	3,238,944,733	\$6,432,812,113	\$6,987,535,945	(564,723,833)	523,616,624	1,144,478,238	\$128.05
9	44,690,788,997	3,161,942,950	\$6,497,140,234	\$7,242,449,703	(745,309,470)	511,168,306	1,117,269,725	\$134.45
10	43,434,311,222	3,073,045,189	\$6,562,111,636	\$7,496,935,443	(933,823,807)	496,796,852	1,085,857,781	\$141.17
11	42,003,690,563	2,971,826,549	\$6,627,732,752	\$7,758,293,183	(1,130,560,431)	480,433,571	1,050,082,264	\$148.23
12	40,392,696,560	2,857,846,213	\$6,694,010,080	\$8,029,833,445	(1,335,823,365)	462,007,200	1,009,817,414	\$155.64
13	38,594,865,996	2,730,646,900	\$6,750,950,181	\$8,310,577,615	(1,549,927,435)	441,443,812	964,871,650	\$163.42
14	36,603,494,749	2,589,754,282	\$6,828,559,683	\$8,601,758,332	(1,773,198,649)	418,666,728	915,087,369	\$171.59
15	34,411,629,371	2,434,676,391	\$6,896,845,279	\$8,902,819,874	(2,005,974,594)	393,596,414	860,290,734	\$180.17
16	32,012,058,363	2,264,903,004	\$6,965,813,732	\$9,214,418,569	(2,248,604,837)	366,150,386	800,301,459	\$189.18
17	29,397,303,140	2,079,904,988	\$7,035,471,870	\$9,536,923,219	(2,501,451,350)	336,243,105	734,982,578	\$198.64
18	26,559,608,685	1,879,133,694	\$7,105,826,588	\$9,870,715,592	(2,764,898,943)	303,785,869	663,990,217	\$208.57
19	23,490,933,872	1,662,020,170	\$7,176,884,854	\$10,216,190,575	(3,039,305,721)	268,686,706	587,273,347	\$219.00
20	20,182,941,445	1,427,974,552	\$7,248,653,703	\$10,573,757,245	(3,325,103,543)	230,850,254	504,573,536	\$229.95
21	16,626,967,649	1,176,355,261	\$7,321,140,240	\$10,943,838,749	(3,622,696,509)	190,177,647	415,674,691	\$241.45
22	12,814,111,492	906,618,362	\$7,394,361,642	\$11,326,873,105	(3,932,521,463)	146,566,391	320,352,787	\$253.52
23	8,735,023,637	618,016,531	\$7,468,295,159	\$11,723,313,664	(4,255,018,505)	99,910,235	218,375,591	\$266.20
24	4,380,094,897	306,898,538	\$7,542,978,110	\$12,133,629,642	(4,590,651,532)	50,099,041	109,502,372	\$279.51
25	(260,655,677)	(18,441,795)	\$7,618,407,891	\$12,558,306,660	(4,939,898,768)	(2,981,351)	(6,516,392)	\$293.43

(30 Yr. Cashflow and IRR Analysis of State Oil & Gas Rev., Tariffs, & Energy Savings)

- Scenario 1A: Status Quo that leads to Long-Term Importation of LNG
- Scenario 2: Status Quo With Jack Rig Success W/Importing Some LNG
- Scenario 3: Small Diameter N.S. Line
- Scenario 4: Small Diameter N.S. Line Early, Export Capacity Line Later
- Scenario 5: 36 Inch Pipe
- Scenario 6: 36 Inch Pipe early and 2nd Pipe Later
- Scenario 7: Export Hub Model with Staged Conditioning Plants
- Scenario 8: Export Hub Model with Full Capacity Conditioning Plants
- Scenario 9: New Small Diameter Oil Line with Conversion of TAPS to Gas
- Scenario 10: N.S. LNG Terminal
- Scenario 11: State Owned Big Pipe From N.S. to Valdez
- Scenario 12: Gas to Liquids Infra Structure
- Scenarios 13-24: Repeat Each Analysis with Susitna Completion Assumptions

Draft Scenario Inputs

- Oil Price/Barrel
- Oil Price Inflation
- Cook Inlet Gas Prices/mcf
- Gas Price Inflation
- Rural Diesel Cost/Gallon
- Diesel Price Inflation
- Traditional Propane Cost/Gallon
- Propane Price Inflation
- State Railbelt Gas Consumption-Equivalents-mmcf/Yr Pre-Value Added
- State Railbelt Gas Consumption Growth/Yr Pre-Value Added
- Value Added Gas Consumption/Yr Mining, chemical processing, etc.
- State Rural Diesel Consumption Gallons/Yr Daily Per Capita Consumption >>
- State Diesel Consumption Growth/Yr
- Marginal Capital Costs Compared to Base Case
- Conversion Cost from Diesel
- Conversion Rate Ceiling from Diesel to Gas/Propane
- Gallons of Diesel Per mcf of Gas Equivalent
- mcf per gallon of propane
- State Rural Propane Consumption/Yr
- State Propane Consumption Growth/Yr
- Year To Start Importing LNG
- Cook Inlet Gas Annual Decay Rate once Importation Begins
- Imported LNG Transportation & Facility Costs/mmcf To Tidewater
- Imported LNG Cost of Transportation Delivery to Bush Per mcf
- Imported LNG Cost Inflation
- North Slope Gas Costs/mcf
- Year to Start Producing N.S. Gas through Small Diameter Pipe
- Year to Start Producing N.S. Gas through Large Diameter Pipe
- Year to Start Producing Electricity from Susitna
- Conversion Rate from natural gas to Susitna
- Conversion Costs to Susitna
- Total In-State Energy Consumption Costs Pre-Value Added
- Value Added Gas Consumption/Yr Mining, Chemical, Fuels, etc.
- Development Costs of Finance
- Beginning Gas Flow
- Gas Flow Growth Assumptions
- Gas Production State Revenues
- Gas Pipeline Tariffs to State
- Beginning Oil Flow
- Oil Flow Growth Assumptions
- Marginal Oil Revenue to State
- Total State Energy Costs Saving VS Scenario 1 Base Case
- NPV Discount Rate

Draft Scenario Outputs

- Total In-State Energy Consumption Costs Savings VS Base Case
- Marginal Tariffs to State VS Base Case
- Marginal Oil Revenues to State VS Base Case
- Marginal Gas Revenue to State VS Base Case
- NPV Energy Costs
- Net Marginal Cashflows of Energy Savings, Tariffs, Oil & Gas State Revenue
- Project IRR
- IRR of Marginal Costs VS Marginal Gains & Savings VS. Base Case

North Slope to Fairbanks Gas Pipeline - Hub Concept

Presented by Registered Investment Advisor David Gottstein 08-03-11

A gas pipeline development project and plan of finance that proposes the State of Alaska does the Least necessary to Insure that a gas pipeline gets built that gets Alaskan gas to Alaskans in the shortest amount of time possible, in a way that maximizes the opportunity for exporting gas in the most economical fashion, if and when an export market comes to fruition. In a way that does not compete with the private sector, while requiring no State subsidy.

Accomplishing this by having the State of Alaska partner with TransCanada, through a re-negotiation of the AGIA licensee, as permitted by the license, to build such a pipeline. In exchange for loan guarantees, the State of Alaska, through a security interest, owns the rights to the excess capacity of an export sized gas pipeline from the North Slope to Fairbanks. Commercially releasing that excess capacity into the market as the market has the ability to absorb that capacity. Allowing local utilities the opportunity to work with private sector partners, such as TransCanada, or some other pipeline company, to develop a companion project to hook up to the Hub concurrently, as a considerably cheaper option to secure lower cost long-term gas supplies when compared to importing LNG or the building of an inefficient small diameter pipeline.

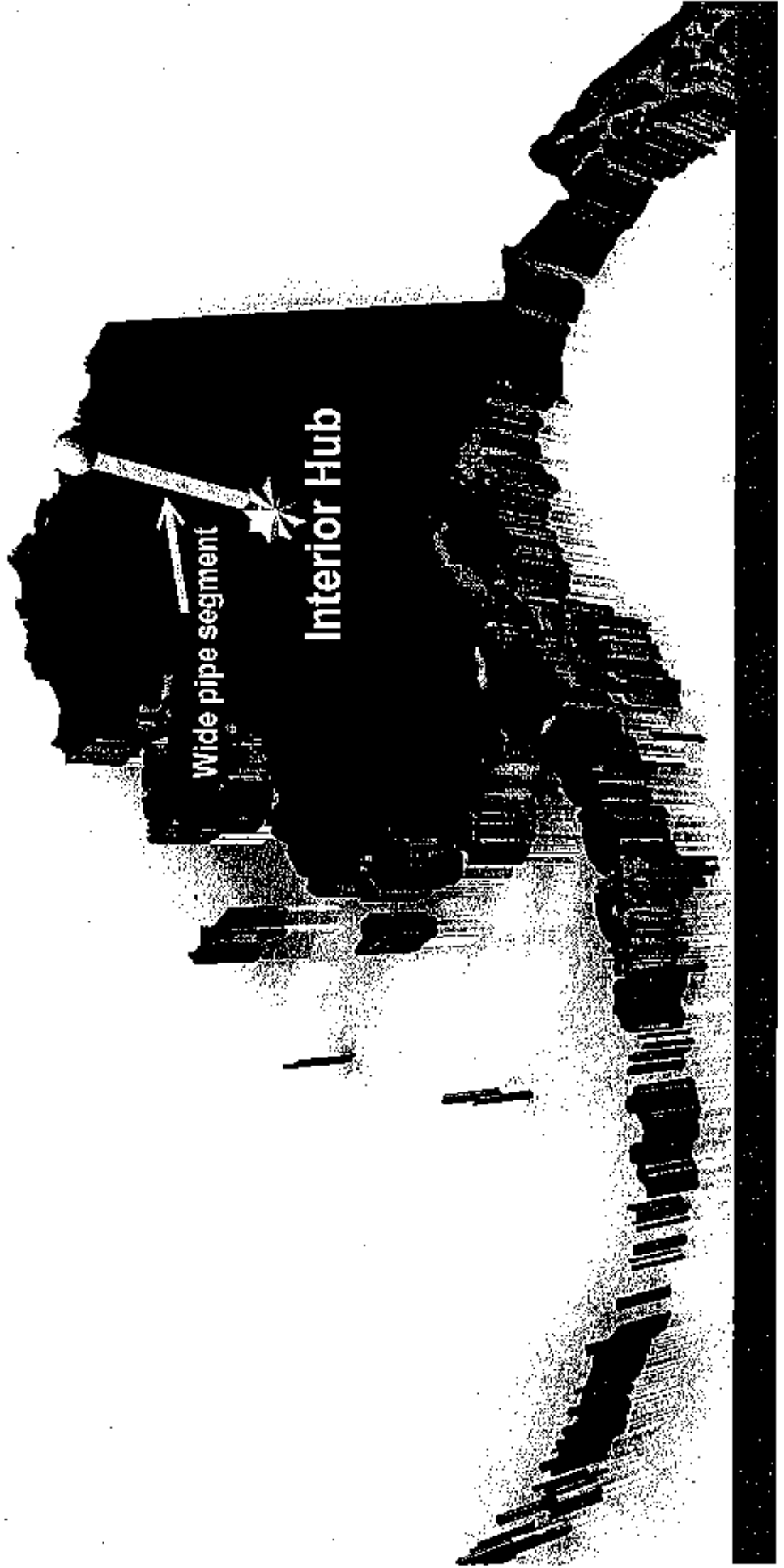
Alaska is headed towards long-term fiscal decay

- **Non-oil and gas based economy is insufficient to sustain government**
- **Get Alaskan's gas to Alaskans in 6-8 years while maximizing the potential for export volumes**
- **Capable of delivering lower cost economies-of-scale energy to Alaskans, while providing resources to sustain government and to fill Permanent Fund**

Context

- The business of Big Oil
- Requirements for a Fill-It Then Build-It pipeline
- Only path to low cost energy for Alaskans is to piggyback onto an efficient export project
- SOA doesn't need tariffs
- Risks of doing nothing versus risks of doing something
- Marginal costs versus marginal returns

Build It & Then Fill It Model Changes Everything



How Do We Do It? Step One.

- Administration renegotiates AGIA license with TC for Alaska to co-sponsor an export capacity gasoline from the North Slope to an Interior Hub.
- Building to a logistical sweet spot capable of linking to In-State utilities concurrently, and export & value-added market opportunities as they develop. (Plug and Play)
- Because AK makes its gross margin on selling the resource, it can justify a build-then fill approach. It cannot afford not to.

Step Two.

- SOA announces that it is co-sponsoring the “Export Pre-Build” segment to Fairbanks area, bringing project to investment grade status
- What does Investment Grade mean?

Step Three.

- Sponsoring group invites the private sector to participate by investing in & acquiring rights to initial and future capacity
- With SOA keeping only those speculative tariff rights private sector cannot absorb.
- For example, later stage capacity utilization generated tariffs.
- SOA will not design, build, maintain or operate the pipeline; that will be left to private sector participants.
- SOA will only do the LEAST necessary to INSURE the export pre-build is built.

Plan of Finance (Condominium-Like Financial Engineering)

- Start-Up
- Early Stage Incubation Risk
- Intermediate Stage Incubation Risk
- Late Stage Incubation Risk



Step Four

- **Once sponsoring group is established for an investment grade export pre-build segment, we will have opportunity for an open season bidders can take seriously.**
- **Once purchasers know they can get gas, they can begin to put bona fide bids together. Railbelt & other utilities can with certainty make gas purchase commitments**

Step Five.

- **Consistent with the Build and Then Fill Model, SOA negotiates with Hawaii enough tariff discounts as investments in Hawaii's new gas infrastructure to make North Slope Gas their economical fuel of the future.**

Step Six.

- It is then Open Season on a continuous increase in capacity utilization

What Do We Get For Our Marginal Cost of \$3-6 Billion?

- a. We avoid saddling Alaskans with high energy costs for possibly decades.**
- b. We avoid putting an export project at materially greater risk in terms of time and money by moving from a highly inefficient logistical footprint to a highly efficient one.**
- c. We get gas to Alaskans in as little as six to eight years.**
- d. We put our future and destiny on our timeframe.**

What Do We Get For Our Marginal Cost of \$3-6 Billion?

- e. By announcing to the energy community that we are prepared now to build, and we invite them to participate, we force them to act, for fear of being left behind.
- f. We greatly invigorate the potential for adding volumes to not only the gas pipeline, but the oil pipeline as well.

What Do We Get For Our Marginal Cost of \$3-6 Billion?

- g. We position many parts of rural Alaska to benefit with reliable access to lower cost energy over time because of the economies-of-scale generated.**
- h. We create the opportunity to approach Hawaii about Alaska being a long-term significant solution to their energy needs with a project that could actually happen. Unfettered with any export limitations.**
- i. Upon the announcement of an investment grade project, we will jump-start the Alaskan economy and generate decades of improved prosperity for almost all Alaskans.**

What Do We Get For Our Marginal Cost of \$3-6 Billion?

- j. We avoid, to a considerable degree, exposing the SOA to long-term fiscal decay, and hopefully put off pressures to use Permanent Fund to help pay for state government.**
- k. If we have buyers and a pipeline, producers will have no choice but to supply our gas.**

Closing Comments

- **Tariff pricing becomes a public policy issue regarding assistance**
- **Marginal cost is only between \$3-6 billion**
- **It is the cheapest insurance we could ever buy in order to insure prosperity versus economic calamity**
- **We will be importing LNG for 6-8 years plus the time it takes to an investment grade decision**