

August 17, 2011

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 2<sup>nd</sup> 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!

Permanent Fund Value Forecast as of 02-21-11

Permanent Fund Return Forecast

Assumptions		PF Allocation	PF Allocation %	After Fee Expected Ret.	Performance 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%	\$8,225,600,000	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	\$39,650,300,000 **	\$1,037,200,000	2.6%	5.0%	0.1%
Budget Reserve	\$9,500,000,000 **	\$3,528,500,000	8.9%	6.5%	0.6%
		Cash	3.7%	1.5%	0.1%
		Alternatives	11.9%	6.0%	0.7%
		Real Ret. External	7.6%	4.5%	0.3%
		Total	100.0%		7.1%

Long Range Fiscal Forecast

Year	State of Alaska		State Portion		Dividend%		Price per Barrel	
	Combined Accounts Savings	Net Fee Return Perm. Fund	State Oil Rev + Growth(Pop+Inf)	Surplus Bud. To P. Fund	Of PF Earnings After Inflation	Perm. Fund Inf. Proofing		
1	49,150,300,000	3,477,460,301	6,000,000,000	500,000,000	562,175,700	1,228,757,500	\$91.00	
2	49,088,124,300	3,473,061,273	\$6,060,000,000	\$6,692,500,000	561,464,541	1,227,203,107	\$95.55	
3	48,894,159,758	3,459,337,980	\$6,120,600,000	\$5,891,737,500	559,245,996	1,222,353,994	\$100.33	
4	48,563,776,262	3,435,962,833	\$6,181,806,000	\$6,097,948,313	555,467,107	1,214,094,407	\$105.34	
5	48,092,166,843	3,402,595,732	\$6,243,624,060	\$6,311,376,503	550,072,890	1,202,304,171	\$110.61	
6	47,474,341,509	3,358,883,627	\$6,306,060,301	\$6,532,274,681	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	534,208,011	1,167,628,021	\$121.95	
8	45,779,129,454	3,238,944,733	\$6,432,812,113	\$6,997,535,945	523,616,624	1,144,478,236	\$128.05	
9	44,690,788,997	3,161,942,950	\$6,497,140,234	\$7,242,449,703	511,168,306	1,117,269,725	\$134.45	
10	43,434,311,222	3,073,045,189	\$6,562,111,636	\$7,495,935,443	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	480,433,571	1,050,092,264	\$148.23	
12	40,392,696,560	2,857,846,213	\$6,694,010,080	\$8,029,833,445	462,007,200	1,009,817,414	\$155.64	
13	38,594,865,996	2,730,646,900	\$6,760,960,181	\$8,310,877,615	441,443,812	964,871,650	\$163.42	
14	36,603,494,749	2,588,754,282	\$6,828,559,683	\$8,601,758,332	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	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	366,150,386	800,301,459	\$189.18	
17	29,397,303,140	2,079,904,998	\$7,035,471,870	\$9,536,923,219	336,243,105	734,932,578	\$198.64	
18	26,559,608,685	1,879,133,694	\$7,105,826,588	\$9,870,715,532	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	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	230,850,254	504,573,536	\$229.95	
21	16,626,987,649	1,176,385,281	\$7,321,140,240	\$10,943,838,749	190,177,647	415,674,691	\$241.45	
22	12,814,111,492	906,618,352	\$7,394,351,642	\$11,326,873,105	146,566,391	320,352,787	\$253.52	
23	8,735,023,637	618,016,531	\$7,468,295,159	\$11,723,313,664	99,910,235	218,375,591	\$266.20	
24	4,380,094,897	309,898,538	\$7,542,978,110	\$12,133,629,642	50,099,041	109,502,372	\$279.51	
25	(260,655,677)	(18,441,795)	\$7,618,407,891	\$12,558,306,680	(2,981,351)	(6,516,392)	\$293.48	

Combined Balance of the Permanent Fund and the Budget Reserve Accounts as of 02-21-11



(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

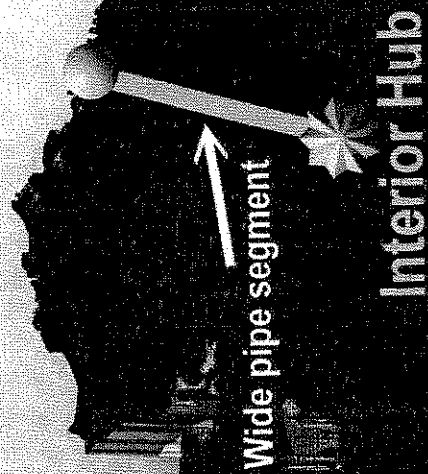
Draft Scenario Outputs

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

# Build It & Then Fill It Model Changes Everything

Wide pipe segment

Interior Hub





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

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- 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?

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- 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.
- g. The Oil & Gas Commission, for the first time will be empowered to maximize their mandate by maximizing the trade-off of oil and gas values, unconstrained by capacity limitations.



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

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- i. **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.**
- ii. **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.**
- j. **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?

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- 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.