SB

241

HFIN

FILE

HOUSE COMMITTEE REPORT

(11)
Date Referred to Committee: March 18, 2004

FURTHER REFERRALS:

Date of Committee Action: 3-23-04

The FINANCE Committee considered:

CSHB 241(FIN)

CS FOR SENATE BILL NO. 241(FIN)

APPROP: NORTH SLOPE NATURAL GAS

"An Act making an appropriation to the Department of Revenue for work related to bringing North Slope natural gas to market; and providing for an effective date."

Recommends it be replaced with [ ] HCS *or* [✓] CS for SB 241 (FIN)
For Senate Bills with new title: [ ] Technical Title [ ] New Title: HCR________ [ ] Same Title [ ] New Title

[ ] attach amendments
[ ] add new referral to ____________ Committee
[ ] Letter of Intent ____________ Committee

List of Abbrev for Depts.:
ADM
CED
COR
CRT
EED
DEC
DFG
GOV
HSS
LEG
LAW
LWF
MVA
DNR
DPS
REV
DOT
UA

NEW **FISCAL NOTES**
*Assigned by Chief Clerk's Office

List by Dept(s):	*FN#	Fiscal	Indet.	Zero

PREVIOUS **FISCAL NOTES**

List by Dept(s):	FN#	Fiscal	Indet.	Zero

Signing with recommendations	Printed Last Name	DP	DNP	NR	AM
[signature]	Meyer	✓			
[signature]	Hawker	✓			
[signature]	STOLTZE	✓			
[signature]	Joule	✓			
[signature]	CROFT				✓
[signature]	MOSES			✓	
[signature]	Chenault	✓			
[signature]	Fate	✓			
[signature]	FOSTER	X			
Chair: [signature]	HARRIS	✓			
Chair: [signature]	Williams	X			

3-23-04

23-LS1279\I.1
Utermohle
3/22/04

Failed 3-8

AMENDMENT 1

OFFERED IN THE HOUSE

BY REPRESENTATIVE CROFT

TO: CSSB 241(FIN)

Page 1, lines 4 - 6:

Delete "The sum of $1,000,000 is appropriated from the general fund to the Department of Revenue, for work related to bringing natural gas from the North Slope to market."

Insert "The sum of $3,000,000 is appropriated from the general fund to the Department of Revenue, for work related to bringing natural gas from the North Slope to market to be allocated to the following recipients in the amounts set out:

RECIPIENT	ALLOCATION
Alaska Natural Gas Development Authority	$1,500,000
Department of Revenue	1,500,000"

Page 1, line 7:

Delete "2005"

Insert "2007"

Adjust the funding information accordingly.

23-LS1279\I.2
Utermohle
3/23/04

Failed 4-7

AMENDMENT 2

OFFERED IN THE HOUSE BY REPRESENTATIVE CROFT

TO: CSSB 241(FIN)

Page 1, line 6, following "market":

Insert "to be allocated to the following recipients in the amounts set out:

RECIPIENT	ALLOCATION
Alaska Natural Gas Development Authority	$500,000
Department of Revenue	500,000"

THE
FOLLOWING
DOCUMENT(S)
ARE
POOR
ORIGINAL
COPIES

SB 241 Related ANGDA Actions & Funding

Revised ANGDA Base Case and Cost-of-Service Projections

Based on recently released information the base cost estimate for ANGDA's LNG project was reduced from $12B to $10.5B. With this lower investment the cost of service for the LNG project is within 20 cents of the producer's highway line base case when calculated using the same financial structures. Spur line cases deliver gas to Cook Inlet for $1.00 to $1.25. All of these financial evaluations continue to reinforce ANGDA as a positive and competitive contributor in marketing North Slope gas with maximum benefits to Alaskans.

Action at the ANGDA February 9 Meeting

ANGDA supports a supplemental funding request within SB 241 for an amount of 3 million dollars to be administered by the Department of Revenue. A vote followed and the motion passed unanimously.

Action at the ANGDA March 17 Meeting

SB 241 had been amended to supplementary fund $1 million for the remainder of FY 04 only and FY 05 is to be dealt with in the normal FY05 considerations. ANGDA Board took no formal action.

ANGDA FY2005 Operating Amendment

The Department of Revenue has submitted an amendment to the FY2005 Operating Budget of $106 k GF for the Alaska Natural Gas Development Authority (ANGDA) to OMB. This amendment will formally be transmitted to the legislature. The FY2005 operating budget would be $256 k. This funding is sufficient to continue the small ANGDA staff and Board meetings.

ANGDA Contract Summary

The attachment shows the status of our existing 6 contracts and defines the additional 8 contracts we would like to issue as soon as funding is available.

Prepared by Heinze on 3/22/04

	ALASKA NATURAL GAS DEVELOPMENT AUTHORITY					3/21/2004 Heinze Revision
	CONTRACTING SUMMARY					
Contract	Description of Service	Performance Dates	Original Amount	Spent to Date	Balance Due	Comments
Richard Odsather	Report on Feasibility issues	08/05/03 to 08/25/2003	1,000	1,000	0	completed
Richard Odsather	Engineering Consultant	08/01/03 to0 6/30/04	25,000	6,300	0	amended
Timothy Bridgman	Plan Engineering Studies	8/01/03 to 06/30/04	25,000	6,300	0	amended
Northern Economics	In State Benefit Analysis	01/15/2004 to 04/15/2004	50,000	37,500	12,500	ongoing
Wood MacKenzie	Market Analysis	Annual Subscriptrion Cost	25,000	25,000	0	completed
Agreement w/Law	Tax Status	01/04 to 6/30/04	30,000	30,000	0	Law paid - no bills
Year to Date Totals			156,000	106,100	12,500	
		Amended Contracts =	118,600			
Identified Additional Contracting						
Potential Contractor			**Estimate**			
Goldman Sachs	Financial Structures		150,000			
	Spur Line Cost Estimate		25,000			
	Yukon Pacific Permit Review		25,000			
Shaw Group	LNG Plant Concept		50,000			
	Tanker & Barge Concepts		50,000			
Northern Economics	Benefit Analysis Sensitivities		50,000			
Wood MacKenzie	Market Price Relationships		50,000			
	Funding Alternatives		100,000			
Total Additional Contracting Identified At This Time =			500,000			

ANGDA --- Identified Additional Contracts

Financial Structures

This $150 k contract with Goldman Sachs would compare several different business structures and several different financing arrangements to determine an optimum lowest cost-of-service ANGDA organization design. Considerations will include project elements, business lines, business relationships, regulatory status, tax-free status, debt/equity ratio, tax-exempt bonding, sources of funding, debt structure, and interest rates. Results of this work are essential to understanding the magnitude of ANGDA's potential contribution to bringing North Slope gas to market and assuring maximum benefits for Alaska.

Spur Line Cost Estimate

There is no publicly available work providing a conceptual design, alignment, or cost estimate for a spur line for the Glennallen to Cook Inlet gas connection. The spur line is an essential piece of ANGDA's objectives related to providing gas to Alaskans. The cost of this segment is key to defining the potential pricing advantage to residential, commercial, and industrial gas users in the Mat-Su, Anchorage, and Kenai area. One Alaskan pipeline engineering contractor, Michael Baker, has indicated an ability to perform the work for under $25 k.

Yukon Pacific Permit Review

One of the major positive factors for the LNG project and ANGDA has been Yukon Pacific's offer to sell the broad array of permissions, permits, certificates, and approvals they have obtained over a decade long period. This $25 k initial contract with an environmental / permitting strategy contractor would provide the expert advise as to which YPC items are of most value to ANGDA. The contractor would review the available YPC catalog and assess the importance and alternatives of the thousands of items to ANGDA. This information will provide an initial definition of the LNG's project environmental and permit status. Several consulting firms in Alaska are qualified to and have expressed interest in this work effort.

LNG Plant Concept

This $50 k study would provide a conceptual review of the significant decline in liquefaction plant costs being reported in the latest round of construction and design, and assess whether any of these improvements are reasonable cost reduction targets in ANGDA's future work. Additionally, the potential of barge fabrication (increased Alaska hire) would be assessed based on previous evaluations or designs. Recent BP data indicates reductions of over 50% may be possible in this multi-billion dollar facility. The Shaw Group's Stone & Webster Management Consultants in Houston performs advisory work for many project sponsors and financial institutions on a worldwide basis.

Tanker & Barge Concepts

Once gas is at tidewater (or river water) there are several ideas (compressed natural gas, LNG, etc) on how to make that clean fuel available to most Alaskan communities on the water. There is little work that has been done in defining designs and costs of barges or ship modifications that would provide the key link over water. This study would develop and compare over water delivery concepts designed for volumes and distances we would expect along Alaska's coast. Impact of Jones Act and other regulatory requirements would be assessed. The cost of $50 k is estimated pending identification of a suitable small creative marine engineering firm.

Benefit Analysis Sensitivities

Northern Economics has delivered a Beta version of the Benefit Analysis Spreadsheet Model and its testing will proceed mid-April. At that time this contract would provide for a determination of which project related parameters had the larger effects on State Revenues, the Alaskan economy, jobs, and personal disposable income. Further definition of the economic and project linkages will improve the assessment of project benefits and allow more meaningful comparisons. The estimate of $50 k for this work will be adjusted based on actual modeling experience and public interest.

Market Price Relationships

This future contract with Wood MacKenzie for $50 k would utilize their extensive gas pipeline and LNG project data base to compare the ANGDA project feasibility to selected competitive projects. This overview assessment would include Shell's Sahkalin LNG project, Mackenzie Delta development & gasline, and other LNG projects supplying the West Coast. Comparisons of cost, project structure (including government involvement), and financing would be analyzed. General projections of profitability and vulnerabilities in several different gas price regimes would complete the comparative overview.

Funding Alternatives

This $100 k study would identify the most favorable next step funding approach for ANGDA to proceed under and the contractor would provide a detailed plan for Board approval.

By Heinze 3/21/04

Alaska Natural Gas Development Authority
FY 2004 Schedule of Expenditures, Commitments Revenues

revised 03/02/04	Projected[1] and Actual Expenditures					Actual Revenues	
	Personal Services	Travel	Contractual	Admin	Total	Received	Balance
General Fund Authorization						150,000.00	150,000.00
A. Warwick/ANGDA/Anch 7/7/03		487.00			487.00		149,513.00
H. Heinze's annual salary	100,000.00				100,000.00		49,513.00
A. Warwick/ANGDA/Anch 7/28/03		257.50			257.50		49,255.50
C. Bamburg part time annual salary	25,000.00				25,000.00		24,255.50
Supplies/space lease/postage				4,465.00	4,465.00		19,790.50
Odsather contract for feasibility issues			1,000.00		1,000.00		18,790.50
H. Heinze/Los Angeles/Sempra & Misubishi 8/19		1,101.21			1,101.21		17,689.29
D. Cuddy/Los Angeles/Sempra & Mitsubishi 8/19		242.68			242.68		17,446.61
Petroleum News Subscription				52.00	52.00		17,394.61
Printers Workshop-business cards				1,251.00	1,251.00		16,143.61
Printers Workshop-cards/letter head				450.00	450.00		15,693.61
Comp USA-CD Drives(2)				282.00	282.00		15,411.61
A. Warwick/ANGDA and Governor/Anch 9/19		434.50			434.50		14,977.11
A. Warwick/ANGDA/Anch 10/20/03		408.74			408.74		14,568.37
A. Warwick/ANGDA/Anch 9/22/03		386.24			386.24		14,182.13
Reimburse H.Heinze for Hosting/Supplies		519.75		318.31	838.06		13,344.07
H. Heinze/DC/US Energy Association 12/15/03		2,170.00			2,170.00		11,174.07
Steve Porter/Anch/ANGDA board meetings		4,128.17			4,128.17		7,045.90
Federal Aid Funds received						200,000.00	207,045.90
Tim Bridgman work on conceptual proposal prep.			6,300.00		6,300.00		200,745.90
Odsather work on draft contract management			6,300.00		6,300.00		194,445.90
Agreement with Department of Law on Tax Opinion			30,000.00		30,000.00		164,445.90
Northern Economics Inc.			50,000.00		50,000.00		114,445.90
Wood McKenzie contract for subscription			25,000.00		25,000.00		89,445.90
Oversea trip - not approved - pending airline tickets		1,634.18			1,634.19		87,811.71
Supplies/postage March through June 04				1,785.00	1,785.00		86,026.71
Meet Alaska 2004 - Harold Heinze		250.00			250.00		85,776.71
Barnes & Noble reference book				64.55	64.55		85,712.16
Projected Travel		0.00			0.00		85,712.16
Petroleum Club 1/22/04		13.00			13.00		85,699.16
Equal Employment Allocation				3.21	3.21		85,695.95
H. Heinze Houston Trip for Gas Summit		1,055.15			1,055.15		84,640.80
H. Heinzw Wash. DC Trip for LNG Ministrerial Summit		1,543.08			1,543.08		83,097.72
A. Warwick ANGDA Board Mtg 11/17/03		426.00			426.00		82,671.72
A. Warwick ANGDA Board Mtg 12/15/03		201.50			201.50		82,470.22
S. Porter 12/15 ANGDA Mtg		384.94			384.94		82,085.28
A. Warwick ANGDA Board Mtg 1/12/04		406.70			406.70		81,678.58
A. Warwick ANGDA Gov. Mtg 1/13/04		401.70			401.70		81,276.88
S. Porter ANGDA Meeting 1/12/04		43.68			43.68		81,233.20
Sullivan trip/JNU- legislative Hearings 1/27/04		1,007.02			1,007.02		80,226.18
US Energy Association		595.00			595.00		79,631.18
World Trade Business Luncheon		150.00			150.00		79,481.18
A. Warwick ANGDA Mtg 2/9/04		255.20			295.20		79,185.98
S. Porter ANGDA Mtg 2/9/04		533.81			533.81		78,652.17
Fed Express to Mitsubishi 1/28/04				34.83	34.83		78,617.34
H. Heinze 1/28 House Finance Meeting/JNU-ticket		565.60			565.60		78,051.74
Scott Heyworth March Trip		1,500.00			1,500.00		76,551.74
Kenai Board Meeting projected cost		1,100.00			1,100.00		75,451.74
H. Hienze March Trip		1,500.00			1,500.00		73,951.74
Total	125,000.00	23,742.36	118,600.00	8,705.90	276,048.26	350,000.00	73,951.74

Revised by Heinze on 3/13/04

STATE OF ALASKA

FRANK H. MURKOWSKI, GOVERNOR

ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

411 WEST 4TH AVENUE
ANCHORAGE, ALASKA 99501
TELEPHONE: (907) 257-1347
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HOUSE FINANCE COMMITTEE

Rep Harris	465 -	3799
Rep Williams		3793
Rep Meyer		3476
Rep Chenault		2833
Rep Fate		3883
Rep Foster		3242
Rep Hawker		4979
Rep Stoltze		4928
Rep Croft		4998
Rep Joule		4586
Rep Moses		3445

Copies To:

Sen Therriault	3884
Steve Porter	2389

Attached is Info for CSSB 241 1:30 pm Tues 3/23

SB 241 (Sponsor is Sen Therriault)
ANGDA supplementary funding request ($2.15 million)

(Heinze on 2/16/04)

Covers major work areas related to:

- business structure for the lowest cost-of-service
- ir `grated analysis of the benefits to Alaska and Alaskans
- vei. `ation of key project design, cost, and schedule elements

Addresses all eleven elements listed in Ballot Measure 3 that must be included in the development plan

Interactions with State's consideration of Stranded Gas applications:

- Help with the work (ie, benefits analysis, spur line)
- Provide a lower cost-of-service business alternative that help gas marketability
- Augment sponsors ability to provide gas and benefits to Alaskans
- Provides an alternative project for comparison (fall-back)

ANGDA is working with the Administration team to define and contract for most important ANGDA and Stranded Gas work efforts. Total funding requirement seems consistent with several alternative work emphasis scenarios. Timeline may slip depending on involvement with SGA applicants.

Resolution of the ANGDA Board passed unanimously on Feb 9, 2004 in support of the Administration's proposal to combine efforts of State resources working on North Slope gas issues.

> "The Board of the Alaska Natural Gas Development Authority supports the appropriation of $3,000,000. in the remainder of FY 04 to the Department of Revenue for work related to bringing North Slope gas to market."

3-23-04

North America's Source for Oil and Gas News
March 2004

Vol. 9, No. 11 Week of Mar

BP Canada exec says Alaska gas line filing unlikely before 2007

Gary Park

Petroleum News Calgary correspondent

North Slope gas owners must move a mountain of economic and political obstacles before they can file regulatory applications, an Arctic Gas Symposium was told in Calgary March 8.

An application is likely at least three years away because of the engineering and environmental studies that have yet to be completed and the challenge of developing a plan that is commercially viable, said Ken MacDonald, vice president with BP Canada Energy's Alaska-Canada pipeline group.

In suggesting that 2007 is the earliest date for a filing, he cautioned: "That's just a guesstimate."

But because "risks still outweigh rewards ... we don't have a (commercially viable) project yet," MacDonald said.

"We're waiting on energy legislation in the U.S. (where the passage of an energy bill has been stalled), fiscal certainty (in Alaska) and then the producers have to come together and decide what structure to move forward, assuming everything is in place," he said.

At that point the proponents have to complete engineering and environmental studies to prepare an application.

Allowing for all those matters "it would take us, probably, until 2007 to file an application," MacDonald said.

Against that background, he conceded the Mackenzie Valley pipeline proposal "has at least a three-year advantage on us."

ExxonMobil: Alaska Pipeline Unlikely Until Next Decade

Dow Jones

Wednesday, March 10, 2004 03:21 PM ET

Printer-friendly version

HOUSTON (Dow Jones)--A pipeline to bring Alaska natural gas to the rest of the U.S. remains appealing, but the project is unlikely to become a reality until early in the next decade, ExxonMobil (XOM, news) executives said Wednesday.

"Our view is that Alaska gas will be put into this marketplace," ExxonMobil president Rex Tillerson said in response to a question at an analyst presentation in New York. "It's probably slightly beyond the end of this decade."

ExxonMobil chief executive Lee Raymond suggested the timeframe could be even longer. "This is a multi-, multi-year project," Raymond said. "By the time you get the project defined, the permits signed and you actually build it, that's several years."

Although oil companies have produced oil from Alaska for decades, the industry hasn't tapped copious natural gas reserves because there is no market readily available. The leading proposal for a long-discussed pipeline to the lower-48 states costs as much as $20 billion. The pipeline is seen as more likely now because the mature North American producing region is running out of cheap, easily produced natural gas.

Tillerson said ExxonMobil is talking over fiscal issues with the state of Alaska. The U.S. oil giant is also hoping Congress approves long-stalled energy legislation that would streamline the permitting process to prevent lengthy regulatory delays. This measure is "the only element of the energy bill we're really interested in," he said.

Tillerson said the pipeline will be built if the economics improve.

Article Published: Wednesday, March 10, 2004

Meyers warns against early pipeline hopes

By DAN RICE, Staff Writer

ConocoPhillips Alaska President Kevin Meyers seems an unlikely source for the message that it might be premature to get excited about the possibility of a pipeline being built soon to transport North Slope gas to the Lower 48.

Meyers, who was in town Tuesday and spoke at a Greater Fairbanks Chamber of Commerce lunch, highlighted a series of possible complications and risks in a gas line project.

Doing the project right, he said, could take a while.

"I appreciate the desire to make it happen, but at the same time, set realistic goals for the time involved, the hurdles we have to clear," said Meyers, whose company is part of a consortium of three major oil producers that recently applied to the state to build a gas line.

Building a pipeline that extends from the North Slope all the way to the Midwest presents plenty of risks for a potential builder, Meyers said, including whether Lower 48 gas prices will provide enough of a profit to justify the project.

Tariffs alone, he said, could total some $10 million a day, or almost $120 a second.

"Anyone want to guess what the price of gas will be in the Lower 48 and bet $120 a second on it?" Meyers asked.

ConocoPhillips, along with BP Exploration (Alaska) and Exxon Mobil, have applied to the state to build a gas line under the Stranded Gas Development Act. MidAmerican Energy Holdings Co. and the Alaska Gasline Port Authority also

OTHER ARTICLES IN THIS SECTION
3/10/2004
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- Committee backs climate change research
- Iditarod lead shuffles
- Businessman signs salmon deal with Korean conglomerate
- Meetings called for refuge contracts
- Police Report
- Murkowski OKs oil sales to Flint Hills
- Park Service considers adopting Kodiak museum
- Report on rapes in Air Force sparks changes
- School funding outlook looks up

have applied. - City to get tough on ugly lots

Another hurdle in a gas line project is the time it will take for the project to clear the environmental impact statement process, Meyers said. ConocoPhillips' recent plans to add five new wells in the Alpine oil field will probably be in the EIS stage for 18 months to two years.

"That's just five little wells. Can you imagine what the EIS process would be like on a gas line?" he said.

Despite the risks and hurdles, Meyers said he thinks a gas line will be built. The time to get excited about it, though, is closer to when the first EIS comes out, he said.

Meyers had similar comments about the possibility of oil development solving the state's budget gap.

"Can we develop our way out of this? I think the answer is maybe," he said. "But it's going to take time."

The fiscal solution, however, is not to raise taxes on the oil companies as some have suggested, Meyers said. The industry already contributes about 87 percent of the state's general fund revenue, he said, and higher taxes would only discourage companies from pursuing new projects in the state.

"How many people in this room feel that there's too much oil and gas exploration going on right now?" Meyers asked the crowd at the chamber lunch. "Greenpeace doesn't get to answer. I don't think there's too many Greenpeacers in this crowd."

Reporter Dan Rice can be reached at drice@newsminer.com or 459-7503.

Re: SB 241

Projected Gas Budget for FY '04 and "05

	FY '04	FY '05	Total
Negotiate Producer's Contract	$ 850,000	$ 1,750,000	$ 2,600,000
Less Reimbursement	$ 850,000	$ 650,000	$ 1,500,000
		$ 1,100,000	$ 1,100,000
Negotiate MidAmerican Contract	$ 450,000		$ 450,000
ANGDA Work	$ 250,000	$ 200,000	$ 450,000
Negotiate Port Authority Contract		$ 700,000	$ 700,000
Comparative Analysis/Energy Bill Other Proposals/Issues	$ 300,000	$ 700,000	$ 1,000,000
Total			$ 3,700,000

Provided by Steve Porter, Dept of Revenue

What is ANGDA's contribution(s)
that make it worthy of $2.15 million of public money"

Benefits to Alaska

- Make sure that Alaskan's receive the direct and indirect benefits of Alaskan gas
- Benefit analysis model integrates analysis in a new and broader view

Business Structure

- Reduce transportation cost of gas by:
  - avoidance of income tax and
  - lower financing costs through tax-exempt bonding,

  thereby improving North Slope gas (public resource) marketability and well head values

Alaskan LNG Project

- Complete feasibility study of LNG export project from Valdez (with a spur line from Glennallen to the Cook Inlet area) demonstrating that it is economic (can be financed) and competitive in the Pacific Rim LNG market

What is ANGDA's biggest challenge(s) ?

Timely funding !!

- By the time the fast track supplemental funding passes there will be barely 4 month left before the statutory deadline
- Quality information is needed in the feasibility study to support the multi-billion dollar decision to proceed or to stop
- The LNG market is very dynamic, moving rapidly, and we can not compete until the Alaska government and people want to move forward

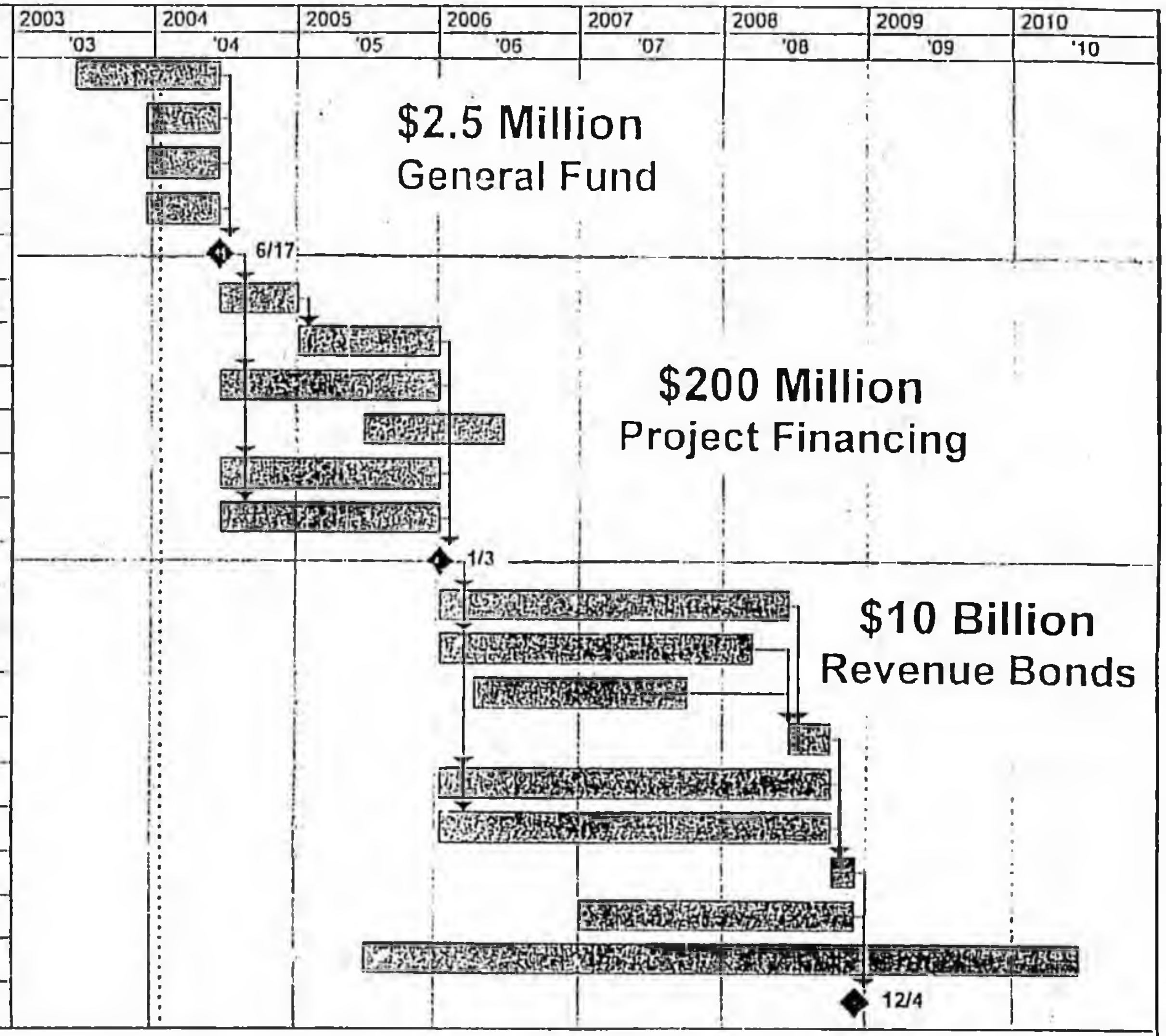
provided by Sen. Therriault

Alaska Natural Gas Development Authority FY 04 Funding Plan

		Current		Added	FY 04	FY 04
		Spent	Pending	In FY 04	Total	Sub-Total
ANGDA						275
	Personal Services (Staff)	126		29	155	
	Staff Travel	4	5	11	20	
	Board Travel	7	4	14	25	
	Office & Supply	6		19	25	
	Report & Communication			50	50	
Business Contractors						650
	Benefit Analysis	50		100	150	
	Tax Advice	25		125	150	
	Market Insight	25		75	100	
	Financing		50	100	150	
	Project Economics			100	100	
Project Contractors						1,575
	Contractor Co-ordination	15		120	135	
	Spur Line Cost		20		20	
	Permit Review		13	37	50	
	LNG Plant Concepts			100	100	
	Engineering Design			750	750	
	Cost & Schedule			500	500	
	Downstream Concepts			20	20	
TOTAL		258	92	2,150	2,500	

ANGDA All-American LNG Project Conceptual Schedule

ID	Task Name
1	Project Feasibility Study
2	ANGDA Business Plan
3	Evaluate Project Benefits
4	Next Phase Funding Plan
5	FEASIBILITY DECISION
6	Open Season Commitments
7	Negotiate Gas Contracts
8	Preliminary Engineering
9	Order Pipe & Major Equipment
10	Arrange Project Financing
11	Regulatory Review (EIS)
12	FINAL "BUILD IT" DECISION
13	Gas Conditioning Plant
14	Compressor Stations
15	Pipeline Construction
16	Startup Gas to Valdez
17	Liquefaction Plant
18	LNG Storage
19	Startup Liquefaction
20	Buy & Reflag LNG Tankers
21	Build Jones Act Tankers
22	FIRST LNG CARGO SAILS



H Heinze ANGDA 1/15/04

Alaska Natural Gas Development Authority — Alternate FY 04 Funding Strategies

	Spent	Added	Base Case FY 04		Alternative Priority Strategies: Partner FY 04		Alternative Priority Strategies: Defer Report FY 04	
ANGDA				275		375		225
Personal Services (Staff)	126	29	155		180		155	
Staff Travel	9	11	20		45		20	
Board Travel	11	14	25		50		25	
Office & Supply	6	19	25		50		25	
Report & Communication		50	50		50		0	
Business Contractors				650		1,200		900
Benefit Analysis	50	100	150		250		200	
Tax Advice	25	125	150		250		150	
Market Insight	25	75	100		250		150	
Financing	50	100	150		250		250	
Project Economics		100	100		200		150	
Project Contractors				1,575		925		1,105
Contractor Co-ordination	15	120	135		185		135	
Spur Line Cost	20		20		50		30	
Permit Review	13	37	50		50		50	
LNG Plant Concepts		100	100		100		100	
Engineering Design		750	750		250		500	
Cost & Schedule		500	500		250		250	
Downstream Concepts		20	20		40		40	
TOTAL	**350**	**2,150**	**2,500**		**2500**		**2230**	

Provided by ANGDA

Required Elements in the Development Plan

Alaska Natural Gas Development Authority

Ballot Measure 3 stated that

The development plan must include:

1. Estimates of Construction Costs and Timelines
2. G[illegible] ocurement Prices
3. Use of the State's Royalty Gas
4. Estimates of Revenue to the General Fund and the Alaska Permanent Fund
5. A Revenue Sharing Plan with Municipal Governments
6. A Plan for the Delivery and Pricing of Natural Gas to Communities Along the Pipeline Route and to South-Central Alaska through a spur line
7. A Plan for Delivery and Pricing of Natural Gas to Yukon River and Coastal Communities
8. A Payment Schedules to Companies Providing Permits or Other Valuable Assets
9. A Marketing Plan to Approach Potential Buyers
10. A Plan to Maximize Alaska hire, Including Project Labor Agreements
11. A Plan to Ensure Meeting the Highest Environmental and Safety Standards, Including a Citizen Advisory Council

Provided by ANGDA

ANGDA Funding by Development Plan Elements

Development Plan Element		Contract Reference	
		Contract co-ord	$135
		Spurline cost	$20
1	Cost & Timelines	LNG plant concepts	$100
10	Alaska Hire	Engineering design	$750
		Cost & schedule	$500
		Downstream concepts	$20
2	Gas Procurement Prices	Market insight	$100
9	Marketing Plan	Project economics	$100
3	State's Royalty Gas	Benefit analysis	$150
4	GF & PF Revenue		
5	Municipal Sharing		
6	Gas to Communities		
7	LNG to Communities		
11	Environmental & Safety		
8	Value of Permits	Permit review	$50
	General & Overhead	Staff salary & benefits	$155
		Travel	$45
		Office & supplies	$25
	Communication	Report & communications	$50
	Business Plan	Tax advice	$150
		Financing	$150
	TOTAL		$2,500

Provided by ANGDA

February 12, 2004

Mr. David L. Sokol
Chairman and Chief Executive Officer
MidAmerican Energy Holdings Company
P. O. Box 657
Des Moines, IA 50303-0657

Dear Mr. Sokol:

The Board of Directors of the Alaska Natural Gas Development Authority (ANGDA) and I welcome you and your company to Alaska and your sponsor group interest in bringing North Slope gas to market. As a public corporation of the State, ANGDA's interest is in the timely delivery of Alaska gas to the market in a way that provides the maximum benefits to Alaska and Alaskans.

ANGDA was created by public initiative and directed to pursue a gasline to Valdez, LNG export, and a spur line from Glennallen to the Cook Inlet area. Obviously this project has a number of common aspects to your proposed AlCan highway gas project and we would welcome the opportunity to work with you in a mutually beneficial way.

Additionally, ANGDA has undertaken several work projects (i.e., a "benefits analysis" model) that may be of interest in your project definition and discussions with the State. We also are currently defining our business structure to assure that the leverage of being an Alaskan public agency contributes to the lowest cost-of-service possible in North Slope gas transportation.

In all of these areas we are anxious to contribute to your project's success and would welcome the earliest opportunity to interact directly in Alaska or at your headquarters.

Harold Heinze
CEO, Alaska Natural Gas Development Authority

Copied To: Mr. Robert Sluder, MEHC Alaska Gas Transmission Company, LLC
Mr. Ken Thompson, Pacific Star Energy
Mr. Carl Marrs, CIRI

February 13, 2004

To:

Mr. Joe Marushack	Mr. Ken Konrad	Mr. R. D. Schilhab
Vice President	Sr. Vice President	Vice President
ANS Gas Development	Alaska Gas	ExxonMobil Alaska
ConocoPhillips Alaska	BP Exploration Alaska	Production

Dear Sirs:

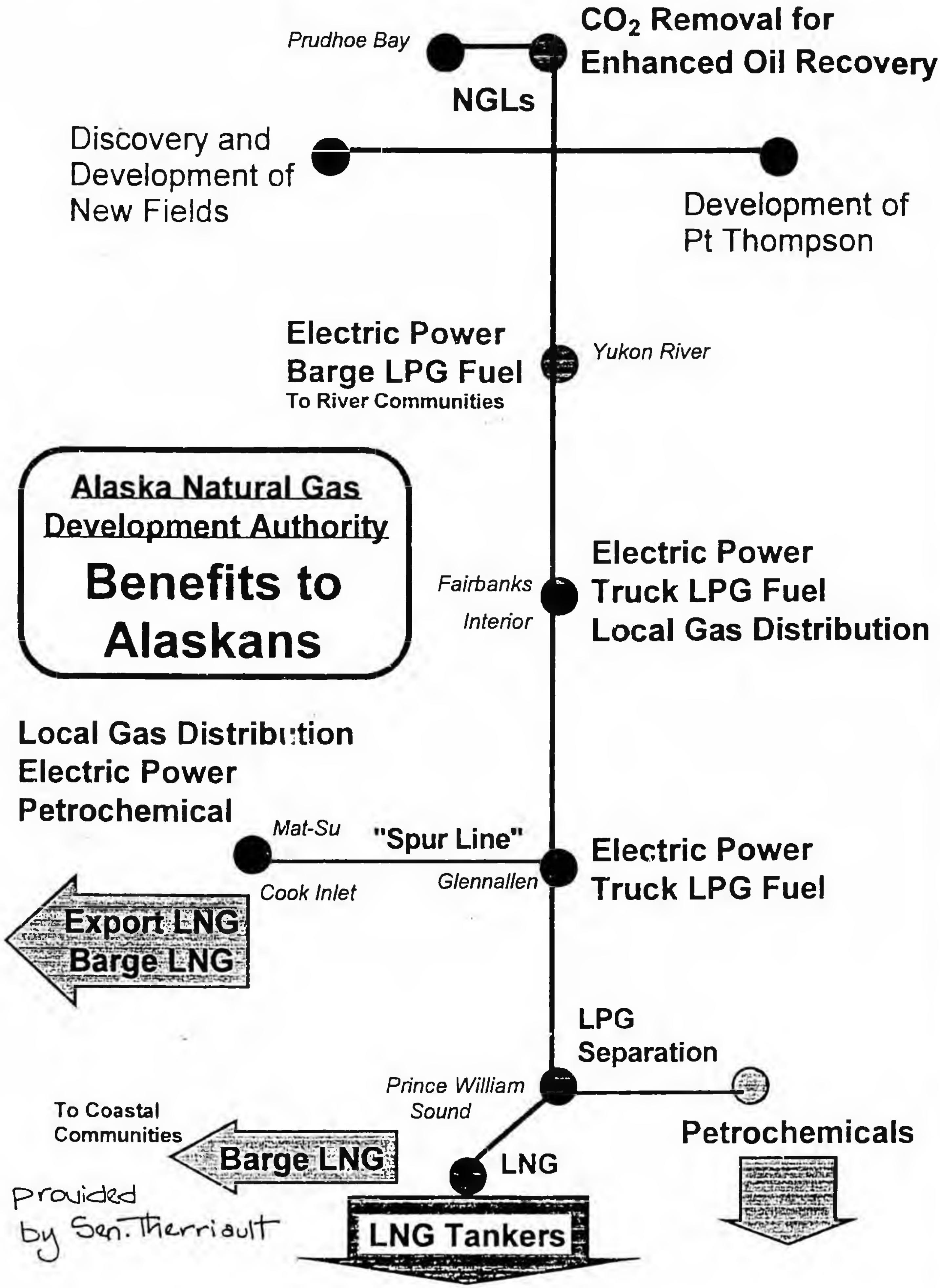
The Board of Directors of the Alaska Natural Gas Development Authority (ANGDA) takes note of your recent application to the State of Alaska under the Stranded Gas Act.

As a public corporation of the State, ANGDA's interest is in the timely delivery of Alaska gas to the market in a way that provides the maximum benefits to Alaska and Alaskans. ANGDA was created by public initiative and directed to pursue a gasline to Valdez, LNG export, and a spur line from Glennallen to the Cook Inlet area. Obviously this project has a number of common aspects to one of your proposed gasline route alternatives following the AlCan highway and we would welcome the opportunity to work with you in a mutually beneficial way. Your Beaufort Sea alternative route might become possible if North Slope gas was available to Alaskans as provided for in our project and we would also welcome the opportunity to discuss your co-operation towards that objective.

Additionally, ANGDA has undertaken several work projects (i.e., a "benefits analysis" model) that may be of interest in your project definition and discussions with the State. We also are currently defining our business structure to assure that the leverage of being an Alaskan public agency contributes to the lowest cost-of-service possible in North Slope gas transportation.

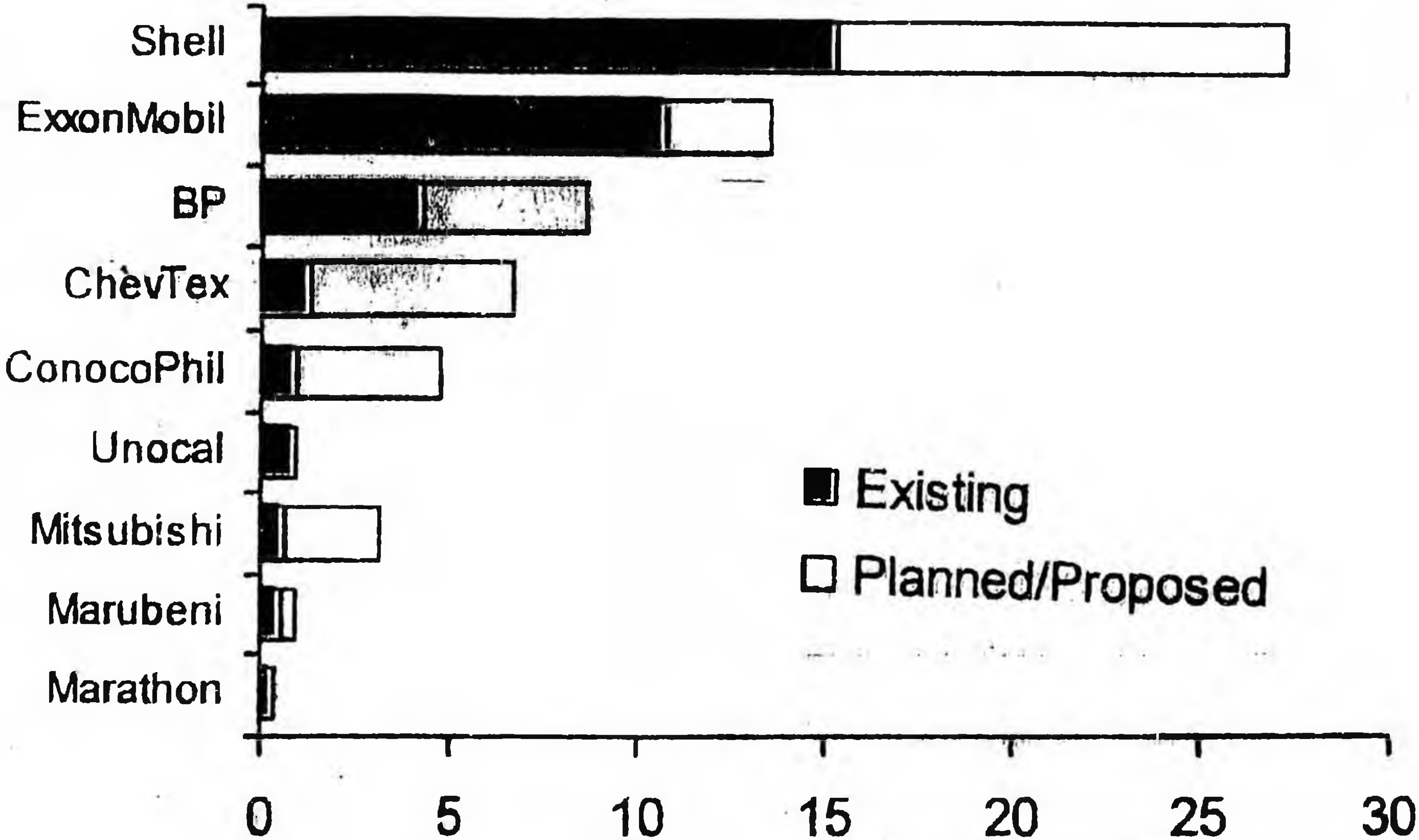
In all of these areas we are anxious to contribute positively towards your determination of an economic project and we would welcome the earliest opportunity to interact directly at a Board level.

Harold Heinze
CEO, Alaska Natural Gas Development Authority



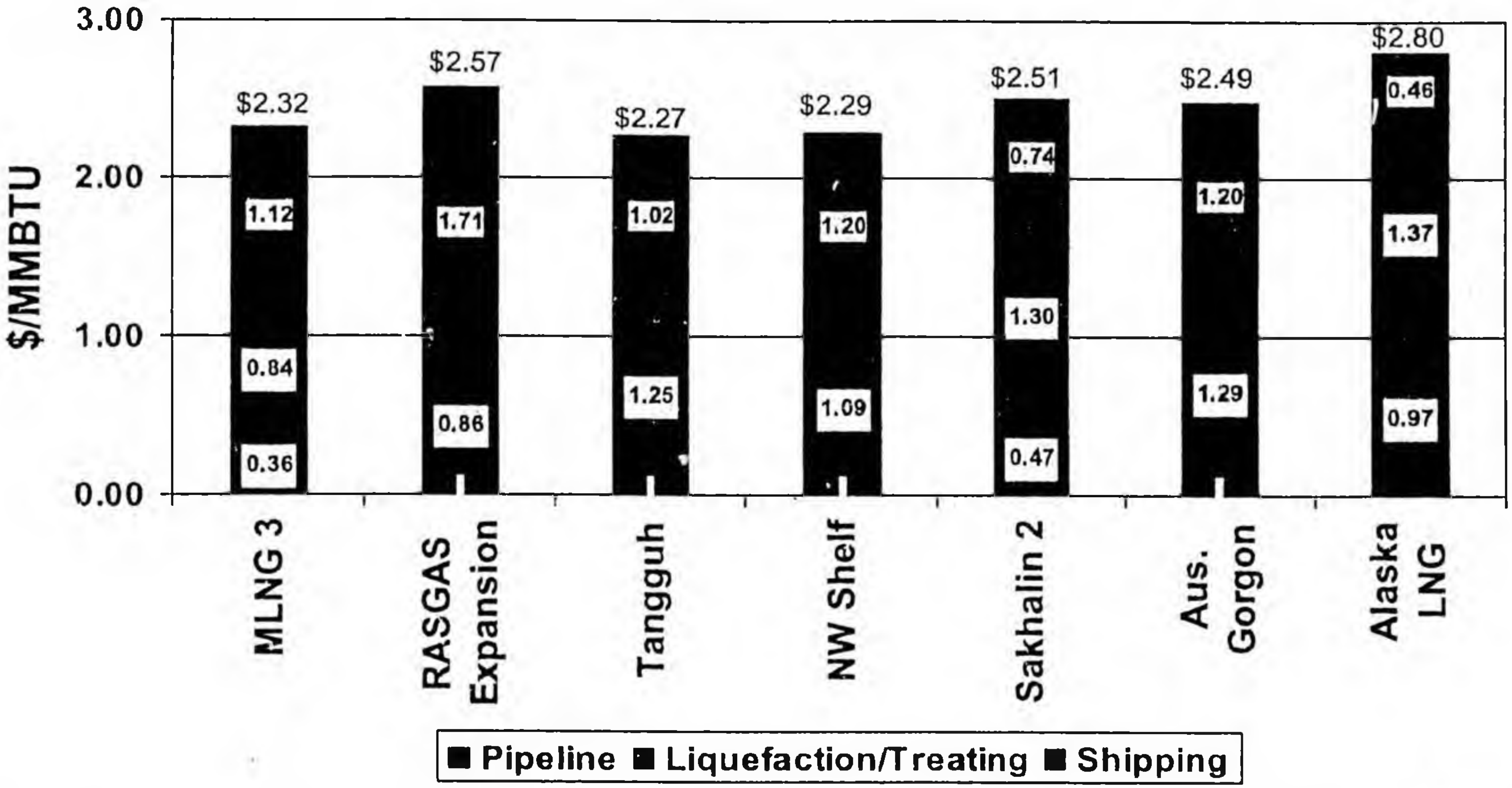
provided by Sen. Therriault

Asia-Pacific Key LNG Suppliers
(Estimated working interest, mmtpa)



provided by Sen. Therriault

ESTIMATED COST OF SERVICE COMPARISON TO WCNA[1]

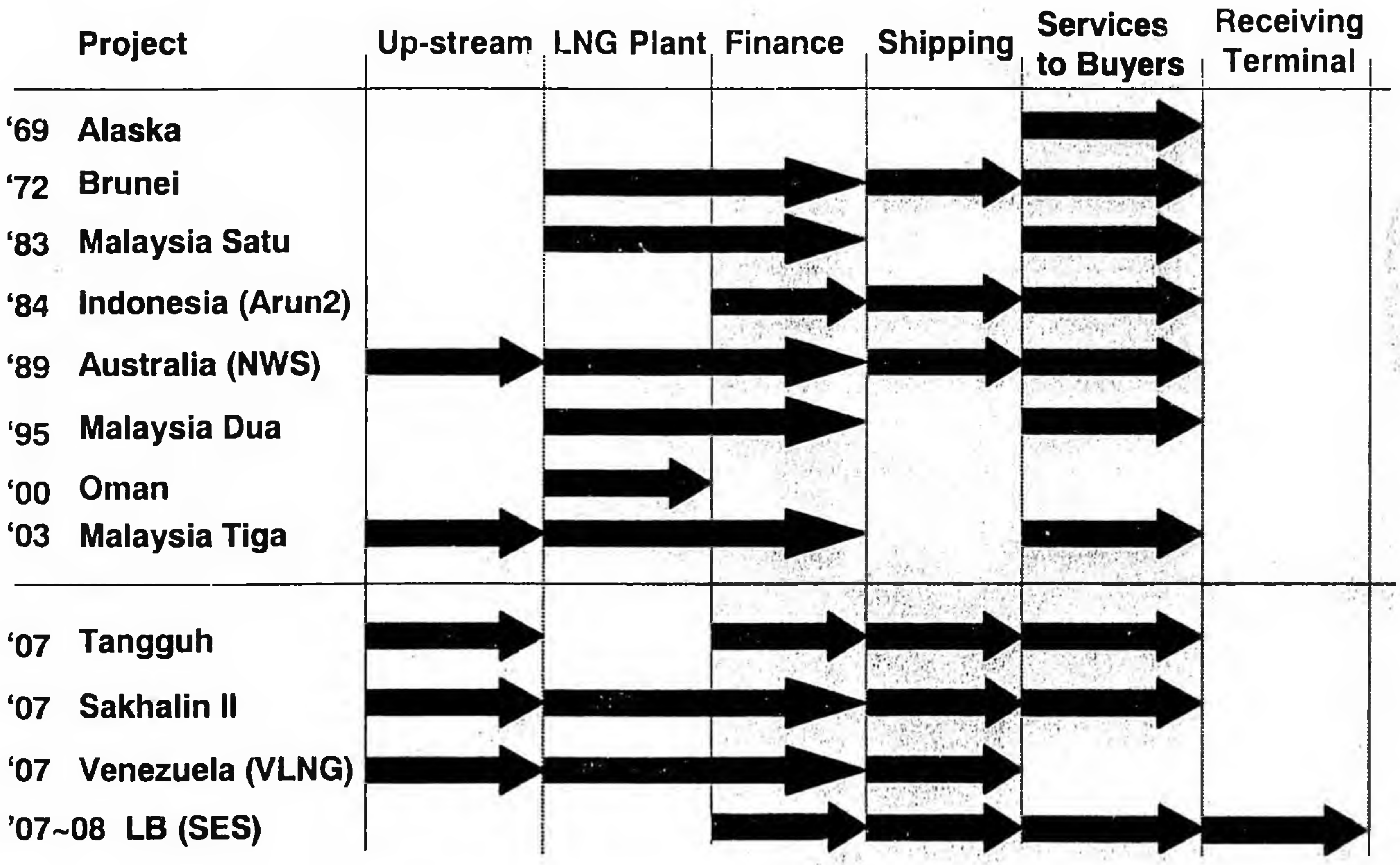


Numbers estimated from external sources
Excludes upstream and cost for regas

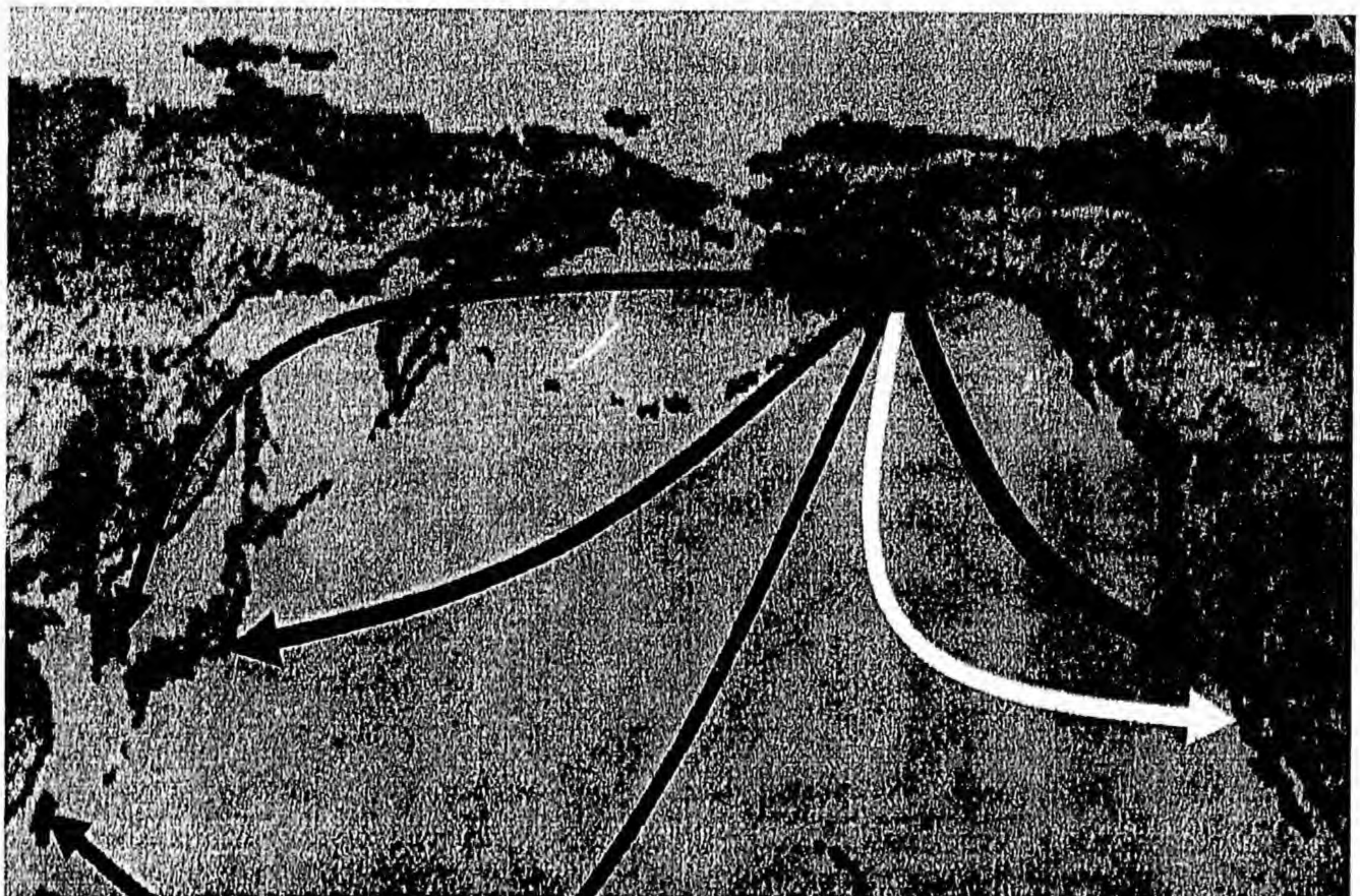
(1) West Coast North America

ConocoPhillips

MC's Involvement in LNG Business

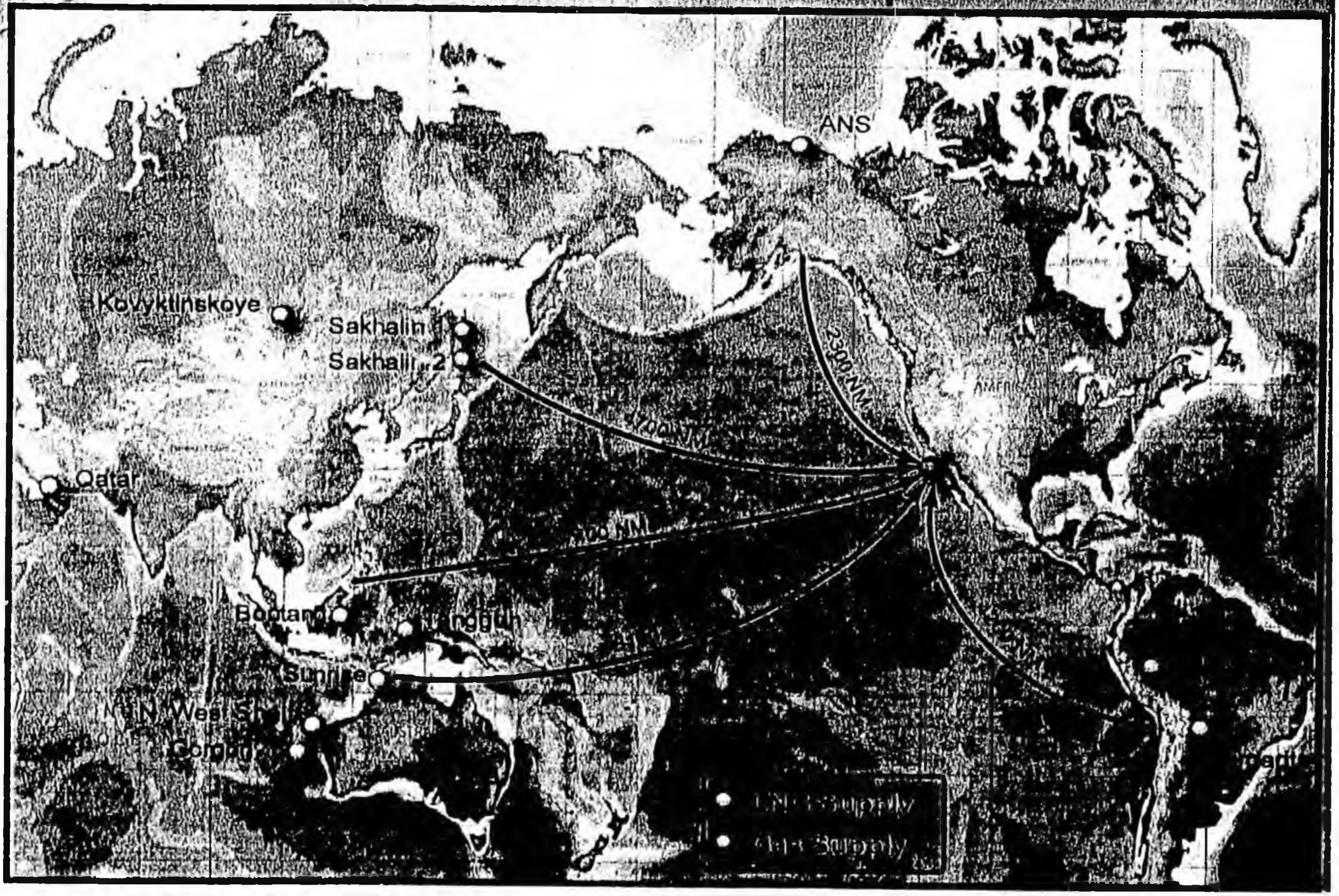


Potential Markets for Alaskan LNG



Sempra Energy

Pacific Basin Gas Competition



ANGDA Business Concepts

- Public corporation run by Board
- Issue revenue bonds
- Administer State right-of-way
- Build & operate facilities in Alaska
- Buy & sell gas (more than Royalty gas)
- Invest at risk -- capture rewards
- Benefits driven (more than ROI)
- Contract for ships & marketing

provided by Sen. Therriault

ANGDA Benefits & LNG Project

- ANGDA's focus is getting North Slope gas benefits to Alaska & Alaskans
- LNG export is integral to the economies of delivering gas throughout Alaska
- Alaskan LNG project is economically viable as infrastructure providing significant benefit values to Alaska and the Nation

ANGDA Project Concept & Cost

Project Elements	Size	Cost
Treatment	2 BCFPD plant	$ 2 B
Pipelines	800 miles of 36"	$ 4 B
Liquefaction	4 trains @ 4 M tn/yr	$ 4 B
LNG Tankers	3@$300M & 7@$150 M	$ 2 B
Total Export	**16 M tn/yr**	**$ 12 B**

NOTIONAL Cost of Service Comparison

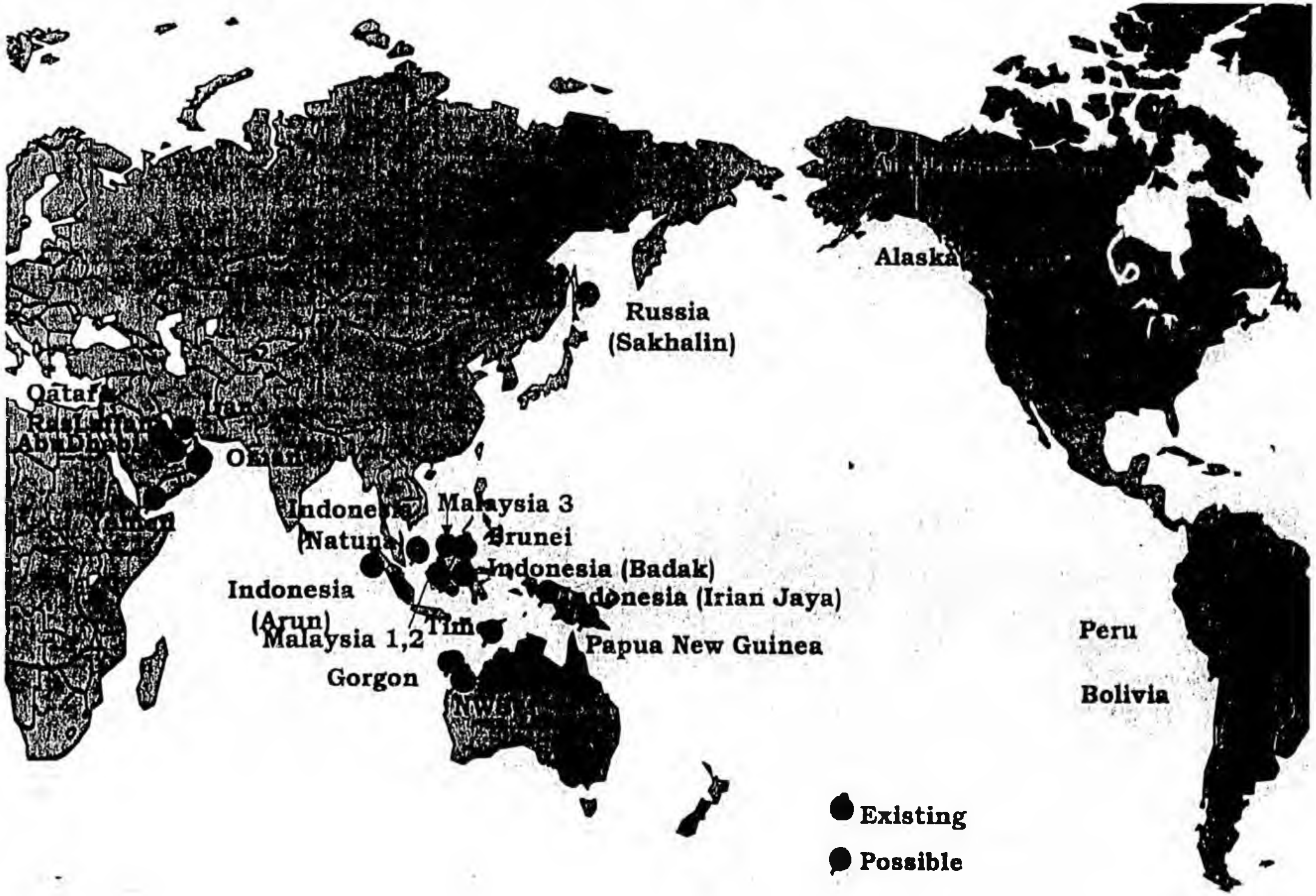
Does **NOT** Include Wellhead Purchase Price

	High ROR Commercial	Not Taxable	Benefit Driven Infrastructure
Pipeline	1.40	1.00	0.75
LNG	1.50	1.20	0.90
Total Cost of Service	**$2.90**	**$2.20**	**$1.65**

Pacific Rim LNG Projects to West Coast: $2.20 to $2.60

AlCan Highway Gasline to Market: $2.39

Pacific Rim LNG Supplies



Delivery Volumes / year from Valdez

	Long Beach	Baja Mexico	Tokyo Japan	Inchon Korea	Taiwan
Distance (nm)	2,070	2,200	3,409	4,216	4,590
Volume/ ship/yr	1.9 mt	1.8 mt	1.3 mt	1.0 mt	1.0 mt

Attn: JOE

Alaska Municipal League

RESOLUTION 2004-11

A Resolution Encouraging the Building of an All Alaska Gasline for Alaska's Gas to Capture the Present Demand for Natural Gas on the West Coast

WHEREAS, Article VIII, Section 1, Constitution of the State of Alaska, provides: It is the policy of the State to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interest; and

WHEREAS, article VIII, Section 2, Constitution of the State of Alaska, provides: The legislature shall provide for the utilization, development, and conservation of all natural resources belonging to the State, including land and water, for the maximum benefit of its people; and

WHEREAS, development of Alaska's vast natural gas reserves is of critical importance to the financial well being of the State of Alaska and of its residents, and every municipality; and

WHEREAS, public ownership of a natural gas pipeline offers substantial advantages over private ownership including income from the pipeline operations being exempt from federal taxation. Interest on bonds issued to finance pipeline construction would be, to some extent, exempt from federal income tax; and

WHEREAS, the West Coast of the United States is experiencing an energy crisis whereby the demand for LNG into the West Coast of the United States is at its highest level; and

WHEREAS, with a partially permitted route from the North Slope of Alaska to tidewater for a gasline/LNG project, Alaska has a tremendous advantage and opportunity to finally commercialize its vast resource of natural gas on the North Slope; and

WHEREAS, the largest natural gas distribution company in the United States, Sempra Energy, having approximately 21 million customers, has expressed its desire to receive LNG from Alaska for its recently permitted LNG receiving terminal in Baja, Mexico; and

WHEREAS, two independent economic models under a public ownership structure show annual revenues to Alaska from an All-Alaska gasline project between $500 million to $1 billion per year over the life of project.

NOW, THEREFORE, be it resolved by the Alaska Municipal League that the Governor and Legislature are urged to take steps necessary to move forward the development of a publicly owned gasline project from the North Slope to a southern tidewater terminus as quickly as possible.

ALASKA AFL-CIO

RESOLUTION NO. 03-06

A RESOLUTION SUPPORTING THE CONSTRUCTION OF AN ALASKA LNG GASLINE PROJECT TO CAPTURE PRESENT DEMAND FOR NATURAL GAS ON THE WEST COAST

Whereas, Article VIII, Section 1, Constitution of the State of Alaska provides as follows: "It is the policy of the State to encourage the settlement of its land and the development of its resources by making them available for maximum use consistent with the public interests", and

Whereas, Article VIII, Section 2, Constitution of the State of Alaska provides as follows: "The Legislature shall provide for the utilization, development and conservation of all natural resources belonging to the State, including land and water, for the maximum benefit of its people", and

Whereas, the North Slope of Alaska has over 35 trillion cubic feet of known natural gas reserves and has up to 100 trillion cubic feet of estimated gas reserves, and

Whereas, Alaska's gas is of critical importance to the nation's energy and economic security interests as the United States is too dependent on foreign oil imports from unstable and unfriendly countries of the world, and

Whereas, the development of Alaska's vast natural gas reserves is of critical importance to the economic interest of the citizens of the State of Alaska and will strengthen and diversify the State's economy, and

Whereas, the Alaska AFL-CO has and continues to support all viable gas line proposals to develop and market Alaska's natural gas for the benefit of its citizens and the United States, including the Alaska Natural Gas Transportation Project as authorized under ANGTA and those provisions described in Subtitle D – Alaska Natural Gas Pipeline in the proposed 2004 Energy Act, and

Whereas, the Alaska AFL-CIO believes it is appropriate to consider public ownership of an Alaska Natural gas pipeline, as such public ownership may offer substantial advantages and benefits to the people of Alaska, including income from the public project being exempt from federal taxation, and

Whereas, the West Coast of the United States is experiencing an energy crisis whereby the demand for LNG into the West Coast of the United States is at its highest level in its history, and

Whereas, the largest natural gas distribution company in the United States, Sempra Energy, having approximately 21 million customers has expressed a desire to receive LNG from Alaska, for its recently permitted LNG receiving terminal in Baja, Mexico, and

Whereas, with an already partially permitted route for a natural gas line/LNG project from the North Slope to tidewater in Valdez, Alaska may have an opportunity to finally commercialize its vast resources of natural gas, and

Whereas, two independent economic models under a public ownership structure show annual revenues to Alaska from an all-Alaska gas line project of hundreds of millions of dollars over the life of the project.

Now, Therefore Be it Resolved, that the Alaska AFL-CIO urge the Governor and the Alaska Legislature to review the benefits of an all-Alaska LNG project to the people of Alaska and to move forward quickly toward the development of a publicly owned LNG project from the North Slope to tidewater, if the project is in the best interest of Alaska.

Passed and approved this 2nd day of December 2003.

Article Published: Wednesday, March 10, 2004

Meyers warns against early pipeline hopes

By DAN RICE, Staff Writer

ConocoPhillips Alaska President Kevin Meyers seems an unlikely source for the message that it might be premature to get excited about the possibility of a pipeline being built soon to transport North Slope gas to the Lower 48.

Meyers, who was in town Tuesday and spoke at a Greater Fairbanks Chamber of Commerce lunch, highlighted a series of possible complications and risks in a gas line project.

Doing the project right, he said, could take a while.

"I appreciate the desire to make it happen, but at the same time, set realistic goals for the time involved, the hurdles we have to clear," said Meyers, whose company is part of a consortium of three major oil producers that recently applied to the state to build a gas line.

Building a pipeline that extends from the North Slope all the way to the Midwest presents plenty of risks for a potential builder, Meyers said, including whether Lower 48 gas prices will provide enough of a profit to justify the project.

Tariffs alone, he said, could total some $10 million a day, or almost $120 a second.

"Anyone want to guess what the price of gas will be in the Lower 48 and bet $120 a second on it?" Meyers asked.

ConocoPhillips, along with BP Exploration (Alaska) and Exxon Mobil, have applied to the state to build a gas line under the Stranded Gas Development Act. MidAmerican Energy Holdings Co. and the Alaska Gasline Port Authority also have applied.

Another hurdle in a gas line project is the time it will take for the project to clear the environmental impact statement process, Meyers said. ConocoPhillips' recent plans to add five new wells in the Alpine oil field will probably be in the EIS stage for 18 months to two years.

"That's just five little wells. Can you imagine what the EIS process would be like on a gas line?" he said.

OTHER ARTICLES IN THIS SECTION
3/10/2004
- Denali wolf buffer retained
- Webcams keep eye on the ice
- Dalton off-road bill passes first hurdle
- Family Focus loses federal grant
- Open house will focus on new Anderson subdivision
- Committee backs climate change research
- Iditarod lead shuffles
- Businessman signs salmon deal with Korean conglomerate
- Meetings called for refuge contracts
- Police Report
- Murkowski OKs oil sales to Flint Hills
- Park Service considers adopting Kodiak museum
- Report on rapes in Air Force sparks changes
- School funding outlook looks up
- City to get tough on ugly lots

Provided by Paul Fuhs, BackBone 2

Despite the risks and hurdles, Meyers said he thinks a gas line will be built. The time to get excited about it, though, is closer to when the first EIS comes out, he said.

Meyers had similar comments about the possibility of oil development solving the state's budget gap.

"Can we develop our way out of this? I think the answer is maybe," he said. "But it's going to take time."

The fiscal solution, however, is not to raise taxes on the oil companies as some have suggested, Meyers said. The industry already contributes about 87 percent of the state's general fund revenue, he said, and higher taxes would only discourage companies from pursuing new projects in the state.

"How many people in this room feel that there's too much oil and gas exploration going on right now?" Meyers asked the crowd at the chamber lunch. "Greenpeace doesn't get to answer. I don't think there's too many Greenpeacers in this crowd."

Reporter Dan Rice can be reached at drice@newsminer.com or 459-7503.

3-23-04

ALASKA'S STRATEGIC INTERESTS IN NORTH SLOPE GAS DEVELOPMENT

By Paul Fuhs
for BackBone2.org

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WHO IS BACKBONE 2?

Backbone 2 is an Alaskan citizen organization that supports the expeditious development of Alaska's North Slope gas reserves in a manner that provides maximum benefits to the people of Alaska. Backbone recognizes that there could be significant benefits from a publicly owned gas pipeline including jobs for Alaskans, state and municipal revenues and access to gas for Southcentral and coastal Alaska. And since the All-Alaskan LNG project is already permitted, it could be built years earlier than a pipeline through Canada.

In 2002 138,000 Alaskan voters (62%) voted to create the Alaska Natural Gas Development Authority (ANGDA) to build a publicly owned gasline paralleling the trans Alaska oil line to Valdez. Backbone 2 was established to demand that our elected and appointed officials respect the will of Alaska's citizens. We support adequate funding for ANGDA and call on the Governor to provide leadership in securing a gas supply for the project. We also call on our congressional delegation to treat the All-Alaskan project equally in federal energy legislation.

WHAT WAS THE PURPOSE OF BACKBONE 1?

Backbone 1 was formed three years ago to fight the efforts of British Petroleum to take over all of ARCO's assets on Alaska's North Slope through a merger. The issues were monopolistic control of contracting on the North Slope, concentrated political influence in Alaska and continued stonewalling on development of Alaska's North Slope gas reserves. The efforts of Backbone 1 and others led to the Federal Trade Commission's rejection of their acquisition of ARCO's Alaska assets. A copy of the FTD order is available on Backbone 2's website: Backbone2.org ARCO's Alaska holdings were purchased by Conoco-Phillips and that is how they became one of Alaska's oil and gas producers. The reference to backbone was encouraging Alaska's political leaders to have one against the merger.

IS THE ALL-ALASKAN LNG PROJECT ECONOMIC?

According to the base case LNG project adopted by ANGDA (available at backbone2.org website) an LNG project which costs approximately $12 billion to build including a gas conditioning plant, pipeline, liquefaction facilities, marine terminals and tankers, and which can produce 2.2 billion cubic feet per day (bcf/day), is economic if the gas can be sold for $3.50 to $3.70 per million BTU. That price is right in the middle range of long term LNG contracts currently being negotiated in Asia and the US West Coast.

While the major oil companies say the project is uneconomic, they studied it several years ago at a production rate of only 1 billion cubic feet per day because it was thought that you couldn't place more than that amount at one time into the Asian market. With the opening of US West Coast markets to LNG, that restriction is no longer the case.

When you produce over 2 billion cubic feet per day, you reach sufficient economies of scale to pay the debt service and make a reasonable rate of return to the owner of the project. At a 12% rate of return, the project owner (in this case ANGDA) would earn about $1 billion per year. The oil companies have con. istently state(d) that they need a much higher rate of return before they will do a project.

Well, a billion dollars a year might not be enough for the oil companies, but for Alaska it equals the budget deficit Alaska is facing which otherwise can only be made up by massive budget cuts, heavy taxes, losing your permanent fund dividend or all the above.

The bottom line is that ANGDA must perform its own analysis of this base case so that it can negotiate throughput agreements and gas purchase and sales agreements with confidence. This is why Backbone 2 strongly supports the proposed funding of $2.15 million contained in SB241 by Senate President Gene Therriault. And HB296 by Rep Eric Croft.

CAN ALASKA COMPETE?

The oil companies have also intentionally misinformed people by repeating over and over that Alaska can't compete because all the other projects have gas right(s) at tidewater and Alaska requires an 800 mile pipeline. In fact, other projects do have pipelines and other development costs that Prudhoe bay does not have. For instance, many of the competing projects have field development costs that Alaska does not have. At Prudhoe Bay, we are producing 8.5 bcf/day as part of the oil development and all that would have to be done to provide gas there is to turn a valve on.

Here are some of the pipeline distances associated with other LNG projects: Malaysia Tiga pipeline 300 miles, Yemen pipeline 200 miles, Darwin LNG pipeline 310 miles, Sakhalin II pipeline 390 miles of 48 inch pipe and 110 miles of gathering pipe, Bolivia 280 miles plus expansion of (a) 1100 mile pipeline.

Alaskan LNG has a number of other advantages. Alaska is much closer to US west coast markets which represents far lower shipping costs. For example, Alaska is 2245 miles from LA, Sakhalin is 4964 miles away, Darwin, Australia is 7916 miles, Natuna is 8951 miles away, Abu Dhabi is 11,565 miles away and Yemen is 12,050 miles away. LNG tankers constitute a substantial expense of an LNG project, up to $200 million apiece. If the shipping distance is twice as far, you need twice as many tankers. The tankers required to ship LNG from Quatar to the US West Coast is equal to the costs of the Alaskan pipeline.

The real bottom line on comparing projects to each other is contained in the term 'Cost of Service'. This term is used in the industry to identify all the costs associated with shipping the gas and is usually stated in terms of dollars per million btu ($/mmbtu). Listed below are comparative cost of service numbers for representative projects around the world. The source of these numbers is Conoco Phillips:

$/mmmbtu cost of service to US West Coast

$2.32 Malaysia LNG 3
$2.57 Rasgas expansion
$2.27 Tangguh, Indonesia
$2.29 Northwest Shelf
$2.51 Sakhalin 2
$2.49 Australia Gorgon
$2.80 Alaska LNG

$2.20 Alaska LNG tax exempt (estimate by ANGDA)

While the cost of service numbers for Alaska are higher, they are based on a private commercial pipeline structure rather than a publicly owned pipeline as represented by ANGDA. ***When you apply ANGDA's income tax exemption to these numbers, Alaska's cost of service is $2.20 per mmbtu, lower than any other source of supply in the pacific rim.*** Conoco Phillips also notes that additional field development costs (which Alaska does not have) are not included in their numbers.

IS THE PROJECT FINANCABLE?

Two investment banking firms have analyzed the data in the base case for the All-Alaskan LNG project and have found that the project is financable if the estimated project costs are correct and long term sales contracts can be obtained. These companies are George K. Baum and Taylor DeYoung. An executive summary of George K Baum's analysis is accessible under the facts and reports section of Backbone 2's website.

The loan guarantee provisions put into the omnibus bill by Senator Lisa Murkowski would also help in the financing of the project. Although the omnibus bill recently passed, the energy bill would also have to pass to make the provisions active. The future of the energy bill is uncertain.

Pipeline projects are typically financed primarily through debt. Even the Trans Alaska oil pipeline was financed with only 25% equity. The remaining 75% was financed through the sale of taxable bonds, with the exception of the marine terminal which was financed by the municipality of Valdez. If long term contracts for LNG can be obtained, the project could be financed with 100% debt.

WHAT ARE THE MARKETS FOR ALASKA'S LNG?

Asia has always been seen as a market for Alaskan LNG. They have purchased LNG from the LNG plant in Nikiski for the past 30 years and see Alaska as a more stable source of supply than Indonesia, Russia or the Middle East. Development of West coast markets for LNG would provide the economics of scale needed to make Alaska's LNG project economic. The states that have expressed an interest in Alaskan LNG are California, Oregon and Hawaii.

Japan, Korea and Taiwan have all expressed an interest in Alaskan LNG. They have also stated that they prefer Alaskan LNG due to security of supply compared to less stable sources in the world. Buying American gas from Alaska will also help reduce the balance of payments deficit with our Asian trading partners.

It should also be noted that North Slope gas is a rich gas that contains more than methane. North Slope gas contains propane which commands a premium price in the Asian market. It also contains ethane and butane which can be used as a feedstock for value(-)added hydrocarbon products such as plastics and rubber.

Alaska communities are also an important market for North Slope gas. Although small in scale compared to West Coast or Asian markets, providing affordably priced gas to Alaskans is an important component of this project.

WHY WON'T THE OIL COMPANIES BUILD THE LNG PROJECT?

In representing the interests of their shareholders, the oil companies look at their worldwide leases and operations, not just their Alaska holdings. Oil and gas consultant Pedro Van Meurs testified to the legislature 3 years ago that the companies were pursuing projects overseas that had worse economics than the Alaska project because those leases contained requirements that the companies develop them within a certain time period, often as little as five years or they would lose the leases.

Alaska's leases lump oil and gas together so as long as the oil is being produced, the lease terms are being met. Alaska gas is like a gallon of milk on the shelf with no pull date on it. That milk will never make it to the front of the shelf. The field the oil companies have not developed at all and which is probably in default is Point Thomson which has not been developed for 20 years. The State of Alaska needs to take a strong position regarding this field and to take it back if necessary. It could provide a valuable source of gas for the gasline project.

Another problem with the 3 oil companies on the North Slope building an LNG project or any gas project is that they all have different agendas and in many cases are dysfunctional as a unit. Part of this was caused by the fact that because of the way the Prudhoe Bay oil reservoir and gas cap are situated, the companies owned different percentages of oil and gas. When the Oil and Gas Conservation Commission threatened to unitize the field, which is standard practice for almost any field in the world, Attorney Bruce Botelho, at the request of Governor Tony Knowles, wrote them a letter and told them that they had no jurisdiction over economic matters on the slope. The response disagreeing with that letter from Commission member Tuckerman Babcock is available in the fact and reports section of Backbone 2's website.

A fascinating insight into the dysfunction and different agendas between the companies on the North Slope is contained in the Module 880 ruling by the Department of Natural Resources which is also available on the website.

When ARCO was bought by Cononco-Phillips as part of the BP merger, the companies finally realigned their oil and gas interests so they are equal so this should no longer be an impediment to the project going forward.

However, it does raise one more concern. Since the companies own roughly one third of the gas each, if any of the Alaska projects go forward, they will get to market their one third but they will be giving up two thirds of their market share to their competitors. This causes them to favor their overseas projects which they do not have to share with other companies.

WHAT ARE THE COMPARATIVE BENEFITS OF THE ALL-ALASKAN AND CANADIAN HIGHWAY PROJECT?

It is difficult to compare the projects because the oil companies won't release any of their numbers and the Murkowski administration hasn't presented any of their own analysis. However, some things are clear:

JOBS: Alaskan employment on the All-Alaskan LNG project will be at least double the Canadian Highway project. Building a pipeline to the Canadian border will take only 2 years compared to at least 4 years of construction employment on the LNG project due to the construction of the liquefaction plant and marine terminal in Valdez. There will be many more jobs building the pipeline through Canada, but that will all be done with Canadian workers Why would we surrender our future to a foreign country and lose our Alaskan jobs?

REVENUES: State revenues would be higher with the All-Alaskan LNG project because we would own all or a significant part of it. It has been estimated that the state owned pipeline would generate up to $1 billion per year to the State of Alaska. (George K. Baum analysis) This could minimize the need for taxes on Alaskan citizens and protect the permanent fund dividend. For a privately owned Canadian Highway project, Alaska would only receive severance, production and property taxes which would be far lower than a publicly owned project. The law that established ANGDA also requires them to negotiate revenue sharing with local goverments. This could provide tax relief on a local level. Part of the state revenues would also go into the permanent fund and will increase dividends in the future.

GAS TO ALASKANS:

Shortages of gas in Cook Inlet are already causing price increases for consumers and businesses in Southcentral Alaska. Within 5 years the price of gas could double. This is causing extreme problems for the Agrium plant in Kenai and will also affect other businesses. The most efficient way to get North Slope gas to Southcentral Alaska is through a spurline from Glenallen to Palmer off the LNG project mainline. The North Slope to Valdez pipeline can be expanded from 2.2 bcf/day to 3.0 bcf/day by adding more compressor stations at a minimal cost. It is 137 miles from Glenallen to Palmer where it is possible to tie into Enstar's 20" distribution line which connects all the way from West Cook Inlet, through Anchorage and down to Kenai. A spurline off the Canadian Highway project from Fairbanks or Delta would be more than twice as long and require higher prices to gas consumers.

Gas can be delivered easily anywhere along the line since methane is the lightest gas in the mix and will separate out with the application of heat. The remaining heavier gases are just pumped back into the pipeline. A major advantage of the All-Alaskan LNG project is that when you have gas at tidewater, it can be delivered by barge to coastal communities and provide stable priced, affordable energy to coastal Alaskans. The Alaska Intrastate Gas Company has certificates to provide gas to 17 Alaska coastal communities. Their plan is to obtain their gas from Canada by rail barge initially and then switch over to Alaskan gas when it is available at tidewater.

WHICH PROJECT CAN BE BUILT SOONER?

The All-Alaska project has already been permitted by Yukon Pacific Corporation which is currently negotiating with ANGDA to provide the permits for the project. On the other hand, the Canadian Highway project will require major permitting, settlement of their native land claims, modification of the Alaska Natural Gas Treaty by both the United States and Canada, etc. Pedro Van Meurs, an oil and gas consultant for Alaska has estimated that the Canadian Highway project would not come on line before 2015.

WHICH PROJECT IS BETTER FOR THE ENVIRONMENT?

The All-Alaska LNG project is permitted within the existing congressionally designated pipeline corridor. A new industrial corridor would be required for the Canadian Highway project If a spurline was built from Fairbanks to Cook inlet, it would have to go through Denali Park, the Minto Flats wildlife preserve and subsistence area, and would also have to cross the Susitna Flat Wildlife preserve.

WHICH PROJECT HAS THE GREATEST POTENTIAL FOR VALUE ADDED PROCESSING?

A project to tidewater which connects with international shipping vessels is clearly superior to an inland pipeline project. Ethane and butane can be used as feedstock for manufacturing of plastics, etc. The province of Alberta has stated that the price they will exact for the Canadian Highway project is that they will strip out all the hydrocarbons for value added manufacturing in Alberta. Alberta has a $6 billion per year industry based on processing these hydrocarbons and they directly employ 3400 people. Those jobs should be in Alaska since it is our gas.

WHICH PROJECT CREATES THE MOST OIL LOSS?

When gas is removed from an oil field a certain amount of oil production is lost. This has not yet been calculated for the Prudhoe Bay field. In ANGDA's base case, 60% of the miscible injectant is maintained on the slope for enhanced oil recovery. The base case for the All-Alaska LNG project is 2.2 bcf/day. The Canadian Highway project is 4.5 bcf/day which is removing more than twice as much gas as the LNG project and would result in much higher oil loss. The Alaska Oil and Gas Conservation Commission should investigate this issue and make an estimate for both projects of oil loss and subsequent revenue loss to the State of Alaska.

WHICH PROJECT IS BEST FOR ENCOURAGING INDEPENDENT OIL COMPANIES TO EXPLORE AND PRODUCE GAS IN ALASKA?

To answer this question, it is very instructive to look at the current situation with the Alaska oil line. It is privately owned by the major producers on the North Slope. It is in their best interest to charge the highest price possible for shipping oil through the line. This allows them to write off the charge against the wellhead price and reduce their taxes to Alaska. The higher tariffs also make it difficult for independent oil companies to bid against the majors on oil leases. The oil companies don't mind paying the higher tariffs because they own the pipeline and the money just goes from the left pocket to the right pocket.

In a recent ruling, the Regulatory Commission of Alaska (RCA) ruled the the(delete second "the") oil companies were overcharging on the pipeline by 53%. A copy of their ruling is available on the Backbone 2 website.

ANGDA would have no similar incentive to overcharge for their pipeline tariffs. Quite the opposite, as an Alaskan organization they would have a stake in maximizing oil exploration and development in Alaska.

WHICH PROJECT PROVIDES BENEFITS TO NON PROFIT ORGANIZATIONS IN ALASKA?

When Wally Hickel was Governor of Alaska, he divested himself of his holdings (10%) in Yukon Pacific and dedicated any proceeds Yukon Pacific may earn from the project to charities in Alaska. These proceeds will be distributed on an annual basis by a three member board which will decide who gets the money. There are no similar provisions for the Canadian Highway project.

WHAT IS THE PROCESS THAT ANGDA WILL FOLLOW TO DEVELOP THE ALL-ALASKAN PROJECT?

LNG projects around the world follow a similar pattern in their development. ANGDA will be no different.

1. The first step is to identify the quantity of the resource available. For Alaska this is easy, We are producing 8.5 bcf/day on the North Slope as part of oil production.
2. The next step is to do preliminary engineering to show that the project is technically feasible and to identify approximate costs. Much of this work has already been done by Yukon Pacific Corporation and has been turned over to ANGDA. ANGDA must confirm these numbers for themselves and that is the purpose of the proposed $2.15 million appropriation to the Authority.
3. Utilizing the preliminary numbers, ANGDA will seek letters of intent from gas producers and gas buyers. These letters typically state that if the preliminary numbers are verified by detailed engineering and the gas can be supplied at the prices quoted, that the purchase agreements will be formalized. ANGDA may also seek throughput agreements with the producers if they want to market their own gas. These agreements make commitment for capacity of the line at quoted cost of service fees.
4. Once letters of intent are in hand, detailed engineering and financing for the project must be completed. This will cost approximately $200 million. Based on the letters of intent this money is often funded by bond anticipation notes.
5. Once detailed engineering and financing verify the economic and engineering models, the gas purchase and sales contracts are finalized, the bonds are sold for the project and construction proceeds.

IS GOVERNMENT PARTICIPATION IN A PROJECT SUCH AS THIS UNUSUAL?

Around the world, it is actually the norm for governments to participate financially in oil and gas development projects when the resources are owned in common by the people. Substantial profits can be made in the transportation and sale of oil and gas products and ownership in transportation infrastructure is seen as a key method for insuring that the citizens receive a fair rate of return on their resources.

For instance, two deals recently announced by Conoco-Phillips and Exxon in Quatar have the Quatar government owning 70% of the project and the companies owning the rest. Although the oil companies are against Alaska owning any part of an Alaska gasline, it is interesting that they are willing to deal with middle eastern, African and Indonesian governments that own a majority of their projects, but are unwilling to deal with a state that is part of the United States.

It is not even unusual for states to own pipelines. Two states, Wyoming and Georgia have formed authorities to build their own gas pipelines because the private sector is unwilling to build them, just like they are in Alaska.

IS THIS JUST ANOTHER DELTA BARLEY FARM OR ALASKA SEAFOOD INTERNATIONAL BOONDOGGLE?

If the delta barley project or the Seward grain terminal would have had to meet the same financing requirements of this project, they would never have been built.

The language in the proposition 3 initiative states that the faith and credit of the State of Alaska is not pledged to this project. Other than the initial funding for the Authority to complete the necessary due diligence on the project, all other funding will be provided by private equity partners or by non-recourse revenue bonds.

There are two important third party checks on this project which set it apart from previously state funded projects that were not very well thought through before they were funded. First, if the project is not feasible, the markets will not sign purchase agreements for the gas. Second, in order for the bond market to feel comfortable buying the bonds, they will have to see the sales or throughput contracts and have reviewed all the economic models. When they buy the bonds for this project, they are assuming the risk for the project. If congress passes the loan guarantee provisions for the All-Alaskan LNG project which were included in federal energy legislation by Senator Lisa Murkowski, it will make it easier to sell the bonds because the full faith and credit of the US Government will be behind (80% of)the bonds.

At no time can the assets of the permanent fund be put at risk by this financing. If the permanent fund chooses to consider investing in bonds for the project, they should compare it with other investment opportunities they have and only invest if the Alaska project provides superior returns to the fund.

HOW CAN A GAS SUPPLY BE SECURED FOR THE ALL-ALASKAN LNG PROJECT?

There are voluntary and involuntary methods and all voluntary methods should be fully explored before taking stronger actions. Typically, the project sponsor would declare a cost of service figure for shipping gas through their pipeline. Then an open season is announced to seek contracts for throughput agreements with gas holders to ship their gas. The next step would be to offer to buy the gas from the producers for the project at a certain wellhead value. If the offer is reasonable and if the producers refuse to sell their gas for the project, it may be a breach of their lease requirements and may open the door for the State to take legal action to secure a gas supply.

The most extreme measure would be the use of eminent domain which the state uses regularly to secure properties and materials for other projects such as highways, airports, etc. It is required to pay fair market value for any properties or materials taken. The companies would not be able to stop the state or ANGDA, which also independently has the powers of eminent domain, from taking the gas. However, state law would allow them to argue in the courts over what is fair market value. It would be interesting to see what value the courts would place on stranded gas on the North Slope which has very little value without a pipeline to move it to market.

Although eminent domain is a strong action, it would financially benefit the oil companies also. If they were paid the amount in ANGDA's base case model, ($.94 per mmbtu) the oil companies would receive about $720 million per year, after taxes, for doing nothing more than just turning on a valve and providing the gas.

The legislature has also considered gas reserves taxes in the past in which the companies would pay higher taxes the longer they leave the gas in the ground. These taxes have not passed in the past, but perhaps the legislature will look on them differently in the context of a proposed gasline and a spreading budget deficit.

Securing a gas supply for the All-Alaskan project should also be a clear focus of the Stranded Gas Act negotiations with the producers. If they are asking for tax breaks from Alaska for a Canadian Highway or over the top project, they should at least commit a gas supply for the All-Alaskan LNG project.

HOW DOES THE JONES ACT AFFECT THE PROJECT?

For LNG entering the US West Coasts or Hawaiian gas markets, the Jones Act will apply requiring vessels with US built hulls and US crews. These vessels will be more expensive to build and operate. Does this make the All-Alaskan LNG project uncompetitive? It appears that the costs of the Jones Act requirements are small compared to other costs of this or any other LNG project.

The Jones Act requirements also raise the question of the ability of US shipyards to physically produce enough vessels in time for the All-Alaskan LNG project. In discussions with US shipyards, they point to a number of factors that could allow the All-Alaskan LNG project to go forward now while minimizing the economic impact.

In the 1970's 13 LNG tankers were built in US shipyards utilizing federal shipyard construction subsidies (CDS) to equalize the cost of construction with foreign shipyards. When the expected LNG terminals in the US were not built, these vessels went in to service transporting LNG from Indonesia to Korea and Japan. Because of the construction subsidies, they were required to maintain their US. With the same costs Alaska would have to pay to move its LNG, these tankers have been able to operate economically for over 20 years.

The typical life of these tankers is 40 years so they could be reflagged into the US fleet and used to transport Alaskan LNG to the US west coast. Even if you had to buy a new foreign built LNG tanker to replace them for their foreign work, the cost of acquiring these tankers would be equal to foreign built tankers.

In the long, term, US shipyards could replace these vessels with new US built vessels, built over time instead of all at once, which the shipyards also prefer. The Jones Act is not a major impediment to the All-Alaska LNG project.

WHAT ABOUT A MAINLINE ROUTE TO KENAI?

Backbone 2 does not take a position between competing communities for LNG facilities. However, we are concerned about a potential several year delay for permitting a different project outside the already permitted route within the congressionally designated,Trans Alaska Pipeline corridor. As we noted earlier, there is a way to economically move North Slope gas to Southcentral Alaska by a spurline from Glenallen to Palmer where it would tie into the existing Enstar pipeline infrastructure.

IS BACKBONE 2 AGAINST THE CANADIAN HIGHWAY PROJECT?

No. Backbone 2 believes that it will take several years for the Canadian Highway project to get permitted and financed. Even with the recent applications submitted to the state under the Stranded Gas Act, there is no reason for Alaska to wait on developing the All-Alaska LNG project. If the Canadian Highway project is built later, that would be great. At least Alaska would have the project that provides gas and other substantial benefits to the people of Alaska.

The worst possible outcome would be if these applications were used as a justification for slowing down the efforts to expeditiously develop the All-Alaska project.

WHAT ABOUT THE RECENT STRANDED GAS APPLICATIONS?

After reviewing the stranded gas act applications recently submitted,(available in full text on backbone2.org website) it appears that the application from Mid America in conjunction with the Alaskan company Pacific Star Energy is a serious proposal. It is great to finally see Alaskan ownership in a North Slope development project.

Mid America is offering to move the gas of any North Slope producer for a fee. If they do not get contractual agreements to move the gas, it is doubtful they can receive the financing for the project.

In their application to the state they declare that "Of necessity, commercialization of the project will require concurrent contractual arrangements by shippers for transportation of gas involving both the Alaska pipeline and the downstream Canadian line." They also reference the need for "long term contracts for firm transportation service." "Mid America will not hold title to any of the gas supplies transported by the proposed pipeline."

So Mid America is dependent on the producers for their project. When Foothills Pipeline group made a similar proposal 3 years ago, they were told by the producers that they weren't interested. Given the fact the producers have proposed their own pipeline under the stranded gas act (including the over the top route) it is doubtful that they will agree to give up the profits of a gasline to someone else. The Mid America proposal says they will make a go/no go decision by 2007.

Even if we assume that Mid America can be successful, there is no reason for Alaska to slow down on development of its own project which was mandated by Alaskan voters. Perhaps there is a way for ANGDA to work with Mid America on a development which would move the Alaska project forward and also help them with their Canadian project.

The stranded gas application from the producers contains no timelines or commitments to actually build the project. It is more of a place holder and delay mechanism than anything else. They are asking the state to give them tax and royalty relief without making any real commitment to the project.

They clearly state: **"Nothing in this application or any communications between the parties should be construed as a commitment by the Sponsor Group to complete fiscal contract negotiations, or to initiate engineering design, permitting, procurement, or construction of a qualified project or are deemed to create any obligation or liability of the sponsor Group to proceed with a Qualified Project.**

They have also openly stated that without price subsidies from the Federal taxpayers, the project is uneconomic. It is clear now that those subsidies will not be available, even if an energy bill passes. The reason those subsidies are necessary for them is that they are demanding a high rate of return and the pipeline is just too long.

According to Bill Hauhe, manager of global liquefied natural gas (LNG) for Chevron Texaco, speaking at a recent LNG workshop at the second annual Africa Oil and Gas Conference sponsored by the Corporate Council on Africa in Houston, Texas, "For distances up to about 2,000 kilometers (approximately 1000 miles), pipelines are usually the most economical way to move gas to market. For longer distances, such as between West Africa and North America, special double-hulled LNG ships are the preferred option."

The Canadian Highway route is about 2200 miles to Alberta and 3600 miles to Chicago.

Again, the main point here is that regardless of the stranded gas act applications, Alaska should continue to move forward on its own project which can provide maximum benefits to Alaska in State revenues, municipal revenue sharing, and access to gas for Alaskans. Eventually, both projects could be built and that would be the best case scenario for Alaska.

The stranded gas act applications open the way for the Murkowski administration and the legislature to negotiate provisions that would allow the All-Alaska project to go forward.

If the oil companies are asking for tax and royalty breaks, the state should demand either a gas supply for the All-Alaska project or some other commercial agreement that would help facilitate the project such as a joint venture agreement. To do any less would be to abandon the strategic interests of the people of Alaska in North Slope gas development.

VISIT BackBone2.ORG TO ACCESS THE DOCUMENTS REFERENCED IN THIS PAPER. To comment contact paulfuhs@earthlink.net

ALASKA'S STRATEGIC INTERESTS IN NORTH SLOPE GAS DEVELOPMENT

By Paul Fuhs
for BackBone2.org

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WHO IS BACKBONE 2?

Backbone 2 is an Alaskan citizen organization that supports the expeditious development of Alaska's North Slope gas reserves in a manner that provides maximum benefits to the people of Alaska. Backbone recognizes that there could be significant benefits from a publicly owned gas pipeline including jobs for Alaskans, state and municipal revenues and access to gas for Southcentral and coastal Alaska. And since the All-Alaskan LNG project is already permitted, it could be built years earlier than a pipeline through Canada.

In 2002 138,000 Alaskan voters (62%) voted to create the Alaska Natural Gas Development Authority (ANGDA) to build a publicly owned gasline paralleling the trans Alaska oil line to Valdez. Backbone 2 was established to demand that our elected and appointed officials respect the will of Alaska's citizens. We support adequate funding for ANGDA and call on the Governor to provide leadership in securing a gas supply for the project. We also call on our congressional delegation to treat the All-Alaskan project equally in federal energy legislation.

WHAT WAS THE PURPOSE OF BACKBONE 1?

Backbone 1 was formed three years ago to fight the efforts of British Petroleum to take over all of ARCO's assets on Alaska's North Slope through a merger. The issues were monopolistic control of contracting on the North Slope, concentrated political influence in Alaska and continued stonewalling on development of Alaska's North Slope gas reserves. The efforts of Backbone 1 and others led to the Federal Trade Commission's rejection of their acquisition of ARCO's Alaska assets. A copy of the FTD order is available on Backbone 2's website: Backbone2.org ARCO's Alaska holdings were purchased by Conoco-Phillips and that is how they became one of Alaska's oil and gas producers. The reference to backbone was encouraging Alaska's political leaders to have one against the merger.

IS THE ALL-ALASKAN LNG PROJECT ECONOMIC?

According to the base case LNG project adopted by ANGDA (available at backbone2.org website) an LNG project which costs approximately $12 billion to build including a gas conditioning plant, pipeline, liquefaction facilities, marine terminals and tankers, and which can produce 2.2 billion cubic feet per day (bcf/day), is economic if the gas can be sold for $3.50 to $3.70 per million BTU. That price is right in the middle range of long term LNG contracts currently being negotiated in Asia and the US West Coast.

While the major oil companies say the project is uneconomic, they studied it several years ago at a production rate of only 1 billion cubic feet per day because it was thought that you couldn't place more than that amount at one time into the Asian market. With the opening of US West Coast markets to LNG, that restriction is no longer the case.

When you produce over 2 billion cubic feet per day, you reach sufficient economies of scale to pay the debt service and make a reasonable rate of return to the owner of the project. At a 12% rate of return, the project owner (in this case ANGDA) would earn about $1 billion per year. The oil companies have consistently state(d) that they need a much higher rate of return before they will do a project.

Well, a billion dollars a year might not be enough for the oil companies, but for Alaska it equals the budget deficit Alaska is facing which otherwise can only be made up by massive budget cuts, heavy taxes, losing your permanent fund dividend or all the above.

The bottom line is that ANGDA must perform its own analysis of this base case so that it can negotiate throughput agreements and gas purchase and sales agreements with confidence. This is why Backbone 2 strongly supports the proposed funding of $2.15 million contained in SB241 by Senate President Gene Therriault. And HB296 by Rep Eric Croft.

CAN ALASKA COMPETE?

The oil companies have also intentionally misinformed people by repeating over and over that Alaska can't compete because all the other projects have gas right(s) at tidewater and Alaska requires an 800 mile pipeline. In fact, other projects do have pipelines and other development costs that Prudhoe bay does not have. For instance, many of the competing projects have field development costs that Alaska does not have. At Prudhoe Bay, we are producing 8.5 bcf/day as part of the oil development and all that would have to be done to provide gas there is to turn a valve on.

Here are some of the pipeline distances associated with other LNG projects: Malaysia Tiga pipeline 300 miles, Yemen pipeline 200 miles, Darwin LNG pipeline 310 miles, Sakhalin II pipeline 390 miles of 48 inch pipe and 110 miles of gathering pipe, Bolivia 280 miles plus expansion of (a) 1100 mile pipeline.

Alaskan LNG has a number of other advantages. Alaska is much closer to US west coast markets which represents far lower shipping costs. For example, Alaska is 2245 miles from LA, Sakhalin is 4964 miles away, Darwin, Australia is 7916 miles, Natuna is 8951 miles away, Abu Dhabi is 11,565 miles away and Yemen is 12,050 miles away. LNG tankers constitute a substantial expense of an LNG project, up to $200 million apiece. If the shipping distance is twice as far, you need twice as many tankers. The tankers required to ship LNG from Quatar to the US West Coast is equal to the costs of the Alaskan pipeline.

The real bottom line on comparing projects to each other is contained in the term 'Cost of Service'. This term is used in the industry to identify all the costs associated with shipping the gas and is usually stated in terms of dollars per million btu ($/mmbtu). Listed below are comparative cost of service numbers for representative projects around the world. The source of these numbers is Conoco Phillips:

$/mmmbtu cost of service to US West Coast

$2.32 Malaysia LNG 3
$2.57 Rasgas expansion
$2.27 Tangguh, Indonesia
$2.29 Northwest Shelf
$2.51 Sakhalin 2
$2.49 Australia Gorgon
$2.80 Alaska LNG

$2.20 Alaska LNG tax exempt (estimate by ANGDA)

While the cost of service numbers for Alaska are higher, they are based on a private commercial pipeline structure rather than a publicly owned pipeline as represented by ANGDA. ***When you apply ANGDA's income tax exemption to these numbers , Alaska's cost of service is $2.20 per mmbtu, lower than any other source of supply in the pacific rim.*** Conoco Phillips also notes that additional field development costs (which Alaska does not have) are not included in their numbers.

IS THE PROJECT FINANCABLE?

Two investment banking firms have analyzed the data in the base case for the All-Alaskan LNG project and have found that the project is financable if the estimated project costs are correct and long term sales contracts can be obtained. These companies are George K. Baum and Taylor DeYoung. An executive summary of George K Baum's analysis is accessible under the facts and reports section of Backbone 2's website.

The loan guarantee provisions put into the omnibus bill by Senator Lisa Murkowski would also help in the financing of the project. Although the omnibus bill recently passed, the energy bill would also have to pass to make the provisions active. The future of the energy bill is uncertain.

Pipeline projects are typically financed primarily through debt. Even the Trans Alaska oil pipeline was financed with only 25% equity. The remaining 75% was financed through the sale of taxable bonds, with the exception of the marine terminal which was financed by the municipality of Valdez. If long term contracts for LNG can be obtained, the project could be financed with 100% debt.

WHAT ARE THE MARKETS FOR ALASKA'S LNG?

Asia has always been seen as a market for Alaskan LNG. They have purchased LNG from the LNG plant in Nikiski for the past 30 years and see Alaska as a more stable source of supply than Indonesia, Russia or the Middle East. Development of West coast markets for LNG would provide the economies of scale needed to make Alaska's LNG project economic. The states that have expressed an interest in Alaskan LNG are California, Oregon and Hawaii.

Japan, Korea and Taiwan have all expressed an interest in Alaskan LNG. They have also stated that they prefer Alaskan LNG due to security of supply compared to less stable sources in the world. Buying American gas from Alaska will also help reduce the balance of payments deficit with our Asian trading partners.

It should also be noted that North Slope gas is a rich gas that contains more than methane. North Slope gas contains propane which commands a premium price in the Asian market. It also contains ethane and butane which can be used as a feedstock for value(-)added hydrocarbon products such as plastics and rubber.

Alaska communities are also an important market for North Slope gas. Although small in scale compared to West Coast or Asian markets, providing affordably priced gas to Alaskans is an important component of this project.

WHY WON'T THE OIL COMPANIES BUILD THE LNG PROJECT?

In representing the interests of their shareholders, the oil companies look at their worldwide leases and operations, not just their Alaska holdings. Oil and gas consultant Pedro Van Meurs testified to the legislature 3 years ago that the companies were pursuing projects overseas that had worse economics than the Alaska project because those leases contained requirements that the companies develop them within a certain time period, often as little as five years or they would lose the leases.

Alaska's leases lump oil and gas together so as long as the oil is being produced, the lease terms are being met. Alaska gas is like a gallon of milk on the shelf with no pull date on it. That milk will never make it to the front of the shelf. The field the oil companies have not developed at all and which is probably in default is Point Thomson which has not been developed for 20 years. The State of Alaska needs to take a strong position regarding this field and to take it back if necessary. It could provide a valuable source of gas for the gasline project.

Another problem with the 3 oil companies on the North Slope building an LNG project or any gas project is that they all have different agendas and in many cases are dysfunctional as a unit. Part of this was caused by the fact that because of the way the Prudhoe Bay oil reservoir and gas cap are situated, the companies owned different percentages of oil and gas. When the Oil and Gas Conservation Commission threatened to unitize the field, which is standard practice for almost any field in the world, Attorney Bruce Botelho, at the request of Governor Tony Knowles, wrote them a letter and told them that they had no jurisdiction over economic matters on the slope. The response disagreeing with that letter from Commission member Tuckerman Babcock is available in the fact and reports section of Backbone 2's website.

A fascinating insight into the dysfunction and different agendas between the companies on the North Slope is contained in the Module 880 ruling by the Department of Natural Resources which is also available on the website.

When ARCO was bought by Cononco-Phillips as part of the BP merger, the companies finally realigned their oil and gas interests so they are equal so this should no longer be an impediment to the project going forward.

However. it does raise one more concern. Since the companies own roughly one third of the gas each, if any of the Alaska projects go forward, they will get to market their one third but they will be giving up two thirds of their market share to their competitors. This causes them to favor their overseas projects which they do not have to share with other companies.

WHAT ARE THE COMPARATIVE BENEFITS OF THE ALL-ALASKAN AND CANADIAN HIGHWAY PROJECT?

It is difficult to compare the projects because the oil companies won't release any of their numbers and the Murkowski administration hasn't presented any of their own analysis. However, some things are clear:

JOBS: Alaskan employment on the All-Alaskan LNG project will be at least double the Canadian Highway project. Building a pipeline to the Canadian border will take only 2 years compared to at least 4 years of construction employment on the LNG project due to the construction of the liquefaction plant and marine terminal in Valdez. There will be many more jobs building the pipeline through Canada, but that will all be done with Canadian workers Why would we surrender our future to a foreign country and lose our Alaskan jobs?

REVENUES: State revenues would be higher with the All-Alaskan LNG project because we would own all or a significant part of it. It has been estimated that the state owned pipeline would generate up to $1 billion per year to the State of Alaska. (George K. Baum analysis) This could minimize the need for taxes on Alaskan citizens and protect the permanent fund dividend. For a privately owned Canadian Highway project, Alaska would only receive severance, production and property taxes which would be far lower than a publicly owned project. The law that established ANGDA also requires them to negotiate revenue sharing with local governments. This could provide tax relief on a local level. Part of the state revenues would also go into the permanent fund and will increase dividends in the future.

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Shortages of gas in Cook Inlet are already causing price increases for consumers and businesses in Southcentral Alaska. Within 5 years the price of gas could double. This is causing extreme problems for the Agrium plant in Kenai and will also affect other businesses. The most efficient way to get North Slope gas to Southcentral Alaska is through a spurline from Glenallen to Palmer off the LNG project mainline. The North Slope to Valdez pipeline can be expanded from 2.2 bcf/day to 3.0 bcf/day by adding more compressor stations at a minimal cost. It is 137 miles from Glenallen to Palmer where it is possible to tie into Enstar's 20" distribution line which connects all the way from West Cook Inlet, through Anchorage and down to Kenai. A spurline off the Canadian Highway project from Fairbanks or Delta would be more than twice as long and require higher prices to gas consumers.

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WHICH PROJECT HAS THE GREATEST POTENTIAL FOR VALUE ADDED PROCESSING?

A project to tidewater which connects with international shipping vessels is clearly superior to an inland pipeline project. Ethane and butane can be used as feedstock for manufacturing of plastics, etc. The province of Alberta has stated that the price they will exact for the Canadian Highway project is that they will strip out all the hydrocarbons for value added manufacturing in Alberta. Alberta has a $6 billion per year industry based on processing these hydrocarbons and they directly employ 3400 people. Those jobs should be in Alaska since it is our gas.

WHICH PROJECT CREATES THE MOST OIL LOSS?

When gas is removed from an oil field a certain amount of oil production is lost. This has not yet been calculated for the Prudhoe Bay field. In ANGDA's base case, 60% of the miscible injectant is maintained on the slope for enhanced oil recovery. The base case for the All-Alaska LNG project is 2.2 bcf/day. The Canadian Highway project is 4.5 bcf/day which is removing more than twice as much gas as the LNG project and would result in much higher oil loss. The Alaska Oil and Gas Conservation Commission should investigate this issue and make an estimate for both projects of oil loss and subsequent revenue loss to the State of Alaska.

WHICH PROJECT IS BEST FOR ENCOURAGING INDEPENDENT OIL COMPANIES TO EXPLORE AND PRODUCE GAS IN ALASKA?

To answer this question, it is very instructive to look at the current situation with the Alaska oil line. It is privately owned by the major producers on the North Slope. It is in their best interest to charge the highest price possible for shipping oil through the line. This allows them to write off the charge against the wellhead price and reduce their taxes to Alaska. The higher tariffs also make it difficult for independent oil companies to bid against the majors on oil leases. The oil companies don't mind paying the higher tariffs because they own the pipeline and the money just goes from the left pocket to the right pocket.

In a recent ruling, the Regulatory Commission of Alaska (RCA) ruled the the(delete second "the") oil companies were overcharging on the pipeline by 53%. A copy of their ruling is available on the Backbone 2 website.

ANGDA would have no similar incentive to overcharge for their pipeline tariffs. Quite the opposite, as an Alaskan organization they would have a stake in maximizing oil exploration and development in Alaska.

WHICH PROJECT PROVIDES BENEFITS TO NON PROFIT ORGANIZATIONS IN ALASKA?

When Wally Hickel was Governor of Alaska, he divested himself of his holdings (10%) in Yukon Pacific and dedicated any proceeds Yukon Pacific may earn from the project to charities in Alaska. These proceeds will be distributed on an annual basis by a three member board which will decide who gets the money. There are no similar provisions for the Canadian Highway project.

WHAT IS THE PROCESS THAT ANGDA WILL FOLLOW TO DEVELOP THE ALL-ALASKAN PROJECT?

LNG projects around the world follow a similar pattern in their development. ANGDA will be no different.

1. The first step is to identify the quantity of the resource available. For Alaska this is easy, We are producing 8.5 bcf/day on the North Slope as part of oil production.
2. The next step is to do preliminary engineering to show that the project is technically feasible and to identify approximate costs. Much of this work has already been done by Yukon Pacific Corporation and has been turned over to ANGDA. ANGDA must confirm these numbers for themselves and that is the purpose of the proposed $2.15 million appropriation to the Authority.
3. Utilizing the preliminary numbers, ANGDA will seek letters of intent from gas producers and gas buyers. These letters typically state that if the preliminary numbers are verified by detailed engineering and the gas can be supplied at the prices quoted, that the purchase agreements will be formalized. ANGDA may also seek throughput agreements with the producers if they want to market their own gas. These agreements make commitment for capacity of the line at quoted cost of service fees.
4. Once letters of intent are in hand, detailed engineering and financing for the project must be completed. This will cost approximately $200 million. Based on the letters of intent this money is often funded by bond anticipation notes.
5. Once detailed engineering and financing verify the economic and engineering models, the gas purchase and sales contracts are finalized, the bonds are sold for the project and construction proceeds.

IS GOVERNMENT PARTICIPATION IN A PROJECT SUCH AS THIS UNUSUAL?

Around the world, it is actually the norm for governments to participate financially in oil and gas development projects when the resources are owned in common by the people. Substantial profits can be made in the transportation and sale of oil and gas products and ownership in transportation infrastructure is seen as a key method for insuring that the citizens receive a fair rate of return on their resources.

For instance, two deals recently announced by Conoco-Phillips and Exxon in Quatar have the Quatar government owning 70% of the project and the companies owning the rest. Although the oil companies are against Alaska owning any part of an Alaska gasline, it is interesting that they are willing to deal with middle eastern, African and Indonesian governments that own a majority of their projects, but are unwilling to deal with a state that is part of the United States.

It is not even unusual for states to own pipelines. Two states, Wyoming and Georgia have formed authorities to build their own gas pipelines because the private sector is unwilling to build them, just like they are in Alaska.

IS THIS JUST ANOTHER DELTA BARLEY FARM OR ALASKA SEAFOOD INTERNATIONAL BOONDOGGLE?

If the delta barley project or the Seward grain terminal would have had to meet the same financing requirements of this project, they would never have been built.

The language in the proposition 3 initiative states that the faith and credit of the State of Alaska is not pledged to this project. Other than the initial funding for the Authority to complete the necessary due diligence on the project, all other funding will be provided by private equity partners or by non-recourse revenue bonds.

There are two important third party checks on this project which set it apart from previously state funded projects that were not very well thought through before they were funded. First, if the project is not feasible, the markets will not sign purchase agreements for the gas. Second, in order for the bond market to feel comfortable buying the bonds, they will have to see the sales or throughput contracts and have reviewed all the economic models. When they buy the bonds for this project, they are assuming the risk for the project. If congress passes the loan guarantee provisions for the All-Alaskan LNG project which were included in federal energy legislation by Senator Lisa Murkowski, it will make it easier to sell the bonds because the full faith and credit of the US Government will be behind (80% of)the bonds.

At no time can the assets of the permanent fund be put at risk by this financing. If the permanent fund chooses to consider investing in bonds for the project, they should compare it with other investment opportunities they have and only invest if the Alaska project provides superior returns to the fund.

HOW CAN A GAS SUPPLY BE SECURED FOR THE ALL-ALASKAN LNG PROJECT?

There are voluntary and involuntary methods and all voluntary methods should be fully explored before taking stronger actions. Typically, the project sponsor would declare a cost of service figure for shipping gas through their pipeline. Then an open season is announced to seek contracts for throughput agreements with gas holders to ship their gas. The next step would be to offer to buy the gas from the producers for the project at a certain wellhead value. If the offer is reasonable and if the producers refuse to sell their gas for the project, it may be a breach of their lease requirements and may open the door for the State to take legal action to secure a gas supply.

The most extreme measure would be the use of eminent domain which the state uses regularly to secure properties and materials for other projects such as highways, airports, etc. It is required to pay fair market value for any properties or materials taken. The companies would not be able to stop the state or ANGDA, which also independently has the powers of eminent domain, from taking the gas. However, state law would allow them to argue in the courts over what is fair market value. It would be interesting to see what value the courts would place on stranded gas on the North Slope which has very little value without a pipeline to move it to market.

Although eminent domain is a strong action, it would financially benefit the oil companies also. If they were paid the amount in ANGDA's base case model, ($.94 per mmbtu) the oil companies would receive about $720 million per year, after taxes, for doing nothing more than just turning on a valve and providing the gas.

The legislature has also considered gas reserves taxes in the past in which the companies would pay higher taxes the longer they leave the gas in the ground. These taxes have not passed in the past, but perhaps the legislature will look on them differently in the context of a proposed gasline and a spreading budget deficit.

Securing a gas supply for the All-Alaskan project should also be a clear focus of the Stranded Gas Act negotiations with the producers. If they are asking for tax breaks from Alaska for a Canadian Highway or over the top project, they should at least commit a gas supply for the All-Alaskan LNG project.

HOW DOES THE JONES ACT AFFECT THE PROJECT?

For LNG entering the US West Coasts or Hawaiian gas markets, the Jones Act will apply requiring vessels with US built hulls and US crews. These vessels will be more expensive to build and operate. Does this make the All-Alaskan LNG project uncompetitive? It appears that the costs of the Jones Act requirements are small compared to other costs of this or any other LNG project.

The Jones Act requirements also raise the question of the ability of US shipyards to physically produce enough vessels in time for the All-Alaskan LNG project. In discussions with US shipyards, they point to a number of factors that could allow the All-Alaskan LNG project to go forward now while minimizing the economic impact.

In the 1970's 13 LNG tankers were built in US shipyards utilizing federal shipyard construction subsidies (CDS) to equalize the cost of construction with foreign shipyards. When the expected LNG terminals in the US were not built, these vessels went in to service transporting LNG from Indonesia to Korea and Japan. Because of the construction subsidies, they were required to maintain their US. With the same costs Alaska would have to pay to move its LNG, these tankers have been able to operate economically for over 20 years.

The typical life of these tankers is 40 years so they could be reflagged into the US fleet and used to transport Alaskan LNG to the US west coast. Even if you had to buy a new foreign built LNG tanker to replace them for their foreign work, the cost of acquiring these tankers would be equal to foreign built tankers.

In the long, term, US shipyards could replace these vessels with new US built vessels, built over time instead of all at once, which the shipyards also prefer. The Jones Act is not a major impediment to the All-Alaska LNG project.

WHAT ABOUT A MAINLINE RCUTE TO KENAI?

Backbone 2 does not take a position between competing communities for LNG facilities. However, we are concerned about a potential several year delay for permitting a different project outside the already permitted route within the congressionally designated,Trans Alaska Pipeline corridor. As we noted earlier, there is a way to economically move North Slope gas to Southcentral Alaska by a spurline from Glenallen to Palmer where it would tie into the existing Enstar pipeline infrastructure.

IS BACKBONE 2 AGAINST THE CANADIAN HIGHWAY PROJECT?

No. Backbone 2 believes that it will take several years for the Canadian Highway project to get permitted and financed. Even with the recent applications submitted to the state under the Stranded Gas Act, there is no reason for Alaska to wait on developing the All-Alaska LNG project. If the Canadian Highway project is built later, that would be great. At least Alaska would have the project that provides gas and other substantial benefits to the people of Alaska.

The worst possible outcome would be if these applications were used as a justification for slowing down the efforts to expeditiously develop the All-Alaska project.

WHAT ABOUT THE RECENT STRANDED GAS APPLICATIONS?

After reviewing the stranded gas act applications recently submitted,(available in full text on backbone2.org website) it appears that the application from Mid America in conjunction with the Alaskan company Pacific Star Energy is a serious proposal. It is great to finally see Alaskan ownership in a North Slope development project.

Mid America is offering to move the gas of any North Slope producer for a fee. If they do not get contractual agreements to move the gas, it is doubtful they can receive the financing for the project.

In their application to the state they declare that "Of necessity, commercialization of the project will require concurrent contractual arrangements by shippers for transportation of gas involving both the Alaska pipeline and the downstream Canadian line." They also reference the need for "long term contracts for firm transportation service." "Mid America will not hold title to any of the gas supplies transported by the proposed pipeline."

So Mid America is dependent on the producers for their project. When Foothills Pipeline group made a similar proposal 3 years ago, they were told by the producers that they weren't interested. Given the fact the producers have proposed their own pipeline under the stranded gas act (including the over the top route) it is doubtful that they will agree to give up the profits of a gasline to someone else. The Mid America proposal says they will make a go/no go decision by 2007.

Even if we assume that Mid America can be successful, there is no reason for Alaska to slow down on development of its own project which was mandated by Alaskan voters. Perhaps there is a way for ANGDA to work with Mid America on a development which would move the Alaska project forward and also help them with their Canadian project.

The stranded gas application from the producers contains no timelines or commitments to actually build the project. It is more of a place holder and delay mechanism than anything else. They are asking the state to give them tax and royalty relief without making any real commitment to the project.

They clearly state: **"Nothing in this application or any communications between the parties should be construed as a commitment by the Sponsor Group to complete fiscal contract negotiations, or to initiate engineering design, permitting, procurement, or construction of a qualified project or are deemed to create any obligation or liability of the sponsor Group to proceed with a Qualified Project.**

They have also openly stated that without price subsidies from the Federal taxpayers, the project is uneconomic. It is clear now that those subsidies will not be available, even if an energy bill passes. The reason those subsidies are necessary for them is that they are demanding a high rate of return and the pipeline is just too long.

According to Bill Hauhe, manager of global liquefied natural gas (LNG) for Chevron Texaco, speaking at a recent LNG workshop at the second annual Africa Oil and Gas Conference sponsored by the Corporate Council on Africa in Houston, Texas, "For distances up to about 2,000 kilometers (approximately 1000 miles), pipelines are usually the most economical way to move gas to market. For longer distances, such as between West Africa and North America, special double-hulled LNG ships are the preferred option."

The Canadian Highway route is about 2200 miles to Alberta and 3600 miles to Chicago.

Again, the main point here is that regardless of the stranded gas act applications, Alaska should continue to move forward on its own project which can provide maximum benefits to Alaska in State revenues, municipal revenue sharing, and access to gas for Alaskans. Eventually, both projects could be built and that would be the best case scenario for Alaska.

The stranded gas act applications open the way for the Murkowski administration and the legislature to negotiate provisions that would allow the All-Alaska project to go forward.

If the oil companies are asking for tax and royalty breaks, the state should demand either a gas supply for the All-Alaska project or some other commercial agreement that would help facilitate the project such as a joint venture agreement. To do any less would be to abandon the strategic interests of the people of Alaska in North Slope gas development.

VISIT BackBone2.ORG TO ACCESS THE DOCUMENTS REFERENCED IN THIS PAPER. To comment contact paulfuhs@earthlink.net