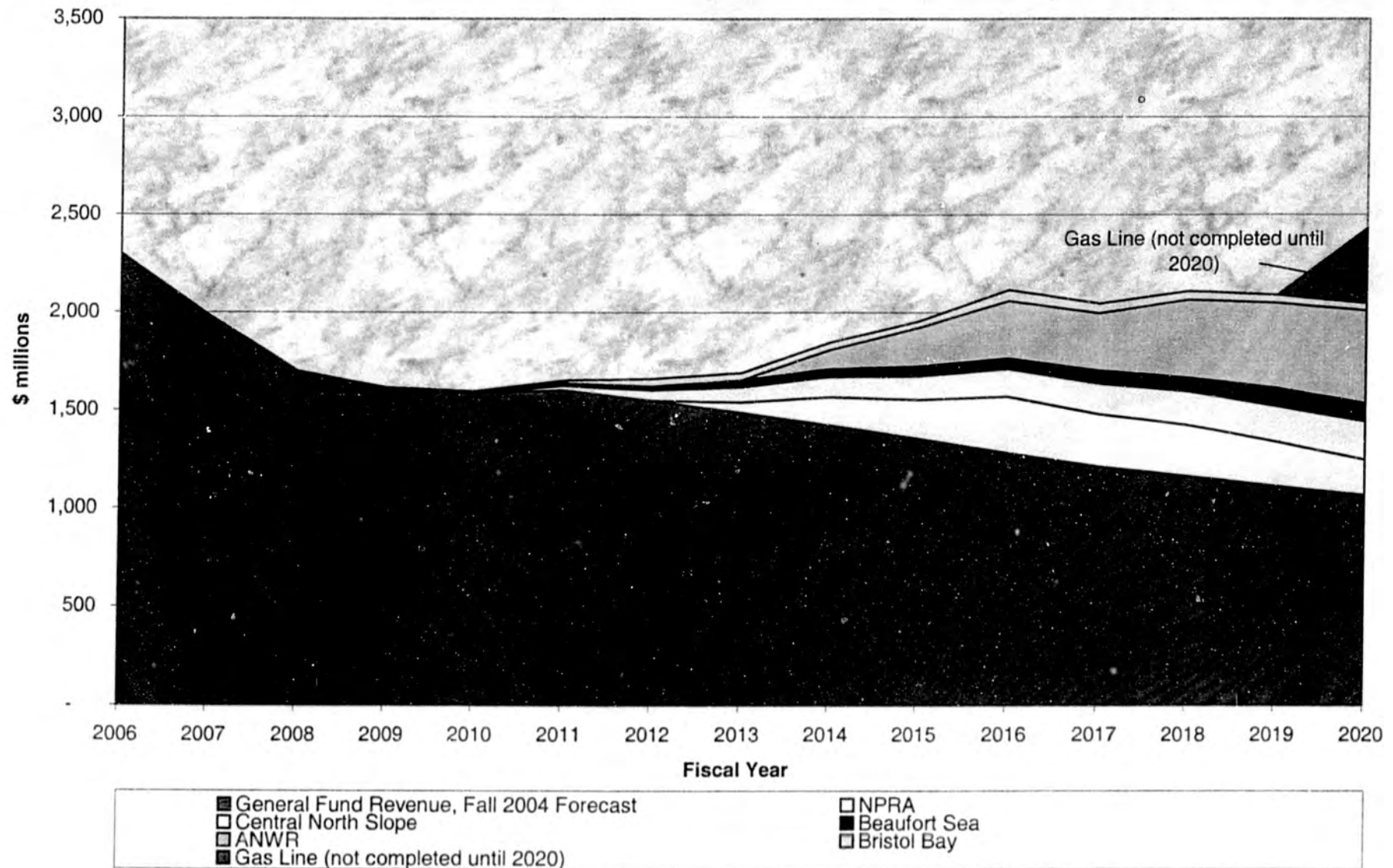


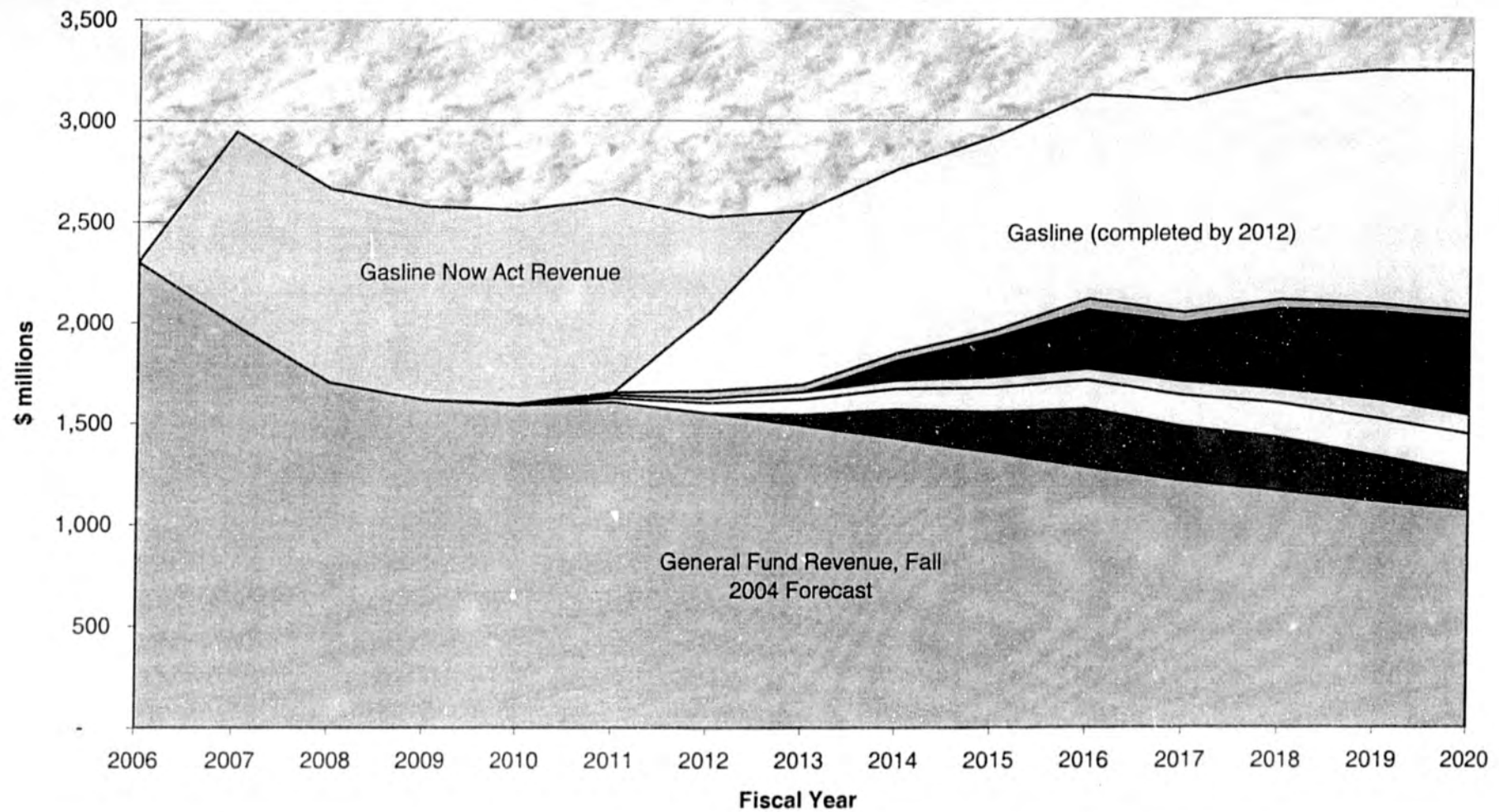
ALASKA LEGISLATURE SPECIAL COMMITTEE/SUBJECT FILES 8672

3092 SCOMM 14-2: HOUSE SPECIAL COMMITTEE ON WAYS & MEANS 2005-2006

State's Revenue Picture without the Gasline Now Act



State's Revenue Picture with the Gasline Now Act



- | | | |
|--|-------------------------|---------------------|
| General Fund Revenue, Fall 2004 Forecast | NPRA | Central North Slope |
| Beaufort Sea | ANWR | Bristol Bay |
| Gasline (completed by 2021) | Gasline Now Act Revenue | |

How the Gasline Now Act affects Alaska's ten year fiscal situation

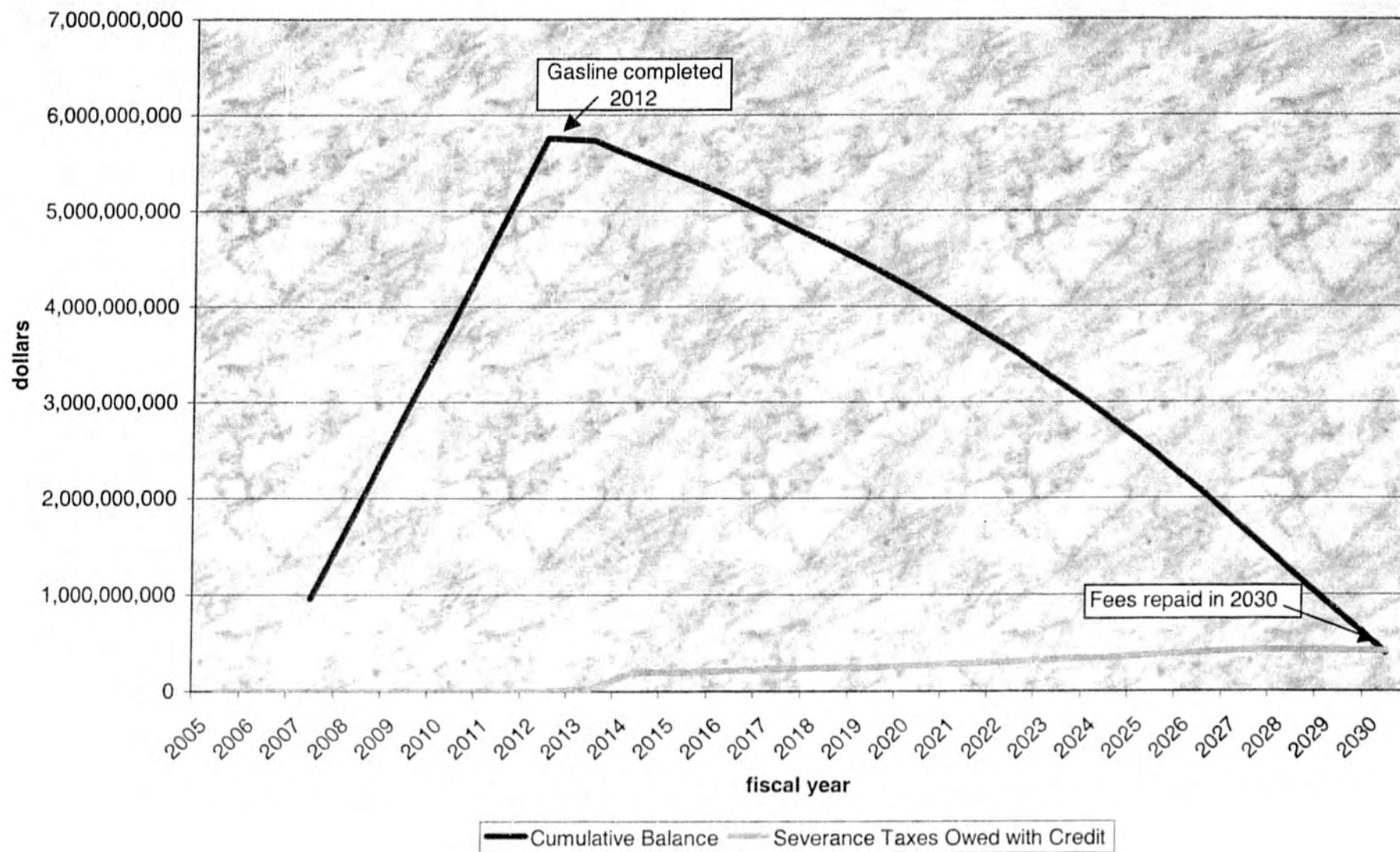
Fiscal Year	Gasline Now Act revenue	Total Projected Gasline Revenue	Gasline Revenue without Gasline Now Act	Gasline Now credit	Projected Gasline Revenue Less Credit	Other Unrestricted General Purpose Revenue	General Fund Approp.	Total Revenue without Gasline Now Act	Total Revenue with Gasline Now Act	Fiscal Gap without the Gasline Now Act	Fiscal Gap with the Gasline Now Act	Total Annual Benefit of Gasline Now Act
2005	0.0	0.0	0.0	0.0	0.0	2946.9	2720.5	2946.9	2946.9	226.4	226.4	0.0
2006	0.0	0.0	0.0	0.0	0.0	2664.0	2665.0	2664.0	2664.0	(1.0)	(1.0)	0.0
2007	960.0	0.0	0.0	0.0	0.0	2287.7	2665.0	2287.7	3247.7	(377.3)	582.7	960.0
2008	960.0	0.0	0.0	0.0	0.0	1779.5	2665.0	1779.5	2739.5	(885.5)	74.5	960.0
2009	960.0	0.0	0.0	0.0	0.0	1684.4	2665.0	1684.4	2644.4	(980.6)	(20.6)	960.0
2010	960.0	0.0	0.0	0.0	0.0	1615.8	2665.0	1615.8	2575.8	(1049.2)	(89.2)	960.0
2011	960.0	0.0	0.0	0.0	0.0	1543.3	2665.0	1543.3	2503.3	(1121.7)	(161.7)	960.0
2012	0.0	383.0	0.0	(66.0)	317.0	1480.3	2665.0	1480.3	1797.3	(1184.7)	(867.7)	317.0
2013	0.0	864.0	0.0	(148.0)	716.0	1415.7	2665.0	1415.7	2131.7	(1249.3)	(533.3)	716.0
2014	0.0	915.0	0.0	(152.0)	763.0	1418.9	2665.0	1418.9	2181.9	(1246.1)	(483.1)	763.0
2015	0.0	963.0	0.0	(157.0)	806.0	1354.9	2665.0	1354.9	2160.9	(1310.1)	(504.1)	806.0
												0.0
Total	4800.0	3125.0	0.0	(523.0)	2602.0	20191.4	29370.5	20191.4	27593.4	(9179.1)	(1777.1)	7402.0

in millions

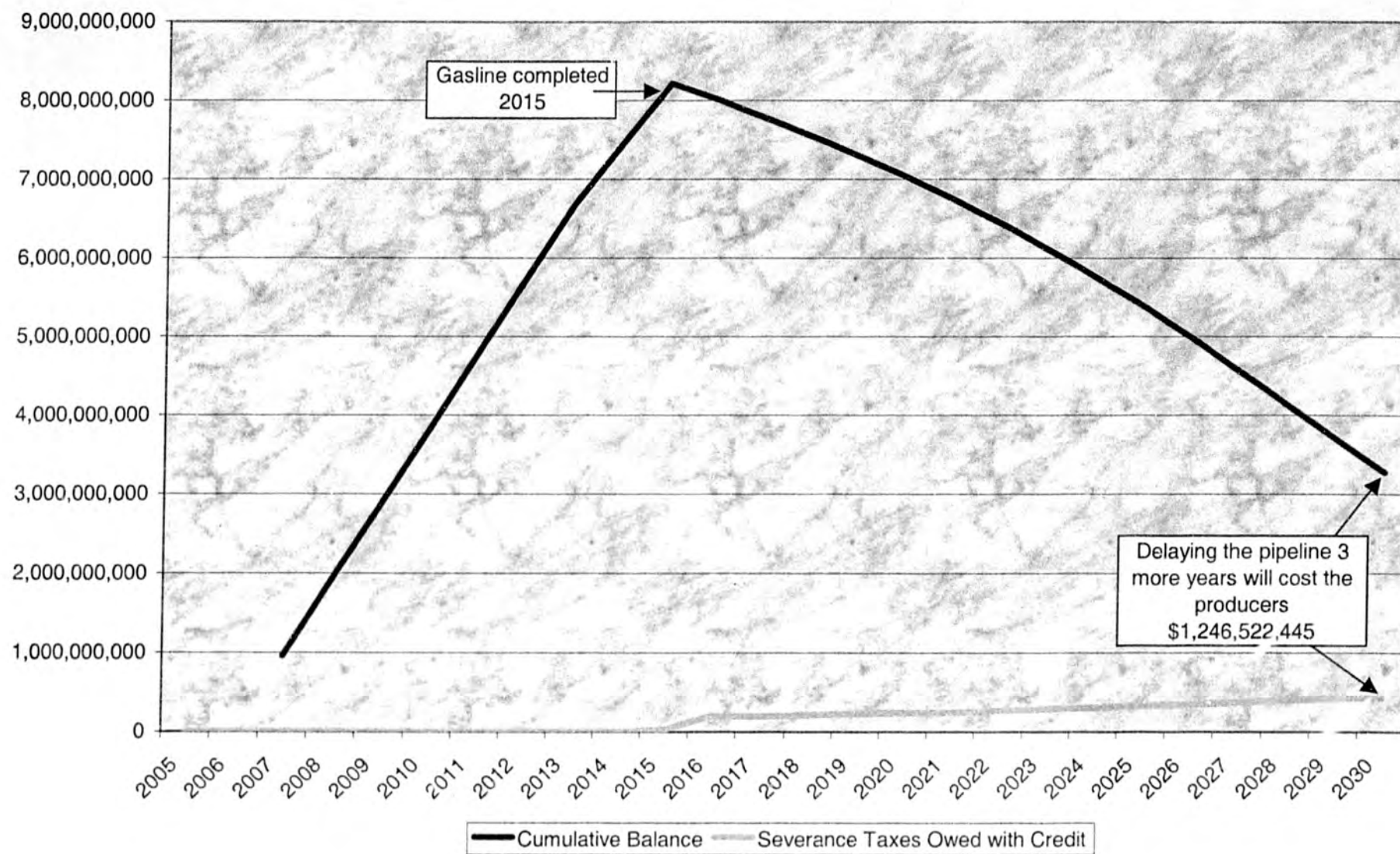
Assumes construction of a gas pipeline to be completed in 2012 with passage of the Gasline Now Act

Assumes construction of a gas pipeline to be completed in 2020 without passage of the Gasline Now Act

Repayment Schedule of Gasline Now Act fees through the Severance Tax Credit
--fees paid on 32tcf and repaid at 50% of annual severance tax liability--



Repayment Schedule of Gasline Now Act fees through Severance Tax Credit
 --fees paid on 32 tcf and repaid at 50% of annual severance tax liability assuming pipeline delayed until 2015--



Alaska Oil and Gas Association



121 W. Fireweed Lane, Suite 207
Anchorage, Alaska 99503-2035
Phone: (907)272-1481 Fax: (907)279-8114
Email: brady@aoga.org
Judith Brady, Executive Director

January 9, 2006

Representative Bruce Weyhrauch
State Capitol
Juneau, AK 99801-1182

RE: HB 223 & HB 63

Dear Representative Weyhrauch:

On behalf of the members of the Alaska Oil and Gas Association, I'm writing to express our grave concerns with House Bill 223, and House Bill 63, both scheduled for hearings this week in the House Special Committee on Ways & Means.

As you are aware, the Alaska Oil and Gas Association (AOGA) consists of seventeen member companies, representing the majority of oil and gas exploration, production, transportation, refining and marketing activities in Alaska.

Although these are separate pieces of legislation, passage of either bill would create a drastically different tax regime and business climate for the oil and gas industry in Alaska. Instituting a gas reserves tax and/or making changes contemplated in HB 63 to the Economic Limit Factor (ELF) on oil production taxes will have serious and lasting consequences - for the gas pipeline project itself, for the companies that would be directly impacted by the gas reserves tax, the companies that would be directly impacted by the changes in ELF contemplated in HB 63, and for the State of Alaska.

During AOGA's testimony on HB 63 last March, we stressed that this proposed change to ELF would be particularly egregious to the industry as it would be a structural tax increase of 27.5 percent. Additionally, the bill raises the maximum severance tax by 67%, from 15% to 25%. The Department of Revenue has briefed the legislature that, in order to maintain current production levels of just under 1 million barrels per day over the next decade, the state will need to see a doubling of investment dollars to Alaska to increase development of heavy/viscous oil, satellite fields, infield and wildcat production. HB 63 will act as a strong disincentive to new investment in all four areas.

HB 223, which would create, in terms of monetary impact, the most massive new tax in the United States, reflects a basic misunderstanding of how mega projects are developed, financed, and approved. The \$20 billion gas pipeline project is unique in its size and complexity and risk. HB 223, which is touted as a way of spurring the development of a natural gas pipeline, only adds to the economic risk of this mega-project, and has the potential of putting the project at risk. The fact is no project can be taxed into existence. A project can be taxed out of existence.

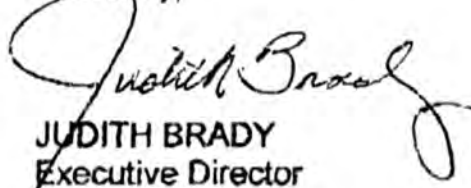
Billions of dollars of investment are required if Alaska is to have the gas pipeline, as well as the oil production needed to maintain oil production of 850,000 barrels per day. As mentioned above, the Department of Revenue has estimated that Alaska's oil and gas industry will need to invest \$20-30 billion over the next decade in wildcat exploration, heavy oil, development of previously-discovered fields and satellite field development. This is in addition to the investment necessary to slow the production decline in existing fields and to the \$20 plus billions of dollars necessary for the development of the gas pipeline. HB 223 and HB 63 would jeopardize these crucial investments that are vital in maintaining Alaska's base production and ensuring future years of Alaska's economy stabilized around new oil production and a gas pipeline.

These bills, individually and together, have very serious consequences for Alaska's future. As you discuss any potential changes to the current fiscal system, we would urge you to consider the following policy considerations:

- 1) Will a particular fiscal policy make Alaska more or less competitive for oil and gas investments?
- 2) Will a particular fiscal policy encourage or discourage investment in each of the four types of new production in Alaska?
- 3) Will a particular fiscal policy encourage investment in a gas pipeline?

We appreciate your consideration, and look forward to working with you this session.

Sincerely,


JUDITH BRADY
Executive Director

Cc: Representative Rokeberg
Representative Samuels
Representative Seaton
Representative Wilson
Representative Gruenberg
Representative Moses

NATIVE VILLAGE OD EAGLE
EAGLE VILLAGE IRA COUNCIL
P. O. BOX 19
EAGLE, ALASKA 99738

PHONE NO. (907) 547-2271
FAX NO. (907) 547-2287

January 4, 2006

Representative Eric Croft
Alaska State House of Representatives
State Capital, Room 400
Juneau, Alaska 99801-1182

RE: Gas Line Now Act

Dear Honorable Representative Croft:

On behalf of the Eagle Village Council, I want to thank you for giving me the opportunity to comment on HB 223, that Representative Harry Crawford and you sponsored. After reviewing the synopsis of HB-223, I wholeheartedly support this bill. I believe HB-223 is the mechanism that is needed to get the gas line up and running. I have heard that many of the oil and gas leases in the North Slope are undeveloped. This will be an incentive to develop and recover all the undeveloped gas that the oil companies leave in the ground.

Once we get a law such as this approved and passed, we will begin to see the oil companies eager to start the pipeline. If HB 223 is not passed and approved by the 24th Alaska State Legislature, then the people will have no other recourse but to put the initiative on the ballot. I also see at this time, when the state is financially struggling, that the revenues deriving from bill could be used to supplement some of those services that were cut.

If this tax, that is levied against the oil companies for non-production is put back into the Department of Natural Resources, then it will not benefit all Alaskans. It will only benefit the program managers. The only way it will benefit all Alaskans is to put the money back into some of the services-oriented programs that the people need. If this money goes back into the coffers of the Department of Natural Resources, I don't believe the people will see the results. It would be best used in programs that the people use and depend on, like energy assistance to offset the high rising fuel costs.

This is one way to start making the oil companies pay. With all of the potential producers in the state, I believe it is a one and only true way to get these companies to be responsive. They have had too much emphasis in all legislations. The State Constitution specifically states that any time money is derived from our natural resources, a percentage of the money will go into the permanent fund. In time of need, which is now, if HB 223 is passed, then the money derived from the 3 cents taxes could be used to serve the people now. It would be most beneficial to do a Needs Assessment and see where it is needed, now. I will support the money to be used for offsetting the energy costs.

Thank you for giving me the opportunity to comment on HB 223. I know and believe that if HB 223 is passed, all of the people will be able to stay warm and well during this time of need. In closing, I urge and ask all of you to support and vote for HB 223. It is a good bill and if passed, all the residents will benefit. If you have any questions, please feel free to call me at (907) 547-2271.

Isaac A. Juneby, Chief

Isaac A. Juneby

Eagle Village Council

C/C

Representative Harry Crawford
Alaska State House of Representatives
State Capital, Room 426
Juneau, Alaska 99801-1182

Representative David Guttenberg
Alaska State House of Representatives
State Capital, Room 13
Juneau, Alaska 99801-1182

"This moment will be a critical one in Alaska's future history. Development must not be confused with exploitation at this time. The financial welfare of the future state and the well being of its present and unborn citizens depend upon the wise administration and oversight of these developmental activities. Two very real dangers are present. The first, and most obvious, danger is that of exploitation under the thin disguise of development. The taking of Alaska's mineral resources without leaving some reasonable return for the support of Alaska governmental services and the use of all the people of Alaska will mean a betrayal in the administration of the people's wealth. The second danger is that outside interests, determined to stifle any development in Alaska which might compete with their activities elsewhere, will attempt to acquire great areas of Alaska's public lands in order NOT to develop them until such time as, in their omnipotence and the pursuance of their own interests, they see fit. If large areas of Alaska's patrimony are turned over to such corporations the people of Alaska may be even more the losers than if the lands had been exploited."

--E.L. "Bob" Bartlett

Delegate to Congress

Delivered to the Delegates of the Alaska Constitutional
Convention

November 8, 1955

Alaska Oil and Gas Association



121 W. Fireweed Lane, Suite 207
Anchorage, Alaska 99503-2035
Phone: (907)272-1481 Fax: (907)279-8114
Email: brady@aoga.org
Judith Brady, Executive Director

January 9, 2006

Representative Bruce Weyhrauch
State Capitol
Juneau, AK 99801-1182

RE: HB 223 & HB 63

Dear Representative Weyhrauch:

On behalf of the members of the Alaska Oil and Gas Association, I'm writing to express our grave concerns with House Bill 223, and House Bill 63, both scheduled for hearings this week in the House Special Committee on Ways & Means.

As you are aware, the Alaska Oil and Gas Association (AOGA) consists of seventeen member companies, representing the majority of oil and gas exploration, production, transportation, refining and marketing activities in Alaska.

Although these are separate pieces of legislation, passage of either bill would create a drastically different tax regime and business climate for the oil and gas industry in Alaska. Instituting a gas reserves tax and/or making changes contemplated in HB 63 to the Economic Limit Factor (ELF) on oil production taxes will have serious and lasting consequences - for the gas pipeline project itself, for the companies that would be directly impacted by the gas reserves tax, the companies that would be directly impacted by the changes in ELF contemplated in HB 63, and for the State of Alaska.

During AOGA's testimony on HB 63 last March, we stressed that this proposed change to ELF would be particularly egregious to the industry as it would be a structural tax increase of 27.5 percent. Additionally, the bill raises the maximum severance tax by 67%, from 15% to 25%. The Department of Revenue has briefed the legislature that, in order to maintain current production levels of just under 1 million barrels per day over the next decade, the state will need to see a doubling of investment dollars to Alaska to increase development of heavy/viscous oil, satellite fields, infield and wildcat production. HB 63 will act as a strong disincentive to new investment in all four areas.

HB 223, which would create, in terms of monetary impact, the most massive new tax in the United States, reflects a basic misunderstanding of how mega projects are developed, financed, and approved. The \$20 billion gas pipeline project is unique in its size and complexity and risk. HB 223, which is touted as a way of spurring the development of a natural gas pipeline, only adds to the economic risk of this mega-project, and has the potential of putting the project at risk. The fact is no project can be taxed into existence. A project can be taxed out of existence.

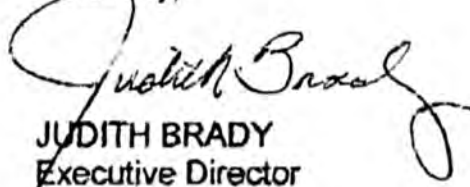
Billions of dollars of investment are required if Alaska is to have the gas pipeline, as well as the oil production needed to maintain oil production of 850,000 barrels per day. As mentioned above, the Department of Revenue has estimated that Alaska's oil and gas industry will need to invest \$20-30 billion over the next decade in wildcat exploration, heavy oil, development of previously-discovered fields and satellite field development. This is in addition to the investment necessary to slow the production decline in existing fields and to the \$20 plus billions of dollars necessary for the development of the gas pipeline. HB 223 and HB 63 would jeopardize these crucial investments that are vital in maintaining Alaska's base production and ensuring future years of Alaska's economy stabilized around new oil production and a gas pipeline.

These bills, individually and together, have very serious consequences for Alaska's future. As you discuss any potential changes to the current fiscal system, we would urge you to consider the following policy considerations:

- 1) Will a particular fiscal policy make Alaska more or less competitive for oil and gas investments?
- 2) Will a particular fiscal policy encourage or discourage investment in each of the four types of new production in Alaska?
- 3) Will a particular fiscal policy encourage investment in a gas pipeline?

We appreciate your consideration, and look forward to working with you this session.

Sincerely,


JUDITH BRADY
Executive Director

Cc: Representative Rokeberg
Representative Samuels
Representative Seaton
Representative Wilson
Representative Gruenberg
Representative Moses

PRESENTATION ON ALASKA GAS PIPELINE PROJECT

to Alaska State Legislative Budget & Audit Committee
August 31, 2005

Introduction of Econ One Research, Inc.

*5th Floor
601 W 5th Street
Los Angeles, California 90071
213 624 9600*

*Suite 1170
1215 K Street
Sacramento, California 95814
916 449 2860*

*Suite 200
1004 Prairie
Houston, Texas 77002
713 228 2700*

*Suite 230
106 E 6th Street
Austin, Texas 78701
512 476 3711*



Econ One Research, Inc.

- An economic research and consulting firm with offices in California (Los Angeles and Sacramento) and Texas (Houston and Austin)
- We provide consulting services in various industries, including petroleum and natural gas, regulated utilities, electricity, telecommunications, and computer software
- We have worked for:
 - A number of state governments on energy-related matters, including the States of Alaska, California, Hawaii, Louisiana, New Mexico, New York, and Texas
 - Federal government agencies, including the Department of Justice, the Federal Trade Commission, the Department of the Interior, and the President's Council of Economic Advisors
 - A number of foreign countries and international agencies, including the World Bank, Mexico, Nigeria, Turkey, and Tanzania on matters related to economic development and privatization of state-owned utilities
 - A number of companies in the petroleum and natural gas industries, including BP, Occidental Petroleum, ANR Pipeline, Koch Gateway Pipeline, Sempra Energy, KN Energy Corp., Lyondell-CITGO Refining, Total Petrochemicals U.S.A., Panhandle Eastern Corp., and ONEOK, Inc.

Dr. Jeffrey Leitzinger

- President of Econ One Research, Inc.
- Ph.D. in Economics from the University of California, Los Angeles
- Over 20 years of experience in economic research and consulting related to the petroleum and natural gas industries
- Economic expert for the State of Alaska on a number of occasions dating back to the 1980s
 - Major ANS royalty matters involving crude oil and natural gas
 - Investigation of the BP-ARCO merger
 - Charter Oil's purchase of State of Alaska royalty oil
- Served as expert for natural gas pipelines and gas producers on numerous occasions
- Testified on a number of occasions as an economic expert before the FERC and various state public utility commissions
- Published articles on natural gas markets and regulatory policies in the *Oil and Gas Journal*, the *Journal of Regulatory Economics*, the *Energy Law Journal*, and *Natural Gas*

Barry Pulliam

- Senior Economist with Econ One Research, Inc.
- Masters Degree in Economics from the Claremont Graduate School, with 17 years of experience consulting in the petroleum and natural gas industries
- Has consulted with or served as an economic expert for the State of Alaska on a number of occasions, including:
 - Several severance tax matters involving the valuation of crude oil
 - Operation of the TAPS Quality Bank in proceedings before the FERC and Alaska PUC
 - Merger and antitrust investigations
 - Recent arbitration between State and ExxonMobil involving crude oil royalties
- Consulted with the States of California, New Mexico, Texas, and Louisiana on economic issues related to the petroleum industry
- Consulted with federal government agencies, including the Department of the Interior and the Federal Trade Commission
- Co-author of two recent studies prepared for the Alaska Department of Natural Resources related to natural gas markets and royalty valuation issues

Dr. Anthony Finizza

- Economist working in conjunction with Econ One Research, Inc.
- Ph.D. in Economics and Finance from the University of Chicago with over 30 years of experience working in the petroleum industry
- Chief Economist for ARCO from 1975 to 1998
- At ARCO, Dr. Finizza was in charge of petroleum price forecasting for the company's Long Range Planning Process and conducted scenario-planning exercises with senior management responsible for investment decisions
- Consulted with the California Energy Commission, the State of Hawaii, and the International Hydrogen Infrastructure Group (a consortium of private companies and the U.S. Department of Energy) on energy-related matters
- Currently teaches forecasting and modeling at the University of California, Irvine
- Published articles in *Business Economics*, *The Journal of Corporate Renewal*, and *The International Journal of Forecasting*
- Senior Fellow with the U.S. Association for Energy Economics
- Former President of the International Association for Energy Economics

Rick Harper

- Consultant to the natural gas industry working in conjunction with Econ One Research, Inc.
- Over 30 years of experience working for natural gas producers and pipelines
- Has held a number of senior management positions
 - 15 years with ARCO, serving in a number of positions in ARCO's natural gas business, including President of ARCO Gas
 - 10 years with Northwest Natural Gas Company, as Senior Vice President with responsibility for marketing, supply, transportation, trading, and storage
 - President and Chief Executive Officer of an oil and gas exploration and production company, Canor Energy, Ltd., located in Calgary, Alberta between 1994 and 2000
- Testified on matters related to gas markets and pipelines before the FERC, the National Energy Board of Canada, and regulatory commissions in Texas, California, and Oregon

Our Role

- Review and analyze the economic models constructed by the Administration to evaluate the various Gas Pipeline proposals
- Consult with the Legislative Budget and Audit Committee regarding economic aspects of contract terms proposed for inclusion in contracts being negotiated under the Stranded Gas Development Act

Our Work to Date

- **Began work in Spring 2005**
- **Met with employees and consultants to the Department of Revenue and the Department of Natural Resources responsible for the development of Administration models**
 - **Employees of DOR included Roger Marks, Michael Williams, and Randy Hoffbeck**
 - **Employees of DNR included Antony Scott, William Nebesky, and Greg Bidwell**
- **In addition, we have interviewed DOR/DNR consultants, including Dr. Pedro van Meurs, Lukens Energy, Muse Stancil, and Goldman Sachs**

Our Work to Date (cont'd)

- Reviewed and analyzed models prepared by DOR, DNR, and consultants
- Analyzed construction, assumptions, and various inputs to the models and the results generated
- Reviewed assumptions regarding:
 - Future gas, NGL, and oil prices
 - Likely delivery locations for Alaska gas
 - Pipeline tariffs
 - Capital costs
 - Operating costs
 - Production volumes over time
 - Operation of fiscal systems

Our Work to Date (cont'd)

- Considered the following questions:
 - Do the models do what they are intended to do?
 - Are they operationally sound?
 - Are there conceptual errors?
 - Are there mathematical errors?

Our Work to Date (cont'd)

- **Interviewed a number of individuals active in the U.S. gas industry that are familiar with natural gas development, markets, and pipeline operations**
- **Analyzed published data, reports, and information regarding U.S. gas markets**

Our Work to Date (cont'd)

- Reviewed data prepared by the Producers, TransCanada, the Port Authority, and the Administration that is at this time confidential
- That data is used in the Administration's economic models
- We are not free at this time to discuss or share that information publicly

Our Work to Date (cont'd)

- **We also have reviewed various proposals for a Gas Pipeline project put forward by the Administration and the applicants under the Stranded Gas Development Act**
- **Most of these proposals are at this time confidential; we will not be discussing them today**

Modeling

- Developed a model of the Gas Pipeline project using publicly available and non-confidential data; we will present results of that model later today
- If a Stranded Gas contract is put forward to the Legislature, it is our understanding that much of the data that is now deemed confidential will become public and we will be able to discuss and incorporate that information

Modeling (cont'd)

- We have analyzed the construction of a Gas Pipeline and development of the gas reserves under various alternatives, assuming that construction and development were to occur under the existing fiscal system
- The information we will present is derived from publicly available or non-confidential information

PRESENTATION ON ALASKA GAS PIPELINE PROJECT

to Alaska State Legislative Budget & Audit Committee
August 31, 2005

Alaska Gas' Position in The Marketplace

Rick Harper
Consultant
Econ One Research, Inc.

5th Floor
601 W 5th Street
Los Angeles, California 90071
213 624 9600

Suite 1170
1215 K Street
Sacramento, California 95814
916 449 2860

Suite 200
1004 Prairie
Houston, Texas 77002
713 228 2700

Suite 230
106 E 6th Street
Austin, Texas 78701
512 476 3711

econ
ONE

Historical Context

- Low price levels of 1990s reflected an “over correction” to events of the 1980s
- Supply response is now more moderate than 1980s; no “runs for supply”
- Demand response is far less dramatic than 1980s; fuel switching by industrials is no longer a predominant demand driver.

Infrastructure Components

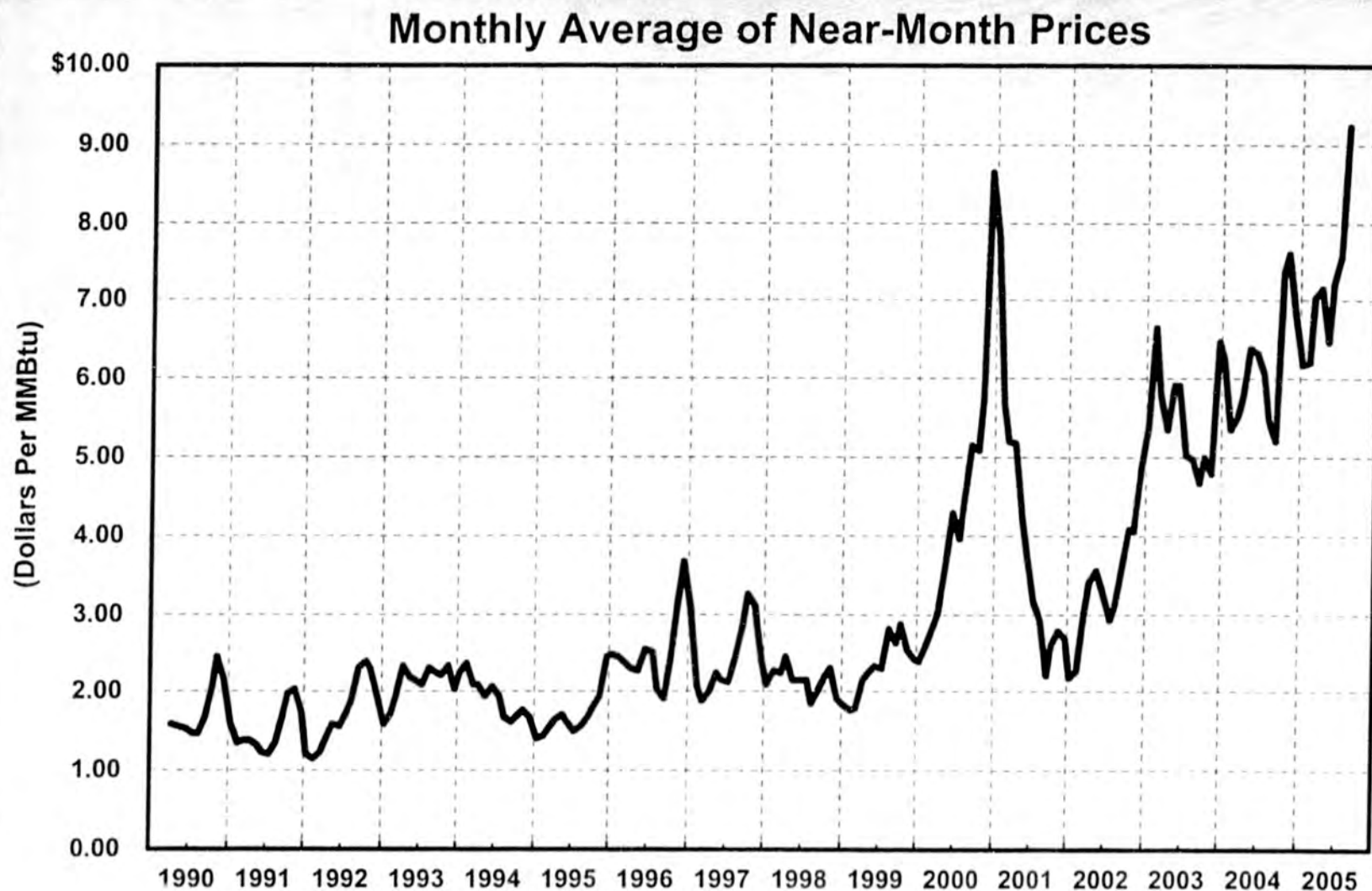
- The pipeline industry has consolidated; ownership is now more concentrated, for example:
 - ✓ TransCanada
 - ✓ Kinder Morgan
 - ✓ El Paso
- Producers continue to avoid interstate pipeline ownership
- Transportation improvements have mitigated physical bottlenecks in the U.S. and Canada
- Pipeline construction is now oriented to supplies in emerging basins (e.g. Deepwater Gulf of Mexico, Wyoming and W-5 in Alberta).

Price Environment

- Natural gas is less fungible than oil and natural gas prices are more seasonally dependant.
- “Paper” versus “physical” gas markets.
- NYMEX commodities prices.
- NYMEX gas price “strip” is now at unprecedented high levels.
- Current prices levels are not sustainable over the long term.

NYMEX Natural Gas Futures Prices

(April 1990 - August 2005)



Source: NYMEX.

BCON
ONE

NYMEX Natural Gas Futures Prices

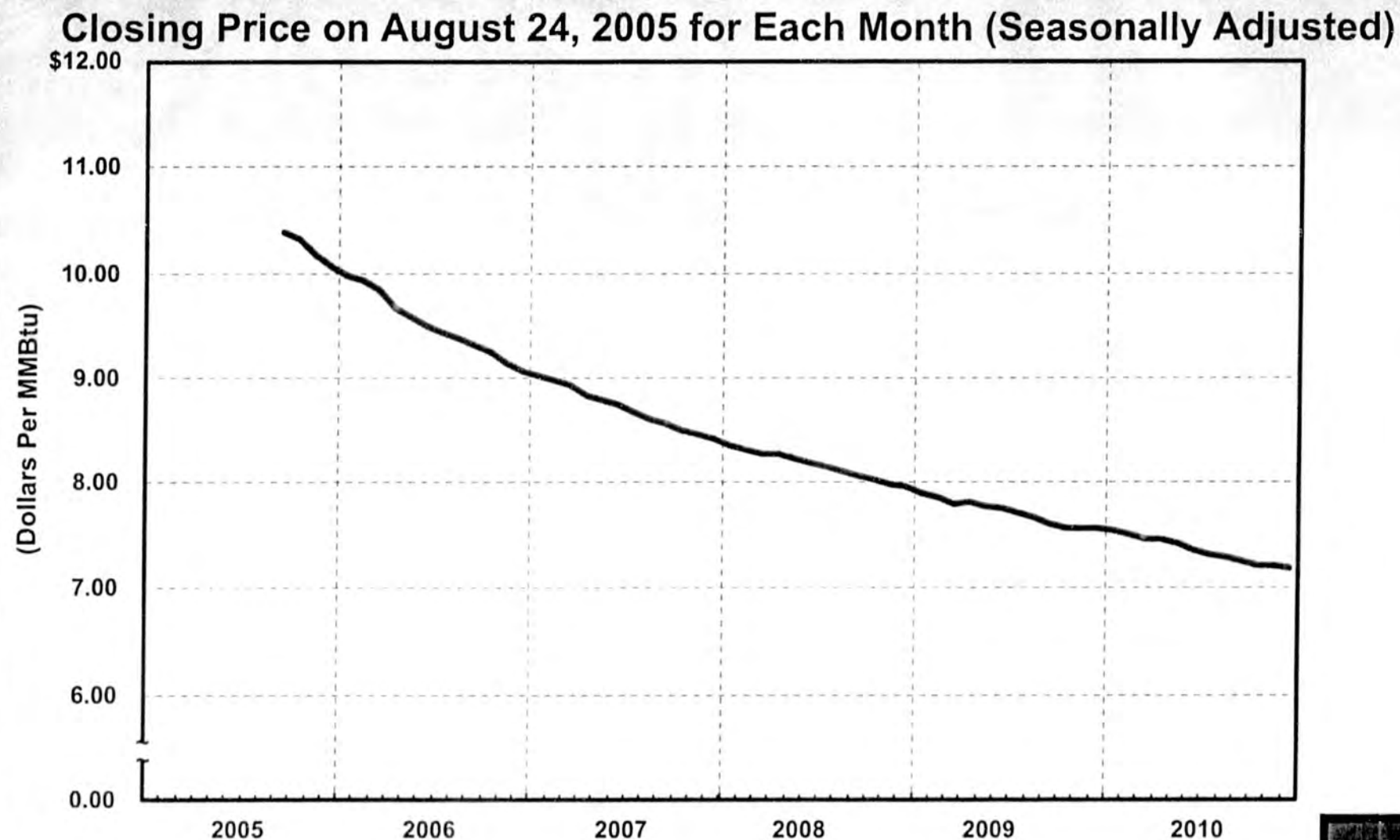
(September 2005 - December 2010)



Source: NYMEX.

NYMEX Natural Gas Futures Prices

(September 2005 - December 2010)



Source: NYMEX.

Price Environment

- Supply and demand responses have been slower and more moderate than in prior decades
- Non-traditional supplies (e.g. LNG, frontier gas) now play a more significant role
- Market expectation is for long term prices to return to a neighborhood around \$5; there are indications that long term deals can be done today in the range of \$5 to \$7

“Basis” Dynamics

- Major North American natural gas market hubs:
 - ✓ Henry Hub (Louisiana)
 - ✓ Chicago
 - ✓ AECO (Alberta)
- Basis differentials (i.e., location based price differences) reflect inherent volatility from factors such as weather and power demand
- Trades in the OTC market have been important for the development of derivative products such as puts, calls, and collars

North Slope Gas

- North Slope gas will be “base loaded” into the market and will replace declining supplies in Alberta and the Gulf Coast
- LNG and short-lived fields will be marginal sources of supply
- Basis shifts will result in pipeline additions and reorientation of conventional supplies
- North Slope gas may help maintain feedstock industries in Western Canada by replacing leaner Albertan gas supplies

LNG

- Foreign LNG and Alaska gas supplies are neither directly competitive nor mutually exclusive
- Foreign LNG likely will become a marginal source of supply because it is fungible and readily able to respond to regional and continental price swings
- Foreign LNG and Alaskan gas will fill different niches and will each be part of the total supply mix from a portfolio perspective

Potential Markets for North Slope Gas

- There is a high degree of interest from non-utility electric generators seeking to match long term supplies to new projects, both physically and financially
- Local distribution companies serving the residential and commercial markets will play a key role as they seek dependable, economic long term supplies
- Post-Enron, the midstream segment will regenerate and will provide some liquidity and seasonal smoothing for base-loaded North Slope production

Hedges and Derivative Products

- LNG and North Slope production have similar timing and pricing profiles
- Creative derivative products such as “costless collars” may offer an important benefit for stakeholders who need some degree of price certainty in a market which is somewhat illiquid in the out years

Conclusions

- Timing for North Slope gas entering the market is excellent
- North Slope gas is a logical addition to the North American natural gas and overall energy portfolio
- Adequate pricing support is apparent in the market

PRESENTATION ON
ALASKA GAS PIPELINE PROJECT
to Alaska State Legislative Budget & Audit Committee
August 31, 2005

Natural Gas Prices and Tariffs

Dr. Anthony Finizza
Consultant
Econ One Research, Inc.

*Suite 1170
601 W 5th Street
Los Angeles, California 90071
213 624 9600*

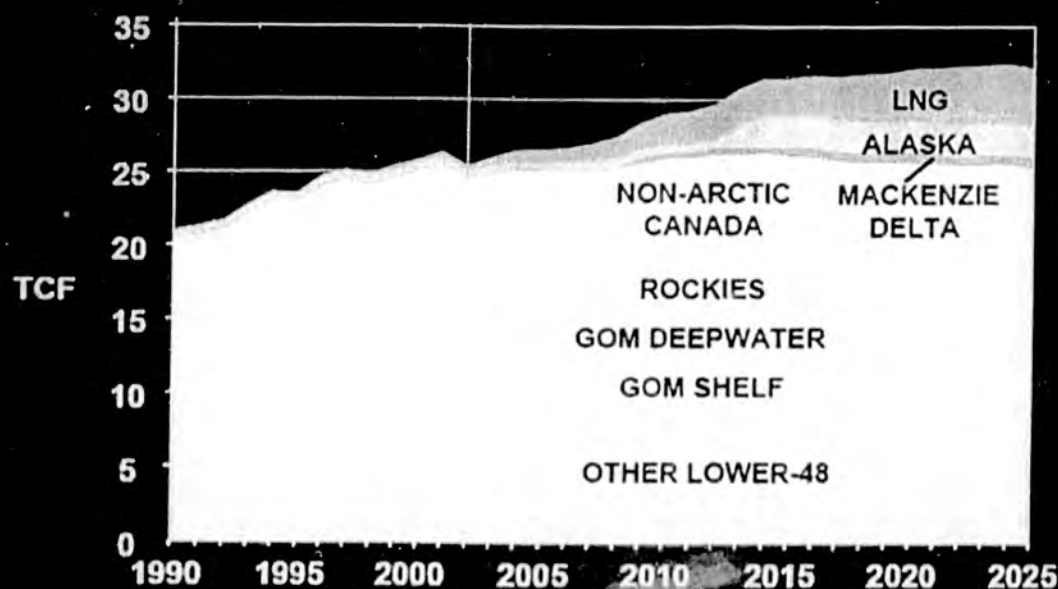
*Suite 1170
1215 K Street
Sacramento, California 95814
916 449 2860*

*Suite 200
1004 Prairie
Houston, Texas 77002
713 228 2700*

*Suite 230
106 E 6th Street
Austin, Texas 78701
512 476 3711*

The need for Alaskan Gas and LNG have been a feature of energy forecasts for many years

Future Supplies Come from Traditional and New Sources



Source: National Petroleum Council "Balancing Natural Gas Policy"
September 2003

Some Critical Uncertainties Facing Alaskan Gas

- **Strength of natural gas market**
- **Extent of LNG penetration**
- **Competition of gas with alternative energy**

Future Natural Gas Markets

- North American natural gas supply tight
 - Lower-48 (L-48) continues decline
 - Canadian supply increases
 - LNG limited
- Electric Utilities growth
 - May face competition from coal at sustained \$4-5/mmbtu gas prices
- Household/Commercial growth in line with income growth
- Industrial growth in line with GNP growth
- Little or no penetration in Transportation markets
- Current natural gas prices at cyclical high

U.S. Natural Gas Demand Outlook

- Half of incremental growth in natural gas consumption expected to be for electricity generation
 - 75% of new electricity generation capacity expected to be gas plants

U.S. Natural Gas Consumption (TCF per year)

Sector	2005	2025	Change
Residential & Commercial	8.1	10.0	+1.9
Industrial	7.2	9.0	+1.8
Electric Utilities	5.2	9.4	+4.2
Transportation & Other	1.8	2.2	+0.4
Total	22.3	30.6	+8.3

Source: US DOE EIA "Annual Energy Outlook 2005" (January 2005)

LNG

- LNG needed in supply mix ~3-4 TCF/yr
- Can be delivered to market for \$3.00 - 3.50/mmbtu, but will be sold at prevailing domestic gas prices
- Limited regasification facilities
- LNG is not marginal supply and will NOT set future gas prices. Set by needed higher cost L-48 supplies

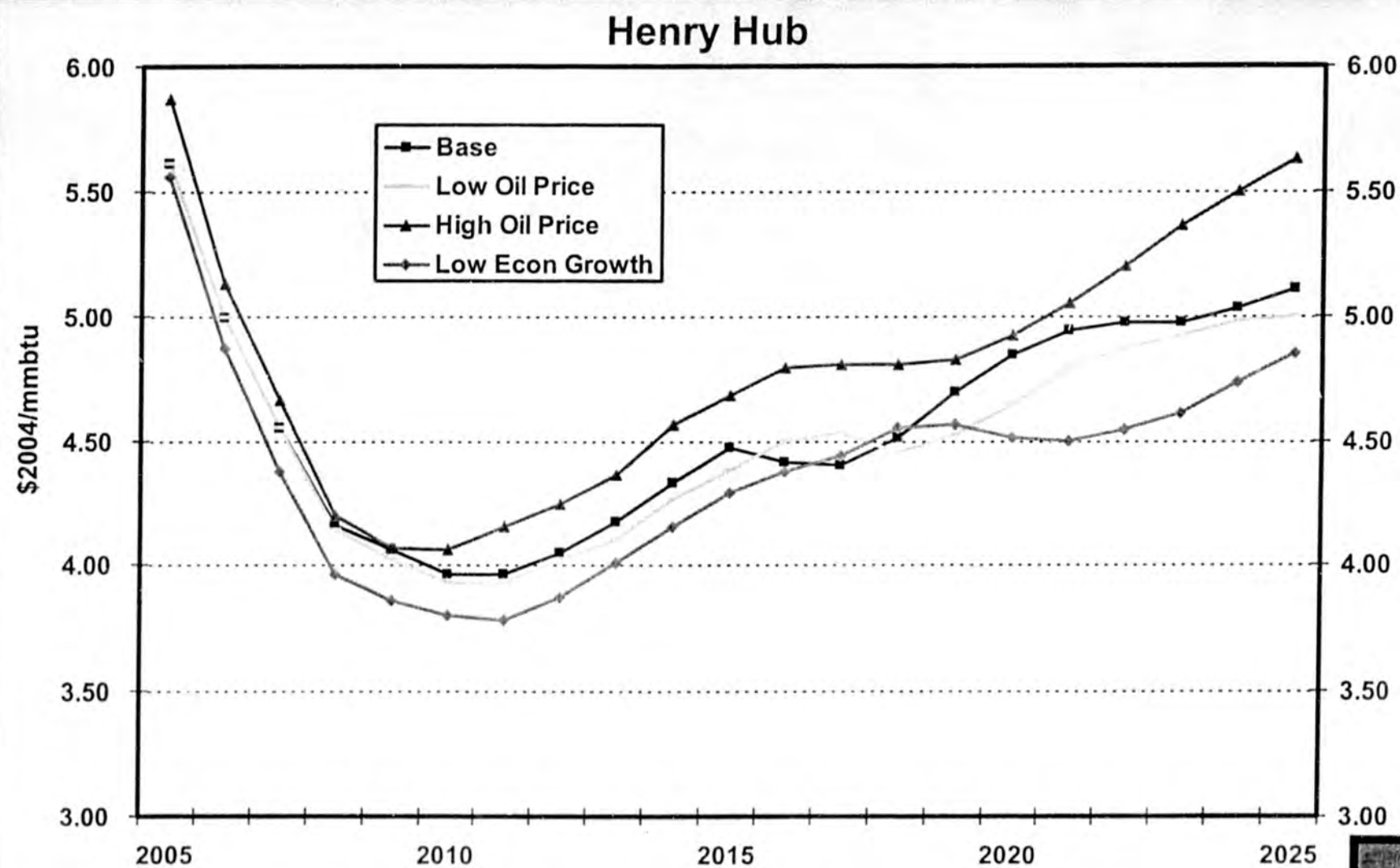
Alternative Energy Sources

- Natural gas faces threat from alternative power technologies when prices are high
 - CCGT (Combined-Cycle Gas Turbine) and with thermal coal break-even about \$4/mmbtu
 - Coal has higher capital cost but low variable costs
 - Clean Coal IGCC (Integrated Gasification Combined Cycle) power technology competitive at sustained \$4-5 /mmbtu gas price

Public Natural Gas Price Forecasts

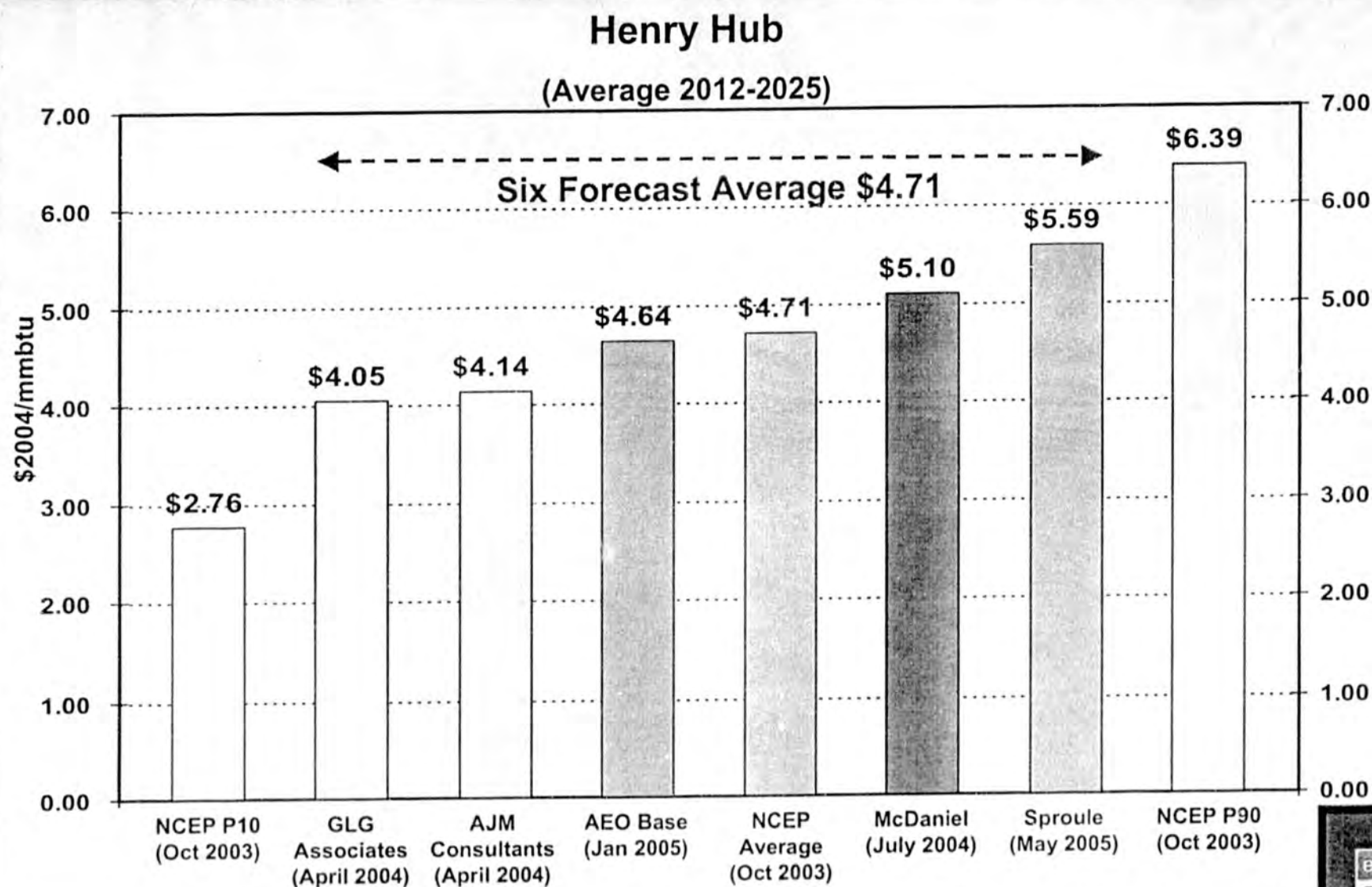
- **EIA's Annual Energy Outlook (AEO) – January 2005**
 - Forecast of average wellhead prices (through 2025, converted to Henry Hub)
 - Alternative scenarios are too closely clustered for sensitivity use
- **National Committee on Energy Policy (NCEP) – October 2003**
 - Balanced commission of prominent energy stakeholders, including business, labor, academic, environmental, and political persons
 - Includes former chairman of Conoco
 - Developed Alternative Scenarios (through 2025) – AECO and Chicago hubs
 - Econ One has received permission to use details publicly and has created probability distribution of prices, allowing stress case use
- **NYMEX Futures market**
 - Natural gas contract (tied to Henry Hub) traded since 1990
 - Offers implied price forecast out 5 years – recently about \$5.25 (\$2005)
- **Canadian gas consultants**
 - Sproule (May 2005), GLG (April 2004), McDaniel (July 2004), AJM (2004)
 - Forecasts out to 2025
- **Note: The Administration has done detailed (confidential) work on probabilistic forecasts**

AEO 2005 Natural Gas Forecasts



Source: EIA, Annual Energy Outlook (January 2005)

Alternative Natural Gas Price Forecasts

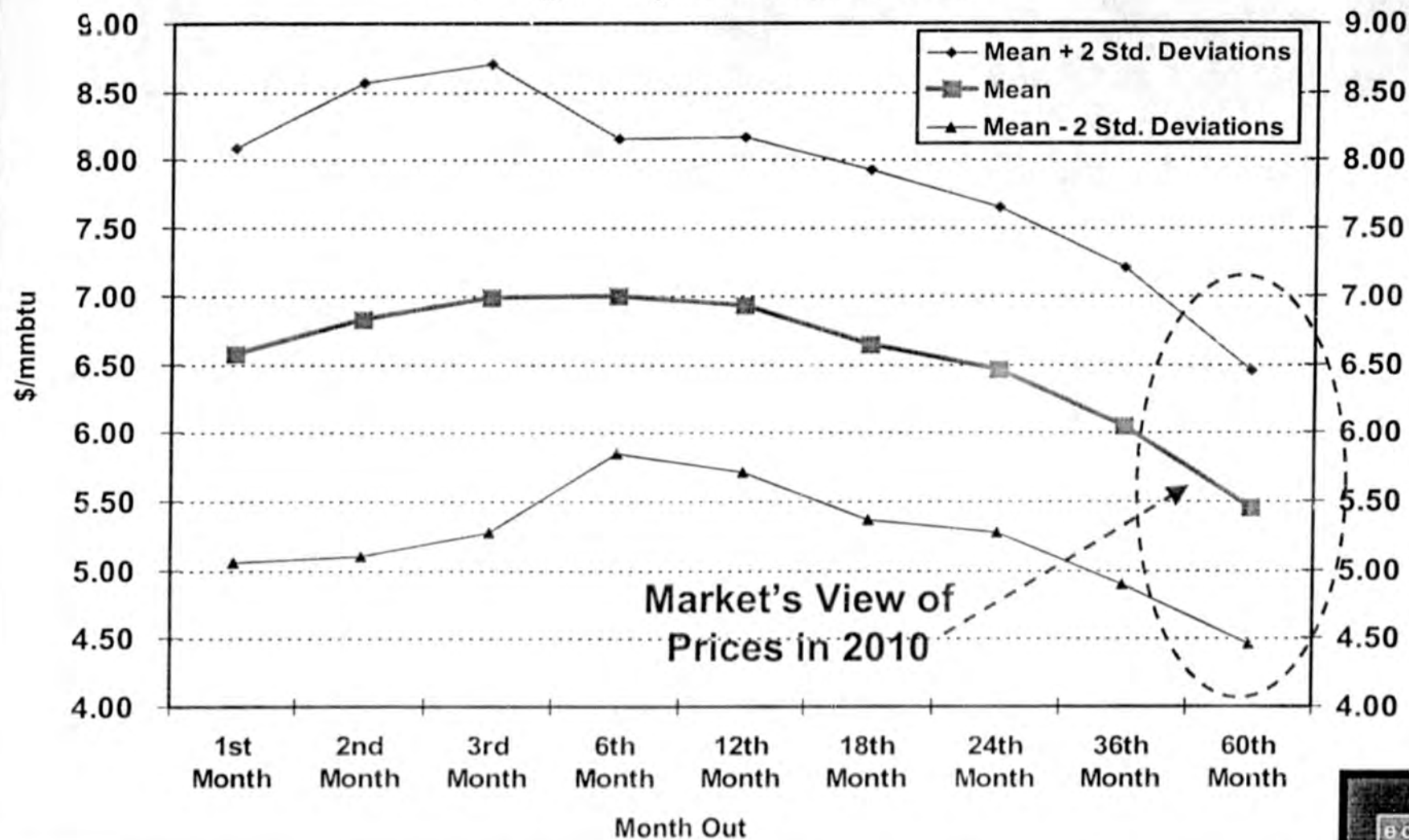


Forecasting Content of NYMEX Futures

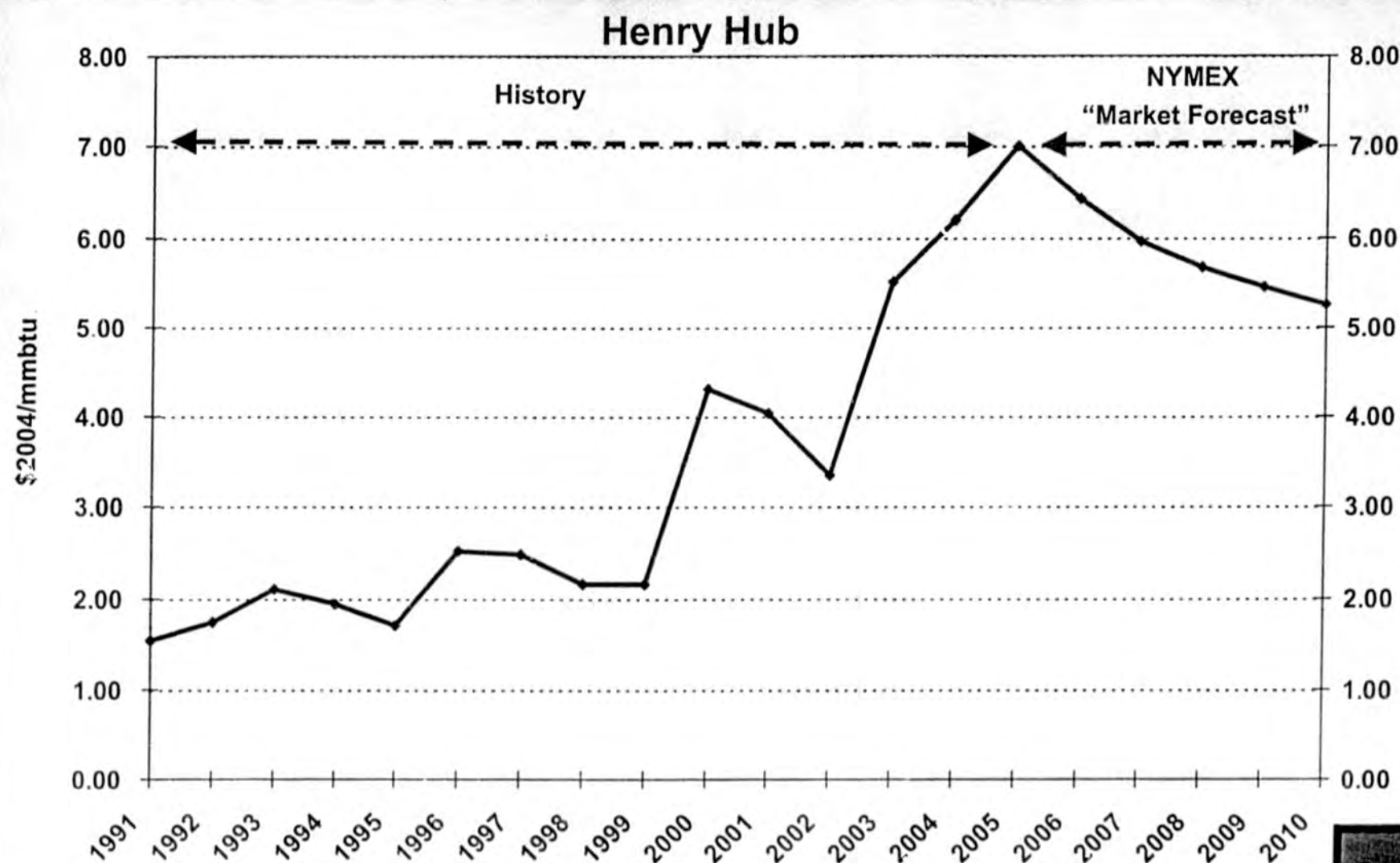
- Reflects market's expectation of future gas prices, but ...
 - Not highly accurate forecasts of gas prices
 - June 2002 NYMEX view of June 2005 was \$3.72, actual was \$6.56
 - They do outperform model based forecasts, e.g. EIA's AEO
 - Currently, future "strip" is well above EIA's forecast

NYMEX Natural Gas Futures Prices

Average July 2004-June 2005



Henry Hub Gas Prices: History and Market Forecast



Expected Price, High and Low/ Stress Price Cases

"Best Practices"

- Requires evaluation against a range of price cases, including a "Low Price" or "Stress Price" case in addition to an Expected Price case
 - Gasline project should have at least a "modest" return in the low price case

"Expected" Prices

- NYMEX offers a "Market Forecast" – recently, average about \$5.00/mmbtu
- Average of publicly available forecasts – about \$4.75/mmbtu

"Low/Stress" Price Test Case

- Rating agencies test projects against a sustained low price
 - Moody's and S&P currently using \$3.75-4.00/mmbtu
- Can use the mean less two standard deviations ($\text{Mean}-2\sigma$) from NYMEX prices - recently about \$4.00/mmbtu
- \$3.50/mmbtu has been used in recent times, but now seems too low

"High" Price Case

- Can use the mean less two standard deviations ($\text{Mean}+2\sigma$) from NYMEX prices - recently about \$6.00/mmbtu

Note: all prices are Real \$2004/mmbtu in Chicago

Public Pipeline Costs

Billions of Dollars

	Producers* (\$2001)	Producers (\$2005)	Tristone Capital ***(\$2005)
Gas Treatment Plant	2.6	2.8	
Pipeline: Alaska	4.4	4.8	
Pipeline: Alaska to Alberta (Gordondale) **	4.8 } 7.2 2.4 }	5.2 } 7.8 2.6 }	
Pipeline: Alberta (Gordondale to Vegreville) **			
NGL Plant	.6	.7	
Total: North Slope to Alberta	14.8	16.0	18.0
Pipeline: Alberta to Chicago	4.6	5.0	6.0
Total: North Slope to Chicago	19.4	21.0	24.0

*\$125 M feasibility study as reported by Producers, June 2004. Range $\pm 20\%$.

** Producers did not split out Gordondale/Vegreville capital. Estimated split on basis of mileage.

*** "Monetizing Northern Frontier Gas," Tristone Capital, May 2005

Pipeline Tariffs

Assumes Project ends at Gordondale, Alberta
\$/mmbtu

	Estimated Tariff*
Gas Treatment Plant	.29
Pipeline: Alaska (includes PT Feeder)	.48
Pipeline: Alaska to Gordondale, Alberta	.50
AECO Entry Fee	.16
Total Pipeline Charges: North Slope to Market (Alberta)	1.14
Total Pipeline Charges + GTP: North Slope to Market (Alberta)	1.43 ± 20%

* Assumes publicly available capital, 4.2 bcf/d sales, financial parameters (80/20 Debt/Equity, Allowed Rate of Return 14% US, 12% Canada, Debt 5.0%)

Implied Netbacks Under Alternative Gas Prices

Assumes Project ends at Gordondale, Alberta

Initial Year Values - \$/mmbtu

	"Stress" Price	"Forecast" Price	"Futures Market" Price	"High" Price
Chicago Price	\$4.00	\$4.75	\$5.00	\$6.00
Chicago/AECO Differential (exclusive of AECO entry fee)	.90	.90	.90	.90
AECO Entry Fee	.16	.16	.16	.16
Pipeline + GTP +PT Feeder	1.26	1.26	1.26	1.26
Netback at Inlet to Pipeline	\$1.68	\$2.43	\$2.68	\$3.68
Operating Costs & Fuel Use	.07	.08	.09	.11
Royalty and Taxes	.34	.49	.54	.74
Netback to Producers	\$1.27	\$1.86	\$2.05	\$2.83

PRESENTATION ON ALASKA GAS PIPELINE PROJECT

to Alaska State Legislative Budget & Audit Committee
August 31, 2005

Return on Capital & Cost of Capital:
Petroleum & Natural Gas Pipeline Companies

Barry Pulliam
Senior Economist
Econ One Research, Inc.

*5th Floor
601 W 5th Street
Los Angeles, California 90071
213 624 9600*

*Suite 1170
1215 K Street
Sacramento, California 95814
916 449 2860*

*Suite 200
1004 Prairie
Houston, Texas 77002
713 228 2700*

*Suite 230
106 E 6th Street
Austin, Texas 78701
512 476 3711*

econ
ONE

- Return on Capital Employed (ROCE)
- Return on Shareholder Equity (ROE)

Return on Capital Employed

- Capital Employed = Book Value of Debt + Book Value of Equity
- The *Return on Capital Employed* (ROCE) of a firm measures its operating efficiency in generating profits from the average level of capital employed, excluding the potential beneficial effects of financing
- ROCE is one of the petroleum industry's most widely used profitability measures
- $$\text{ROCE} = \frac{\text{Earnings Before Interest \& Taxes (EBIT)} \times (1 - \text{Tax Rate})}{\text{Book Value of Debt} + \text{Book Value of Equity}}$$

or

$$= \frac{\text{Operating Profit Before Financing Costs}}{\text{Capital Employed}}$$

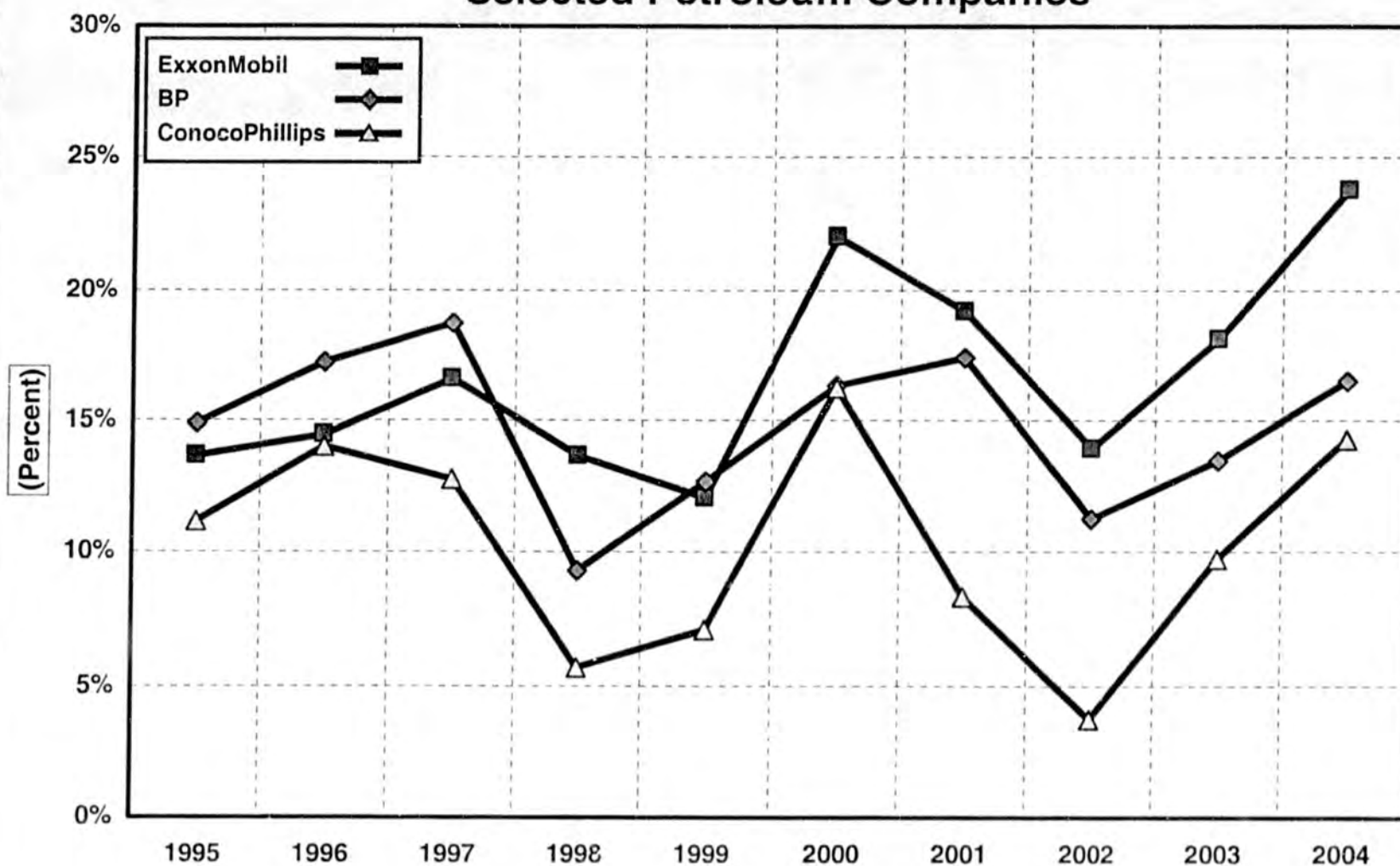
Return on Shareholder Equity

- The *Return on Shareholder Equity* (ROE) measures the firm's profitability from the perspective of an equity investor (e.g., shareholder)
- Unlike ROCE, ROE includes the impact of debt financing and the ability of the firm to use "leverage" to benefit its shareholders
- $$\text{ROE} = \frac{\text{Net Income}}{\text{Book Value of Common Equity (or Stock)}}$$

Return on Capital Employed

(1995 - 2004)

Selected Petroleum Companies

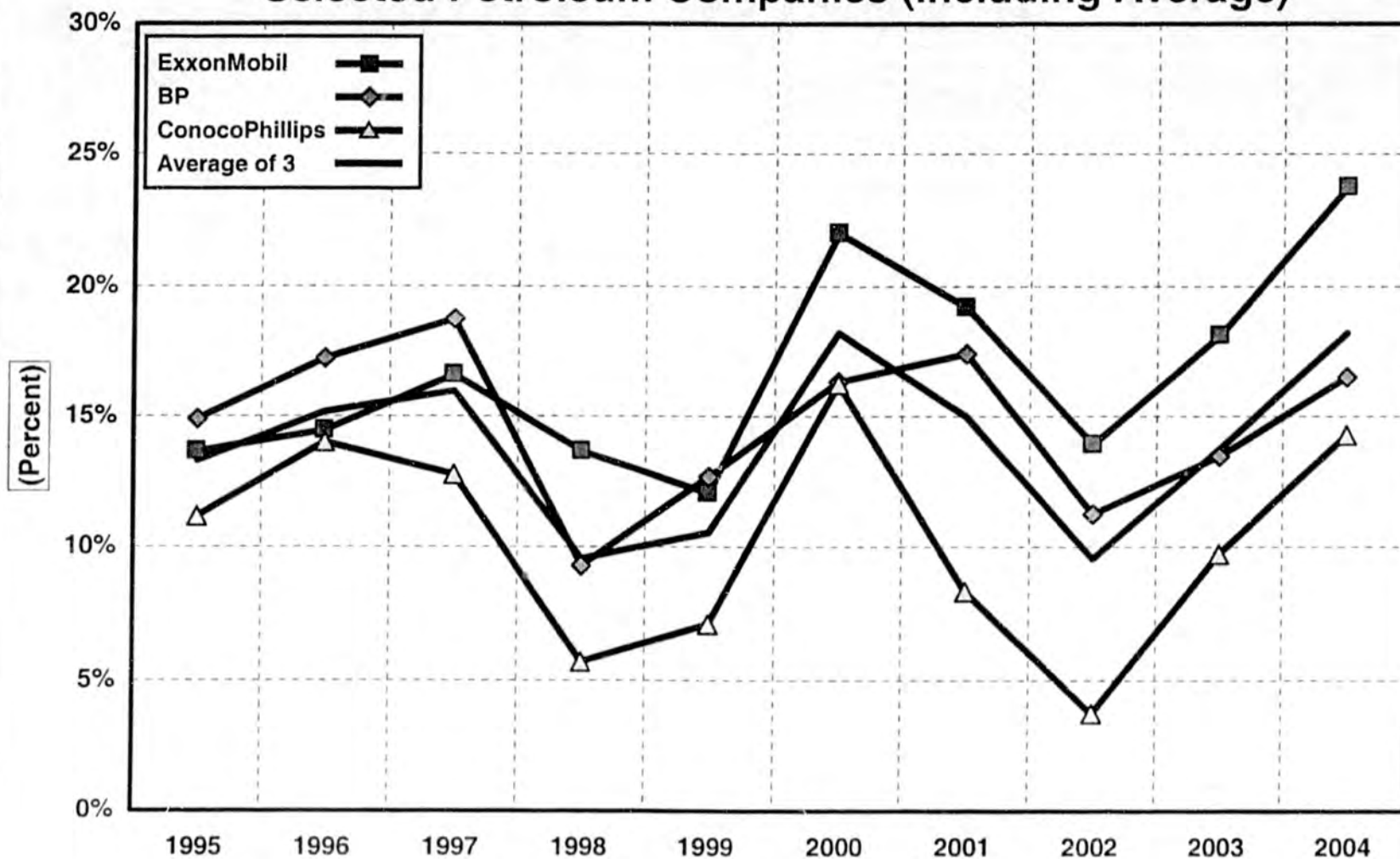


Source: Value Line (March 18, 2005).

Return on Capital Employed

(1995 - 2004)

Selected Petroleum Companies (Including Average)

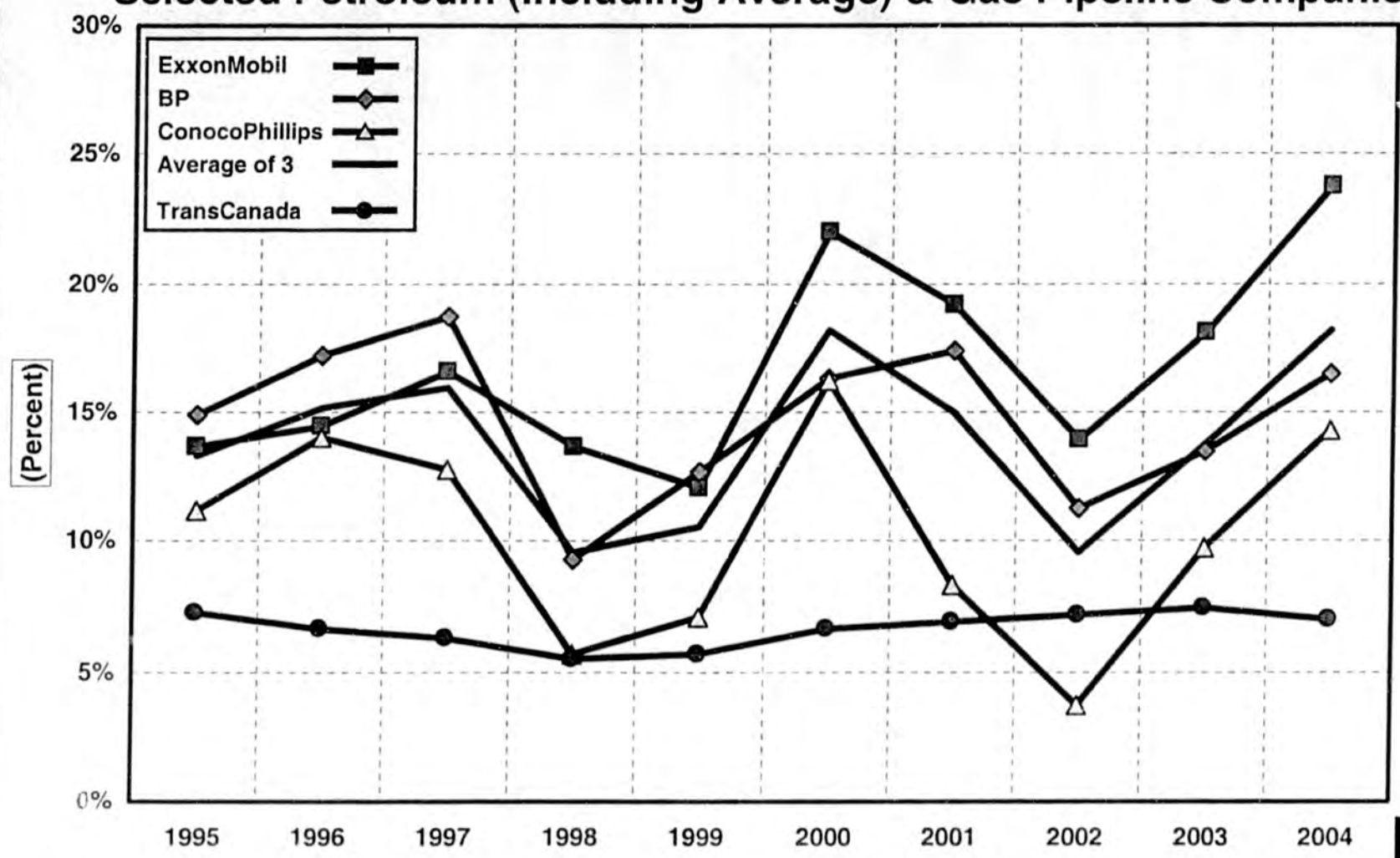


Source: Value Line (March 18, 2005).

Return on Capital Employed

(1995 - 2004)

Selected Petroleum (Including Average) & Gas Pipeline Companies



Source: Value Line (March 18, 2005).