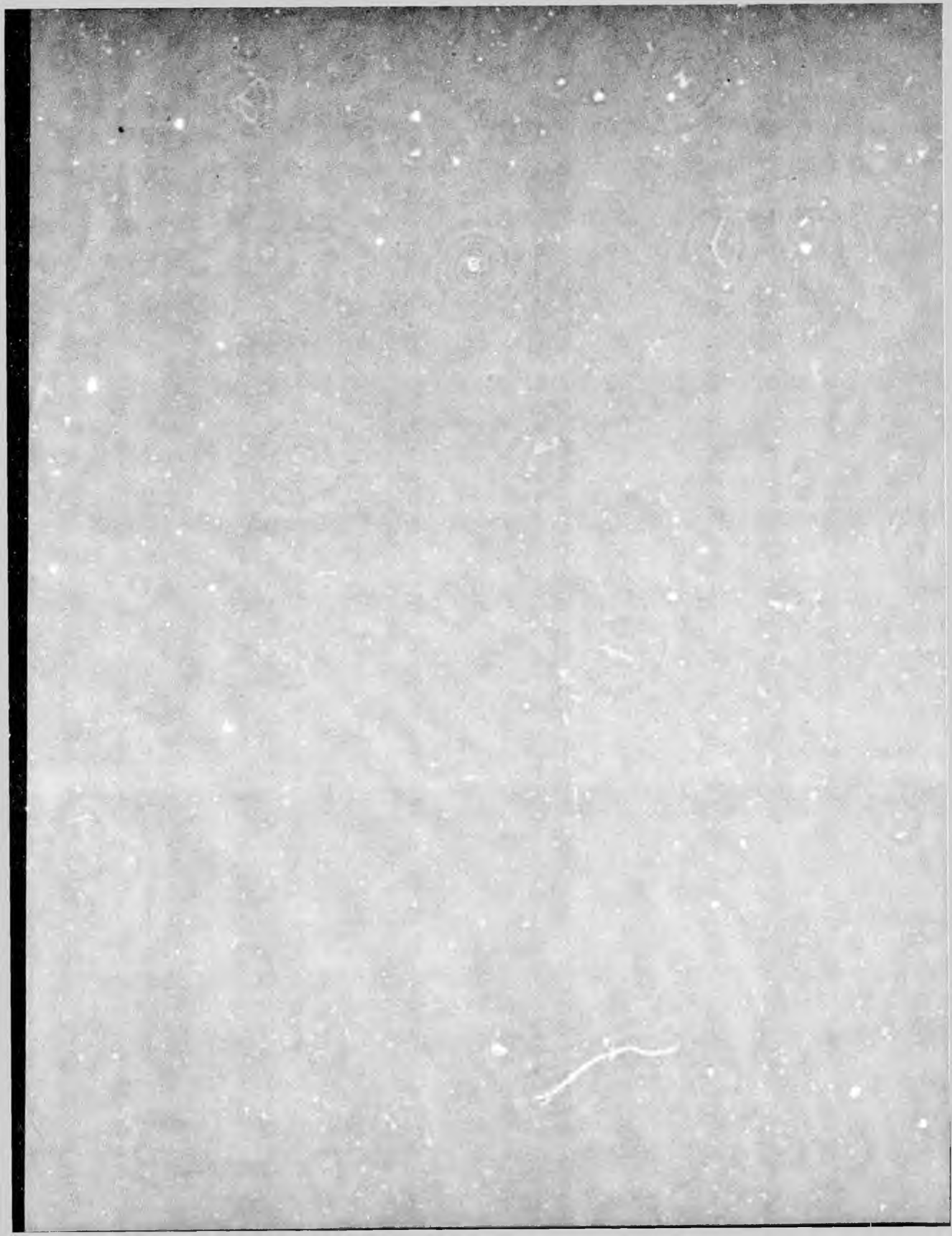


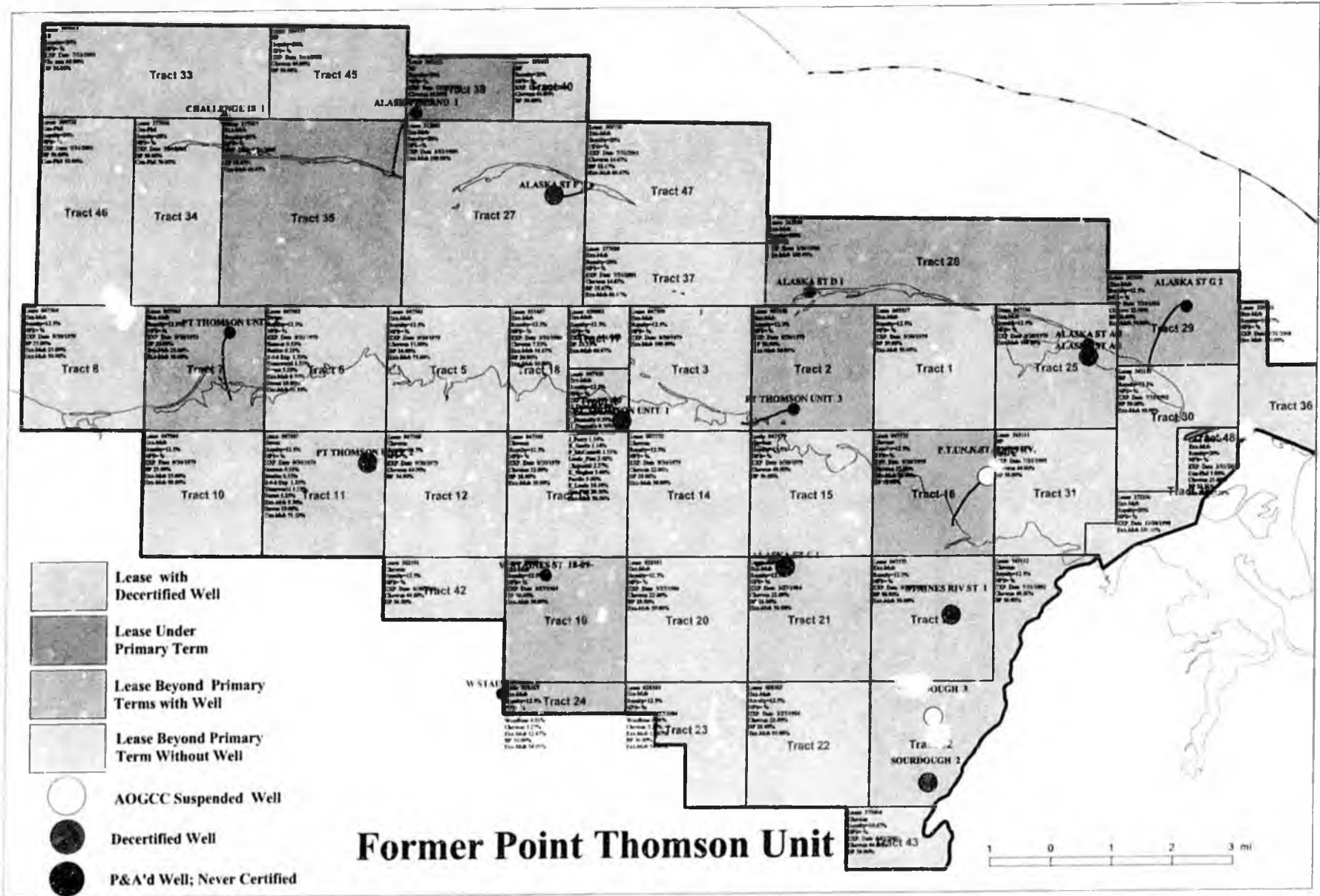
ALASKA LEGISLATURE COMMITTEE FILES 2007-2008 HRLS 12318

Point Thomson Reservoir Study

Conclusions

- Primary depletion may recover 6-7 TSCF of gas and 210-305 MMSTB of condensate and oil
 - Results in the lowest hydrocarbon recovery of a retrograde condensate reservoir
 - Gas blowdown can be done after gas cycling and recovery of the condensate and oil
- Gas cycling for 15-20 years and subsequent blowdown may recover about 6 TSCF of gas and 620-850 MMSTB of condensate and oil
 - Gas cycling may delay gas sales, but can potentially increase recovery of condensate and oil by over 500 MMSTB
- Additional wells needed to delineate and test the Thomson oil-rim
 - Delineation of the oil-rim during gas cycling will determine scale of development
 - Pressure maintenance required to sustain maximum producibility and recovery of oil and condensate

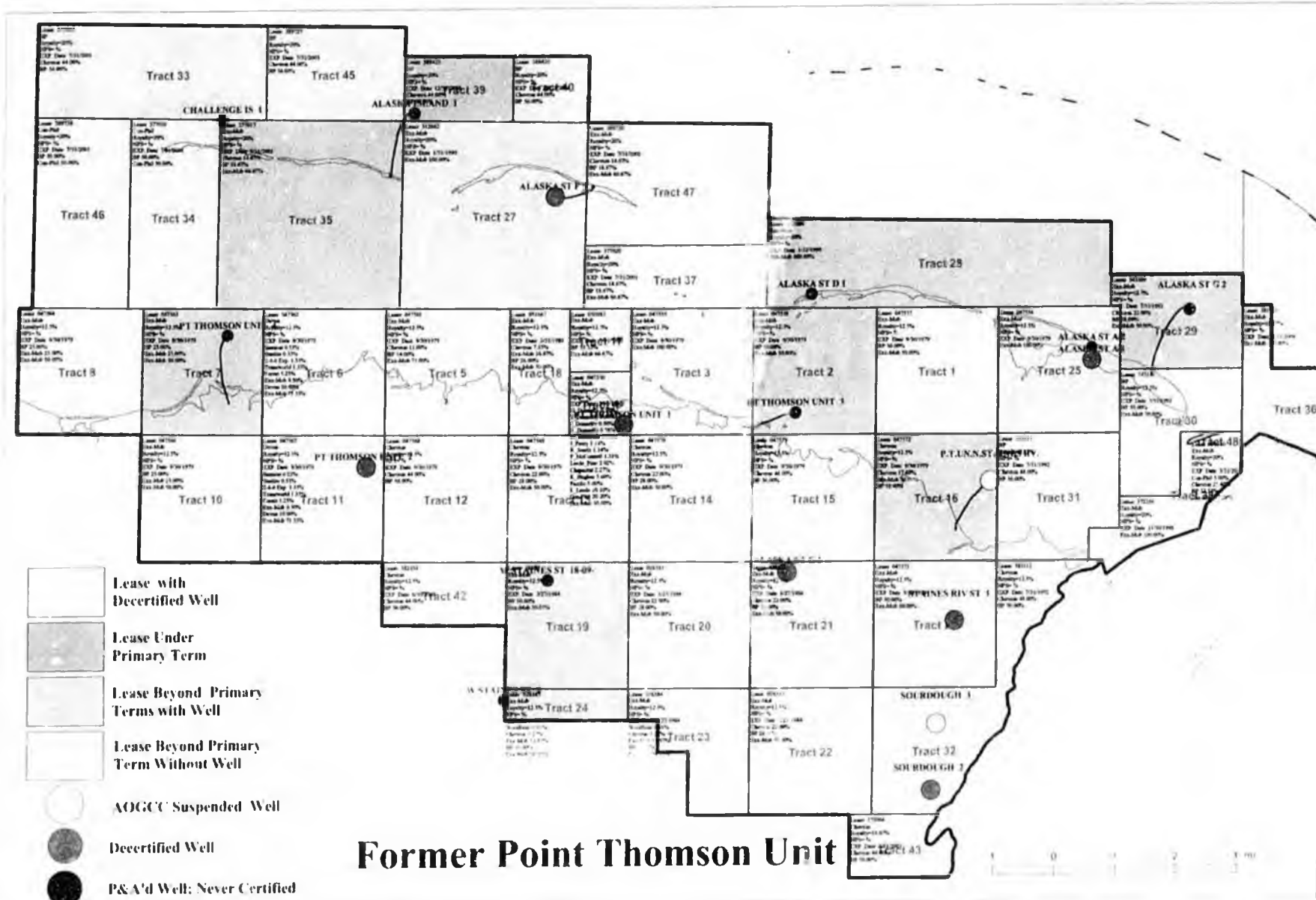




- Lease with Decertified Well
- Lease Under Primary Term
- Lease Beyond Primary Terms with Well
- Lease Beyond Primary Term Without Well
- AOGCC Suspended Well
- Decertified Well
- P&A'd Well; Never Certified

Former Point Thomson Unit





Former Point Thomson Unit

HB 3001

SB 3001

6/18/08

SPECIAL

SESSION

DOCUMENTS

BUILDING A WORLD OF DIFFERENCE®



BLACK & VEATCH



Overview of the Methodology Utilized to Determine the Net Present Value to Stakeholders

State of Alaska – Anchorage Special Session

June 18, 2008

What are the key factors to determine NPV?

1. An estimate of cash flows, net, by year:
 - Includes capital expenditures, operating expenses and revenue
2. An assumption about the discount rate.

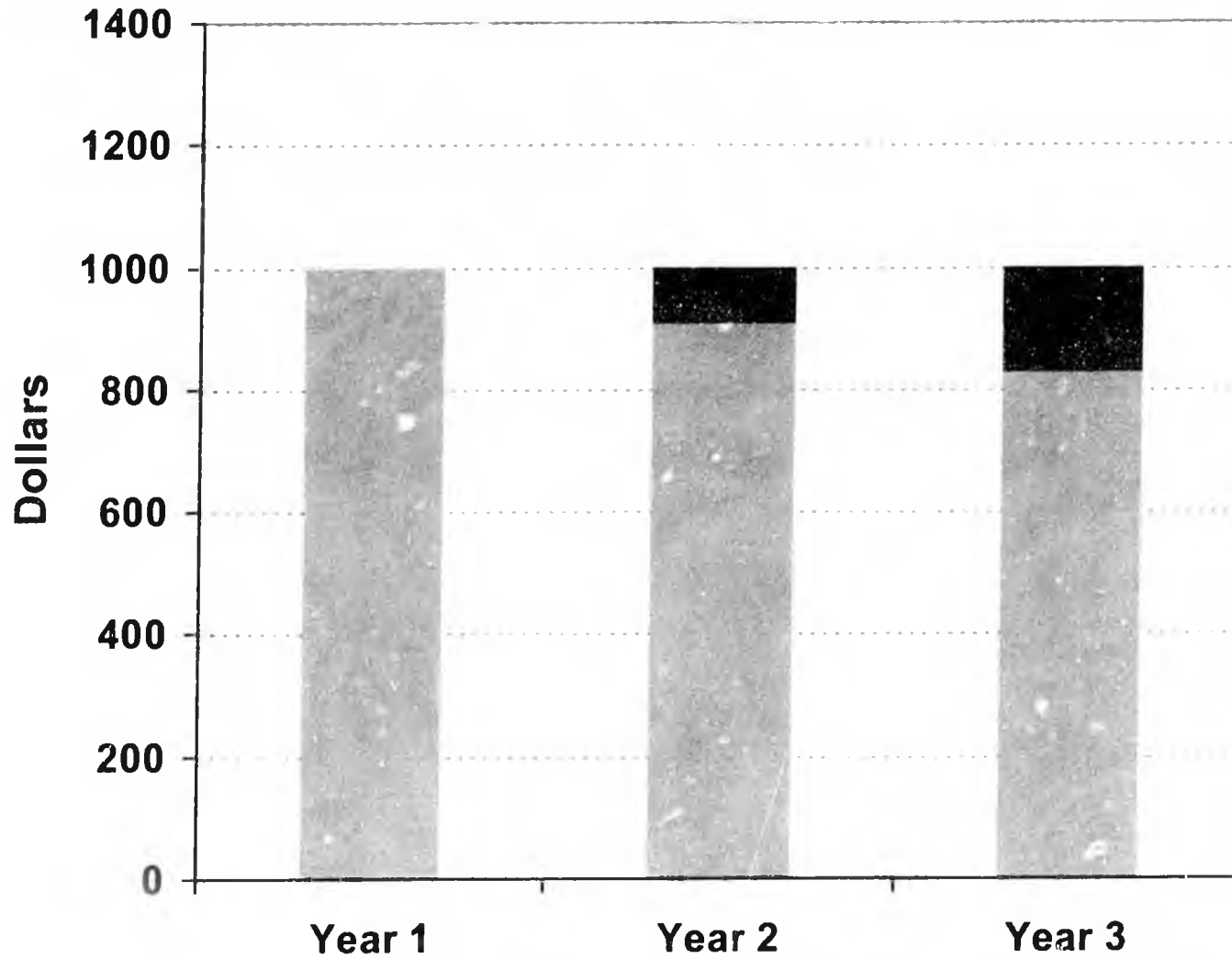
A discount rate is needed to calculate NPV for each project stakeholder.

- Discount rate is a price. It is the price associated with waiting to get a benefit, versus getting a benefit today.
- Many factors can influence the price of waiting (discount rate). These include: alternative investment returns, ones cost of capital, general inflation conditions, concern for the well being of future generations
- Discount rates¹ vary by stakeholder:
 - State – 5% (Sensitivities of 0%, 2%, 6%, 8% were also used)
 - TransCanada – 8.8%
 - Producers – 10% and 15%

¹ See Section 4.1 of NPV Report for discussion of discount rates used in NPV analysis.

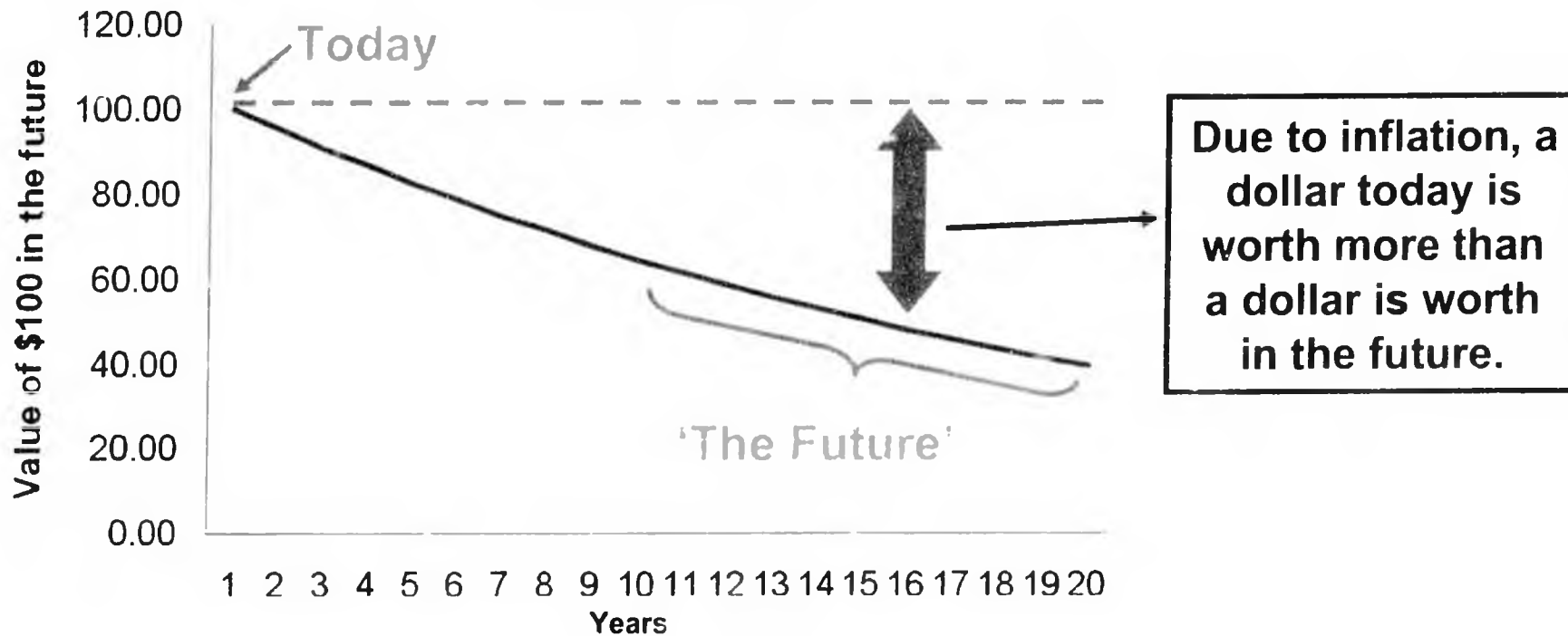


Discounting Example



Net Present Value (NPV) calculates how much a stream of future cash flows are worth today.

Present Value of \$100 Cash Flow in Future
Discount Rate = 5%



\$245 billion of Cash Flow → \$61 billion of NPV₅

- NPV₅ of State's cash flow for a 4.0 Bcf/d project is \$61 billion.
- Total State Net Cash-flow (undiscounted) is \$245 billion.
- These results indicate that the State is indifferent to:
 - Having \$61 billion *today* (Remember - NPV is a measure of what future dollars are worth today)
 - and having \$245 billion of cash flow starting in year 2020 extending through 2044.



BUILDING A WORLD OF DIFFERENCE®

BLACK & VEATCH



Net Present Value (NPV) Analysis

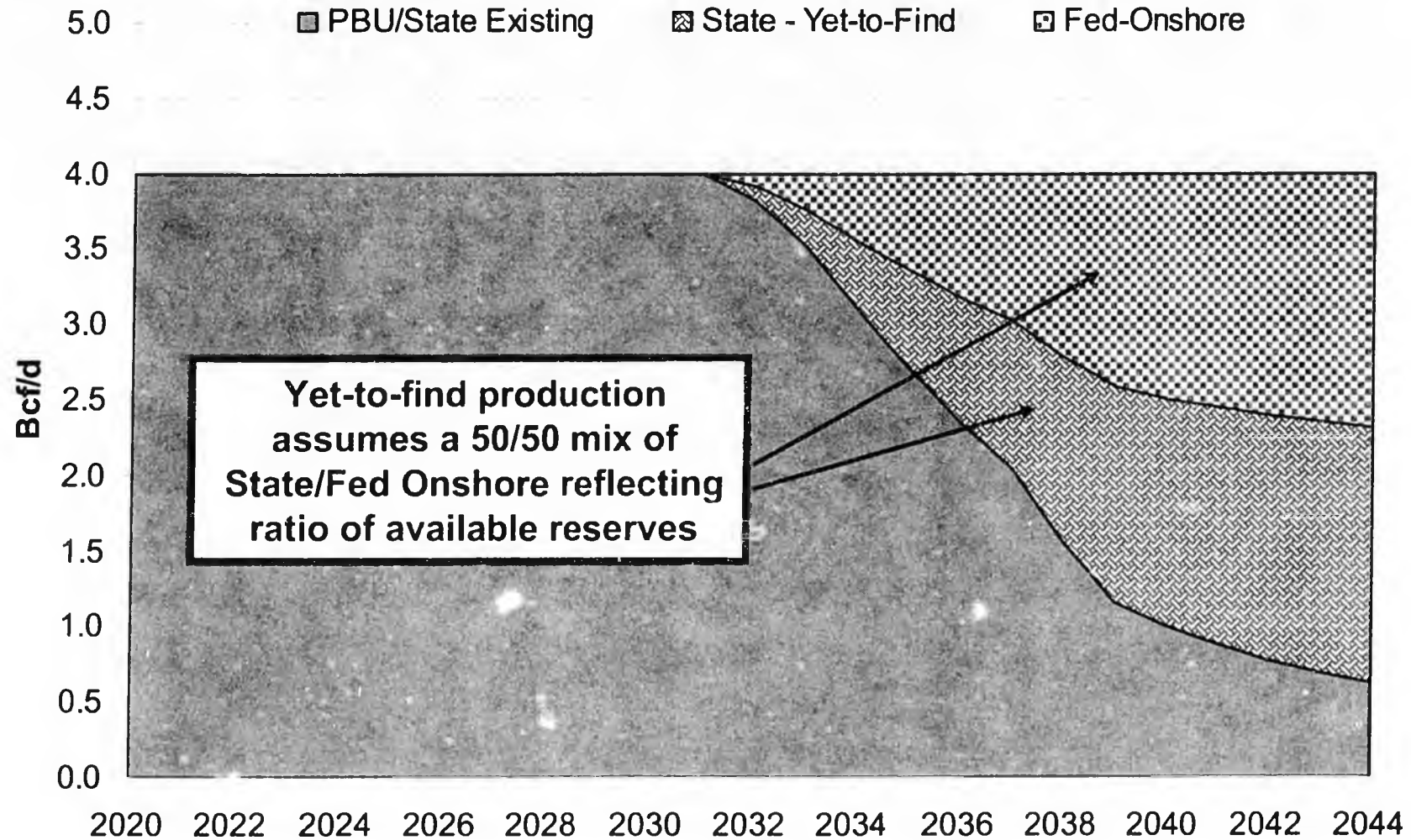
State of Alaska - Anchorage Special Session

June 18, 2008

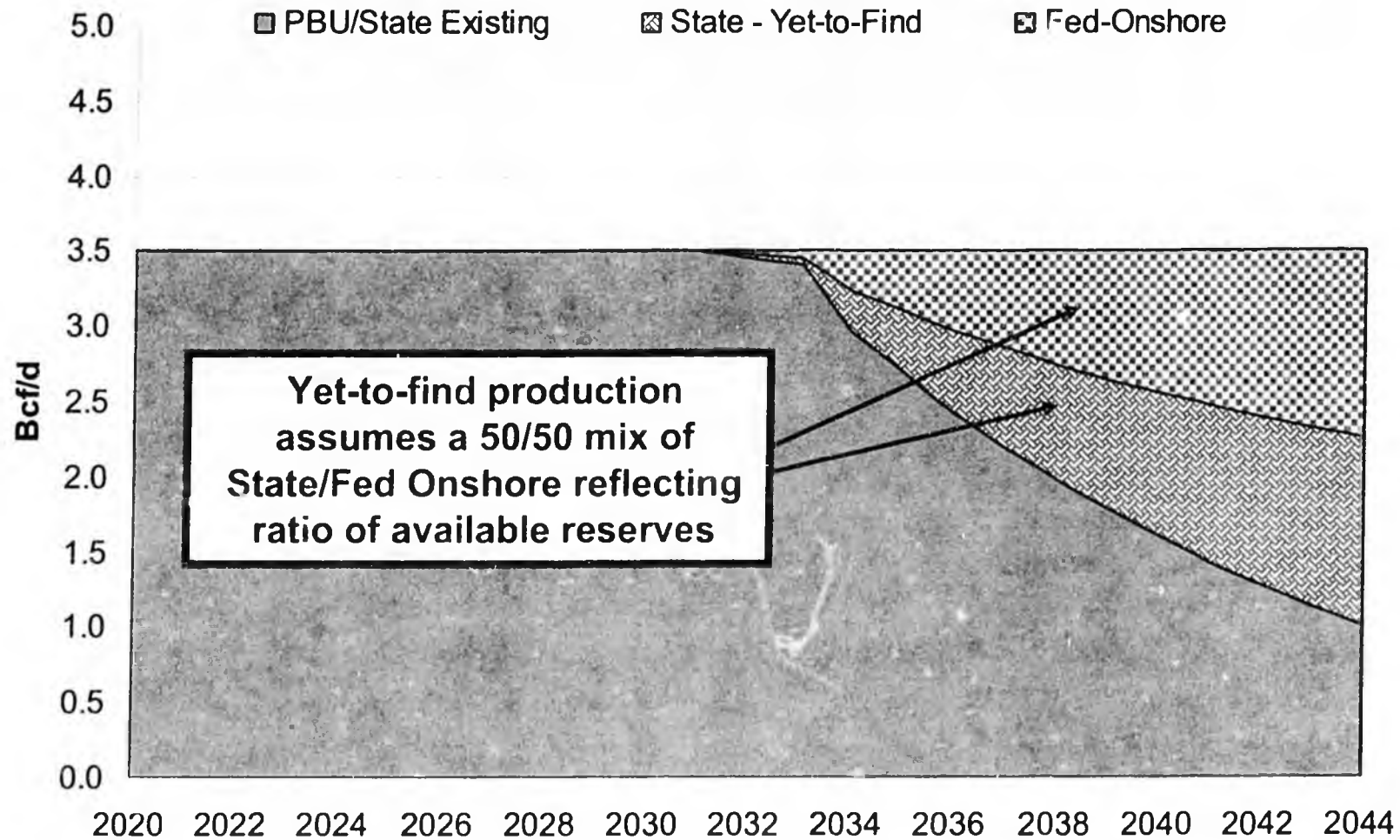
Project Economics are Robust

- NPV for Key Stakeholders Indicates Positive NPV for 4.0 Bcf/d project that does not rely on Pt Thomson
- NPV Results are Sensitive to Many Factors with Commodity Prices being the Most Significant
 - Producer NPV Remains Positive with Low Market Price Assumptions
- 4.0 Bcf/d project has acceptable netback risks, lower reserve risk than 4.5 Bcf/d project with Pt Thomson gas
- NPV positive across wide range of project cost outcomes, cost escalation scenarios
- Tariffs for Smaller Pipeline Configurations (4.0 & 3.5 Bcf/d) Increase by 13% to 21% Relative to the 4.5 Bcf/d Proposal Base Case

Production Assumptions: 4.0 Bcf/d Case



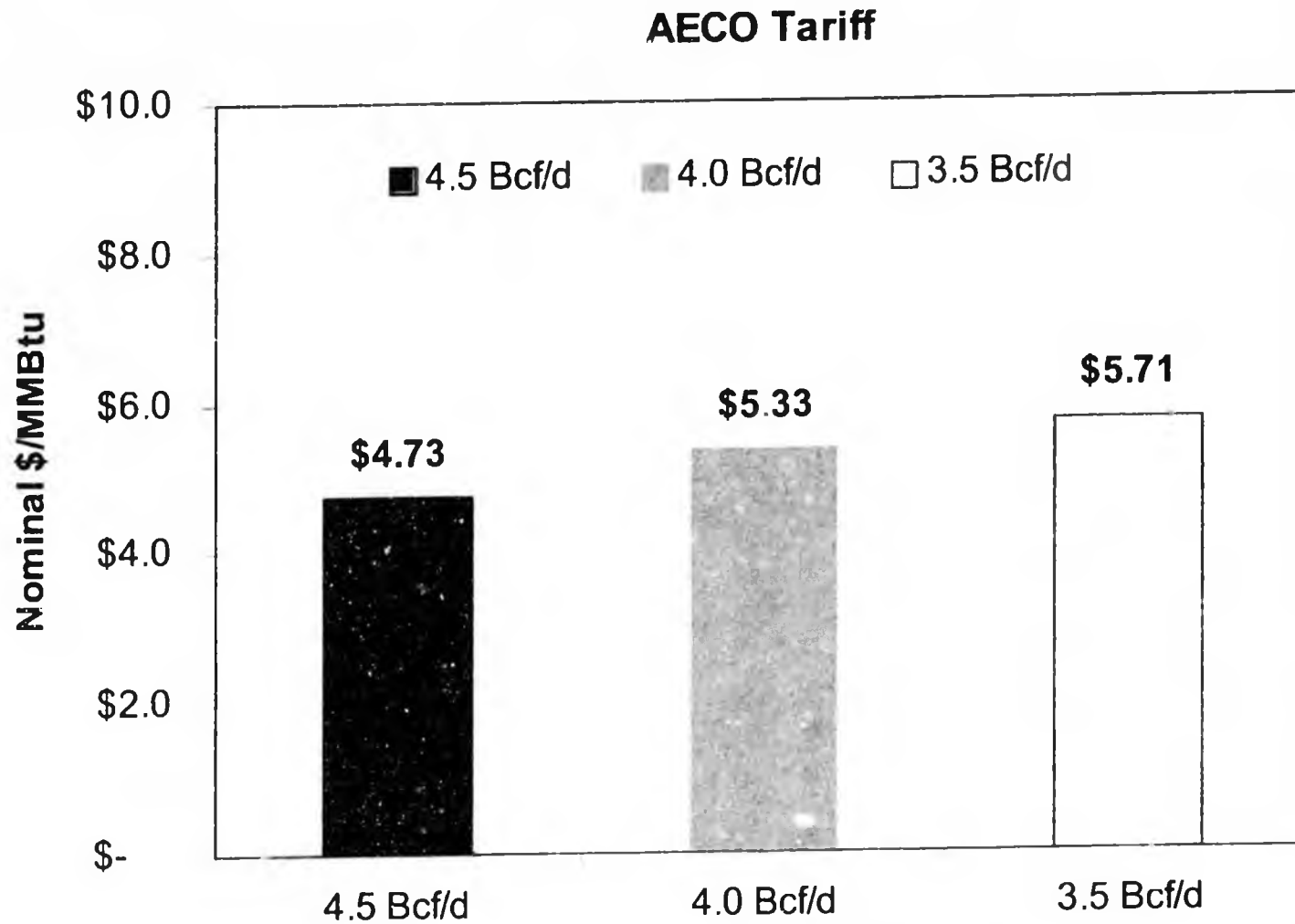
Production Assumptions: 3.5 Bcf/d Case



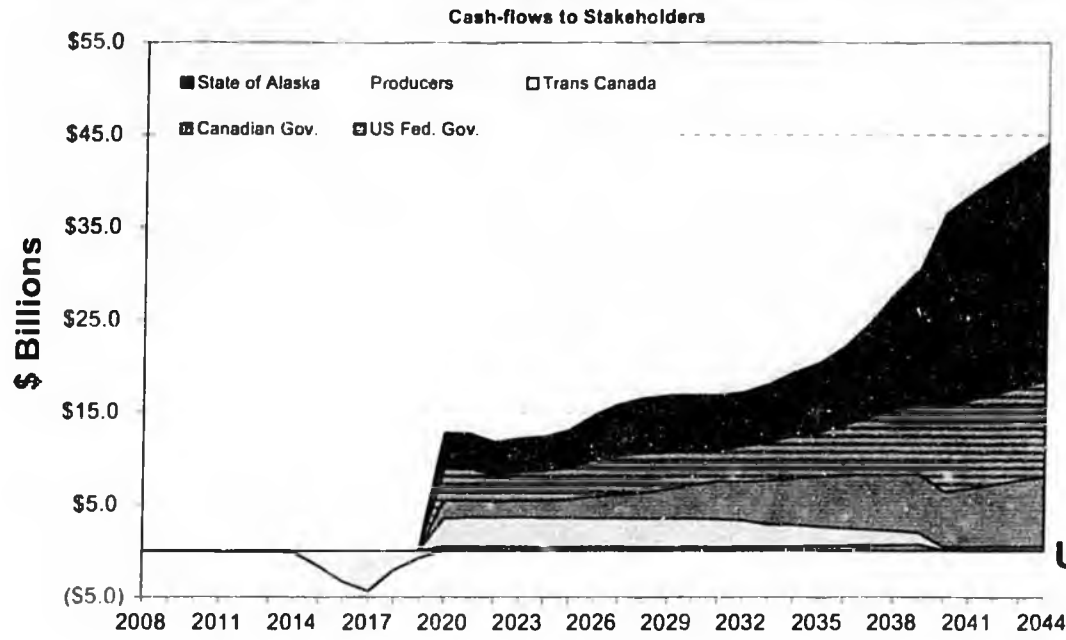
Production Assumptions used in the NPV Analysis for the 4.0 Bcf/d Conservative Base Case

- Prudhoe Bay:
 - 24.5 Tcf
 - Initial production rate – 3.5 Bcf/d
- State existing:
 - 3.7 Tcf:
 - Colville River – 0.4 Tcf
 - Duck Island – 0.8 Tcf
 - Kuparuk – 1.2 Tcf
 - Northstar – 0.5 Tcf
 - GPMA – 0.9 Tcf
 - Initial production rate – 0.5 Bcf/d
- Note – this case assumes NO Point Thomson production

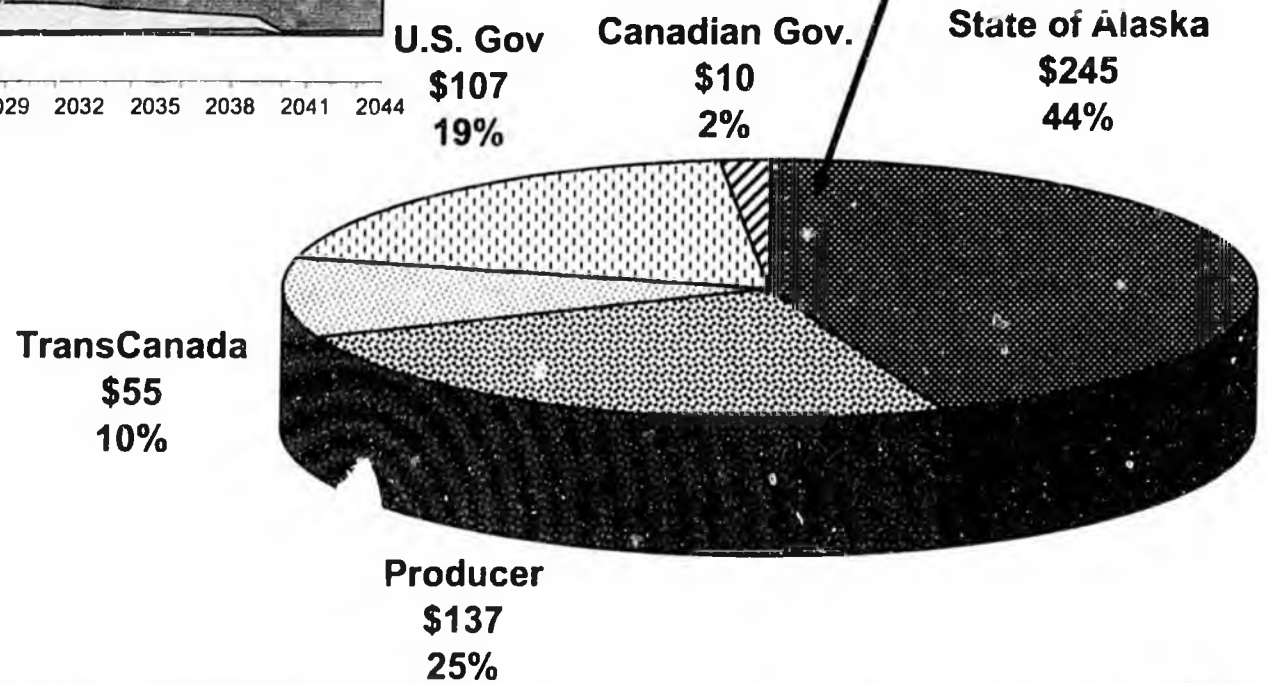
Expected Tariffs from the North Slope to the AECO Market



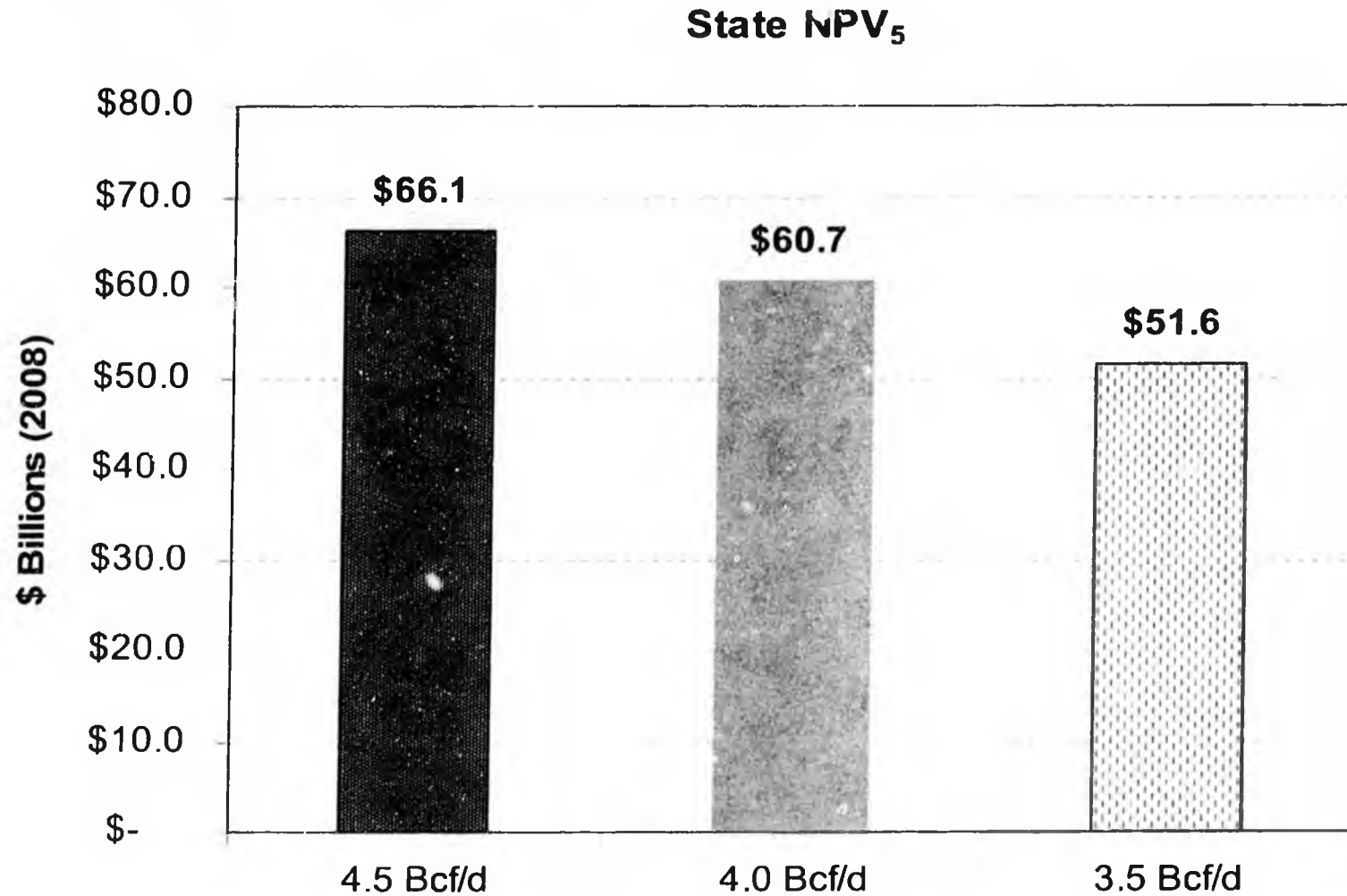
4.0 Bcf/d Conservative Base Case Cash Flows



Total Net Cash Flow
for Project by Stakeholder
(Non-Discounted, 2008 – 2044)

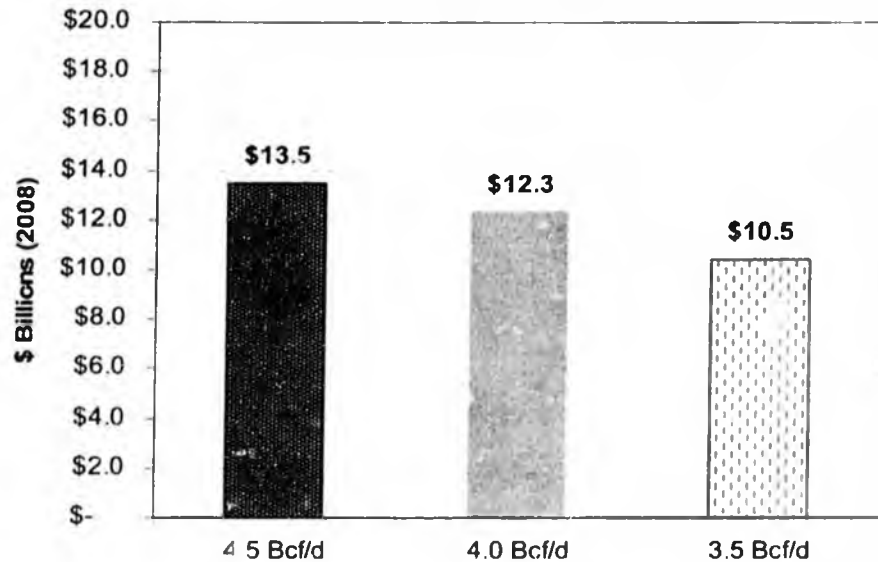


The State's NPV₅ is Lower with Smaller Project Capacity but Remains Significant

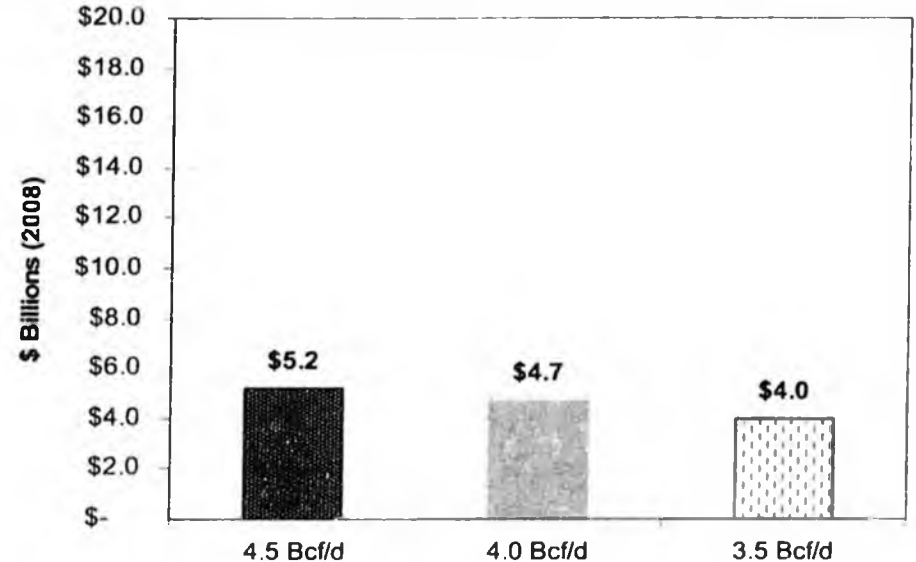


Producer NPV Shows a Similar Trend When Compared to the State

Aggregate Producer NPV₁₀



Aggregate Producer NPV₁₅

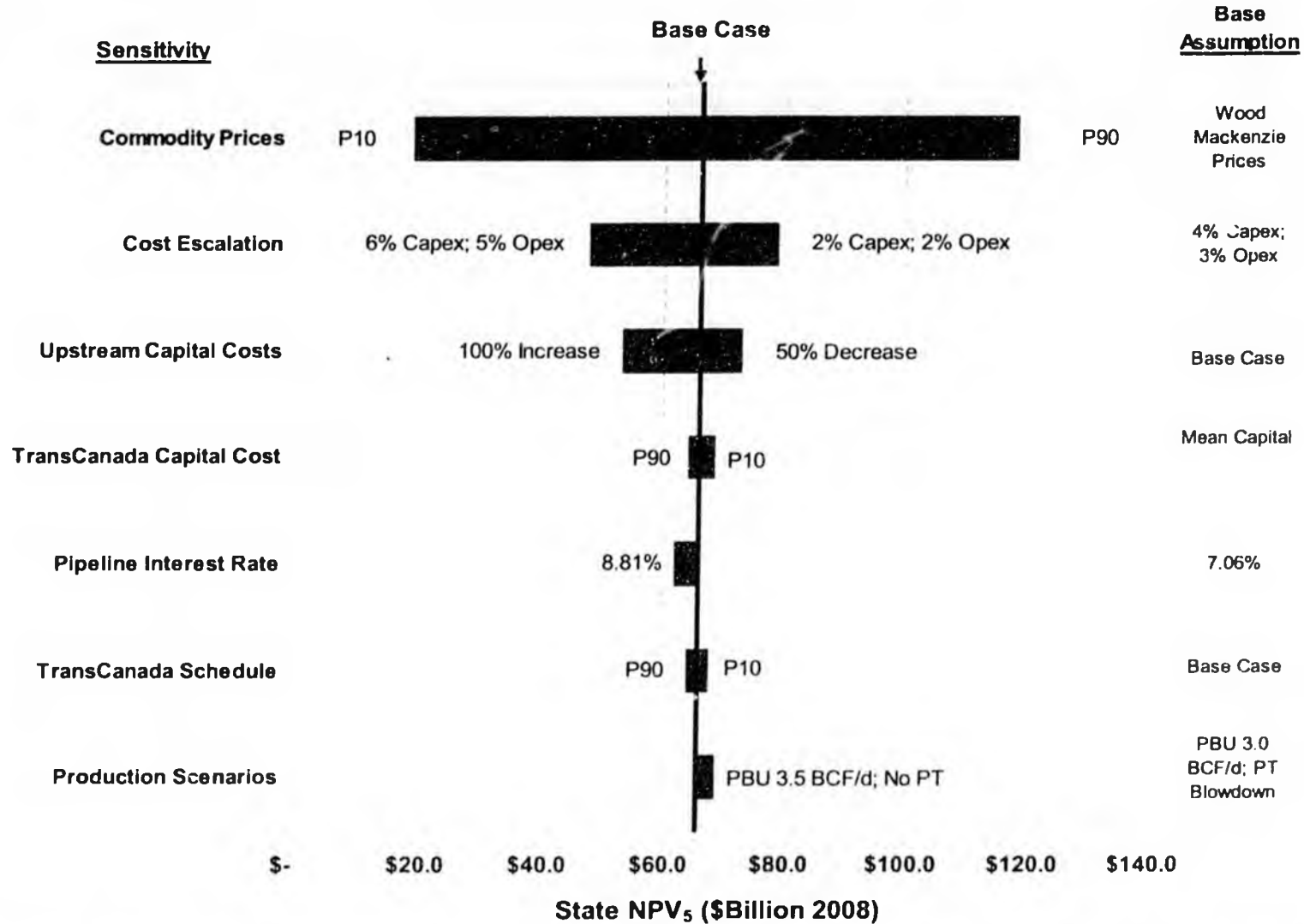


Project NPV is Affected by Many Factors

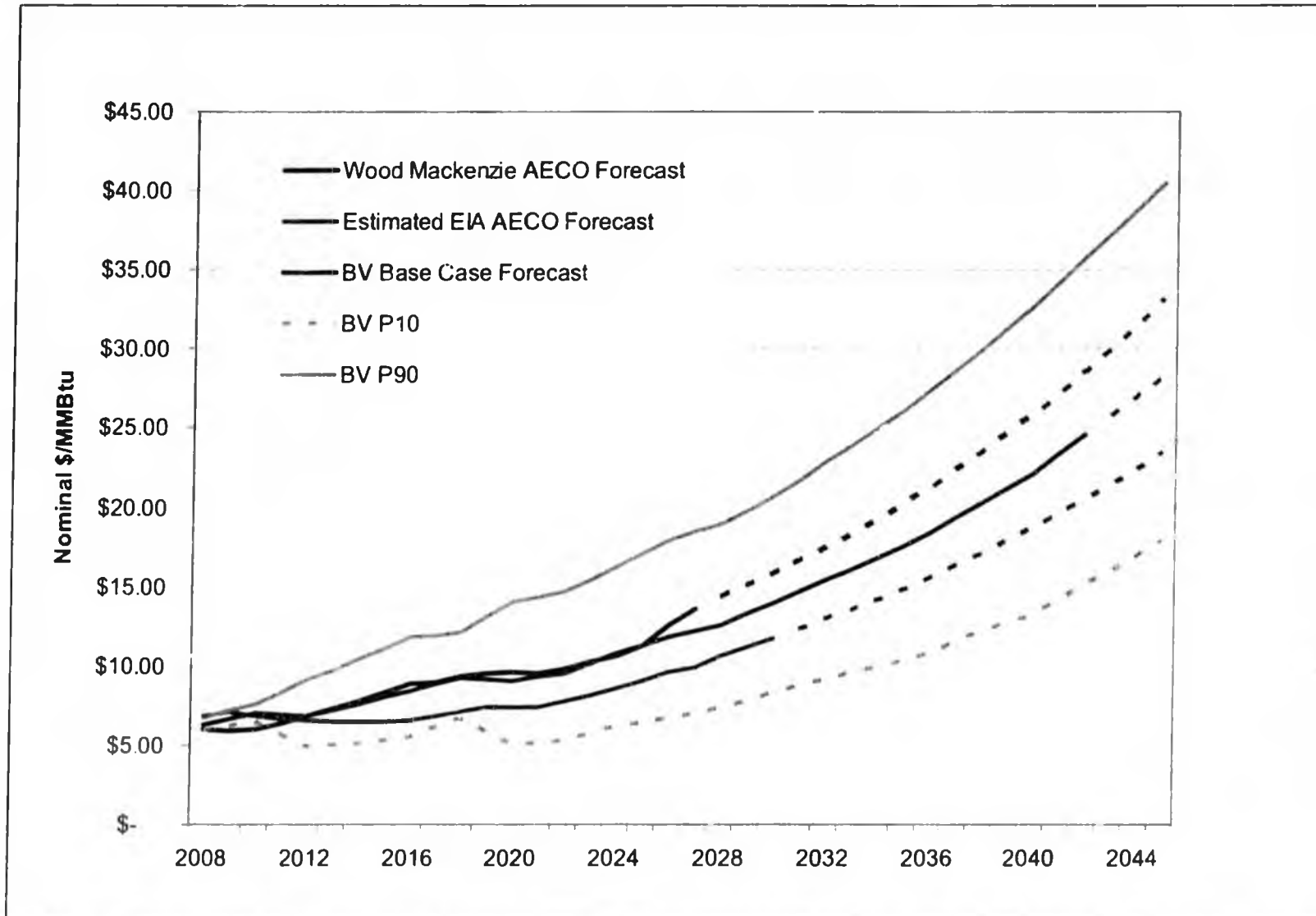
- Prices
- Project cost
- Project cost escalation
- Interest rates
- Cost of finding and developing “new gas”
- Etc.

Bottom line: Understanding how project economics are affected by uncertainty in inputs that affect cash flows.

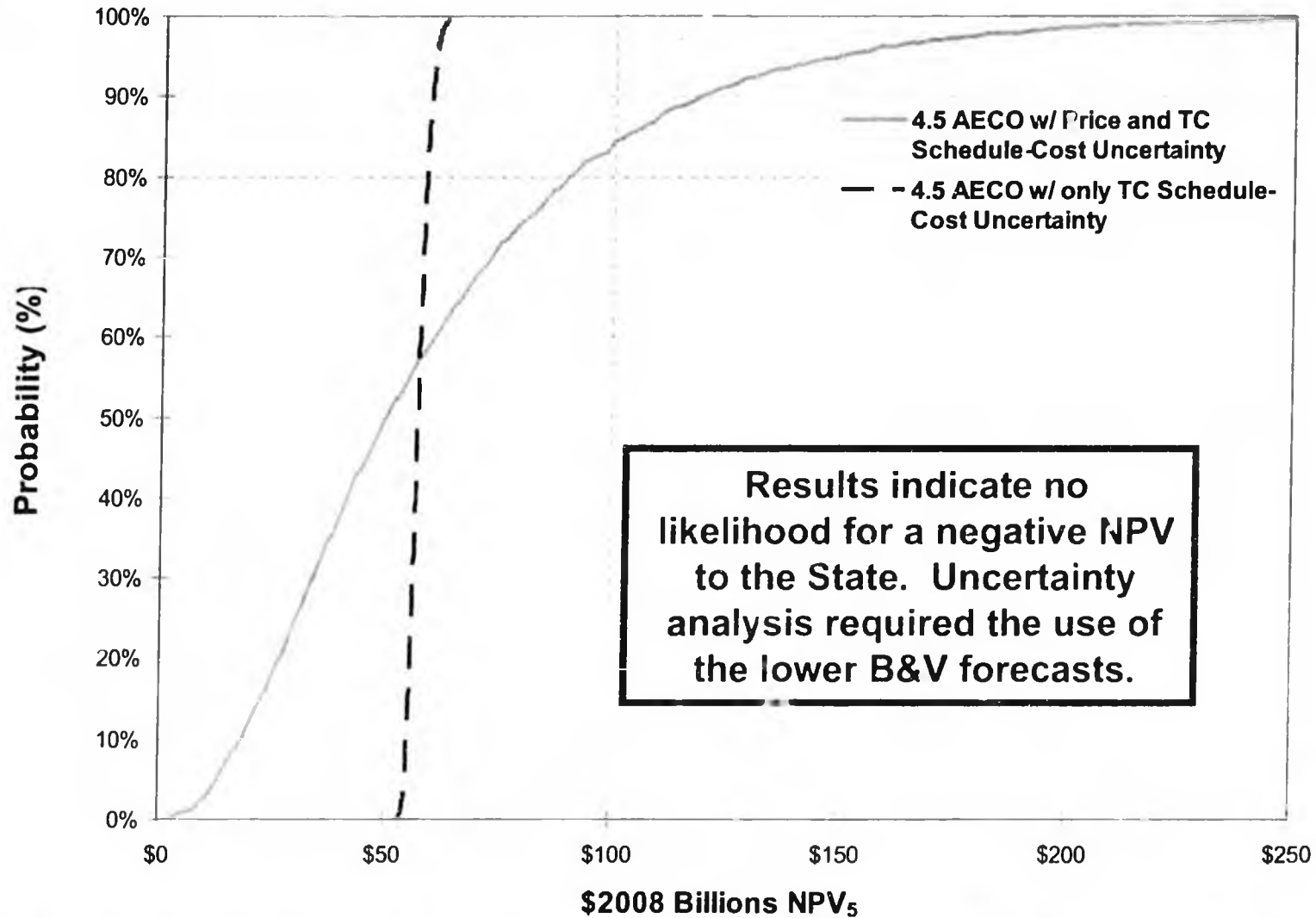
Price is a Key Driver to Variations in the NPV₅ to the State of Alaska



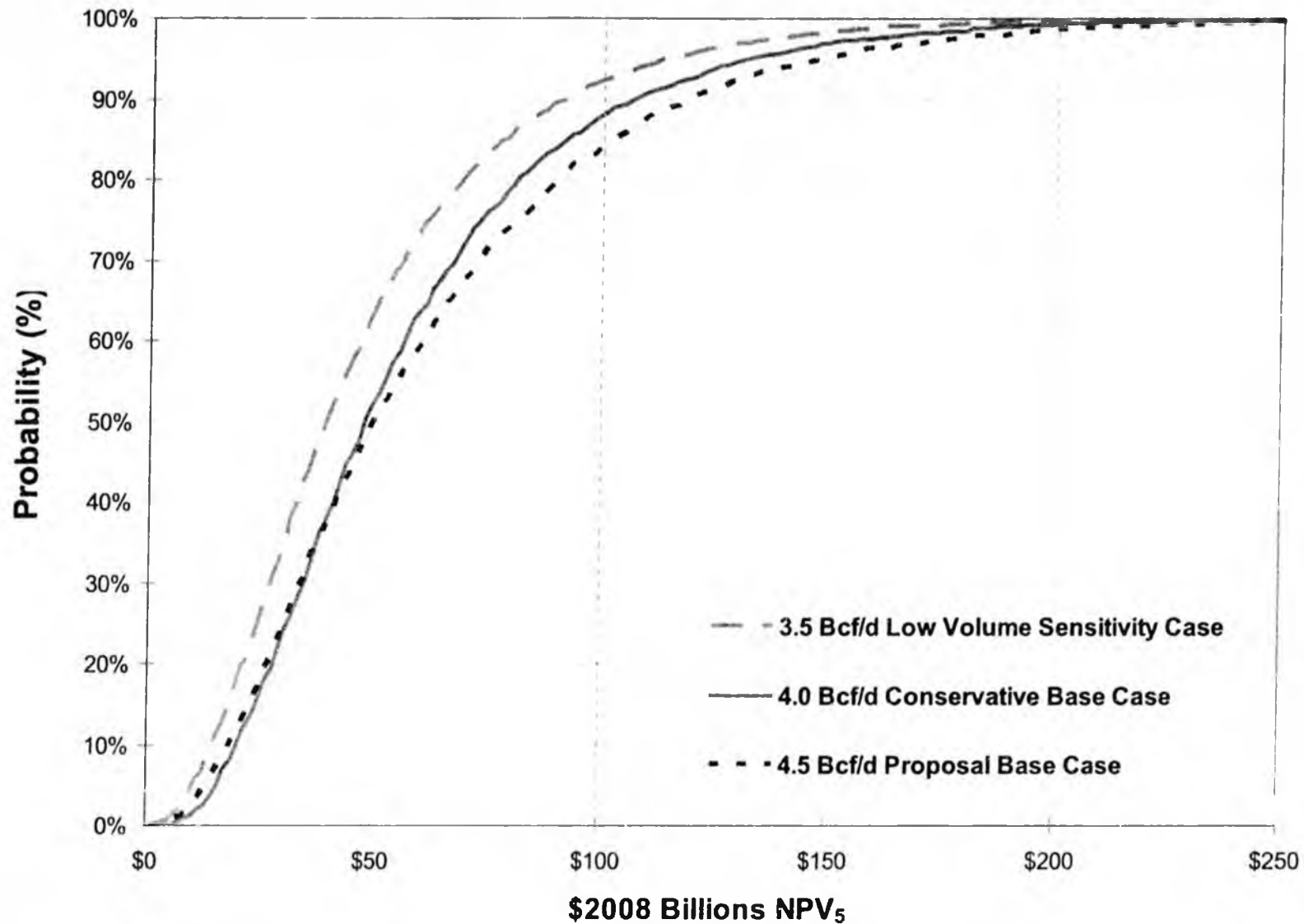
Various Price Forecasts were Considered in Analysis



The impact from price uncertainty swamps estimated capital cost and schedule uncertainty.

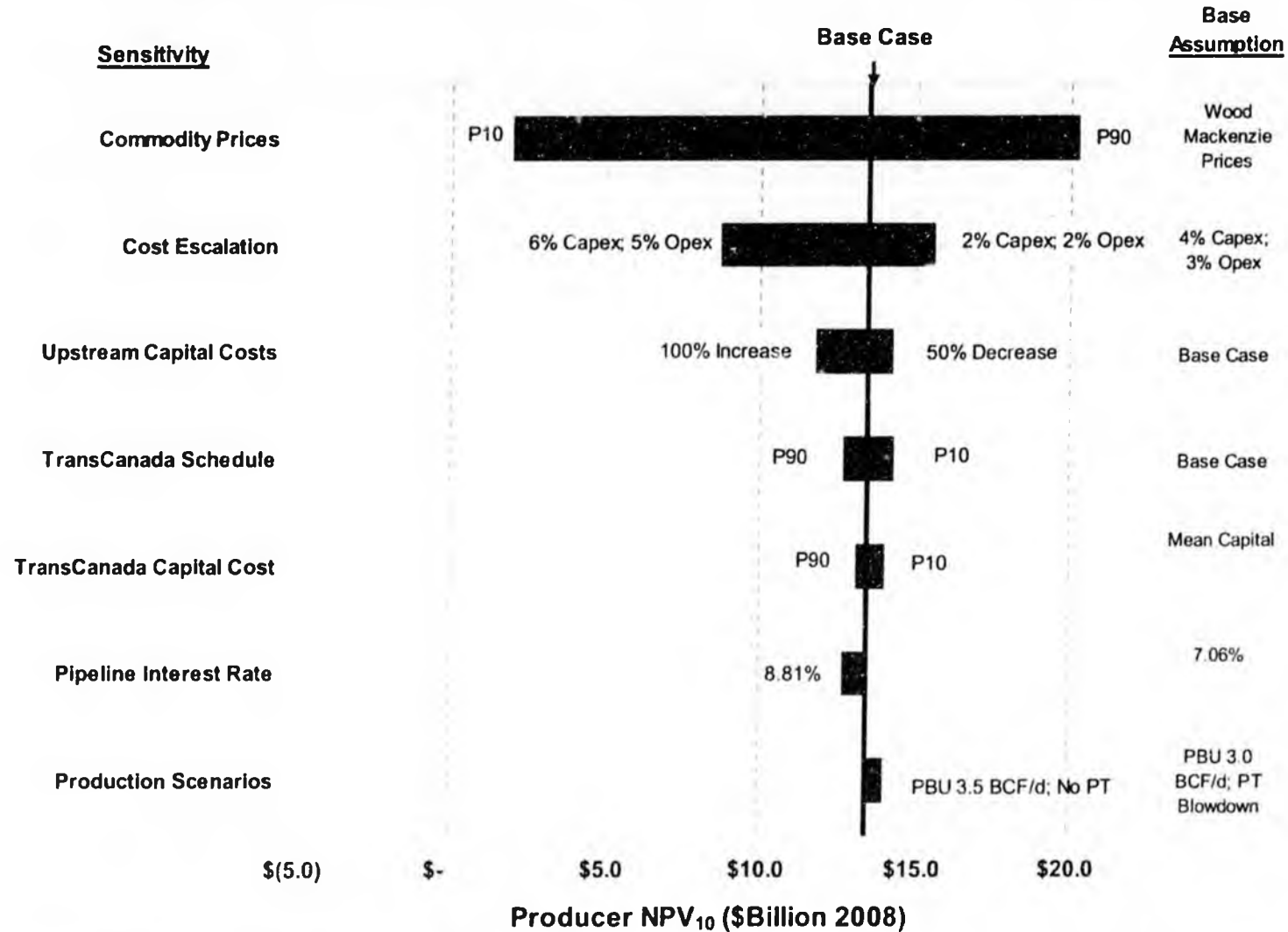


Lower Project Volumes yield similar State NPV results

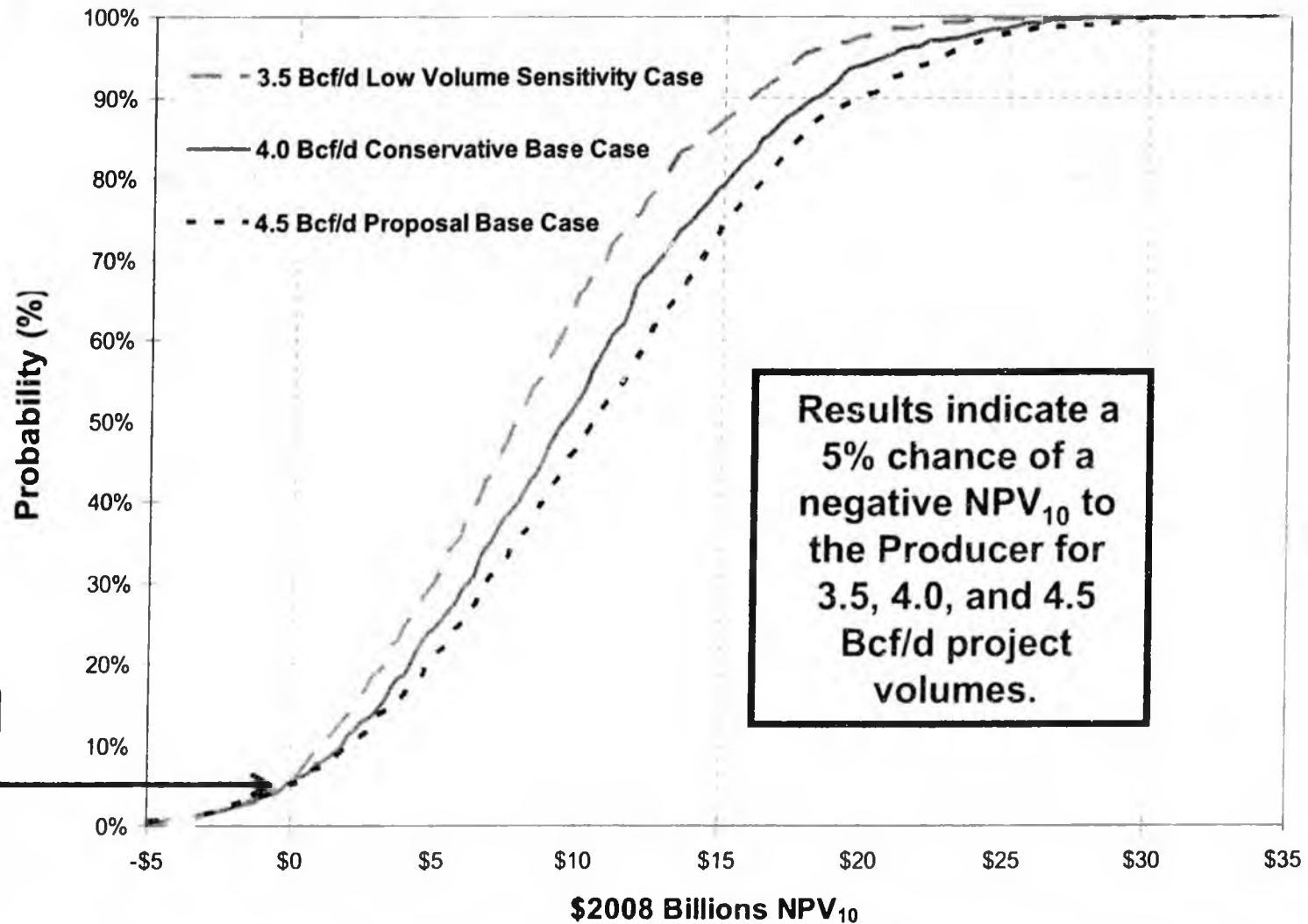


Results shown are with both Price Uncertainty (B&V Price Scenarios) and TC Schedule / Cost Uncertainty

Producer Sensitivity to Key Variables is Similar to that seen in State Results

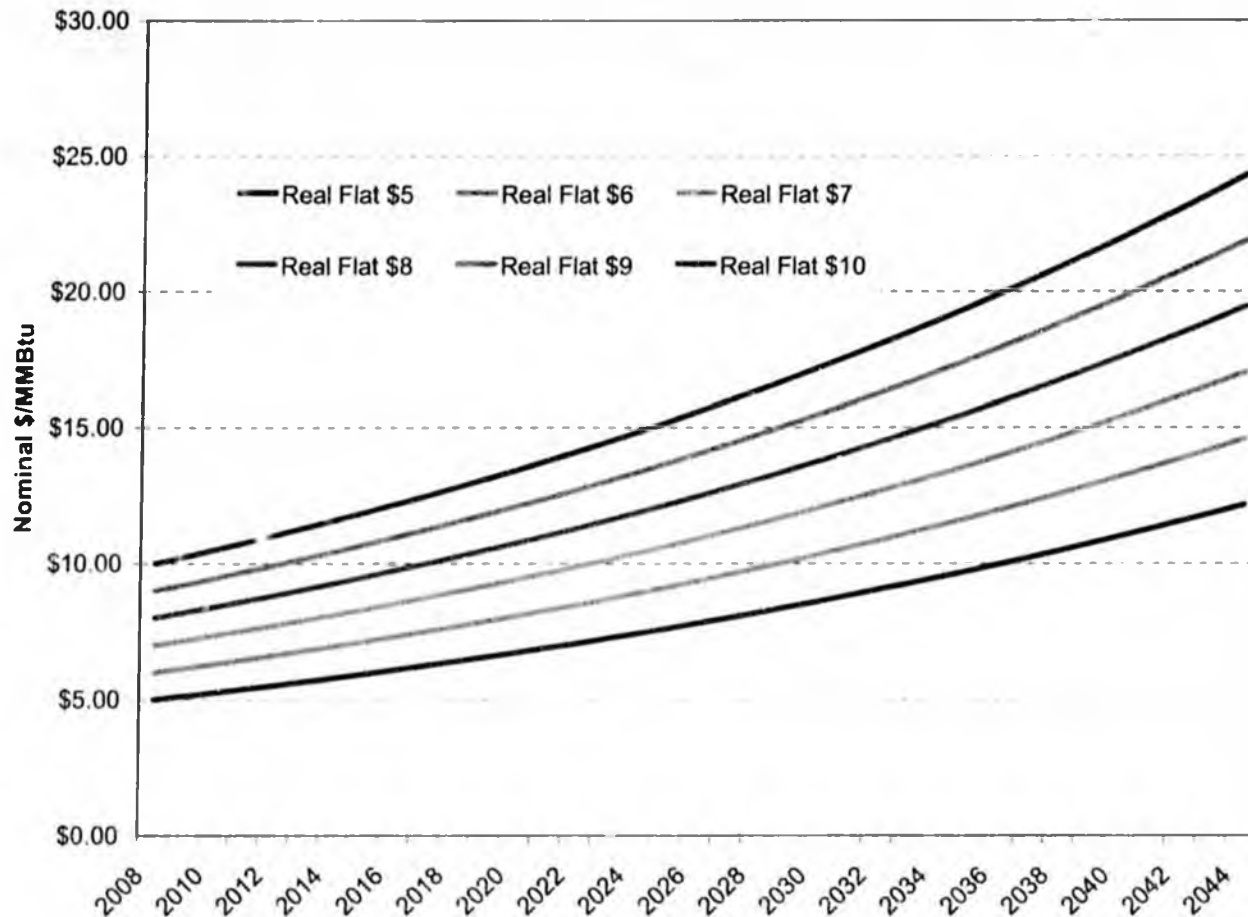


The producers have a very low likelihood for a negative NPV₁₀, even with lower project volume of 3.5 or 4.0 Bcf/d.



Results shown are with both Price Uncertainty and TC Schedule / Cost Uncertainty

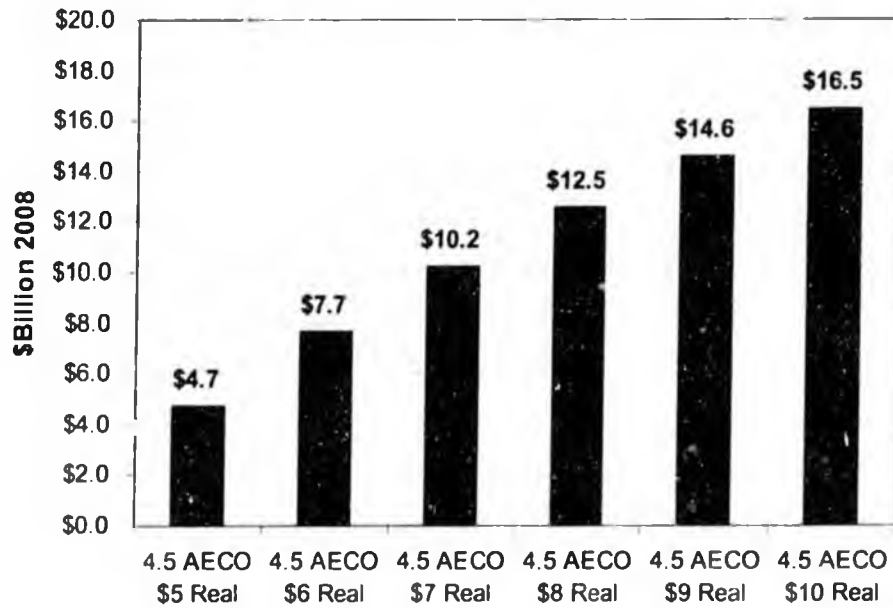
Analysis of Impact of Price Levels - Flat Real Prices



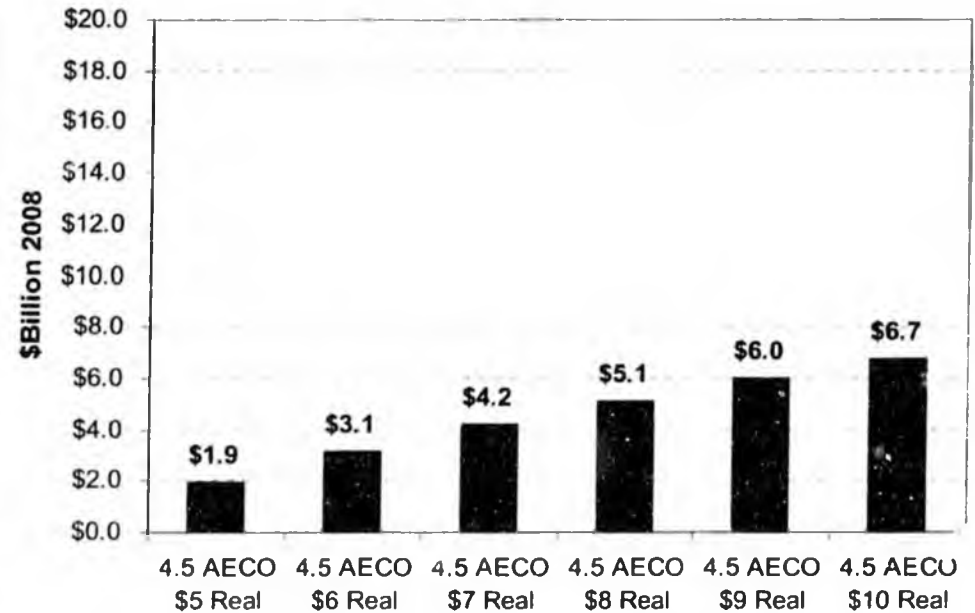
- Analysis investigated the impact of price levels on project economics
- Flat real prices levels from \$5/MMBtu to \$10/MMBtu were considered for natural gas price at AECO
- 2.5% inflation assumed to estimate dollars of the day prices

Price levels have a significant impact on Producer NPV. NPV₁₀ remains positive with real prices in \$5-\$10/MMBtu range for the 4.5 Bcf/d case.

Aggregate Producer NPV₁₀

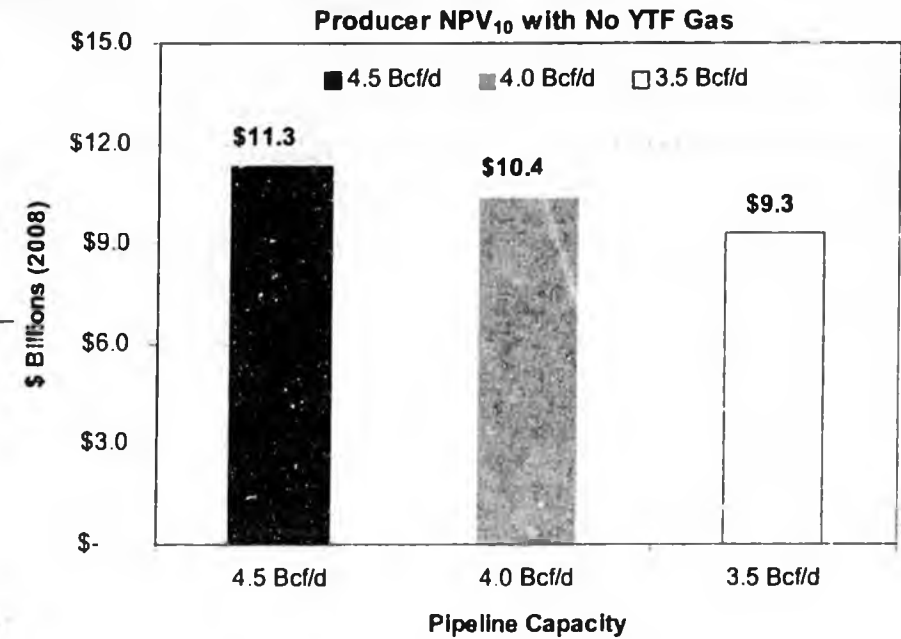
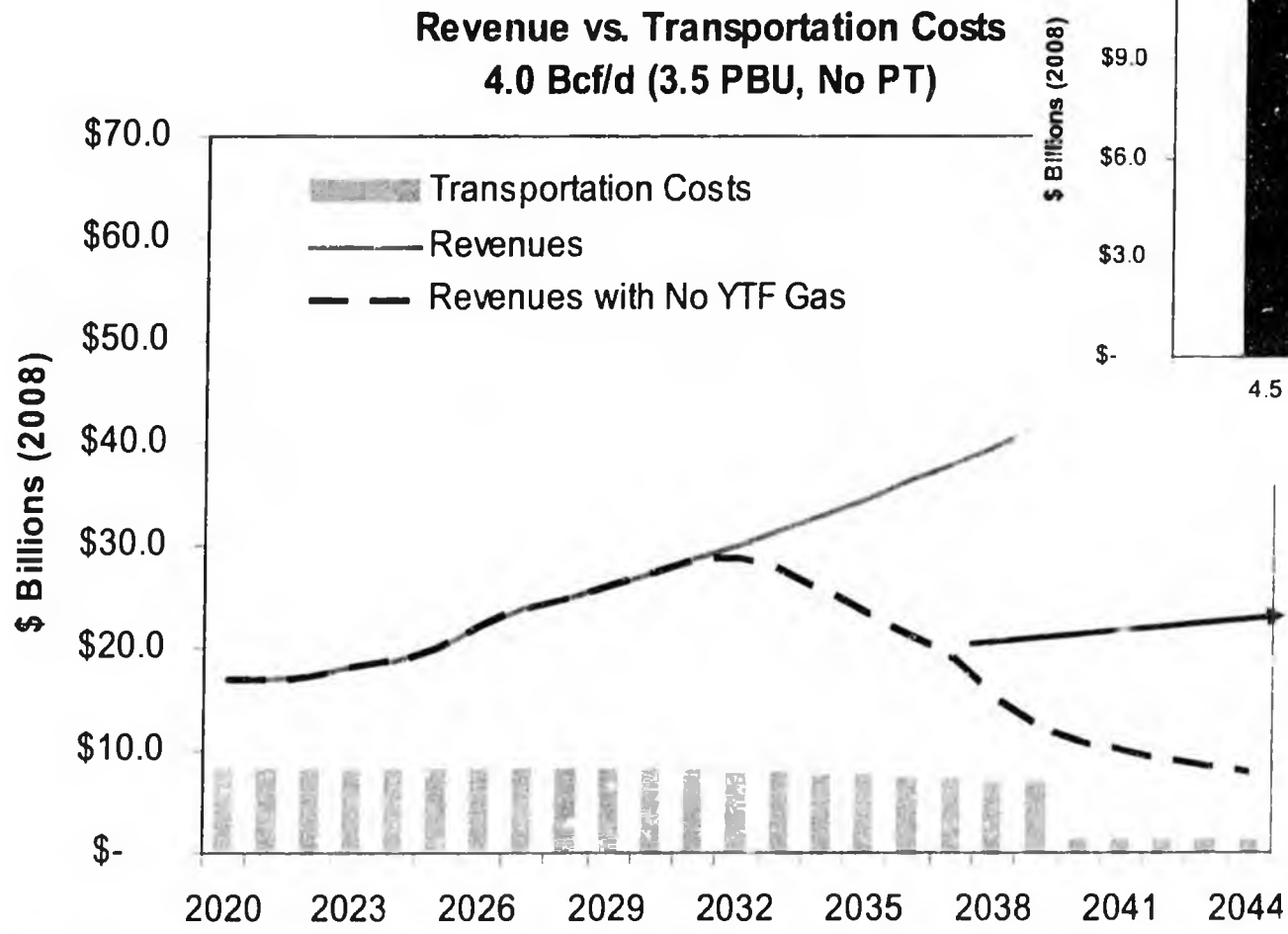


Aggregate Producer NPV₁₅



Even at very low future prices, Producer NPV remains positive.

Producer NPV (for 4.0 Bcf/d) is Expected to Remain Positive if No YTF Gas is Produced



↓

Producer NPV₁₀ is equal to \$10.4 billion with No YTF Gas at 4.0 Bcf/d

Appendix

Impact of the Gasline: Cash flows and NPV calculated are the difference between oil+gas and oil only operations.

Oil + Gas \$\$

-

Oil Only \$

=

Cash Flows from Gas \$

Overview of Natural Gas Price Assumptions Utilized in the NPV Analysis

- Gas delivered to different locations has different prices: Henry Hub vs. AECO
- Prices dependent on the supply/demand balance and pipeline infrastructure
- Forecasts are required to evaluate the project from 2020 to 2045+
- Relied on range of forecasts
 - EIA
 - Wood Mackenzie
 - B&V
 - Others
- Wood Mackenzie is the base case for analysis
 - Independent market assessment
 - Projects an AECO price

Overview of Natural Gas Price Assumptions Utilized in the NPV Analysis

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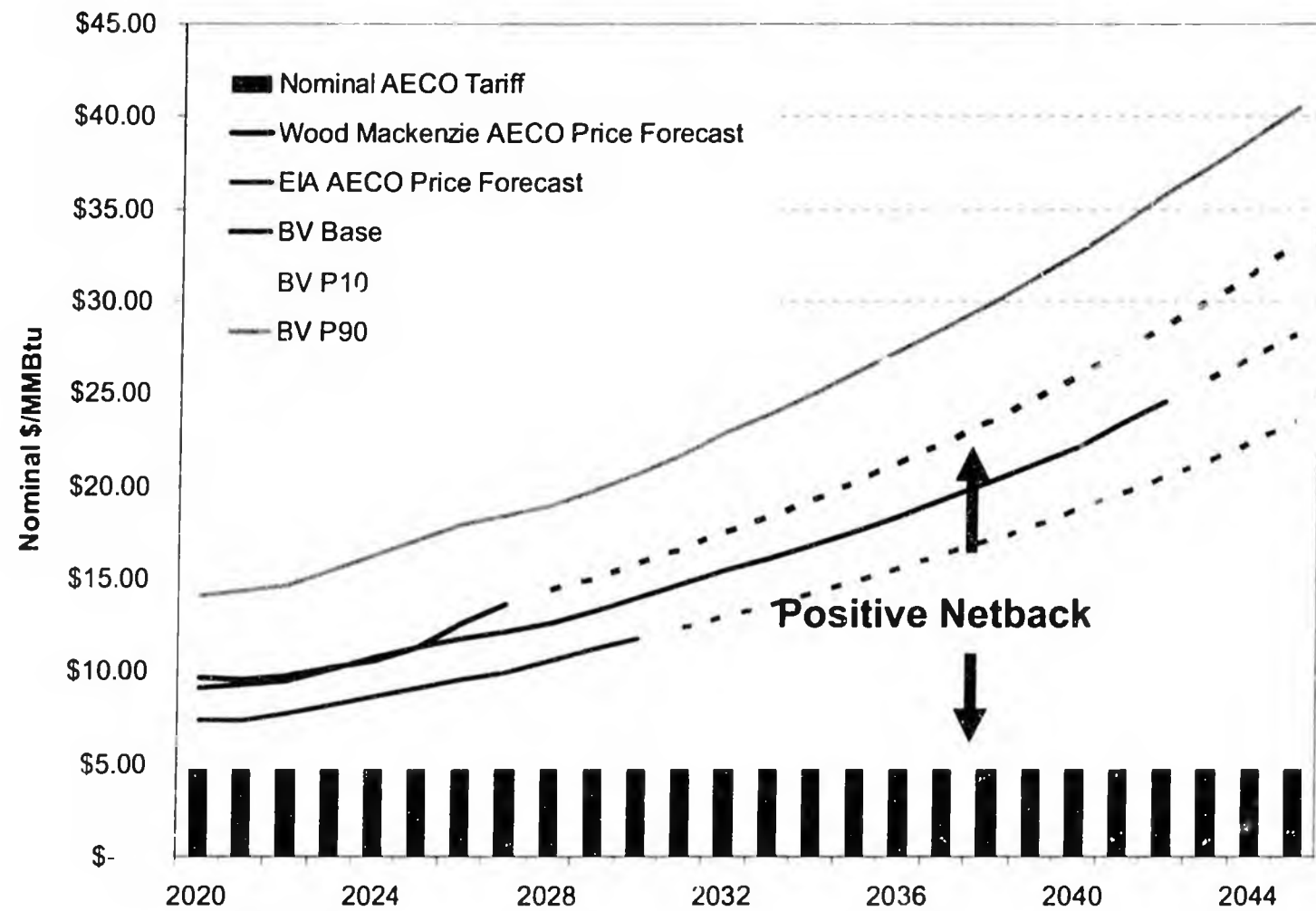
Understanding the Factors that Lead to Future Prices

- Forecasted prices are “point” estimates, all dependent on a specific set of assumptions
- None are expected to be on the dot “correct”
- Price uncertainty and associated risks could be better illustrated using a forecasted price distribution:



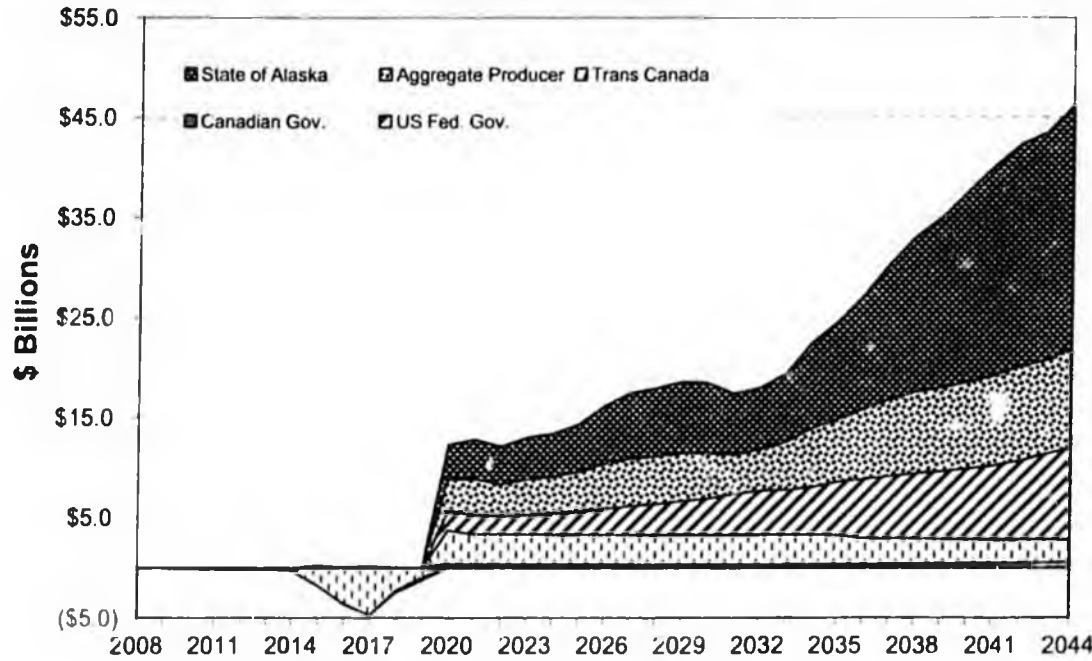
- Black & Veatch assumes that the majority of price risks comes from uncertainty in fundamental factors:
 - Finding & development costs
 - Technological improvement
 - LNG imports
 - Power generation demand
 - US industrial demand
 - CDN industrial demand

Positive Netbacks Are Expected Under All Price Forecasts



Cash flows to from 4.5 Bcf/d Proposal Base Case

Cash Flows to Stakeholders



Total Net Cash Flow
for Project by Stakeholder
(Non-Discounted, 2008 – 2044)

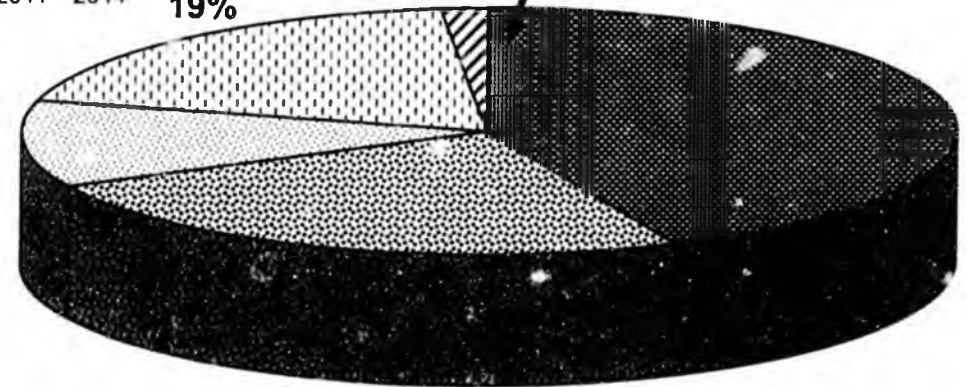
TransCanada
\$69
11%

U.S. Gov
\$116
19%

Canadian Gov.
\$9
2%

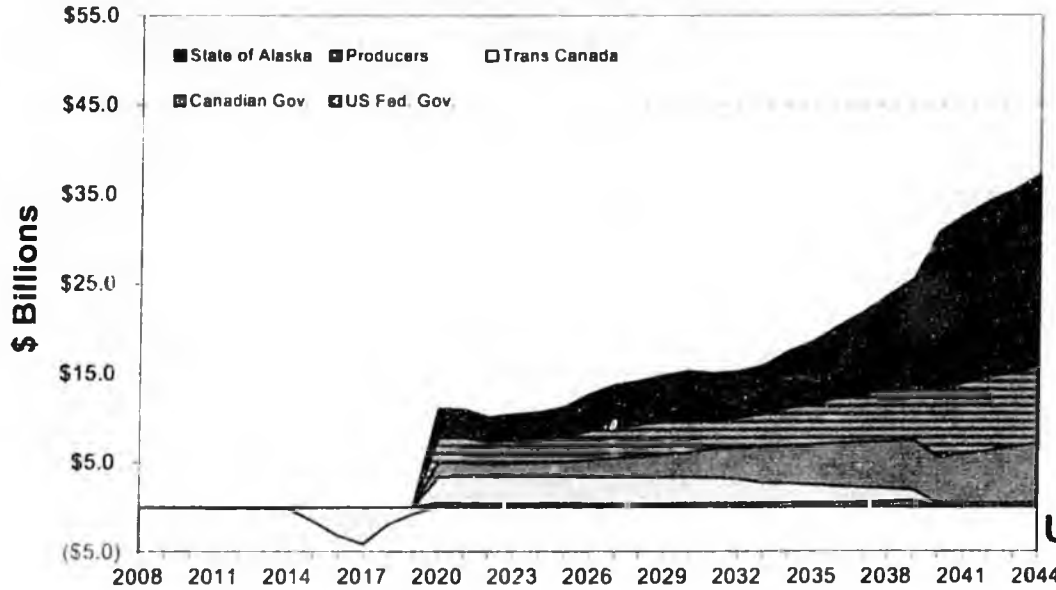
State of Alaska
\$262
44%

Producer
\$148
24%

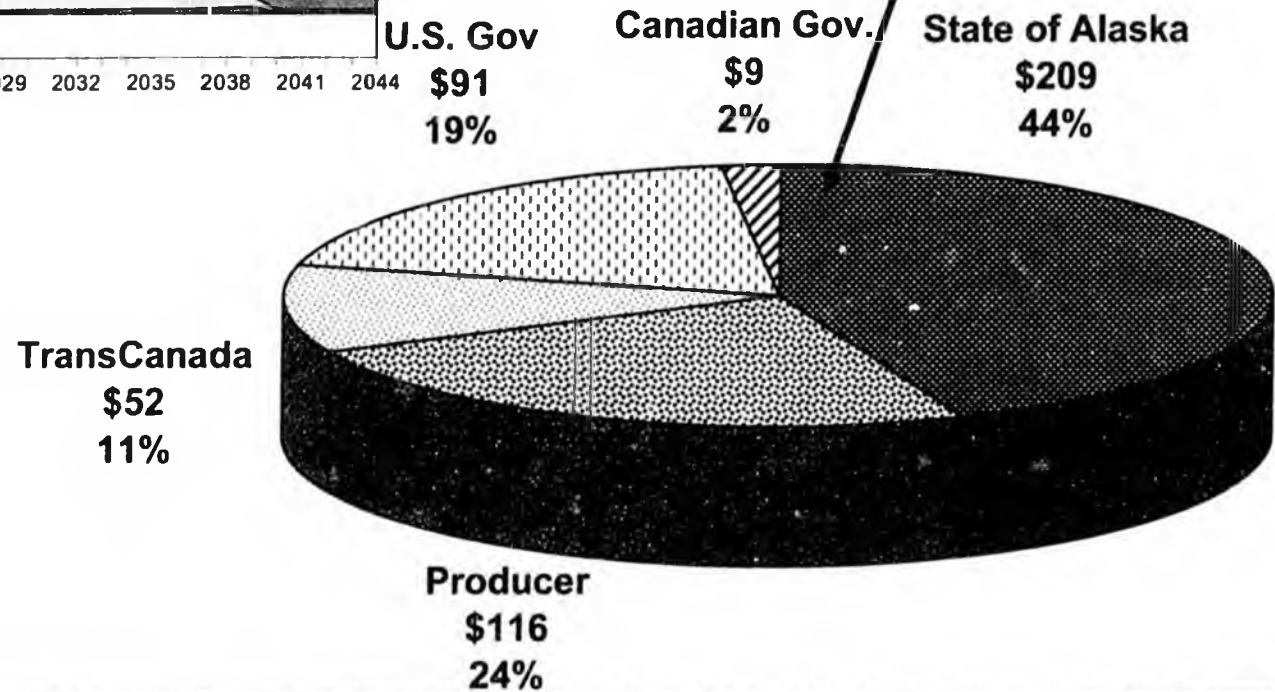


3.5 Bcf/d Low Volume Sensitivity Case

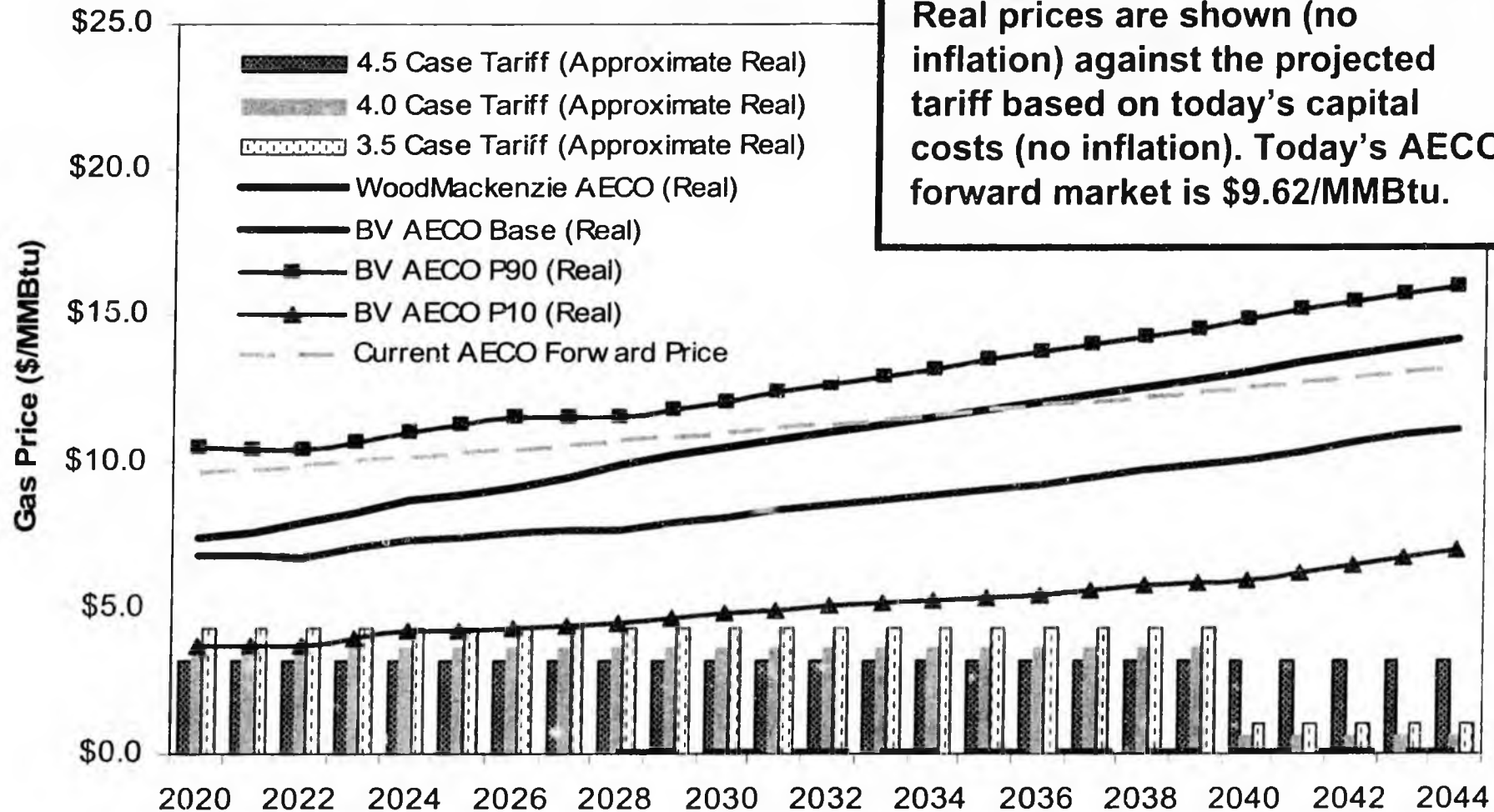
Cash-flows to Stakeholders



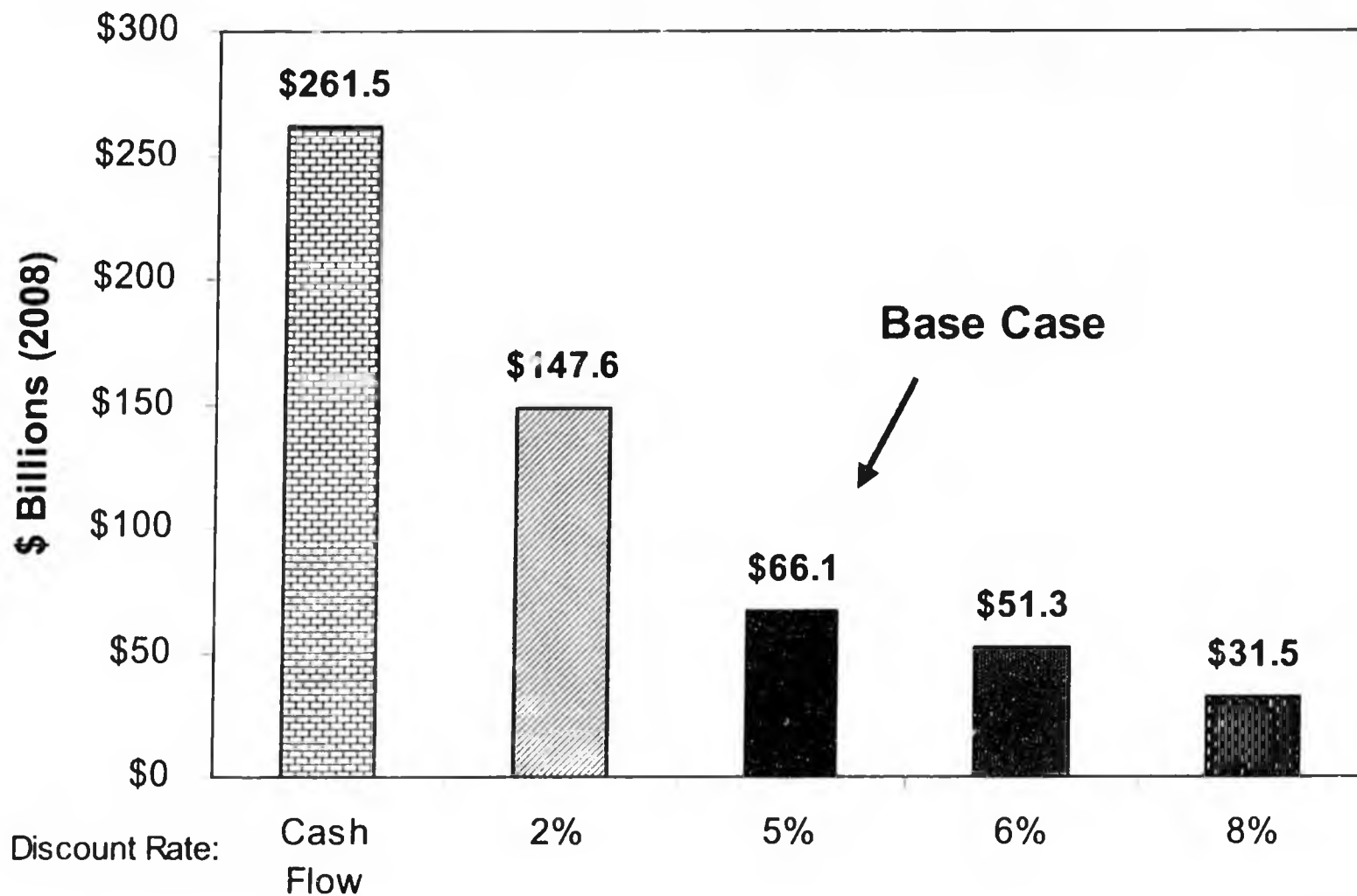
Total Net Cash Flow
for Project by Stakeholder
(Non-Discounted, 2008 – 2044)



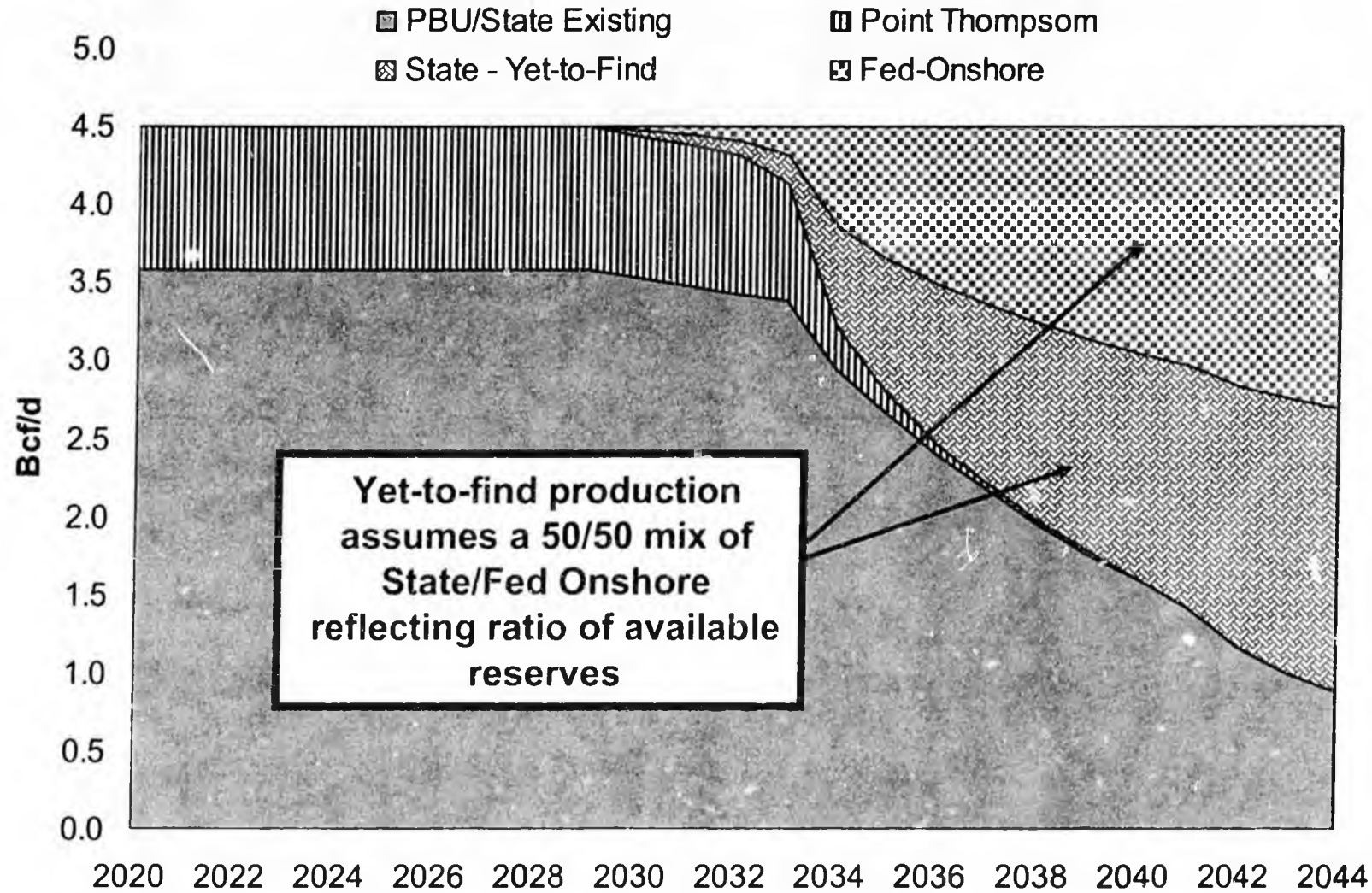
Project Cash Flows are Favorable if Built Today



Expected State of Alaska NPV₅ is \$66.1 billion

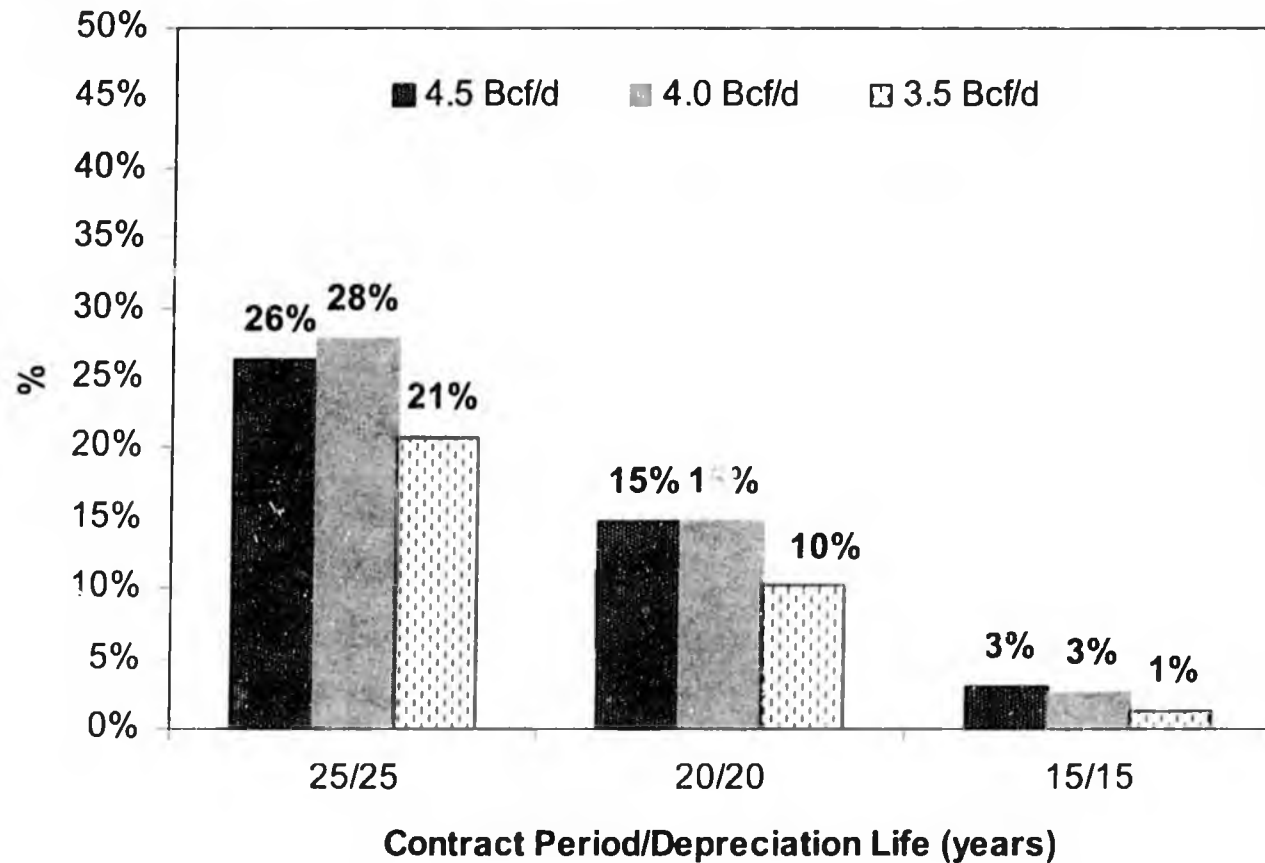


Production Assumptions: 4.5 Bcf/d Proposal Base Case



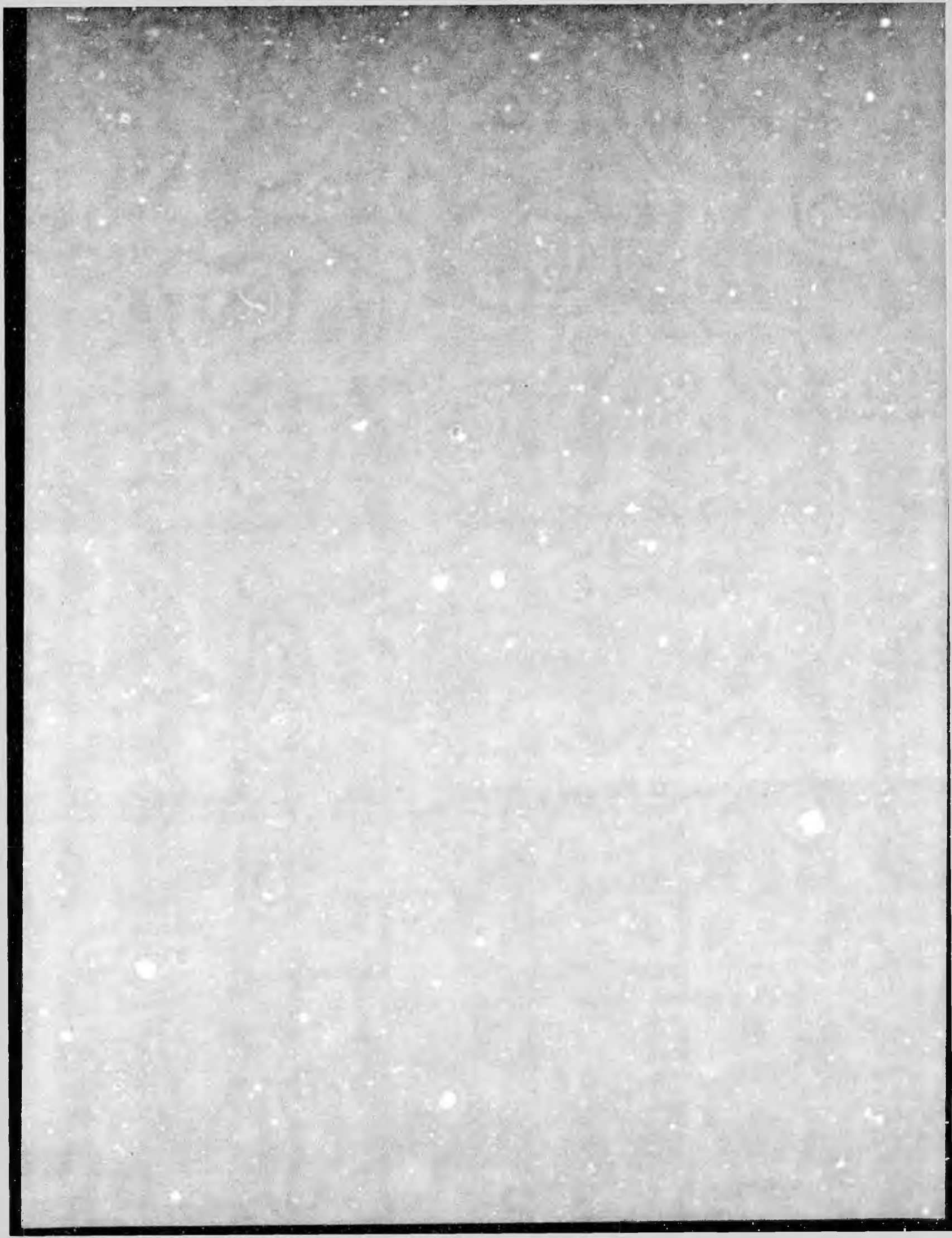
YTF Gas Required to Keep Pipeline Full under Different Contract Periods and for Different Pipeline Capacities

% of Contract Volume Requiring YTF Gas



Why does a delay increase State NPV₅?

- Why does a delay increase State NPV₅?
 - Prices increase
 - Progressivity for production taxes increases as prices rise
 - Production Tax in 2020 = ~25%
 - Production Tax in 2045 = ~50%
- Could a delay cause a decrease in the State NPV₅?
 - Yes, if prices increase at a lower rate than the baseline Wood Mackenzie prices, then a project delay would cause a decrease in the State NPV₅





Response to Testimony and Q/A Discussions Held on June 17, 2008

Do we have enough data in Point Thomson to define a Full Field Plan of Development for both the oil and gas reserves?

- 19 wells have been drilled
- 14 wells penetrated Point Thomson reservoirs
- 3600 ft of high quality core has been taken and analyzed
- 20 well tests have been completed, defining rates and pressures
- Eight 3D seismic surveys have been acquired and interpreted
- Multiple fluid samples have been taken and fluid property evaluations have been conducted
- Conclusion: The type and amount of reservoir data is sufficient to develop a Full Field Plan of Development for oil and gas development at the Point Thomson Field

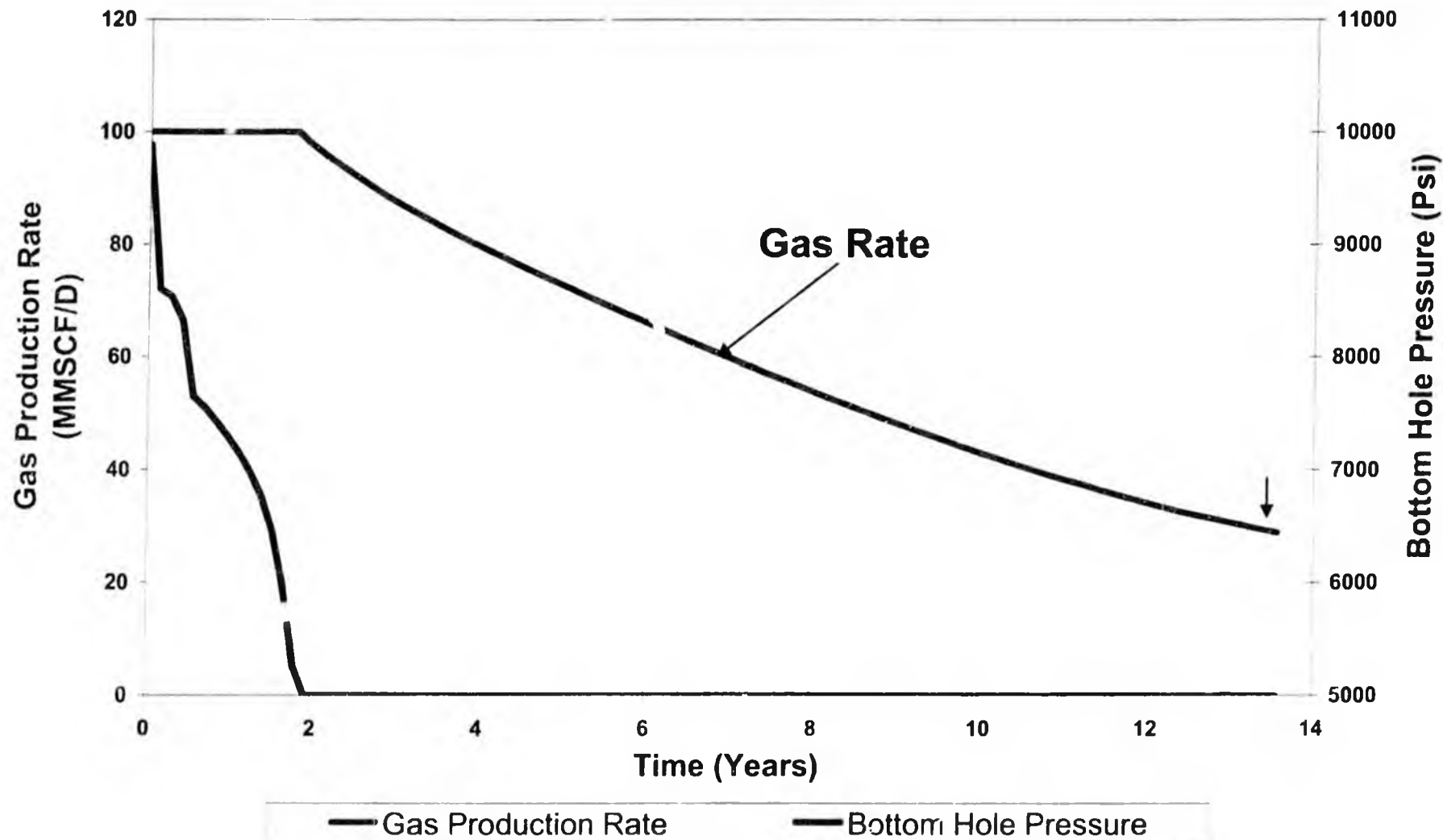
Response to Exxon Presentation

- Exxon presented yesterday that they did not see a reduction in Pt Thomson well productivity due to condensate dropout.
- Their own published work on the Arun Field in Indonesia (with a condensate yield of 65 STB/MMSCF shows a 50% reduction in well productivity occurring during blowdown.
- As a result, Exxon initiated lean gas injection in Arun, as soon as production began, to minimize liquid drop out and to maximize condensate recovery.
- In a blowdown scenario, 2 to 3 times the number of wells will be required to maintain the same rate. Producing oil earlier, will require fewer number of wells in the long term.
- Condensate will be trapped in the reservoir in a blowdown scenario, thereby reducing liquid recovery.

Point Thomson Well Productivity During Blowdown

Drainage Area 3400 Acres, $k=120$ md, thickness = 200 ft,

Initial Pressure = 10,200 psi



Take Home Point

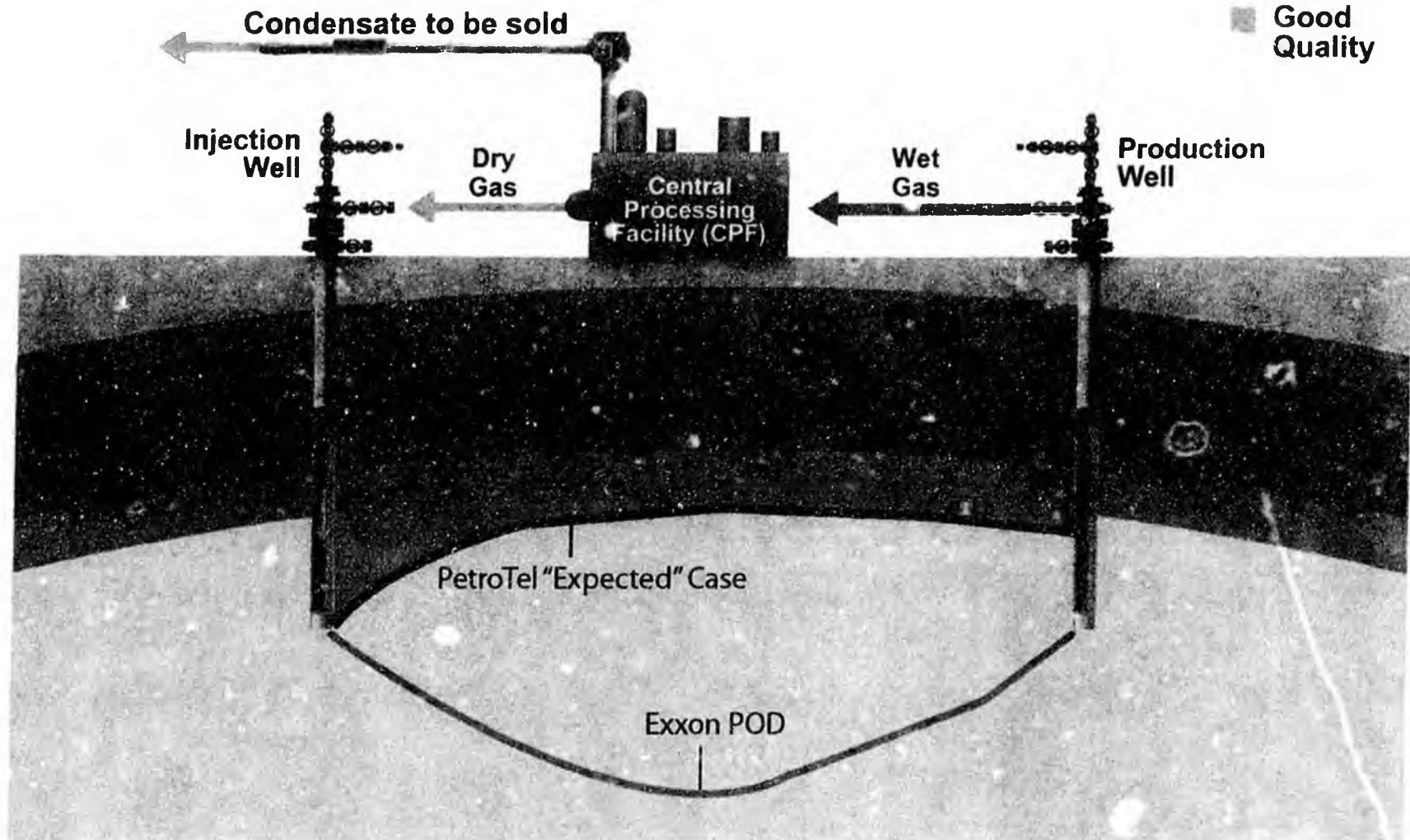
Point Thomson Blowdown

- It will require very aggressive additional drilling schedule (\$100 Million/well) for up to 50 wells to maintain a stable gas rate for the pipeline for the next twenty-five years.
- This is because of the condensate dropout and the drop in reservoir pressure over time.

Exxon Description of Gas Cycling

- “What do we mean by cycling gas to produced condensate? The cycling of gas requires two wells; a production well and an injection well. These wells will be placed four miles apart in the heart of the reservoir to provide a true test on the effectiveness of cycling gas at Point Thomson....”

Gas Cycling

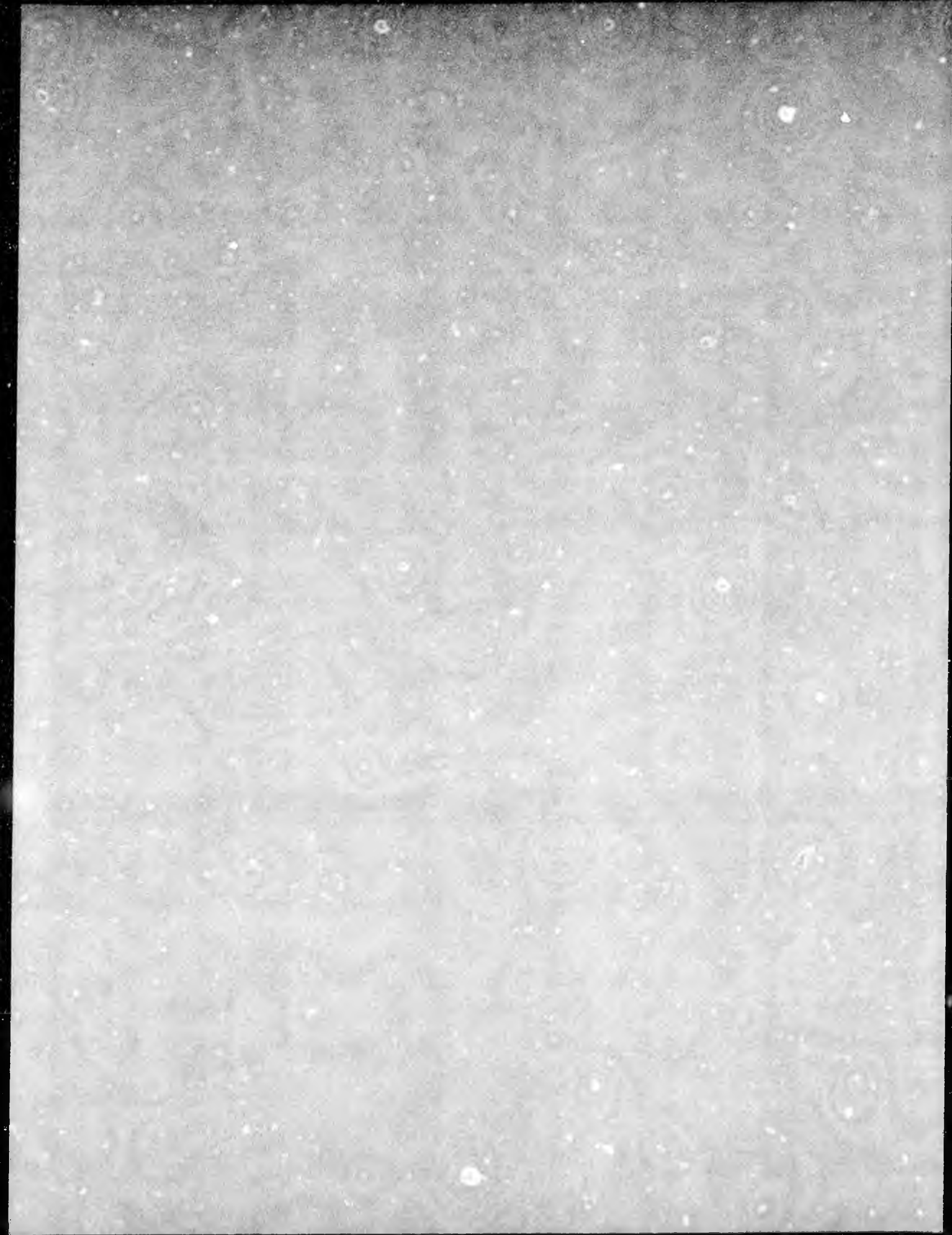


What is Gas Cycling?

- Exxon's gas cycling description is NOT a gas cycling project by industry definition. Their depiction of fluid movement is wrong by laws of physics. The dry gas will go to the top and gravity tongue. It will breakthrough to high permeability zones to the producing well resulting in poor sweep. They show dry gas which is lighter going to the bottom of the reservoir.
- In PetroTel's design of gas cycling, the injectors are placed at the apex or at the highest points in the structure to maximize sweep.
- Exxon's 4 miles distance (per their written testimony) is too long a distance to observe pressure support in a reasonable amount of time

Prudhoe Bay Gas Requirements

- Prudhoe Bay is undergoing a major APEX water injection program to maintain pressure
- The purpose of water injection project was to facilitate gas sales.
- AOGCC have quantified the effect of different gas offtakes based on modeling work.
- This work was used to justify the offtake in 2019 for AGIA pipeline requirements from Prudhoe Bay.
- Black and Veatch study shows the AGIA pipeline is still robust without Point Thomson gas.



application. The emissions continue today, and the need for more advanced and development of new technologies is urgent.

early 1970s in the region. The existing design of the compressor was limited by the technology of the time. The industry's first machine with a discharge pressure of 472 bar was installed by O'K in 1972. It was a major milestone in the history of compressors for this type of application.

Our 200 high pressure compressor trains with more than 150 compressed loads have been produced by O'K. O'K is the business in the field of high pressure gas re-injection.

By O'K 450000 gpm turbines and compressors have been produced for the majority of the high pressure offshore installations out of condensate gas re-injection plants.

From 1970s onwards, we have been producing more than 50 four turbine discharge pressure greater than 300 bar while today 500 gpm turbine plants have been produced by O'K.

Our 200 high pressure compressor trains with more than 150 compressed loads have been produced by O'K. O'K is the business in the field of high pressure gas re-injection.

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High Pressure Gas Re-injection



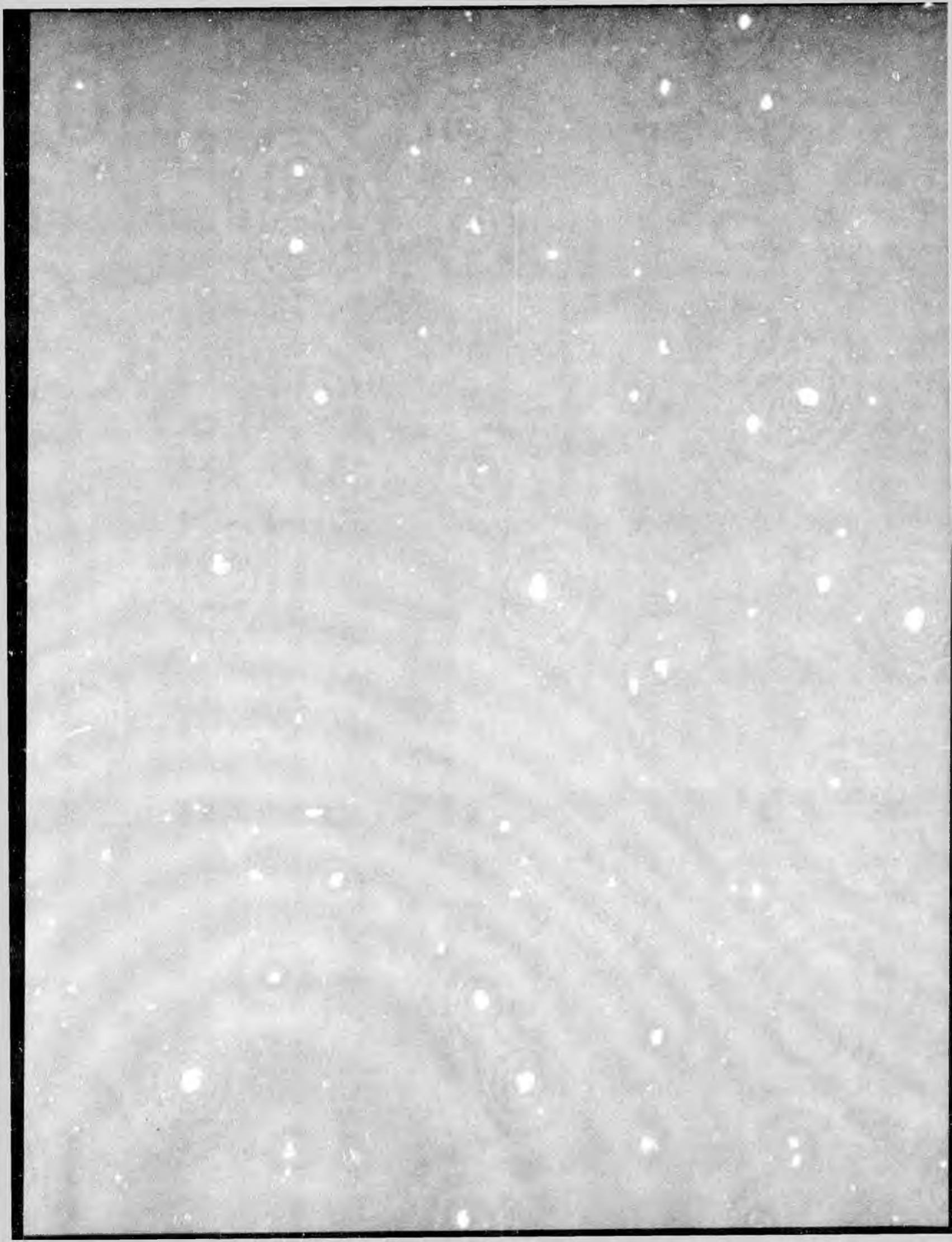
High Pressure Gas Re-injection



High Pressure Gas Re-injection



High Pressure Gas Re-injection



**Testimony by the Honorable Walter J. Hickel
Legislative hearing on the state's finding
regarding the TransCanada gasline application –
June 18, 2008 - 9 am - Howard Johnson Hotel, Anchorage**

Thank you Mr. Chairman.

Let me begin with my bottom line.

The State of Alaska representing all of our people, the owners of the resources on the State lands at the North Slope should build the Alaska natural gas pipeline.

We should hire a pipeline company, perhaps TransCanada, and build it and own it. That's the only way we can keep control of this resource that is worth untold billions.

Anytime you yield control of a public asset to a private company, you have to be content to sit and wait. Because they are in control.

And if you yield control to foreign governments and their regulatory agencies, just move to the back of the bus.

Before I expand on that theme, I want to salute you, Mr. Chairman, and your colleagues for holding these hearings. The issue is how to achieve maximum benefit from North Slope natural gas resources.

That's your assignment under the Constitution. As citizens of our Owner State, all Alaskans also have the obligation to follow this issue and make their views known.

Billions upon billions of dollars are at stake.

We need to get Alaska gas to Alaskans...and to make that gas affordable we need to access the world's markets. That means an All-Alaska gasline to Valdez and LNG exports to the world.

Our neighbor nations on the Pacific Rim are ready to pay twice as much as Alberta or Chicago. This week Japan is paying over \$20 per mcf. They are paying \$11.69 in Alberta.

The last time I saw you, Mr. Chairman, was in Beijing where we met with leaders in Chinese oil and gas. That was an important trip. We must understand the world. And we need vision. Vision is the key to a pioneering country. And to me the vision is clear, and it is based on our reality.

For 50 years of statehood, Alaska's political ties have been with America...and thank God for that.....but our economic ties have been with Asia.

We offered our timber, coal, and LNG to the South 48, but we couldn't get them past Seattle. So we made friends and contacts in Japan and Korea, and we built our young economy based on those relationships. In 1969, we pioneered the first LNG shipments to Japan from anywhere...shipments that continue from Kenai today.

Wake up, America! It's a world economy. Check the labels on your T shirt and the names on your TV and automobile. Chances are they weren't made in America.

Our national economy, that means our standard of living, depends on our productivity and our ability to compete. We won't survive by just playing the stock market. There is no wealth without production.

I commend Governor Sarah Palin for introducing a wide-open, transparent process on the gasline issue. For years, the North Slope producers claimed that Alaska natural gas was not economic. They said there was no market. But AGIA produced 5 eager applicants and the producers changed their tune. They cobbled together yet another public relations campaign about a gasline project that I promise you will never be built.

We've seen this before....over and over. And they still bad mouth LNG.

If LNG is so bad, why are they so heavily involved? ConocoPhillips has invested \$60 billion in the largest LNG liquefaction plant in the world in Qatar. BP has an LNG project in Tangguh, Indonesia. And Exxon has a new project in Papua/New Guinea. And that's only part of the story.

Ladies and gentlemen, they don't oppose LNG. They oppose Alaska LNG. Because our LNG competes with their LNG.

And the truth is LNG is changing the world. You can't build a pipeline to Australia, Japan, India or China.

It's no secret that I am opposed to giving an exclusive license to TransCanada. The public thinks that they plan to ship North Slope gas to America. But their goal, and they don't deny it, is to use most of our gas to heat the Alberta tar sands to create synthetic oil.

And they face obstacles and delays beyond our control. And the key word is "control."

They admit that the McKenzie River pipeline, mired in problems, will go ahead of an Alaska gasline. More delay.

The Canadian Supreme Court has ruled, and rightly so, that the Canadian government must "consult and accommodate" even those First Nations that have not resolved their land claims when it comes to issues, such as a pipeline, that impact their traditional territory. More delay.

TransCanada cannot build a 4.5 billion cubic foot per day pipeline without gas from the producers. More delay.

And producer gas carries the bombshell of demands for "fiscal certainty." And you all know what that means.

What's more, without even so much as a mention, TransCanada plans to export millions of barrels of our valuable North Slope gas liquids to Alberta. Those gas liquids should stay in Alaska. Billions of dollars of state revenue and hundreds of value-added jobs for Alaskans for decades rest on this one issue.

There is no reason to hold up the All-Alaska LNG line while we wait for TransCanada to sort out their problems in Canada.

Last week Commissioner Pat Galvin and others from the Palin gasline team informed me that TransCanada is prepared to hold a "simultaneous Open Season." This means that those who control North Slope gas will be invited to reserve space at the same time in either a Canadian pipeline. Or in an All-Alaska pipeline to Valdez.

If the market wants to ship LNG first, TransCanada will build the All-Alaska line first. They didn't mention, by the way, to which route the state will dedicate its gas.

But I was somewhat encouraged by what the Commissioner said, only to learn this week that TransCanada has refused to clarify any such commitment to hold a "simultaneous Open Season."

This illustrates and underlines my message today. If TransCanada is granted a license by the state, the State will lose control.

Alaska appears to be caught between the producers on one side and a bad deal on the other. So what do we do?

Fortunately, there is another option.

Ever since the people of Alaska voted six years ago in favor of an All-Alaska gasline, they have been waiting. And now, with a crisis in Alaska fuel and energy costs, they are getting frustrated. How much longer can they wait?

In Fairbanks last week, you heard loud and clear that we need Alaska's gas for Alaska's people now! And the crisis in rural Alaska is worse. But it's no good to have Alaska gas if its costs are sky high. The way to lower the price is through volume.

We must move our gas in a pipeline big enough to serve large markets. The best way to do that is with an All-Alaska gasline to Valdez.

And the state should own it.

Without the Canadian government or FERC making us jump through a thousand hoops, in 5 to 6 years we can get gas to Alaskans. And the entire project can be completed soon thereafter.

If you will hold a hearing on how the state can build and own our own gasline, please invite me back. It is not rocket science.

So I urge you to deny the TransCanada plan.

If you don't, we will lose control of our gas, and Alaska will be locked into the market at the end of that pipeline in Alberta.

As we meet here, there is a rush going on for new gas plays in Pennsylvania, West Virginia, Texas and the Rockies. Alaska gas in the South 48 will face severe competition in a few years time.

That means that our gas, instead of serving America as Gov. Palin sincerely hopes it will, will stay in Alberta and be used to heat the tar sands.

So let's take the faster, better and more beneficial alternative.

Let's build and own the Alaska gasline ourselves.

With LNG, we will serve the world. We will move our gas to the highest and best markets, and we will keep the jobs here at home.

That's "maximum benefit" for our people. And that's your responsibility. Your opportunity. And the mission of this generation.

Thank you.

HB 3001

SB 3001

6/19/08

SPECIAL

SESSION

DOCUMENTS



FEDERAL ENERGY REGULATORY COMMISSION

FACT SHEET

June 19, 2008
Trans-Alaska Pipeline System
Docket Nos. OR05-2-001, IS05-82-001 *et al.*

MEDIA CONTACT
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FERC Affirms ALJ Ruling on TAPS Tariffs

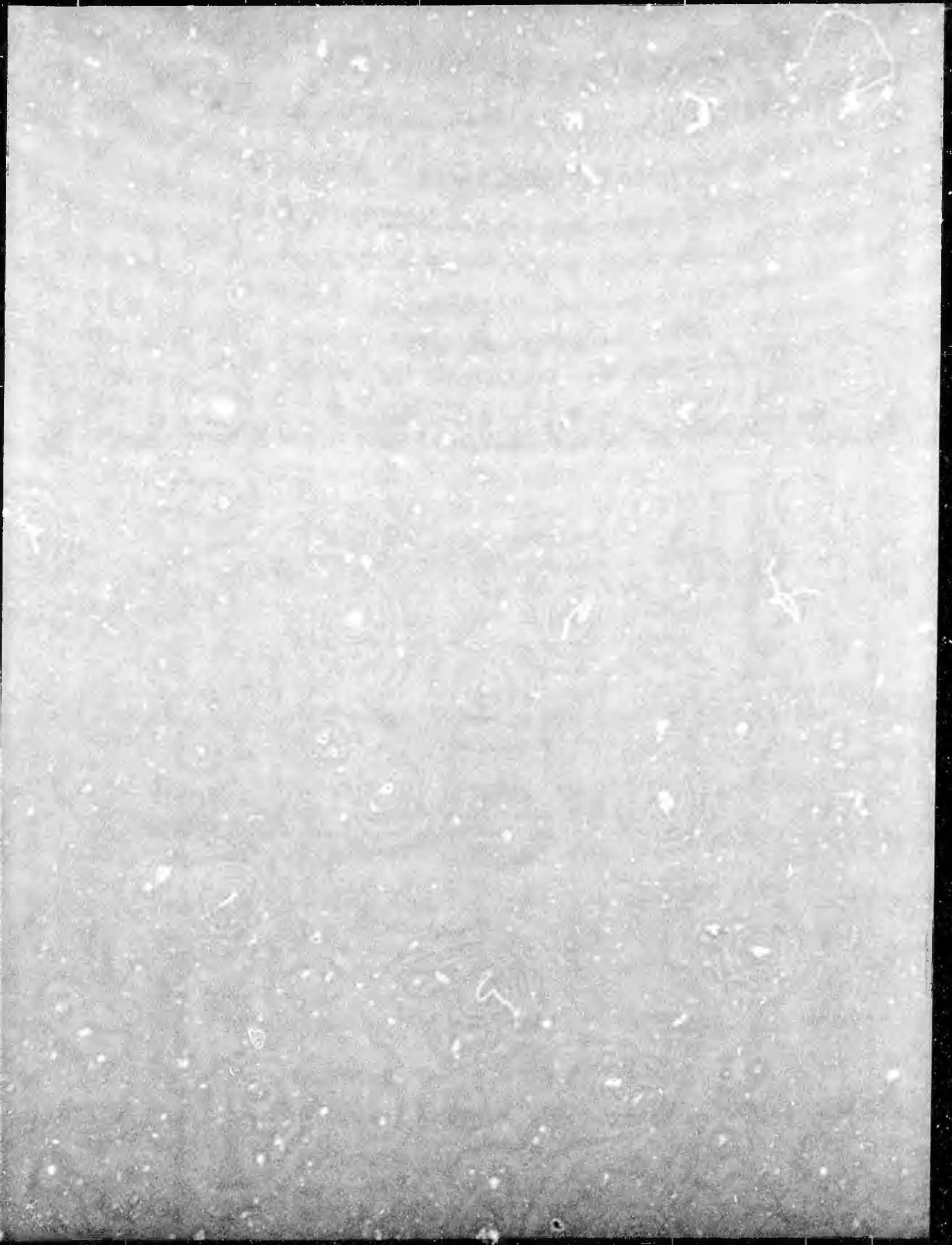
The Federal Energy Regulatory Commission (FERC) today affirmed a May 2007 Administrative Law Judge (ALJ) ruling that interstate rates charged on the Trans-Alaska Pipeline System (TAPS) in 2005 and 2006 were not just and reasonable and ordered limited refunds to shippers who had overpaid. The order establishes the basis for the new just and reasonable rates that will go into effect on a prospective basis.

Background and Order

This order affirms, clarifies and modifies the May 17, 2007, Initial Decision regarding the TAPS carriers' 2005 and 2006 interstate rate filings. The order affirms the ALJ's finding that the TAPS carriers failed to prove the proposed rate increases in their 2005 and 2006 tariffs were just and reasonable, and ordered limited refunds to all TAPS shippers.

The order also clarifies provisions in the ALJ's order regarding the appropriate dismantlement, removal and restoration expenses and modifies the return on equity component of the capital structure, consistent with FERC's new policy on proxy groups for pipelines.

The new rate, based on the Opinion No. 154-B methodology, is prospective, and will be determined after the TAPS carriers make a compliance filing. The refunds for 2005 and 2006 are limited to the difference between the 2005/2006 proposed rates and the 2004 rate.





AGIA

Summary of the Commissioners' Findings and Determination

**Special Session
June 19, 2008**

Commissioners' AGIA Findings and Determination



- The pipeline project proposed by TC Alaska's application
 - will sufficiently maximize the benefits to the people of Alaska, and
 - merits issuance of an AGIA license.
- Issuing an AGIA License to TC Alaska maximizes benefits to Alaskans more than pursuing an LNG project or the Producers Project.

Maximizing Benefits to Alaskans



- Get a Pipeline
- Jobs and long-term careers
- Opportunity of affordable energy for Alaskans
- Maximize state revenue and create opportunity for future growth of state economy

Maximizing Benefits to Alaskans



- Get a Pipeline
 - A feasible project plan, sponsored by a capable pipeline company
 - An economic project likely to attract firm transportation commitments and secure financing
- Jobs and long-term careers
- Opportunity of affordable energy for Alaskans
- Maximize state revenue and create opportunity for future growth of state economy

Maximizing Benefits to Alaskans



- Get a Pipeline
- Jobs and long-term careers
 - True “open access” for explorers
- Opportunity for affordable energy for Alaskans
- Maximize state revenue and create opportunity for future growth of state economy

Maximizing Benefits to Alaskans



- Get a Pipeline
- Jobs and long-term careers
- Opportunity of affordable energy for Alaskans
 - Off-Take Points, and Distance-Sensitive Rates
 - Expansion Provisions
 - Does not interfere with “Bullet Line” project
- Maximize state revenue and create opportunity for future growth of state economy