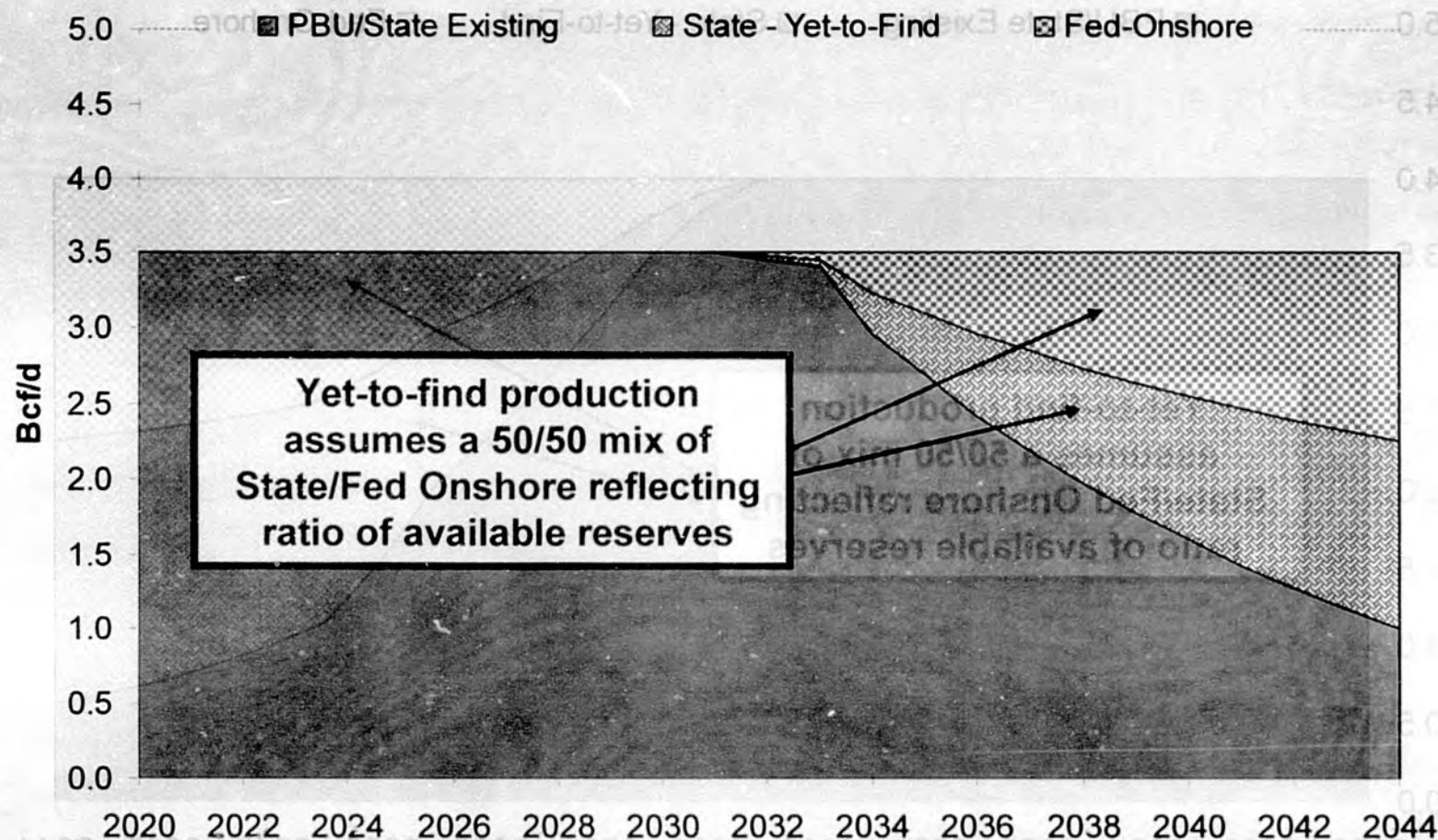


AK LEGISLATURE SPECIAL COMMITTEE FILES SCOMM 155 3302



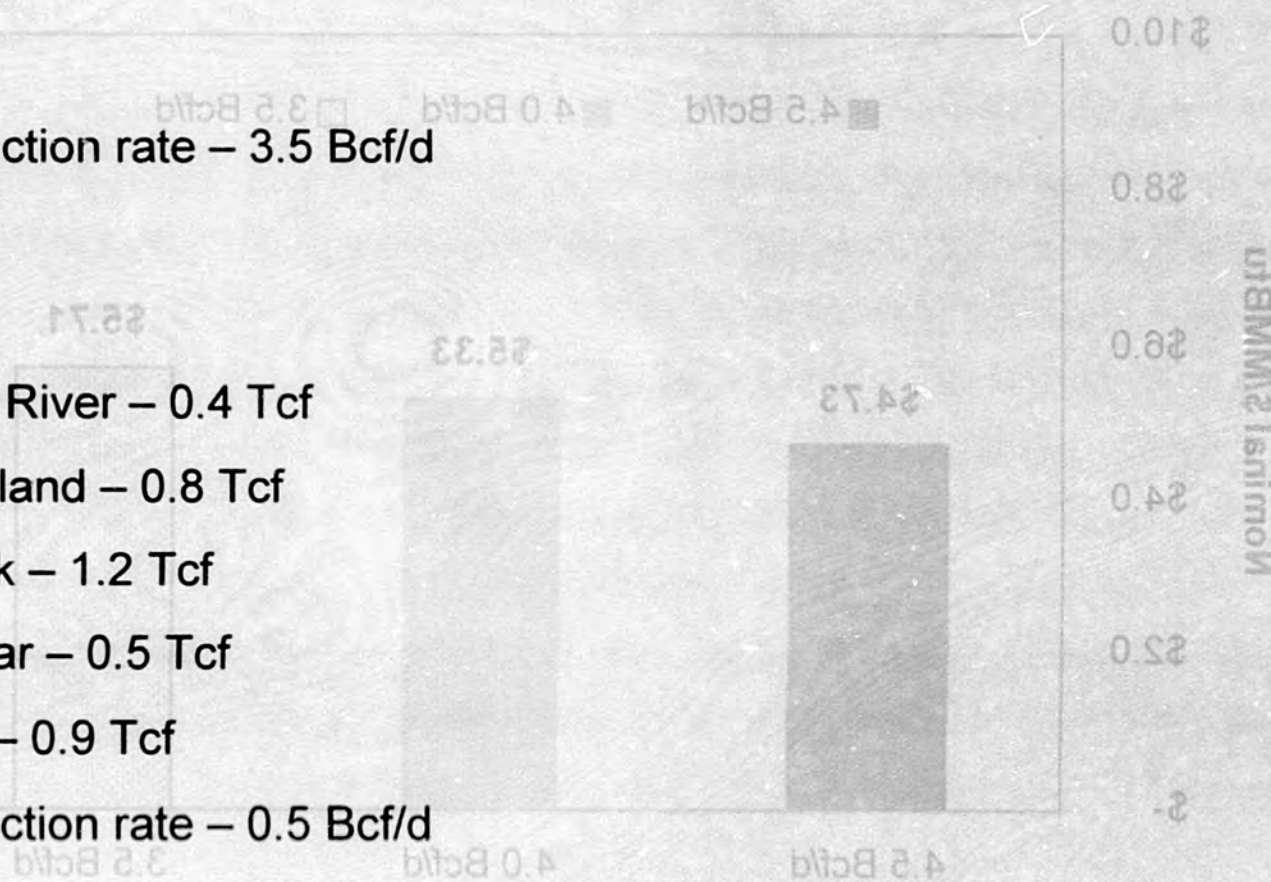
Production Assumptions: 3.5 Bcf/d Case





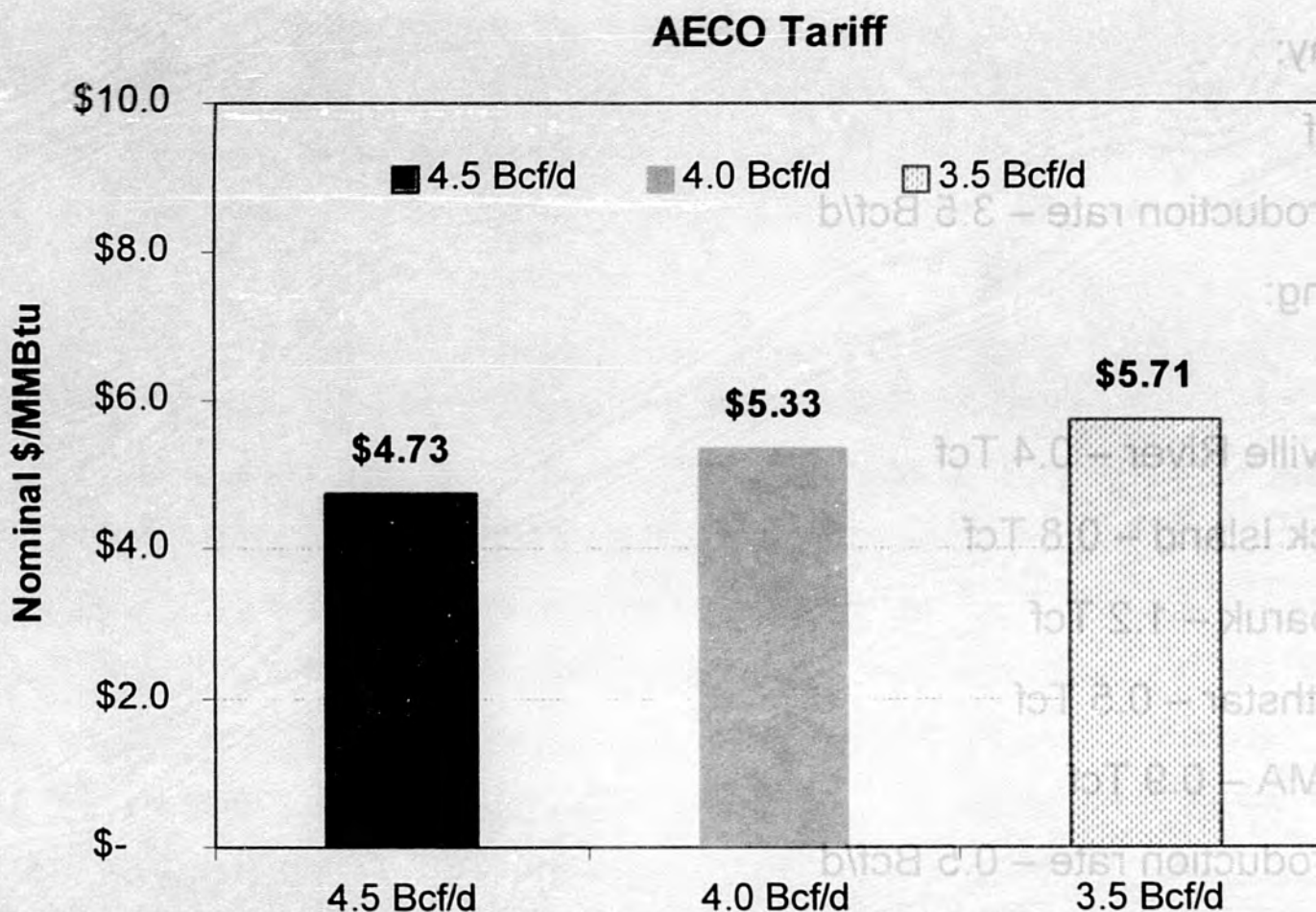
Production Assumptions used in the NPV Analysis for the 4.0 Bcf/d Conservative Base Case

- 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



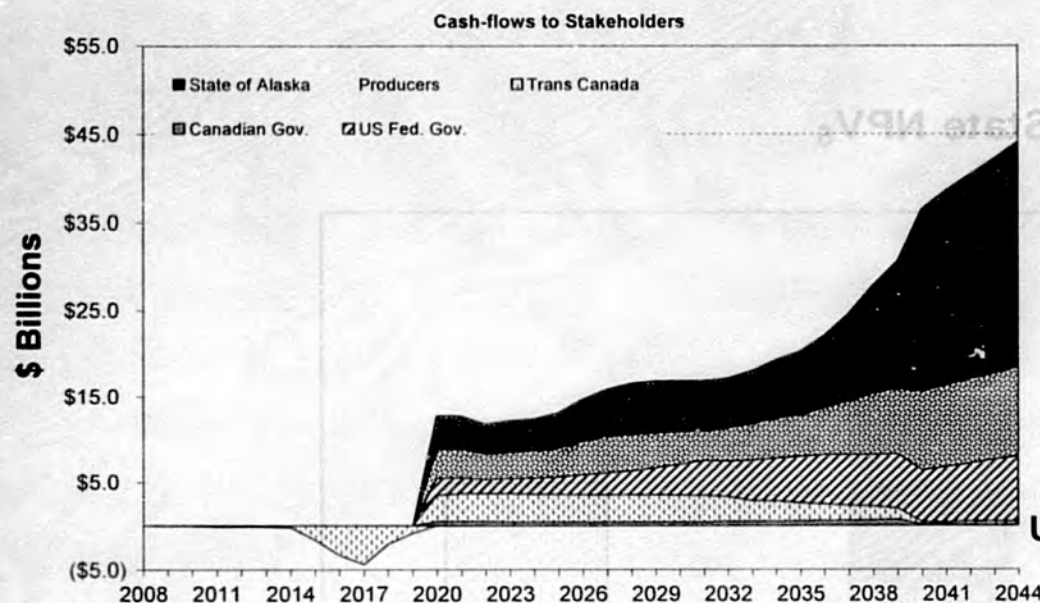


Expected Tariffs from the North Slope to the AECO Market

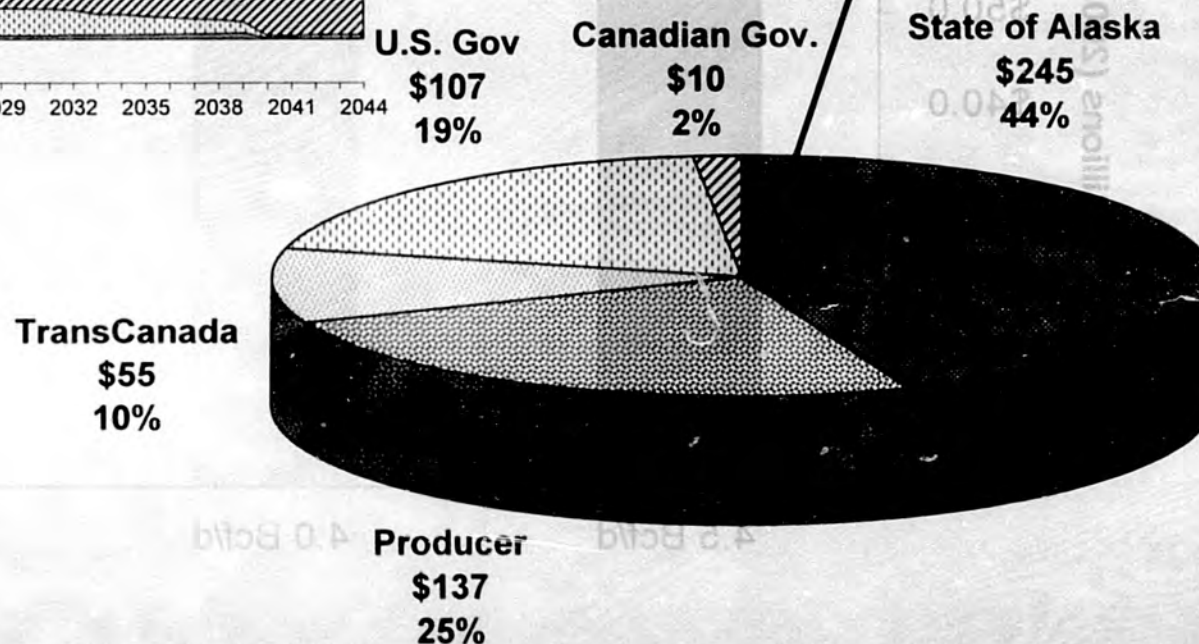




4.0 Bcf/d Conservative Base Case Cash Flows

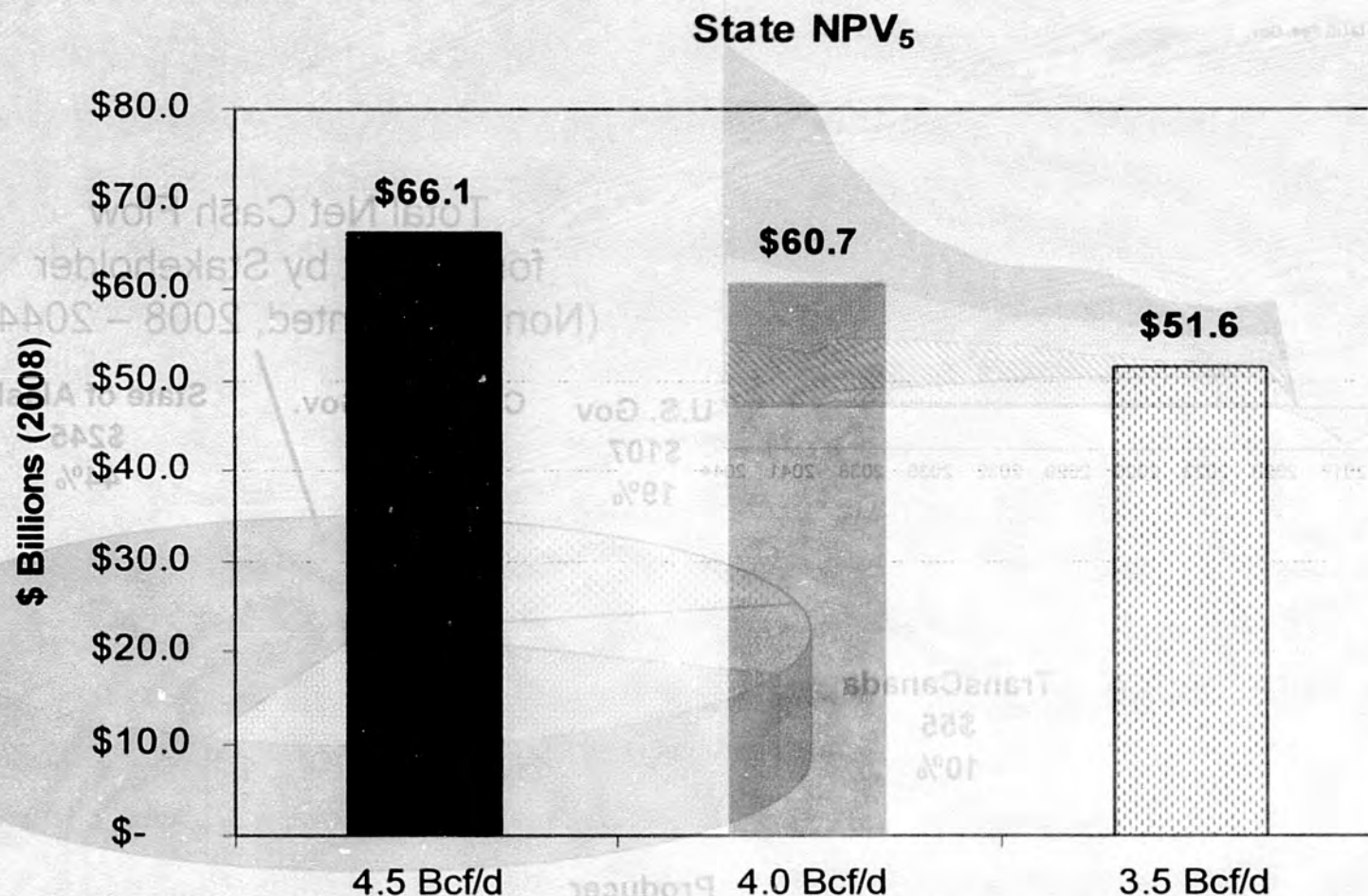


Total Net Cash Flow
for Project by Stakeholder
(Non-Discounted, 2008 – 2044)





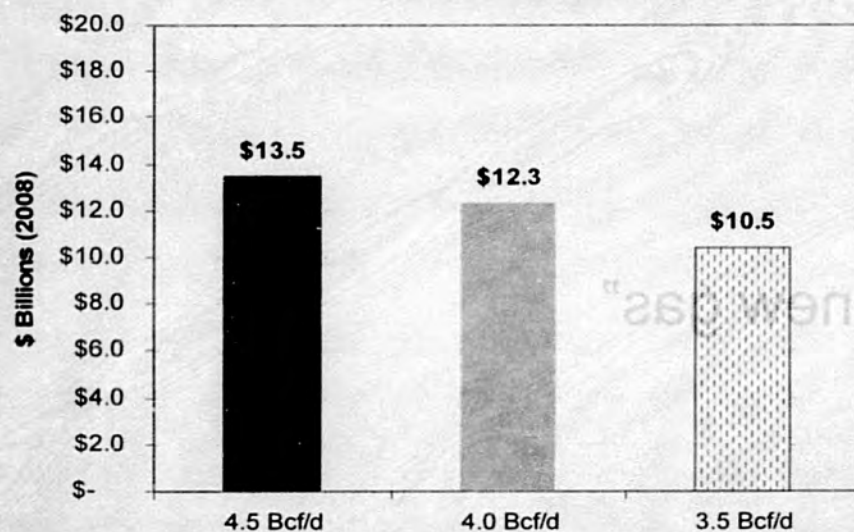
The State's NPV₅ is Lower with Smaller Project Capacity but Remains Significant



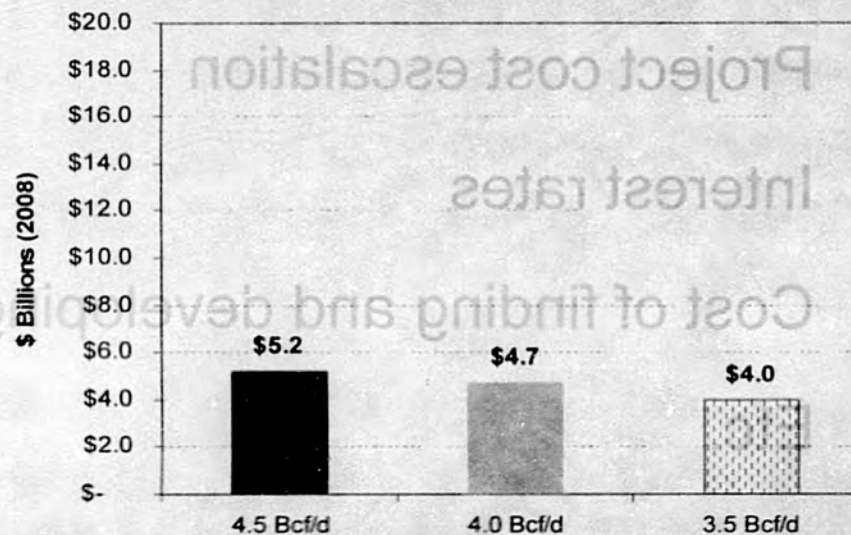


Producer NPV Shows a Similar Trend When Compared to the State

Aggregate Producer NPV₁₀

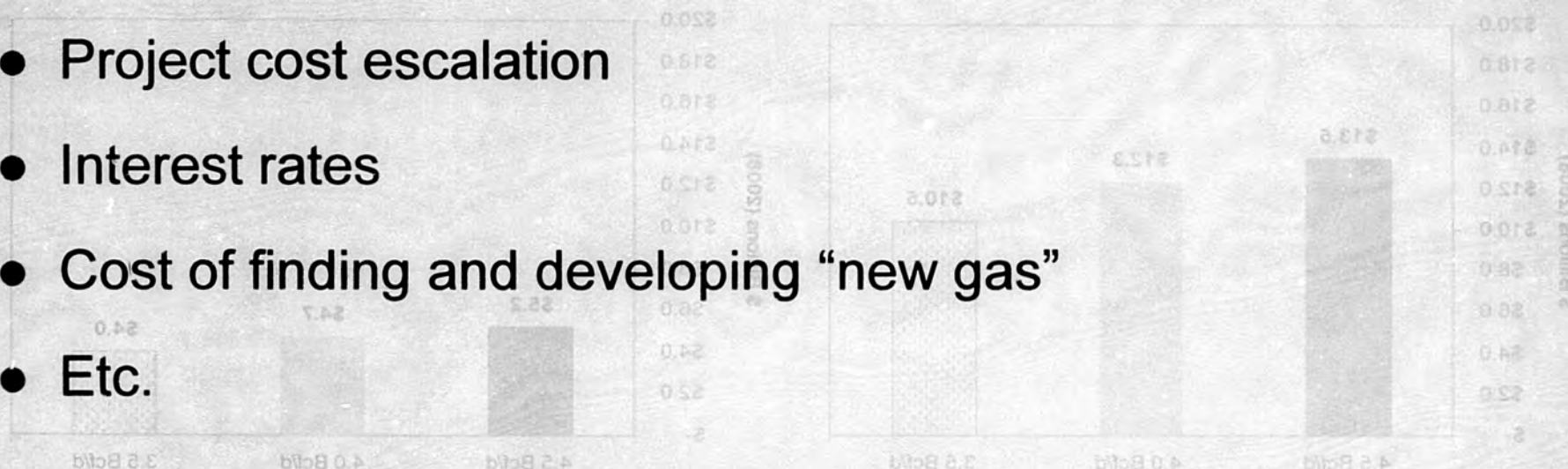


Aggregate Producer NPV₁₅



Project NPV is Affected by Many Factors

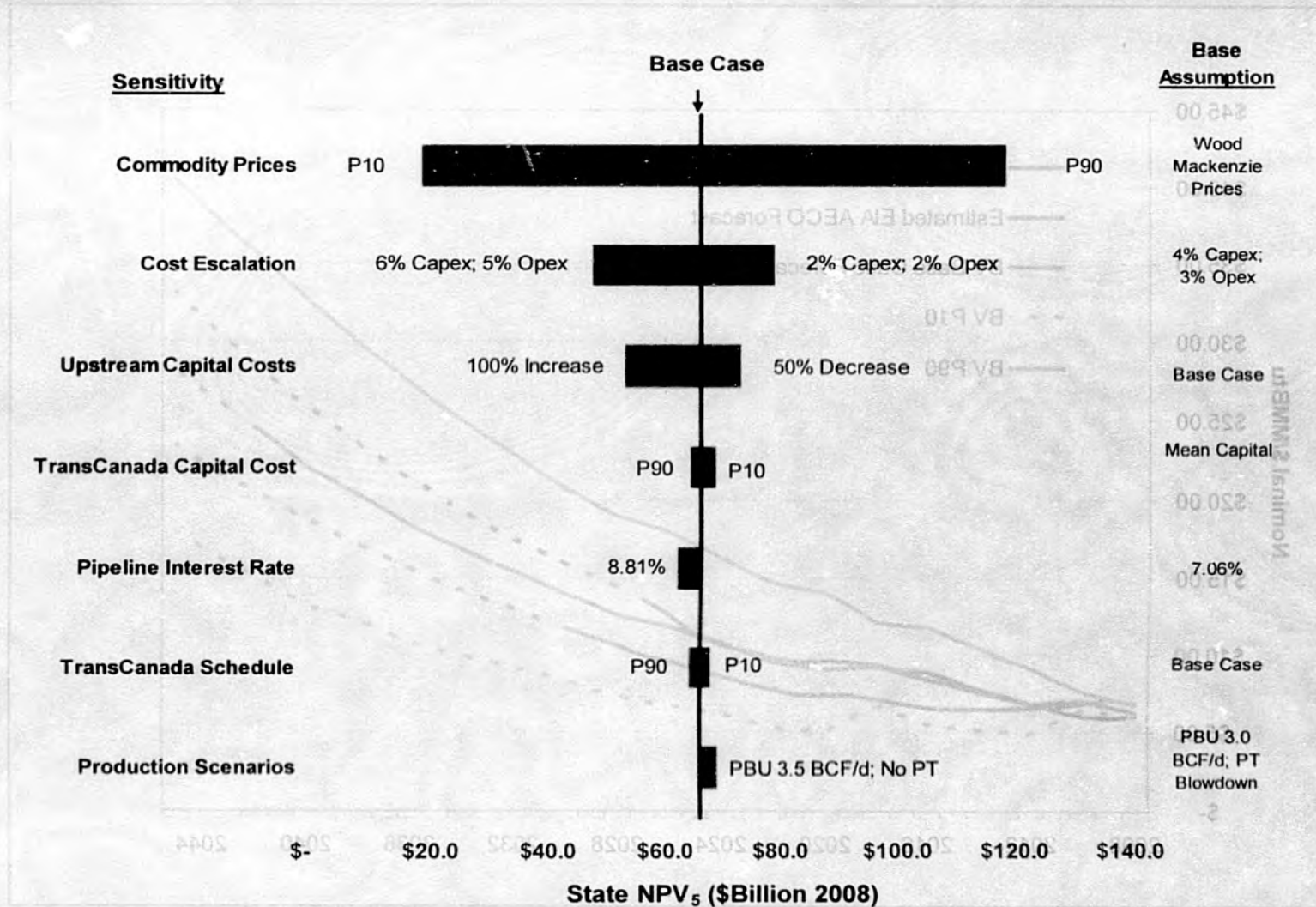
- Prices
- Project cost
- Project cost escalation
- Interest rates
- Cost of finding and developing “new gas”
- Etc.



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

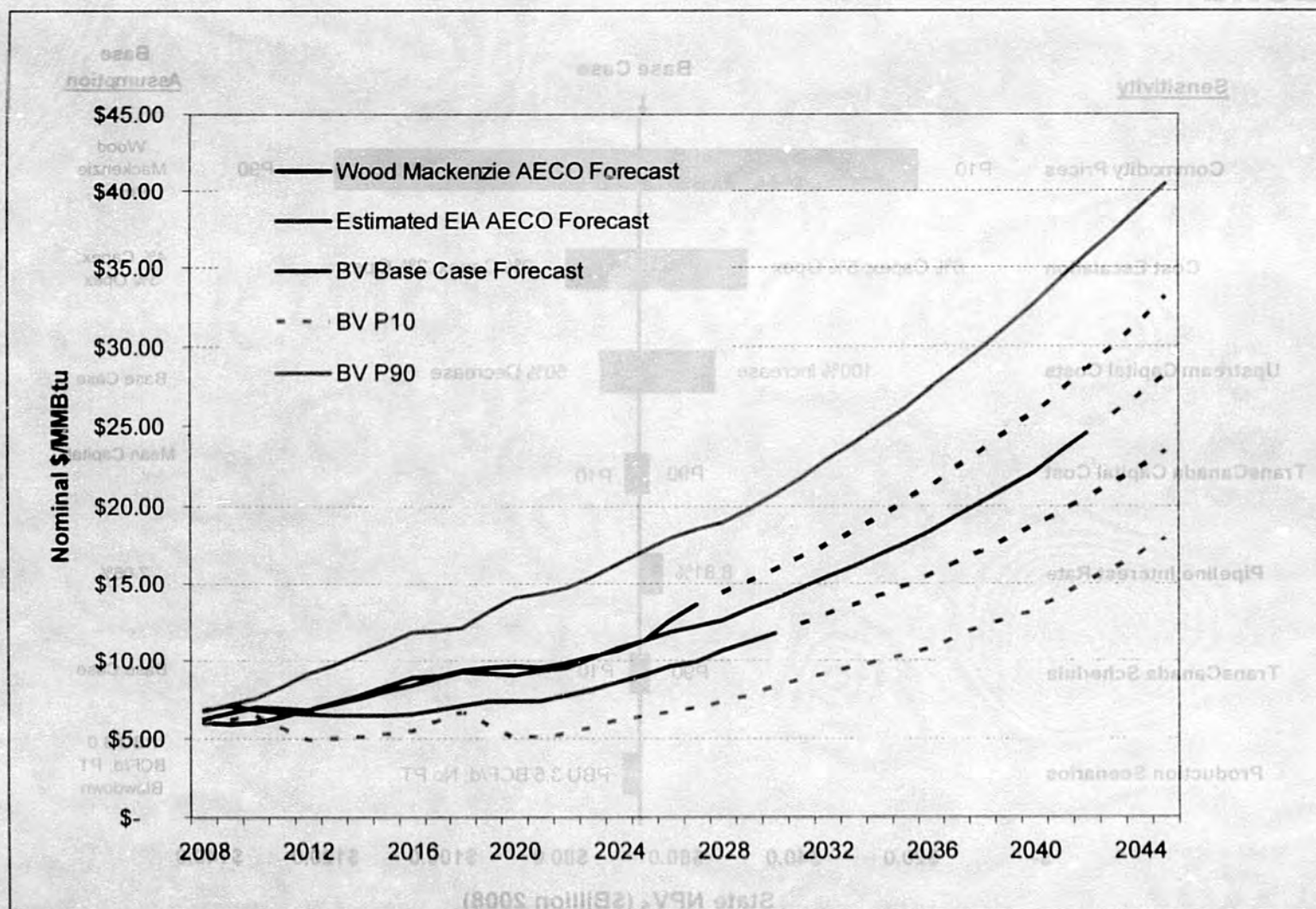


Price is a Key Driver to Variations in the NPV₅ to the State of Alaska



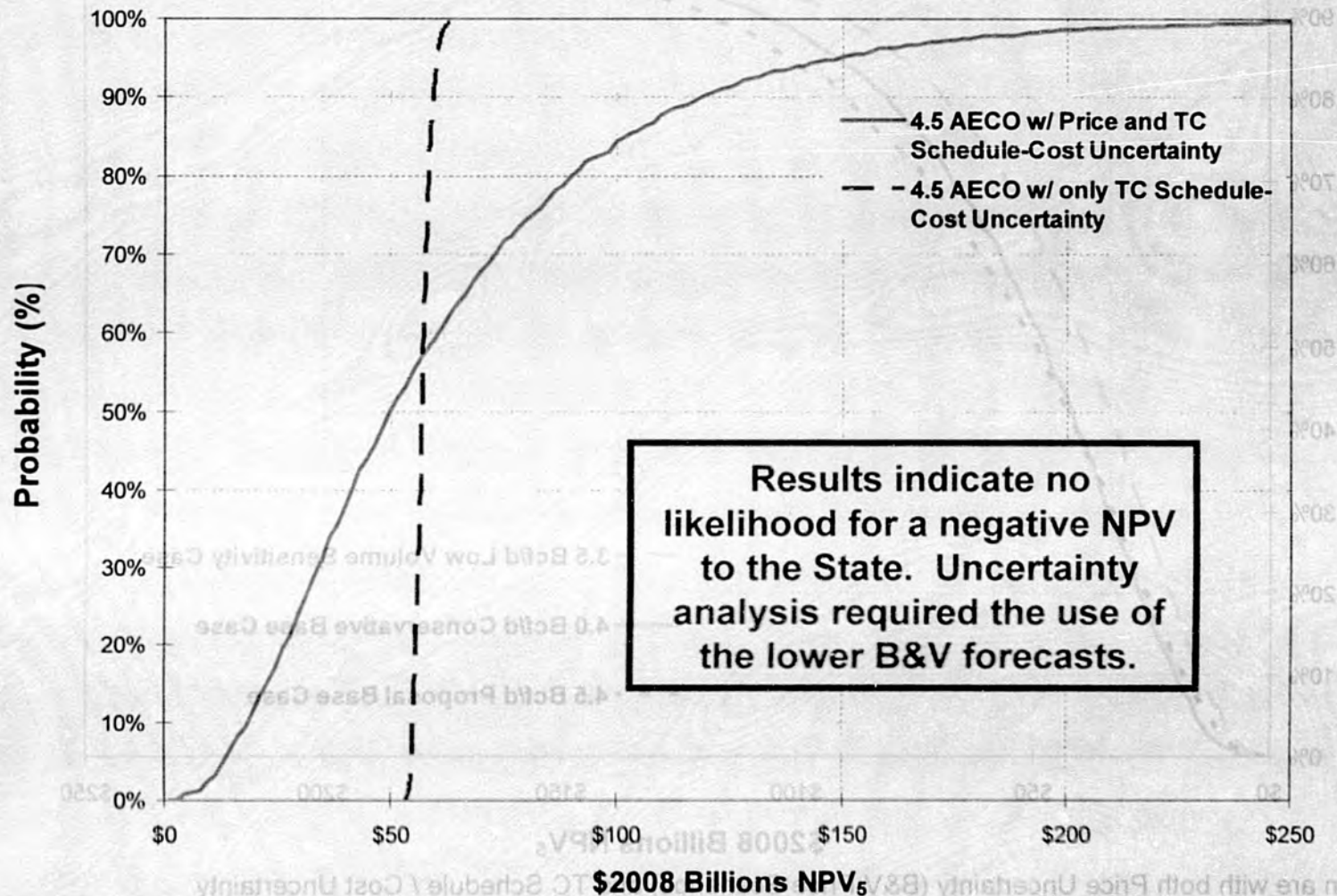


Various Price Forecasts were Considered in Analysis

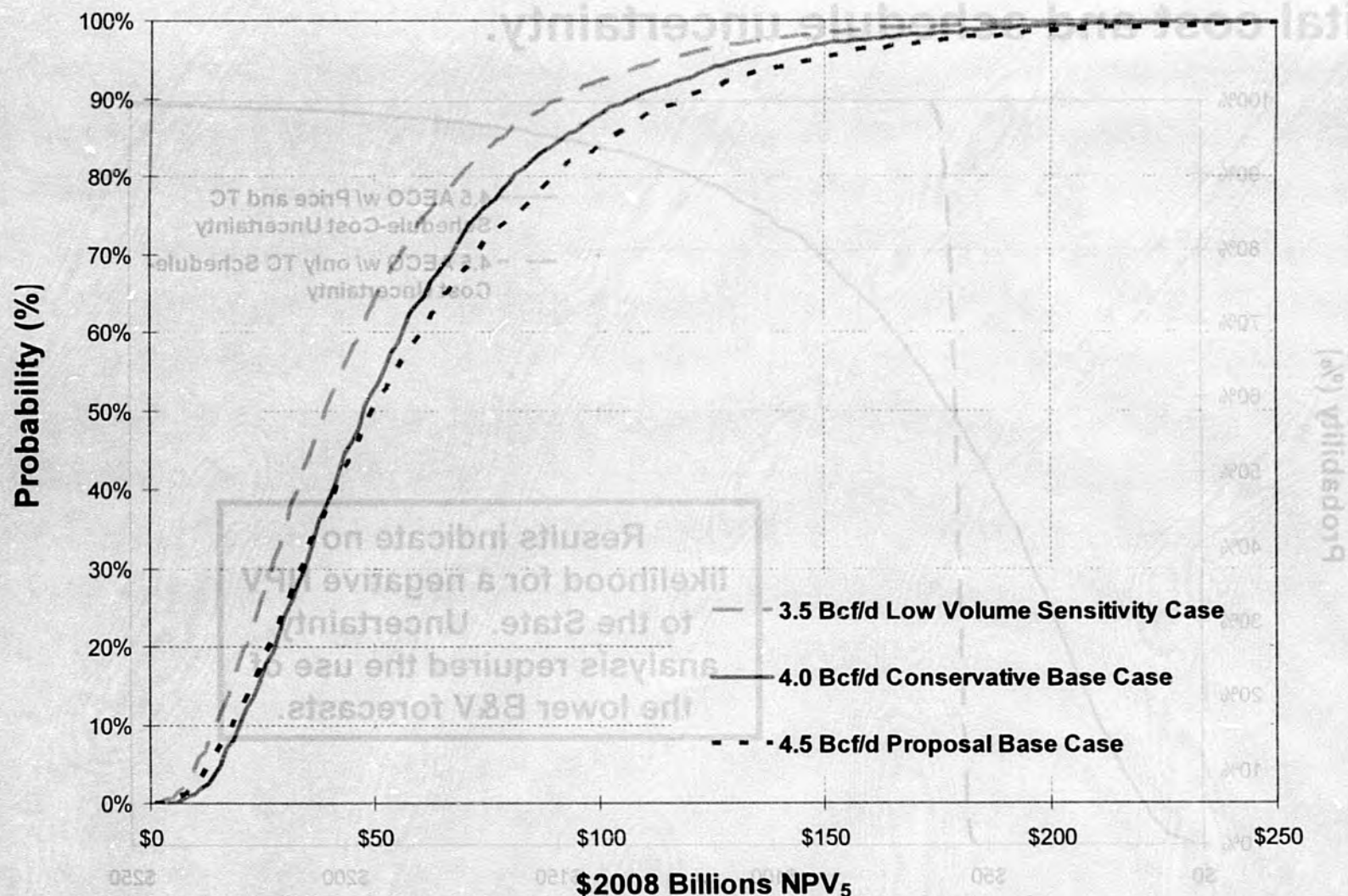




The impact from price uncertainty swamps estimated capital cost and schedule uncertainty.



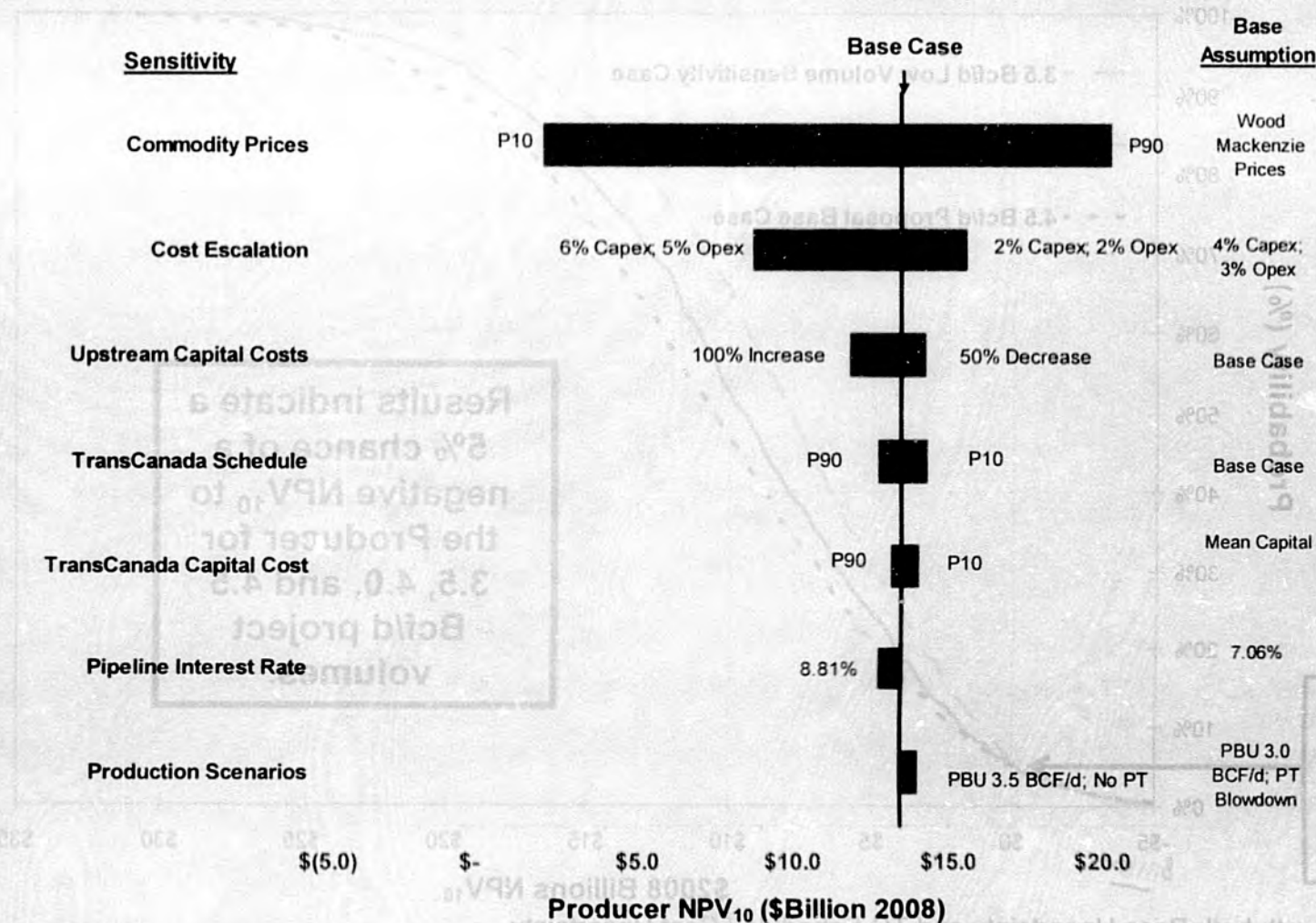
Lower Project Volumes yield similar State NPV results



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

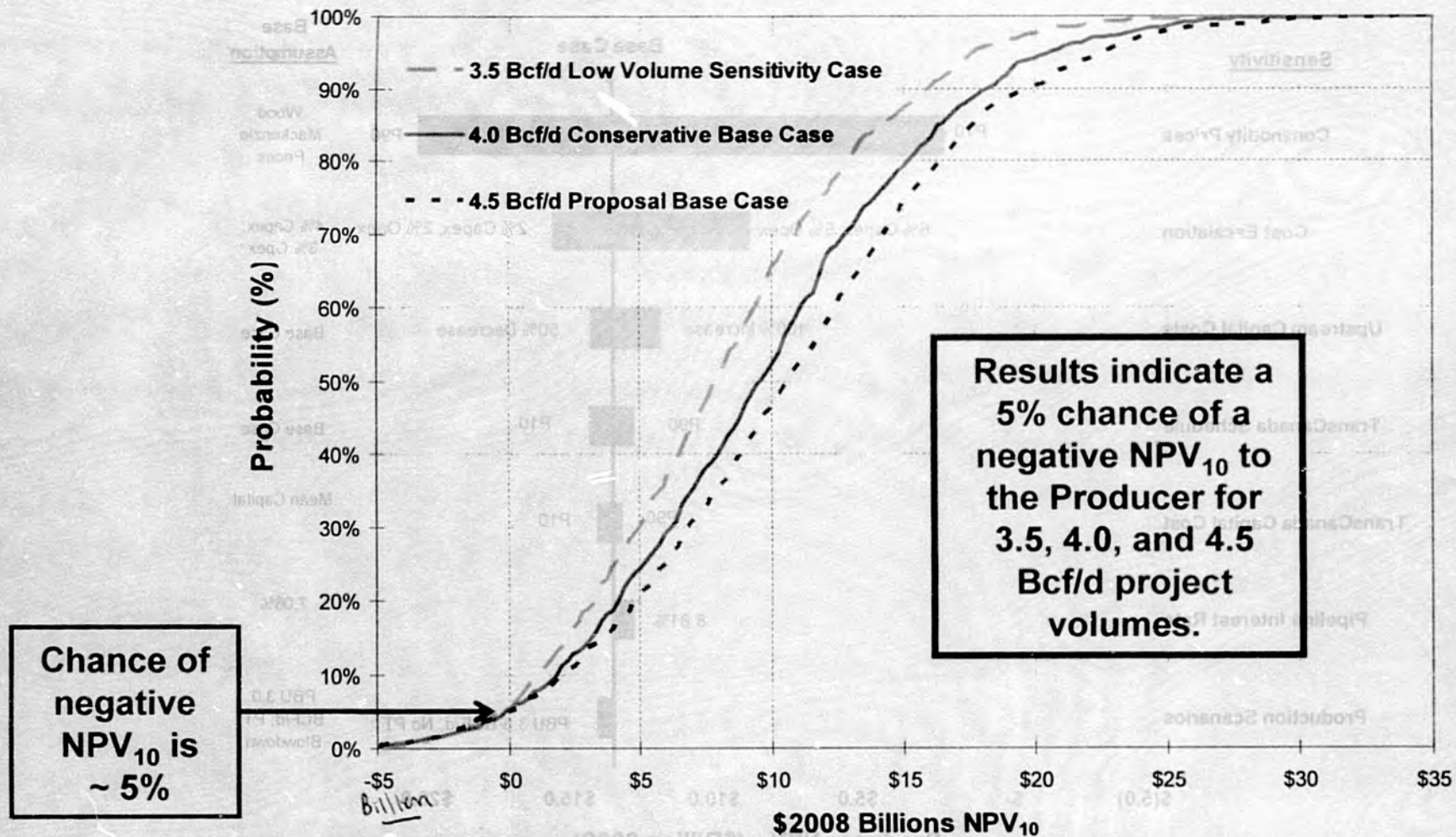


Producer Sensitivity to Key Variables is Similar to that seen in State Results





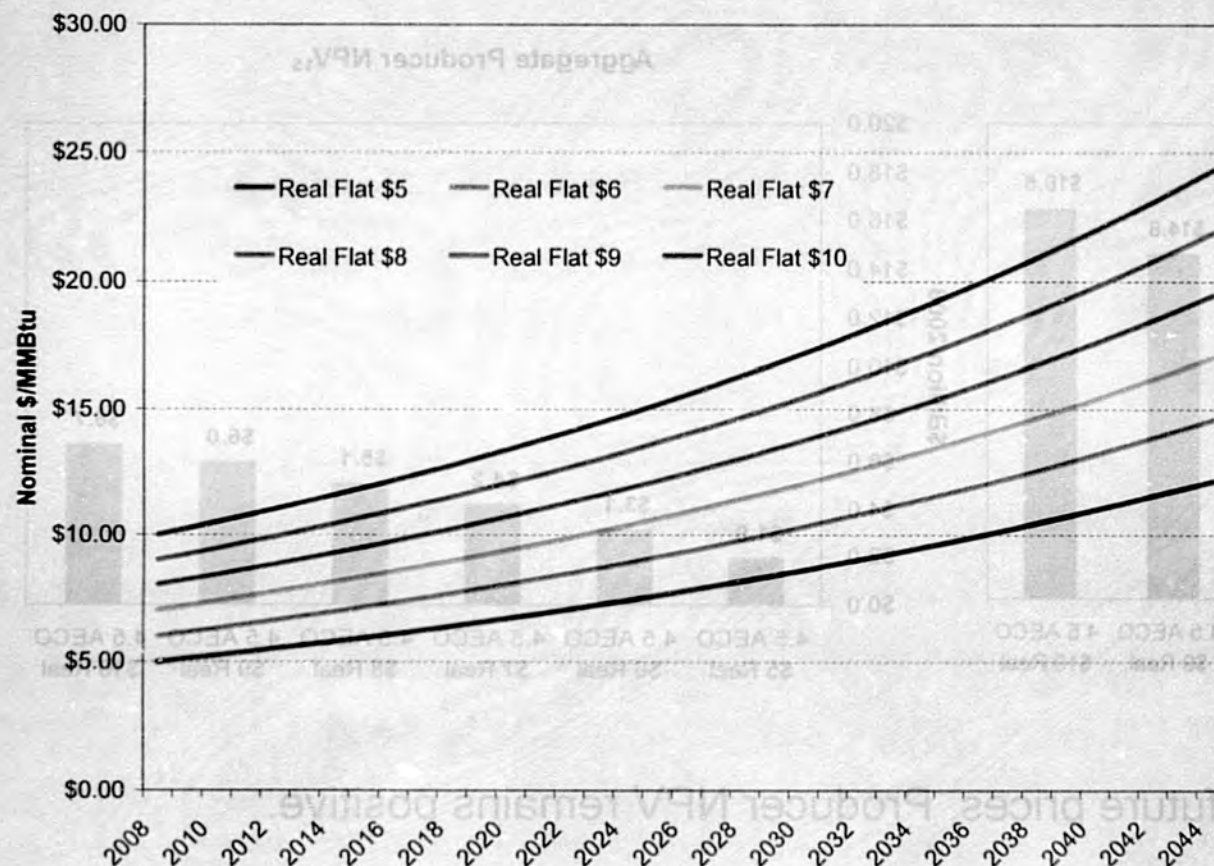
The producers have a very low likelihood for a negative NPV₁₀, even with lower project volume of 3.5 or 4.0 Bcf/d.



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



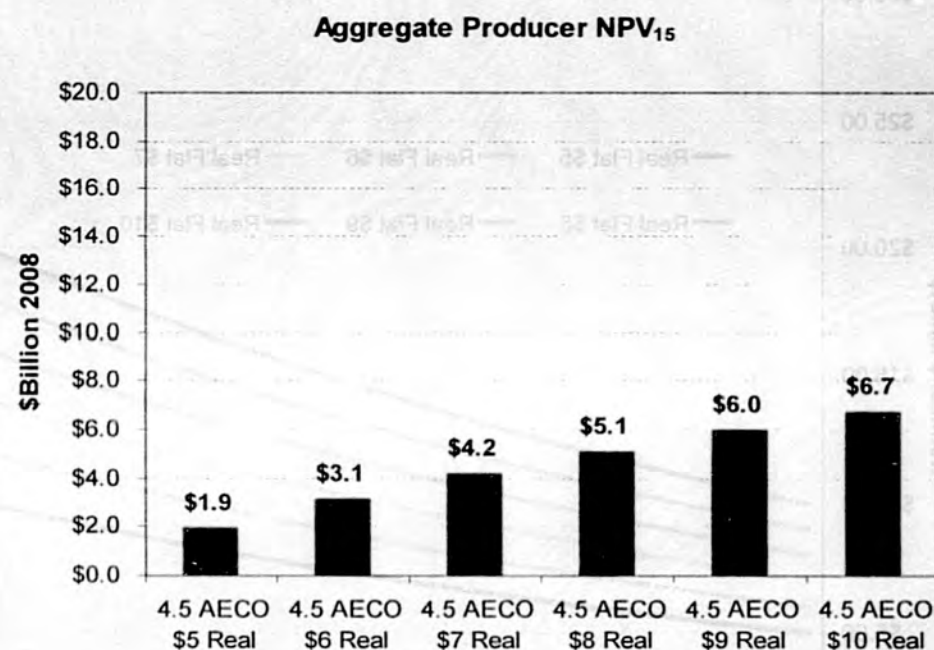
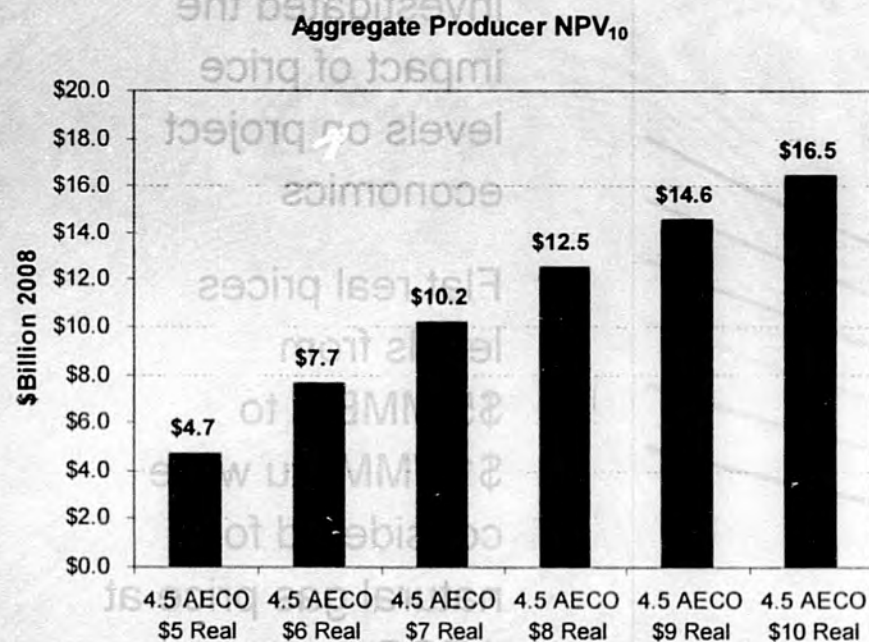
Analysis of Impact of Price Levels - Flat Real Prices



- 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



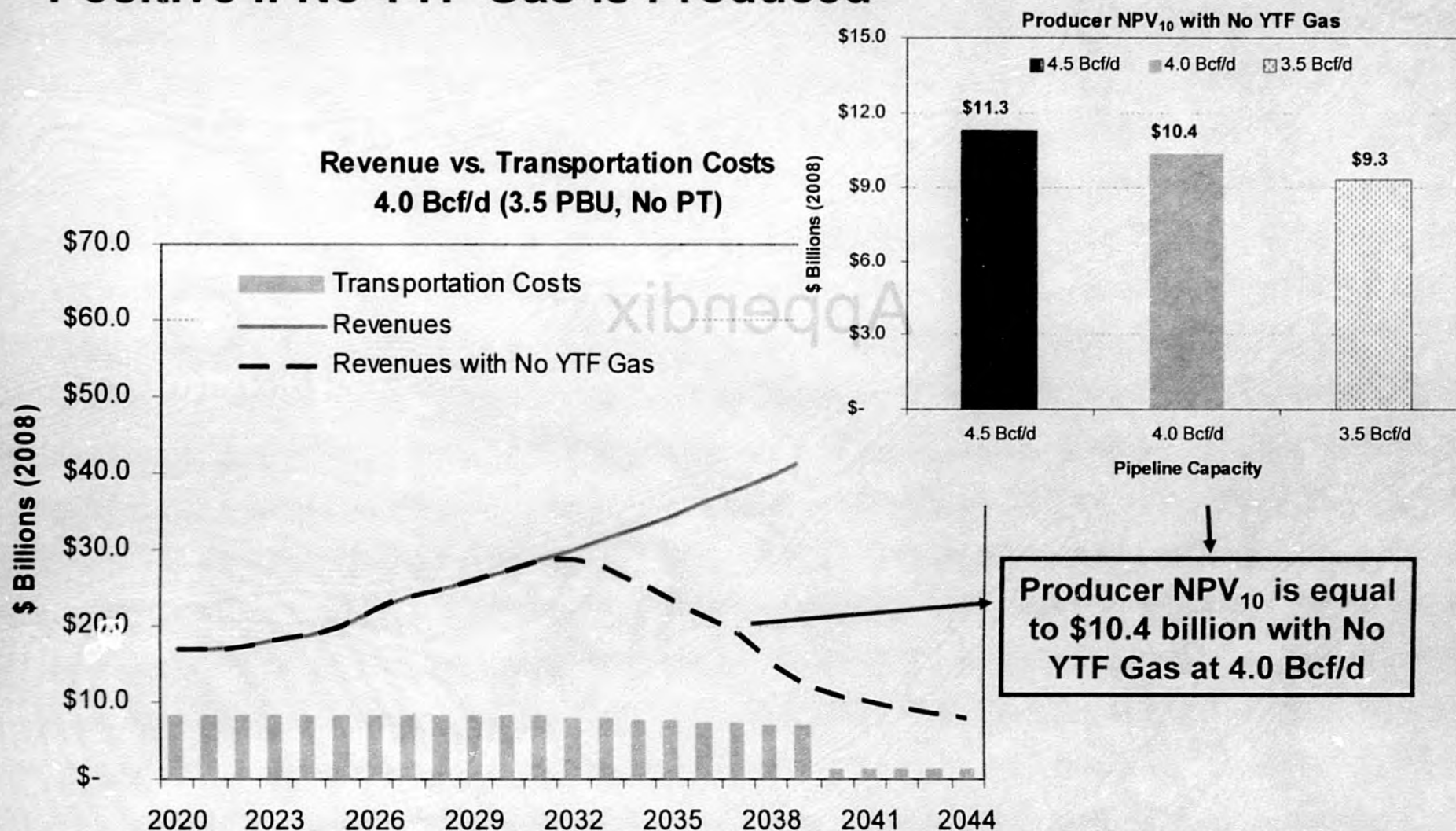
Price levels have a significant impact on Producer NPV. NPV₁₀ remains positive with real prices in \$5-\$10/MMBtu range for the 4.5 Bcf/d case.



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

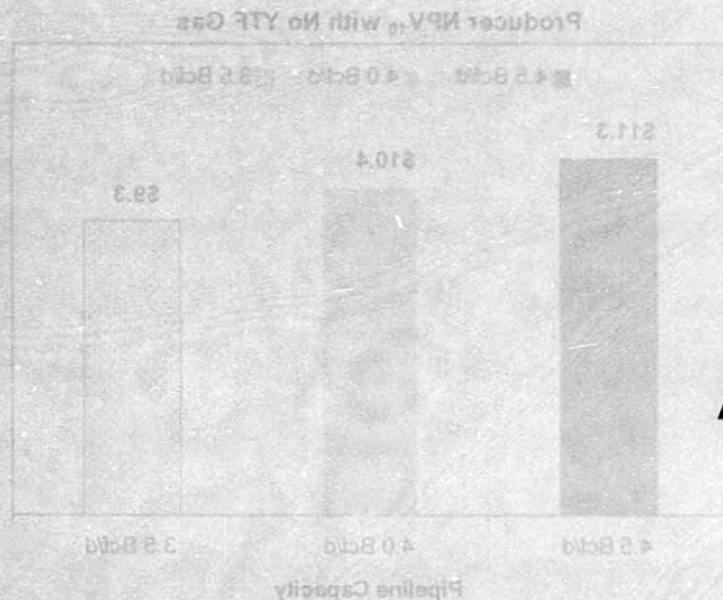


Producer NPV (for 4.0 Bcf/d) is Expected to Remain Positive if No YTF Gas is Produced

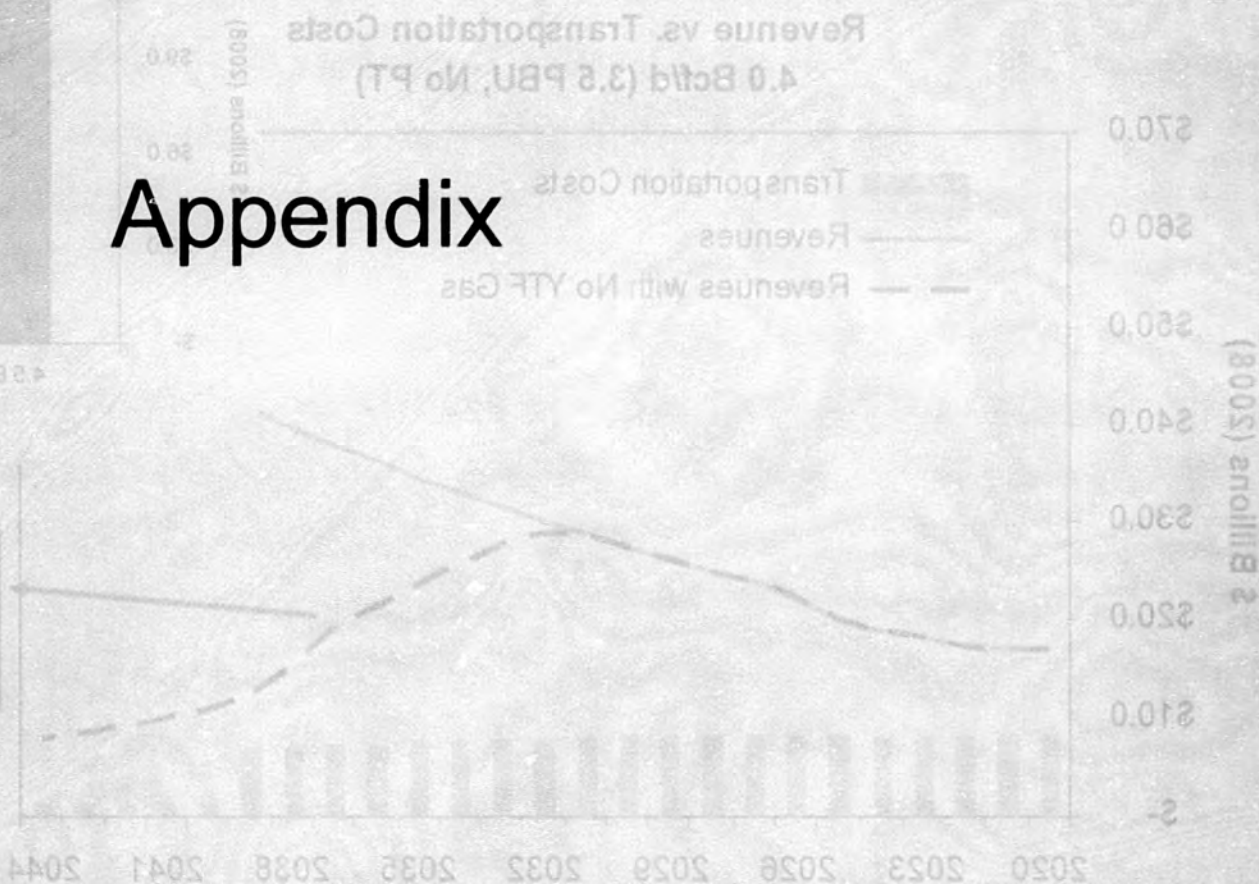




Appendix



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





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 \$



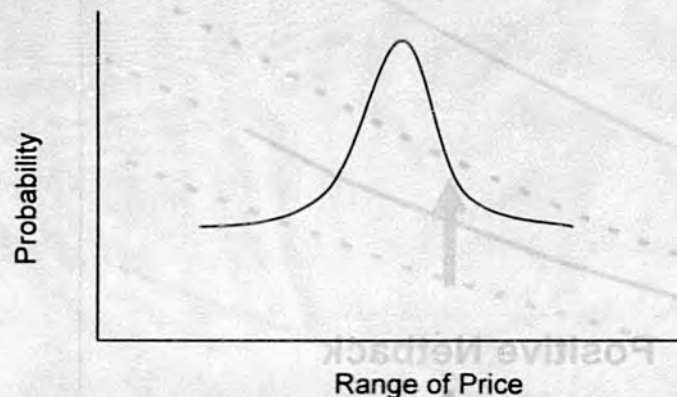
Overview of Natural Gas Price Assumptions Utilized in the NPV Analysis

- 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



Understanding the Factors that Lead to Future Prices

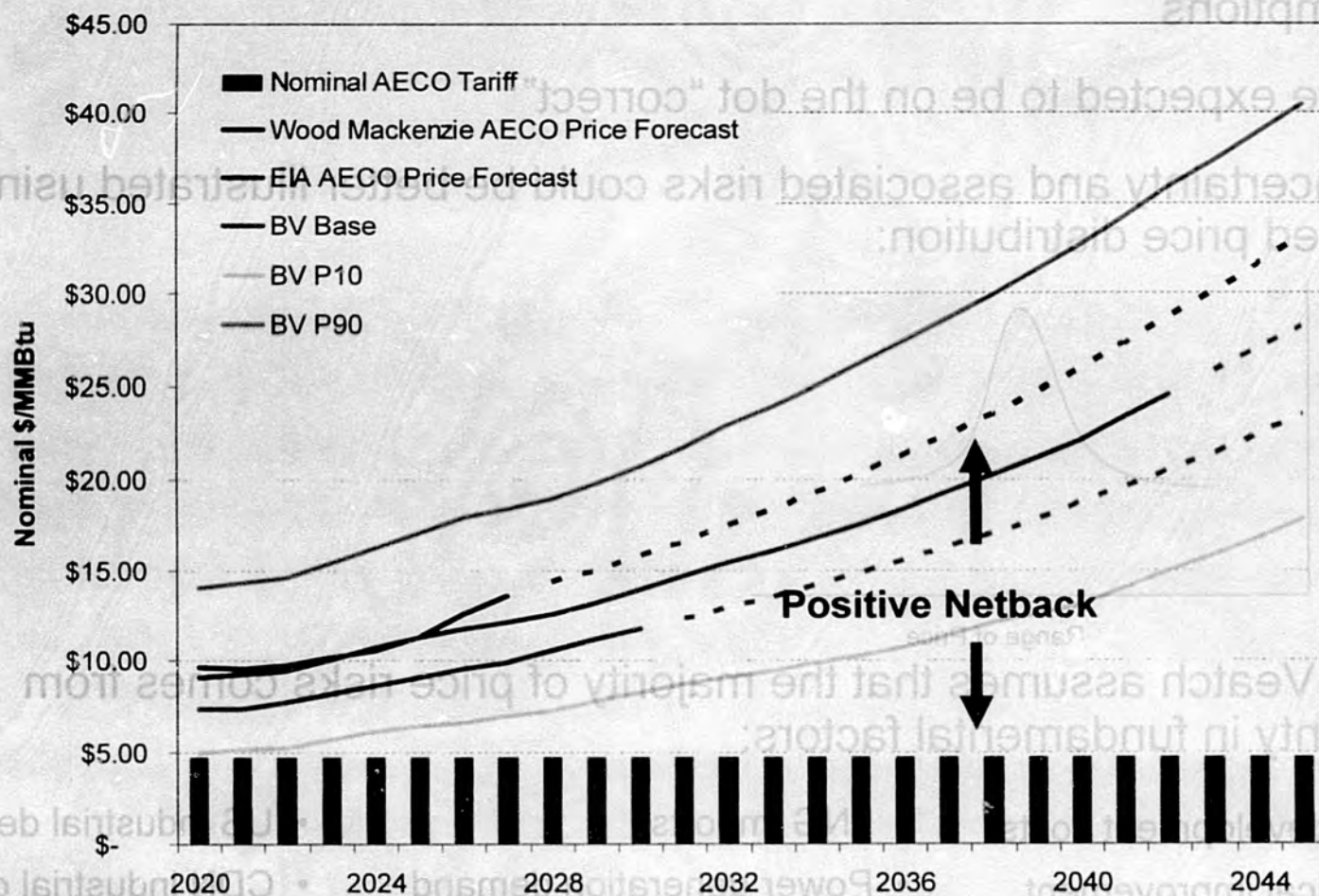
- Forecasted prices are “point” estimates, all dependent on a specific set of assumptions
- None are expected to be on the dot “correct”
- Price uncertainty and associated risks could be better illustrated using a forecasted price distribution:



- 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

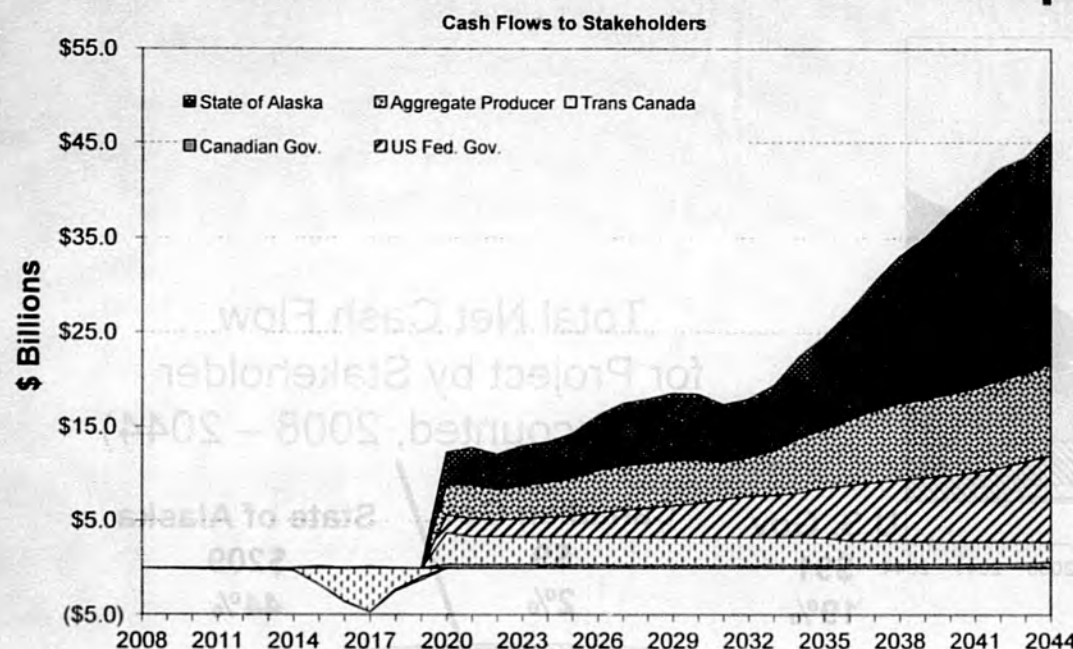


Positive Netbacks Are Expected Under All Price Forecasts

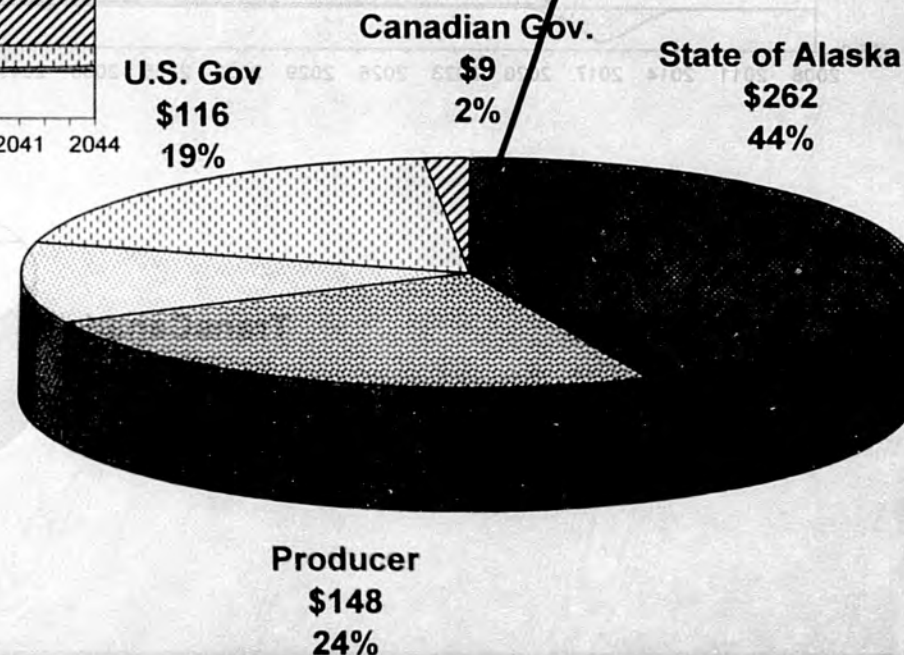




Cash flows to from 4.5 Bcf/d Proposal Base Case

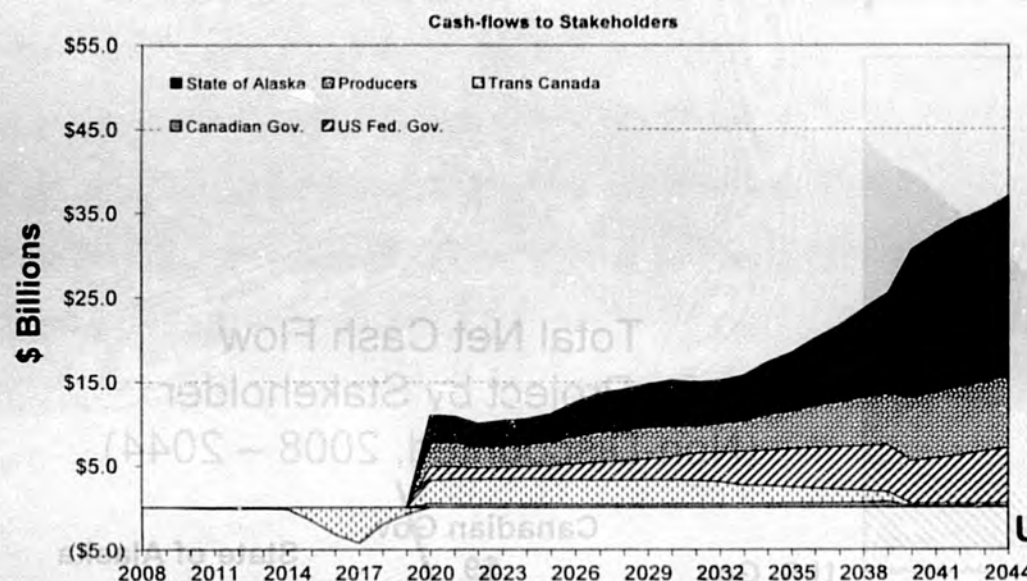


Total Net Cash Flow
for Project by Stakeholder
(Non-Discounted, 2008 – 2044)





3.5 Bcf/d Low Volume Sensitivity Case



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

U.S. Gov
\$91
19%

Canadian Gov.
\$9
2%

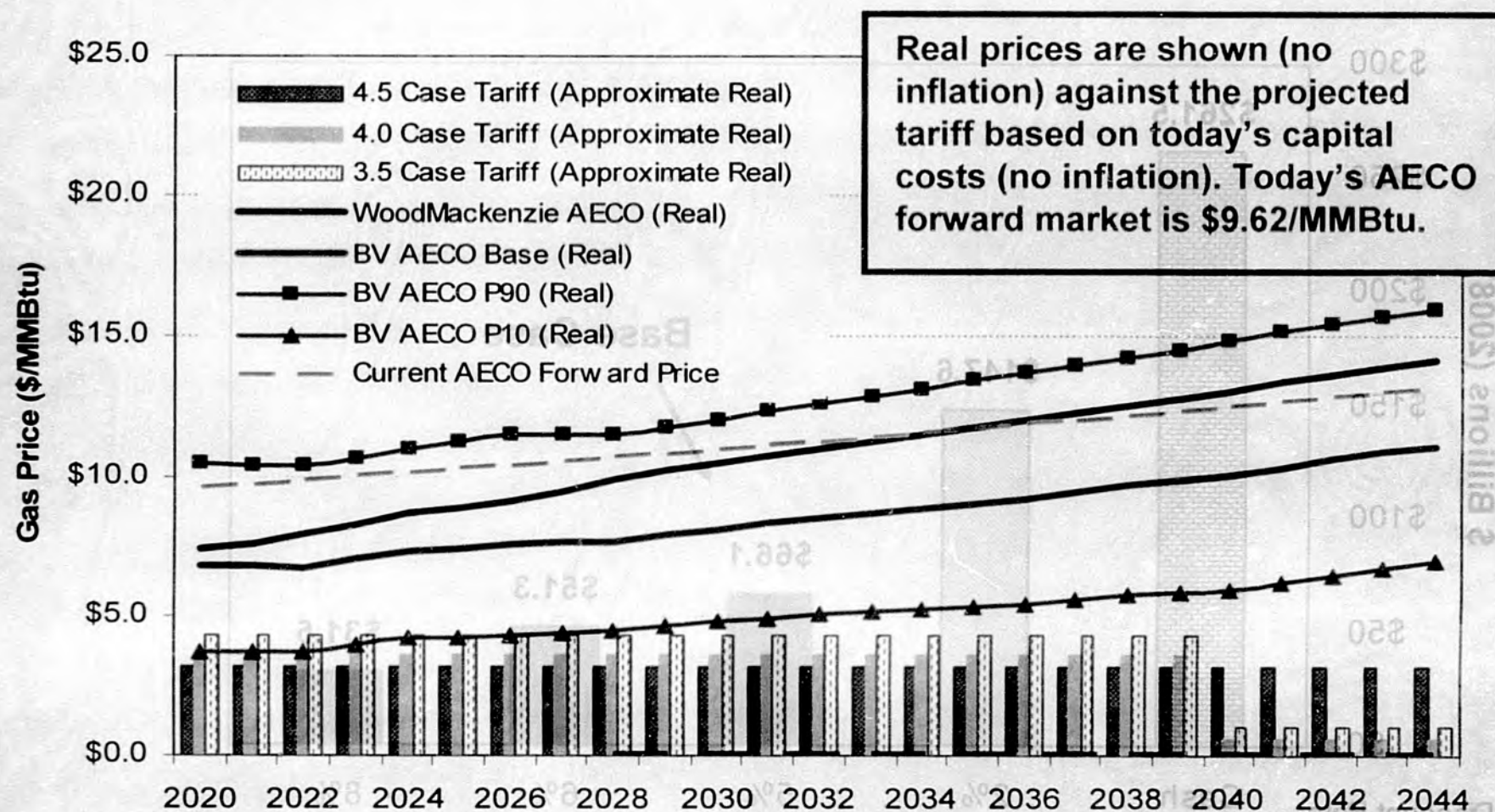
State of Alaska
\$209
44%

TransCanada
\$52
11%

Producer
\$116
24%

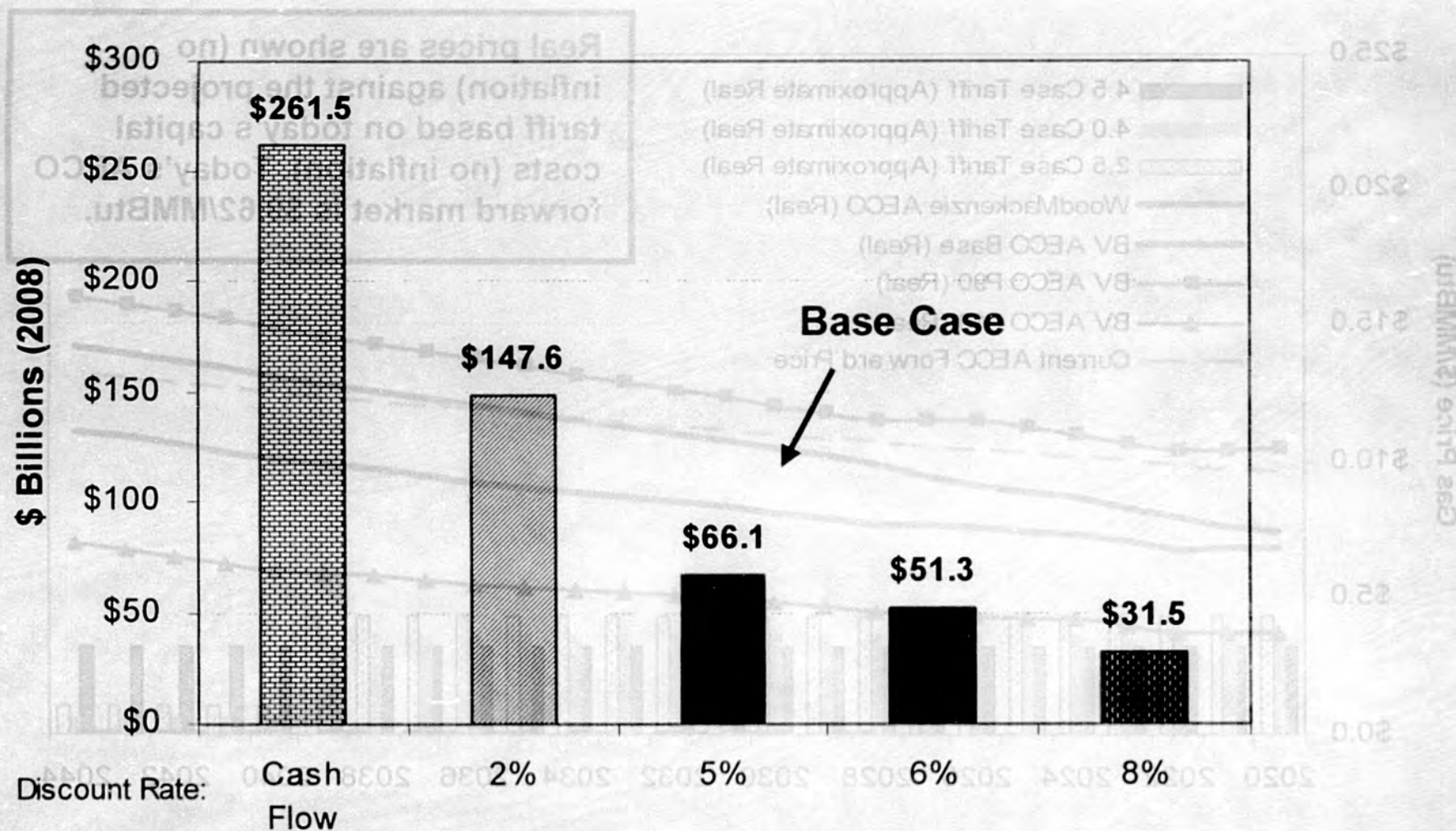


Project Cash Flows are Favorable if Built Today



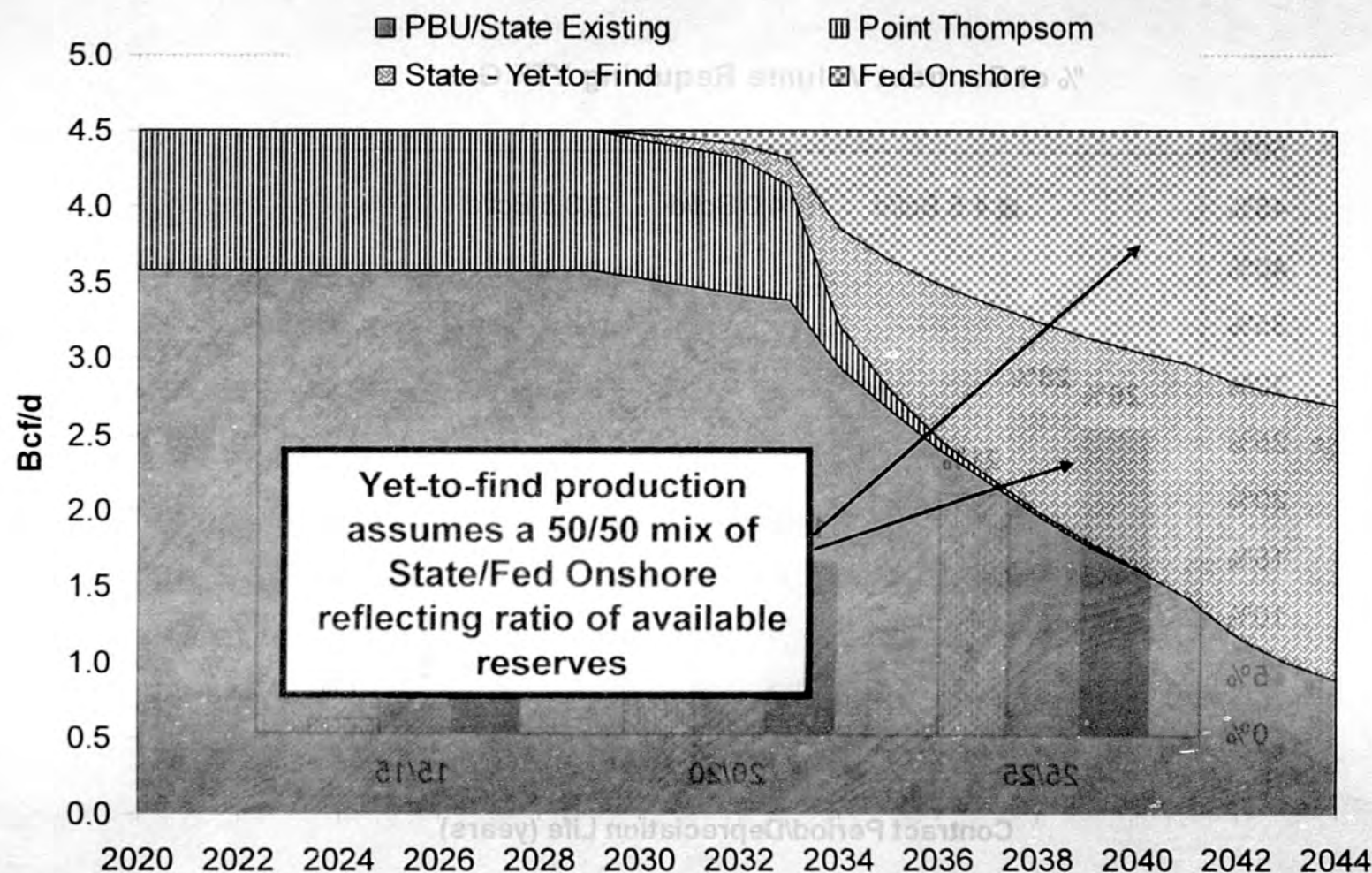


Expected State of Alaska NPV₅ is \$66.1 billion





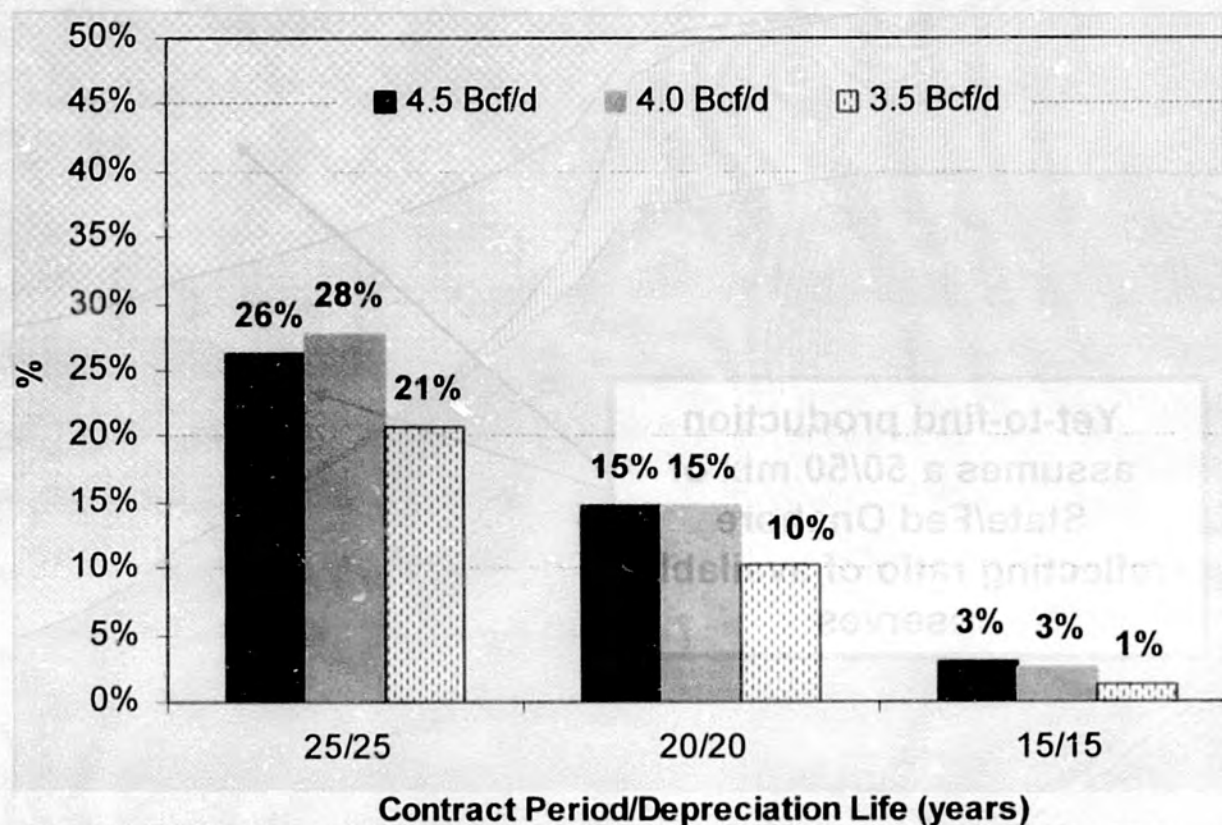
Production Assumptions: 4.5 Bcf/d Proposal Base Case





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

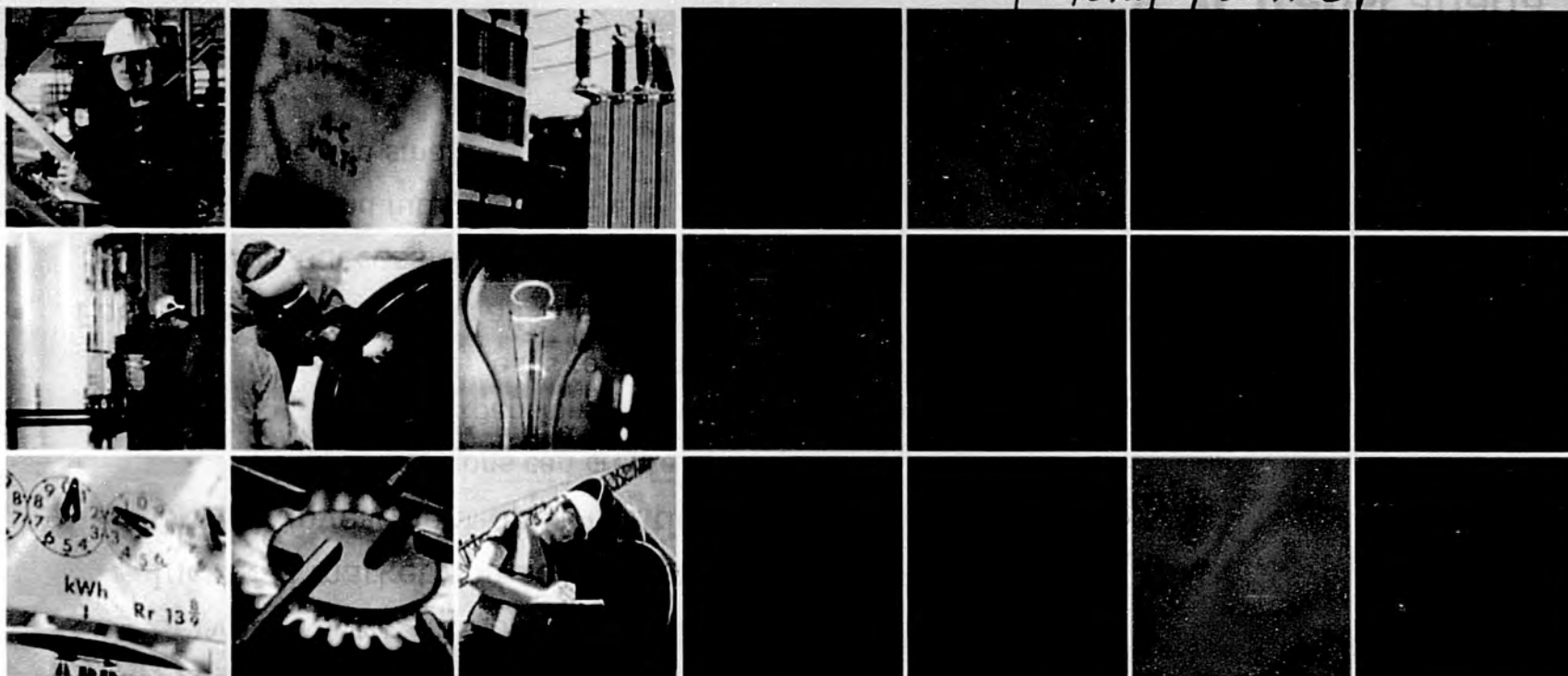
% of Contract Volume Requiring YTF Gas



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

Anch AK
Howard Johnson Plaza presented
6-19-2008
by Tony Palmer



TransCanada's AGIA Application Statewide Legislative Hearings

June / July 2008



TransCanada

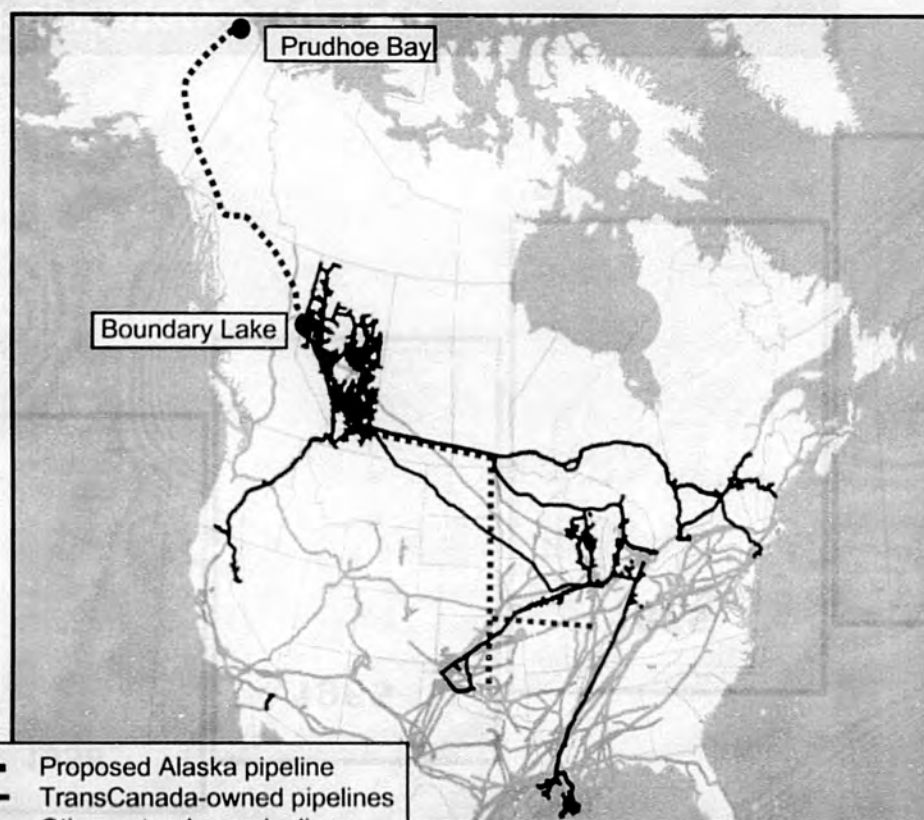
In business to deliver

TransCanada's Objectives – Alaska Project



- Early in-service
 - Largest investment opportunity in core business line and geographic footprint
 - Utilize spare capacity on existing North American pipelines
 - LNG market as alternative investment opportunity
- Encourage long-run basin development
 - Serve In-State and other markets
 - Increase market and supply diversity
 - Growth investment opportunities
 - Pipeline expansions can create "virtuous circle"
 - Pipeline expansions promote more exploration and drilling which, if successful, leads to more pipeline expansions
- Equitable treatment for all customers
 - 50-year successful track record of balancing interests
 - Initial and future
 - Large and small

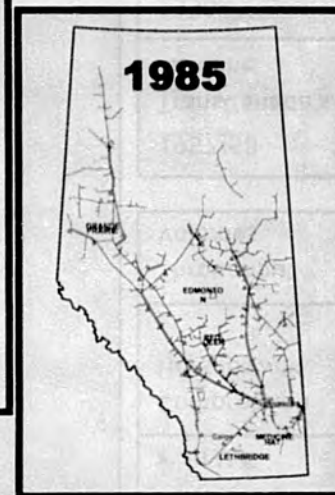
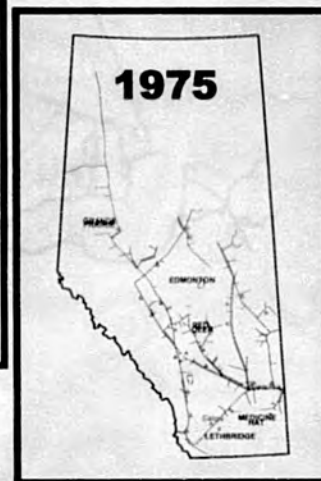
TransCanada's Credentials



- Proposed Alaska pipeline
- TransCanada-owned pipelines
- Other natural gas pipelines
- Keystone pipeline

	TransCanada Total	Alaska Pipeline Project
Miles of Pipe • in U.S.	36,500 • 12,000	1,715 • 750 in Alaska
Compression Horsepower	5,370,000	750,000 • 265,000 in Alaska
Throughput Volumes	15 bcf/d	4.5 bcf/d
<u>1957/58</u> TransCanada's Mainline	Original build across Canada 2,300 miles	
<u>1990s</u> Expansion	7,000 miles Completed within 0.6% of budget and on schedule	
<u>2008 – 2009</u> Keystone Pipe	2,150 miles New build in U.S. – 1,380 miles	

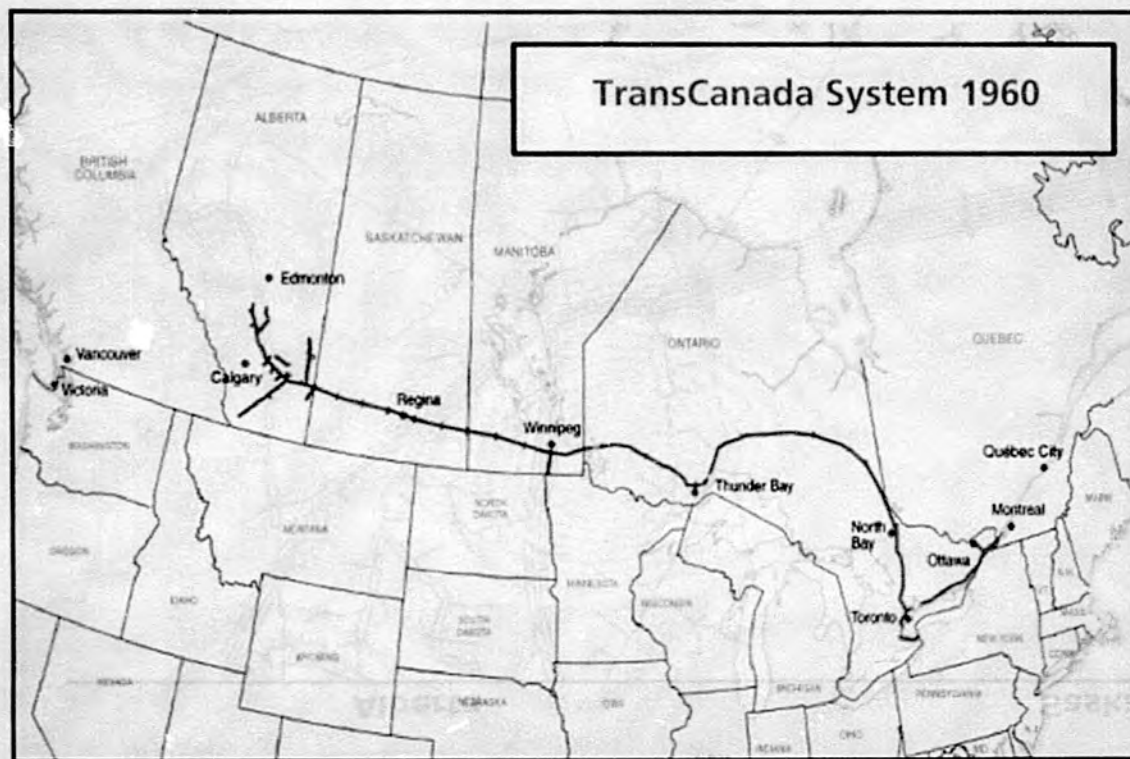
Proven Basin Developer – Alberta Example



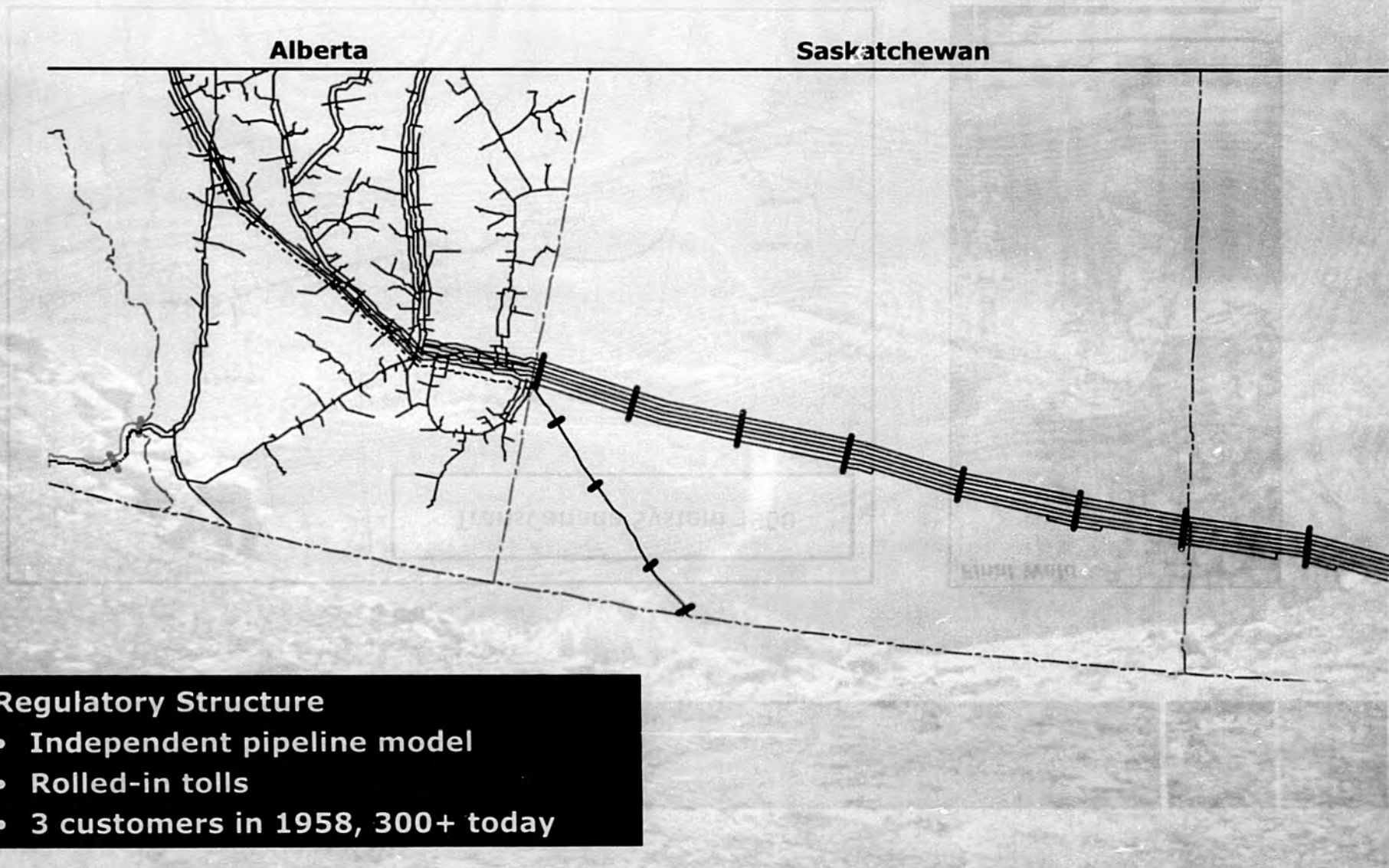
Regulatory Structure

- Independent pipeline model
- Rolled-in tolls
- 3 customers in 1958, 300+ today

Proven Basin Developer – Mainline Example 1960



Proven Basin Developer – Mainline Example 2008



Regulatory Structure

- Independent pipeline model
- Rolled-in tolls
- 3 customers in 1958, 300+ today

AGIA "Must Haves"



AGIA "Must Haves"	TransCanada's Application	Completeness
1. Filed by deadline	Filed on November 30, 2007	✓
2. Project details & schedule	Alaska Highway route 5 bcf/d GTP and 48" 2500/2600 psi pipe 2017 November in-service*	✓
3. Open season date certain Apply for FERC pre-filing Apply for FERC CPCN	Completed by Sept. 2009* June 2010* - not contingent on Open Season December 2011* - as above	✓
4. RCA filing	N/A	N/A
5. Open season frequency	Once every 2 years	✓
6. Expansions - Commitment to expand in engineering increments	Yes, 4.5 bcf/d initial design capacity Expandable to 5.9 bcf/d with compression only	✓
7. Rolled-in tolls	Up to 115% of initial rates in Alaska Full rolled-in rates in Canada	✓
8. Gas treatment plant	TransCanada will build if 3 rd parties do not	✓
9. State reimbursement	Up to \$500 million	✓

* Subject to AGIA license by April 2008

AGIA "Must Haves"



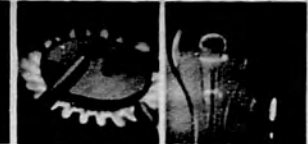
AGIA "Must Haves"	TransCanada's Application	Completeness
10. Project debt ratio minimum	Construction - 70% Operation - 75% (to reduce tolls)	✓
11. Capital cost overrun measures	TransCanada's return reduction (penalty) Potential \$18 B loan guarantee (stable tolls)	✓
12. In-state deliveries	Min. 5 delivery points	✓
13. In-state delivery rates	Distance sensitive rates	✓
14. Local headquarters in Alaska	Yes	✓
15. Local hire, local businesses, etc.	Opportunities for local hire and businesses	✓
16. Waive right to appeal	Waived	✓
17. Project labor agreement	Commit to negotiate PLA	✓
18. Treatment of State reimbursement	Excluded from rate base	✓
19. Details of Applicant	Provided	✓
20. Readiness, financial resources and technical ability of Applicant	Proven record and demonstrated capability	✓

TransCanada's Competitive Response to AGIA



- TransCanada bid to win – competitive enhancements
 - Initial system design with inexpensive expandability
 - Gas treatment plant ownership, if no 3rd party willing to build
 - Equity opportunity for shippers committing gas in initial open season
 - 75% debt vs. 70% minimum limit in AGIA
 - Toll reduction of \$0.09/mmbtu
 - TransCanada's return reduction in event of capital cost overruns
 - Fort Nelson Option upside
 - Toll reduction of \$0.13 -\$0.18/mmbtu
 - LNG alternative if insufficient gas commitments through Canada , or via Y-line

Alaska Pipeline Project



- **Alberta Hub is the most liquid market in North America**
- **TransCanada's Alberta System is the Alberta Hub**
- **Access to all North American markets coast-to-coast on TransCanada's existing pipelines**
 - **By 2018, spare takeaway capacity sufficient for full Alaska volumes**
- **One-third of Alaska pipeline in-service as Prebuild moving 3 BCFD**
- **LNG alternative if insufficient gas commitments through Canada or via Y-line**

Project Description



- Gas treatment plant at Prudhoe Bay
 - 5 Bcf/d initial capacity
 - TransCanada will develop/own only if necessary
- Natural gas pipeline from Prudhoe Bay to Alberta Hub
 - 4.5 Bcf/d initial capacity
 - Expansion to 5.9 Bcf/d with compression only
 - More than 1700 miles
 - 48-inch diameter; 2500/2600 psig
- Alberta Hub to Lower 48
 - TransCanada's existing pipeline system in Alberta is the "Alberta Hub"
 - TransCanada's Alberta pipeline is both a physical and commercial system
 - Largest natural gas trading hub in North America
 - By 2018, downstream pipelines projected to have spare capacity for full Alaska volumes

Project Economics ¹



- Capital costs
 - \$26 billion (2007 \$US excluding AFUDC)
 - Approximately \$0.6 billion for Open Season and regulatory certification
- Tolls
 - \$US 2.76/MMbtu in 2018 to the Alberta Hub
 - Levelized negotiated toll for 4.5 Bcf/d in nominal dollars, including fuel
 - Expansion Tolls
 - Rolled-in tolls in Canada
 - Rolled-in tolls in Alaska up to 115% of initial tolls, including fuel

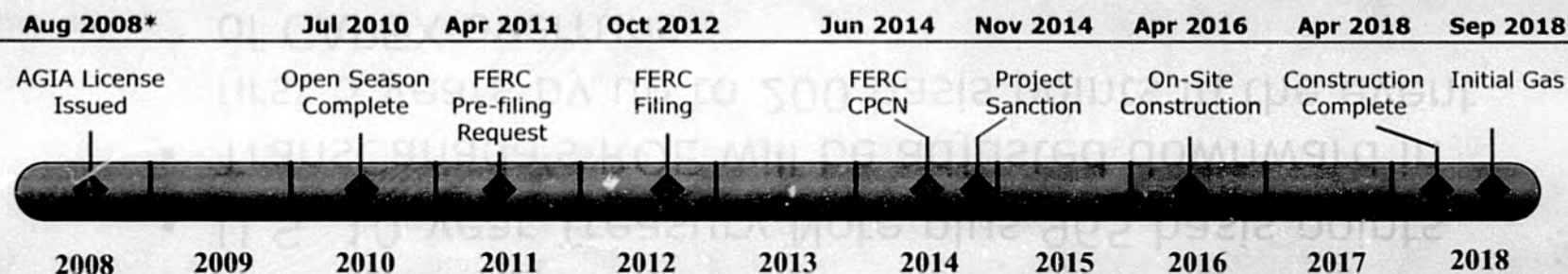
¹ Based on information provided by the State and current TransCanada estimates

Financial Parameters



- Debt/Equity Ratio
 - 70/30 during construction
 - 75/25 upon completion of initial project
 - 60/40 for all expansions
- Return on Equity
 - U.S. 10-year Treasury Note plus 965 basis points
 - TransCanada's ROE will be adjusted downward in first 5 years by up to 200 basis points in the event of CAPEX overruns
- Fuel
 - 7.9% including GTP from Prudhoe Bay to Alberta Hub
 - \$US 0.35/MMbtu in 2018 @ 4.5 Bcf/d

Project Schedule



* AGIA license assumed to be issued in August 2008

Partnership Opportunity



- TransCanada will offer equity opportunity to Shippers in the initial Open Season that subscribe for a threshold volume
 - Should improve likelihood of success and alignment of interests between project sponsors and Shippers

Upstream Fiscal Terms



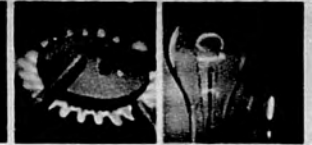
- TransCanada's AGIA obligations are not conditional on a review of Alaska's upstream fiscal terms.
- TransCanada acknowledges that this issue is between the State and natural gas producers.
 - TransCanada requests that the State review upstream fiscal terms for natural gas prior to the initial open season.

Other Project Components



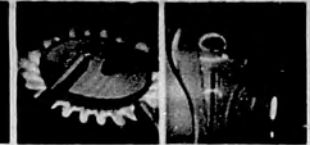
- Natural Gas Liquids (NGLs) Extraction
 - TransCanada can accommodate NGL extraction in Alaska or downstream
 - TransCanada's Alberta system is straddled by three NGL complexes owned by third parties
 - Excess capacity expected at those plants sufficient to process Alaskan gas if Shippers so choose
- LNG Alternative
 - TransCanada is willing to offer gas treatment and transportation services from Prudhoe Bay to an LNG terminal should insufficient gas be committed through Canada or via a Y-line

Regulatory Structure



- Alaska
 - TransCanada Alaska Company, LLC will proceed under Alaska Natural Gas Pipeline Act of 2004
- Canada
 - Foothills Pipe Lines Ltd. will proceed under the Northern Pipeline Act (NPA)
- Canada/U.S. Treaty
 - The pipeline will follow the route set out in the Treaty and the NPA

AGIA "Must-haves" Promote Basin Development



- Rolled-in tolls up to 115% of initial rates in Alaska
- Open Season every 2 years
- In-State deliveries
 - Distance-sensitive tolls
 - Minimum 5 delivery points
- Low equity ratio requirement for pipeline sponsors
- State fiscal incentives (if any) targeted to AGIA pipeline shippers

Long-run Basin Development – Pipeline Expansions



- Value to Producers / Governments?
- Does Alaska have enough gas?
- Drilling impacts?
- Impact of rolled-in tolls?

Value of Potential Expansions (\$Billions)¹

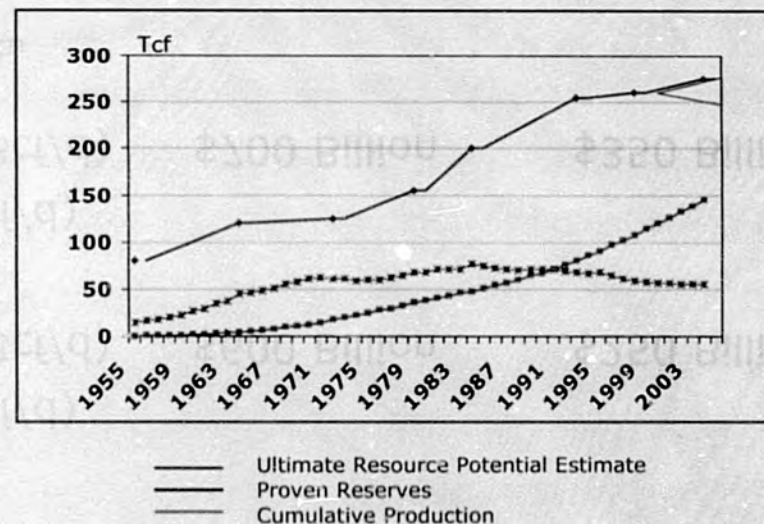
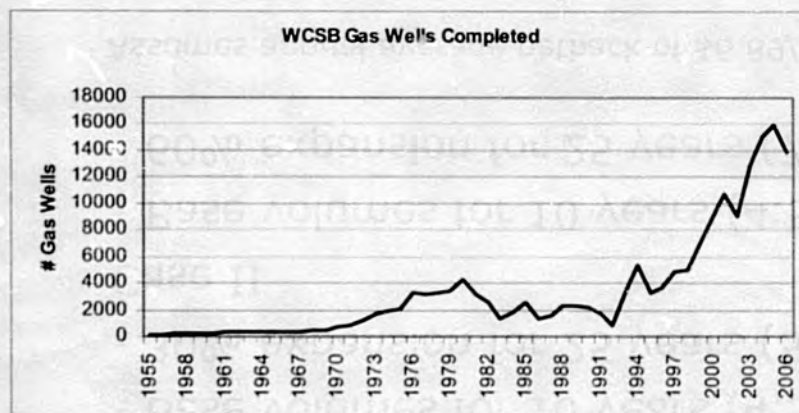


	<u>Producer/Govts. Total Revenue *</u>	<u>Expansion Value</u>
Base Project		
- 25 years @ 4.5 Bcfd	\$350 Billion	
Expansions		
Case I		
- Base volumes for 10 years (4.5 Bcf/d)		
- 30% expansion for 25 years (5.9 Bcf/d)	\$600 Billion	\$250 Billion
Case II		
- Base volumes for 10 years (4.5 Bcf/d)		
- 60% expansion for 25 years (7.2 Bcf/d)	\$700 Billion	\$350 Billion

¹ Assumes annual average netback of \$6.89/MMbtu

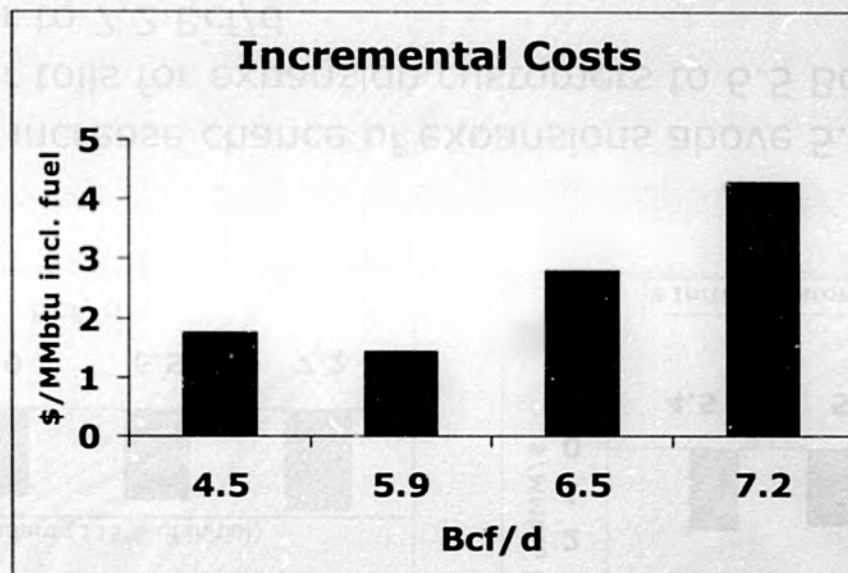
* Direct revenue only
- no indirect impacts from additional E&P activity and spin-offs

Basin Development – Western Canada Example



- Pipeline expansion can create “virtuous circle”
 - More exploration and drilling
 - If successful, leads to more pipeline expansion
- Exploration and drilling drives service industry and employment over long term

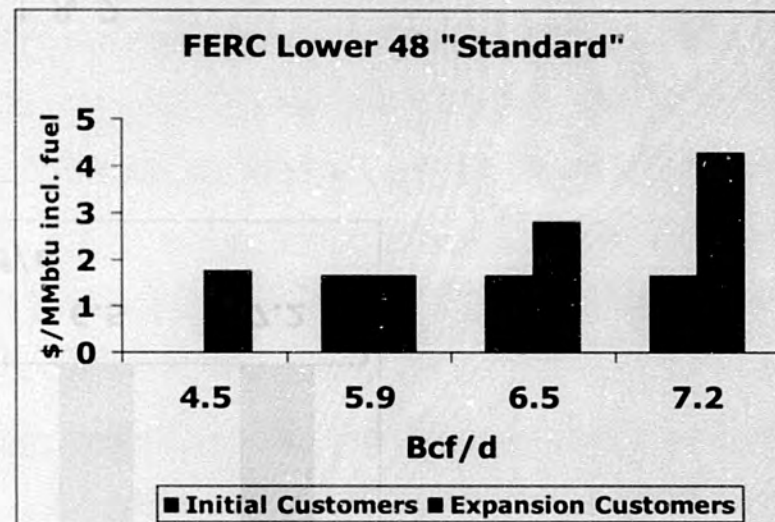
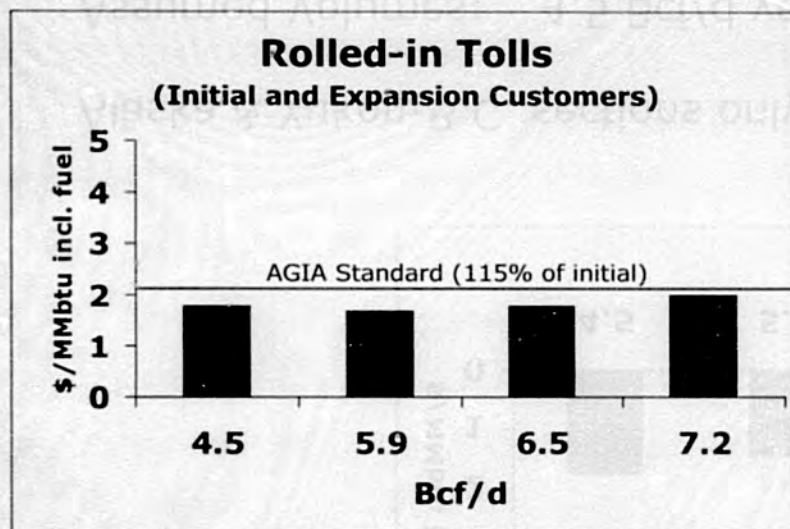
Impact of Rolled-in Tolls?



Alaska & Yukon-B.C. sections only

Assumed Volumes: 4.5 Bcf/d years 1 & 2
5.9 Bcf/d years 3 & 4,
6.5 Bcf/d years 5 & 6,
7.2 Bcf/d years 7 & beyond

Impact of Rolled-in Tolls?

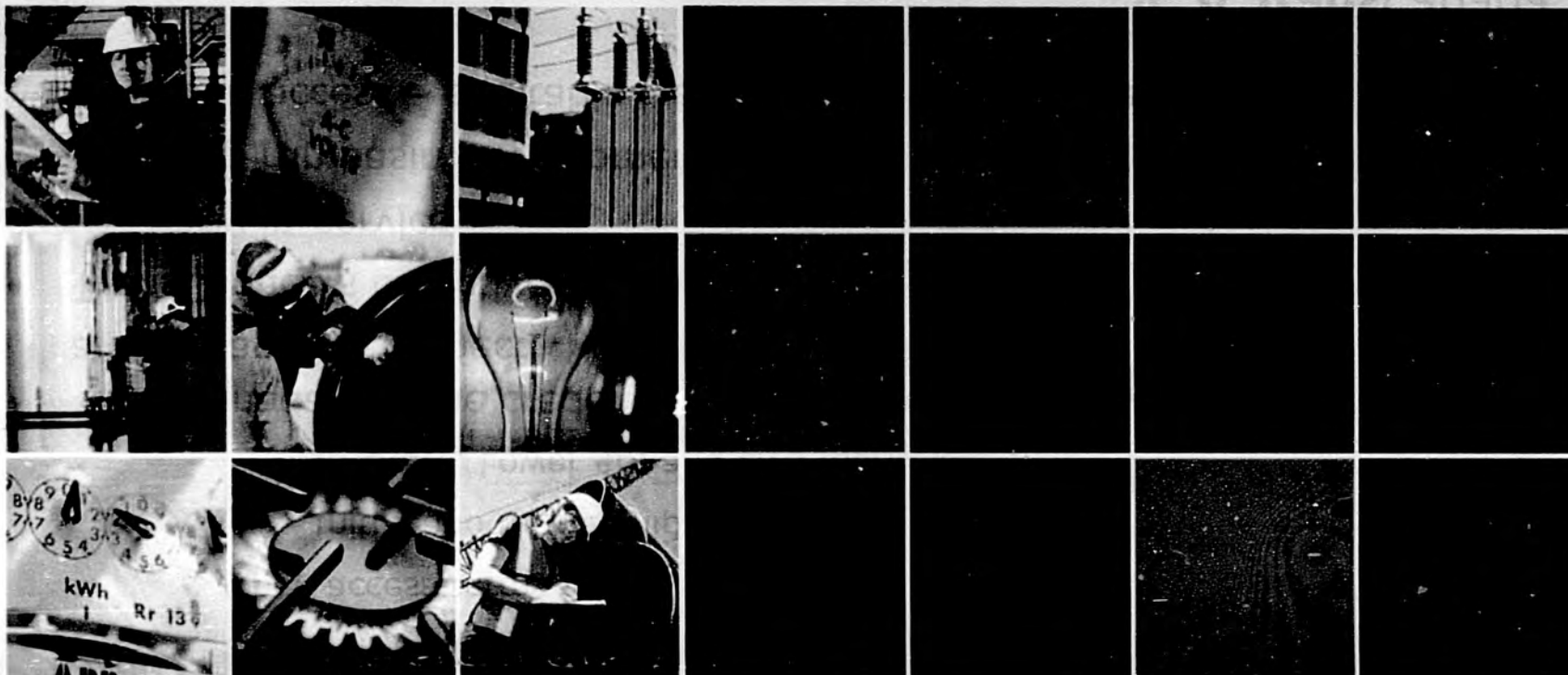


- Rolled-in tolls increase chance of expansions above 5.9 Bcf/d
 - 35% lower tolls for expansion customers to 6.5 Bcf/d
 - 50% lower to 7.2 Bcf/d

Summary



- Last year, the Administration and Legislature established AGIA as Alaska's transparent and competitive process to advance a gas pipeline project
 - AGIA was structured to encourage:
 - Construction of base project
 - Long-run basin development
 - Open access terms for:
 - Initial and future shippers
 - In-State, Lower 48, and LNG markets
- TransCanada has the credentials and capacity to build, own, operate and expand the project
- TransCanada's objectives are aligned with AGIA
 - Early in-service
 - Long-run basin development
 - Open access – equitable treatment for all customers



Thank You



TransCanada

In business to deliver

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
 - Expansion Provisions
 - Off-Take Provisions
 - Does not interfere with “Bullet Line” project
- 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