

Comments to Legislature on TransCanada Proposal

June 4, 2008

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What Does TransCanada Propose to Do?

- **Construct and operate 1,700-mile, 48-inch pipeline from North Slope to Alberta, with initial capacity of 4.5 bcf/day, expandable to 5.9 bcf/day with addition of compression**
 - **Conditioned on receiving sufficient firm transportation commitments**
- **Pipeline would terminate at Boundary Lake on the British Columbia / Alberta border, where it would enter the “AECO Hub”**
 - **At AECO, shippers would arrange for extraction of valuable NGLs (either from third-parties or through construction of own facilities). “Residue” gas could be sold either in Canada or shipped to Lower-48.**
- **Construct and operate necessary Gas Treatment Plant (“GTP”), if not undertaken by another party**
- **Provide pipeline access for LNG facility if demand warrants**

What Does TransCanada Propose to Do?

(cont'd)

Offer tariffs reflecting:

- **20, 25 and 30 year firm transportation commitments**
- **Recourse and Negotiated Rates (Alaska); Negotiated Rates (Canada)**
- **Capital Structure of 70% debt / 30% equity (recourse), 75% debt / 25% equity (negotiated)**
- **Equity return floating at 965 basis points above 10-year T-bonds**
- **100% cost recovery (3.5MMBtu/day and above)**

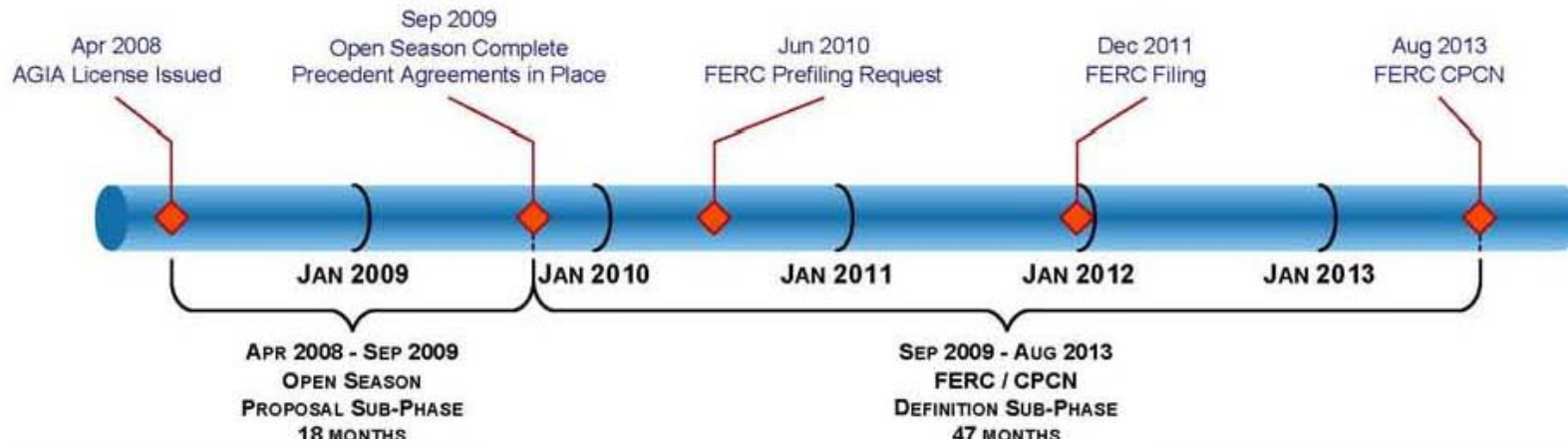
What Does TransCanada Propose to Do?

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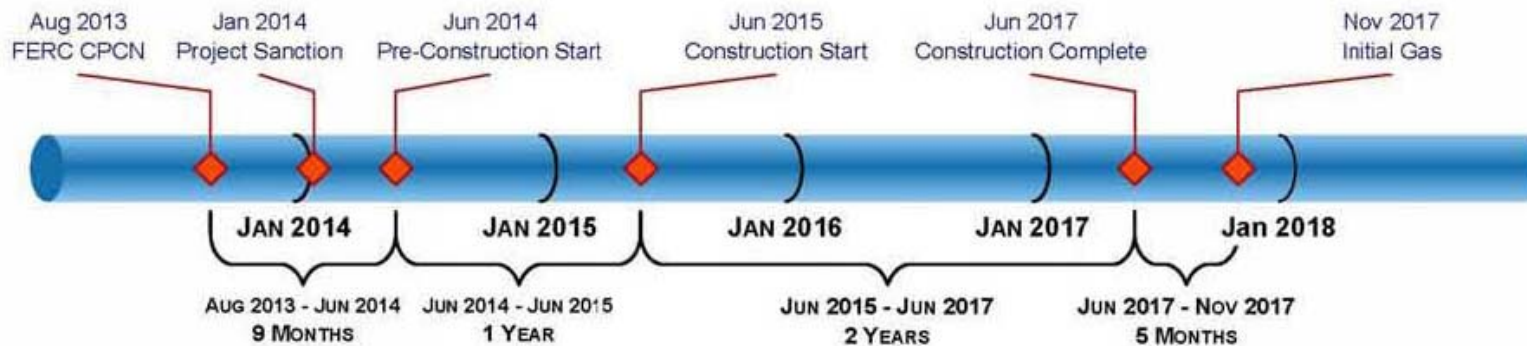
- **Assess market demand for expansion every two years through non-binding open seasons**
- **Offer rolled-in rates for expansions, subject to ceiling of 115% of initial tariff**
- **Provide minimum of 5 in-state delivery points, using distance-sensitive rates**

Proposed Timeline (Assuming License Awarded April 2008)

DEVELOPMENT PHASE



EXECUTION PHASE



What Does TransCanada Ask From the State?

- **License**
- **Follow through on State commitments under AGIA**
- **State Contribution of \$500 million toward development cost of pipeline**

	<u>Total Budgeted</u>	<u>State Reimbursement</u>	<u>Reimbursement Percentage</u>
	(Million Dollars)		(Percent)
	(1)	(2)	(3)
Open Season Period (Through Aug 2009)	\$82.3	\$41.2	50%
Certification Period (Sep 2009 - Aug 2013)	\$528.7	\$458.8	87%
Total Pre-Construction	\$611.0	\$500.0	82%
Total After Construction	\$29,078.0	\$500.0	2%

- **Not to be included in tariff rate base**

What Does TransCanada Ask From the State?

(cont'd)

- **Engagement with ANS producers to reach agreement on fiscal terms**
- **Encouragement of robust exploration and development of North Slope gas resources**
- **Cooperation of State to reach out to stakeholders**
- **Cooperation of State in efforts with the Federal Government to obtain support for project**
 - **Use of loan guarantees for cost overruns**
 - **Exploration of alternative credit concepts, i.e., backstop Shipper contract**

What Does TransCanada Ask From the State? (cont'd)

- **In the event of an unsuccessful open season:**
 - **Expect State to use its position of sovereign government to encourage, induce and persuade ANS producers to commit gas**
 - **Expect State to thoroughly evaluate and seriously consider financial and commercial feasibility of dedicating significant State resources to underwriting an alternative financing mechanism for the project**

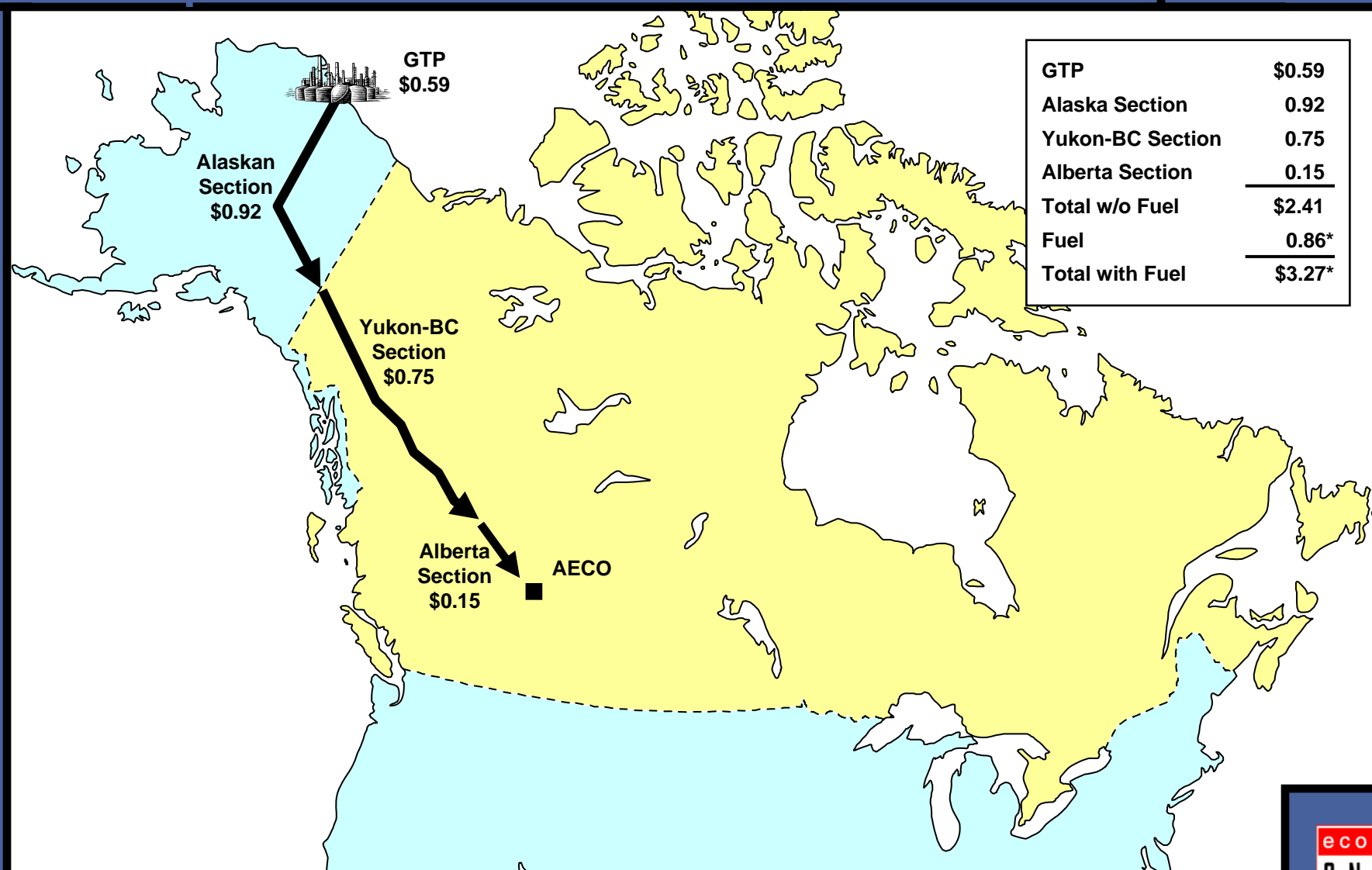
How Does the State Subsidy Help?

- **Reduces risk to TransCanada**
 - **State shares in risk that project may not proceed to completion and is responsible for 82% (\$500 Million) of the targeted \$611 million in development costs**
- **Reduces tariff, which benefits resource owners: State and producers. Using TransCanada assumptions as to costs and tariffs, the \$500 million impacts the tariff as follows:**
 - **Estimated tariff to Alberta without subsidy is \$2.46/MMBtu**
 - **Estimated tariff to Alberta with subsidy is \$2.41/MMBtu**
 - **This is \$0.05/MMBtu**
 - **Over a 25-year period, this amounts to a reduction in tolls of \$2.2 billion. Approximately \$1.2 billion is expected to accrue to the State**

Tariff Fundamentals

- **What is a tariff?**
 - **Document that sets forth rate and terms of service provided by a pipeline to shippers**
 - **The per-unit cost charged by a pipeline to ship gas from point of injection to point of extraction (Point A to Point B)**

TransCanada's Tariff Estimates



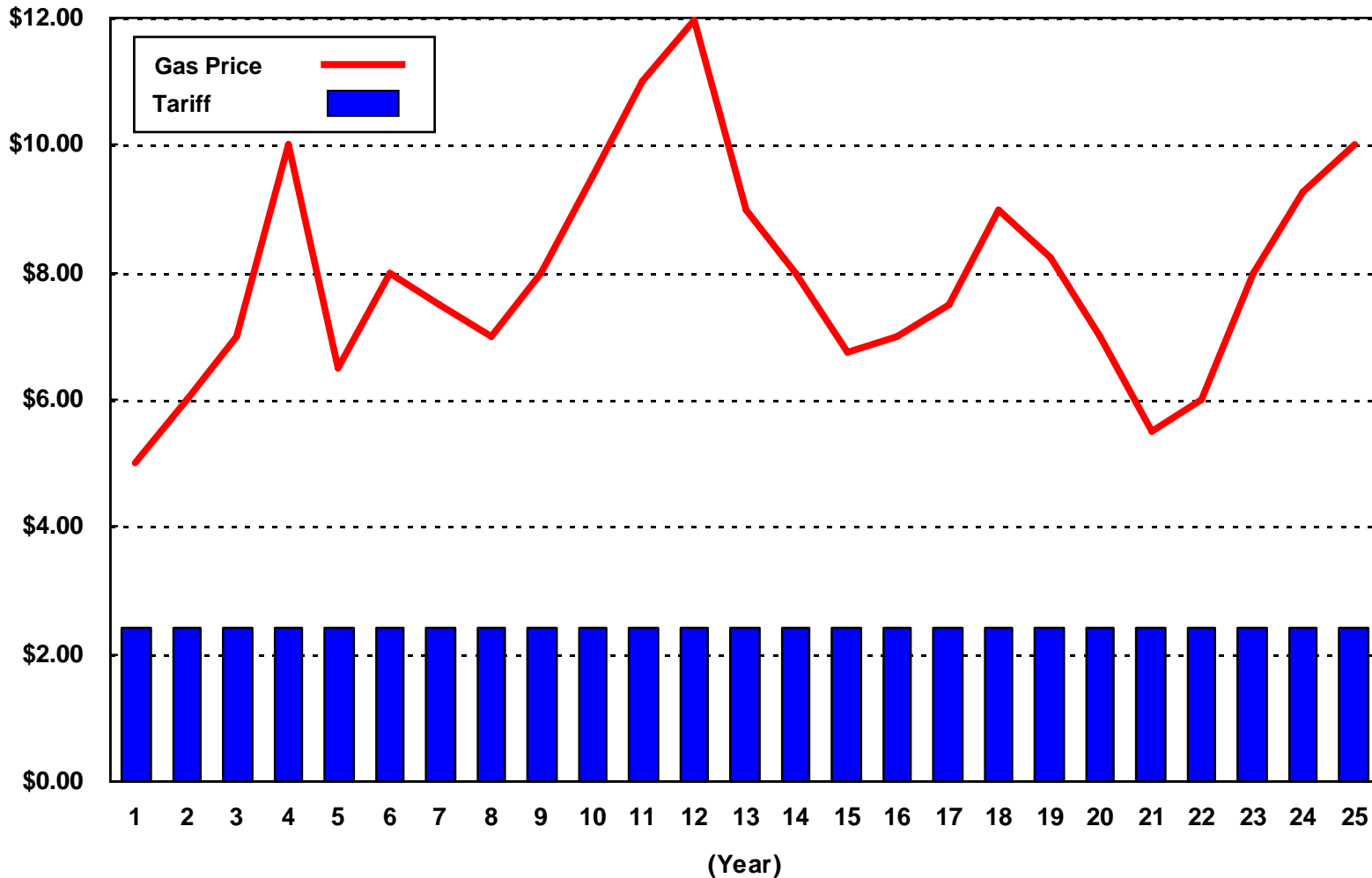
* 25-year average based on AEO2008 price profile at Henry Hub, with \$0.40/MMBtu differential to AECO.

Significance of the Tariff to Resource Owners

- **All else equal, resource owners (State and producers) prefer lower tariffs; lower tariffs = higher netbacks**
- **In the case of gas, tariffs typically involve long-term “take or pay” commitments. Here we are talking about commitments likely ranging between 15 and 30 years**
- **In this respect, gas pipeline tariffs are different than oil pipeline tariffs. With oil pipelines (such as TAPS), there is typically no take or pay aspect**
- **Risk to shipper rises with length of commitment**
- **Risk to shipper rises with level of tariff relative to the expected gas price**
 - **Tariff level is fixed while price of gas at market is unknown and variable**

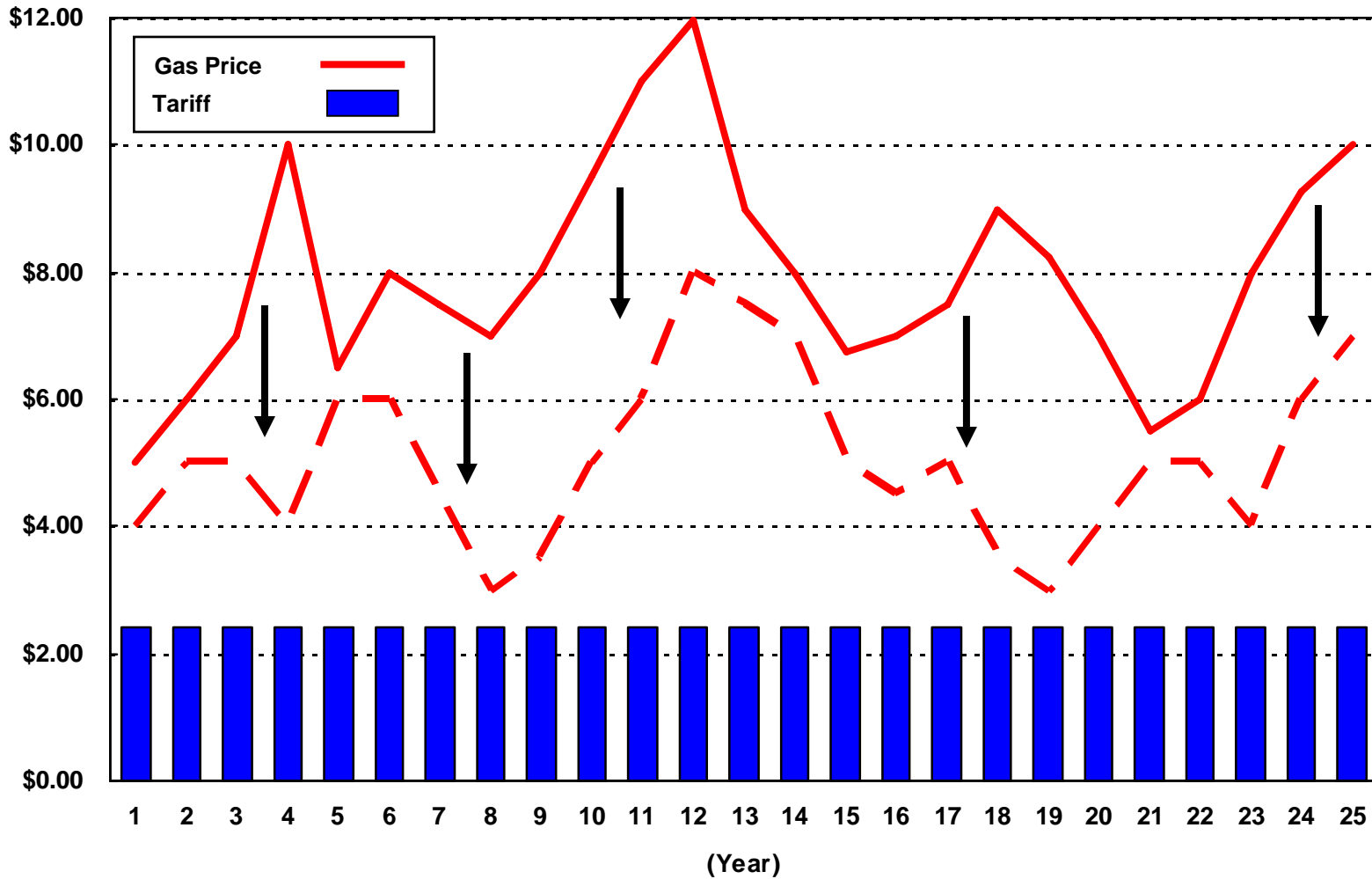
Significance of the Tariff to Resource Owners

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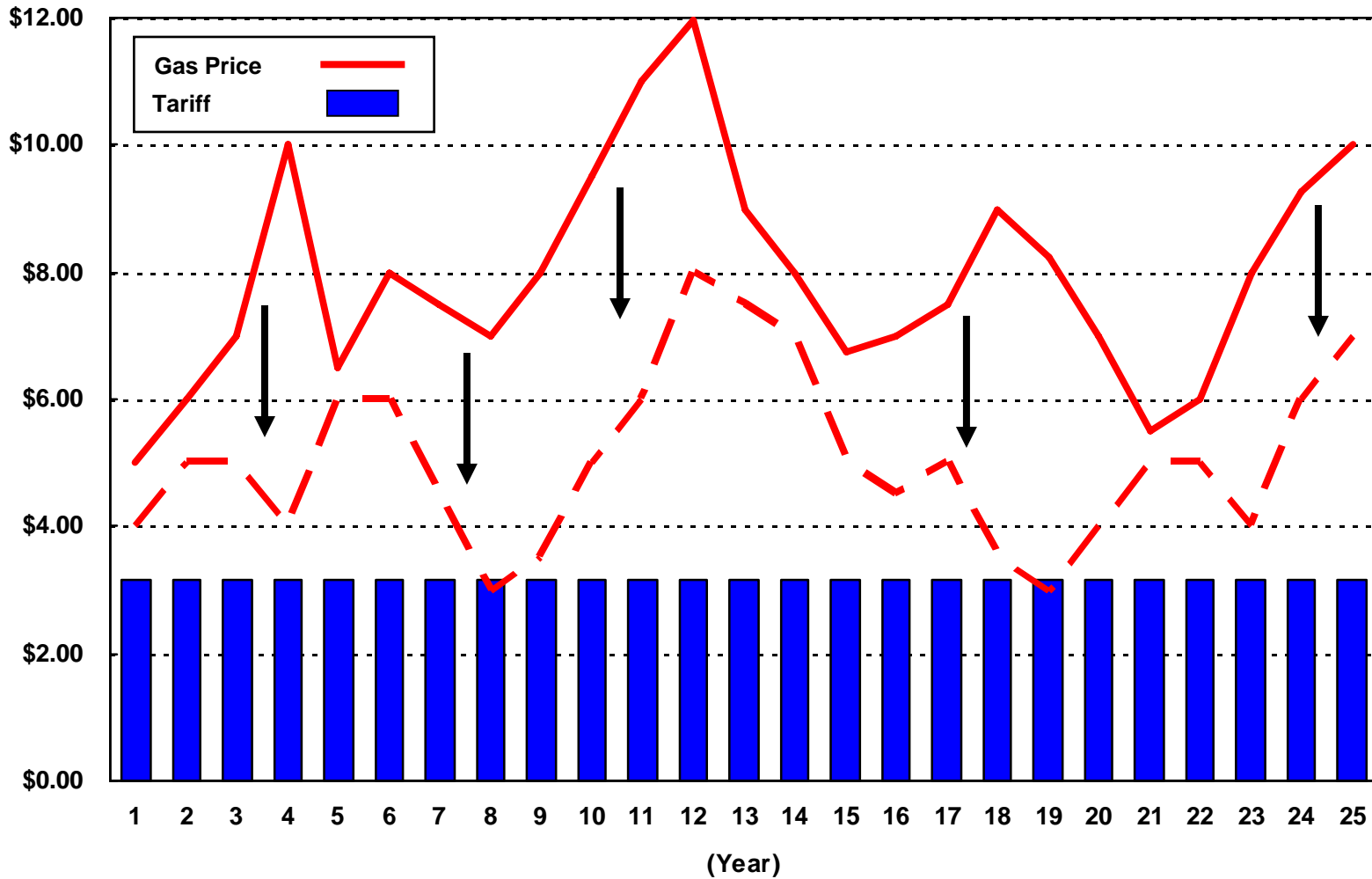
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Significance of the Tariff to Resource Owners

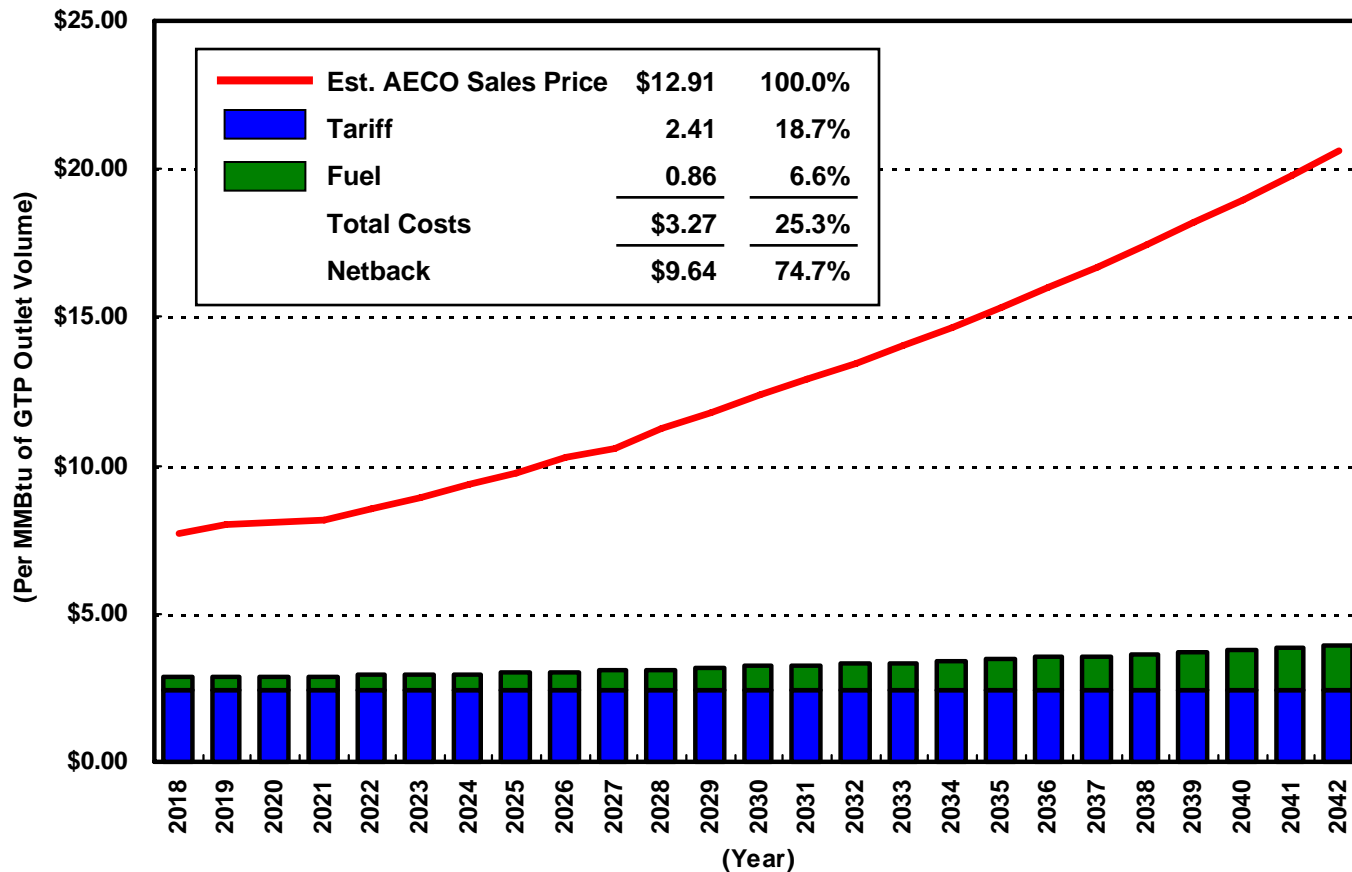
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Significance of the Tariff to Resource Owners

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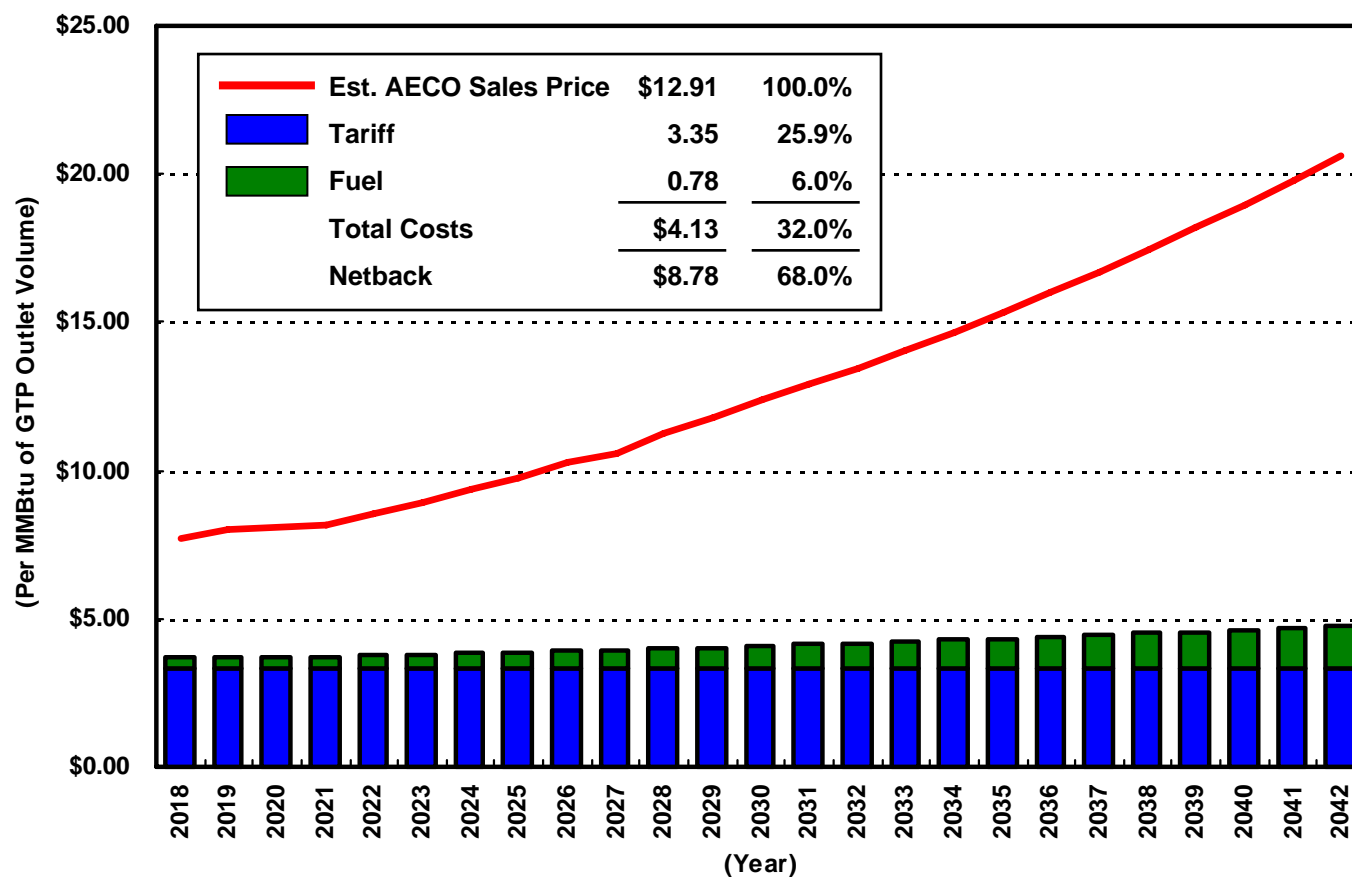
- Based on current projections by the EIA over 25 years beginning in 2018 and potential tariffs set out in the TransCanada application, the tariffs would be approximately 25% of the value of gas at AECO



Significance of the Tariff to Resource Owners

(cont'd)

- Increasing capital costs by 50% would lead to tariffs being approximately 32% of the value of gas at AECO



Significance of the Tariff to Resource Owners

(cont'd)

<u>25% Below EIA AEO 2008 Forecast</u>			<u>EIA AEO 2008 Forecast</u>			<u>25% Above EIA AEO 2008 Forecast</u>		
Est. AECO Price	\$9.56	100.0%	Est. AECO Price	\$12.91	100.0%	Est. AECO Price	\$16.26	100.0%
Tariff	2.41	25.2%	Tariff	2.41	18.7%	Tariff	2.41	14.8%
Fuel	0.58	6.1%	Fuel	0.86	6.6%	Fuel	1.13	6.9%
Total Costs	<u>\$2.99</u>	<u>31.3%</u>	Total Costs	<u>\$3.27</u>	<u>25.3%</u>	Total Costs	<u>\$3.54</u>	<u>21.8%</u>
Netback	\$6.57	68.7%	Netback	\$9.64	74.7%	Netback	\$12.72	78.2%

Tariff Fundamentals

(cont'd)

- **Tariffs are regulated**
 - **U.S. is regulated by the Federal Energy Regulatory Commission (FERC)**
 - **Canada is regulated by the National Energy Board (NEB)**
 - **Charged with insuring that rates are “just and reasonable”**
 - **Opportunity for shippers to challenge tariffs through rate proceedings**

Recourse Rates

- **Traditionally, tariffs have been based on “cost of service.” Tariff rates under a traditional cost-based approach are known as “Recourse” rates**
- **These tariffs provide for recovery of operating costs, capital costs and a “reasonable” return on invested capital**
- **Initial tariffs would be established by FERC in filings by the pipeline during certification. These rates could be challenged in FERC and/or NEB by shippers in rate proceedings**

Recourse Rates and Cost of Service

- **Key elements of cost of service include:**
 - **Return on Investment**
 - **Return of Investment (Depreciation)**
 - **Operating Expenses**
 - **Non-Income Taxes (e.g., Property Taxes)**
 - **Income Taxes**

Recourse Rates and Cost of Service

(cont'd)

➤ **Cost of service elements in TC estimates:**

	Total	As Percent
	(Billion Dollars)	of Total
	(1)	(2)
Return on Investment	\$33.2	32%
Return of Investment (Depreciation)	\$33.2	32%
Operating & Maintenance	\$9.5	9%
Non-Income Taxes	\$15.8	15%
Income Taxes	\$12.3	12%
Total	\$104.0	100%

Cost of Service -- Return on Investment

- Return on Investment is calculated as:

Rate Base x Rate of Return

- Rate Base is:

Gross Plant (Initial Capital Investment + AFUDC)

- Accumulated Depreciation

= Net Plant

- Accumulated Deferred Income Taxes

+ Working Capital

= Rate Base

Cost of Service -- Rate of Return

- **Rate of Return is:**
 - **“Reasonable Return” on Investment (Rate Base)**
 - **Function of three components:**
 - **Capitalization Ratio (Debt, Equity)**
 - **Cost of Debt**
 - **Allowed Return on Equity**

Cost of Service -- Rate of Return

(cont'd)

- **These elements are set by FERC to allow “Reasonable Return”**
- **Typically allow for passthrough of debt costs, plus**
- **Return on Equity consistent with business risk associated with the pipeline venture**
 - **FERC has approved Equity Returns in the range of 12-14%**
 - **Higher end of the range for “greenfield” projects**
 - **NEB returns have traditionally been lower**
- **Rate of return is one of the biggest issues for regulators**
- **Initial rates allowed by regulators can be revisited in an initial rate hearing 3-4 years after pipeline operation begin**
- **Initial return is likely to be reduced if business risk is judged to be lower**

Negotiated Rates

- **Negotiated rates are also regulated by FERC**
- **However, as the name implies, these are rates that are “negotiated” between shipper and the pipeline company**
- **All elements are up for negotiation. This includes:**
 - **Rate of Return**
 - **Length of commitment**
 - **Flexibility**
 - **Treatment of cost overruns**
 - **Future expansion issues**
 - **Changes in operating costs**

Negotiated Rates

(cont'd)

- **Negotiated rates can result in lower tariffs than recourse rates through the process of commercial negotiation**
- **Negotiation takes the place of regulation. However, as the negotiation takes place with the backdrop of regulatory oversight (and recourse rate option/backstop), the process can help reduce tariffs charged**
- **Typically involve long-term shipping commitments**
- **Negotiated rates must be approved by FERC and NEB**
- **Regulatory bodies have viewed negotiation process favorably and are reluctant to modify them after the fact**

Negotiated Rates

(cont'd)

- **A point for the State to consider:**
 - **The negotiation process can provide favorable results for the State by helping to keep tariffs down**
 - **State likely would not have opportunity to challenge these rates after the fact. The opportunity to challenge would be in the certification process**
 - **State's interest should be protected. However, this is the time to apply scrutiny**

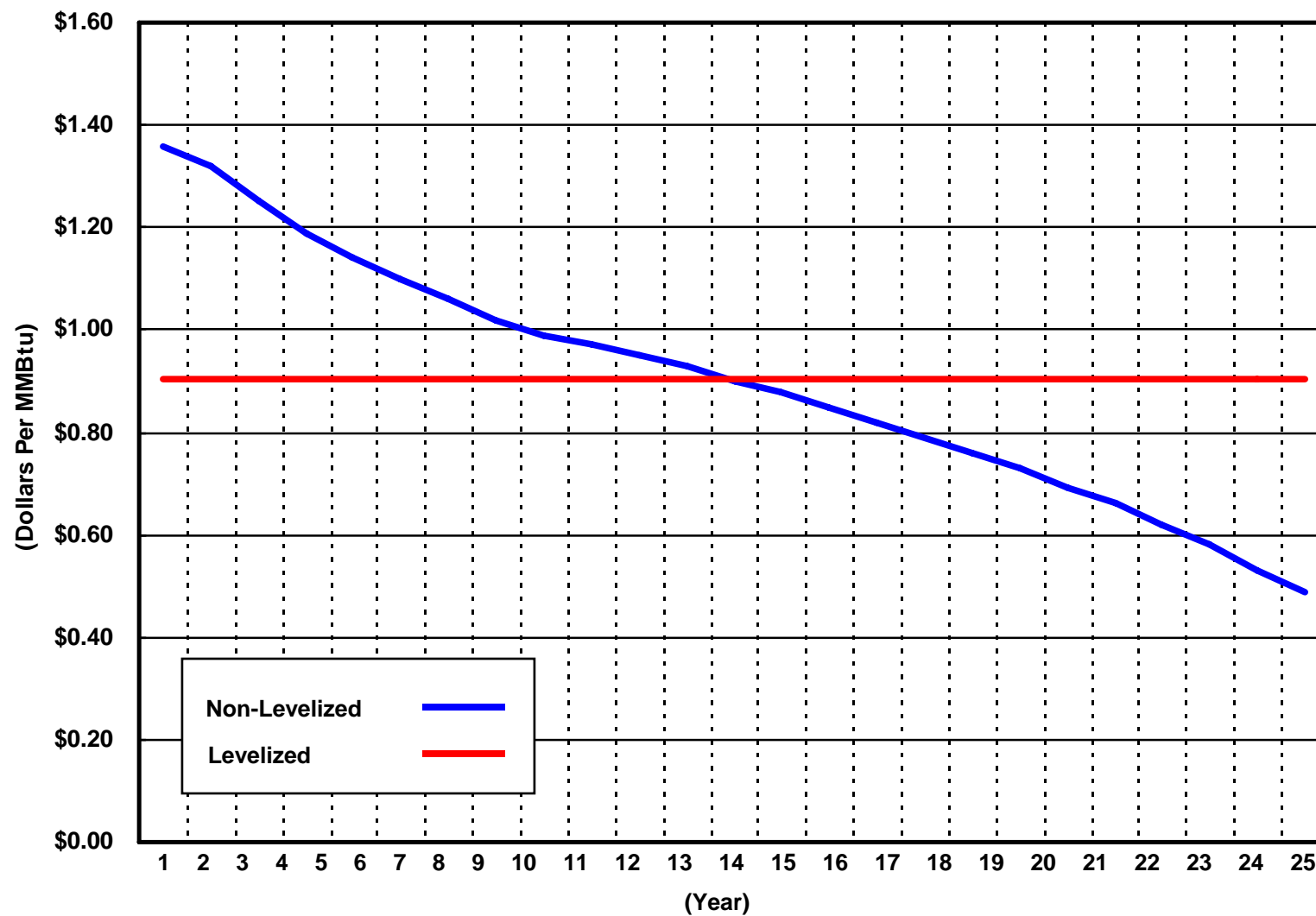
Some Examples of Recourse and Negotiated Rates

	<u>Recourse</u>	<u>Negotiated</u>
Alliance Pipeline	\$0.53	\$0.54
Rex West	\$0.91	\$0.77 - \$0.79
Gulf Stream	\$0.66	\$0.57 - \$0.59
Maritimes & Northeast Phase IV	\$0.78	\$0.53

The “Levelized” Tariff

- **A traditional cost-based tariff starts high and falls as a pipeline recoups its capital costs (i.e., return on investment and return of investment)**
- **This happens because the rate base falls over time as the pipeline is depreciated**
- **A levelized tariff is one in which the tariff is constant over time. The level of the tariff is set such that it results in the same Net Present Value (NPV) as the cost of service for the non-levelized tariff**

Illustration of a Levelized Tariff



Tariffs Proposed by TransCanada

- Offer 25, 30 and 35-year firm transportation services (FT)
- Offer Recourse Rate tariff for GTP and Alaska Pipeline Section; Negotiated Rate tariff for all sections
- No Recourse Rate offered for Canada, as this is not normal business practice in Canada (i.e., negotiated rates are the norm)

Key Elements of Recourse Rate Tariff

- **Provides for full recovery of capital costs on “straight line” basis over 25-year period, assuming initial transportation agreements are for this period**
- **100% load factor rates for authorized overrun services**
- **Rate base will exclude Alaska portion of \$500 million State contribution**
- **Capitalization of 70% debt / 30% equity**
- **Expansions capitalized at 60% debt / 40% equity**

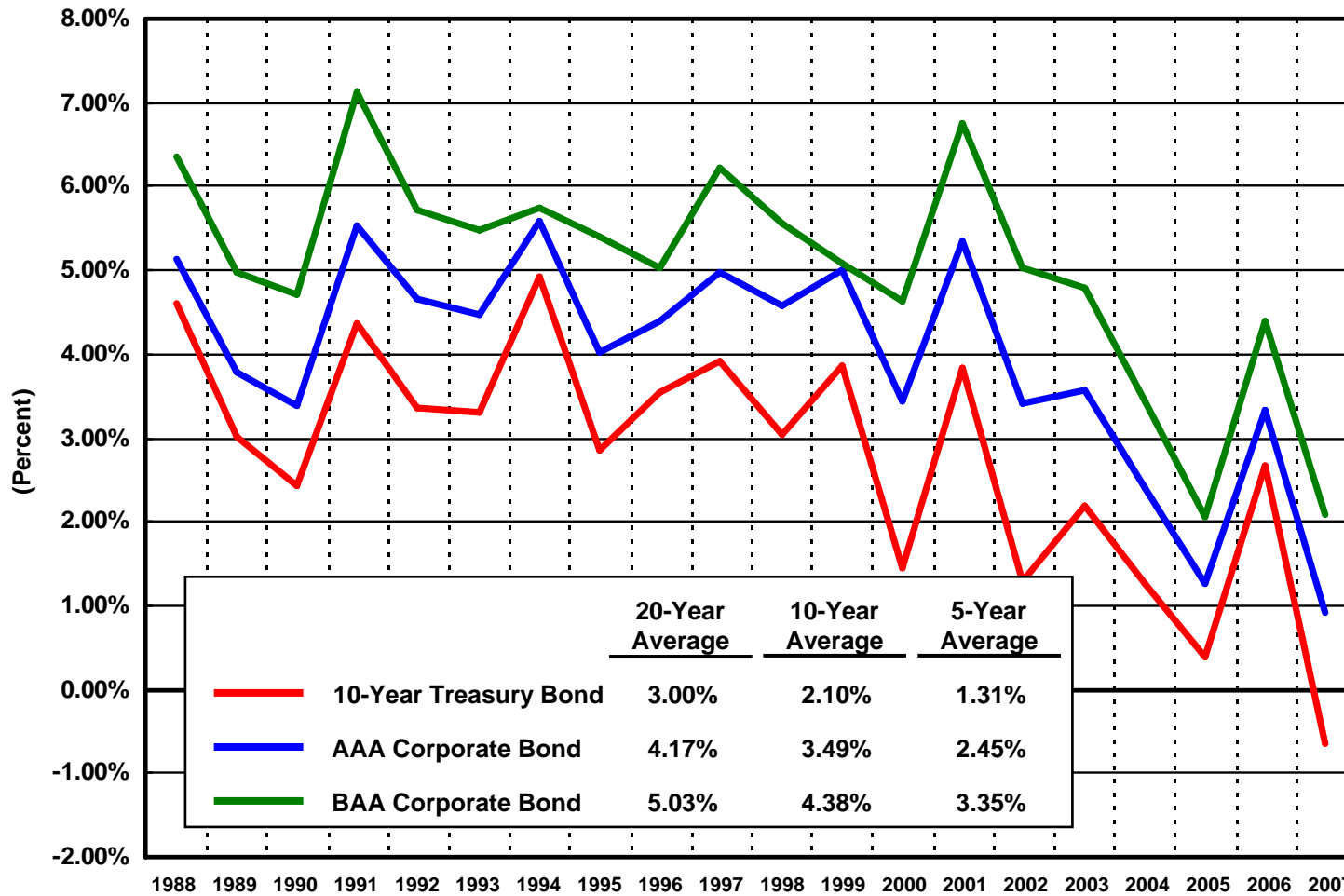
Debt Costs

- **Debt costs will be weighted average cost incurred by pipeline**
 - **Contemplate U.S. loan guarantees**
 - **Loan guarantees were originally \$18 billion, up to 80% of project**
 - **They were indexed to inflation. In 2008 dollars, this is approximately \$20 billion**
 - **Assuming 75% debt, this would support project of \$26.8 billion in \$2008 if all the loan guarantee was used**
 - **TransCanada has assumed a number for loan guarantee debt of 4.7%. Based on expectations of inflation in the 2.5% range, this may be somewhat low**
 - **Borrowing without the U.S. loan guarantee is estimated at 150 basis points higher (i.e., 6.2%)**

Debt Costs

(cont'd)

***Inflation Adjusted* Historical 10-Year T-Bond and Corporate Bond Rates**



Source: Federal Reserve Bank.



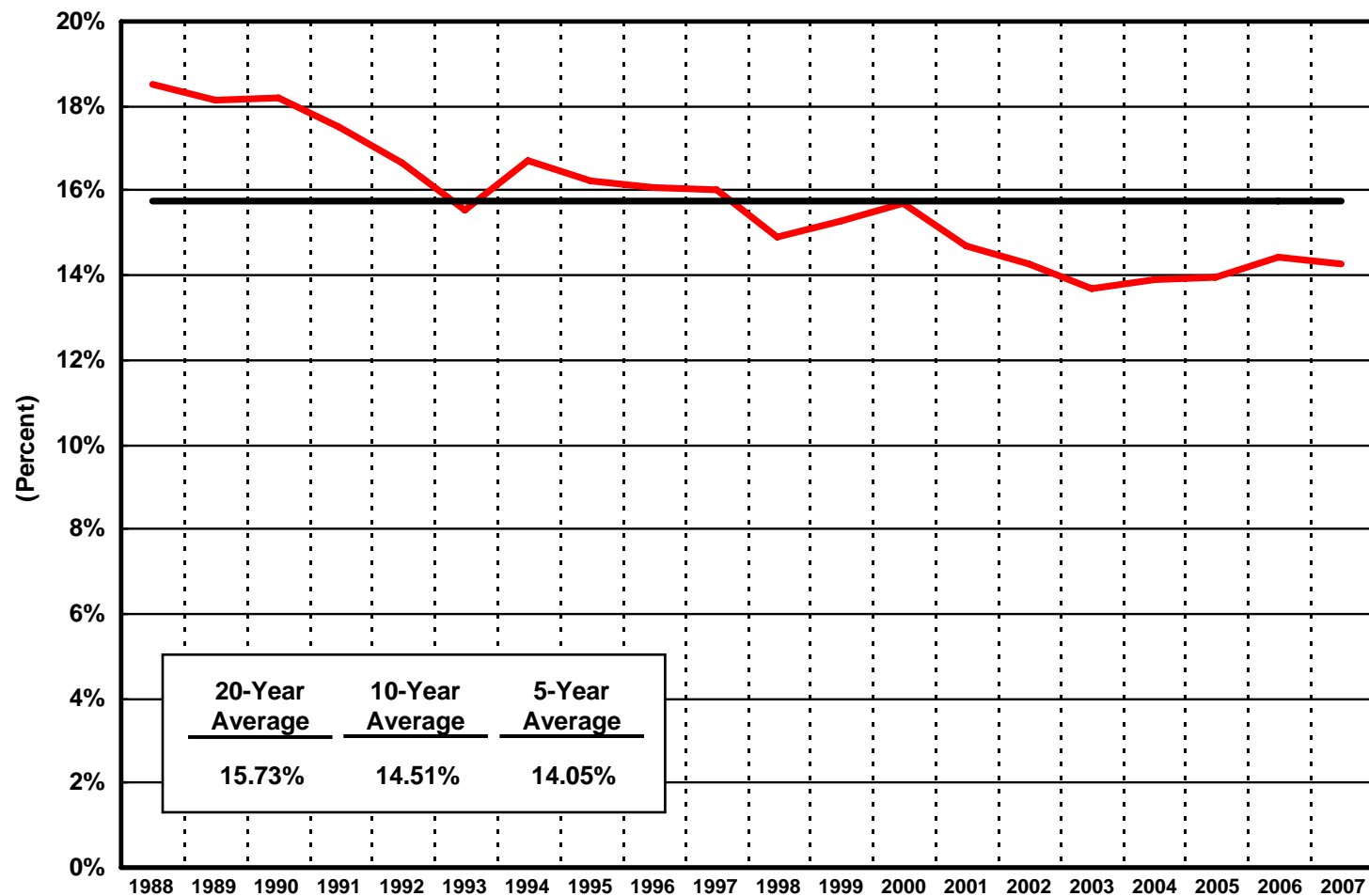
Potential Borrowing Costs for Guaranteed Loan

-- Rates Using Historical Premiums over Inflation --

	20-Year Average	10-Year Average	5-Year Average
	(Percent)		
	(1)	(2)	(3)
Inflation Projection	2.50%	2.50%	2.50%
Risk-Free Premium	3.00%	2.10%	1.13%
Margin	0.50%	0.50%	0.50%
Total	6.00%	5.10%	4.13%

Equity Costs

965 Basis Points Above Historical 10-Year T-Bond Rates



Source: Federal Reserve Bank.

Potential Equity Return Under Proposal

-- Rates Using Historical Premiums over Inflation --

	20-Year Average	10-Year Average	5-Year Average
	(Percent)		
	(1)	(2)	(3)
Inflation Projection	2.50%	2.50%	2.50%
Risk-Free Premium	3.00%	2.10%	1.13%
Equity Premium	9.65%	9.65%	9.65%
Total	15.15%	14.25%	13.28%

Key Elements of Recourse Rate Tariff

(cont'd)

- **Depreciation will be on straight-line basis over 25 years (i.e., 4% per year)**
- **Operating costs, income and other taxes are passed on to shippers**
- **Fuel gas will be recovered from shippers based on actual pipeline losses**
 - **4.40% GTP**
 - **2.15% Alaska & Yukon-BC Sections**
 - **0.90% Alberta Section**
- **Shippers retain title to natural gas liquids entrained in the gas and are free to dispose (i.e., sell or process them as they see fit)**

Negotiated Rate Tariffs

- **Most new pipeline construction works off negotiated tariffs**
- **TransCanada proposes to offer 25, 30 and 35-year negotiated tariffs**
- **TransCanada proposes that its negotiated rates would incorporate:**
 - **Levelized tariff**
 - **70% debt / 30% equity capital structure through date of operation, falling to a 75% debt / 25% equity capitalization for period of operation**
 - **Expansions would be 60% debt / 40% equity structure**
 - **Equity and Debt rates proposed are the same as for recourse rates (i.e., 965 basis points over cost of 10-year T-Bond and actual debt costs)**
 - **Return on Equity reduction offered for negotiated rates**
- **In addition, TransCanada proposes to use U.S. loan guarantees to finance cost overruns if available**

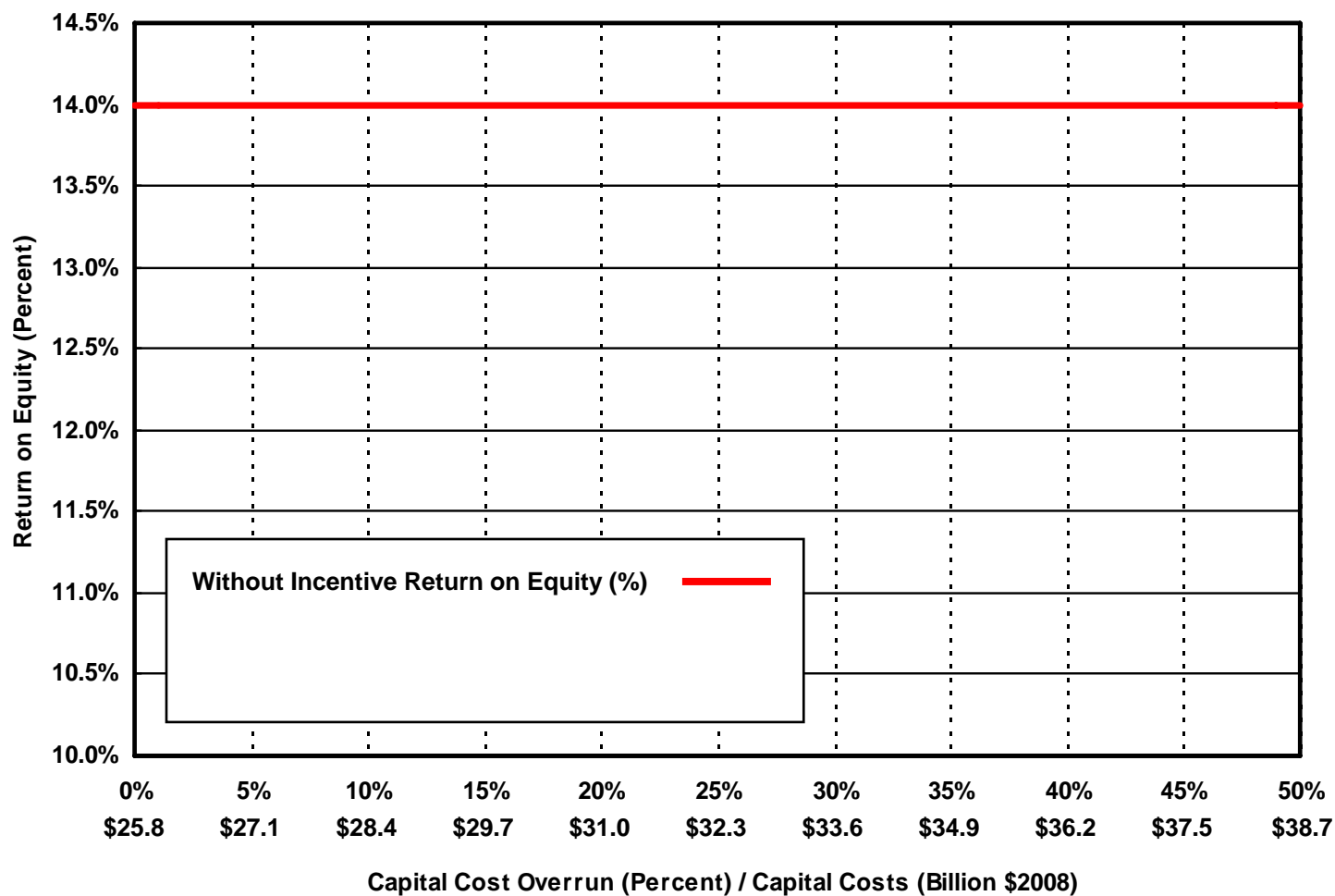
Negotiated Rate Tariffs

(cont'd)

- **Shipper must agree to accept treatment of rolled-in rates under AGIA**
- **Shipper must agree not to seek or support changes to the economic parameters that underpin the negotiated rate design at FERC and NEB**
- **Notwithstanding the terms offered by TransCanada, the actual terms to be negotiated between shippers and TransCanada, with the exception of those mandated under AGIA, such as treatment of rolled-in rates, are open for negotiation**
- **There is no requirement to accept the economic parameters proposed by TransCanada. Shipper can bargain for lower rates, increased flexibility, and alternative vehicles for protection against cost overruns than those offered**
- **See earlier differences in Recourse and Negotiated Rates**
- **TransCanada proposes to offer equity ownership in the pipeline “Anchor” shippers who subscribe in the initial Open Season**

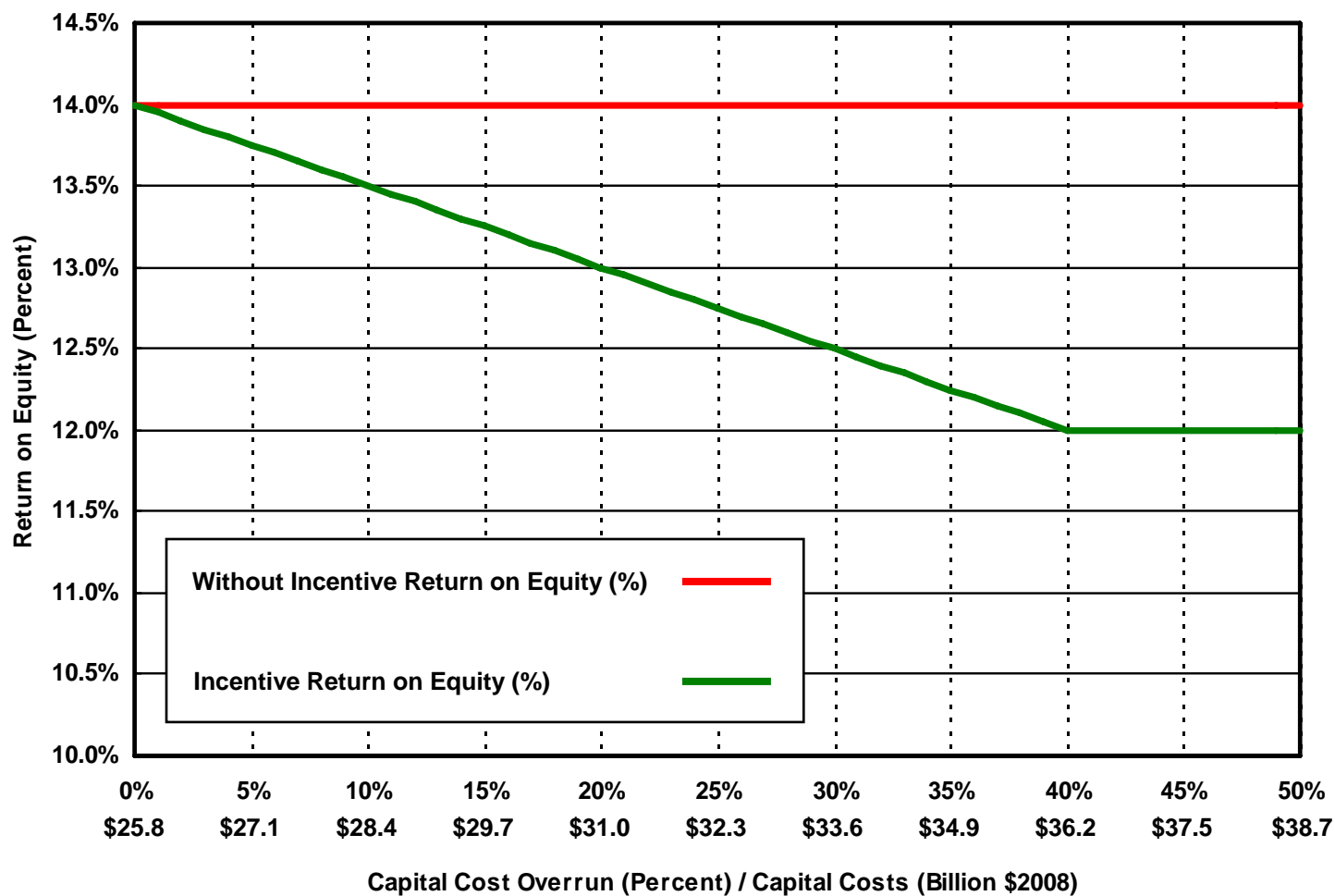
Incentive Adjustments to Return on Equity

Assumes 75% debt / 25% equity



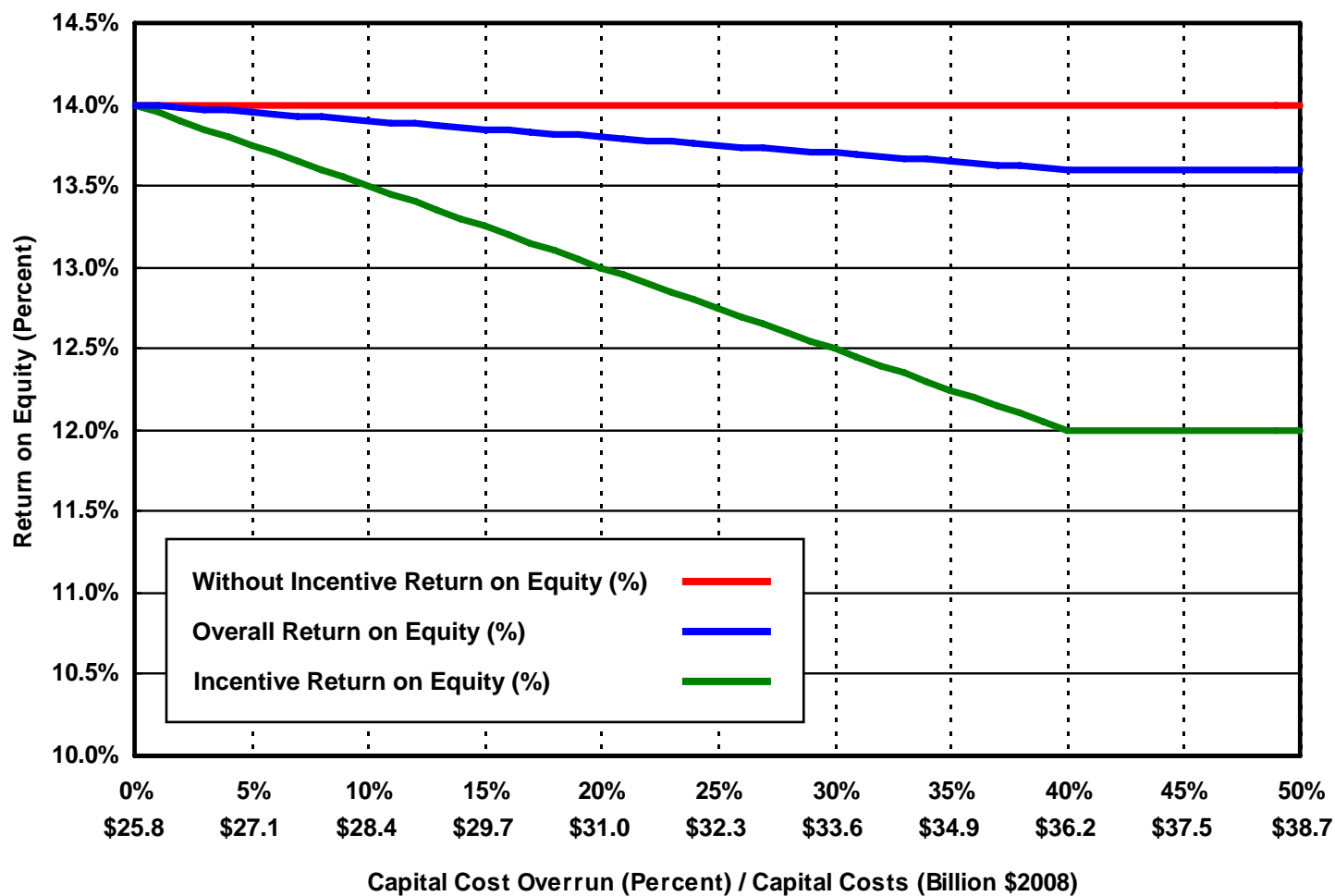
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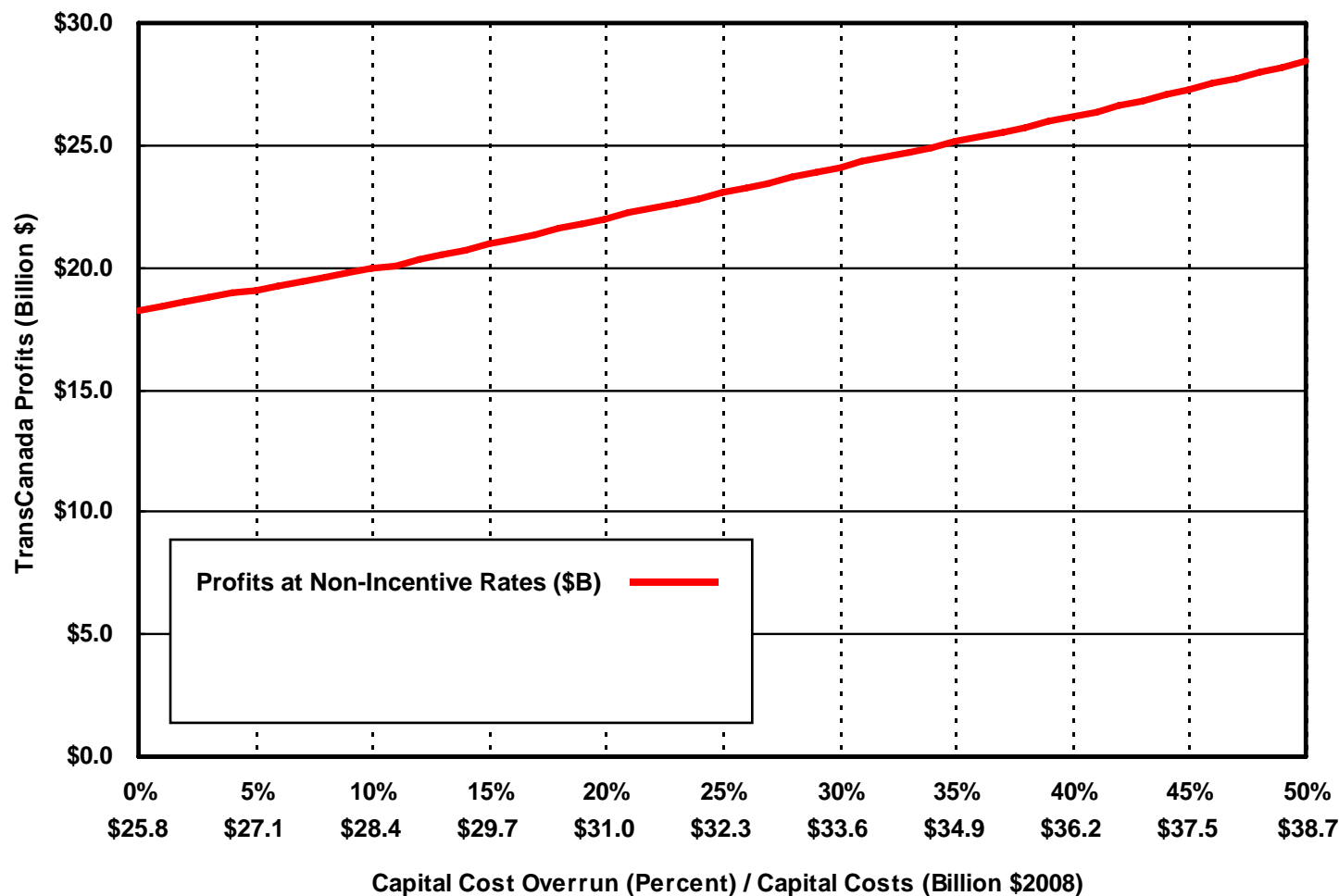
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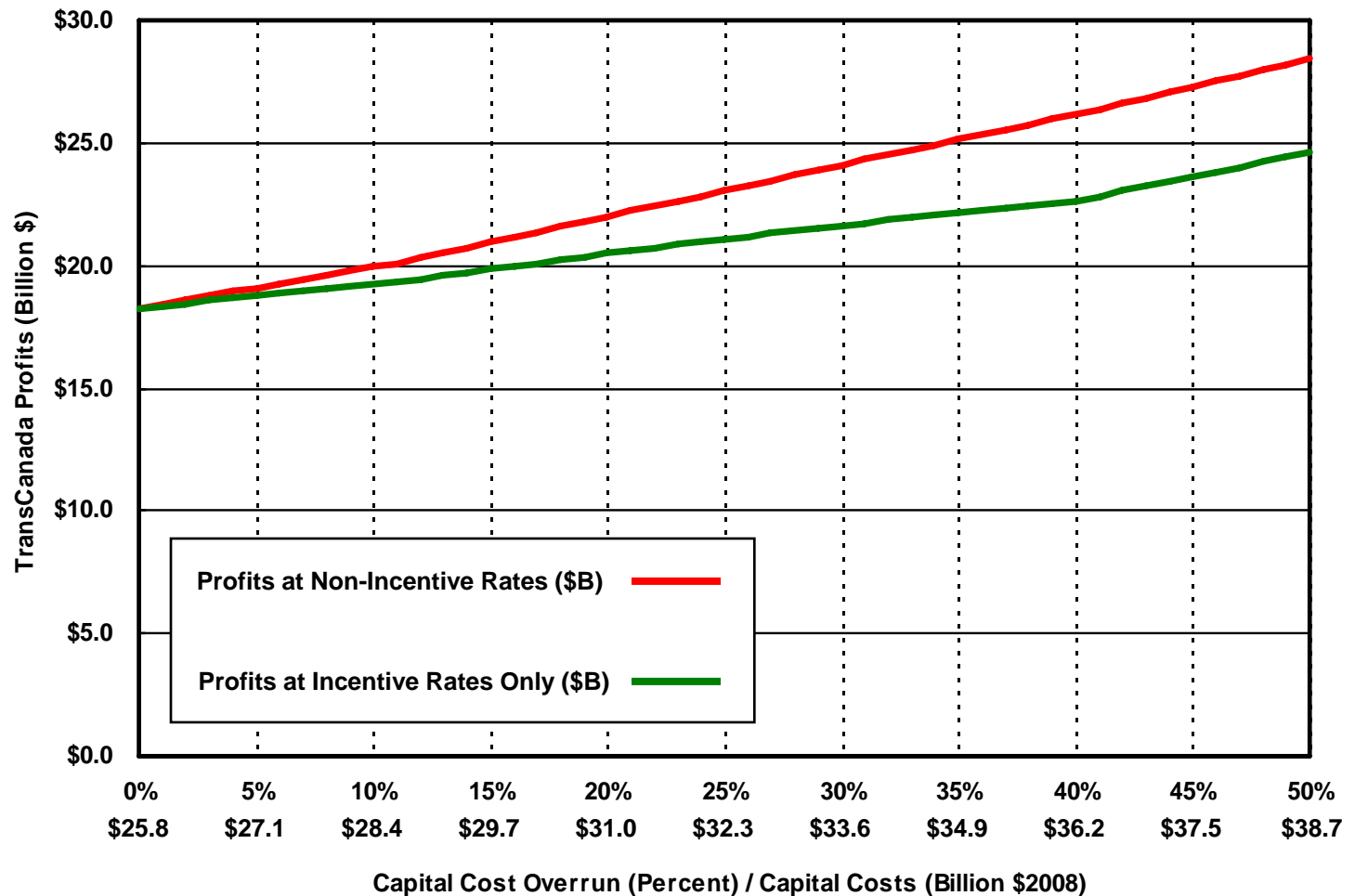
Incentive Adjustments to Return on Equity

TransCanada proposes to reduce its allowed return on equity by up to 200 basis points (2%) over first 5 years in the event of cost overruns



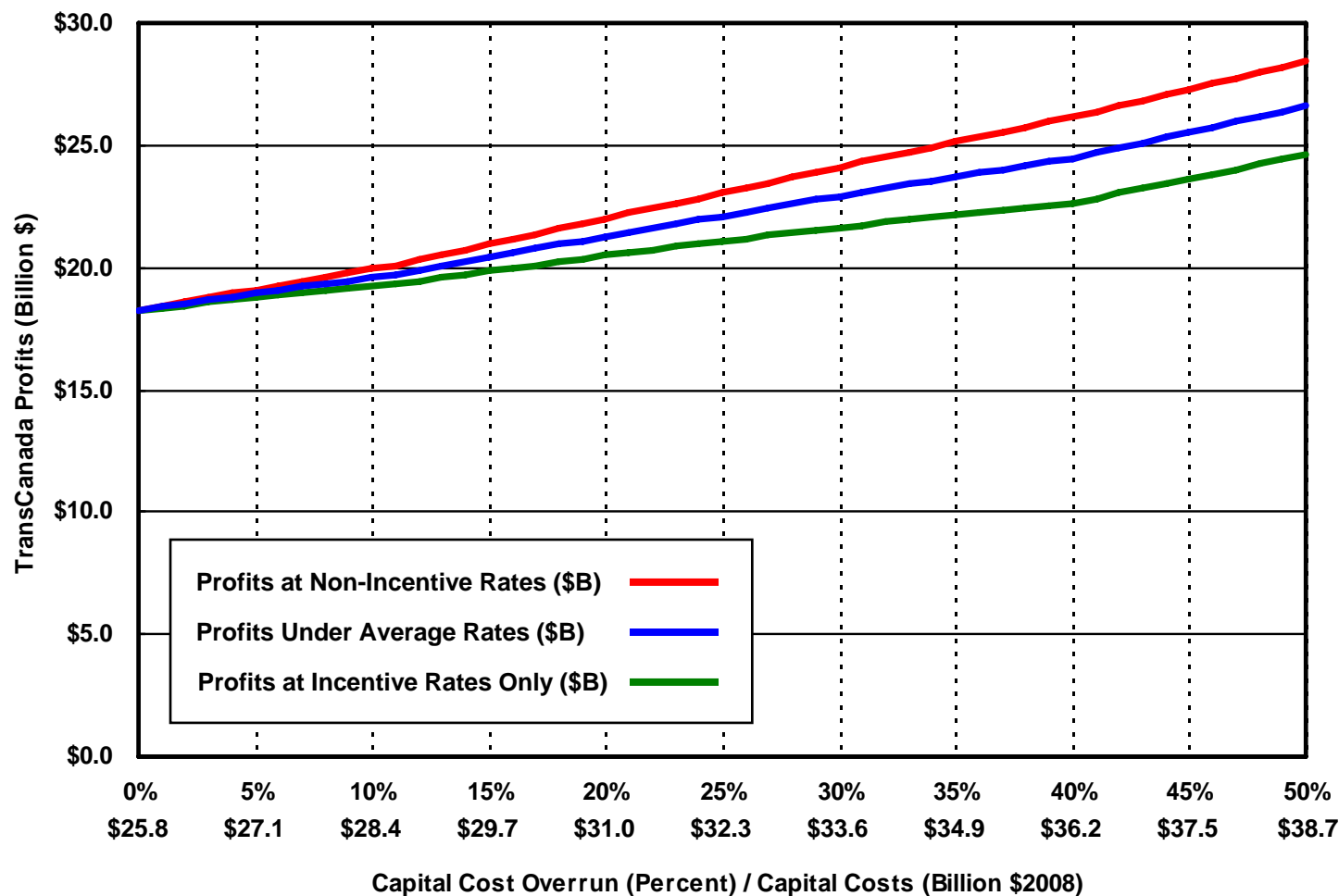
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Potential to Use Government Guaranteed Loan for Cost Overruns

- **TransCanada proposes to use Government guaranteed loans to cover potential overruns**
- **\$18 billion made available in \$2004**
- **Would be approximately \$20 billion in \$2008**
- **Assuming 75% debt financing overall, a project of \$26.8 billion (\$2008) would absorb the full guarantee amount**
- **TransCanada's proposal amounts to \$25.8 billion (\$2008)**
- **Accordingly, reservation of Government guaranteed loans for any significant cost overruns would require use of more expensive non-guaranteed debt**

Potential to Use Government Guaranteed Loan for Cost Overruns (cont'd)

<u>Total Capital</u> (\$2008 Bn)	<u>Overrun</u> (Percent)	<u>Amount of Debt at 75% D/E Ratio</u>	<u>Amount of Loan Guarantee</u> (\$2008 Billion)	<u>Non-Guaranteed Debt</u>	<u>Average Debt Rate</u> (Percent)
(1)	(2)	(3)	(4)	(5)	(6)
\$25.8	0%	\$19.4	\$20.1	\$0.0	4.7%
\$28.4	10%	\$21.3	\$20.1	\$1.2	4.8%
\$31.0	20%	\$23.2	\$20.1	\$3.1	4.9%
\$33.6	30%	\$25.2	\$20.1	\$5.1	5.0%
\$36.2	40%	\$27.1	\$20.1	\$7.0	5.1%
\$38.7	50%	\$29.1	\$20.1	\$9.0	5.2%

Note: Uses TransCanada estimated debt costs.

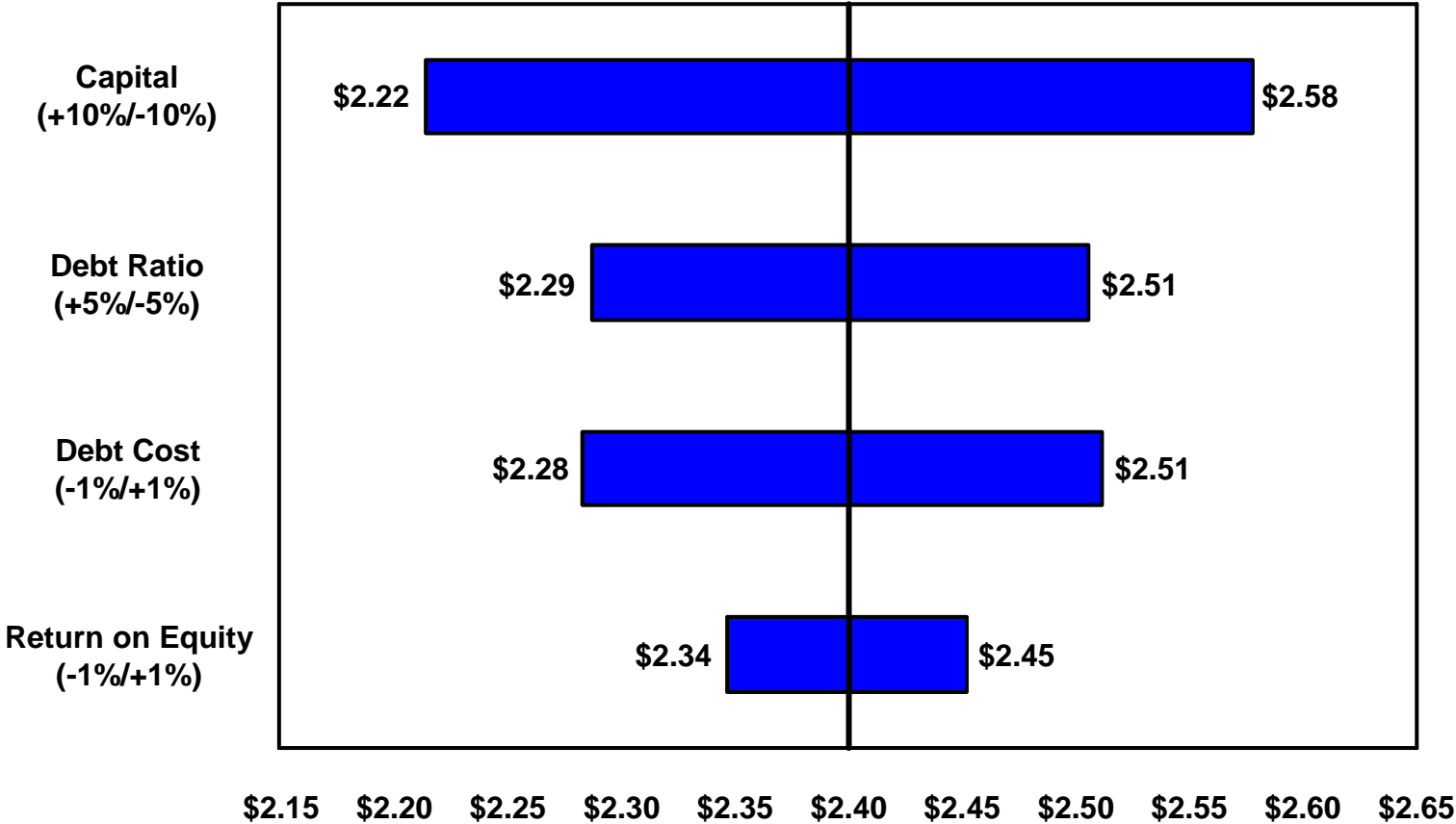
Sensitivities

- **As discussed above, capital costs are the biggest driver of costs. The critical elements are:**
 - **Overall Capital**
 - **Capitalization (i.e., Debt/Equity)**
 - **Debt Cost**
 - **Return on Equity**

Sensitivities

(cont'd)

Tariffs (\$/MMBtu)



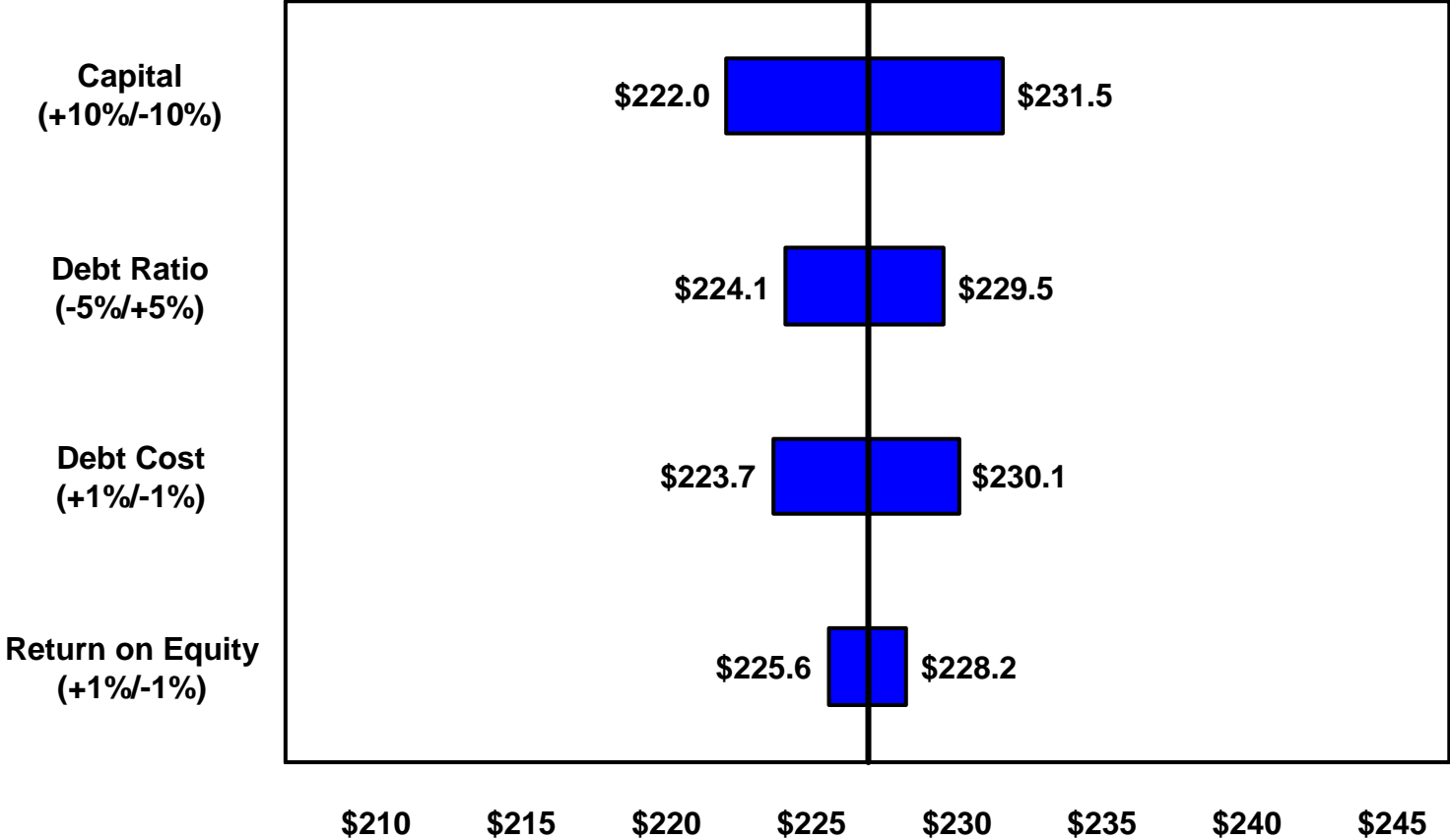
Note: Base tariff is per TransCanada assumptions re: costs, capital state and financing (i.e., \$25.8bn, 75% debt / 25% equity, 4.7-6.2% debt cost, 14% return on equity).



Sensitivities

(cont'd)

Estimated State Revenues (Billion \$)



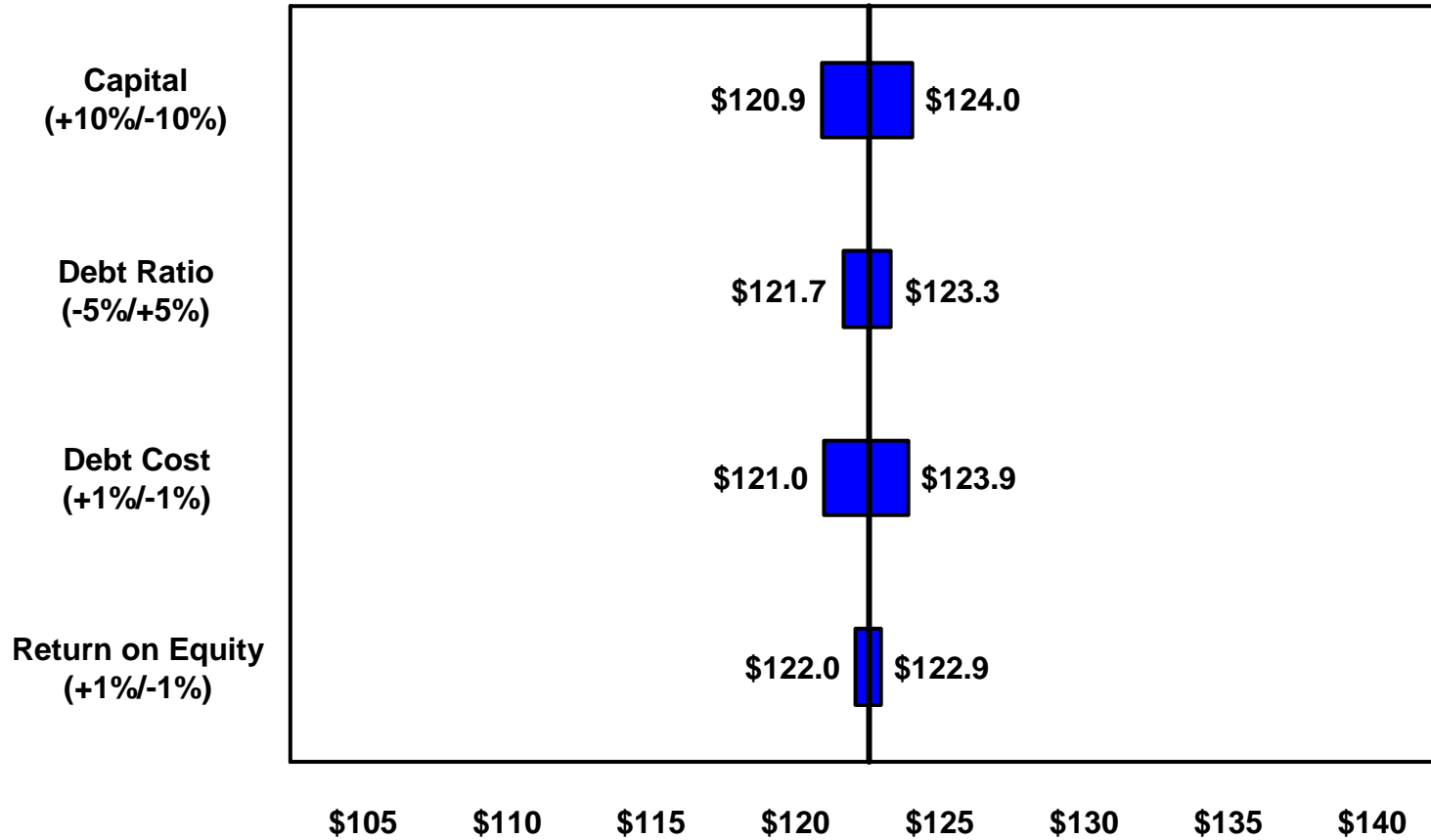
Note: Base (\$226.9bn) is per TransCanada assumptions re: costs, capital state and financing (i.e., \$25.8bn, 75% debt / 25% equity, 4.7-6.2% debt cost, 14% return on equity).



Sensitivities

(cont'd)

Estimated Shipper Revenues (Billion \$)



Note: Base (\$122.5bn) is per TransCanada assumptions re: costs, capital state and financing (i.e., \$25.8bn, 75% debt / 25% equity, 4.7-6.2% debt cost, 14% return on equity).



Expansion Issues

- **Expansion of pipeline capacity would occur either via addition of compression, or through looping (i.e, additional pipeline)**
- **TransCanada estimates that expansions up to 5.9 bcf/day (30% increase) could occur through the addition of compression**
- **Expansions between 5.9 bcf/day and 6.5 bcf/day would occur through either compression or looping**
 - **Looping involves adding parallel pipeline sections along a portion of the main line**
- **Beyond 6.5 bcf/day, expansion could occur up to 7.2 bcf/day through looping**

Expansion Issues

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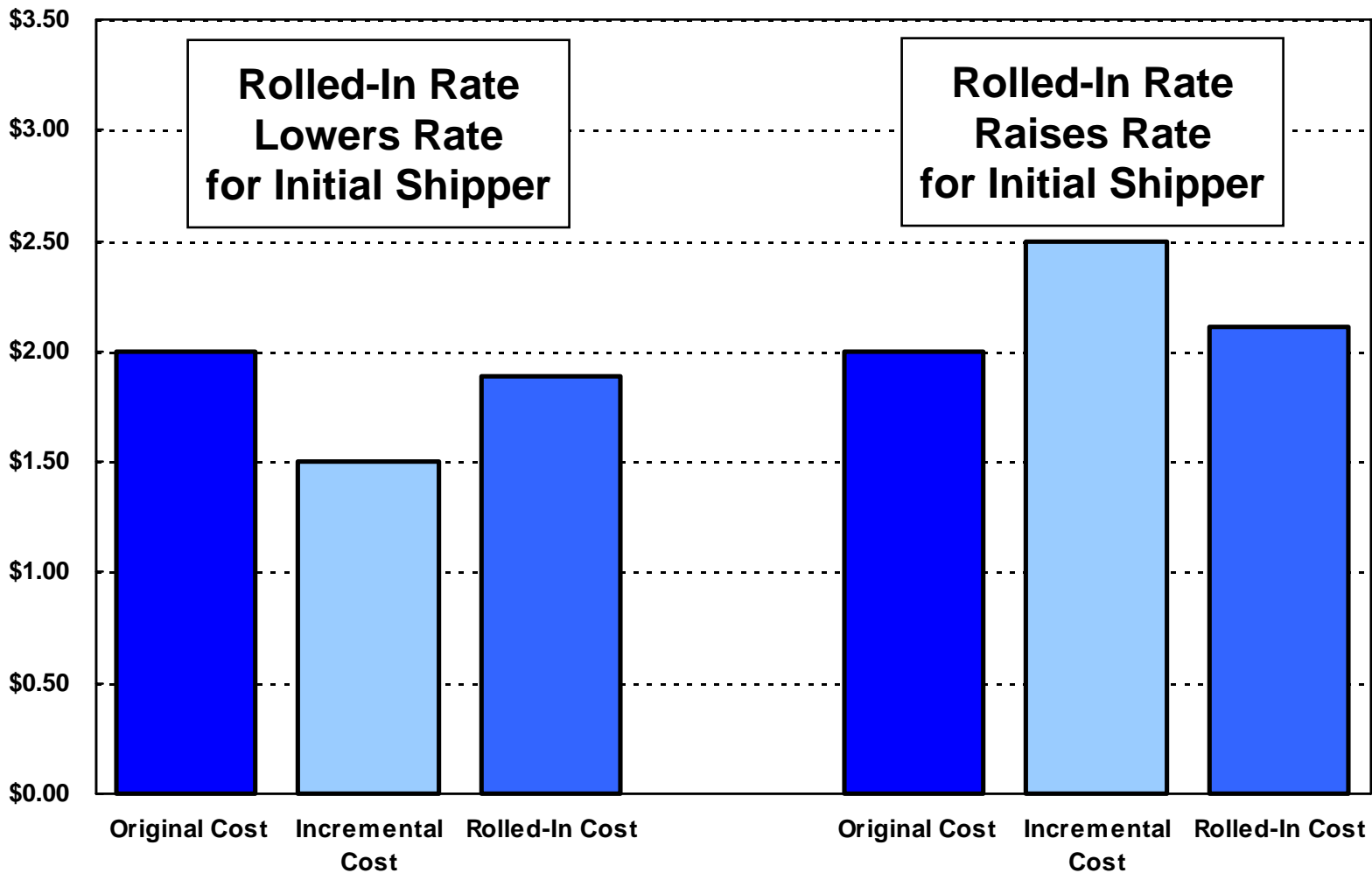
- **AGIA requires TransCanada to study demand for expansion every two years and offer non-binding Open Seasons if demand is warranted**
- **AGIA also requires TransCanada to offer “rolled-in” rates as long as they do not result in increase over original rates by more than 15% (i.e., 115% of original rates)**
- **Rolled-in rates mean that the costs of the expansion “rolled-in” with the original costs and the total is spread out over total volumes**

Expansion Issues

(cont'd)

- **This could result in higher or lower rates for original shippers depending on the cost of the expansion**
- **The alternative is incremental rates for expansion. Under incremental pricing, the shipper for the expansion capacity bear the entire cost of the expansion. Again, this could be lower or higher than the original rates**

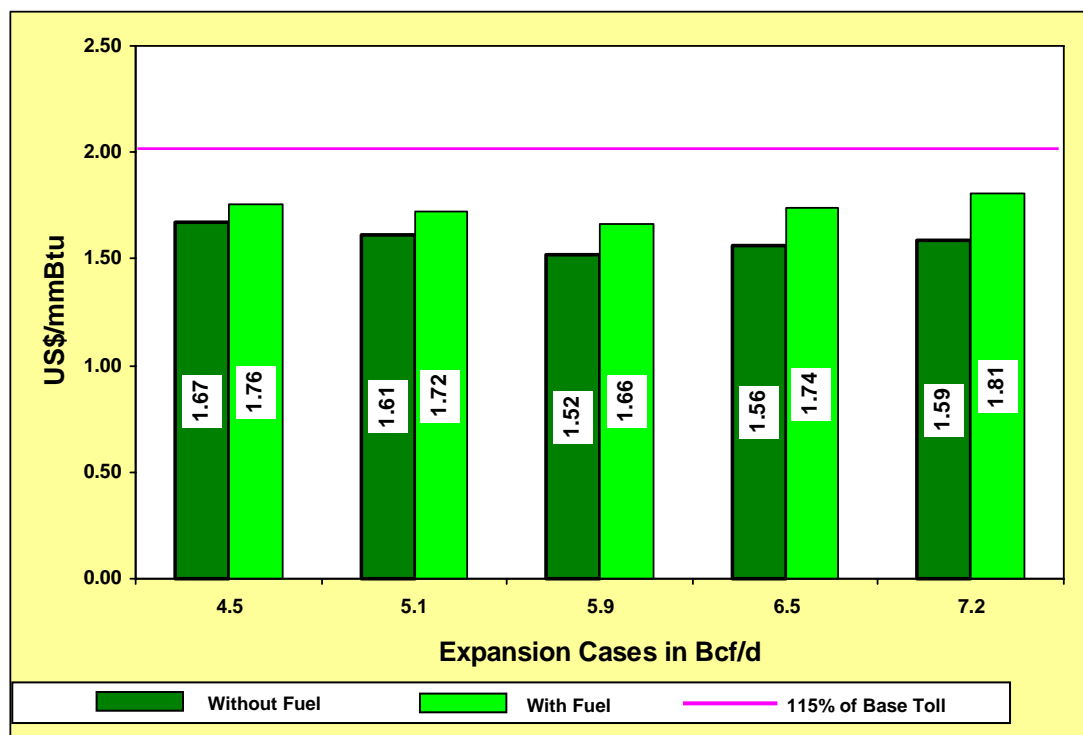
Example of Rolled-In Rate Treatment



Expansion Issues

(cont'd)

- TransCanada estimates that expansions up to 6.5 bcf/day (44% increase in capacity) would reduce rates on a rolled-in basis
- At 7.2 bcf/day, TransCanada estimates that rolled-in treatment of expansions could increase rates (depending on timing of expansion(s)), but by less than the 15% threshold



Note: From TransCanada Application; does not include GTP.

Expansion Issues

(cont'd)

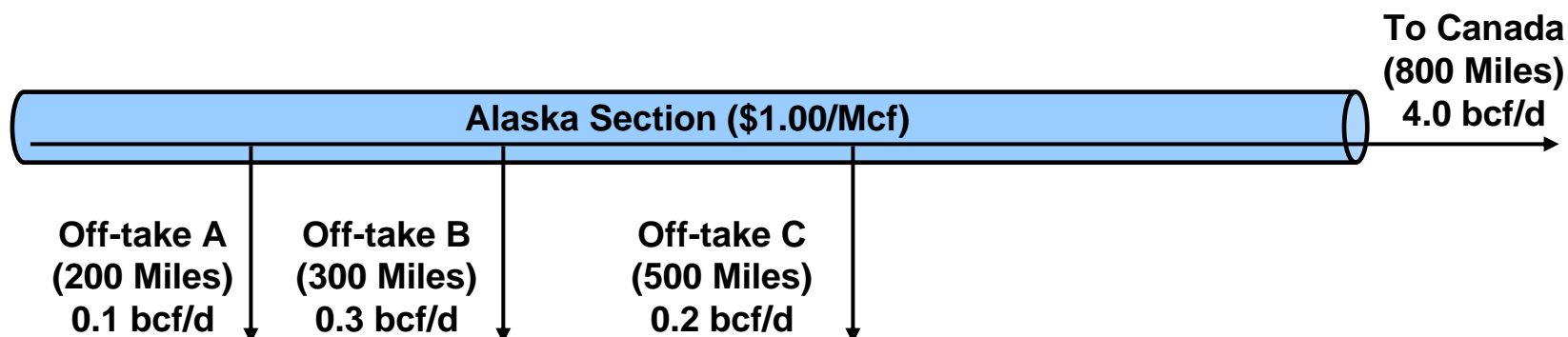
- **If TransCanada estimates are correct, existing shippers would be expected to be supportive of rolled-in treatment up to 6.5 bcf/day. Beyond that, they would rather see incremental pricing**
- **This could differ depending on the position of the party seeking the expansion. If it is an existing shipper, it may still favor rolled-in treatment above 6.5 bcf/day depending on how much existing capacity it has relative to the amount of incremental capacity it is seeking**
- **For example, if a shipper had 10% of the original capacity, but was going to have 100% of the expansion capacity, then it would likely favor rolled-in treatment even if it raised the cost for its original capacity**
- **This is because it can spread the costs of the incremental (relatively expensive expansion) across others' volumes**
- **Neither FERC nor NEB are required to accept rolled-in treatment of rates as required by AGIA, though FERC has stated that there will be a presumption of rolled-in treatment**

In-State Tariffs

- **TransCanada has proposed offering at least 5 in-state “off-take” locations, one of which would accommodate a “spur” line to the Anchorage area**
- **In-State Study before Open Season**
- **Tariffs would be offered on distance sensitive basis, with a single “zonal” rate offered for all Alaska off-take locations**
- **Rates to the different locations would be calculated based on their relative distances to the total Alaska section, then a weighted average rate would be applied to all off-take in Alaska**

In-State Tariffs

(cont'd)



Calculation of Weighted Average

Off-take A:	0.1 bcf/d	x	200 miles	=	20 bcf/d-miles
Off-take B:	0.3 bcf/d	x	300 miles	=	90 bcf/d-miles
Off-take C:	0.2 bcf/d	x	500 miles	=	100 bcf/d-miles
					210 bcf/d-miles
					÷ 0.5 bcf/d
					420 miles

420 miles (in Alaska) ÷ 800 miles (to Canada) = 52.5%

52.5% x \$1.00/Mcf (to Canada Rate) = \$0.525/Mcf (Alaska Rate)