Costs/Tariffs
Alberta to Lower 48
Anchorage, June 16/17, 2004

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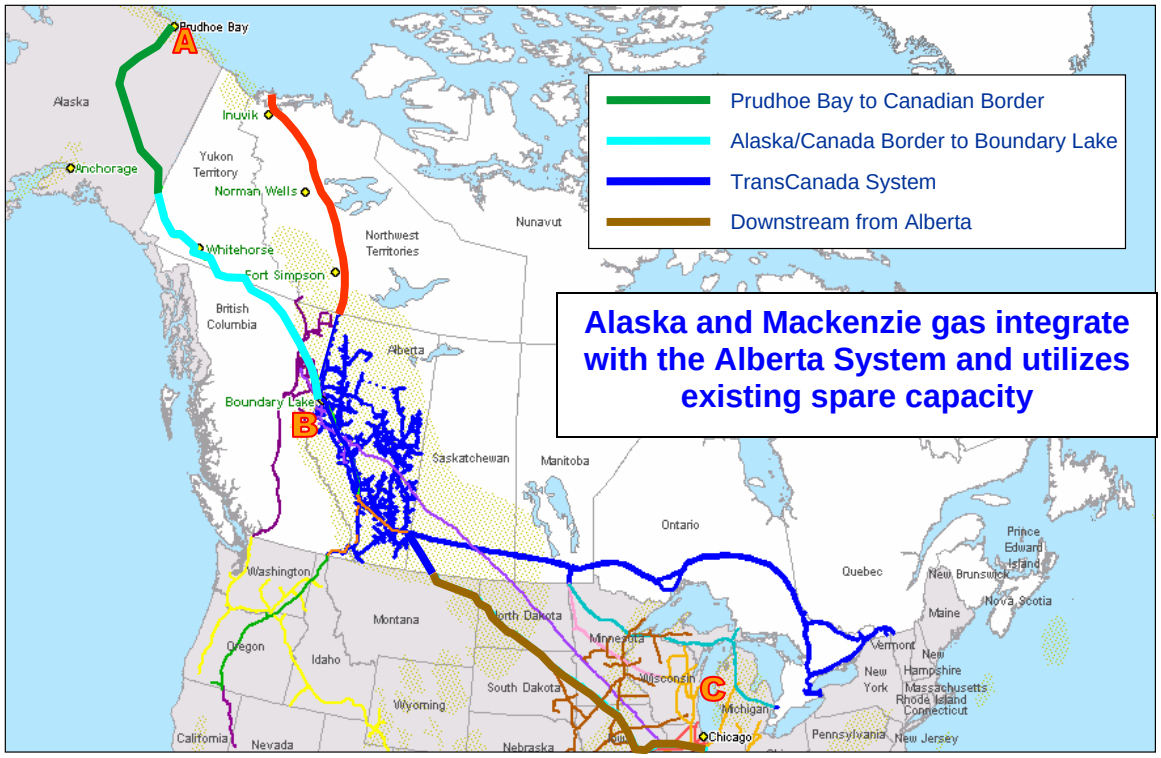
The Alaska gas pipeline will be a huge undertaking with large risks for all stakeholders. TransCanada believes the project should be limited to the frontier pipeline from Prudhoe Bay to Alberta. An integrated approach from Alberta to market will give optimal results for Alaskan and Canadian stakeholders. By integrated, I mean that from the Alberta trading hub Alaskan gas will integrate into the existing North American gas pipeline grid and Alaskan gas can flow east or west to markets across North America.

A to B Pipeline:

- Prudhoe Bay to the Canadian border *(dark green line)*
- Alaska-Canada border to Alberta near Boundary Lake *(light blue line)*

'B to C' Proposition:

- Integrate with TransCanada System at Boundary Lake *(dark blue line)*
- New facilities downstream from Alberta *(brown line)*



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The underlying principle of TransCanada's 'B to C' proposition recognizes that integration with the existing TransCanada system ("Integration") will best serve the interests of all constituents by fully utilizing the extensive natural gas pipeline grid that currently serves Canadian and American gas consumers.

TransCanada's integrated proposal provides the most competitive and flexible economic solution for Alaska producers and all affected constituents across a broad range of alternatives.

Key Criteria and Perspectives

Normally greenfield pipeline decisions are based on an analysis of routing, volumes, and capital cost. The shortest route with the highest volume and lowest cost would always be the preferred choice.

However there are a number of aspects to Integration that provide advantages over the normal distance, volume and capital relationships. The major factors are outlined below:

1. Volumetric Requirements

The Alaska volumes may ramp up over a 5-10 year time frame to 6 Bcf/d. This last increment will depend on exploration and production activity once the pipeline is constructed. The liquids composition of the gas likely will change over this time frame as well. Because the range of potential outcomes is so broad, and may involve more producers than the initial three Alaska producers, the facilities planning for B to C needs to be flexible.

2. Facilities Planning for Total Supply NOT Incremental Supply

The interconnection with the existing grid can occur when the Alaska gas reaches Alberta. The Western Canadian Sedimentary Basin (WCSB) is producing approximately 17 Bcf/d and the Mackenzie Delta is expected to produce 1.5 Bcf/d. The additional Alaska gas of approximately 4.0 Bcf/d creates a total requirement of approximately 22.5 Bcf/d. This fundamental assumption that the facilities plan for 'B to C' is for 22.5 Bcf/d not for 4 Bcf/d, creates synergies with existing infrastructure that are superior to a stand-alone pipeline.

3. Market Flexibility

The Alaska producers' addition of 4.0 Bcf/d adds to the existing portfolio within Alberta. The aggregate downstream pipeline requirements are then a function of supply across all basins, the Alberta market, and the netbacks and contract terms on the existing pipeline systems. The combination of reduced WCSB supply and expansions on existing pipelines driven by market factors

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prior to the Alaska volumes ramping up, will influence the appetite to sign up for new greenfield pipelines from the basin.

Depending upon the marketing strategy and the existing commitments from each producer's portfolio, a variety of commitments may or may not be made. The producers do not have to precisely match their additional Alaska production with downstream market commitments as they may choose to sell some of their Alaskan gas within Alberta.

4. Alberta System Integration Benefits

The Alberta system has several unique features not immediately evident when examining a map of the pipeline system that give the Alberta system several advantages in meeting market needs.

The Alberta system is not operating at full capacity. It was built to match the downstream expansions of TransCanada and Northern Border. However, the Alberta system was partially off-loaded by the construction of the Alliance pipeline system. New supply has not been robust enough to refill this capacity. This spare capacity can handle some volumes with no incremental construction costs. Additional compression can further add volumes with little incremental cost.

The net supply additions and demand requirements on the Alberta system is shifting. This shift creates more demand and less supply on the east side of the Alberta system and leads to the construction of the North Central Crossover to meet the demands of the oil sands and heavy oil on the east side of the province. The supply in the northeast portion of the province that is currently being shipped to the Empress export point is also declining. This shift in system load creates a low-cost addition of incremental capability from the northwest to the southeast portion of the Alberta system.

5. Construction Costs

The single largest variable having the biggest impact on the toll is the construction cost. The estimation of the costs is influenced by pipe size and by competition for resources if both A to B and 'B to C' are constructed in a two-year time frame. Construction of a smaller sized 'B to C' pipeline with more conventional pipe sizing, not only increases the certainty around the construction cost estimates but reduces the competition for steel mill space that would influence the costs of the A to B portion of the pipeline as well.

The roll-in of new capital expenditures with existing capital investment to create a toll charged to shippers also influences capital obligations. In the rolled-in toll, the incremental capital is proportionally less so the impact of a "hot construction market" is less in the blended average toll.

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6. Toll Integration

Toll integration has a mitigating effect on construction costs because the system costs are essentially spent and will be unlikely to increase over the planning horizon. The tariff design in Alberta has created an expressway toll concept from the northwest portion of the province and therefore future additions are less likely to have a toll impact at Boundary.

Another advantage of the Alberta system that is often not appreciated is the volumetric size of the system. The system receipts are approximately 11.5 Bcf/d and the export deliveries are approximately 10.0 Bcf/d. The size of our system adds tremendous stability to the toll, as the variances in volumes are relatively small so the toll does not change significantly.

7. Summary

The Integration model is flexible and it appeals to a broad cross section of market participants. Consequently the regulatory approval for this solution is likely to be less contested and in fact, supported by more interested parties.

A key to the integrated approach is to continually monitor the requirement for facilities and to be poised to gain market support for the timely addition of new facilities.

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Competitive Alternatives Scorecard

How does TransCanada's Integrated proposition compare to other alternatives?

Our analysis clearly shows that TransCanada's 'B to C' proposition is economically superior to any alternative from Boundary Lake through a broad range of WCSB supply/capacity scenarios. The advantages of Integration stand out on all of the key criteria: netback price, tolls, capital, warranty costs, flexibility and risk mitigation:

Scorecard - TransCanada's 'B to C' Proposition

Netback Price

1. Highest producer and royalty gas netback prices at Boundary Lake

Tolls

1. Stable tolls across a wide range of WCSB forecasts
2. Lowest tolls and fuel compared to alternatives
3. TC-Alberta System tolls receive an immediate benefit from Alaska gas

Capital & Warranty Costs

1. Lowest infrastructure capital cost across different pipe size alternatives
2. Lowest warranty capital cost. Total committed (warranted) shipper payment is for a 5-year TC-Alberta contract, as compared with a 20-year Boundary to Chicago transportation contract for a greenfield incrementally-sized pipe.

Flexibility

1. Access to liquids processing inside Alberta
2. Connected to an extremely liquid Alberta hub (AECO/NIT)
3. Easy access to flexible and diverse markets away from Alberta Hub
4. Shortest lead-time for capital decisions (new capacity away from Alberta)

Risk Mitigation

1. Lowest risk of 'hot-market' cost overruns
2. Spreads downstream risk at integrated hub (more participants in new capacity)
3. **May not require <u>additional</u> downstream <u>facilities</u> (depends on timing and volume of Alaska flows)**
4. Existing certificates provides lowest regulatory risk and fastest in-service

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Summary

The TransCanada 'B to C' proposition continues to be the most competitive and the best economic choice for producers and all constituents across a wide range of possible scenarios.

Major Integration Benefits

1. *Lowest Toll to Downstream Markets*
   The combination of spare capacity on the Alberta system, coupled with optimized capital for any new build requirements, yields a lower toll to market, and greater toll certainty – than any competitive options from Boundary Lake.

2. *Lowest Toll for Alberta Shippers*
   Alaska gas offers significant tolling and supply security benefits to existing shippers and users on the TransCanada grid, including lower and more stable tolls over the long term.

3. *Minimize Transportation Commitments*
   Alaska gas benefits from using the existing pipeline system. By using the existing spare capacity and minimizing new long-term transportation commitments, Alaska gas shippers can avoid up to $0.8 billion in warranty capital necessary to underpin a competitive alternative.

4. *Flexibility to Mitigate Risk*
   TransCanada's 'B to C' proposition provides the ultimate flexibility to mitigate risks downstream of Alberta.

   i. WCSB trends suggest that new ex-Alberta capacity can be minimized, and perhaps may not be necessary to fully accommodate Alaska gas. Indeed, if Alaska volumes commence deliveries later than 2011, and at a lower initial volume, it becomes more likely that these volumes could be fully absorbed into the existing grid without any increment in Alberta take-away capacity.

   ii. By having access to a large number of buyers and sellers at AECO/NIT, including downstream markets, there are more parties to help underpin downstream obligations and share in the total delivery risks of the project.

   iii. The risk of capital overruns on both the Alaska-to-Alberta ('A to B') and Alberta-to-Market ('B to C') is minimized by TransCanada's integrated approach to existing facilities.

5.

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Consistent Through a Broad Range of Assumptions
The analysis and conclusions reached in this update prove valid through a broad range of potential outcomes, and provide the most certain outlook within a great deal of market uncertainty:

i. Changing a combination of WCSB deliverability, throughput on the Alberta system (including demand growth), and both the timing and quantity of Northern gas, result in small volatility in the Alberta System tolls – future toll estimates vary by less than 2¢ across these scenarios.

Integrated TransCanada-Foothills Proposition

Foothills Pipeline Ltd., now 100% owned by TransCanada, has held the certificates for the Alaska pipeline project, including 'B to C' in Canada, since 1978. The underlying principle of TransCanada's proposition is integration of Alaska gas into its existing grid, including the Foothills Pre-build. The concepts that originally underpinned the Foothills certificates are still valid today. The overall public interest will best be served by fully utilizing the extensive natural gas pipeline network that currently supports Canadian and American gas consumers.

Conclusion

The benefits of integration are many and substantial. The economic advantages in capital, toll, and warranty costs will not only provide lower prices to consumers, but also higher netbacks to the resource owners. What was true in 1978 remains true today – that TransCanada and Foothills can provide the most beneficial products for the development of Alaska reserves.

Thank you for the opportunity to appear at this session today. I am available to respond to your questions on this subject.

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