

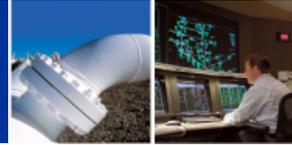


# Ontario Energy Board 2010 Natural Gas Market Review

Stakeholder Conference  
October 7-8, 2010  
TransCanada PipeLines Limited



**TransCanada**  
*In business to deliver*



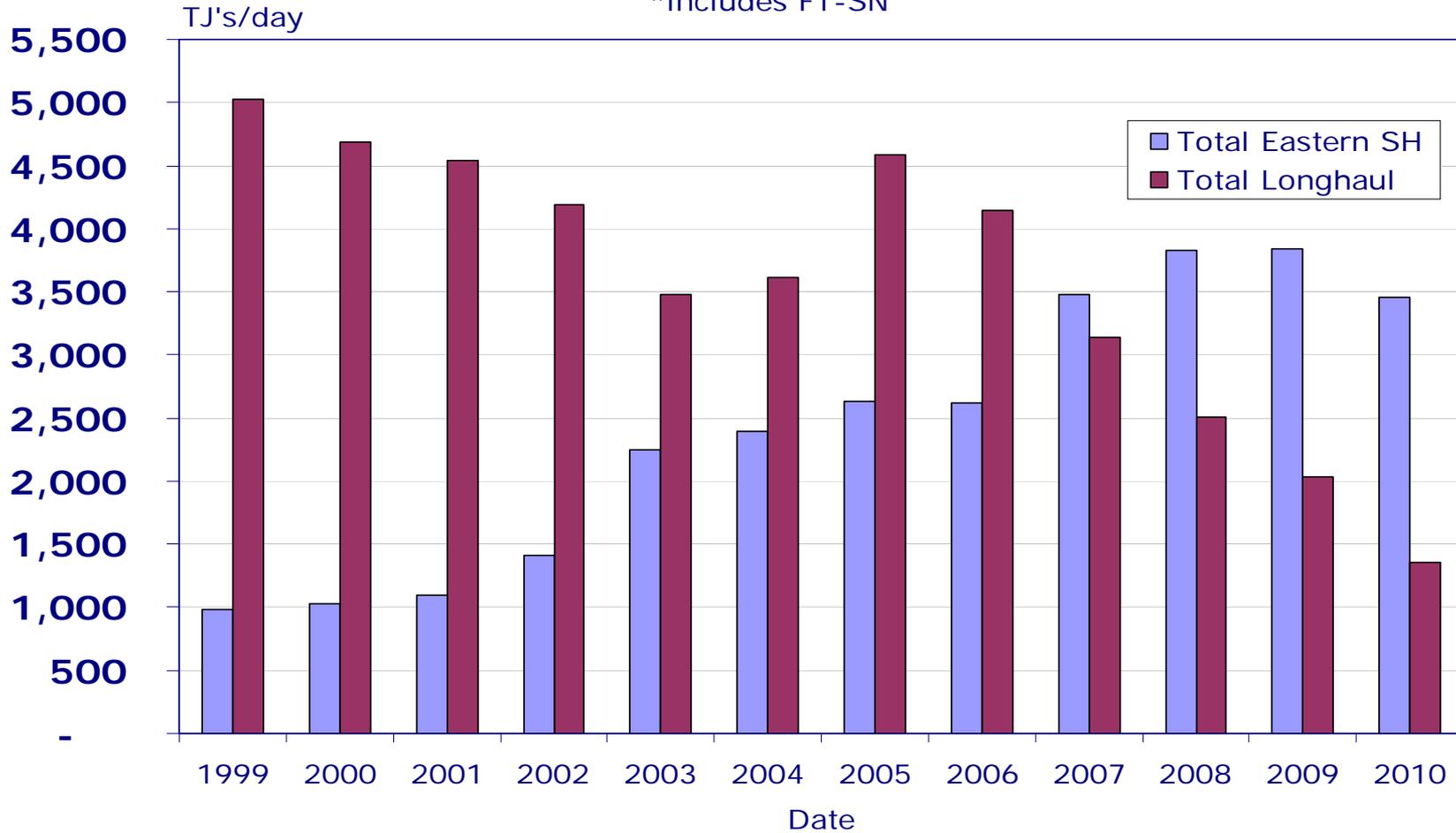
- **TransCanada in the Ontario Market**
  - TransCanada plays an integral role in supplying gas to Ontario
  - Market changes have impacted Mainline flows
  - Benefits and costs related to the evolving market
  - Mainline toll vs. cost of gas for Ontario consumers
  - TransCanada is well situated to help Ontario benefit from emerging continental supply
- **Response to 4 OEB Topics**



# Mainline Contract Demand – Changing Profile



ML Contract Demand on November 1  
\*includes FT-SN

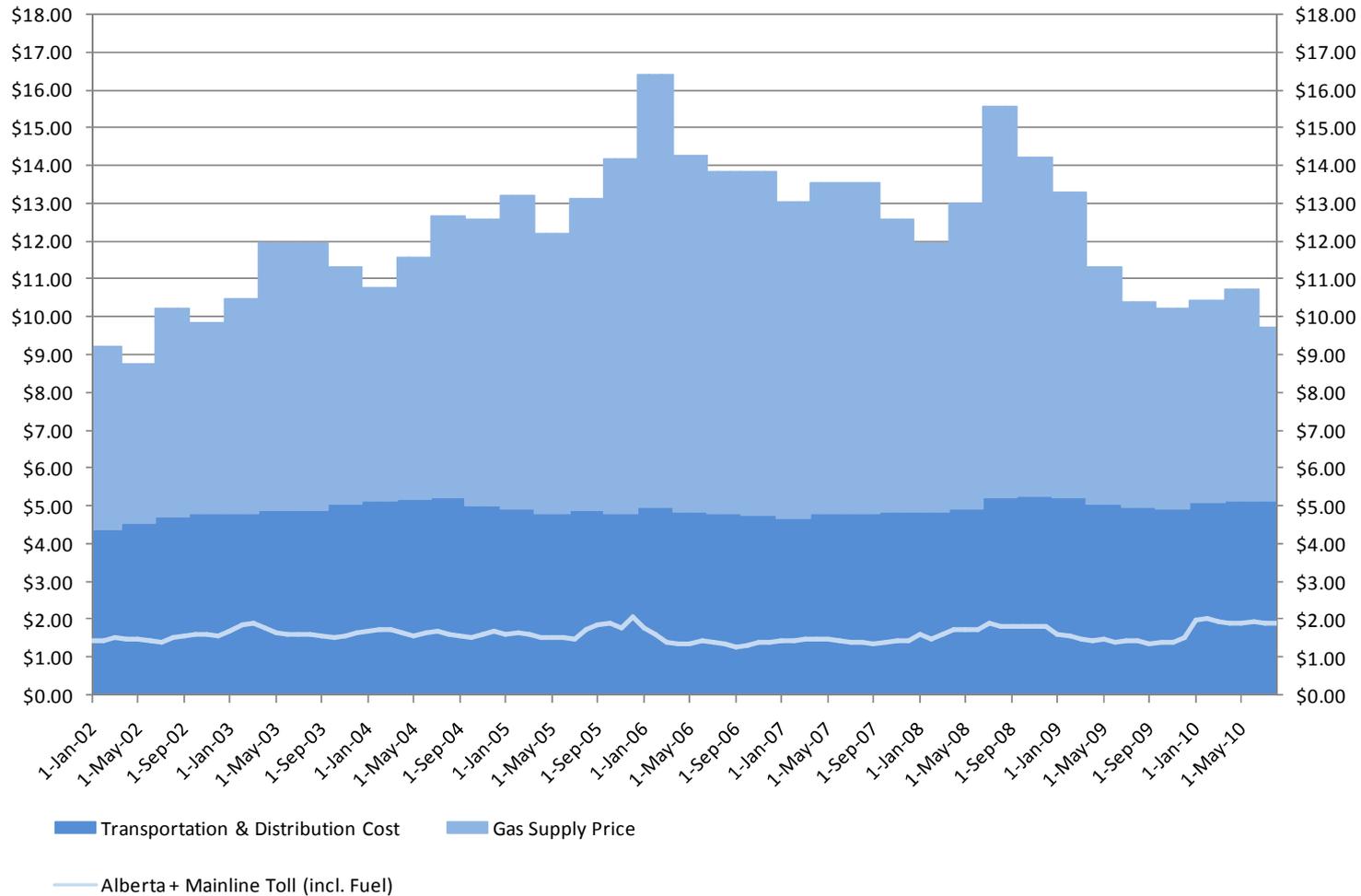


# Evolving Market: Costs and Benefits



- **TransCanada has successfully managed costs:**
  - 2000 Mainline revenue requirement = \$2.20 billion
  - 2010 Mainline revenue requirement = \$1.72 billion
- **Declining throughput increases unit cost**
  - Shift away from long-haul service reduces billing determinants
- **Evolving market has led to increased Mainline tolls**
- **Evolving market has also provided benefits**
  - Increased diversity/security of supply
  - Decreasing natural gas prices and price volatility
  - Increased liquidity/number of counterparties
  - New services
  - Service flexibility

# Ontario Consumer Cost of Gas\*



\* Based on Enbridge QRAM filings – residential customers



## Canadian Pipelines

- Connection of new supplies to TransCanada Alberta System
  - New expansions to access WCSB shale gas (Montney/Horn River)
- Additional access to North American supplies at Dawn
- Open season for Marcellus shale gas
- Northern Gas

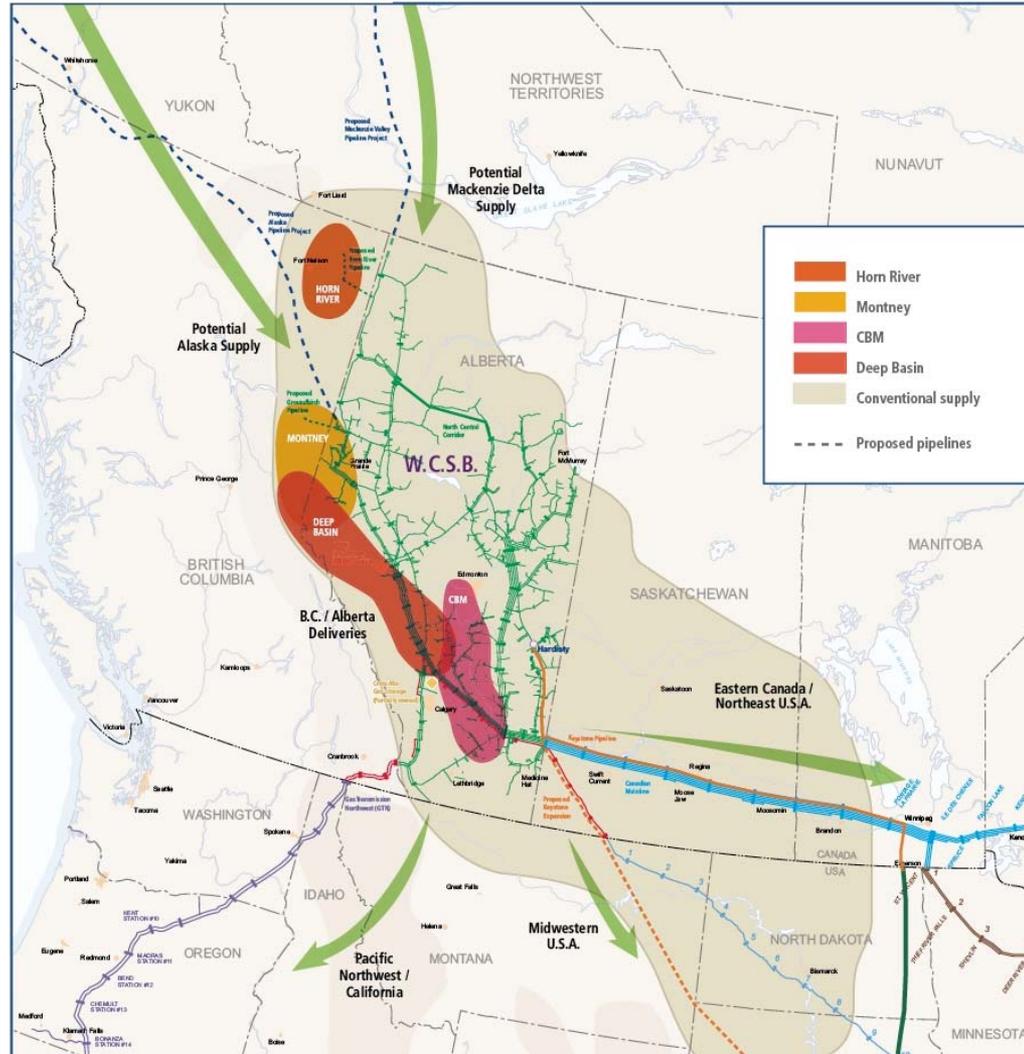
## US Pipelines

- Dawn Eclipse – expansion of GLGT capacity to St. Clair
- Dawn Express – expansion of ANR into S.W. Ontario
- ANR expanded connectivity to U.S. shales & storage
- GLGT pursuing Collingwood/Utica shales in Michigan

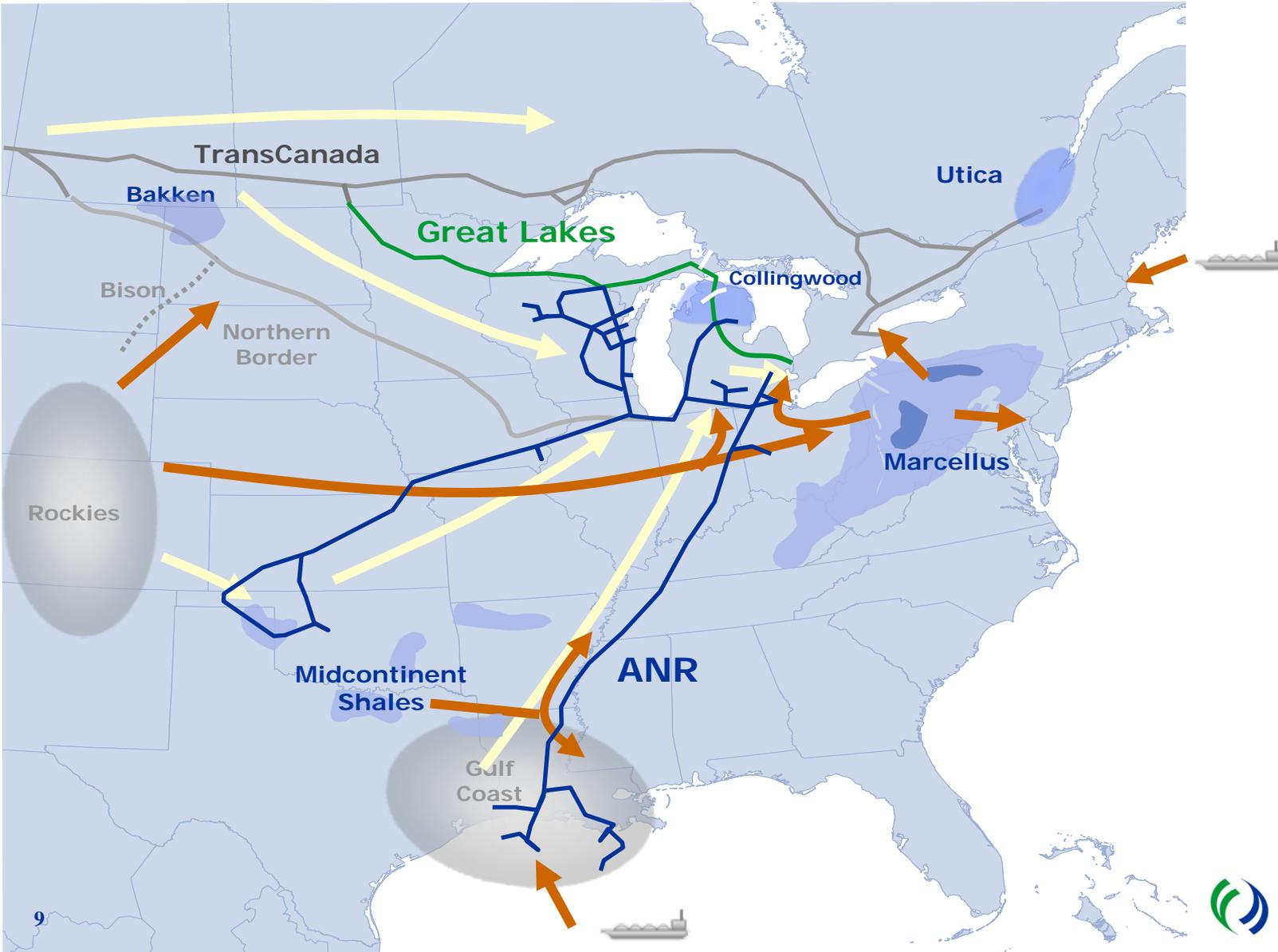
# TransCanada Well Positioned to access WCSB Shale & Northern Gas



TransCanada's WCSB Footprint



# Gas Supply Development Emerging Flow Trends



# TransCanada Response to OEB Topics



- **Opportunities for Ontario gas market participants**
- **Challenges for Ontario gas market participants**
- **Consideration of impacts of potential new natural gas infrastructure**
- **Further actions by the Board**

# Opportunities for Ontario Gas Market Participants



- **Many benefits to date as already discussed**
- **Opportunities for future supply diversity benefits**
  - WCSB shale gas (Montney/Horn River) - Access through Alberta System and Mainline
  - Northern Gas - Access through Alberta System and Mainline
  - Marcellus shale gas - Access through Mainline
  - Mid-continent shale gas and potential new shale supplies from Michigan - Access through ANR/GLGT
  - Eastern Canadian (Utica) shale gas – Potential access through Mainline

*WCSB continues to be important supply source for Ontario markets*

# WCSB Shale Gas Potential



## Ultimate Potential of the WCSB

	Cumulative Production TCF	Remaining Potential TCF	Ultimate Potential TCF
WCSB Conventional <sup>1</sup>	168	109	277
WCSB CBM <sup>1</sup>	1.0	55	56
Montney Shale Hybrid <sup>2</sup>	0.1	30 – 50	30 – 50
Horn River Shale <sup>2</sup>	negligible	40 – 100	40 – 100
<b>WCSB Total</b>	<b>169</b>	<b>234 – 314</b>	<b>403 – 483</b>

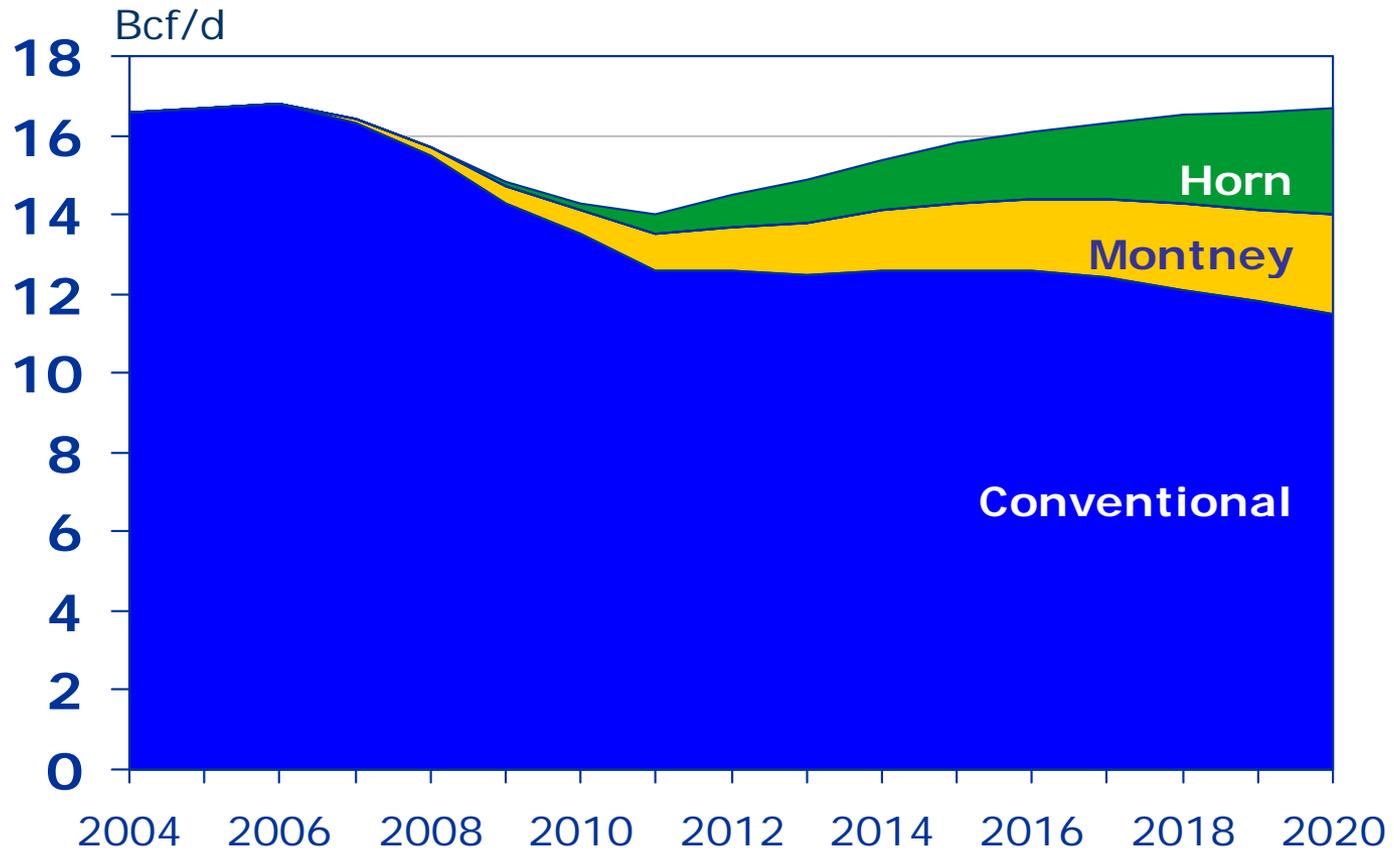
<sup>1</sup> Source: ERCB & Gas Potential Committee

<sup>2</sup> Source: TransCanada

## Key Characteristics of some Canadian and U.S. Shales

	Barnett	Haynesville	Marcellus	Horn River	Montney
Depth (ft.)	6,500 – 9,000	10,500 – 13,500	3,000 – 8,500	6,500 – 13,000	5,000 – 10,000
Thickness of Shale (ft.)	100 – 500	200 – 300	50 – 250	300 – 600	300 – 500
Total Organic Content (%)	3.0 – 7.0	3.0 – 5.0	3.0 – 12.0	3.0 – 10.0	2.5 – 6.0
Original Gas in Place (Bcf / Section)	50 – 200	150 – 250	50 – 150	130 – 320	60 – 150
Recovery Factor (%)	20 – 40	20 – 40	20 – 40	20 – 40	20 – 40
Est. Ultimate Recovery (Bcf / Well)	1.0 – 4.0	4.5 – 8.5	2.2 – 4.1	3.0 – 9.0	2.0 – 6.0

# Forecast of WCSB Supply



# Mainline Competitiveness Initiative



- **TransCanada to file NEB application with proposals to enhance Mainline's competitiveness**
- **Proposals intended to provide shippers with**
  - Toll reductions
  - Increased toll certainty/stability
  - New services

# Impacts of Potential New Infrastructure



- **The OEB has asked**
  - “If, as a result of new gas supply from the Marcellus, new or an expansion of Ontario natural gas pipelines under the jurisdiction of the OEB are proposed, should potential impacts on existing pipeline facilities in the market (in terms of Ontario customers) be considered?”
- **TransCanada’s answer is a definitive “Yes”**
  - The impact on existing pipeline facilities and the ability of existing infrastructure to serve Ontario gas demand need to be primary considerations of the Board in determining whether to approve new infrastructure.

# Impacts of Potential New Infrastructure



- **Reduced Mainline throughput means that captive Ontario gas consumers will face increased tolls on existing service**
  - Under cost-based toll regulation, falling throughput increases tolls
  - The costs and benefits of having supply optionality are not distributed equitably
    - Northern Ontario consumers pay costs while all of Ontario benefits
    - Power generators pay costs while electricity consumers benefit
- **It is in the public interest and is sound public policy to keep energy infrastructure costs for all Ontario customers as low as possible**

# Impacts of Potential New Infrastructure



- **Transition costs can be mitigated through the optimum use of existing infrastructure wherever possible to access new supplies**
  - Mitigates loss of billing determinants and lowers tolls
  - Keeps total Ontario infrastructure costs as low as possible
  - Eliminates risk of building underutilized new facilities
  - Eliminates environmental costs associated with new facilities
- **Considering the impact of new infrastructure on existing infrastructure is essential**
  - Potential transition costs must be determined
  - The cost of new infrastructure must also be considered
  - The total cost of Ontario infrastructure should be minimized

# Impacts of Potential New Infrastructure: Tolling/Cost Sensitivity to Reduced Long Haul



Path	500 TJ/d Reduction in Long Haul to CDA (toll increase in ¢/GJ)	500 TJ/d Reduction in Long Haul and 500 TJ/d Increase in Short Haul Niagara to CDA (toll increase in ¢/GJ)
Empress to Union CDA	30	28
Empress to Enbridge CDA	30	28
Empress to GMi EDA	30	28
Dawn to Enbridge CDA	3	3
Dawn to Enbridge EDA	7	7
Dawn to Union CDA	3	3
Dawn to Union EDA	6	5
Annual Revenue Impact on Ontario Customers	\$79 million	\$72 million

# Future Actions by The Board



- **TransCanada suggests that the Board's focus should be broader than the three possible pipeline related policy suggestions in the ICF report**
  - Maintain benefits enabled by access to a wide variety of gas supplies
  - Ensure access to Canadian supplies
  - Maximize use of existing infrastructure where appropriate
  - Balance cost/benefit to all consumers of both new supply access and existing pipelines serving Ontario
  - Harmonize policy with other regulators when appropriate
  - The Board may need to address the allocation, collection and possible amortization of the costs of transition to the evolving market to ensure equitable treatment for all Ontario market participants