

# Canadian Mainline Overview A Significant Consideration

Process for Review of Gas Supply, Storage  
and Transportation Arrangements  
Technical Conference  
July 8, 2011

# Presentation Agenda

- Overview of TCPL's Canadian Mainline
- History of Mainline Settlements
- Extent of the Problem
- Review of Factors Influencing Mainline Tolls/Competitiveness
- Synopsis of Recent TCPL and Stakeholder Activity
- Status Update of NEB Regulatory Process
- Impact on Centra's Portfolio Review

**TransCanada**  
In business to deliver

**Canadian Mainline Sales and Marketing 2011**

Map of Canada and the United States showing the TransCanada Canadian Mainline pipeline system and its various delivery areas. The map includes labels for major cities, rivers, and international borders. The pipeline system is color-coded to represent different delivery areas and regions.

**Delivery Areas and Regions:**

- TransGas SSMDA
- Centra Gas SSMDA
- Centra MDA
- Union Gas WDA
- Nipigon WDA
- Union Gas NDA
- Tunis Power NDA
- GazMetro NDA
- Union EDA
- Enbridge EDA
- GMI EDA
- Union NCDA
- Enbridge CDA
- Union CDA
- Enbridge SWDA (Dawn)
- Union SWDA (Dawn)

**Map Legend:**

- TransCanada Canadian Mainline
- TransCanada

**Disclaimer:** Please note that this map shows a high level representation of the geographic locations of the distributor delivery areas and export points. For specific details, please refer to TransCanada's Receipt and Delivery points list that is in the mainline tariff or contact your mainline sales representative.

**Map Information:** MAP IS REPRESENTATIVE NOT TO SCALE  
Can\_ML\_Sales\_Mkt\_Tariff Pt 10 - Apr 28, 2011 - Wills - TC Mapping

## History of Mainline Settlements

- **1972-95:** tolls established through an annual toll hearing process
- **1996-99:** start of negotiated settlements
- **2001/02:** Order RH-4-2001 issued by the NEB re: Mainline Service and Pricing. ATWACC and ROE reviewed, along with comprehensive discussion of how the Mainline could best operate going forward.
- **2004:** Order RH-2-2004 issued by the NEB establishing a two-phase oral public hearing to consider the 2004 Tolls Application. Phase I considered all issues raised by the 2004 Tolls application with the exception of cost of capital; Phase II considered cost of capital issues.
- **January 1, 2007:** Effective date of the current five year settlement. The settlement defines how the Net Revenue Requirement will be determined annually during the term.
- **December 31, 2011:** Current settlement expires

**TCPL and stakeholders have not been able to arrive at a settlement for 2012 and beyond**

## Extent of the Problem

- Since 2006, ML long-haul contracted volumes have **decreased by approximately 70%**
- In 2011, the 100% Load Factor Firm Transport (FT) toll calculated using the current ML settlement is \$2.45/GJ EZT
- The result is a **162% increase** in the ML's benchmark toll to the Eastern Zone (EZT), from \$0.94/GJ in 2006 to \$2.45/GJ in 2011

## Extent of the Problem

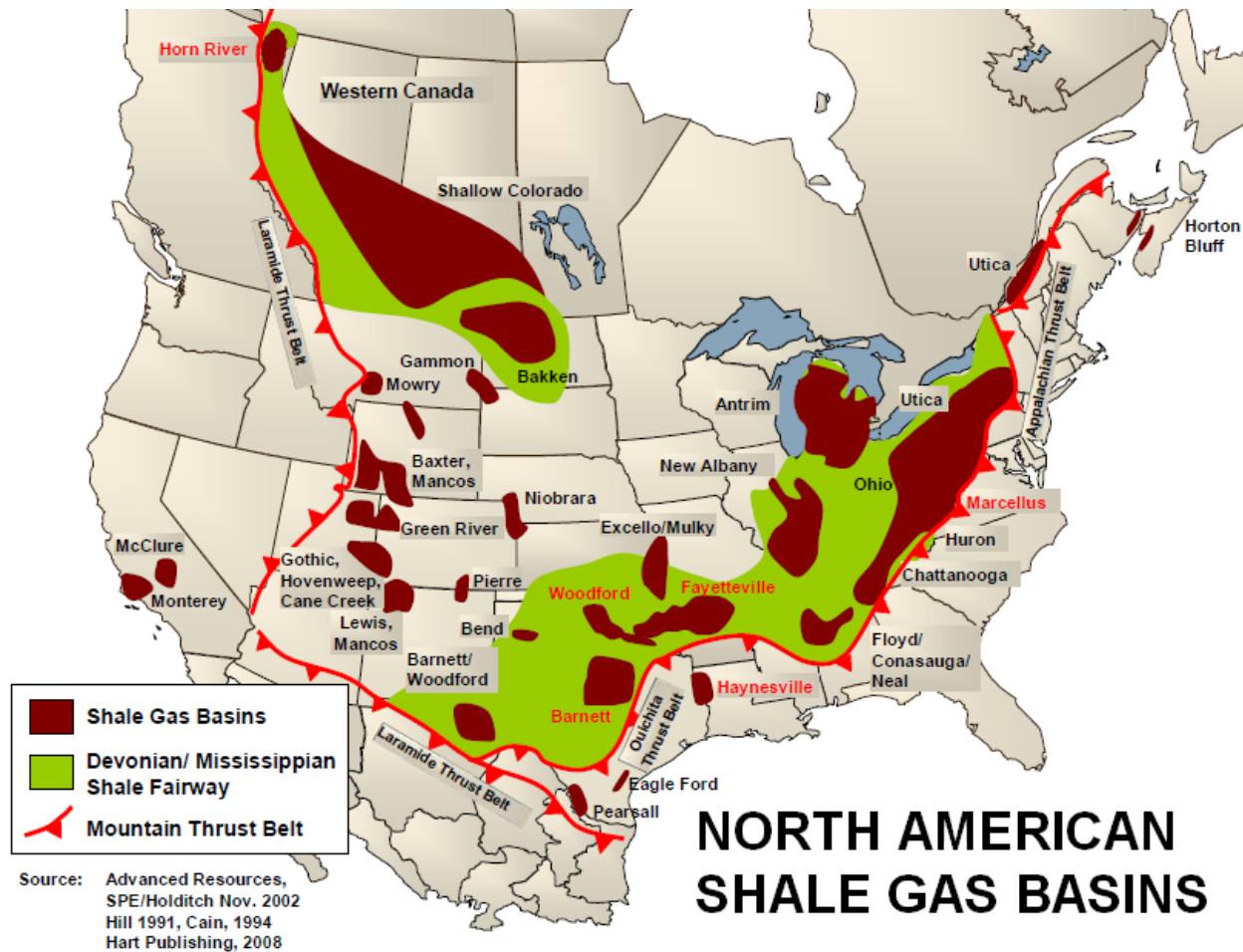
### Illustrative vs. Actual tolls for the 2007-2011 Mainline Settlement

	<b>Illustrative Empress to Eastern Zone \$/GJ</b>	<b>Actual Empress to Eastern Zone \$/GJ</b>	<b>Actual Empress to Manitoba Zone \$/GJ</b>
Proposed Test Year 2007	\$1.02	\$1.03	\$.32
Test Year 2008	\$1.02	\$1.40	\$.44
Test Year 2009	\$1.03	\$1.19	\$.37
Test Year 2010	\$1.04	\$1.64	\$.49
Test Year 2011	\$1.06	\$2.24	\$.69

# Factors Influencing Mainline Tolls/Competitiveness

- Declines in Western Canadian Sedimentary Basin (WCSB) production
- New sources of supply closer to market centers in Eastern Canada and the Northeast USA (e.g., Marcellus)
- Development of new pipeline infrastructure in response to the development of new sources of supply, and reconfiguration of existing infrastructure
- Increased gas demand in Alberta (oil sands requirements)
- Uncertainty of extent of BC shale production (Montney vs. Horn River), timing and pace, and path (east to Kitimat as LNG, west onto the Alberta System, or both)
- A shift in contracting practices on the ML away from Firm Transport (FT) toward Interruptible Transport (IT) and Short-Term Firm Transport (STFT) services
- A shift from long-haul contracts to use of short-haul paths

# North American Shale Gas Basins





## Synopsis of Recent TCPL and Stakeholder Activity

- **2009:** Mainline Advisory Council (MAC) formed of TCPL and stakeholder senior management (Centra participation)
- **March 2010:** TCPL proposed the Mainline Competitiveness Agreement. Broad stakeholder agreement could not be achieved. No application to the NEB filed for approval of this proposal
- **November 2010:** TCPL presented the 2011-2013 Settlement Proposal
- **December 6, 2010:** 2011-2013 Settlement Proposal opposed by a broad range of stakeholders
- **December 9, 2010:** TCPL filed Application for Mainline Interim 2011 Tolls based on the opposed 2011-2013 Settlement Proposal
- **December 23, 2010:** The NEB did not approve TCPL's application, and under Order TGI-04-2010 set the Mainline Interim 2011 Toll at the 2010 toll level of \$1.64/GJ EZT

## Synopsis of Recent TCPL and Stakeholder Activity (cont'd)

- **January 25, 2011:** TCPL filed an Application for Revised Mainline Interim 2011 Tolls
- **January 27, 2011:** NEB issued a letter soliciting comments from Stakeholders re: TCPL Revised Mainline Interim 2011 Tolls Application
- **February 2, 2011:** Centra filed a letter opposing TCPL's Application
- **February 4, 2011:** Centra met with NEB staffers in Calgary to discuss operational issues, portfolio review, and the impact of volatile and uncompetitive tolls on Centra and its ratepayers
- **February 24, 2011:** The NEB approved TCPL's Application for Revised Mainline Interim 2011 Tolls at the level of \$2.24/GJ EZT but indicated that TCPL was to file an Application for Final Mainline 2011 Tolls by May 2, 2011
- **March 2011:** TCPL and stakeholders continued discussions; TCPL updated its 2011-2013 Settlement Proposal
- **April 15, 2011:** Updated 2011-2013 Settlement Proposal opposed by a broad (but different) range of stakeholders

## Synopsis of Recent TCPL and Stakeholder Activity (cont'd)

- **April 29, 2011:** TCPL filed Application for Final Mainline 2011 Tolls. TCPL requested NEB approval of the annualized ML final tolls for 2011 to be set in accordance with the 2007-2011 ML Settlement at \$2.45/GJ EZT. TCPL indicated it would file an application for 2012 and beyond containing a comprehensive suite of business model, toll design and service changes by October 31, 2011
- **May 5, 2011:** The NEB solicited comments from stakeholders re: TCPL application
- **May 16, 2011:** Centra filed a letter with the NEB stressing the urgency in resolving the long- and short-term settlement issues
- **June 17, 2011:** The NEB indicated that the Mainline 2011 Interim Toll will continue at \$2.24/GJ EZT, but has ordered TCPL to clarify the manner in which it proposes, “to carry forward for inclusion in the 2012 revenue requirement the difference between the annualized Mainline Final 2011 Tolls and the tolls charged in 2011.”

## Status Update of NEB Regulatory Process

- **July 15, 2011:** Stakeholder comments are due
- **July 29, 2011:** TCPL's reply to comments are due
- **August 31, 2011:** Date by which NEB decision on Mainline Final 2011 Tolls is expected (but not certain)
- **September 1, 2011:** Date by which TCPL was directed by the NEB to file its 2012-2013 Mainline Tolls Application including a comprehensive suite of business model, toll design and service changes

**As required, the NEB intends to hold a public hearing to consider TCPL's 2012-2013 Application in Q1 of 2012. A decision would be expected in Q2 of 2012.**

# Impact on Centra's Portfolio Review

- Significant uncertainty
  - Vast range of potential outcomes
  - A complex situation with many interests at play
- 
- Adaptation in the short-term
  - Flexibility in the mid-term
  - Yet to be determined for the long-term

# Centra Portfolio Options

Process for Review of Gas Supply, Storage  
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# U.S. Contracts Expire 2013

- Centra's portfolio of storage and transportation contracts with ANR and GLGT expire March 31, 2013.
- Provides the opportunity to review:
  - Storage
  - Transportation
  - Commodity acquisition

# What does it mean?

- Very long-term contracts (e.g. 20 years) unlikely
- May or may not be significant portfolio changes
- “Interim” portfolio due to TCPL uncertainty?
- Centra will implement a portfolio that represents good value for ratepayers



# What stage are we at?

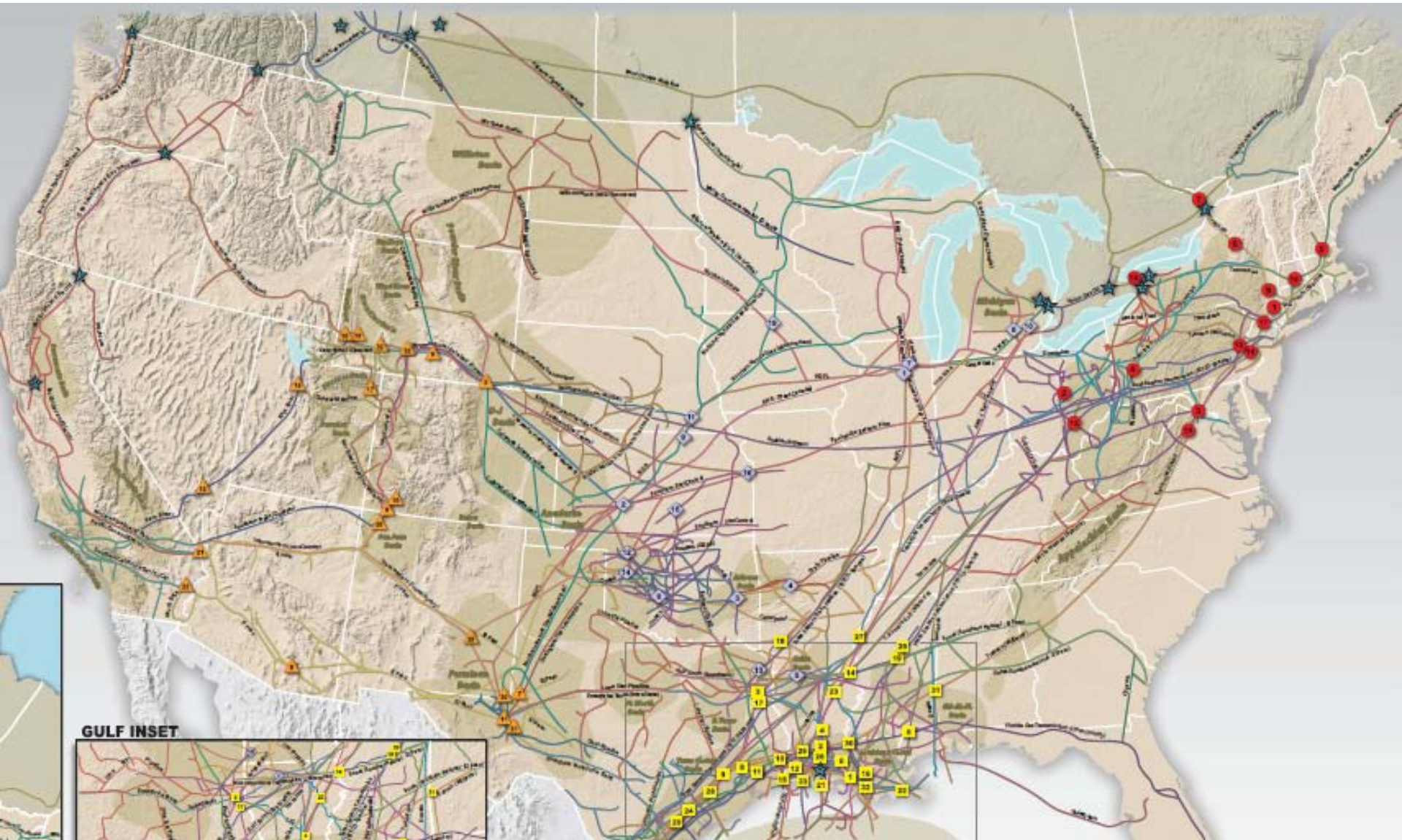
- Made inquiries and held discussions with numerous parties
  - Storage operators, pipelines, marketers
- Continue to hold discussions with a number of parties
- Consulting with stakeholders
- Centra's economic and operational analysis will be derived from its discussions with other parties and stakeholder input

# Stakeholder Consultation

- Discuss the broad range of options being considered at a conceptual level
- If we've missed something – please tell us
- Information requests
- Stakeholder submissions
  - Views
  - Concerns
  - Other options

# Market Conditions

- Shale gas has significantly impacted the market, with resulting uncertainty regarding:
  - Supply/demand balance
  - Pipeline flows – continental to local
  - Basis differentials
- TCPL toll, toll structure, business model uncertainty



# Approach to Building a Portfolio

- Consider a broad range of options
- Recognize uncertainty
  - TCPL
  - Shale gas
- Have flexibility while maintaining reliability
- Upon reviewing options and considering stakeholder input, select a portfolio design

# Supply Approaches:

## Supply Basins vs Market Centres

- Contract for pipeline capacity back to supply basins that feed market centres?
- Minimize pipeline capacity and buy gas at market centres?
- Considerations:
  - Liquidity: volume, counterparties, price stability
  - Reliability
  - Variability in supply requirements

# Practical Considerations

- Some pipelines will not sell transportation capacity more than 11 or 12 months in advance
- Some pipelines only want to sell annual transportation, rather than seasonal
- Some pipeline and storage capacity is sold out
  - Expansions may not be feasible
  - If feasible, may require long-term commitments

# WCSB Supply and Transportation Options



# TCPL Mainline

- Shortest, most direct path to Manitoba from closest major supply basin
  - Highly liquid AECO hub
- Centra receives gas from approx. 25 meter stations on TCPL
- All natural gas received onto Centra's distribution system is physically delivered by TCPL

# Northern Border Pipeline

- Transports gas to Chicago area
  - WCSB gas from Foothills Saskatchewan
  - Rockies gas from Bison pipeline
  - Bakken Shale receipts
- Multiple pipelines required to route Northern Border gas to Manitoba
- Interconnects with pipelines connected to Michigan and Ontario storage

# Northern Border Pipeline



# Alliance Pipeline

- Transports liquids-rich WCSB gas to Chicago area for extraction
- Bakken Shale receipts
- Low renewal rate on contracts
- Contemplating short-haul transportation services
- Potential partial transport alternative if Alliance interconnects with TCPL near Regina
- New construction currently difficult to evaluate
  - Uncertainty on both TCPL and Alliance

# Alliance Pipeline



# TransGas

- Subsidiary of SaskEnergy
- TransGas Energy Pool – TEP
- Saskatchewan has become a net importer of natural gas
- Provides firm long-term and short-term transportation services
- Not directly connected to Centra

# Manitoba Associated Gas

- Oil production growing in Manitoba
  - 5.1 million bbl in 2005; 11.6 million bbl in 2010
- Associated gas volumes growing
  - Estimated at 1.4 Bcf in 2010 including non-methane gases
- Challenges: limited, dispersed volumes and lack of gathering & processing infrastructure

# Manitoba Shale Gas Potential

- Large shale beds in Manitoba
- Manitoba Geological Survey: conducting research on characteristics of shale formations in Manitoba
- Can shale gas in Manitoba be produced economically?

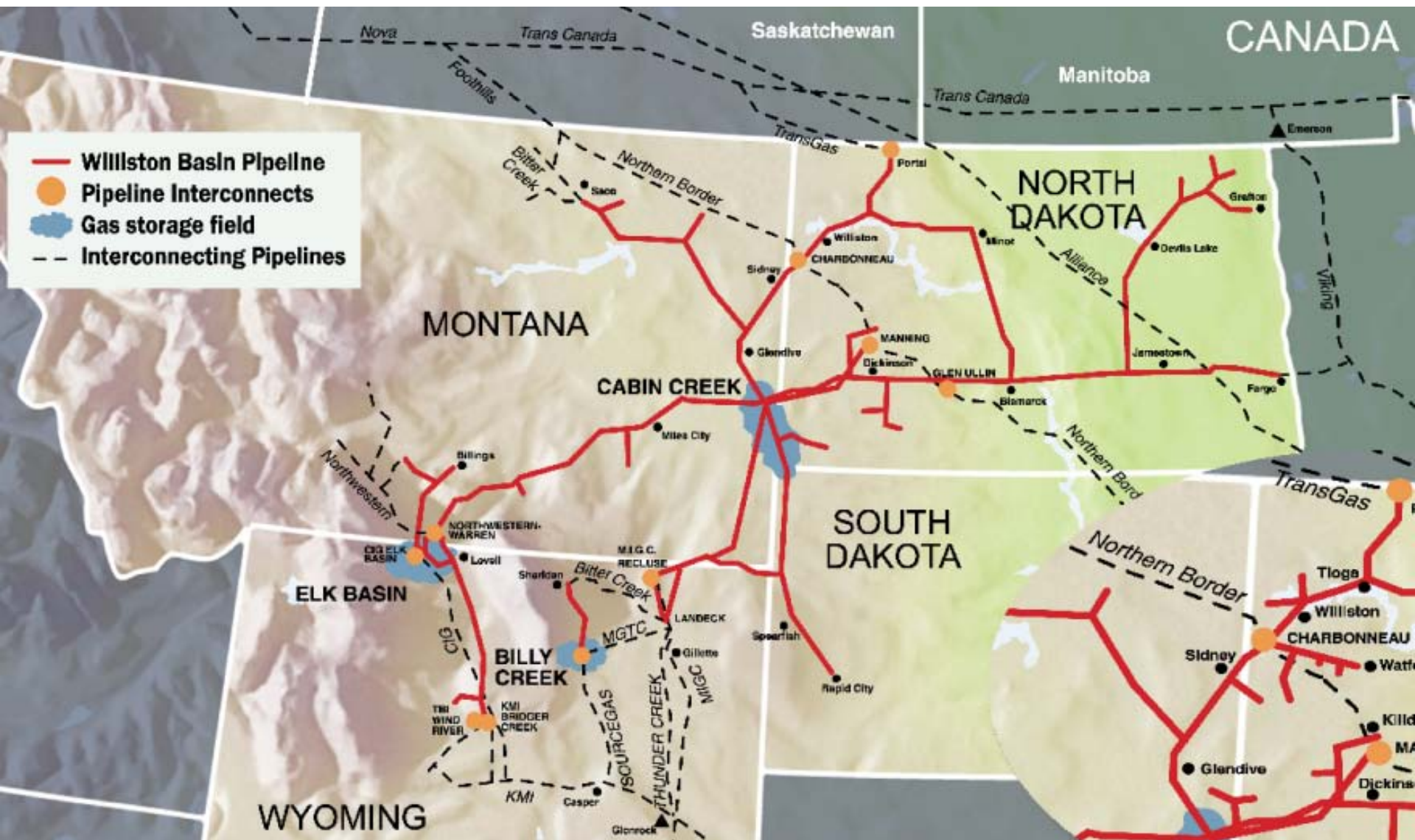


# Rocky Mountain Supply and Transportation Options

# Williston Basin Interstate Pipeline

- Connected to Wyoming supply
- Bakken Shale receipts
- Largely serves area LDC requirements
- Constrained east of Bismarck
- Small interconnect with TransGas
  - Potential exports of US gas

# Williston Basin Interstate Pipeline



# Bison Pipeline

- Transports Wyoming supply to interconnect with Northern Border in North Dakota
- In service January 2011
- Extension to Emerson?
  - Cost and resulting rates
  - Initial contract term
  - Shipper interest

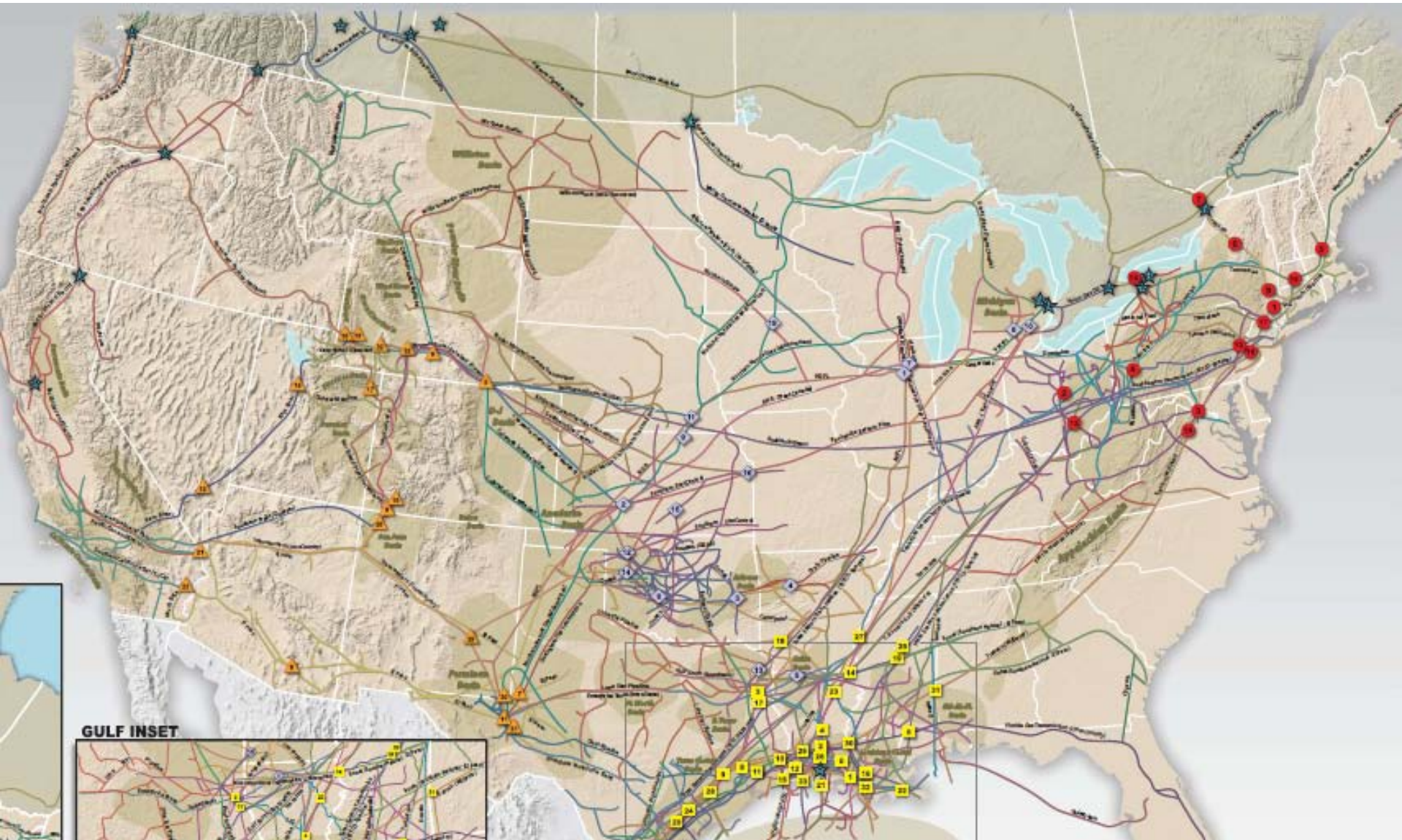
# Bison Pipeline



# Mid-Continent and Gulf Coast Supply and Upper Midwest Market Centres

- Many pipelines from these supply regions transport gas to the high-consumption regions (US Upper Midwest and Northeast)
  - E.g. ANR SW (Oklahoma), ANR SE (Louisiana)
- These pipelines provide supply to major Upper Midwest market centres such as Chicago, MichCon, and Dawn.



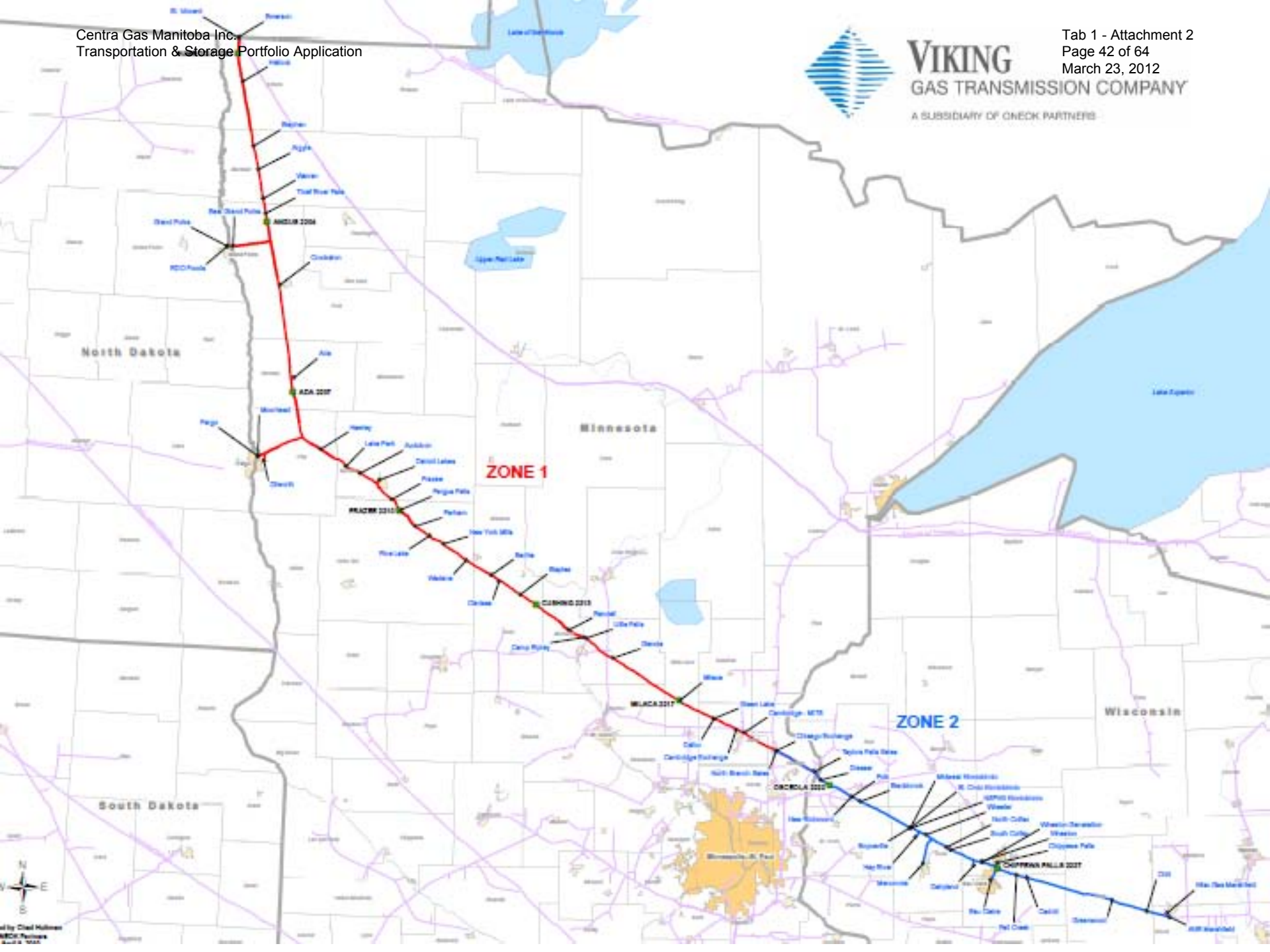


# Upper Midwest Transportation Options



# Viking Gas Transmission

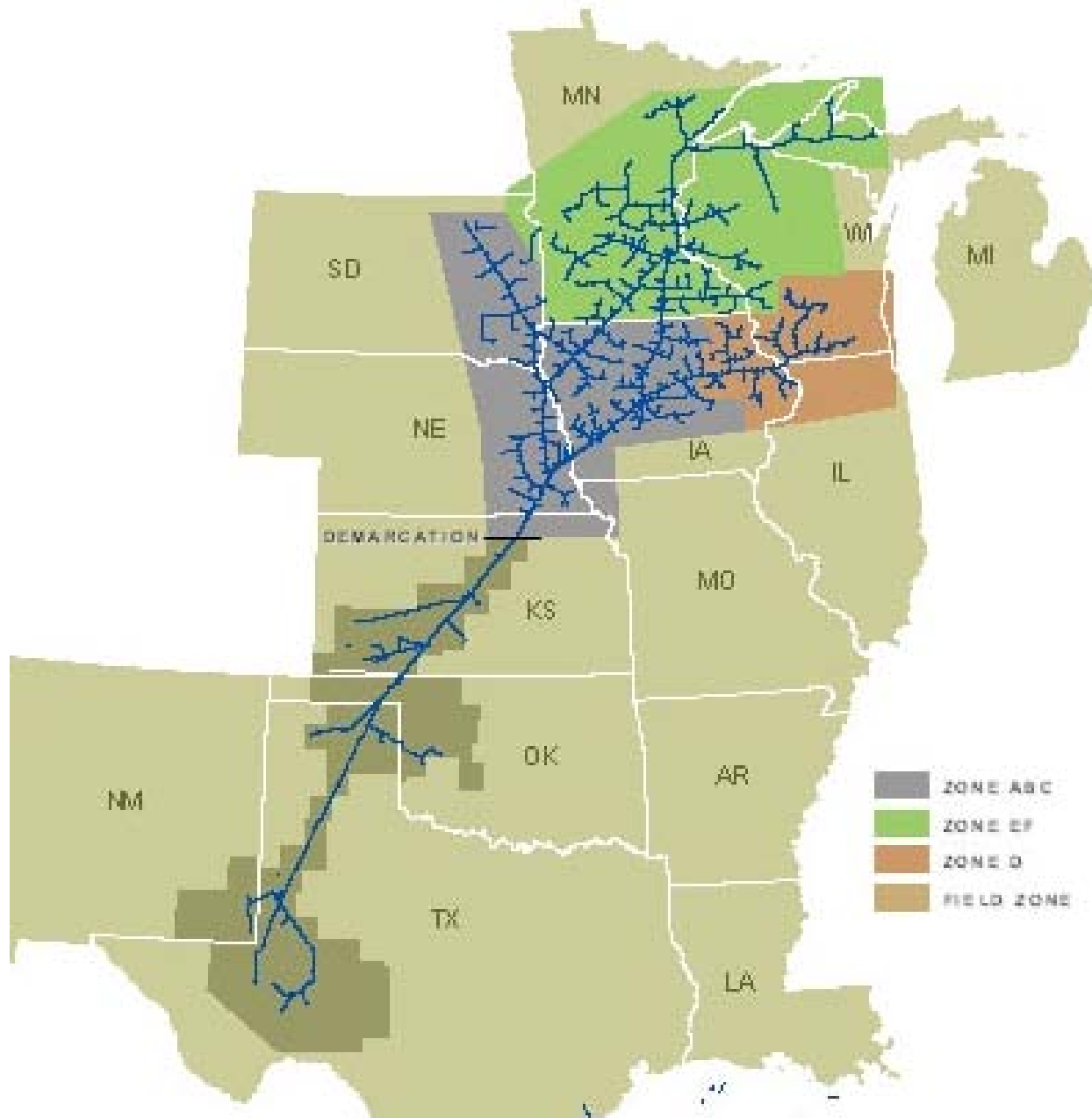
- Transports gas from Emerson to Minnesota and Wisconsin
- Largely serves area LDC requirements
- Notional backhauls (by displacement)
- How firm is a “firm” backhaul?
- Interconnected with Northern Natural near Twin Cities



# Northern Natural Gas Pipeline

- Major U.S. pipeline ranging from Texas to northern states
- Ventura hub at interconnect with Northern Border in Iowa
- Interconnected with Viking and GLGT

# Northern Natural Gas Pipeline



# Great Lakes Gas Transmission

- Provides access to Upper Midwest market centres and Michigan-area storage via backhaul to Emerson
- Impact of TCPL on GLGT
  - Emerson receipts
  - Major shipper on GLGT
- Upcoming GLGT rate case
  - To be filed by November 1, 2013

# Natural Gas Storage

# Storage Considerations

- Capacity, deliverability, seasonality, cyclability
- Transportation of storage gas
  - In: upstream transport vs buying gas at storage
  - Out: late night nominations for load balancing?
- Term of contract

# Storage Options

- Alberta
- Saskatchewan
- Manitoba
- Williston Basin
- Northern Natural Gas Pipeline
- Michigan
- Ontario
- Virtual
- None



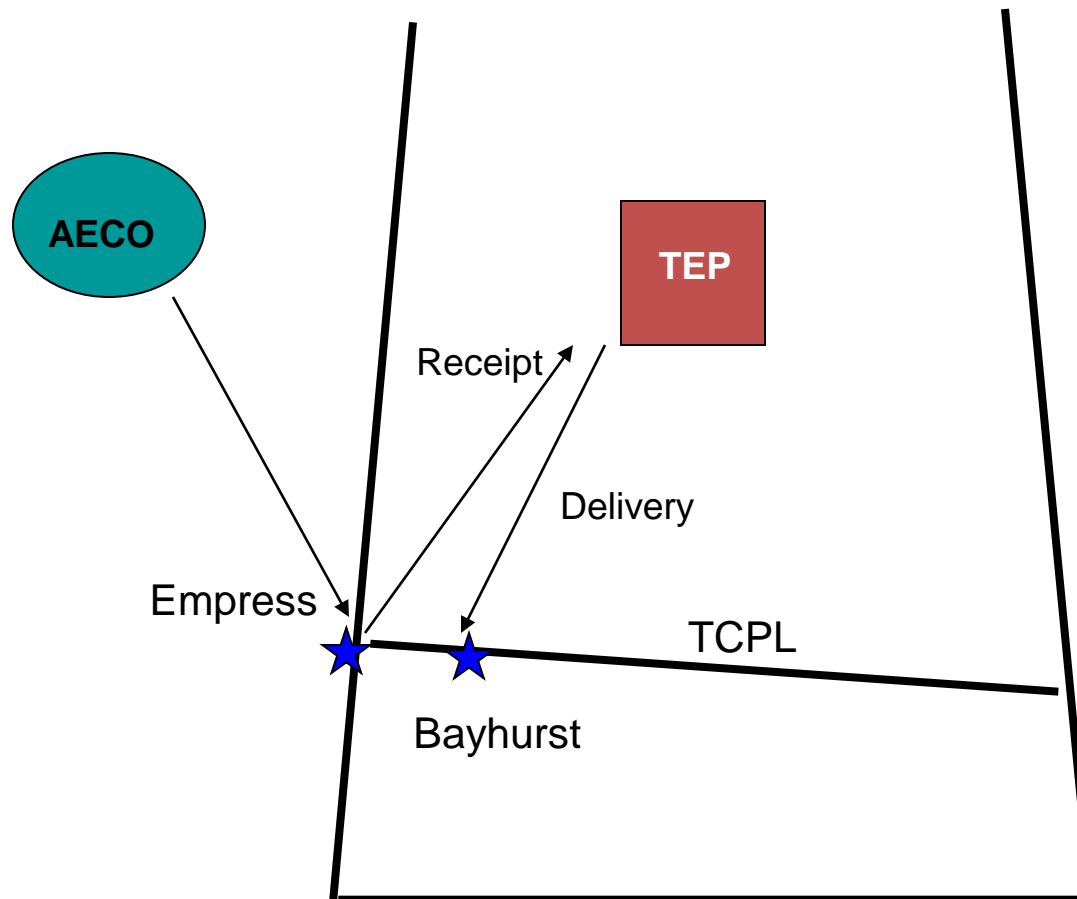
# Alberta Storage

- Significant storage capacity exists in Alberta
- Market-based rates
- Located physically or notionally at AECO
- Would significantly increase winter transportation requirements on the TCPL Mainline and the Alberta System

# Saskatchewan Storage

- Injections through TEP purchases, or deliveries to TransGas at Empress
- Withdrawals at Bayhurst
- TCPL capacity required from Bayhurst to Manitoba for withdrawals

# TransGas Storage Model



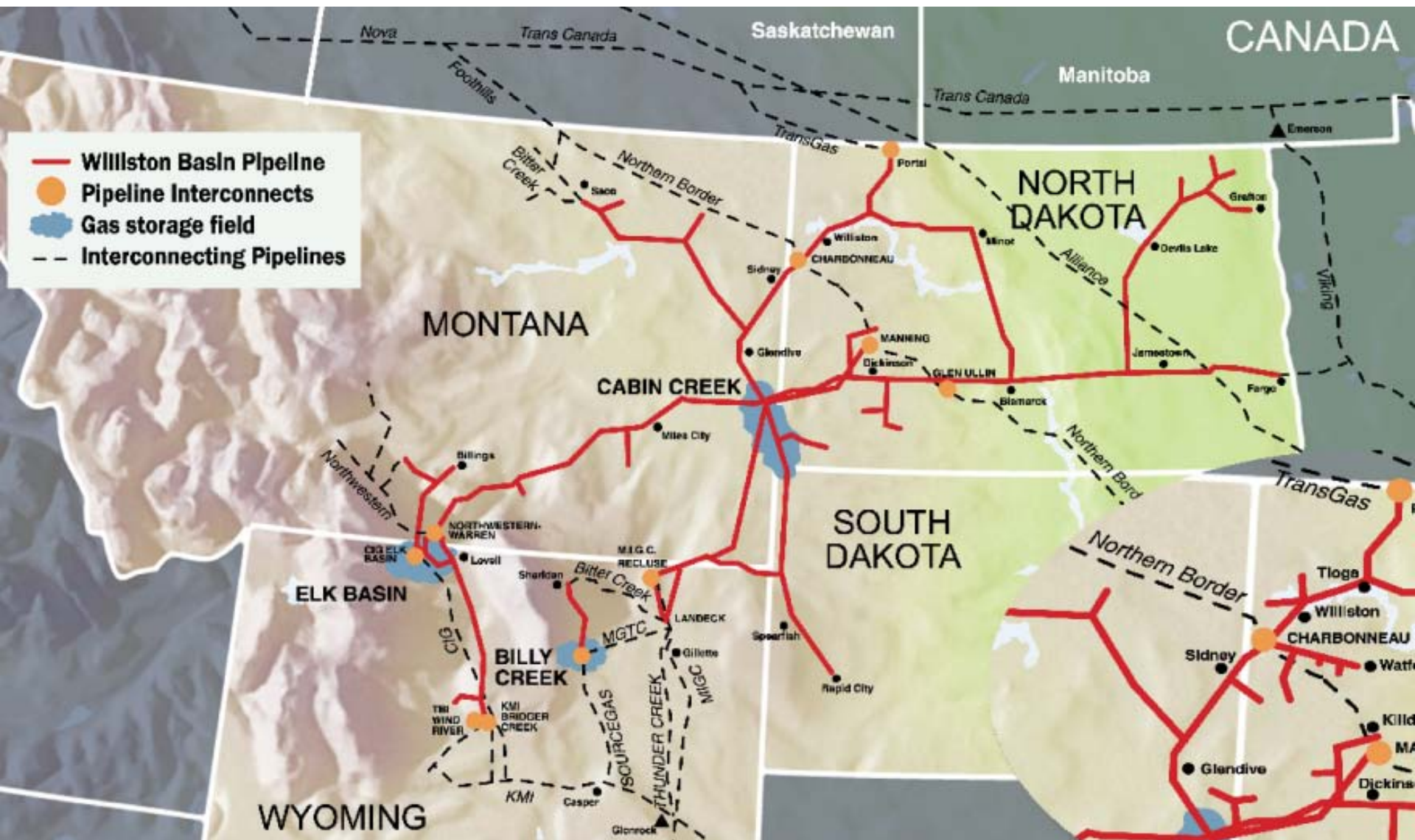
# Manitoba Storage

- Potential benefits:
  - Increased operational flexibility to manage load swings
  - Reduced TCPL capacity requirements
  - Reduction or elimination of US storage & transportation
  - Reduced exposure to market uncertainty
- Potential risks and uncertainties
  - Geological uncertainty
  - Timeframe and costs to secure development rights
  - Single facility reliance
- Development of Manitoba storage would extend a number of years beyond 2013

# Williston Basin Interstate Pipeline Storage

- Large capacity, but low deliverability
- Access to Wyoming gas for injections
- Transportation capacity for withdrawals likely cumbersome

# Williston Basin Interstate Pipeline



# Northern Natural Gas Pipeline Storage

- Operates 59 Bcf of storage
  - 53 Bcf cost of service rates
  - 6 Bcf market-based rates
- Injections of gas purchased at Ventura
- Withdrawals would require backhaul to Emerson from interconnects with Viking or GLGT

# ANR Pipeline Storage

- Major Michigan storage operator
- Tariff-based rates and services
- Potential modifications to current service attributes:
  - Deliverability, seasonality
- Potential upstream transportation modifications



# DTE / MichCon Storage

- Major Michigan storage operators
- Market-based rates and services
- Interconnects with several Michigan-area pipelines
- MichCon storage could be filled using interconnecting pipelines or buying at the MichCon hub

# Bluewater Gas Storage

- 29 Bcf storage capacity in Michigan
- Market-based rates
- Interconnects with several Michigan-area pipelines

# Ontario Storage

- Significant storage capacity located at Dawn hub
- Available at market rates
- Injections achievable through Dawn purchases
- Withdrawals potentially achievable through TCPL or GLGT backhauls

# Virtual Storage

- Marketers may be able to provide a “virtual” storage service that mimics a physical storage and transportation service
- The potential value of the service must be assessed against the risks

# No Storage

- Significant increase in TCPL transportation capacity would be required
  - Cost uncertainty
- TCPL balancing fees likely to increase with loss of late night STS nomination cycle
- Would require increased reliance on swing services and/or daily open market purchases

# WTS Considerations

- Western Transportation Service was introduced in 2000 to enable end-use customers to purchase supplies from third parties.
- If the results of Centra's portfolio review indicate that a greater diversification of supply basins, or purchasing the majority of its supply from a basin other than the Western Canadian Sedimentary Basin is desirable, this could require changes to the nature and structure of how third-party natural gas marketers serve customers' commodity requirements in the Manitoba market under the WTS.

# Next Steps

- Information request process related to the discussion paper and today's technical conference
- Stakeholder submissions
- Centra to consider feedback received today and upcoming stakeholder submissions in developing its preferred portfolio design and formulating its application

# Thank you