

TransCanada Mainline N.E. Sales & Service Update Meeting



#### Agenda





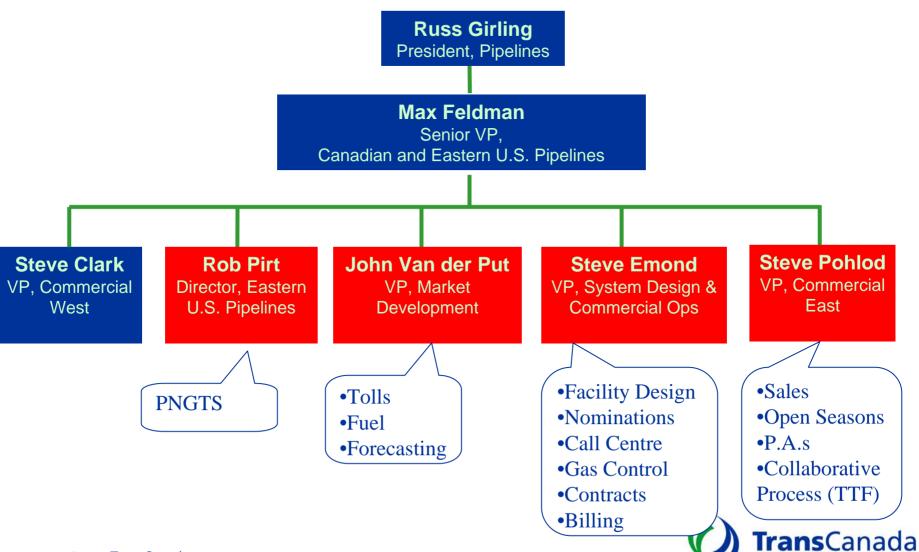
- About TransCanada
- Access to Supply and Markets
- How to Get Capacity
- Operations Update
- Future Continuous Improvement
- Q&A



### Canadian & Eastern U.S. Pipelines Leadership



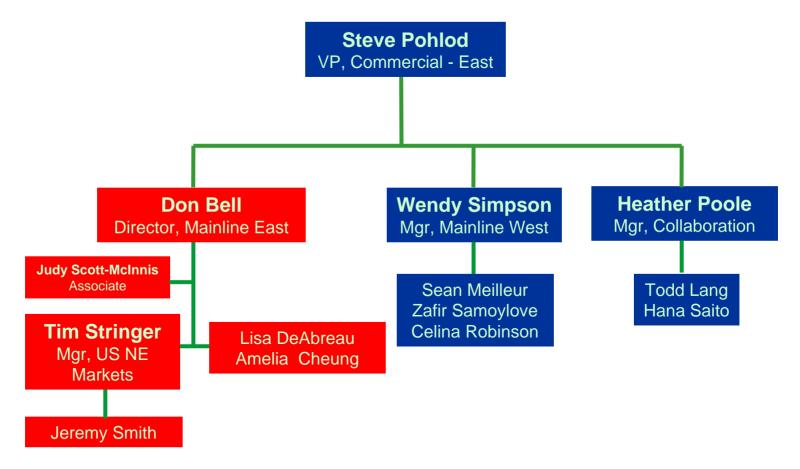




### Canadian Pipelines Commercial - East





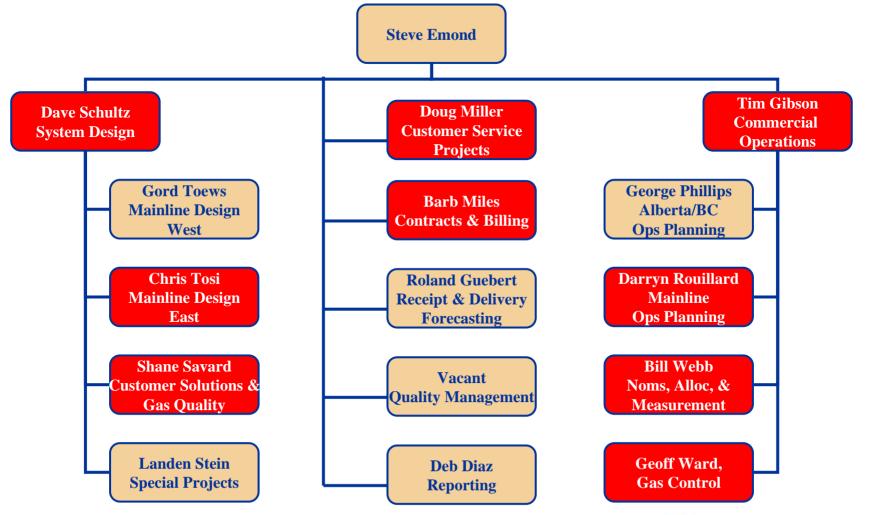




### System Design & Commercial Operations











**About TransCanada** 



## **Existing Pipelines Proposed Pipelines Gas Storage Facilities** Alberta System Portland -Foothills/BC **Canadian Mainline** TQM, **Great Lakes** GTN Northern Border Iroquois Tuscarora ANR North Baja Tamazunchale

#### **Pipeline Assets**

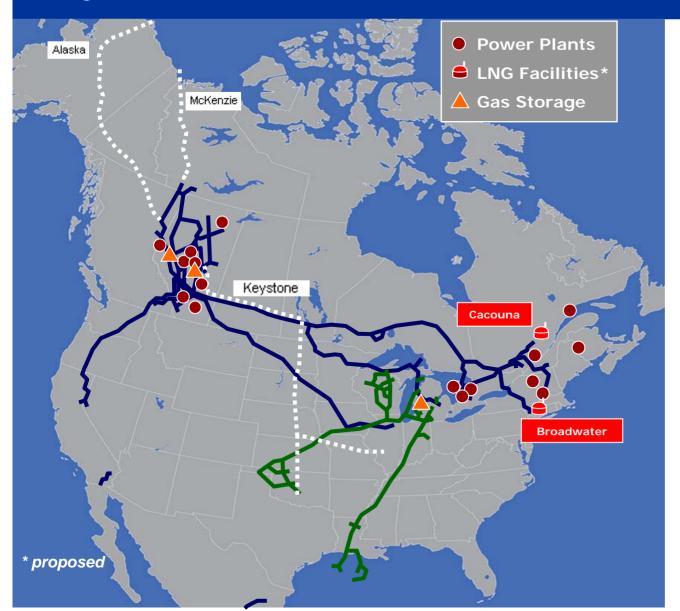
- 59,000 km (36,500 mi) of wholly owned pipeline
- Interests in an additional 7,800 km (4,800 mi) of pipeline
- TransCanada connects to both traditional and emerging basins and delivers to growing North American markets
- Average daily volume of approximately 15 Bcf



#### **Projects and Other Assets**







- Northern Gas (Alaska and McKenzie) is key
- 2,969 km of proposed oil pipeline, capable of transporting 435,000 barrels per day
- 16 power facilities with 7,700 megawatts of power generation
- two proposed liquefied natural gas facilities
  - 1.5 Bcf/d
- significant gas storage capacity in Canada and the United States.
  - 360 Bcf



### 2006 Statistics - Based on \$8.50/Dth Gas Price

	Mainline	Alberta	вс	Foothills	PNGTS	Totals
# Customers	377	284	55	32	32	780
#Contracts	640	25,097	240	99	120	26,196
Average Daily Flow (Million Dth/day)	5.2	10.4	1.7	1.9	.2	19.4
Nominations/Month	59,000	26,000	7,273	3,400	1,500	97,173
Annual Invoiced Amount (\$Millions)	\$2,050	\$1,117	\$71	\$173	\$52	\$3,463
Daily Value of Gas Delivered (\$Millions)	\$44.2	\$88.4	\$14,5	\$16,2	\$1.7	\$165
Daily Transaction Value (\$Millions)						\$800

**Trans**Canada



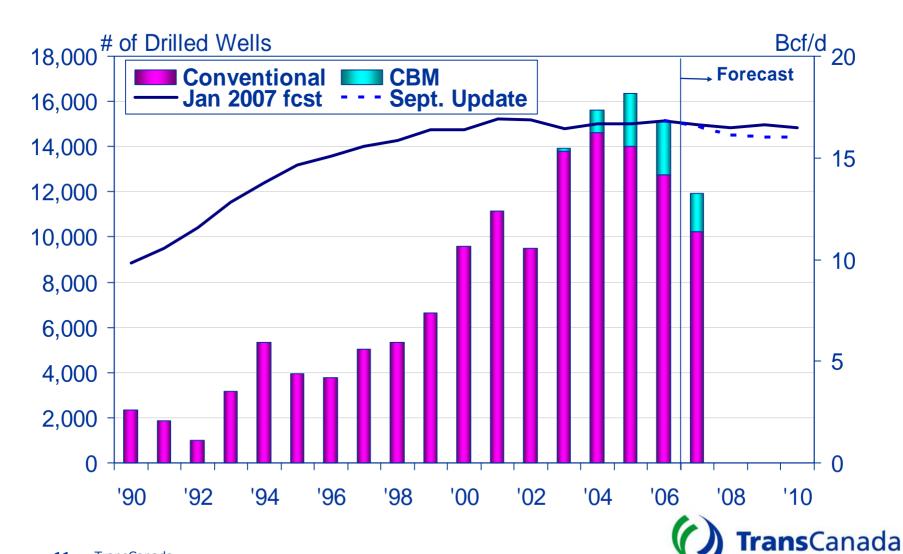
Western Canadian
Supply / Demand Outlook



#### WCSB Gas Well / Production Forecast





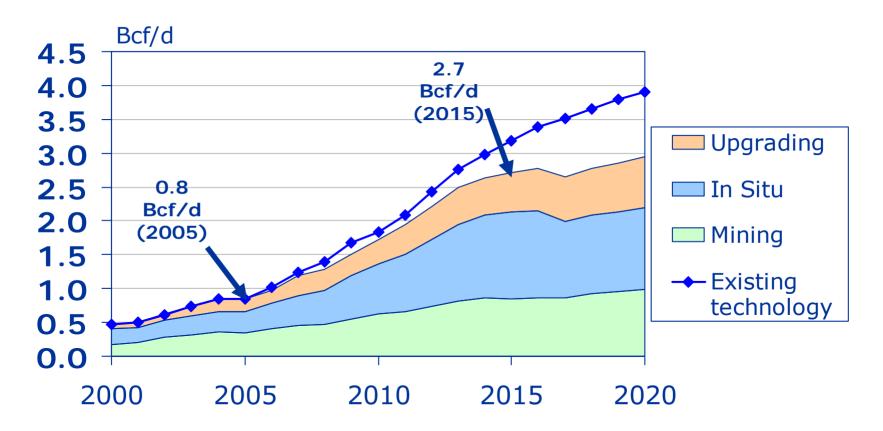


#### Oil Sands Plus Off-Site Upgrading Demand





ans Canada



 Total Oil Sands demand including upgrading is forecast to increase by 1.9 Bcf/d by 2015, slowing with technology change

## Western Canada Supply / Demand (Bcf/d)



	2007	2008	Change
	Estimate	Forecast	
WCSB Supply	16.41	16.13	-0.28
Net Storage Draw	0.06	0.02	-0.04
Net Supply	16.47	16.14	-0.33
WC Demand	4.58	4.69	+0.11
Exports	11.90	11.45	-0.45
Mainline	5.81	5.51	-0.30
Northern Border	1.89	1.89	0
GTN	1.93	1.76	-0.17
Alliance	1.65	1.67	+0.02
Northwest Pipeline	0.65	0.65	0



## Eastern Canada Deliveries (Bcfd)



	2007 Estimate	2008 Forecast	Change
Northern Ontario Line	3.08	2.78	-0.29
Ont/Que Market	1.75	1.81	+0.06
NE Export Deliveries	2.34	2.29	-0.05
Kirkwall Receipts	1.12	1.15	+0.03
Parkway Receipts	0.02	0.28	+0.26

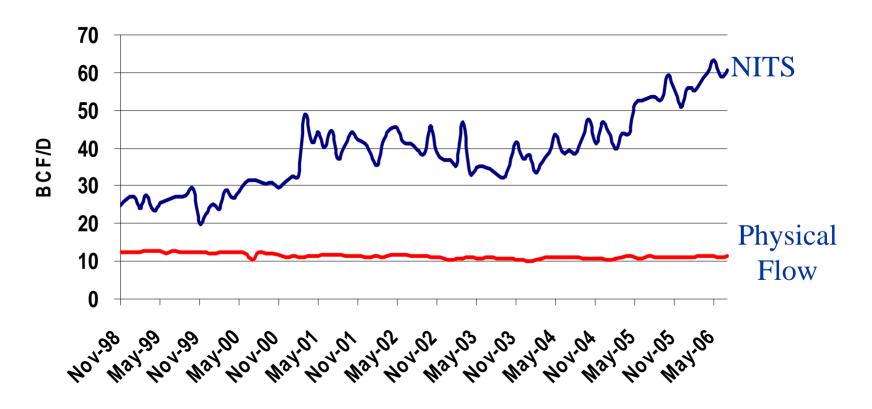


#### Alberta NIT Hub



**Frans**Canada



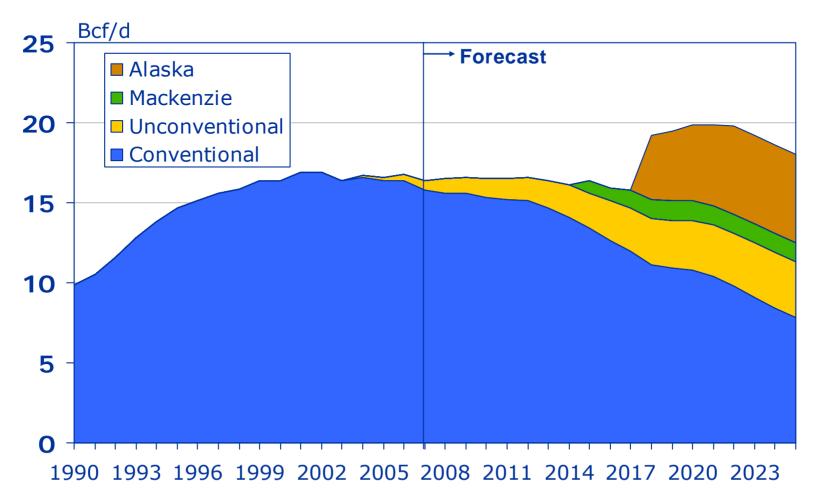


- Alberta liquidity continues to grow
- NIT ("NOVA Inventory Transfer") Hub is the most liquid gas market in North America

### **Total WCSB Gas Supply**









## Western Canadian Supply/Demand - Summary



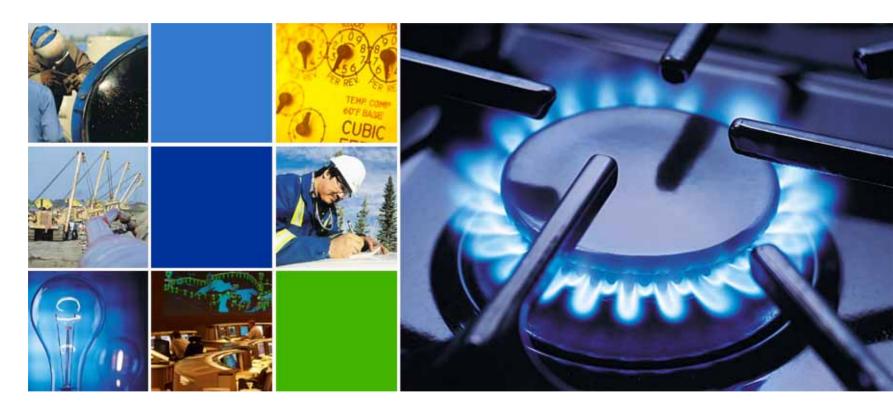


- Supply has leveled off
- Market Growth in Alberta



- Alberta still attractive supply source
  - > 11 Bcfd supply available for export
  - 3.5 Bcfd storage deliverability
  - Highly liquid NIT Hub
- Long term potential
  - Drilling and supply will react to price & cost signals
  - Mackenzie and Alaska supply





Access to Supply, Storage & Hubs



#### **Meeting Your Needs**





- Ongoing Initiatives
  - Build to meet market growth
  - Access to other supply (REX, MidWest, Dawn, etc.)
  - New Services and Service Flexibility
  - Efficiency Improvements

- Long-Term Initiatives
  - LNG
  - Northern Gas (Mackenzie and Alaska)



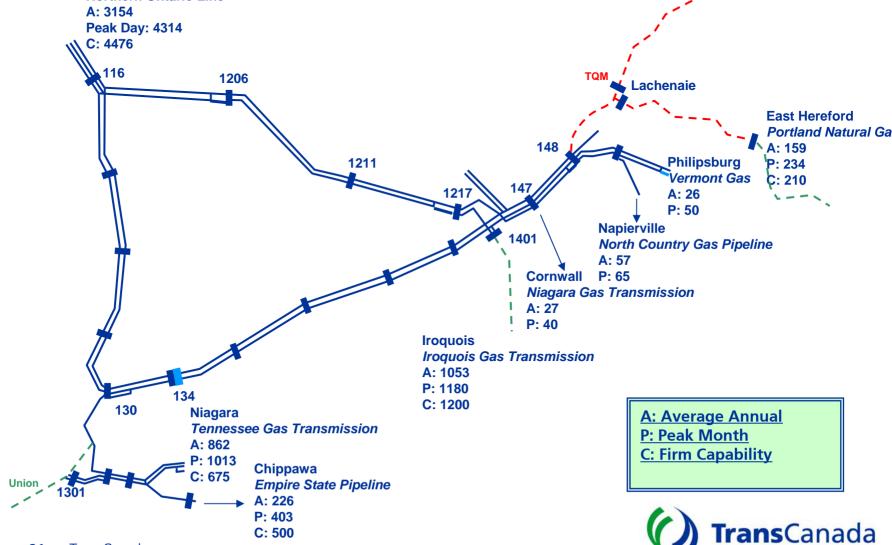
#### Northeast Pipelines



# 2007 Peak Month/Avg Annual Throughput and Firm Capability (TJ/day)





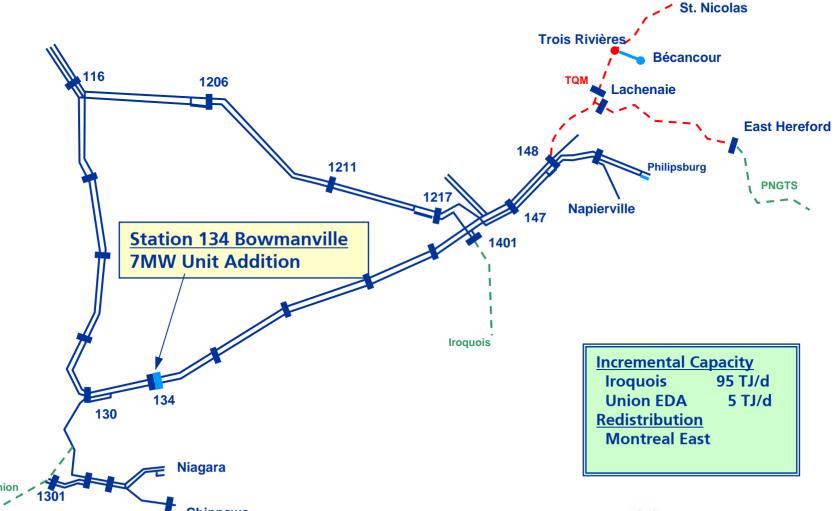


Northern Ontario Line

### 2007 Expansion facilities update





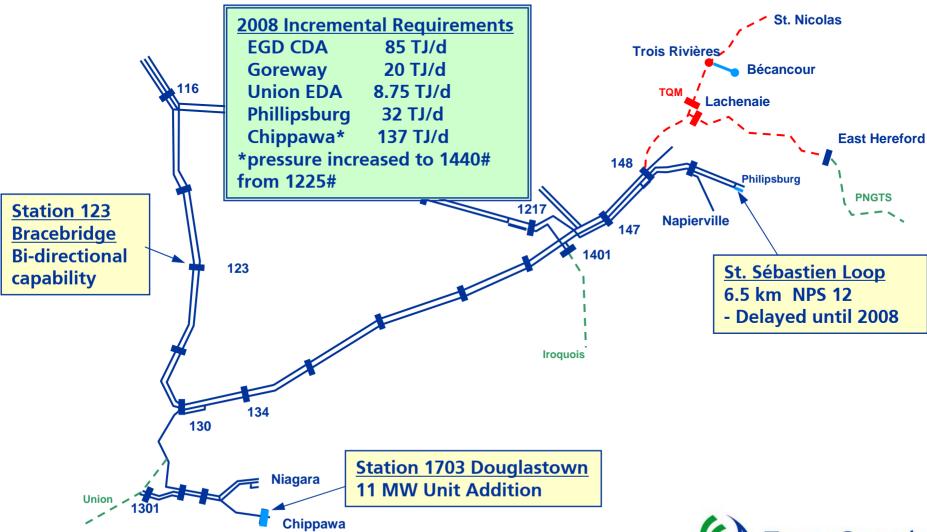




#### 2008 Expansion facilities







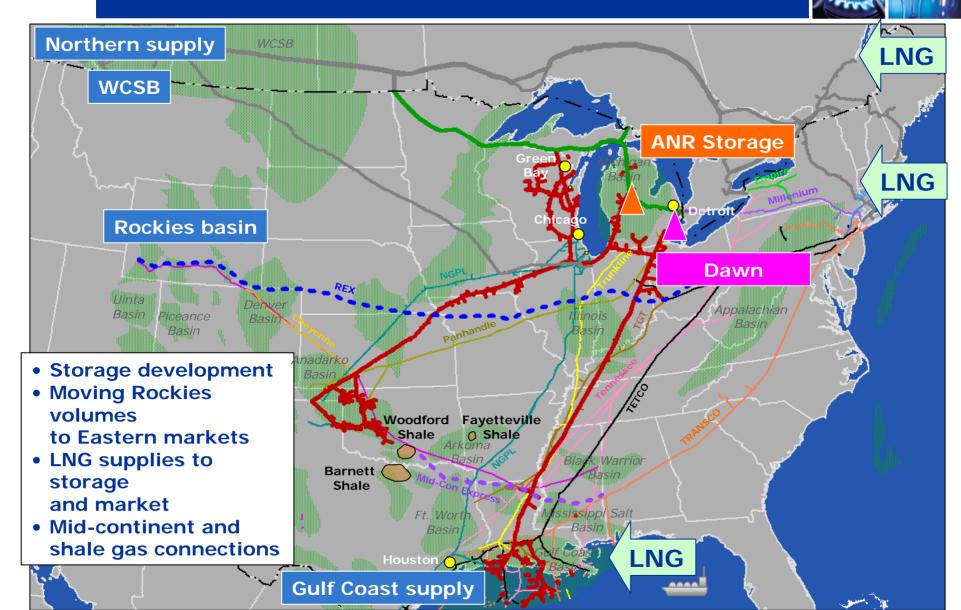
## Future Market Growth - Gas-Fired Generation



- Gas-fired generation represents significant market growth in Ontario over the next seven years;
- 2,150 MW of new gas-fired generation to be developed by 2014; represents approximately 400 500 MMcf/day of potential new load in Ontario;
- Will be used to help replace coal-fired generation (by 2014), meet local reliability needs and meet peaking requirements;
- TransCanada well-positioned to meet this growing market with short-notice services
- Note: gas-fired generation will be Combined-Cycle or Simple Cycle; not base-load – increased demand for storage/balancing



#### **Connecting Supply**



### Coordinated Non-Binding Open Season



- In 4Q 2007, TransCanada held a Non-Binding Open Season to assess interest from customers for integrated storage and transportation services on the Canadian Mainline, PNGTS, GLGT, ANR, and ANR storage.
- Transportation open seasons were for service beginning November 1, 2009 or later; storage open season was for service commencing April 2010.
- TransCanada will utilize existing capacity supplemented as necessary with new facilities;
- Expansions are possible, and may provide a more timely alternative to green field proposals.

#### Non-Binding Open Season Results



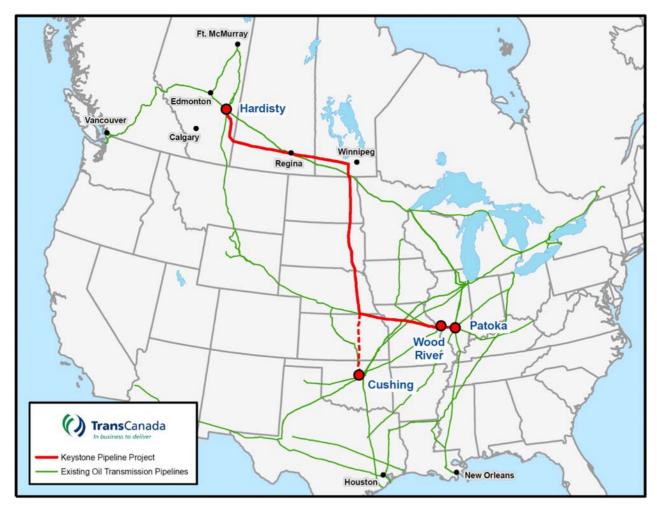
- Storage open season closed November 7, 2007;
   Coordinated non-binding open closed Dec. 10, 2007;
- Expressions of interest for over 1.5 Bcf/day of pipeline capacity and over 50 Bcf of storage capacity;
- Capacity and facilities analysis underway; follow-up discussions with bidders are currently taking place;
- US Pipelines Central able to move to PA stage;
   Canadian Mainline will hold binding open season for New Capacity end of February/early March.



## Keystone - Overview









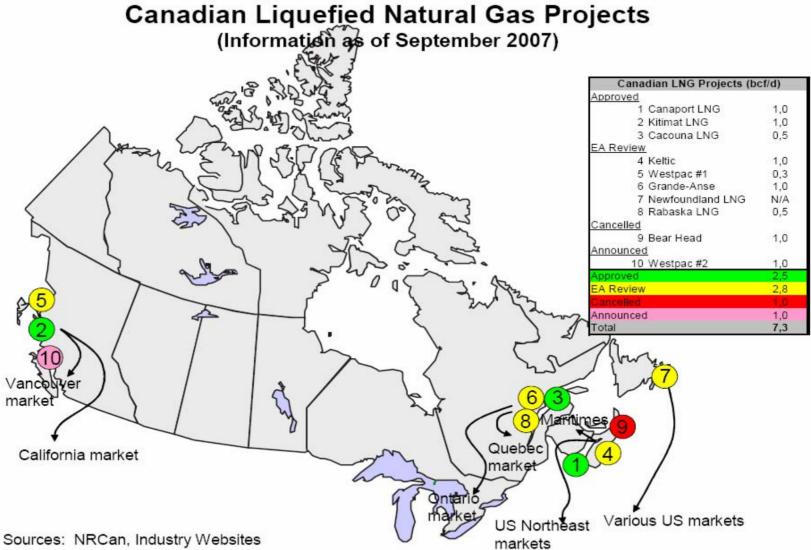
#### **Keystone - Overview**





- Crude oil pipeline with total length of 3,456 km
- Will transport crude oil from Hardisty, Alberta to U.S. Midwest markets
- Canadian portion:
  - Convert 864 km of natural gas pipeline to oil pipeline
  - New construction of 373 km of oil pipeline
  - New construction of pump stations
- US portion:
  - Construction of 2219 km of new oil pipeline and pump stations



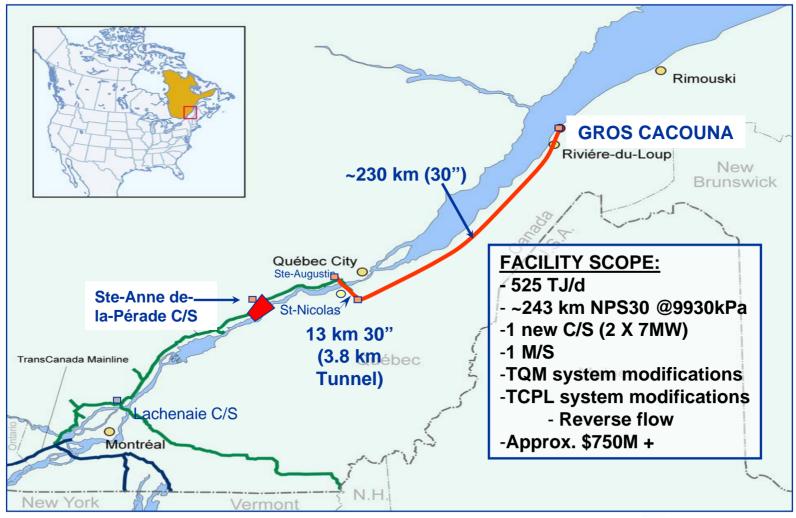




## TQM Eastern Access Facilities In-service 2012











# Northern Pipeline Projects

#### Mackenzie Valley Pipeline<sup>(1)</sup>

- 9 Tcf Proven; 64 Tcf Ultimate
- •1,194 kms, 30" diameter
- •initial volumes 0.8-1.2 Bcf/d
- •ultimate volumes 1.8 Bcf/d

#### Alaska Highway Pipeline<sup>(1)</sup>

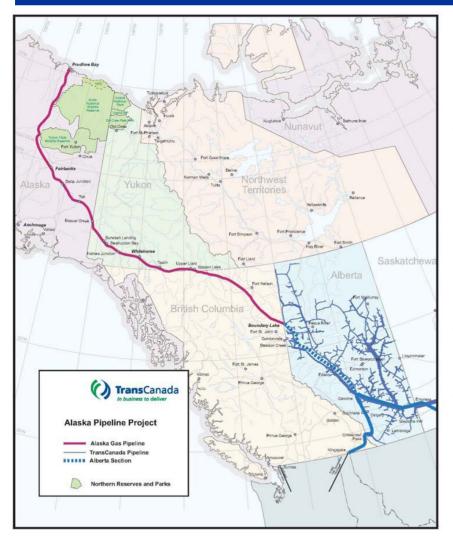
- •31 Tcf Proven; 99 Tcf Ultimate
- •2,820 kms, 48" diameter
- initial volumes –4.5 Bcf/d
- •ultimate volumes 6.0 Bcf/d



#### Alaska Pipeline Project







#### **AGIA Process**

 TransCanada – only conforming application

#### **Pipeline Scope**

- Prudhoe Bay to Alberta Hub
- 4.5 Bcf/d initial capacity
- More than 1700 miles
- 48-inch diameter
- 2500/2600 psig

#### **Capital cost**

\$26 billion (2007 \$US)

#### Schedule<sup>1</sup>

- Open Season Concludes September 2009
- In-service November 2017

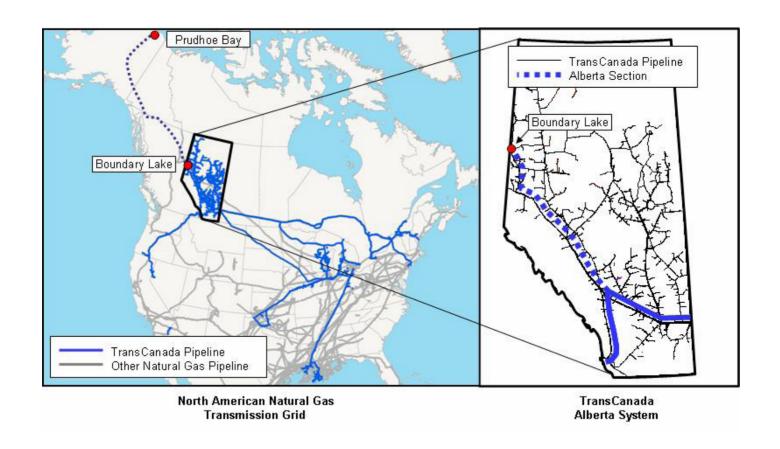
<sup>&</sup>lt;sup>1</sup> Subject to AGIA License being issued by April 2008



#### Access to Downstream Markets









## NGTL 09/10 Expansion: North Central Corridor





#### **Supply Growth**

- Peace River
- NE BC
- Foothills
- Mackenzie
- Alaska

#### **Demand Growth**

- Fort McMurray
   Oilsands
- heavy oil projects

**Supply Decline** 

- 300 kms 42 inch pipe
- Two 13 MW Compressors
- In-service 2010
- \$983MM Capital Cost
- Fuel Savings

Eastern Gate Capability



### NGL Inquiry – Extraction Rights



- Export Shippers currently hold extraction rights
- Producers pursuing alternatives to capture NGL value
  - Field extraction
  - Ship gas on competing systems
- Alberta Regulator: producers should have the rights
- NGTL Proposal: shift extraction rights from delivery shippers to receipt shippers (NEXT)
- Benefits:
  - Attract more supply and NGLs
  - Simple to implement
  - Consistent with the views of the Board

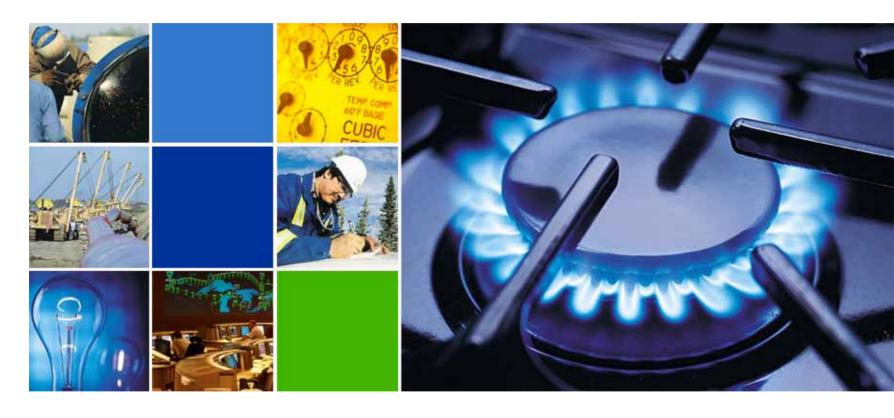


#### Conclusions



- e access to
- TransCanada's North American assets provide access to diverse supply sources, markets and storage
- TransCanada is well-positioned to respond to evolving North American supply/demand dynamics (LNG, Northern Gas, growing power gen demand, etc.)
- TransCanada remains committed to the market, and continues to expand where required to meet growing demand





**Services and Service Flexibility** 



#### TransCanada Mainline Services





Firm ("FT")

Firm Non-renewable ("FT-NR")

Interruptible ("IT")

Storage Transportation Service ("STS")

Storage Transportation Service-Linked ("STS-Linked")

Firm Service Tendered ("FST")

Short-Term Firm ("STFT")

Parking & Loan ("PALS")

Long Term Winter Firm Service ("LTWFS")

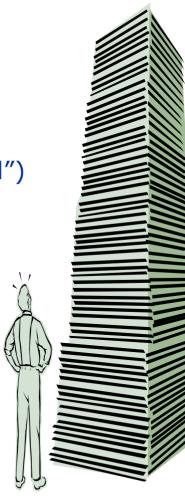
Firm Service – Short Notice ("FT-SN")

Short Notice Balancing ("SNB")

Interruptible Backhaul ("IBT")

Firm Backhaul ("FTB")

Energy Deficient Gas Allowance ("EDGA")





## Priority of Service





# Highest Priority

#### **FIRM**

FT, STS, LTWFS, FST, FT-NR, STFT, FT-SN, SNB

- -Curtailment is prorata based on CD
- -Demand Charge credits if curtailed

#### **DISCRETIONARY**

- a) FT Diversions & FT Alternate Receipts
  - -Prorated based on nomination
- b) Interruptible
  - -Prorated based on price bid
- c) Park & Loan





# Firm Transportation ("FT"): Contract Matters





#### **Term**

- Minimum 1 year, if excess capacity
- Typically 10 years, if construction required

#### Renewal

1 year term on 6 months prior notice

### **Assignments (Capacity Release)**

- Unregulated
- Temporary or Permanent

## Financial Assurances (only if required)

- No new facilities: maximum of billing cycle (≈75 days)
- New Facilities: maximum of 12 months



# Firm Transportation ("FT"): Cost





#### Toll

- Demand / Commodity......full fixed/variable
- Determined Annually ...... Cost of Service
- Distance-based
- No Discounting Permitted

#### **Fuel**

- In-Kind
- Monthly Ratio of Delivery volume



# Firm Transportation ("FT"): Operational





## **Balancing**



- 100% of interconnection points have Balancing Agreements
- Shippers not exposed to any TransCanada balancing penalties
- Billed = Authorized Nomination
- Receipt = Delivery

#### **Nominations**

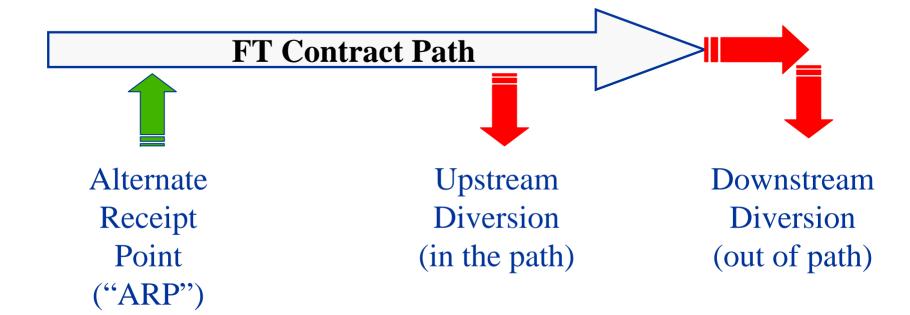
- NAESB Windows
- No "bumping" on TransCanada
  - Once a service is authorized & scheduled for a Gas Day, it cannot be bumped by a higher priority service at a subsequent window



# Firm Transportation ("FT"): **Operating Flexibility**







- -High priority .....one level below "firm"
- -Nominated services
  - no contract change required to access new points
- -Incremental toll if 'out-of-path'
  - check with TransCanada if uncertain of toll

# Firm Transportation ("FT"): Risk Alleviation Mechanism "RAM"



- Provides FT shipper with a \$ credit to their IT invoice if they do not use their full FT entitlement
- Used towards IT on any path; on any day <u>during month</u>
- Cannot assign to another shipper
- Only available for long-haul FT or short-haul FT that is linked to a long-haul FT
- NOTE: Cannot shift contracts to create link to long-haul FT

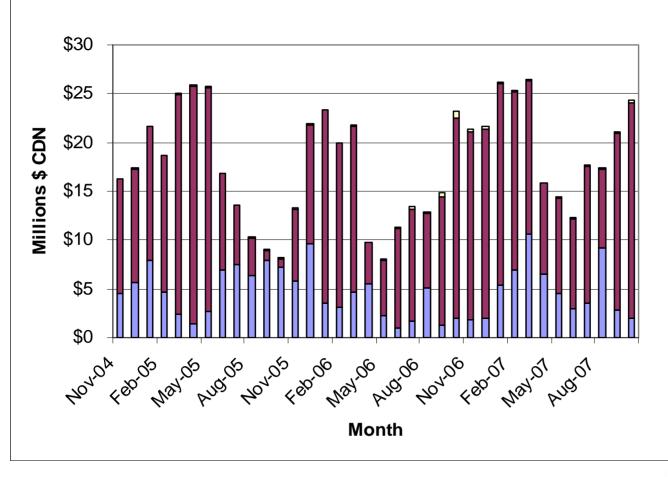




#### **RAM Utilization**







- □ Total Unused Credits
- Ram Credits Used
- Net IT Revenues

# Firm Transportation ("FT"): Advantages





## 1) Firm Priority

#### 2) Contract Flexibility

- Minimum 1 year, if excess capacity
- Renewal right for 1 year term on 6 month's prior notice
- Simple, unregulated assignments (i.e. capacity release)
- Relatively non-punitive financial assurance requirements

## 3) Operating Flexibility



- Access to alternate receipt & delivery points
- High priority access to 'out of path' delivery points
- RAM credits to IT ...any path...any time in month



# **Short Term Firm Transportation (STFT)**



- Term: 1 week to 364 days
- Open Season "Auction" based price bids
  - Floor price = FT Toll
- Firm Priority
- No RAM, diversion, ARP or renewal rights
- Blanket Contract

#### Benefits:



- Firm Service
- Meets short term or seasonal needs
- Simple (Blanket Contract)



# Interruptible Transportation (IT)





- Term: 1 day
- Open Season "Auction" based on price bids
  - Floor price = 110% of FT Toll
- Discretionary Priority
- No RAM, diversion, ARP or renewal rights
- Blanket Contract

### **Benefits:**





- Simple
  - Blanket Contract
  - Accessed via Nominations process



# Parking & Loans (PALS)





- Term: No limit
- Priority: lowest
- Toll: Negotiable
- Availability: at any location; subject to capacity

### **Benefits:**



- Tool to manage market / supply mis-matches, UDC, restrictions.....
- Price is negotiable





**Canadian to US Translation** 



# Canadian to U.S. Translation



Gigajoule (GJ) =	0.948 Dekatherms (Dth)
Terajoule (TJ) =	948 Dekatherms (Dth)
Assignment -non-regulated; free-market	Capacity Release -fully regulated
Contract Segmentation	Capacity Segmentation
Diversions	Secondary Delivery Point Rights
Alternate Receipt Points (ARP)	Secondary Receipt Point Rights
FT-RAM	Huh???
FT Renewal Rights: 1 year on 6 month's prior notice	ROFR????



# Canadian to U.S. Translation



Bumping: No Eh.	Bumping:
	-IT at Evening and ID1
	-No bumping of secondary
	Firm
	-No bumping at ID2
IT: Auction at every window	IT: Negotiated Discounts
based on bid price	
-Price Floor	-Price Cap
Title Transfer, "Handshake", "NIT"	Title Transfer
Alberta NIT Hub ("AECO" Hub)	Henry Hub



# Canadian to U.S. Translation



Steve Harper	George Bush
Conservative	Republican
Liberal	Michael Moore
National Energy Board ("NEB")	FERC
Eh?	Huh?
Molsons	Bud
Don Cherry	John Madden
Terana	Toronto
1 dollar Canadian =	1 dollar U.S.





**How to Get Capacity** 



## **Open Seasons**





- Long- and short-term firm capacity on the Mainline is accessed via open seasons;
- Fair and equitable access to system capacity

#### **Where Capacity Exists:**

- Existing Capacity Open Season
- Daily Open Season

## Where a Facilities Expansion is Required:

New Capacity Open Season



# **Existing Capacity Open Season**





- Provides access to <u>available</u> capacity on the system
- Post by May 5<sup>th</sup> each year or as required
- Remains open for minimum of 5 days
- Minimum Term of bid 1 year
- Bids evaluated on monthly demand toll x term
- Financial Assurance Requirements 70 day demand charge equivalent



# Daily Open Season



- Opens after Existing Open Season wraps up
- Post half of remaining capacity from Existing Open Season
- Minimum term = 1 year
- Financial Assurance Req'ts 70 day demand charge
- Bid deadline is 5:00 PM Eastern time each day
- Closes when capacity sells out or when an Existing and/or New Capacity Open Season is announced



# New Capacity Open Season





 Held when a facilities expansion is required to meet market demand;

- Requirements:
  - Bid must have minimum 10 year term
  - Supporting documentation required to support facilities application in front of the NEB
  - Financial Assurance Requirements up to 12 months demand charge equivalent
- Successful bidders must execute Precedent Agreements and Financial Assurances Agreements; replaced with FT Agreement when facilities are approved.



# Short-Term Firm Open Seasons





- Tariff requirement to hold a STFT Open Season January 1-15 for Summer Period, and July 1-15 for Winter Period; and on a daily basis
- Open season usually open for five business days
- Typically sold in a combination of seasonal and monthly blocks
- Capacity awarded based on bid price;
- Bidders must hold STFT Master Agreement;
- Once STFT open season closes and capacity has been allocated, Daily STFT Open Season begins;
- Customers can bid on capacity on a daily basis; bids due by 12:00 a.m. Eastern time each business day



# **Current & Upcoming Open Seasons**





#### **STFT**

- February 2008 capacity is available to be bid on each day and is being sold for a minimum 7-day block
- March capacity being sold as a monthly block
- Summer 2008 capacity currently being sold as a 5-month block

### FT, FT-SN, STS, STS-L

- FT Capacity is available to be bid on each day
- New Capacity Open Season expected to be issued end of February/beginning of March

FAX Mainline Contracting (403) 920-2343



# **Existing Capacity for Sale**





Summer 2008 STFT Capacity
Annual Renewable Capacity<sup>(1)</sup>

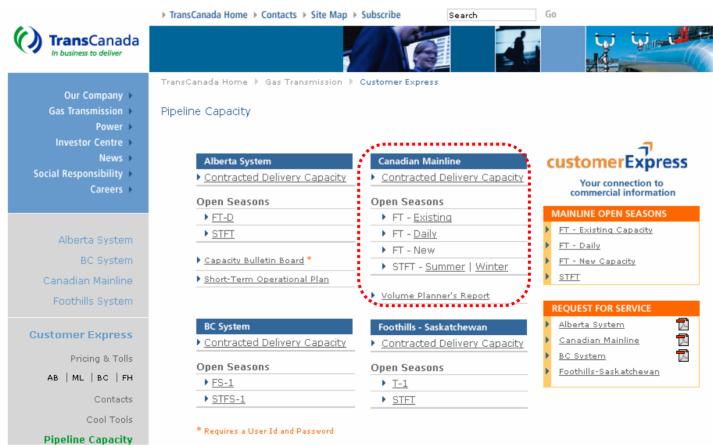
(1)Available starting April 1, 2008

(2)Available to Union and Enbridge EDA

Southwest Delivery Area 660 TJ/d 600 TJ/d

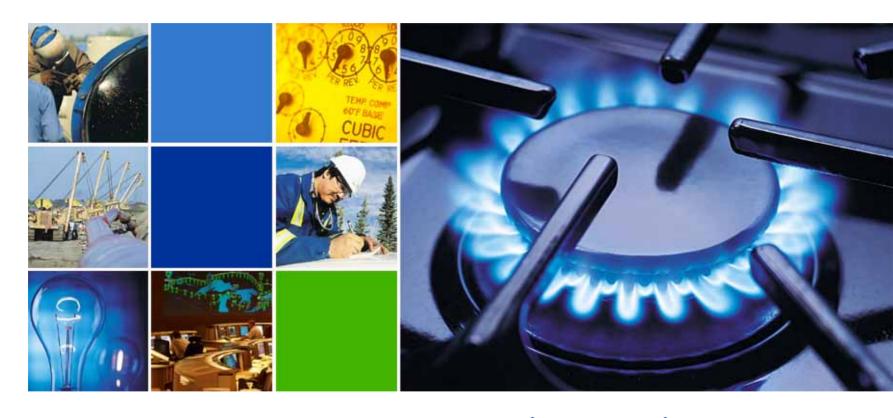
## Open Season Information – Where to Find It





www.transcanada.com/Customer\_Express/capacity/index.html





# Goods and Services Tax ("GST")





# **GST** on Transportation Charges





- Tax on Canadian Deliveries = 5% of toll
- U.S. Deliveries <u>may</u> be zero-rated:
  - <u>"Intention Test"</u>: You must intend to export the gas to the U.S.
  - "Actual Test": You must be able to demonstrate that the gas was actually exported to the U.S.
  - <u>"Declaration Test":</u> TransCanada must obtain a Declaration from you that warrants that the first two tests have been met.



# Mainline Zero-Rating Processes - Deliveries



### **Export Deliveries:**

 Request zero-rating by checking the GST Declaration Flag on Nomination Screen

Unutilized Demand Charges under Export Contracts:

- One-time Contract-level Declaration
- Declarations take effect on the 1st of the next month.
- Forms and additional information can be found at:

http://www.transcanada.com/Mainline/customer\_activities/contracts.html





How To Transact on TransCanada



## **Customer Service Group**





- Functions
  - Contracts, Nominations, Allocations, Measurement, Billing, Customer Call Centre
- 7 pipelines
  - Mainline, Alberta, BC, Foothills, Portland, TQM and Ventures
  - Transportation by others, Great Lakes, Union, TQM,
     Ventures and ATCO
- 65 staff
- 7 days x 15 hour coverage

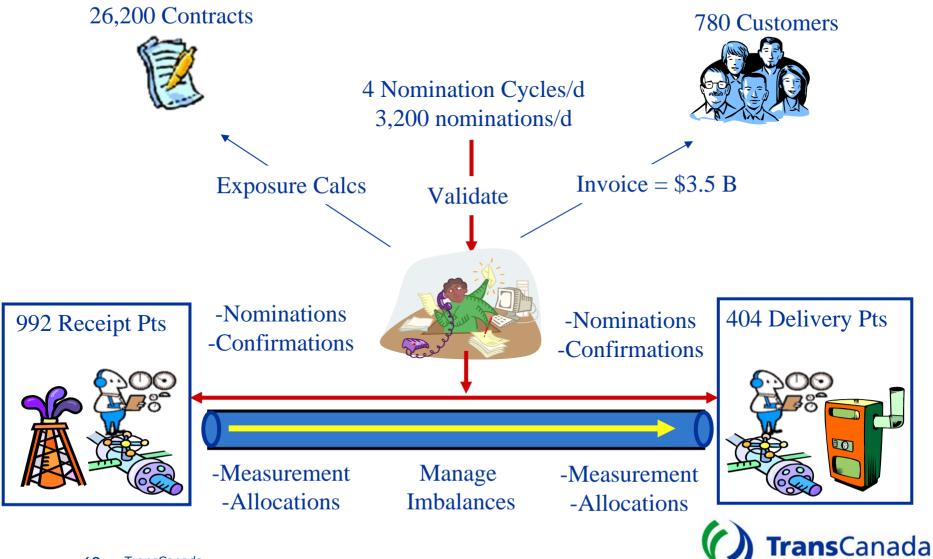




#### **Customer Service Processes**



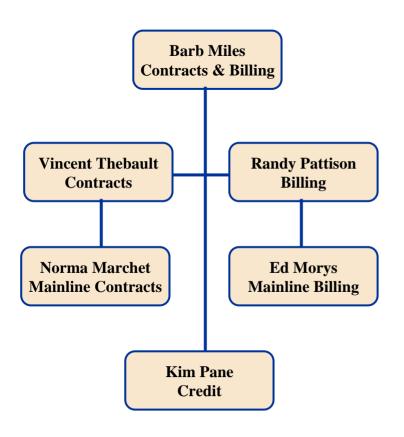


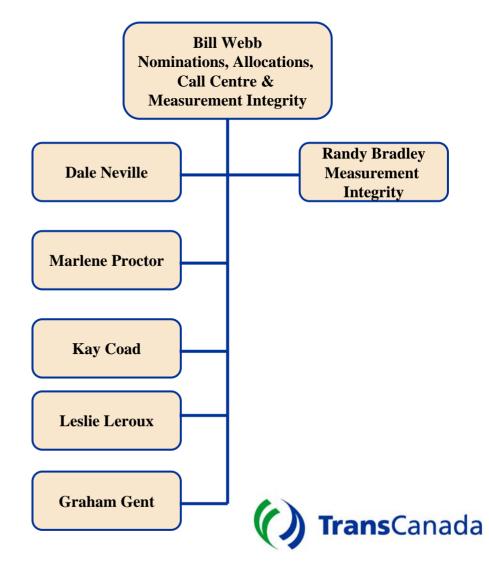


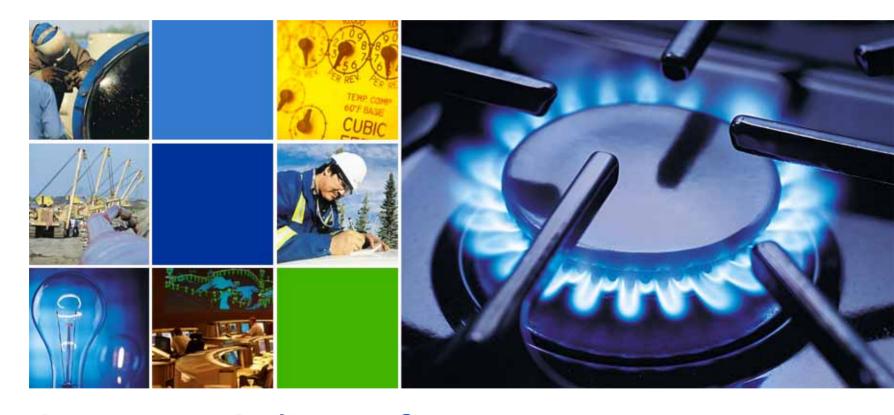
### **Customer Service Functions**











# **Customer Online Information**

# Reporting



# www.transcanada.com/Customer\_Express





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Pricing & Tolls

AB | ML | BC | FH

**Customer Express** 

Contacts

Cool Tools

Pipeline Capacity

Services & Tariffs

AB | ML | BC | FH

Alberta System

BC System

Canadian Mainline
Footbills System

#### Pricing & Tolls

▶ Rates & Charges AB|ML|BC+|FH

#### Contacts

- ▶ Who To Contact
- ► Contact Lists AB|ML|BC+|FH
- ▶ Pipelines Organizational Structure

#### **Cool Tools**

- ▶ Toll Calculator
- ▶ Conversion Tool
- ▶ <u>Tool for FT-P Service</u> 🔠

#### Other Info

- ▶ Presentations AB|ML|BC+|FH
- ▶ Credit Procedures ABIMLIBC+IFH
- ► <u>AB Gas Quality Requirements</u>
- ▶ Gas Quality Specifications
- ▶ AB Annual Plan

#### Pipeline Capacity

- ▶ Capacity for Sale
- ▶ AB FT-R Availability Map NEW
- Canacity

  AB|ML|BC\*|FH
- ▶ Request for Service AB|ML|BC+|FH
- ▶ Foothills Ouarterly Throughput

#### Services & Tariffs

- ▶ Service DescriptionsAB|ML|BC+|FH
- ▶ Tariff <u>AB|ML|BC</u>†|FH

#### Operational Links

▶ NrG *	<u>Highway Dovetail</u>
▶ Fuel Rates	AB ML BC† FH
▶ Heat Values	AB ML BC <sup>†</sup>  FH
Reporting *	AB ML BC <sup>†</sup>  FH
▶ Notices	AB ML BC <sup>†</sup>  FH
▶ Shipper List	AB ML BC+ FH

#### ▶ Gas Day Summary

## customerExpress

Your connection to commercial information

#### **EXPRESS NEWS**

- 2007 October issue of Update magazine is here! -October 31, 2007
- TransCanada Announces a Co-ordinated Non-Binding Open Season with Mainline, ANR, GLGT and PNGTS -October 10, 2007
- 2007 September issue of Update magazine is here! -September 28, 2007
- U.S. Pipelines Central Announces a Coordinated Non-Binding Open Season for Firm Storage -September 20, 2007

Express News Archives





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Customer Expres

Alberta Systen

BC System

#### **Canadian Mainline**

Customer Activities

Informational Postings

Service Offe<u>rings</u>

Regulatory Inform

Industry Committee

Contacts

Site Map

Footbille System

#### System Operations

Gas Day Summary Report

Notices - All / Critical / Non-Critical

Open Season

TransCanada's NrG Highway\*

TransCanada Reporting\*

Volume Planners Morning Report

#### Rates and Tariff

Approved 2007 Final Tolls

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<sup>\*</sup> Requires a User Id and Password

# IT Bid Tolls and Fuel Ratios





		Rece ▼																		
Delivery	December 2007 ▼	Simple	Baymur	Beyn,	Contract	Central	Chipp.	Comme	East H	Emerce	Emers.	Enbrie	Subrice Charite	OM ED	San No.	\$ / do	Gang CO4	Herber	hodio	Kirkural)
Empress	IT Bid Toll	***	BH	BH	***	***	BH	BH	BH	BH	BH	***	***	***	***	***	***	BH	ВН	***
	Fuel (pressure incl.)	***	BH	BH	***	***	BH	BH	BH	BH	BH	***	***	***	***	***	***	BH	BH	***
Bayhurst 1	IT Bid Toll	0.2100	***	***	***	***	BH	BH	BH	BH	BH	***	***	***	***	***	***	BH	BH	BH
	Fuel (pressure incl.)	0.69	***	***	***	***	BH	BH	BH	BH	BH	***	***	***	***	***	***	BH	BH	BH
Centram MDA	IT Bid Toll	0.3558		0.3451	***	***	0.7574	0.8026	0.9296	0.0879	0.0879	***	***	***	***	***		0.2876	0.7909	0.7169
Centram SSDA	Fuel (pressure incl.)	1.27 0.2100	1.22 0.1992	1.22 0.1992	***	***	3.08 BH	3.28 BH	3.84 BH	0.12 BH	0.12 BH	***	***	***	***	***	0.69	0.97 0.1418	3.23 BH	2.90 BH
Centram SSDA	IT Bid Toll Fuel (pressure incl.)	0.2100	0.1992	0.1992	***	***	BH	BH	BH	BH	BH	***	***	***	***	***	0.0777	0.1418	BH	BH
Centrat MDA	IT Bid Toll	0.3558	0.3451	0.3451	0.1766	***	0.7580	BH	BH	0.0886		***	***	***	***	0.7142	0.2235	0.2876	BH	
CONG AC INDA	Fuel (pressure incl.)	1.27	1.22	1.22	0.50	***	3.06	BH	BH	0.08	0.08	***	***	***	***	2.86	0.69	0.2010	BH	2.88
Chippawa	IT Bid Toll	1.1298	1.1191	1.1191	***	***	***	0.2509	0.3779	0.7079	0.7079	***	***	***	***	0.0961	0.9975	1.0617	0.2370	
	Fuel (pressure incl.)	5.38	5.34	5.34	***	***	***	1.52	2.07	3.53	3.53	***	***	***	***	0.83	4.80	5.08	1.45	0.69
Cornwall	17.5:17.11				***	***	0.2510	***	BH	0.8101	0.8101	***	***	***	***	0.1933	1.0124	1.0766	0.0524	0.2167
	Fuel (pr				***	***	0.83	***	BH	3.29	3.29	***	***	***	***	0.57	4.18	4.46	0.00	0.67
Dawn Export	1	$.2^{\circ}$	<i>J</i> 1	7	***	***	BH	0.2835	0.4104	0.6007	0.6007	***	***	***		0.1286	0.8303	0.8944	0.2695	BH
	Fuel (pr	-			***	***	BH	0.97	1.53	2.36	2.36	***	***	***	***	0.29	3.37	3.66	0.91	BH
East Hereford					***	***	0.3780	0.1654	***	0.9371	0.9371	0.3204	0.2067	0.1481	***	0.3202	1.1395	1.2036	0.1794	
	Fuel (pr				***	***	1.38	0.45	***	3.85	3.85	1.13	0.63	0.37	***	1.13	4.74	5.02	0.51	1.23
Emerson 1	Fuel (pr			!' <u>`</u> ]	0.1840 0.71	***	BH BH	0.8101	0.9371 4.02	***	BH BH	***	***	***	***	0.6909	0.2680 1.08	0.3322 1.36	0.7984 3.41	BH BH
Emerson 2	ruei (pi	-		<u> </u>	0.71	***	BH	0.8101	0.9371	BH	***	***	***	***	***	0.6909	0.2680	0.3322	0.7984	BH
Liliei soli 2	Fuel (pressure incl.)	1.66	1.62	1.62	0.1040	***	BH	3.47	4.02	BH	***	***	***	***	***	2.94	1.08	1.36	3.41	BH
Enbridge CDA	IT Bid Toll	1.1334	1.1226		***	***	0.1002	0.1934	0.3204	0.7043	0.7043	***	0.2000	0.2466	***	0.0604	1.0011	1.0652		
	Fuel (pressure incl.)	4.70	4.66	4.66	***	***	0.16	0.57	1.13	2.82	2.82	***	0.60		***	0.00	4.12	4.40	0.51	0.00
Enbridge EDA	IT Bid Toll	1.1334	1.1226	1.1226	***	***	0.2665	0.0803	0.2067	0.7885	0.7885	0.2000	***	0.1245	***	0.1941	1.0011	1.0652	0.0698	0.2176 0
	Fuel (pressure incl.)	4.70	4.66	4.66	***	***	0.90	0.00	0.63	3.19	3.19	0.60	***	0.27	***	0.58	4.12	4.40	0.00	0.68
Enbridge SWDA	IT Bid Toll	0.9562	0.9454	0.9454	***	***	BH	0.2834	0.4104	0.6007	0.6007	***	***	***	***	0.1286	0.8239	0.8880	0.2695	BH
	Fuel (pressure incl.)	3.93	3.88	3.88	***	***	BH	0.97	1.53	2.36	2.36	***	***	***	***	0.29	3.35	3.63	0.91	BH



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<sup>\*</sup> Requires a User Id and Password

# Gas Day Summary Report - Mainline





Gas Day Summary - TransCanada Effective Date Nov 20 2007 As of Nov 21 2007 03:30

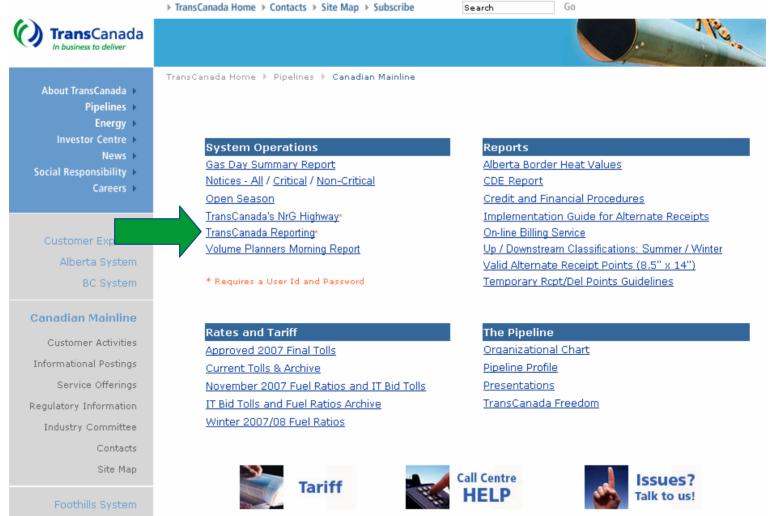
R/D	Location & DRN	Schd Qty [GJ]
R	Bayhurst 1 111537	130,000
R	Bayhurst 2 34193	50,100
R	Cornwall 34157	,
R	Emerson 1 34002	1,518
R	Emerson 2 34003	63,142
R	Empress 33667	4,801,267
R	Enbridge CDA 34090	
R	Enbridge EDA 34132	0
R	Herbert 34199	84,058
R	Iroquois 67708	73,941
R	Kirkwall 34111	980,605
R	Liebenthal 34195	5,000
R	Niagara Falls 34537	0
R	Richmound 18585	1,518
R	SS. Marie 34162	86,508
R	Shackleton 50769	1,012
R	St. Clair 11779	1,633,379
R	Steelman 111541	0
R	Success 111533	53,135
R	Suffield 2 34197	368,456
R	Union CDA 34109	0
R	Union Dawn 88515	1,266,926
R	Union EDA 34142	300
R	Union Parkway Belt 34107	883,996
R	Union SWDA 107328	0
R	Welwyn 107302	16,943
D	Bayhurst 1 111537	0
D	Centram MDA 33985	284,095
D	Centram SSDA 34217	5,467
D	Centrat MDA 34006	24,227
D	Chippawa 123847	190,334



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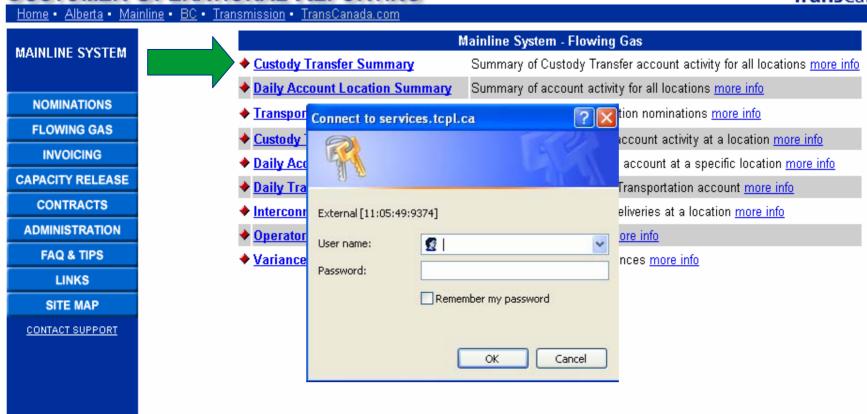






### CUSTOMER OPERATIONAL REPORTING

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### **CUSTOMER OPERATIONAL REPORTING**

Home • Alberta • BC • Foothills • Transmission • TransCanada.com **Custody Transfer Summary Report** MAINLINE SYSTEM Please enter the parameters below and click 'Run Report' Gas Day (yyyymmdd) : 20071121 NOMINATIONS Account : All **FLOWING GAS** INVOICING CAPACITY RELEASE CONTRACTS **ADMINISTRATION** Run Report Reset Form INFORMATIONAL POSTINGS **FAQ & TIPS** LINKS SITE MAP CONTACT SUPPORT





By: ARI SUPT / caosrptpro



Report created: 2007/11/22 12:56

TransCanada Custody Transfer Summary Report

Gas Day: Requestor:	20071121 EAGER BEAVE	R CORP.			Gas Da Unit of Me:	y Window: asure: GJ	End of Gas	Day
Location Location	Receipt	Account	External	Nominated	Confirmed	Variance	Status	Account
Operator	Delivery	Name	Reference	Quantity	Quantity			Owner
Emerson 1 VIKING GAS TRANSM:	Delivery ISSION	EGBC	EGBC	5,000	5,000	0	Confirmed	EAGER BEAVER CORP.
Emerson 2 GREAT LAKES GAS TI	Delivery RANS.	Details EGBC	EGBC	5,000	5,000	0	Confirmed	EAGER BEAVER CORP.
Empress NOVA GAS TRANSMISS	Receipt SION	Details EGBC	EGBC	20,000	20,000	0	Confirmed	EAGER BEAVER CORP.
Niagara Falls TENNESSEE GAS PIPI	Delivery ELINE	Details EGBC	EGBC	10,000	10,000	0	Confirmed	EAGER BEAVER CORP.
St. Clair GREAT LAKES GAS TI	Receipt RANS.	Details EGBC	EGBC	2,000	2,000	0	Confirmed	EAGER BEAVER CORP.
Union SWDA UNION GAS LIMITED	Delivery	Details EGBC	EGBC	10,000	10,000	0	Confirmed	EAGER BEAVER CORP.
		<u>Details</u>						







Report created: 2007/11/22 11:40 By:

TransCanada

Custody Transfer Detail Report

Gas Day: 20071121 Gas Day Window: End of Gas Day

Requestor: EAGER BEAVER CORP. Unit of Measure: GJ

Account Name: EGBC Account Owner: EAGER BEAVER CORP.

Location: Union SWDA External Ref: EGBC

Account Owner	Account Name	Transaction	Nominated Quantity	Confirmed Quantity	Variance	Status
Receipts						
Total Receipts			0	<u>0</u>	<u>Q</u>	Confirmed
Deliveries						
EAGER BEAVER CORP. EAGER BEAVER CORP.	EGBC EGBC MTT	Delivery Confirm Hub Delivery	10,000	10,000		Accepted
Total Deliveries			10,000	10,000	О	Confirmed
Net Deliveries			10,000	10,000	0	Confirmed





### **CUSTOMER OPERATIONAL REPORTING**

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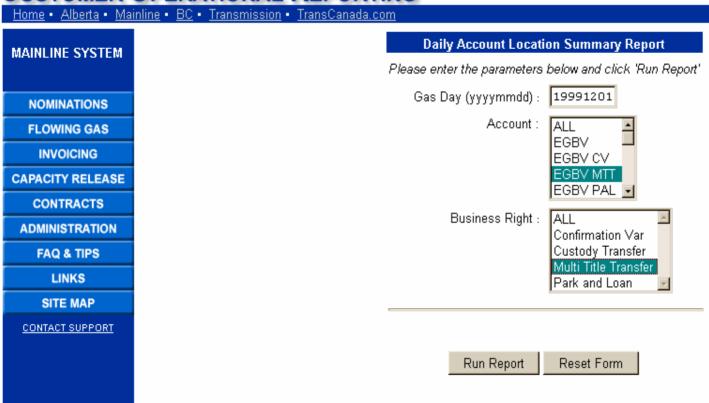








### **CUSTOMER OPERATIONAL REPORTING**









Report created: 2007/11/22 11:57 By: ARI\_SUPT / caosrptprod01

### TransCanada Daily Account Location Summary Report

Gas Dav: 20071121

Enterprise: EAGER BEAVER CORP.

Gas Day Window: End of gas day Account Type: Multi Title Transfer

Unit of Measure: GJ

\*\*\*\* Note: Account Balances are approximates only. \*\*\*\* Location Account Opening Closing Name Balance Transfers In Transfers Out Variance Balance Status Account Owner Location Operator 30 8,183 8,193 -10 Emerson 1 EGRC MTT 20 Pack EAGER BEAVER CORP. VIKING GAS TRANSMISSION Details Emerson 2 EGBC MTT 41,125 41,125 0 EAGER BEAVER CORP. GREAT LAKES GAS TRANS. Details 80,000 Empress 80,000 EAGER BEAVER CORP. NOVA GAS TRANSMISSION Details Niagara Falls EGBC MTT -25 10,105 10,110 -5 Draft EAGER BEAVER CORP. TENNESSEE GAS PIPELINE Details







Report created: 2007/11/22 11:57

### TransCanada Daily Account Location Detail Report

Selection Criteria:

Date: 2007/11/21

Account: EGBC MTT Location: Empress

Empless

Business Right: ALL

Summarize-By: Location-Account

Format: Daily-Total

Unit of Measure: GJ

Date: 2007/11/21 09:00 Account Owner: EAGER BEAVER CORP.

Account: EGBC MTT Location: Empress

\*\*\*\* Note: Account Balances are approximates only. \*\*\*\*

Operator	Account	Account Owner	Type	Quantity	Status
Opening Balance				0	
NOVA GAS TRANSMISSION NOVA GAS TRANSMISSION NOVA GAS TRANSMISSION	EGBC NGX MTT ABCD	EAGER BEAVER CORP. NATURAL GAS EXCHANGE INC. ABCD ENERGY LTD	Hub Receipt Multi Title Hub Receipt	20,000 40,000 20,000	Accepted Accepted Accepted
Total Customer Receipts				80,000	
NOVA GAS TRANSMISSION NOVA GAS TRANSMISSION NOVA GAS TRANSMISSION NOVA GAS TRANSMISSION	XYZ MTT 12345 67890 11111	XYZ CANADA LTD. EAGER BEAVER CORP. EAGER BEAVER CORP. CANADA GAS CO.	Multi Title Receipt Receipt Receipt	20,000 10,000 20,000 30,000	Accepted Accepted Accepted Accepted
Total Customer Deliveri	28			80,000	
Net Customer Total				0	
Closing Balance				0	Zero





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Report Created: 2007/11/22 12:22 By: ARI\_SUPT / caosrptprod01

TransCanada

Transportation Summary Report

Gas Day: 20071121 Requestor: EAGER BEAVER CORP.

Gas Day Window: End of Gas Day

Unit of Measure:GJ

Account Name	Receipt Location	Delivery Location	Service	Bid Price		uthorized Quantity	Variance Status	Primary Delivery Location	GST exempt	Account Owner
12345	St. Clair	Union SWDA	FT	0.0000	2,000	2,000	O Fully Auth		N	EAGER BEAVER
CORP. Detail										
12345		Emerson 1	IT	0.1840	12,000	12,000	O Fully Auth		N	EAGER BEAVER
CORP.										
Detail 12345	<u>s</u> Welwyn	Emerson 2	IT	0.1840	5,000	5,000	O Fully Auth		N	EAGER BEAVER
CORP.	werwyn	Emerson 2	11	0.1040	3,000	3,000	o rully Auch	4	14	EAGER BEAVER
Detail	s									
25458	Empress	Union SWDA	FT D	0.0000	10,000	8,000	O Not Fully A	uth	N	EAGER BEAVER
CORP.										
Detail	<u>s</u>							•		







TransCanada
Daily Transportation Account Detail Report

Selection Criteria

Start Gas Day: 2007/11/01 Account: 12345

Location: ALL

Report Format: Daily-Total

Unit of Measure: 0

Transportation Nominations

Primary Accepted Authorized

Account Owner	Acct	Receipt Point	Delivery Point	Delivery Point	Туре	Price	GST	Quantity Quan	tity	Variance Status
EAGER BEAVER CORP.	12345	Empress	Union SWDA	Iroquois	FT D	0.0000	N	10,000	8,000	O Not Fully Auth
TOTAL								10,000	 8,000	 0

Account Transfer Nominations

Operator	Location	Account	Account Owner	Туре	Quantity	Status
NOVA GAS TRANSMISSION	Empress	EGBC MTT	EAGER BEAVER CORP.	Receipt	10,400	Accepted
Total Customer Receipts					10,400	
NOVA GAS TRANSMISSION	Empress	12345 FUEL	EAGER BEAVER CORP.	Nominated F	400	Accepted
UNION GAS LIMITED	Union SWDA	EGBC MTT	EAGER BEAVER CORP.	Delivery	10,000	Accepted
Total Customer Deliverie	s				10,400	

( ) TransCanada

Account Variance





### CUSTOMER OPERATIONAL REPORTING

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MAINLINE SYSTEM

NOMINATIONS

**FLOWING GAS** 

INVOICING

**CAPACITY RELEASE** 

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♦ Minimum IT Bid Rates	Minimum IT Bid Rates Report more info						
♦ <u>VEC</u>	Volume/Energy/Composition Report more info						
♦ Hourly VEC	Volume/Energy/Composition Report more info						







Notice Type :	IT Bid Rate
Effective Date:	Nov 21 2007 11:43AM
Subject :	Minimum Authorized IT Bid Rate, Gas Day : Thursday November 22, 2007 Timely Window

### Minimum Authorized IT Bid Rate

Gas Day November 22, 2007, Timely Window

All prices in CDN\$/GJ

This report reflects ALL paths where IT was nominated for this window. A rate of 0.0000 means no IT has been authorized for that path and shows in Red. A Green line means the minimum allowable bid rate was authorized for that path. Rates above the minimum allowable bid rate show in Yellow.

Receipt Point	Delivery Point	Minimum Authorized Bid Rate
Bayhurst 1	Emerson 1	0.3896
Bayhurst 1	Emerson 2	0.3896
Bayhurst 1	Welwyn	0.1992
Bayhurst 2	Emerson 2	0.3896
Bayhurst 2	Welwyn	0.1992
Chippawa	Niagara Falls	0.0521
Empress	Centram MDA	0.3558
Empress	Centram SSDA	0.2100
Empress	Emerson 1	0.4003
Empress	Emerson 2	0.4003



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# Alberta Current System Report





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**Customer Express** 

#### **Alberta System**

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TransCanada Home Pipelines Alberta System

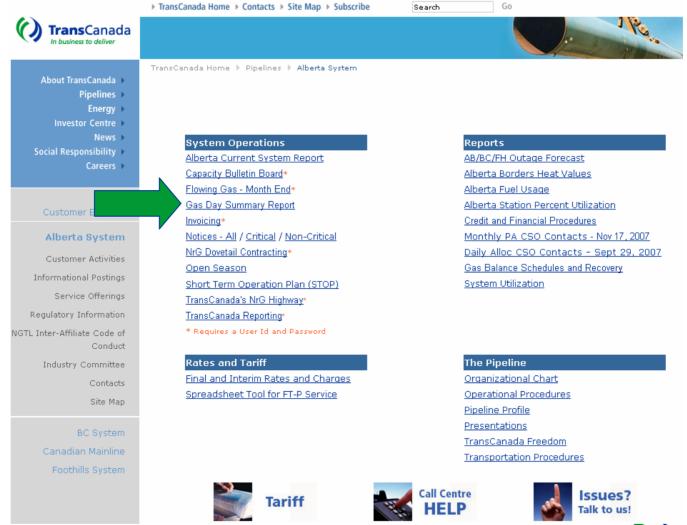
Current System at: Nov 20, 2007 11:30:02 MST							
Parameter	Value - SI	Units - SI	Value - Imp.	Units - Imp.			
Alberta Linepack Current	389122	e3m3	13811	MMCF			
Alberta Linepack 4Hour ROC	-26644	e3m3	-946	MMCF			
Alberta - Field Receipts	284243	e3m3/d	10089	MMCF/d			
Alberta - Intra-Delivery Flow w/o Storage	66938	e3m3/d	2376	MMCF/d			
Alberta - Flow Differential (Receipts - Deliveries)	-14888	e3m3/d	-528	MMCF/d			
Alberta - Instantaneous Delivery Flow	303351	e3m3/d	10767	MMCF/d			
Alberta - Receipt Flow	288742	e3m3/d	10249	MMCF/d			
Alberta - Net Storage Flow (Receipts - Deliveries)	781	e3m3/d	28	MMCF/d			
Empress Border - Flow	125853	e3m3/d	4467	MMCF/d			
McNeil Border - Flow	40945	e3m3/d	1453	MMCF/d			
Alberta / BC Border - Flow	65074	e3m3/d	2310	MMCF/d			
Gordondale Border - Delivery Flow	0	e3m3/d	0	MMCF/d			
Gordondale Border - Receipt Flow	0	e3m3/d	0	MMCF/d			



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# Gas Day Summary Report - Alberta





PROD	Daily Ope	erating S	Summary	(MMSCF)	2007-11-20	09:12:54.7
	For	20071119	9 as of	2007-11-20	09:12	

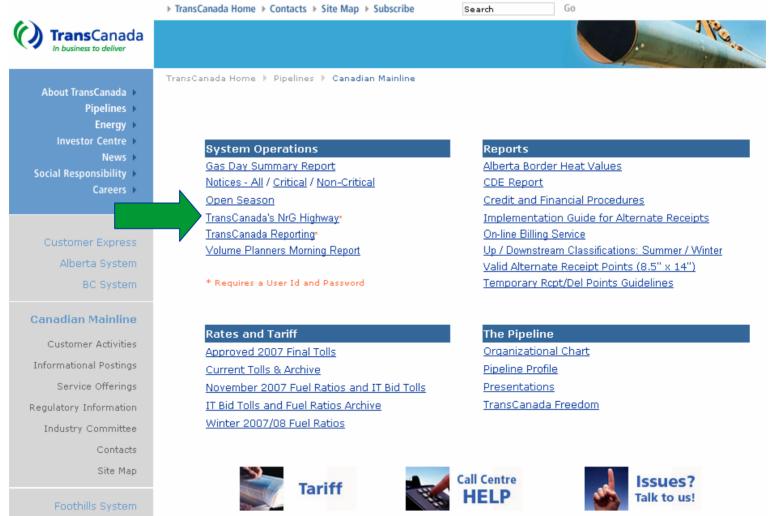
** VOLUME SUMMARY **	Prorated NOM	Extrapolated VOL	08:00 NOM
Empress Border	4938	4839	
McNeill Border	1400	1425	1442
Alberta BC Border	2068	2030	2434
Gordondale Border	0	0	0
**Other Borders	32	38	33
**Total Export	8438	8332	
Intraprovincial	2579	2534	
**Total Storage + Intraprov	2825	2781	2252
**Total Net Storage	111	111	-706
**Total Storage Deliveries	246	247	29
**Total Storage Receipts	-135	-136	-735
**Total NGTL Deliveries	11263	11113	10682
**Total NGTL Receipts	18095	10732	0
**NGTL Field Receipts		10596	
**Linepack at 8:15		13963	
**Linepack Rate of Change		-400	
**Linepack Change (Last 24 h	ours)	-341	
**Linepack Target		13842.6	
**Tolerance		4 / - 4	% or TJs
**Tolerance Last Changed		2007-10-26	at 8:00
**End Day Proj Linepack		13963	
**Total T Account (TJ)		198.1	
**Total Z Account (TJ)		-57.7	-
ada			V



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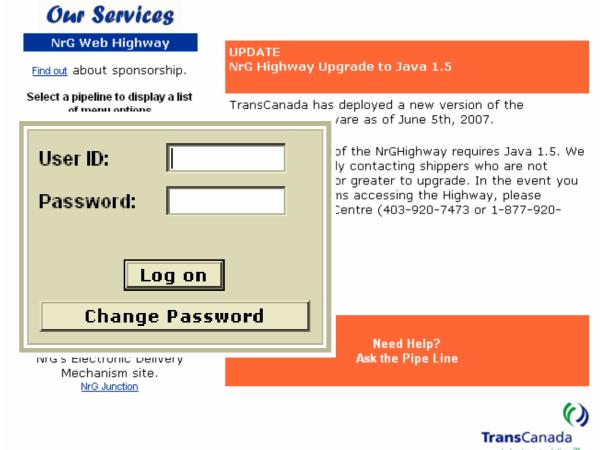


## www.nrghighway.com









TransCanada PipeLines Limited 450 - 1st Street SW - Calgary - AB T2P 5H1 The Call Centre: 1.877.920.PIPE (7473) or 403.920.PIPE (7473)



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News )

Social Responsibil

Customer Express

Alberta System

BC System

#### **Canadian Mainline**

Customer Activities
Informational Postings
Service Offerings
Regulatory Information
Industry Committee

Contacts
Site Map

#### System Operations

Gas Day Summary Report
Notices - All / Critical / Non-Critical

Open Season

TransCanada's NrG Highway\*
TransCanada Reporting\*

Volume Planners Morning Report

#### Rates and Tariff

Approved 2007 Final Tolls

Current Tolls & Archive

November 2007 Fuel Ratios and IT Bid Tolls

IT Bid Tolls and Fuel Ratios Archive

Winter 2007/08 Fuel Ratios

#### Reports

Alberta Border Heat Values

CDE Report

Credit and Financial Procedures

Implementation Guide for Alternate Receipts

On-line Billing Service

Up / Downstream Classifications: Summer / Winter

Valid Alternate Receipt Points (8.5" x 14")

Temporary Rcpt/Del Points Guidelines

#### The Pipeline

Organizational Chart

Pipeline Profile

Presentations

TransCanada Freedom









<sup>\*</sup> Requires a User Id and Password

## **Notices**





### TransCanada Canadian Mainline

#### All Notices

#### View Notice Detail

#### Download a Notice

Click the link in the **Notice Identifier** field to display details of the selected notice.

Right-click on the link, and select the **Save Link/Target As...** option. Type in a file name with a .htm extension, and click **Save**.

Notice Type	Posted Date/Time	Notice Effective Date/Time	Notice End Date/Time	Notice Identifier	Subject
Other	Nov 20, 2007 11:20	Nov 20, 2007 09:00	Dec 20, 2007 09:00	204852101-0	REMINDER TCPL ML Sales & Service Update Meetings
Other	Nov 20, 2007 10:41	Nov 20, 2007 09:00	Dec 20, 2007 09:00	<u>204846201-0</u>	GLGT Firm Release Intraday - 100,000 Dth/d
Other	Nov 20, 2007 10:41	Nov 20, 2007 09:00	Dec 20, 2007 09:00	<u>204846101-0</u>	GLGT Release: Recallable Next Day 100,000 Dth/d
Other	Nov 19, 2007 10:41	Nov 19, 2007 09:00	Dec 19, 2007 09:00	<u>204789101-0</u>	GLGT Firm Release Intraday - 100,000 Dth/d
Other	Nov 19, 2007 10:41	Nov 19, 2007 09:00	Dec 19, 2007 09:00	<u>204789201-0</u>	GLGT Release: Recallable Next Day 100,000 Dth/d
Maintenance	Nov 16, 2007 16:00	Nov 17, 2007 08:00	Nov 23, 2007 17:00	<u>204723301-0</u>	TransCanada Planned Maint Nov. 17 - Nov. 23
Other	Nov 16, 2007 11:11	Nov 16, 2007 09:00	Dec 16, 2007 09:00	<u>204702801-0</u>	GLGT Capacity Releases:No Additional Releases
Other	Nov 15, 2007 10:11	Nov 15, 2007 09:00	Dec 15, 2007 09:00	204627201-0	GLGT Recallable Rest of Winter Block 200,000 Dth/d
Other	Nov 14, 2007 17:50	Nov 14, 2007 09:00	Dec 14, 2007 09:00	204602701-0	STFT - Winter 2007/08 Update - Nov 14
Other	Nov 14, 2007 10:50	Nov 14, 2007 09:00	Dec 14, 2007 09:00	204562401-0	GLGT Firm Release Intraday - 50,000 Dth/d



# www.nrghighway.com





### NrG Home Contact Us TransCanada Mainline CUSTOMER ACTIVITIES **Nominations** Nominations Up/Down Contracts Waivers **Notifications** Notifications Notice Preferences Reporting TransCanada Reporting NrG Reporting Capacity Bulletin Board Administration Company Admin Facilities Admin Notice Admin INFORMATIONAL POSTINGS Site Map

### Our Services

#### NrG Web Highway

Find out about sponsorship.

Select a pipeline to display a list of menu options

> NGTL TCPL

#### NrG Web Highway Setup

Connecting via the Internet First time users

#### NrG Expressway

NrG's Informational Postings Web Site. <u>NrG Expressway</u>

#### NrG Junction

NrG's Electronic Delivery Mechanism site. NrG Junction

#### LIPDATE

NrG Highway Upgrade to Java 1.5

TransCanada has deployed a new version of the NrGHighway software as of June 5th, 2007.

The new version of the NrGHighway requires Java 1.5. We have been actively contacting shippers who are not running Java 1.5 or greater to upgrade. In the event you encounter problems accessing the Highway, please contact the Call Centre (403-920-7473 or 1-877-920-7473).

Need Help? Ask the Pipe Line



TransCanada PipeLines Limited 450 - 1st Street SW - Calgary - AB T2P 5H1 The Call Centre: 1.877.920.PIPE (7473) or 403.920.PIPE (7473)



# **Notice Preferences**





#### Personal Information

Compa	any:	NrG Helpdesk						
Name:		Mr. Mike	Mazier					
Busine	ess Phone	(403) 920-2651	Business Fax:					
Off-sit	e Phone:		Off-site Fax:					
Cellula	r Phone:		Pager:					
E-mail	Address:	mike_mazier@transcanada.com						
Servic	e Provider	: TransCanada PipeLines Limited	V		Settings	by Module		
Ī		Bulletins Capacity Release Com	firmation Noms Mark	etplace Nominati	ons - Shipper To	<u>Fransporter</u>	NOTE: Only ente to that displayed	er an address or telephone number in the in the Personal Information section
	Bulletins							
	Capacity	Constraint			V	E-mail		
Capacity Discount				E-mail				
Ì	Curtailm	ent				E-mail		
Force Majeure				E-mail				
IT Bid Rate			✓	E-mail				
Maintenance				E-mail				
Operational Flow Order				E-mail				
Other				E-mail				
Phone List			E-mail					
	Press Re	elease or Company News				E-mail		
Tolerance Change			V	E-mail				



# Reporting Summary





- Strong Focus on Transactional Systems
- Approximately 10,000 Reports run each day across all TransCanada Pipelines
- Continually Enhancing Reports to help you manage your business on TransCanada





What To Watch For



# No Bumping Pipeline



- Firm is only guaranteed on the Timely window (excluding a Force Majeure scenario)
- On subsequent windows (Evening, Intraday 1 & 2 and STS) increases to any transport, including firm, is authorized only if capacity is available
- No "bumping" of previously authorized nominations
- No firm "return home" of diversion requests



# Curling's Version of Bumping







# Reductions Free Up Space for All



- Reductions to previously authorized nominations free up space for <u>all</u> shippers to access
- The previously authorized space is not held solely for the original shipper to use
- The available space will be allocated to all shippers requesting it based on priority of service at the next nomination window



# Changing Nominations During the Day



- Changes to previously authorized nominations results in:
  - A reduction to the original authorized nom
  - Creation of a new nom to reflect the change
- This includes changes to:
  - Receipt points
  - Delivery points / areas
  - Class of Service



### **IT Penalties**





- Nominate, but does not utilize
- Always subject to a penalty, with waiver provisions
  - Refusal on Interconnecting Pipeline
  - Not a restricted point
- No Harm → No Foul
- Penalty still equal to 25%





### **Imbalance Tolerance**





- Rounding differences at export points
- Agreement with shippers
  - 5 Daily
  - 10 Payback
  - 50 Cumulative





#### **Customer Service**





- Ask for Customer Feedback on an Ongoing Basis
- Customer One on One Training Sessions Available
- What Things can TransCanada do Better?



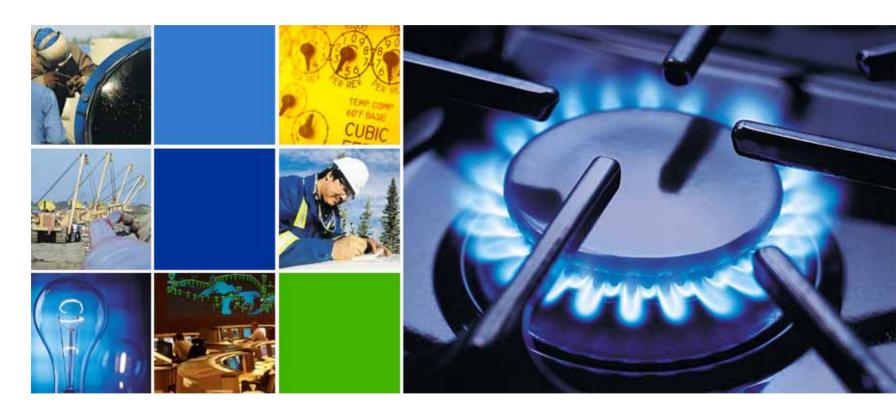




# **Questions?**







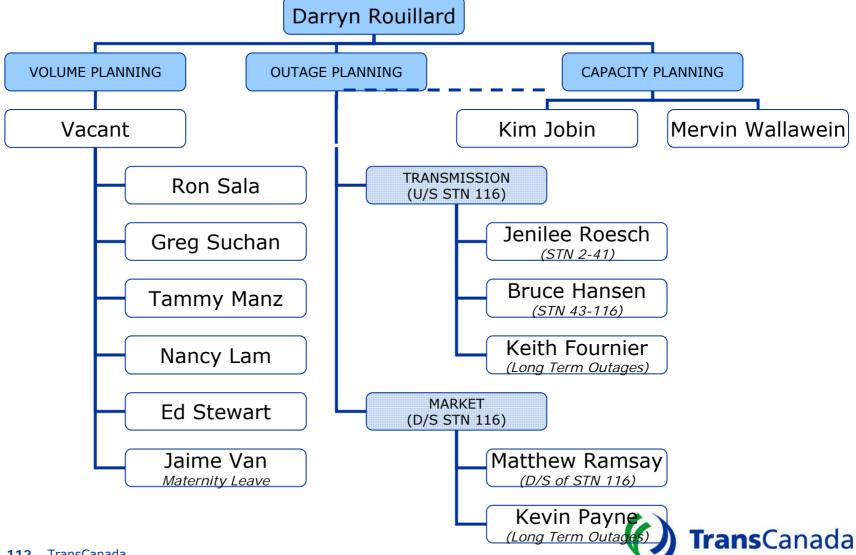
**Pipeline Operations** 



## Mainline Operations Planning







#### **Process of Daily Capacity Allocation**



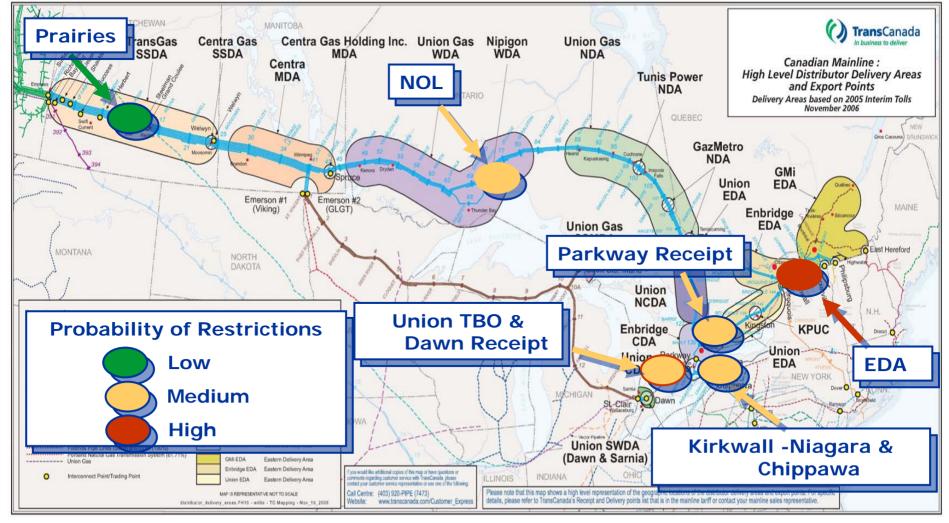
- 1) Simulations done to determine capacity
  - Includes maintenance, outages, ambients....
- 2) Nominations compared to capacity:
  - if nominations < capacity → all authorized</p>
  - if nominations > capacity restrictions required
- 3) Implement restrictions
  - As per Tariff priority of service
  - Only nominations increasing flow through a bottleneck will face possible restriction
  - Can be multiple bottlenecks
  - Can be bottleneck at meter station or lateral



#### Mainline Bottlenecks (Winter)



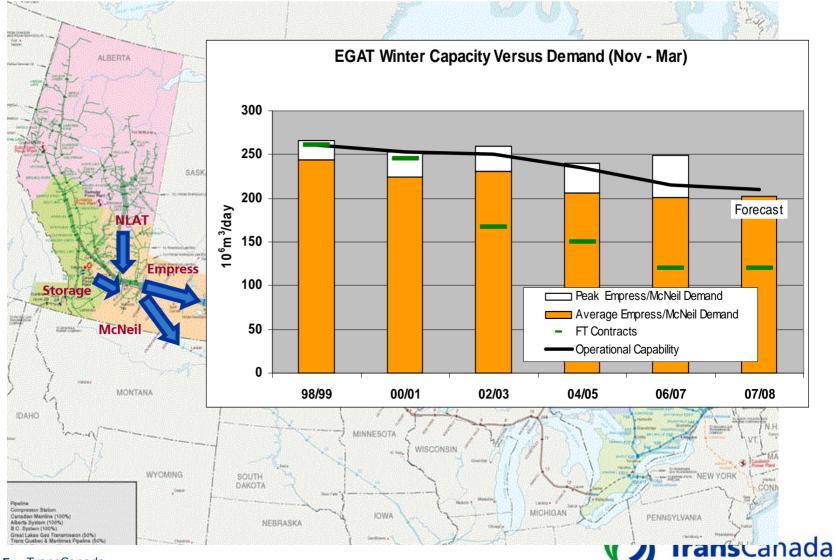




#### **EGAT Winter Outlook**







## Winter - Key Points



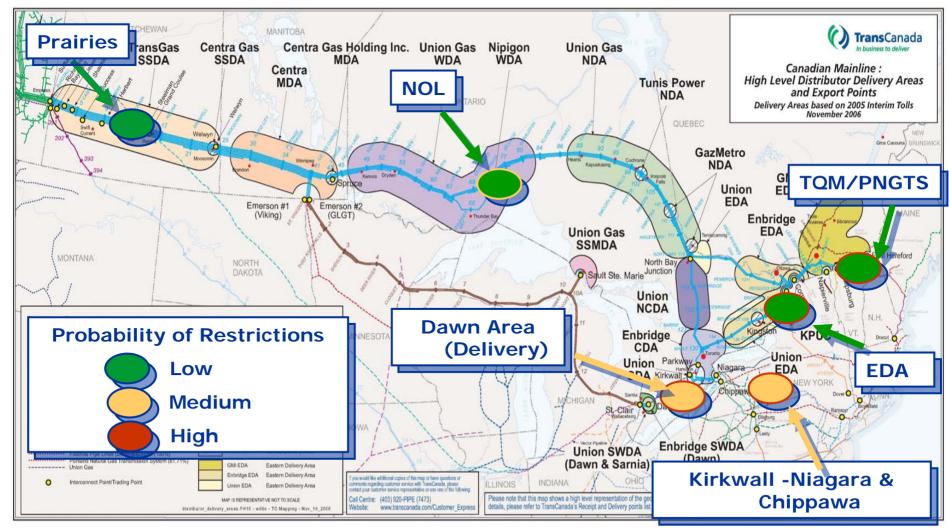
- Parkway Receipts Fully contracted on Firm basis
   Possible restrictions dependant on:
  - 1. Loss of Critical Unit Station 130 (Maple)
  - 2. Level of discretionary quantities nominated away from Parkway
- Fully contracted with Firm to Niagara & Chippawa
- High winter demand
  - Expect restrictions of <u>discretionary services</u> to EDA and export points
- Alberta East Gate
  - Potential restriction of discretionary service if high demand



#### Mainline Bottlenecks (Summer)



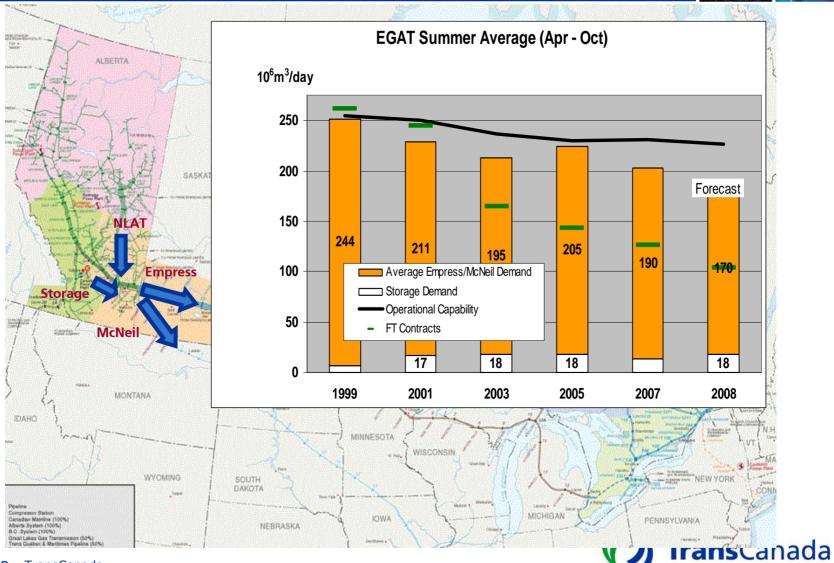




#### **EGAT Summer Outlook**







## Summer - Key Points





#### Pipeline Integrity Work

- Barrie & Montreal Line April to October Hydrostatic Testing & In-line Inspections
- TQM September (In-line Inspection)

#### Compression Work

- Iroquois Extension routine maintenance in summer
- TQM Lachenaie Station TBD
- Kirkwall Lateral outages for new unit installation at Station 1703

Minimal risk of East Gate Alberta restriction



## **Keystone - Mainline Conversion**



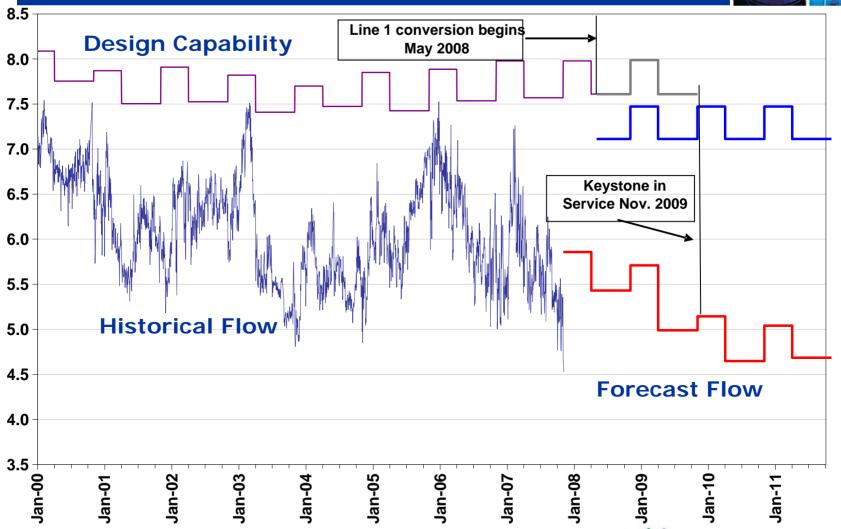
- Line 100-1 from MLV 2 to MLV 37 to be isolated from natural gas lines
- Outages of Line 100-1 and 100-2 required from MLV 2 to MLV 37 to accomplish this
- Outages to occur from May 2008 to December 2008
- Line 100-1 from MLV 2 to MLV 37 to be permanently removed from service by December 2008



## Prairies Line Capability versus Flow (Bcfd)



Trans Canada



## PNGTS - Capacity Outlook



- FIRM Capacity
  - Pittsburgh to Westbrook 168,000 dths starting November 1, 2008
- Discretionary Capacity
  - Pittsburgh to Westbrook up to 250,000 dths per day.
  - Capacity available for discretionary service is dependant on operational conditions.
  - Key considerations in determining Capacity on PNGTS
    - Pressure supplied by TQM/TransCanada
    - Joint facility operating pressure
    - Power plant consumption Rumford/Androscoggin
- PNGTS Late February (In line Inspection)

#### Communication with Volume Planning



- Volume Planning bulletin posted each morning on http://www.transcanada.com/Mainline/reports/volume\_planners/index.html
  - Includes:
    - Empress scheduled flow
    - Linepack information
    - Simulated system bottleneck
    - Scheduled IT
    - Commentary on discretionary services authorized
    - General comments on system operation
- Future communication improvements TC is considering:
  - Red/yellow/green light concept for reporting available capacity at major segments/locations
- If you have further ideas for communication improvements and/or questions on operational information, please contact: The Volume Planners at (403) 920 - 5500





**Continuous Improvement** 



#### Our Focus





- Customer Satisfaction through
  - Operational Excellence
  - Continuous Improvement
- We survey Customers Annually
- We take the results seriously
  - Objectives
  - Performance

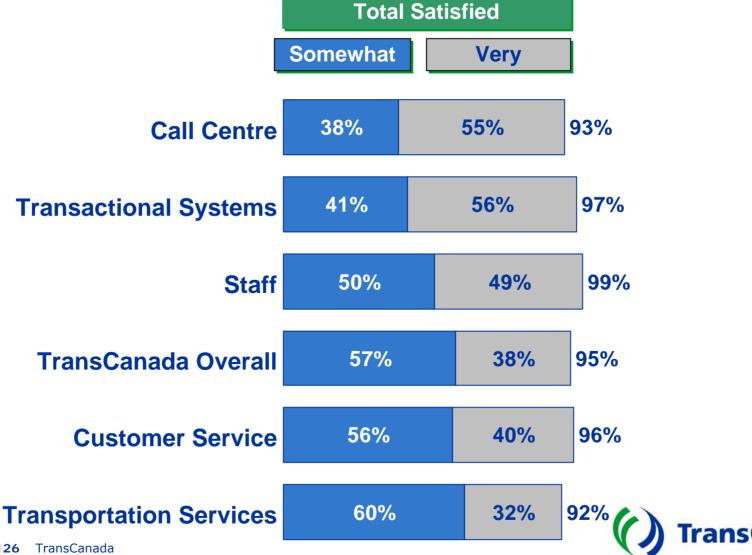




#### 2007 Customer Satisfaction Survey



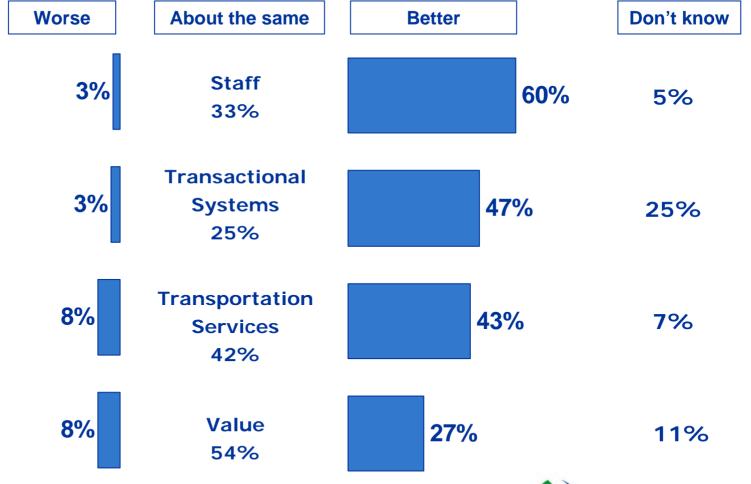




## Comparative Assessment of TransCanada versus Other North American Pipelines

J4. "I'd like to know how you think TransCanada compares to other transportation pipelines in North America."

Your answers can be based on anything you have seen, heard, read or personally experienced."



#### Service Initiatives





- Matched Nomination Transportation (MNT)
  - One contract, 2 legs sharing a common intermediate point (Dawn)
  - Providing access to and from Dawn at a priority higher than discretionary service
- Kirkwall Domestic Delivery Point
  - Providing shippers with contracting options
- Short Notice Power services

Suggestions/Ideas for new services:

Talk to your TC Representative



## Customer Service Instant Messenger (AOL)





- •Immediate View of Available Customer Representatives
- •Ability to Converse with Multiple Customers at Once
- •Enhanced Communication with TransCanada Front Line
- Fast Response to Customer Inquiries

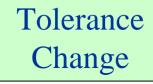




#### Phone Out System









Telephone



Border Restrictions



- Direct Contact to a Large Number of Customers Simultaneously
- Compliments NrG Notifications Service
- •To Sign up for this System at <a href="mailto:nominations@transcanada.com">nominations@transcanada.com</a> or Phone 1-877-920-7473



## IT Bid Warning Flag





- NrG nomination validation message for bids above the minimum IT Bid Rate
- Direct response to comments from Customers
- Immediate Feedback to prevent costly data entry errors

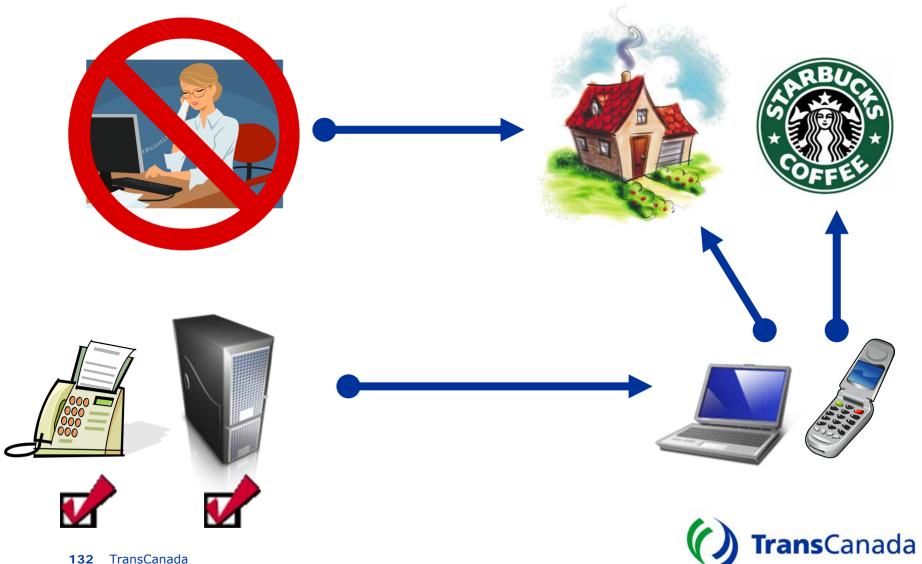




## Pandemic/Business Resumption Planning







## Bid Deposit - Modification





#### Old:

- Shipper must post \$10k with Open Season bid
- Extra cost and admin

#### New:

- Deposits not required for existing shippers with credit coverage
- TransCanada will invoice \$10k if capacity is offered but refused
- Effective October, 2007 for Mainline



## Additional Initiatives Completed





- ✓ Invoice Backup Report CSV format
- ✓ Master Temporary Assignment Agreement (ML)
- Revised EGAT Restriction Procedures
- ✓ Revised Confirmation Process with TGP
- ✓ Negative Flow Rules (PNGTS)
- ✓ Review of Transactional Systems prior to 7:00am





# **Gas Interchangeability**



#### LNG is Coming...





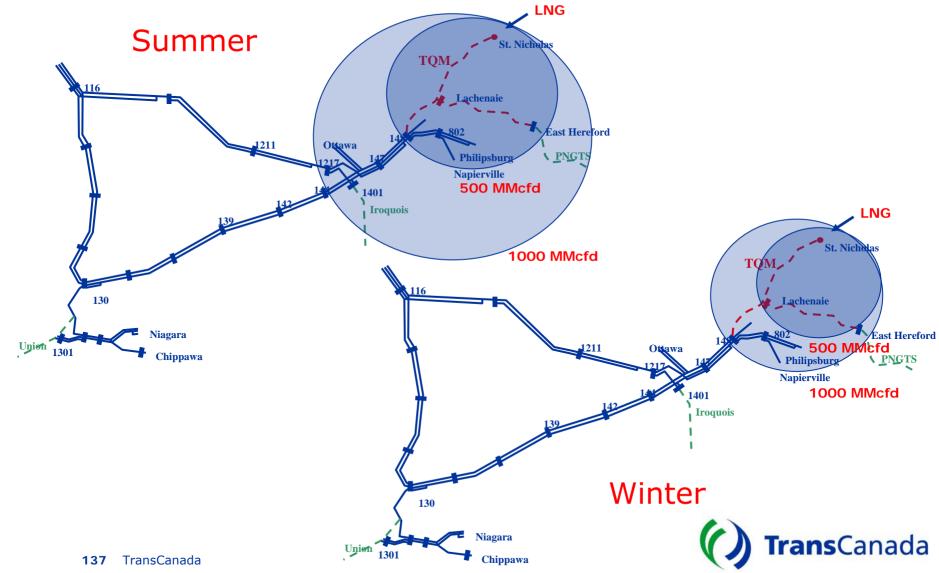
- Expected to enter TransCanada Integrated System in next 5 years
- LNG Composition is different
  - Compared to WCSB
  - LNG supply sources
- Need to ensure that LNG supply is integrated to existing market



#### Seasonal Extent of LNG

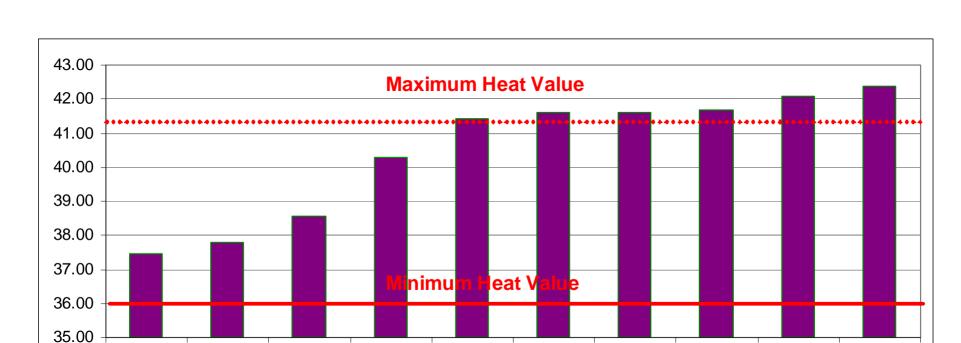






## Natural Gas Heating Values (MJ/m3)





Indonesia

Malaysia

Qatar

Abu Dhabi



Brunei

Australia

TCPI

Station

148

NGTI

**ABC** 

**NGTL** 

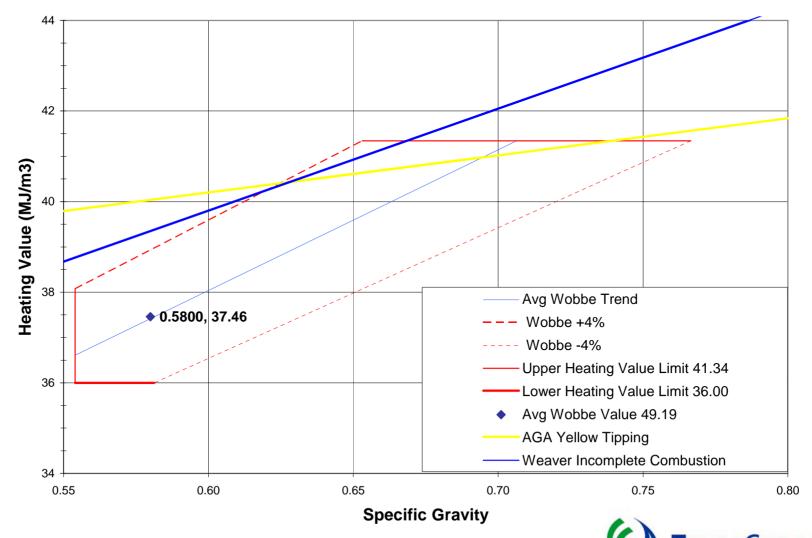
**Empress** 

Norway

## TransCanada Operating Window







#### Conclusions





Proposed TCPL Tariff Changes align with North American practices.

Limits may change over time

- Future Research
- Empirical data is produced

Gas Interchangeability impact can be managed

Majority of Customers will not be impacted





**Nomination Timelines** 



#### **NAESB Update**





#### Considering modifications to nominations model to:

- Benefit all shippers; and
- Improve coordination between electricity & gas scheduling

#### Industry proposals include

- Adding 1 or more new intraday cycles
  - Possible differences between east & west
- Modify current intraday cycles

Please refer to NAESB website for further details <a href="https://www.naesb.org/wgq/wgq">www.naesb.org/wgq/wgq</a> bps 698.asp



#### **Challenges with Current Model**



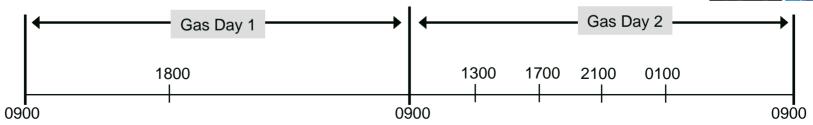
- Nom deadlines are too far from effective time
  - Poor response to volatile markets
  - Imbalances
- Duplicate cycles
  - Timely & Evening for same effective time
- Overlapping/Concurrent cycles
  - Timely cycle for next day & ID 1 for current day
  - Evening cycle for next day & ID 2 for current day

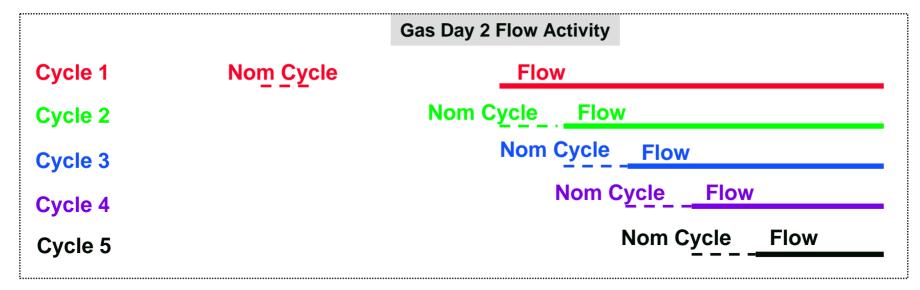
Overly complex; Does not meet industry needs



- Diagram







	Gas Day 3 Flow Activity		
Cycle 1		Nom Cycle	

[ Central Time ]



- Features



Cycle Name	<u>Nom</u>	<u>Effective</u>
1	1800	0900 next gas day
2	0900	1300 same gas day
3	1300	1700 same gas day
4	1700	2100 same gas day
5	2100	0100 same gas day

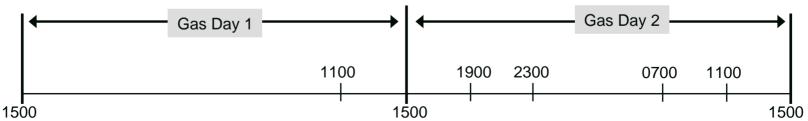
#### **Benefits:**

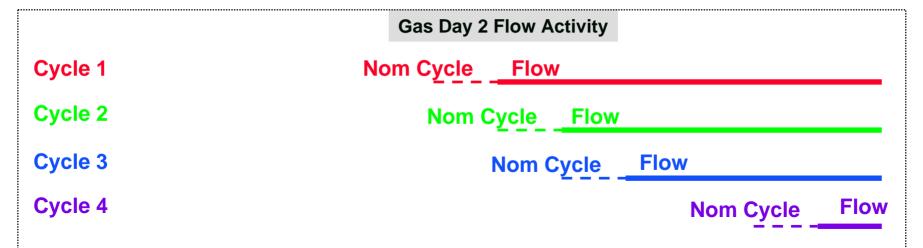
- 5 cycles (1 before Day; 4 intraday)
- No duplicates (delete Timely cycle)
- Reduced overlap
- Some nominations are closer to effective time.



- Diagram







	Gas Day 3 Flow Activity	
Cycle 1		Nom Cycle

( ) TransCanada

- Features



Cycle Name	<u>Nom</u>	<u>Effective</u>
1	1100	1500 next gas day
2	1500	1900 same gas day
3	1900	2300 same gas day
4	0700	1100 same gas day

Gas Day Modified to 1500-1500

#### **Benefits**

- start & end of day cycles in prime Business Hours
- Facilitates 'late in the Day' balancing
- 3 intraday cycles
- Nomination closer to flow time
- No duplicates



### **Summary**





- Current Model has serious flaws
- Adding windows to current model may only make a bad model worse
- May be simple changes to simplify & improve scheduling
  - Option 1: realign windows; add 5<sup>th</sup> window
  - Option 2: change Gas Day
- Comments & Feedback appreciated!!!





**Short Notice Power Services** 



## Gas versus Electricity - Grand Canyon





## **Electricity**

-'real-time'
(5 minute dispatch)

-288 noms/day

-firm access 7x24





#### Gas

'day ahead'

-4 noms/day

-no assured accessfor firm except attimely window



## Power Services:

#### Firm Transportation – Short Notice (FT-SN)



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ול			$\mathbf{C}\mathbf{I}$	L.V

TransCanada FT-SN

Gas

-'real-time'

(5 minute dispatch)

-15 minute dispatch

-'day ahead'

-288 noms/day

-96 noms/day

-4 noms/day

-firm access 7x24

-reserved capacity-short-notice balancing

-no assured accessfor firm except attimely window







# Firm Transportation Short Notice (FT-SN)



- Designed to meet the requirements of gas-fired electrical power generators but available to all Mainline shippers
- Same attributes as FT with the following differences:
  - Reservation of capacity (Firm all day)
  - Nominations in flow rate rather than daily quantity
  - 96 nomination windows
  - Separate delivery point
  - Flow control required
  - No RAM Credits



#### Short Notice Balancing (SNB)





- Must be linked to an FT-SN contract
- A firm, storage-like balancing service
- Reservation of capacity (firm all day) up to
   FT-SN contract demand
- Nominations in flow rate not daily quantity
- 96 nomination windows available



#### The end.....









# Questions?

