

June 18, 2013

Ontario Energy Board  
2300 Yonge Street  
Suite 2700  
Toronto, Ontario  
M4P 1E4

Attention: Ms. Kirsten Walli, Board Secretary

**RE: EB-2012-0451 – Greater Toronto Area (“GTA”) LTC Project**  
**EB-2012-0433 – Parkway West Project**  
**EB-2013-0074 – Brantford – Kirkwall/Parkway D Project**  
**Union Gas Limited – Technical Conference Undertakings**

Dear Ms. Walli,

Please find attached Union’s Undertaking responses related to the Technical Conference held June 12<sup>th</sup> and 13<sup>th</sup>, 2013 in the above case.

If you have any questions with respect to this submission please contact me at (519) 436- 5473.

Yours truly,

*[original signed by]*

Karen Hockin  
Manager, Regulatory Initiatives

cc: Crawford Smith, Torys  
All Intervenors

UNION GAS LIMITED

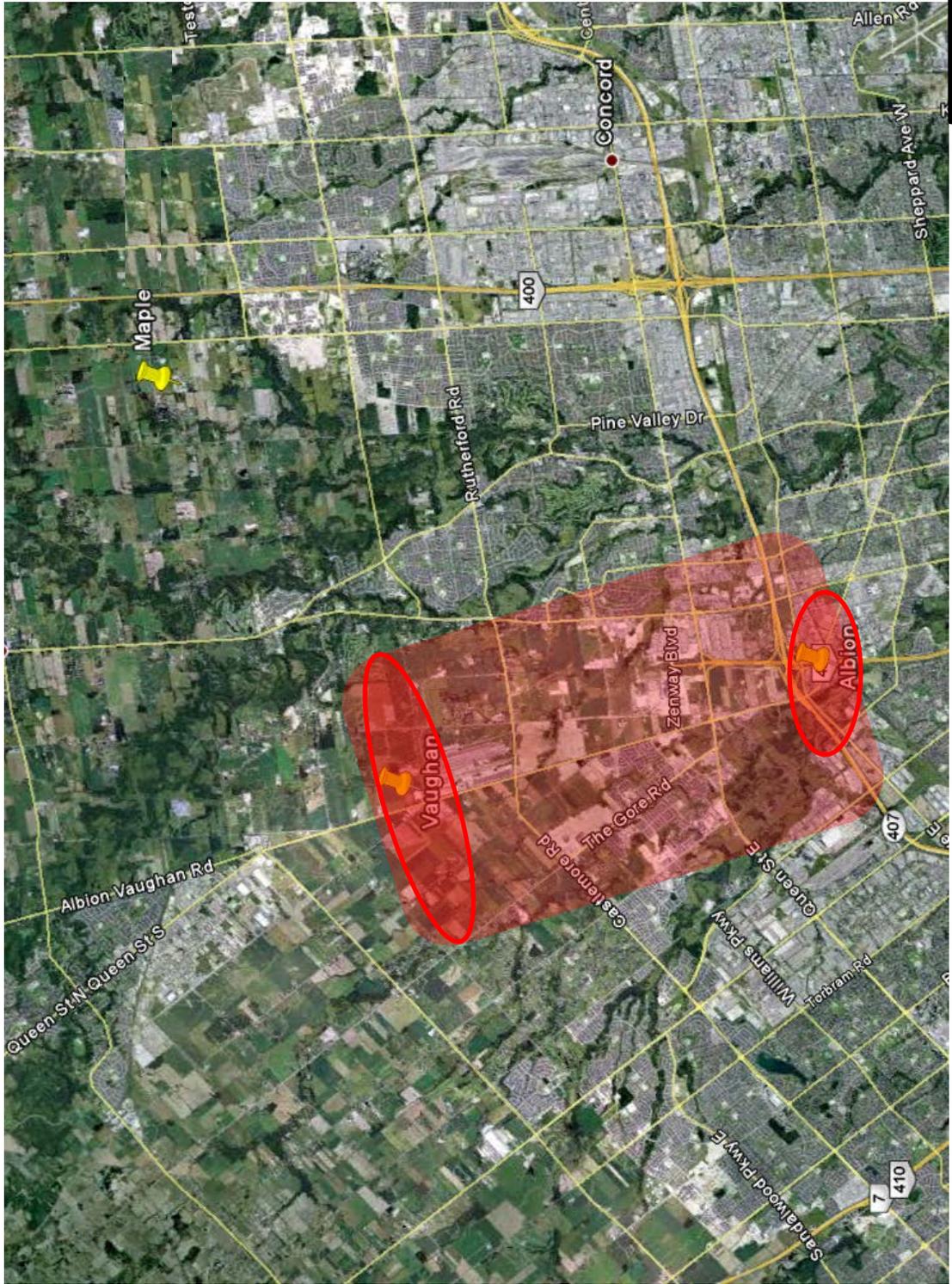
Undertaking of Mark Isherwood  
to Board Staff

To provide map of Albion to Maple Line.

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Please see map attached.

Albion to Vaughan Project – Area of Consideration



UNION GAS LIMITED

Undertaking of Mark Isherwood  
to School Energy Coalition

To provide response to EX1.A1.UGL.CCC.4. Include update to extent Union Board is aware of TCPL updates.

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Attached is a copy of the presentation provided to the Spectra Energy Board of Directors on June 11, 2013. The Board of Directors approved the capital expenditures for the Parkway West Project and conditionally approved the capital expenditures for the Parkway D compressor facilities.

As noted in the presentation, Union plans to seek Spectra Energy Board of Directors approval for the Brantford-Kirkwall pipeline once Parkway-Maple pipeline expansion details are more defined. Union expects to seek Spectra Energy Board of Directors approval of the Brantford-Kirkwall pipeline in August/September 2013.



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# Parkway Projects

## Project Authorization

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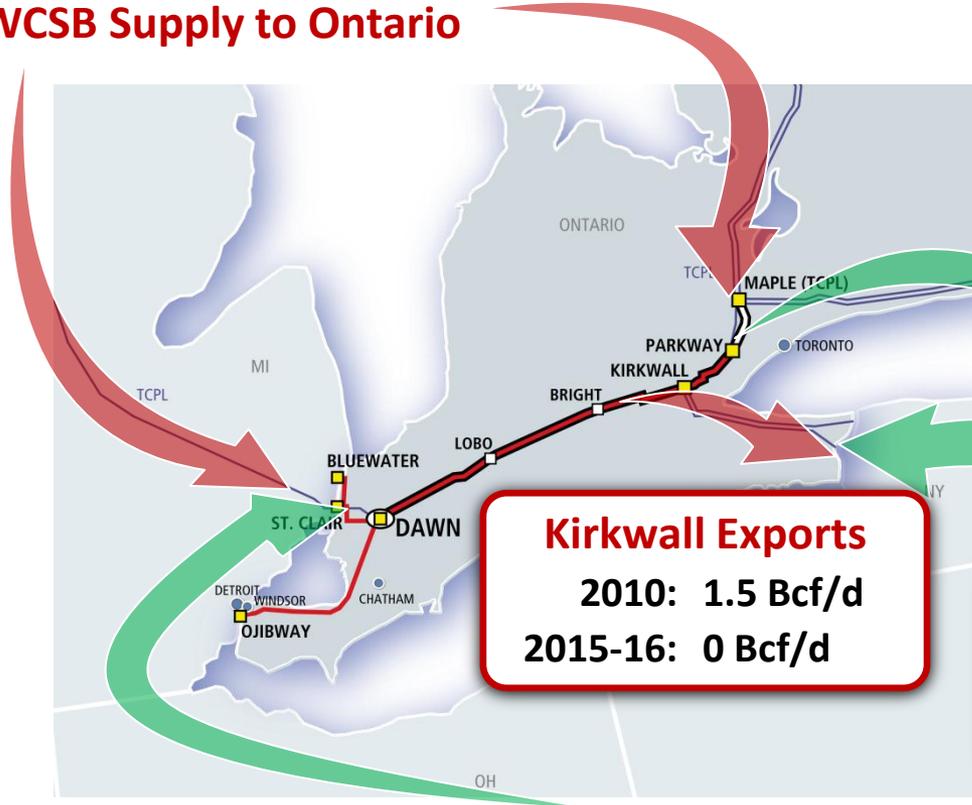
Steve Baker – President, Union Gas

# Agenda

- Changing Supply Dynamics
- Transaction Overview
- Recent Market Developments and Response
- Strategic Rationale
- Financials & Monte Carlo Results
- Project Status
- Risks & Mitigation
- Project Approval Requests

# Impacts of Changing Supply Dynamics

## Declining WCSB Supply to Ontario



**Parkway - TCPL**  
 2010: 1.9 Bcf/d  
 2015-16: 3.4 Bcf/d  
**Parkway – Enbridge**  
 2010: 1.6 Bcf/d  
 2015-16: 1.2 Bcf/d

**Ontario, Quebec & Exports into US N.E.**

**Marcellus Supplies to Ontario**

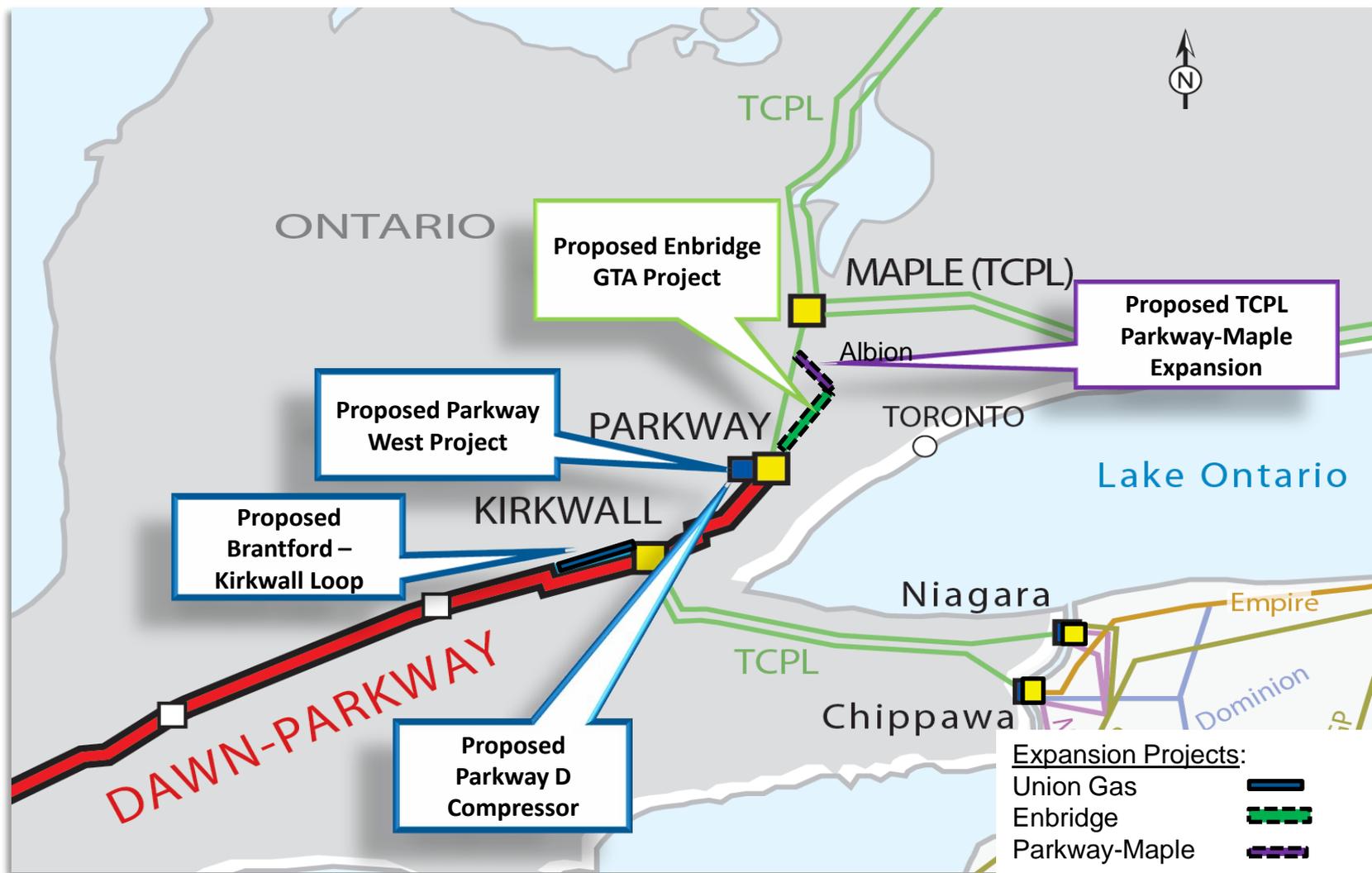
**Kirkwall Exports**  
 2010: 1.5 Bcf/d  
 2015-16: 0 Bcf/d

**Kirkwall Imports**  
 2010: ~ 0.0 Bcf/d  
 2015-16: > 0.4 Bcf/d

**Utica, Marcellus & Midwest Supplies to Ontario**

**With the market shift from long haul to short haul transportation, more natural gas is being delivered through Parkway**

# Project Map – Parkway Projects



# Transaction Overview - Parkway Projects

- “Parkway Projects” includes “Parkway West Development” and “Parkway Growth Projects”
- Parkway West Development
  - New site near Parkway to serve growth & reliability requirements (2014)
    - Site development and feed to new Enbridge gate station
  - Increased security of supply for Enbridge & eastern markets (2015)
    - Loss of Critical Unit (LCU) backup compressor - Parkway C
    - New connection to TCPL
- Parkway Growth Projects
  - New growth volumes of 730,000 GJ/d(2015)
    - Enbridge (400,000 GJ/d), Gaz Métro (257,000 GJ/d), Union (70,000 GJ/d)
  - New 44,500 HP Growth Compressor (Parkway D) at new Parkway West Site
  - 8.7 miles of 48” Brantford – Kirkwall Loop
- Total Capital \$407M (Parkway West \$203M, Parkway D \$108M, Brantford – Kirkwall \$96M)

# Strategic Rationale

- Changing flow dynamics have resulted in significant flow increases through Parkway
- An outage at Parkway on a peak day would have significant customer impacts for Enbridge and the Greater Toronto Area (GTA) and eastern Ontario/Quebec
- Parkway West will provide security of supply and reliability for existing and new Parkway demands
- Parkway West will maintain customer confidence on the integrity of the system with the new Dawn supply growth
- Parkway West complements future growth projects, including the proposed Parkway Growth Project and Enbridge GTA Project
- Parkway Growth Projects meet increased demand for new Dawn supply by eastern LDCs (Enbridge/Gaz Métro/Union) and supports supply diversity and liquidity for Ontario
- Parkway Growth Projects combined with Parkway-Maple infrastructure facilitate supply diversity and ability to remarket future turn back capacity on the Dawn-Parkway System

# Recent Market Developments

- TCPL Rate Case Decision (March)
  - Five year fixed rate tolls set at level below TCPL's cost of service
  - TCPL at risk for revenue shortfall based on their long-term throughput forecast
- TCPL Oil Line Conversion Open Season (March)
  - Leaves eastern markets 300,000 GJ/d short of current FT demand
  - Potential for significant impact on eastern markets (scarcity, volatility and reduced liquidity)
  - Shortfall on a cold winter day of an additional 700,000 GJ/d of IT and short term services
- TCPL position that they will not expand Parkway-Maple in 2015 (April)
  - TCPL not prepared to expand short haul paths and facilitate supply diversity (i.e. not prepared to build Albion-Maple)
  - Direct impact on Union's Brantford-Kirkwall expansion
- TCPL Compliance Filing (May)
- TCPL Review and Variance (May)
  - TCPL requested increased tolls, significant changes to contractual renewal rights, and elimination of downstream diversions/alternate receipt point flexibility

# Union's Response

1. Continuing to get alignment with eastern market participants
  - Enbridge, Gaz Métro, ANE, APPrO and IGUA
2. Developing GR strategic response and communication plan
  - Federal, provincial and municipal levels
3. Union deferring Brantford-Kirkwall request for SE Board of Directors approval pending resolution of the Albion-Maple pipeline build
4. Albion-Maple pipeline
  - Prefer TCPL to construct as per their original commitment
  - Environmental Assessment initiated by Union to preserve build option
  - Potential regulatory intervention to ensure open access to the TCPL system
5. SE strategy team to ensure aligned market response

# Parkway Projects Status

- Enbridge and Gaz Métro contracted for 0.66 PJ/d of new capacity
  - Enbridge also renewed 1.7 PJ/d Dawn to Parkway to 2022
- Gaz Métro received regulatory approval to move supply to Dawn (Dec 2012)
- Enbridge filed GTA Project with OEB December 2012
  - Proposed shared usage of portion of new pipeline with TCPL
- Parkway West filed with OEB January 2013
  - Seeking leave to construct and full rate recovery (new approach)
- Parkway Growth Projects filed with OEB April 2013
- TCPL communication re: not willing to expand Albion-Maple given their recent NEB decision
- Union deferring request for SE Board of Directors approval of 48” Brantford-Kirkwall pipeline loop pending resolution of the Albion-Maple pipeline
- Pursuing options with Enbridge, Gaz Métro and TCPL for Parkway-Maple, including Albion-Maple pipeline to preserve 2015 service requests

# Base Case Assumptions

- In-service Date – November 2014/15
- Capital - \$310.2 M (Parkway West; Parkway D Compressor)
- All analysis done in Canadian dollars
- Project economics assume full cost of service recovery in rates at regulated return levels in years 2015 through 2018, then rebasing and subsequent 5 year IR periods
- Assumes annual rate increases during IR periods

# SE Financial Implications

|                             |                                  |
|-----------------------------|----------------------------------|
| <b>Capital Expenditures</b> | <b>\$ 310.2</b> (\$Millions CDN) |
| <b>Project IRR</b>          | <b>6.0%</b>                      |
| <b>NPV @ 8.5%</b>           | <b>\$ (57.3)</b>                 |
| <b>NPV @ 6.0%</b>           | <b>\$ -</b>                      |
| <b>Payback Years</b>        | <b>14</b>                        |

|                                       |             |
|---------------------------------------|-------------|
| IRR Based on Regulated Utility Return | 5.1%        |
| Rate Increase during PBR              | 0.2%        |
| Other                                 | <u>0.7%</u> |
| <b>Base Case IRR</b>                  | <b>6.0%</b> |

| (\$ Millions CDN)               | 2011/12 | 2013    | 2014    | 2015    | 2016  | 2017  | 2018  |
|---------------------------------|---------|---------|---------|---------|-------|-------|-------|
| <b>CapEx</b>                    | 3.5     | 42.7    | 127.4   | 135.3   | 1.3   | -     | -     |
| <b>AT Cashflow</b>              | (3.5)   | (42.3)  | (123.8) | (121.1) | 23.6  | 24.5  | 24.1  |
| <b>Revenue</b>                  |         |         | -       | 5.7     | 24.5  | 25.8  | 26.9  |
| <b>EBIT</b>                     |         |         | (0.7)   | -       | 13.3  | 14.6  | 15.6  |
| <b>EBITDA</b>                   |         |         | (0.3)   | 4.6     | 21.5  | 22.8  | 23.8  |
| <b>ROCE (%)</b>                 |         |         | -0.8%   | 0.0%    | 4.6%  | 5.3%  | 5.9%  |
| <b>ROE (%)</b>                  |         |         | 8.9%    | 9.5%    | 10.3% | 10.3% | 10.3% |
| <b>EPS Accretion/(Dilution)</b> |         | (0.000) | (0.002) | (0.001) | 0.009 | 0.008 | 0.008 |



# Parkway Projects Sensitivity Analysis

## Base Case IRR 6.0%

### Monte Carlo 5/95

#### CapEx

(\$251.0 MM, IRR=6.0%)  
(\$353.8 MM, IRR=6.0%)

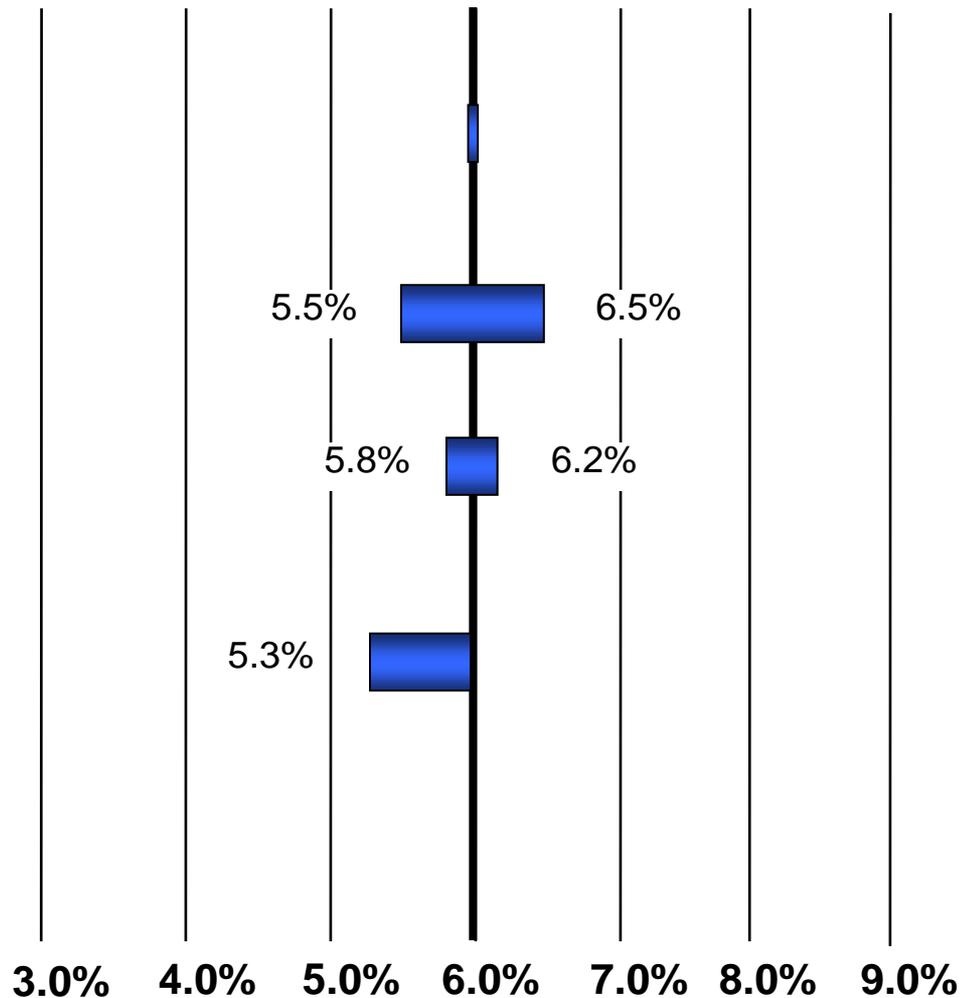
Interest Rates and Other

Regulatory Outcomes

### Sensitivity

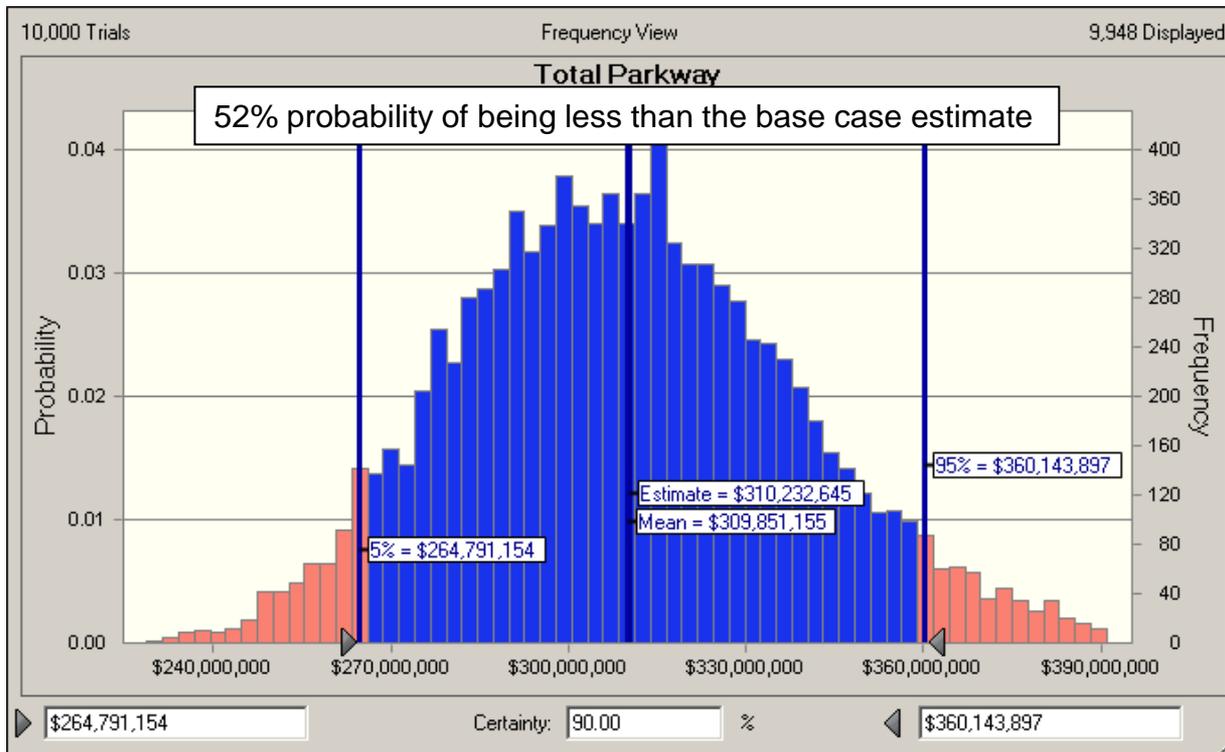
#### U.S. Repatriation

Assumes 60% of Project Net Income repatriated at 35% U.S. Tax Rate





# CapEx Monte Carlo Results



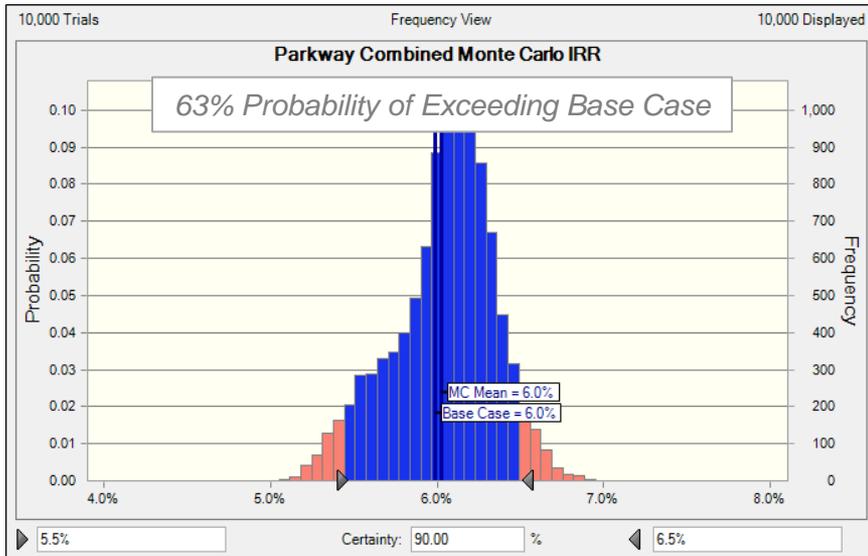
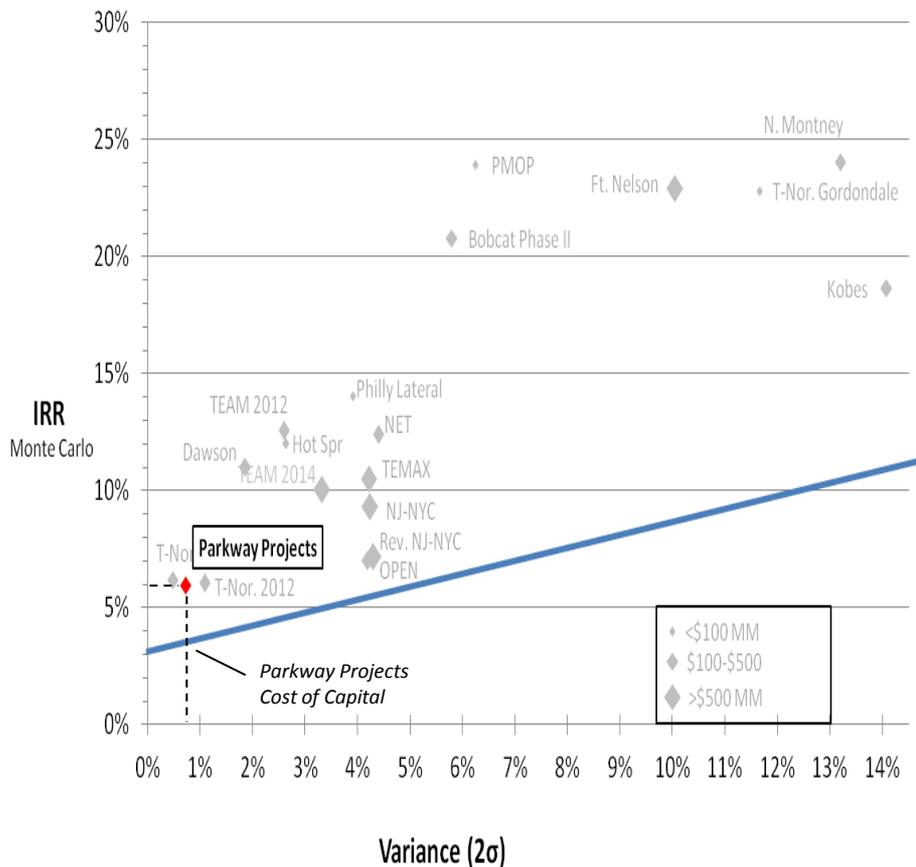
| Variance Explanation     | (\$MM)   |
|--------------------------|----------|
| Base Case Estimate       | \$310.2  |
| Contingency              | (\$38.8) |
| Estimate w/o Contingency | \$271.4  |
| Prime Contractors        | \$21.4   |
| Company Materials        | \$5.1    |
| Risk Events              | \$8.8    |
| Other                    | \$3.2    |
| Monte Carlo Mean         | \$309.9  |

## Assumptions and Major Risks & Opportunities

- First Nations will not create a delay in the OEB process.
- Prime Contractor cost uncertainty is identified as top driver for project costs.

# Parkway Projects Financial Monte Carlo Results

### SET Projects and Cost of Capital Line



|                          |       |
|--------------------------|-------|
| Base Case IRR            | 6.0%  |
| CapEx                    | 0.0%  |
| Interest Rates and Other | 0.1%  |
| Regulatory Outcomes      | -0.1% |
| Monte Carlo Mean IRR     | 6.0%  |

\* Run at 10,000 trials

# Risks & Mitigation

- TCPL Parkway-Maple Build (see slides 5 & 6)
- Regulatory Approval Risk (Enbridge and Union projects)
  - Combined regulatory process with robust evidence for Parkway Projects and Enbridge GTA Project
  - Market and stakeholder support through project awareness and advocacy program
  - Financial backstop agreement from shippers
- Financial Commitment Risk (prior to September OEB approval)
  - Compressor order required prior to OEB approval
  - Optimize Rolls Royce compressor order and cancellation schedule
  - Financial backstop agreement from shippers
- Schedule Risk (Parkway West land rezoning appeal)
  - Comprehensive consultation and communication program (nearby landowners and municipality)
  - Early site civil work can start during zoning appeal period
- Resource Risk
  - Early identification of internal and external resource requirements and implementation of strategy

# Summary

- The Parkway Projects are critical infrastructure for customers in Ontario, Québec and the U.S. Northeast
- The Parkway Projects address supply reliability related to the significant changes in gas flows in Ontario
- The Parkway West Project provides reliability for existing and new demand from customers downstream of Parkway (Enbridge, Gaz Métro, power producers, industrials and ANE)
- Parkway D Compressor, the Brantford to Kirkwall looping and Albion-Maple infrastructure combine to provide an opportunity to remarket future Dawn-Kirkwall/Parkway turn back capacity
- Complements future expansion projects in the GTA and beyond the GTA
- Facilitates customer requests for supply diversity back to Dawn
- Supports increased demand for new Dawn supply and liquidity

# Project Approval Requests

- Received FRC endorsement May 15 and TRC approval May 21 for Parkway West Project and Parkway D Compressor
- Union is seeking Spectra Energy Board of Directors approval for the following projects:
  - Parkway West Project (\$203M)
  - Parkway D Compressor (\$108M)
  - Union seeking authorization to spend no more than \$310.2M in capital
- Note: Union will seek approval for the 48” Brantford-Kirkwall pipeline and any additional capital required to address the Parkway-Maple facilities in the fall pending resolution of recent market events



# Appendix

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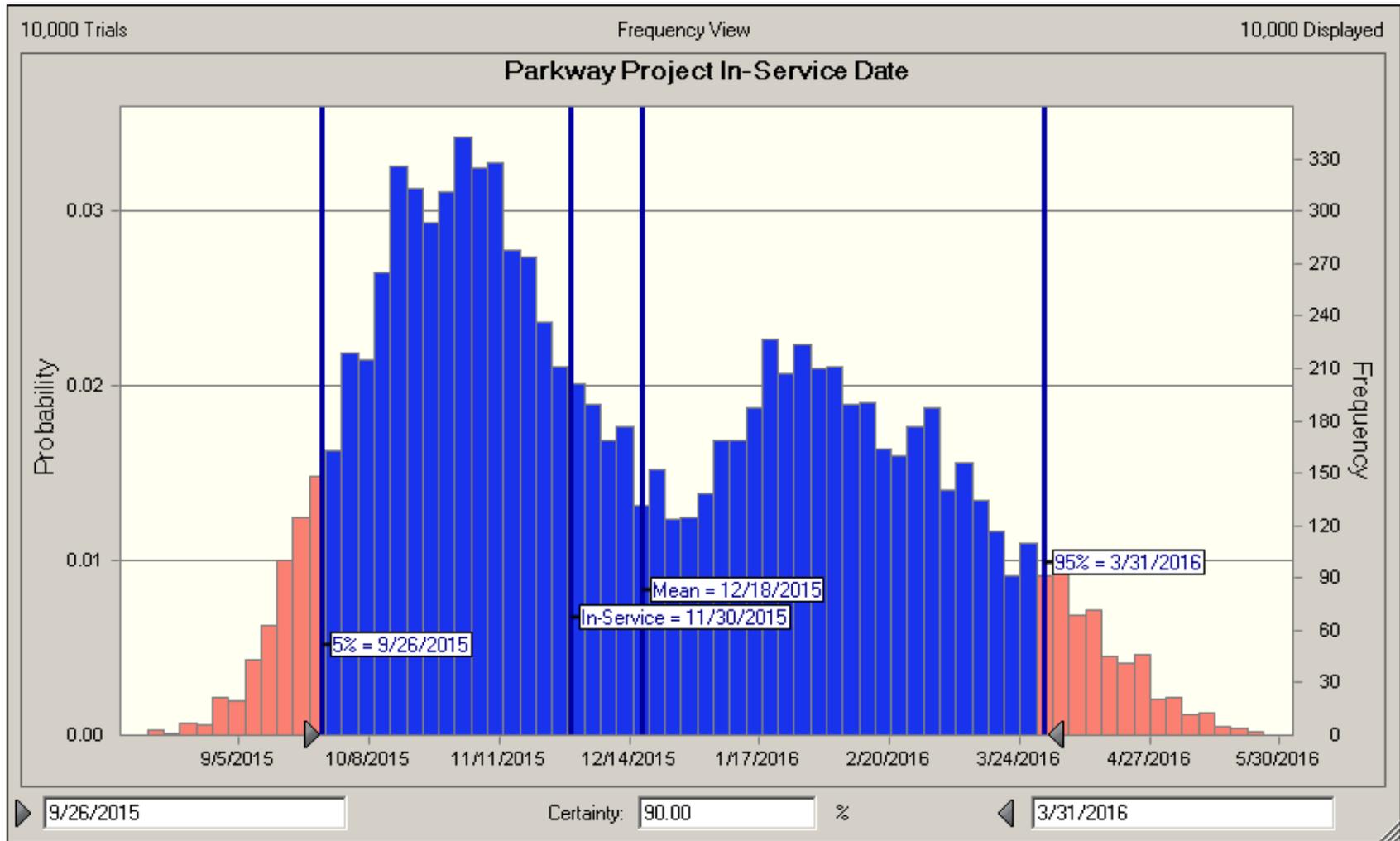
- Project Schedule & Monte Carlo
- Credit Ratings
- Parkway West Layout

# Project Schedule

|                               |                       |
|-------------------------------|-----------------------|
| Land Option Expiry            | July/August 2013      |
| Compressor Order              | August/September 2013 |
| OEB Decision                  | September 2013        |
| Construction Start            | October 2013          |
| In-Service                    |                       |
| Parkway West Site Development | November 2014         |
| New Enbridge Connection       | November 2014         |
| Parkway C (LCU)               | November 2015         |
| Parkway D (Growth)            | November 2015         |
| Brantford-Kirkwall            | November 2015         |



# Schedule Monte Carlo Results



**Note: Schedule delay due to construction without early civil work**

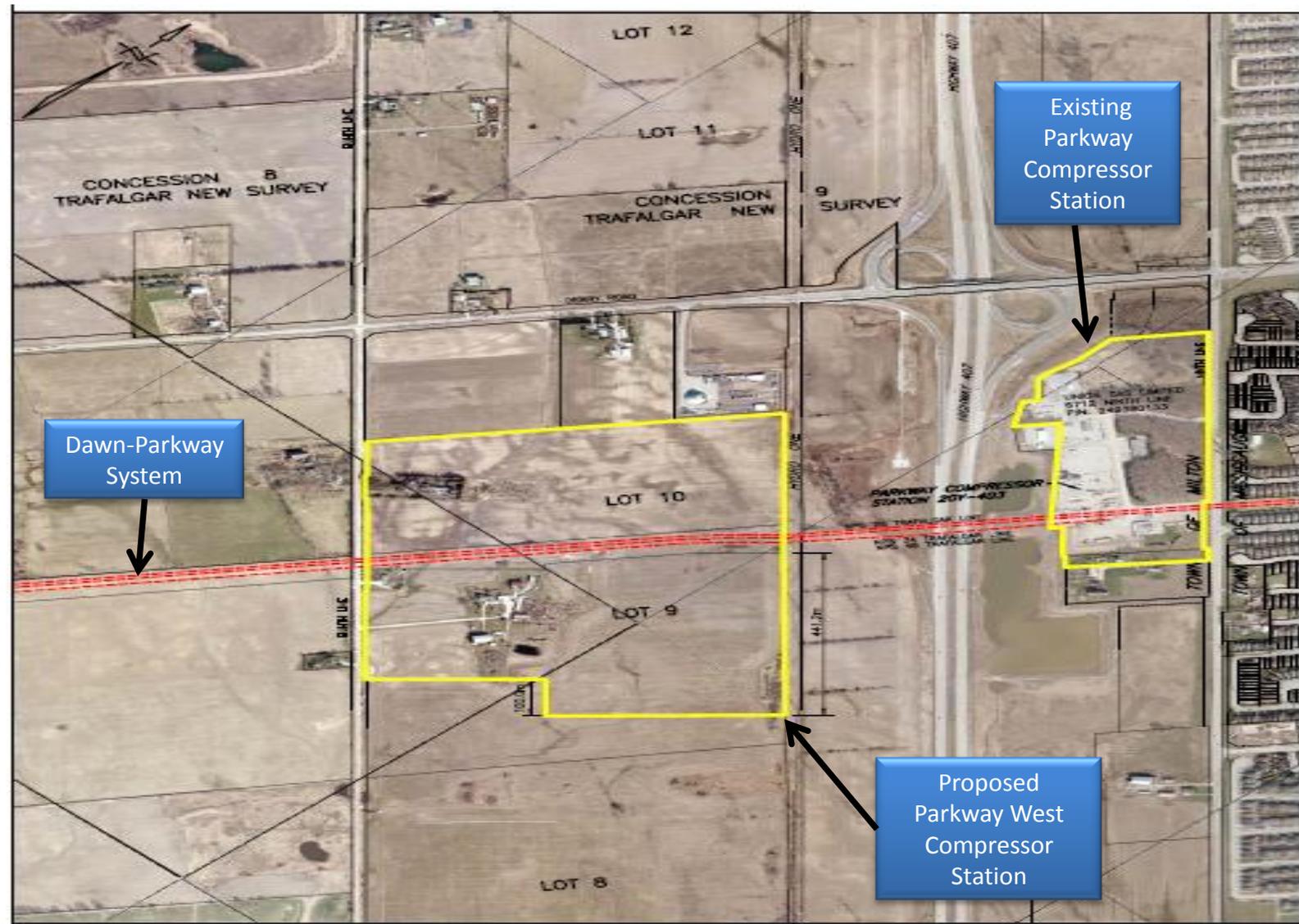
Target In-Service date is at the 47<sup>th</sup> percentile



# Credit Ratings

| <u>Company</u> | <u>Quantity Mmcf</u> | <u>Contract Signed</u> | <u>Shipper CPs Status/Deadline</u> | <u>Customer Rating</u> | <u>Parent Rating</u> | <u>Credit</u>        |
|----------------|----------------------|------------------------|------------------------------------|------------------------|----------------------|----------------------|
| Enbridge       | 374.0                | Yes                    | Sept/Oct - 2013                    | A-                     | A-                   | In Place - Unsecured |
| Gaz Métro      | 241.0                | Yes                    | Satisfied                          | A-                     | A-                   | In Place - Unsecured |
| Vermont        | 7.6                  | Yes                    | Satisfied                          | BBB                    | A-                   | In Place - Unsecured |
| Union Gas      | 65.6                 | n/a                    | n/a                                | n/a                    | n/a                  | n/a                  |
| <b>Total</b>   | <b>688.2</b>         |                        |                                    |                        |                      |                      |

# Parkway West - Aerial View



UNION GAS LIMITED

Undertaking of Mark Isherwood  
to Board Staff

To provide response as to why the lower total volume required through Parkway in 2013/2014  
(2537 vs 2465)

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The 2012/2013 and 2013/2014 forecast volumes through Parkway provided in Exhibit I.A1.UGL.BOMA.3 part (d) were prepared as part of Union's EB-2011-0210, 2013 Rebasing Application, prepared in 2011. The forecast volumes through Parkway for 2014/2015 and beyond were updated for the EB-2013-0074 application. These forecasts in 2014/2015 and beyond include capacity turned back by notice that will be effective November 1, 2014 and through the reverse open season that will be effective November 1, 2015. The updated 2013/2014 forecast volumes through Parkway are 2,442 TJ/d.

UNION GAS LIMITED

Undertaking of Paul Rietdyk  
to FRPO

To advise heating degree days on January 23, 2013; were interruptible on or off, and what percentage utilization would Union project for this day.

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The degree day on January 23, 2013 was a 30.3 DD and no interruptions had been called on the Dawn-Parkway system.

Union ran a verification using the Dawn-Parkway network model to simulate the conditions on January 23, 2013. The results from the simulation for the utilization of Parkway were within 1.5% of the actual conditions for the day.

UNION GAS LIMITED

Undertaking of Paul Rietdyk  
to FRPO

To provide comparison of costs and values between 48 and 42 inch pipe between Brantford and Kirkwall.

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If Union were to install an NPS42 pipeline between Kirkwall and Parkway, the entire length of 38 kilometers would need to be looped to provide capacity comparable to Brantford-Kirkwall. The estimated cost related to the 38 kilometers of NPS42 pipeline is over \$240 million dollars, compared to the proposed Brantford-Kirkwall costs of \$96 million. The cost per unit capacity of an NPS 42 pipeline between Kirkwall and Parkway is \$960/GJ/d. The cost per unit capacity of the proposed Brantford to Kirkwall pipeline is \$400/GJ/d. There is no change in the requirement for Parkway D in either scenario.

UNION GAS LIMITED

Undertaking of Mark Isherwood  
to FRPO

Using 2012 rates, to provide a comparison of commodity and fuel gas cost service around the horn vs direct path from Dawn to Parkway.

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Attached is material filed by Union with the National Energy Board as Exhibit C64-19 in the TransCanada Application for Restructuring and Mainline Tolls for 2012-2013 (RH-003-2011). This analysis compares the cost of transportation from Dawn to Enbridge CDA on the TransCanada system. The analysis uses the Revised TransCanada Toll Design (June 29, 2012) and includes demand, commodity and fuel costs.

Three toll calculations were compared:

Method 1: TransCanada posted toll assumed to be “On the Path” from Dawn to Parkway to Enbridge CDA.

Method 2: “Around the Horn” toll calculated by adding all component transportation costs from Dawn to Emerson to Enbridge CDA.

Method 3: “Around the Horn” toll calculated using the TransCanada system average unit cost for distance calculation from Dawn to Emerson to Enbridge CDA.

The analysis shows that the “Around the Horn” transportation costs calculated by either adding component transportation costs or using the TransCanada system average unit cost for distance calculation are five to ten times greater than the “On the Path” toll. TransCanada transportation from Dawn to Enbridge CDA using the Dawn-Parkway System is more economic for Ontario natural gas customers.

**Toll and Fuel Comparison - Dawn to Enbridge CDA**

| <b><u>Method 1 - On Path</u></b> |               |           |               |                 |
|----------------------------------|---------------|-----------|---------------|-----------------|
| Line No.                         | a             | b         | c             | d               |
|                                  | Toll (\$/GJ)  | Fuel (%)  | Fuel (\$/GJ)  | TOTAL (\$/GJ)   |
| 1 Dawn - Enbridge CDA            | \$ 0.2276 (1) | 0.15% (2) | \$ 0.0054 (3) | \$ <b>0.233</b> |

| <b><u>Method 2 - Around the Horn, Cost of Facilities Used</u></b> |                  |           |                  |                        |
|---|------------------|-----------|------------------|------------------------|
|   | Toll (\$/GJ)     | Fuel (%)  | Fuel (\$/GJ)     | TOTAL (\$/GJ)          |
| 2 Dawn - Dawn(TCPL)   | \$ 0.0072 (4)    | 0.51% (4) | \$ 0.0183 (3)    | \$ 0.026               |
| 3 Dawn(TCPL) - St. Clair  | \$ 0.0783 (5)    | 0.02% (2) | \$ 0.0007 (3)    | \$ 0.079               |
| 4 St. Clair - Emerson   | \$ 0.0982 (6)    | 1.00% (2) | \$ 0.0362 (3)    | \$ 0.134 (7)           |
| 5 Emerson - Enbridge CDA  | \$ 1.1067 (8)    | 1.17% (2) | \$ 0.0424 (3)    | \$ 1.149               |
| 6 Full Path   | <u>\$ 1.2904</u> |           | <u>\$ 0.0976</u> | <u>\$ <b>1.388</b></u> |

| <b><u>Method 3 - Around the Horn Toll, Applying TCPL System Average Unit Cost for Distance Calculation</u></b> |               |           |                |                 |
|--|---------------|-----------|----------------|-----------------|
|  | Toll (\$/GJ)  | Fuel (%)  | Fuel (\$/GJ)   | TOTAL (\$/GJ)   |
| 7 Dawn-Emerson-Parkway   | \$ 2.2142 (9) | see above | \$ 0.0976 (10) | \$ <b>2.312</b> |

**Notes:**

- (1) Exhibit B40, Adobe p. 58, Attachment 12.3: Toll Design, Tab 3 – 2013, Toll Design Schedule 5.2 Revised June 29, 2012, p. 19, line 32
- (2) Fuel percentages as per Exhibit B71, U-38, page 2 of 2; Fuel % to Union CDA used as proxy for fuel % to Enbridge CDA
- (3) Applies gas cost of \$3.62/GJ, average monthly NYMEX plus basis curve from ICE, August 27 9:45am
- (4) Union C1 Rate Schedule effective 2012-07-01; Fuel % is a blended rate of the seasonal fuel required per C1 rate schedule, which differs from the 0% fuel provided by TransCanada in U-38
- (5) Exhibit B40, Adobe p. 58, Attachment 12.3: Toll Design, Toll Design Schedule 5.2 Revised June 29, 2012, p. 19, line 45
- (6) Demand charges shown in Exhibit B64, U-32 Contracts FT16128 and FT17190, Adobe p. 23 and p. 27, prorated 70%/30% to achieve blended toll; Exchange Rate \$0.99 CDN/USD; Commodity and ACA charges shown in Exhibit B5-2, Adobe p.48, Attachment 12.1, Tab 2, Schedule 2.1, line 24-25
- (7) TCPL notes in Exhibit B71, U-38 that GLGT has not charged for fuel on the St. Clair to Emerson TBO path
- (8) Exhibit B40, Adobe p. 45, Toll Design Schedule 5.2 Revised June 29, 2012, p. 6, line 22
- (9) Distance of path is 3,887 km (Exhibit C56-8-2, Adobe p.38, the MAS's Evidence, p. 32);
- (10) Uses fuel calculation from Cost of Facilities Used (Method 2)

UNION GAS LIMITED

Undertaking of Rick Birmingham  
to LPMA

To updates tables to EX1.A3.UGL.LPMA.7 based on application updates to be filed.

As described in the June 13, 2013 Technical Conference Transcript at page 49, these schedules will be filed when Union files its updated evidence. This update is planned for the end of June.

UNION GAS LIMITED

Undertaking of Greg Tetreault  
to Energy Probe Research Foundation

To revise answer to Energy Probe 18 to do the revenue requirement based on 15 percent.

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The undertaking requested to have the site development costs for Parkway West to be allocated to Parkway D using the 15% allocation factor found in A2. LPMA.6. The allocation factor is the percentage of land that the Parkway D utilizes.

Using this allocator the costs for Parkway D would be  $\$90.6 * 15\% = \$13.6$  million.  
The site development costs of \$ 90.6 million can be found at EB-2012-0433, Schedule 11 page 100.

Please refer to updated attachments 1, 2 and 3 reflecting the 15% allocation of costs.

UNION GAS LIMITED  
 2018 Brantford to Kirkwall and Parkway D Compressor Project Revenue Requirement Including  
Parkway West Site Acquisition and Development Capital at 15% (\$13.6 million)

| Line No.                   | Particulars (\$000's)                         | Revenue Requirement |                |                |                |
|----------------------------|---|---------------------|----------------|----------------|----------------|
|                            |   | 2015<br>(a)         | 2016<br>(b)    | 2017<br>(c)    | 2018<br>(d)    |
| <u>Operating Expenses:</u> |   |                     |                |                |                |
| 1                          | Operating and Maintenance Expenses (1)        | 107                 | 642            | 642            | 642            |
| 2                          | Depreciation Expense (2)                      | 2,730               | 5,503          | 5,546          | 5,546          |
| 3                          | Property Taxes (3)                            | 142                 | 853            | 853            | 853            |
| 4                          | Total Operating Expenses                      | <u>2,980</u>        | <u>6,998</u>   | <u>7,041</u>   | <u>7,041</u>   |
| 5                          | Required Return (4)                           | <u>1,453</u>        | <u>12,156</u>  | <u>11,936</u>  | <u>11,616</u>  |
| <u>Income Taxes:</u>       |   |                     |                |                |                |
| 6                          | Income Taxes - Equity Return (5)              | 291                 | 2,436          | 2,392          | 2,328          |
| 7                          | Income Taxes - Utility Timing Differences (6) | <u>(4,748)</u>      | <u>(5,924)</u> | <u>(4,976)</u> | <u>(4,112)</u> |
| 8                          | Total Income Taxes                            | <u>(4,457)</u>      | <u>(3,488)</u> | <u>(2,584)</u> | <u>(1,784)</u> |
| 9                          | Total Revenue Requirement                     | <u>(24)</u>         | <u>15,666</u>  | <u>16,393</u>  | <u>16,873</u>  |

Notes:

- (1) O&M expenses include \$0.012 million for pipeline related O&M and \$0.630 million of annual Parkway Compressor maintenance.
- (2) Depreciation expense at 2013 Board-approved depreciation rates.
- (3) Property taxes include \$0.187 million for compression and \$0.665 million for pipeline and building taxes.
- (4) The required return for 2018 assumes total rate base of \$201.146 million and a capital structure of 64% long-term debt at 4% and 36% common equity at the 2013 Board-approved return of 8.93%. The 2018 required return calculation is as follows:
 

\$201.146 million \* 64% \* 4% = \$5.149 million plus  
 \$201.146 million \* 36% \* 8.93% = \$6.466 million for a total of \$11.616 million.
- (5) Taxes related to the equity component of the return at a tax rate of 26.5%.
- (6) Taxes related to utility timing differences are negative as the capital cost allowance deduction in arriving at taxable income exceeds the provision of book depreciation in the year.

UNION GAS LIMITED  
2018 Cost Allocation Impacts of Brantford to Kirkwall and Parkway D Compressor Project Including  
Parkway West Site Acquisition and Development Capital at 15% (\$13.6 million)

| Line No. | Particulars                      | Total Cost                   | Cost Allocation             |             | Dawn-Parkway Easterly Transmission (2) |             | Other Indirect         |
|----------|----------------------------------|------------------------------|-----------------------------|-------------|--|-------------|------------------------|
|          |                                  | Allocation Impacts (\$000's) | Change in Demands (\$000's) | (%)         | (\$000's)                              | (%)         | Cost Impacts (\$000's) |
|          |                                  | (a)                          | (b)                         | (c)         | (d)                                    | (e)         | (f)                    |
| 1        | Rate M1                          | (1,471)                      | (756)                       | (4%)        | 1,082                                  | 5%          | (1,797)                |
| 2        | Rate M2                          | (112)                        | (254)                       | (1%)        | 364                                    | 2%          | (221)                  |
| 3        | Rate M4                          | (25)                         | (74)                        | 0%          | 106                                    | 1%          | (57)                   |
| 4        | Rate M5                          | (56)                         | (1)                         | 0%          | 1                                      | 0%          | (56)                   |
| 5        | Rate M7                          | (4)                          | (34)                        | 0%          | 49                                     | 0%          | (19)                   |
| 6        | Rate M9                          | 2                            | (12)                        | 0%          | 17                                     | 0%          | (3)                    |
| 7        | Rate M10                         | (0)                          | (0)                         | 0%          | 1                                      | 0%          | (0)                    |
| 8        | Rate T1                          | (25)                         | (36)                        | 0%          | 52                                     | 0%          | (41)                   |
| 9        | Rate T2                          | (54)                         | (237)                       | (1%)        | 339                                    | 2%          | (156)                  |
| 10       | Rate T3                          | 19                           | (86)                        | 0%          | 123                                    | 1%          | (18)                   |
| 11       | Subtotal - Union South           | <u>(1,725)</u>               | <u>(1,490)</u>              | <u>(7%)</u> | <u>2,134</u>                           | <u>10%</u>  | <u>(2,369)</u>         |
| 12       | Excess Utility Space             | (26)                         | 0                           | 0%          | 0                                      | 0%          | (26)                   |
| 13       | Rate C1                          | (9)                          | 0                           | 0%          | 0                                      | 0%          | (9)                    |
| 14       | Rate M12                         | 17,105                       | 99                          | 0%          | 17,102                                 | 84%         | (96)                   |
| 15       | Rate M13                         | (0)                          | 0                           | 0%          | 0                                      | 0%          | (0)                    |
| 16       | Rate M16                         | (0)                          | 0                           | 0%          | 0                                      | 0%          | (0)                    |
| 17       | Subtotal - Ex-franchise          | <u>17,069</u>                | <u>99</u>                   | <u>0%</u>   | <u>17,102</u>                          | <u>84%</u>  | <u>(132)</u>           |
| 18       | Rate 01                          | 1,142                        | 1,041                       | 5%          | 897                                    | 4%          | (797)                  |
| 19       | Rate 10                          | 404                          | 272                         | 1%          | 235                                    | 1%          | (104)                  |
| 20       | Rate 20                          | 59                           | 73                          | 0%          | 63                                     | 0%          | (77)                   |
| 21       | Rate 100                         | (51)                         | 5                           | 0%          | 4                                      | 0%          | (61)                   |
| 22       | Rate 25                          | (23)                         | 0                           | 0%          | 0                                      | 0%          | (23)                   |
| 23       | Subtotal - Union North           | <u>1,530</u>                 | <u>1,391</u>                | <u>7%</u>   | <u>1,199</u>                           | <u>6%</u>   | <u>(1,061)</u>         |
| 24       | In-franchise (line 11 + line 23) | (196)                        | (99)                        | (0%)        | 3,333                                  | 16%         | (3,430)                |
| 25       | Ex-franchise (line 17)           | 17,069                       | 99                          | 0%          | 17,102                                 | 84%         | (132)                  |
| 26       | Total (line 24 + line 25)        | <u>16,873</u>                | <u>(0)</u>                  | <u>0%</u>   | <u>20,435</u>                          | <u>100%</u> | <u>(3,562)</u>         |

Notes:

- (1) The 2013 Board approved cost allocation study updated to include incremental demands for Union North of 70,000 GJ/d and Rate M12 of 363,000 GJ/d.
- (2) The Dawn-Parkway costs of \$20.435 million are allocated in proportion to the Dawn-Parkway demand allocation provided at EB-2011-2010, Exhibit G3, Tab 5, Schedule 23, Updated, pages 7-8, line 5, updated to include the incremental demands for Union North of 70,000 GJ/d and Rate M12 of 363,000 GJ/d.

UNION GAS LIMITED  
General Service Bill Impacts related to 2018 Brantford to Kirkwall and Parkway D Compressor Project  
Parkway West Site Acquisition and Development Capital at 15% (\$13.6 million)  
Annual Consumption of 2,200 m<sup>3</sup>

| Line No.                | Rate M1 - Particulars (\$)                       | EB-2011-0210                                   | EB-2013-0074                   | Impact<br>(c) = (b - a) |       |
|-------------------------|--|--|--------------------------------|-------------------------|-------|
|                         |  | Approved<br>01-Jan-13<br>Total Bill (1)<br>(a) | Estimated<br>Total Bill<br>(b) |                         |       |
| <u>Delivery Charges</u> |  |  |                                |                         |       |
| 1                       | Monthly Charge                                   | 252.00   | 252.00                         | -                       |       |
| 2                       | Delivery Commodity Charge                        | 78.66  | 77.69                          | (0.97)                  |       |
| 3                       | Storage Services                                 | 16.23  | 16.09                          | (0.14)                  |       |
| 4                       | Total Delivery Charge (line 1 + line 2 + line 3) | <u>346.89</u>                                  | <u>345.78</u>                  | <u>(1.11)</u>           | -0.3% |
| <u>Supply Charges</u>   |  |  |                                |                         |       |
| 5                       | Transportation to Union                          | 96.80  | 96.80                          | -                       |       |
| 6                       | Commodity & Fuel (2)                             | 280.77   | 280.76                         | (0.01)                  |       |
| 7                       | Total Gas Supply Charge (line 5 + line 6)        | <u>377.57</u>                                  | <u>377.56</u>                  | <u>(0.01)</u>           |       |
| 8                       | Total Bill (line 4 + line 7)                     | <u>724.46</u>                                  | <u>723.34</u>                  | <u>(1.12)</u>           | -0.2% |
| 9                       | Impacts for Customer Notices - Sales (line 8)    |  |                                | (1.12)                  |       |

| Line No.                | Rate 01 Eastern Zone - Particulars (\$)       | EB-2011-0210                                   | EB-2013-0074                   | Impact<br>(c) = (b - a) |       |
|-------------------------|---|--|--------------------------------|-------------------------|-------|
|                         |   | Approved<br>01-Jan-13<br>Total Bill (1)<br>(a) | Estimated<br>Total Bill<br>(b) |                         |       |
| <u>Delivery Charges</u> |   |  |                                |                         |       |
| 1                       | Monthly Charge                                | 252.00   | 252.00                         | -                       |       |
| 2                       | Delivery Commodity Charge                     | 207.15   | 206.08                         | (1.07)                  |       |
| 3                       | Total Delivery Charge (line 1 + line 2)       | <u>459.15</u>                                  | <u>458.08</u>                  | <u>(1.07)</u>           | -0.2% |
| <u>Supply Charges</u>   |   |  |                                |                         |       |
| 4                       | Transportation to Union                       | 187.35   | 187.36                         | 0.01                    |       |
| 5                       | Storage Services                              | 78.75  | 82.64                          | 3.89                    |       |
| 6                       | Subtotal (line 4 + line 5)                    | <u>266.10</u>                                  | <u>270.00</u>                  | <u>3.90</u>             | 1.5%  |
| 7                       | Commodity & Fuel                              | 280.77   | 280.77                         | -                       |       |
| 8                       | Total Gas Supply Charge (line 6 + line 7)     | 546.87   | 550.77                         | 3.90                    |       |
| 9                       | Total Bill (line 3 + line 8)                  | <u>1,006.02</u>                                | <u>1,008.85</u>                | <u>2.83</u>             | 0.3%  |
| 10                      | Impacts for Customer Notices - Sales (line 9) |  |                                | 2.83                    |       |

Notes:

- (1) EB-2011-0210, Rate Order, Working Papers, Schedule 16, excluding Prospective Recovery and Temporary Charges/(Credits).
- (2) Reflects changes in the Gas Supply Administration charge only.

UNION GAS LIMITED

Undertaking of Greg Tetreault  
to FRPO

To revise FRPO 28 to exclude costs of Brantford-Kirkwall pipeline.

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For the purposes of this response, Union has assumed that the Brantford to Kirkwall and Parkway D Compressor Project demands of 433,000 GJ/d (70,000 GJ/d for Union North and 363,000 GJ/d for M12) are reduced to 236,000 GJ/d of M12 demands only.

Please see Attachment 1 for the impact to the 2013 Board-approved Dawn-Parkway distance-weighted demands resulting from the addition of 236,000 GJ/d of M12 demands associated with the Parkway D Compressor Project.

The M12 proportion of the total distance-weighted design day demands increases to 84.4% (column f, line 12) from the 2013 Board-approved proportion of 83.7% (column b, line 12). As a result of this increase, the in-franchise proportion of total distance-weighted demands decreases from 16.3% to 15.6% (column b and f, line 19).

The Union South proportion of the total distance-weighted design day demands decreases from 11.3% to 10.8% (column b and f, line 11) and the Union North proportion of the total distance-weighted design day demands decreases from 5.0% to 4.8% (column b and f, line 18).

As a result of the M12 proportion of total distance-weighted design day demands increasing from 83.7% to 84.4% and the Union South and Union North proportion of the total distance weighted design day demands decreasing from 16.3% to 15.6%, the M12 rate class is allocated approximately \$1.2 million in existing Dawn-Parkway costs, while the allocation of existing Dawn-Parkway costs to Union South and Union North in-franchise rate classes is reduced by approximately \$0.8 million and \$0.4 million respectively. Please see Attachment 2.

UNION GAS LIMITED  
Dawn-Parkway Easterly Transmission - Distance Weighted Design Day Demands  
2013 Board-Approved Including Incremental M12 Project-Related Demands of 236,000 GJ/day only

| Line No. | Particulars                      | 2013 Board-Approved (1)                  |        | Addition of Project-Related Demands (2)  |        | 2013 Board-Approved Including Project-Related Demands |        | Variance (%)      |
|----------|----------------------------------|--|--------|--|--------|---|--------|-------------------|
|          |                                  | (10 <sup>6</sup> m <sup>3</sup> /d x km) | (%)    | (10 <sup>6</sup> m <sup>3</sup> /d x km) | (%)    | (10 <sup>6</sup> m <sup>3</sup> /d x km)              | (%)    |                   |
|          |                                  | (a)                                      | (b)    | (c)                                      | (d)    | (e) = (a + c)   | (f)    | (g) = ((e - a)/a) |
| 1        | Rate M1                          | 1,820                                    | 5.7%   | 0  | 0.0%   | 1,820   | 5.5%   | 0.0%              |
| 2        | Rate M2                          | 612                                      | 1.9%   | 0  | 0.0%   | 612   | 1.8%   | 0.0%              |
| 3        | Rate M4                          | 178                                      | 0.6%   | 0  | 0.0%   | 178   | 0.5%   | 0.0%              |
| 4        | Rate M5                          | 2  | 0.0%   | 0  | 0.0%   | 2   | 0.0%   | 0.0%              |
| 5        | Rate M7                          | 82                                       | 0.3%   | 0  | 0.0%   | 82  | 0.2%   | 0.0%              |
| 6        | Rate M9                          | 29                                       | 0.1%   | 0  | 0.0%   | 29  | 0.1%   | 0.0%              |
| 7        | Rate M10                         | 1  | 0.0%   | 0  | 0.0%   | 1   | 0.0%   | 0.0%              |
| 8        | Rate T1                          | 88                                       | 0.3%   | 0  | 0.0%   | 88  | 0.3%   | 0.0%              |
| 9        | Rate T2                          | 570                                      | 1.8%   | 0  | 0.0%   | 570   | 1.7%   | 0.0%              |
| 10       | Rate T3                          | 207                                      | 0.7%   | 0  | 0.0%   | 207   | 0.6%   | 0.0%              |
| 11       | Subtotal - Union South           | 3,588                                    | 11.3%  | 0  | 0.0%   | 3,588   | 10.8%  | 0.0%              |
| 12       | Rate M12                         | 26,557                                   | 83.7%  | 1,431                                    | 100.0% | 27,988  | 84.4%  | 5.4%              |
| 13       | Subtotal - Ex-franchise          | 26,557                                   | 83.7%  | 1,431                                    | 100.0% | 27,988  | 84.4%  | 5.4%              |
| 14       | Rate 01                          | 1,191                                    | 3.8%   | 0  | 0.0%   | 1,191   | 3.6%   | 0.0%              |
| 15       | Rate 10                          | 312                                      | 1.0%   | 0  | 0.0%   | 312   | 0.9%   | 0.0%              |
| 16       | Rate 20                          | 83                                       | 0.3%   | 0  | 0.0%   | 83  | 0.3%   | 0.0%              |
| 17       | Rate 100                         | 6  | 0.0%   | 0  | 0.0%   | 6   | 0.0%   | 0.0%              |
| 18       | Subtotal - Union North           | 1,592                                    | 5.0%   | 0  | 0.0%   | 1,592   | 4.8%   | 0.0%              |
| 19       | In-franchise (line 11 + line 18) | 5,180                                    | 16.3%  | 0  | 0.0%   | 5,180   | 15.6%  | 0.0%              |
| 20       | Ex-franchise (line 13)           | 26,557                                   | 83.7%  | 1,431                                    | 100.0% | 27,988  | 84.4%  | 5.4%              |
| 21       | Total (line 19 + line 20)        | 31,737                                   | 100.0% | 1,431                                    | 100.0% | 33,168  | 100.0% | 4.5%              |

Notes:

- (1) The Dawn-Parkway Demand allocation is provided at EB-2011-2010, Exhibit G3, Tab 5, Schedule 23, Updated, pages 7-8, line 5.
- (2) The M12 distance-weighted design day demands include an additional 236,000 GJ/d of demands (6.252 10<sup>6</sup>m<sup>3</sup>/d x 228.9 km = 1,431 10<sup>6</sup>m<sup>3</sup>/d x km).

UNION GAS LIMITED  
2018 Cost Allocation Impacts of Parkway D Compressor Project Only

| Line No. | Particulars             | Total Cost                   | Cost Allocation             |             | Dawn-Parkway Easterly Transmission (2) |             | Other Indirect         |
|----------|-------------------------|------------------------------|-----------------------------|-------------|--|-------------|------------------------|
|          |                         | Allocation Impacts (\$000's) | Change in Demands (\$000's) | (%)         | (\$000's)                              | (%)         | Cost Impacts (\$000's) |
|          |                         | (a) = (b + d + f)            | (b)                         | (c)         | (d)                                    | (e)         | (f)                    |
| 1        | Rate M1                 | (1,166)                      | (427)                       | (4%)        | 617                                    | 5%          | (1,357)                |
| 2        | Rate M2                 | (115)                        | (143)                       | (1%)        | 207                                    | 2%          | (179)                  |
| 3        | Rate M4                 | (30)                         | (42)                        | 0%          | 60                                     | 1%          | (48)                   |
| 4        | Rate M5                 | (43)                         | (0)                         | 0%          | 1                                      | 0%          | (43)                   |
| 5        | Rate M7                 | (7)                          | (19)                        | 0%          | 28                                     | 0%          | (16)                   |
| 6        | Rate M9                 | 0                            | (7)                         | 0%          | 10                                     | 0%          | (3)                    |
| 7        | Rate M10                | (0)                          | (0)                         | 0%          | 0                                      | 0%          | (0)                    |
| 8        | Rate T1                 | (26)                         | (21)                        | 0%          | 30                                     | 0%          | (35)                   |
| 9        | Rate T2                 | (88)                         | (134)                       | (1%)        | 193                                    | 2%          | (147)                  |
| 10       | Rate T3                 | 4                            | (48)                        | 0%          | 70                                     | 1%          | (17)                   |
| 11       | Subtotal - Union South  | <u>(1,470)</u>               | <u>(841)</u>                | <u>(7%)</u> | <u>1,217</u>                           | <u>11%</u>  | <u>(1,846)</u>         |
| 12       | Excess Utility Space    | (17)                         | 0                           | 0%          | 0                                      | 0%          | (17)                   |
| 13       | Rate C1                 | (8)                          | 0                           | 0%          | 0                                      | 0%          | (8)                    |
| 14       | Rate M12                | 10,617                       | 1,190                       | 11%         | 9,493                                  | 84%         | (66)                   |
| 15       | Rate M13                | (0)                          | 0                           | 0%          | 0                                      | 0%          | (0)                    |
| 16       | Rate M16                | (0)                          | 0                           | 0%          | 0                                      | 0%          | (0)                    |
| 17       | Subtotal - Ex-franchise | <u>10,592</u>                | <u>1,190</u>                | <u>11%</u>  | <u>9,493</u>                           | <u>84%</u>  | <u>(91)</u>            |
| 18       | R01                     | (434)                        | (261)                       | (2%)        | 404                                    | 4%          | (577)                  |
| 19       | R10                     | (37)                         | (68)                        | (1%)        | 106                                    | 1%          | (75)                   |
| 20       | R20                     | (45)                         | (18)                        | 0%          | 28                                     | 0%          | (55)                   |
| 21       | R100                    | (43)                         | (1)                         | 0%          | 2                                      | 0%          | (44)                   |
| 22       | R25                     | (17)                         | 0                           | 0%          | 0                                      | 0%          | (17)                   |
| 23       | Subtotal - Union North  | <u>(576)</u>                 | <u>(349)</u>                | <u>(3%)</u> | <u>540</u>                             | <u>5%</u>   | <u>(767)</u>           |
| 24       | In-franchise            | (2,046)                      | (1,190)                     | (11%)       | 1,757                                  | 16%         | (2,613)                |
| 25       | Ex-franchise            | 10,592                       | 1,190                       | 11%         | 9,493                                  | 84%         | (91)                   |
| 26       | Total                   | <u>8,546</u>                 | <u>(0)</u>                  | <u>0%</u>   | <u>11,250</u>                          | <u>100%</u> | <u>(2,704)</u>         |

Notes:

- (1) The 2013 Board approved cost allocation study updated to include incremental demands for Rate M12 of 236,000 GJ/d.
- (2) The Dawn-Parkway costs of \$8.546 million for the Parkway D Compressor project, including indirect costs of \$2.704 million, are allocated in proportion to Dawn to Parkway demand allocation provided at EB-2011-2010, Exhibit G3, Tab 5, Schedule 23, Updated, pages 7-8, line 5, updated to include the incremental 236,000 GJ/d of M12 demands.

UNION GAS LIMITED

Undertaking of Rick Birmingham  
to BOMA

To provide current spend, intended spend between now and October 1<sup>st</sup>, and intended spend from October 1<sup>st</sup> to December 1<sup>st</sup> for Parkway West project.

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|                              | Parkway West | Parkway D and Brantford-Kirkwall |
|------------------------------|--------------|----------------------------------|
| Dollars Spent to Date        | \$4,536,000  | \$201,000                        |
| Spend – June 13 - Oct 1 2013 | \$29,773,000 | \$1,279,000                      |
| Spend – Oct 1 –Dec 31 2013   | \$8,916,000  | \$7,017,000                      |
| Total                        | \$43,225,000 | \$8,497,000                      |