

November 26, 2015

Ms. Kirsten Walli
Board Secretary
Ontario Energy Board
2300 Yonge St., 27th Floor
Toronto, ON M4P 1E4

Dear Ms. Walli:

Re: EB-2015-0238 Distributor Gas Supply Planning Consultation

Enclosed, please find Union Gas Limited's Presentation for the above-noted proceeding.

Yours truly,

[Original signed by]

Chris Ripley
Manager, Regulatory Applications

Encl.



uniongas

A Spectra Energy Company



EB-2015-0238

Distributor Gas Supply Planning Consultation

Chris Shorts
Director, Gas Supply

Mary Evers
Manager, Gas Supply

- Ensure secure and reliable gas supply to Union's service territory
- Minimize risk by diversifying contract terms, supply basins and upstream pipelines
- Encourage new sources of supply as well as new infrastructure to Union's service territory
- Meet planned peak day and seasonal gas delivery requirements
- Deliver gas to various receipt points on Union's system to maintain system integrity

**Ensure that customers receive secure, diverse
gas supply at prudently incurred cost**

- To follow approved procedures and guidelines to create a plan that provides diverse, secure and reliable gas supply to our customers at a reasonable and prudent cost
 - Board accepted gas supply planning principles

- The local distribution company (“LDC”) must also execute the plan to be able to manage both short-term and long-term changes in the demands of the customer base and changes within the natural gas marketplace
 - Weather (colder/warmer than normal)
 - Return from/to direct purchase (“DP”)
 - Pipeline or supply disruptions
 - New/Emerging supply basins

- Each LDC must manage their unique circumstances
- Union and Enbridge have different characteristics
 - Customer mix
 - Residential, Commercial, Industrial, Power
 - Asset mix
 - Level of storage, upstream supply portfolios
 - Geography
 - Limited geography vs. province wide coverage
 - Different services
 - Bundled DP balancing requirements
 - Level of unbundled services
 - Various obligation points

Union Gas Franchise Area



**Union Gas serves 1.4 million in-franchise customers
geographically spread across Ontario**



uniongas

A Spectra Energy Company



Executive Summary

- Union's gas supply planning and processes have been well examined
- The Ontario Energy Board (the "Board") ordered an independent review in Union's 2013 Cost of Service proceeding (EB-2011-0210) to evaluate:
 - Guiding Principles
 - Design Day Demand Forecasting
 - Plan Implementation
 - Upstream Transportation Contracting Process
- Sussex Economic Advisors was retained and:
 - Prepared a report, presented findings, testified to results at Union's 2012 Deferrals proceeding (EB-2013-0109)

- **Sussex Conclusions**
 - The underlying gas supply planning principles are reasonable
 - Ensure that customers receive secure, diverse gas supply at prudently incurred cost
 - Design day forecasting methodology is appropriate
 - Upstream transportation contracting analysis is reasonable
 - Consistent process and practices with other LDC's

- **The Board accepted these conclusions and noted:**
 - "... that no parties have provided any recommended changes to the plan."

- Union has a long standing well established gas supply planning process that works well
- Approval of gas supply plan not necessary
 - Union's gas supply planning and processes
 - *are based on well accepted practices*
 - *reflect Board-approved inputs and methodologies*
 - *were reviewed and accepted by the Board in EB-2013-0109*
 - Multiple effective procedures, guidelines and review processes are currently in place
 - Existing timeline is very compressed and does not allow for an incremental approval process
 - The current process and procedures have worked very well in both extremes of a very warm and a very cold winter



uniongas

A Spectra Energy Company



Gas Supply Plan Overview

- Current & Future Trends impacting the Gas Supply Plan
- Gas Supply Planning Process
- Transportation Portfolio Decisions
- Gas Supply Procurement Decisions
- Conclusions

Current & Future Trends impacting the Gas Supply Plan

- Movement from long-haul to short-haul transportation
 - Driven by Western Canada supply decline and escalating cost to move that gas east
 - Dramatic growth in Utica/Marcellus Shale basin closer to eastern markets
 - Customers wanting to buy gas at Dawn
 - Facilitated by TransCanada and LDC Settlement Agreement
 - Union is de-contracting our most expensive supply (both Alliance Vector and TransCanada Pipelines long-haul capacity) in the 2015/2016 time period

Current & Future Trends impacting the Gas Supply Plan

- Dawn to Parkway Expansions
 - 2015 and 2016 expansions Board Approved
 - 2017 expansion subject to Board Approval
- Direct purchase service changes
 - Parkway Obligation shift transition
 - Suspension of Vertical Slice
- Return to sales service
 - In 2006 the number of general service DP customers reached its peak at over 350,000
 - Today there are less than 125,000 general service DP customers

- Dawn Based Reference Price (EB-2015-0181)
 - Union has requested approval for:
 - » *Changes in the reference price and associated commodity rates for Union South and Union North*
 - » *Changes to Union North transportation and storage rates for the proposed North East and North West Zones to reflect the changes in the gas supply portfolio*
- Access to Dawn for Union North (EB-2015-0181)
 - Transition of TransCanada long-haul transportation to short-haul and enhancing Northern services
 - » *Both Bundled-T and T-service*

Current & Future Trends impacting the Gas Supply Plan



- TransCanada Energy East Project - the agreement includes a commitment that:
 - There will be sufficient capacity to meet the firm natural gas transportation requirements of Ontario and Quebec (includes all existing firm, plus new capacity required in 2016 & 2017) plus additional capacity for future growth
 - Natural gas shippers are not required to financially backstop the development of the Eastern Mainline Project in the event it is terminated by TransCanada
 - Gas consumers will not assume the risk of capital cost overruns for the Eastern Mainline Project
 - Natural gas consumers will have a net toll benefit of \$100 M over the project life to 2050
- Union has entered into a precedent agreement with NEXUS to bring new Utica and Marcellus supplies to Dawn/Ontario
 - 158,000 GJ/d effective November 1, 2017
 - Union applied for Pre-Approval of contract (EB-2015-0166)



uniongas

A Spectra Energy Company



Gas Supply Planning Process

Sussex Review (EB-2013-0109) – Key Conclusions

- Principles of reliability and cost are reasonable and similar to other LDC's
- Design day demand forecasting is appropriate and similar to other LDC's
 - Process to develop design day is consistent and aligned for Union North & Union South
- Portfolio reflects circumstances for each delivery area and the resultant gas supply portfolios are reasonable and appropriately sized
- Approach to de-contracting/re-contracting is consistent with those used by other LDC's, and is reasonable
 - Union utilizes the Incremental Transportation Contracting Analysis framework as outlined in the EB-2005-0520 Settlement Agreement

Review of Gas Supply Plan Accepted by the Board in EB-2013-0109 Decision

Gas Supply Planning Process

Particulars	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
Demand Forecast	█	█	█	█	█				
DCQ Forecast				█	█				
Design Day Forecast				█	█	█			
Gas Supply Plan Preparation			█	█	█	█			
Executive Approval Presentations						█			
Procuring Required Assets							█	█	█
Gas Supply Memorandum Preparation							█	█	█
Gas Supply Memorandum Filed								█	
Stakeholder Presentation (Following Year)									█

Gas Supply planning and implementation process targets
November 1 implementation each year

- Gas Supply Planning Principles (*Reviewed by Sussex Economic Advisors and accepted by the Board in EB-2013-0109*)
- Weather Forecast Methodology for Demand Forecast (*50:50 blended approach of the 20-year declining trend and the 30-year average methodology - EB-2011-0210*)
- Design Day Requirements – coldest observed degree day in history (*EB-2013-0109*)
- Storage Allocation Methodology (*NGEIR – EB-2005-0551*)
- System Integrity capacity - (*RP-1999-0017*) *3.5 PJ of system integrity space (empty) on October 31st and 6.0 PJ of system integrity supply (full) at March 31st*

Plan is underpinned by Board-approved methodologies and principles

- In-franchise monthly demand forecast net of DSM for bundled customers
- Design day demand forecast
- Current upstream transportation contracts and associated tolls
- Obligated Ontario deliveries for sales service and bundled DP markets
- Sales service and bundled DP storage requirements
- 9.5 PJ of system integrity space
 - 3.5 PJ of space at October 31
 - 6.0 PJ of supply at March 31

Inputs are received from several operational groups

- Bundled DP customers meet their balancing obligations at both September 30 and February 28 checkpoints
- Required storage space is filled at October 31
 - Storage space based on Aggregate Excess methodology
 - Difference between total winter demand and the average annual demand for a 151 day period

Aggregate Excess = Total Winter Consumption – [(151/365)(Total Annual Consumption)]*
- Sufficient inventory at February 28 to meet the design day needs of sales service and bundled DP customers
- Storage is empty at March 31 (except for integrity)
- No migration between sales service and bundled DP customers

The Plan Relies on Key Assumptions

- Union provides distribution services to all customers
- Customers can choose supply from the utility or arrange own supply
 - Sales service - supply and transportation from Union
 - Bundled DP - acquire their own supply. Union holds transportation for Union North bundled DP customers. Union South bundled DP customers acquire own transportation
 - Unbundled DP - acquire their own supply and transportation
 - Transportation service (“T-Service”) DP - acquire their own supply and transportation

Information about several different customer types is needed for the Plan

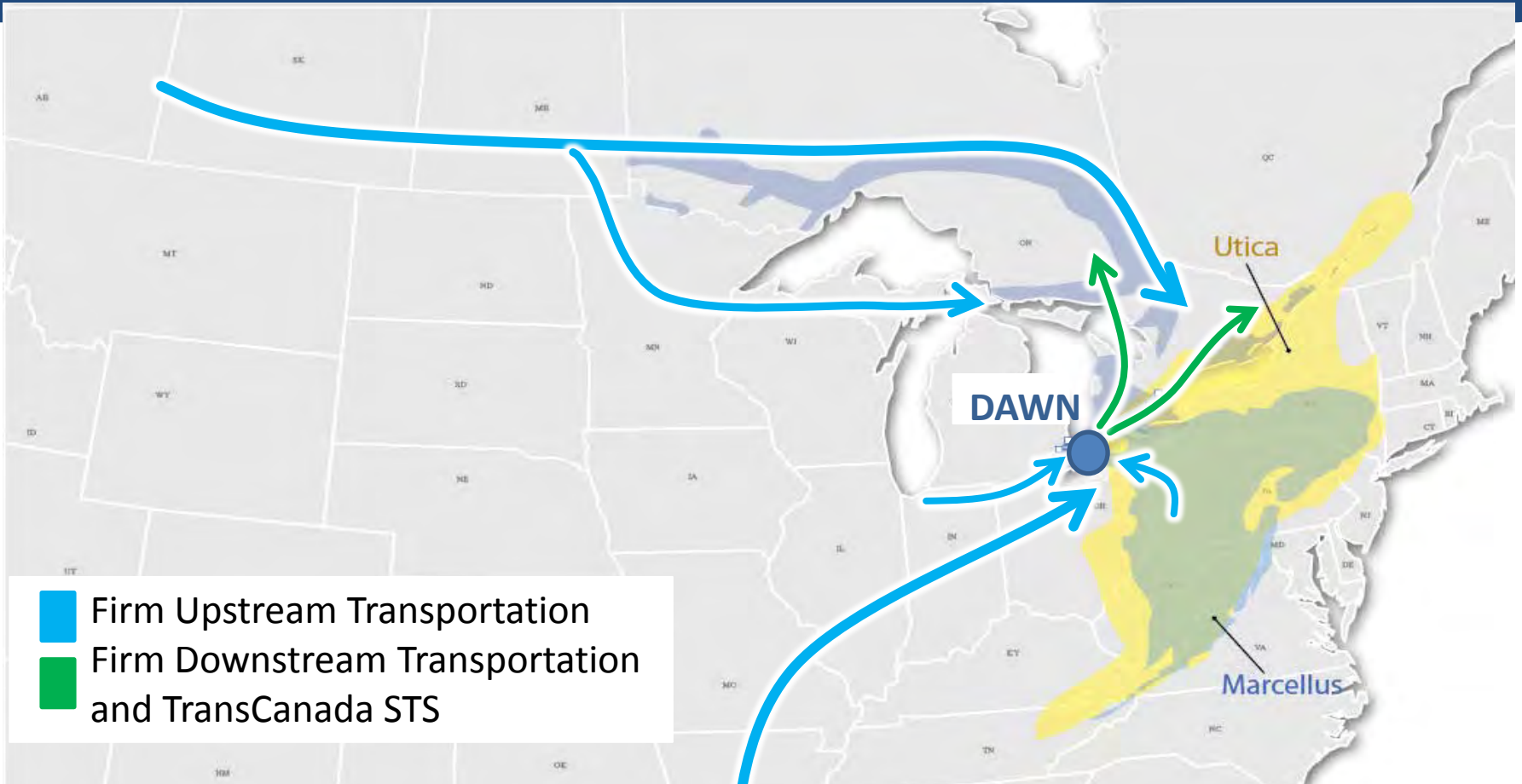
- Design day demand for total firm requirement of all in-franchise customers (including T-service)
- Coldest observed degree day experienced is 43.1 HDD
- Transmission and storage system is built to meet design day and seasonal requirements
- Distribution system is built to meet design day requirements
- The gas supply plan contemplates average day supply needs for Union South sales service customers (upstream pipe flows at 100% utilization)

Supply, storage and transmission assets utilized to meet design day

- Design day demand is for the total firm requirement of the in-franchise sales service and bundled DP customers. T-service customers provide their own upstream transportation service
- The gas supply plan contemplates firm transportation services for supply and to access Dawn Storage to meet consumption requirements on design day
- The design day weather condition is based on the coldest observed degree day experienced in each of the six delivery areas

• WDA	56.1	Thunder Bay	• NCDA	49.0	Muskoka / Gravenhurst
• MDA	54.7	Fort Frances	• NDA	51.9	Sudbury
• SSMDA	48.2	Sault Ste. Marie	• EDA	47.1	Kingston

**Union North portfolio ensures sufficient,
but not excess, firm transportation services**



Union uses a combination of firm upstream transportation capacity accessing all major North American supply basins as well as storage at Dawn and downstream firm capacity to serve our customers

Unutilized Pipe (UDC)

- For Union South, the upstream transportation capacity flows at 100% utilization each day of the year
- For Union North, the upstream transportation capacity is first sized to meet the winter design day demand requirement and then filled to meet supply requirement on the day and for the year
- A portion of Union North's contract capacity is planned to be unutilized during the year (UDC) – typically April to October period
- If weather is colder than normal and annual consumption is greater, and if it is economical to do so, Union will use this capacity to meet incremental supply requirements in either Union North or Union South subject to TransCanada's authorization of downstream diversions

UDC is planned for Union North, not for Union South

- Design day demand requirements
- Total supply and transportation requirements
- Planned UDC
- In-franchise storage space allocation
- Total cost of gas

Gas Supply Plan memorandum is provided to the Board annually for review



uniongas

A Spectra Energy Company



Transportation Portfolio Decisions

- Union refers to its gas supply planning principles of diversity, security, reliability and cost when making upstream transportation contracting decisions
- Union must take a strategic view of the natural gas industry when assessing upstream transportation options
 - Minimizing risks through portfolio diversification
 - Attracting new infrastructure to Ontario
 - Understanding long-term market trends
- When forecast landed costs of alternatives are comparable, other attributes of those alternatives are considered to make portfolio decisions that contribute to diversity, reliability and flexibility

Transportation portfolio decisions reflect guiding principles

- Once a path is chosen based on a qualitative assessment based on the gas supply planning principles, a landed-cost analysis is performed to ensure the cost is reasonable as compared to other options
 - If the landed-cost of supply is reasonable using that path, the contracts are negotiated and executed
 - Using this approach ensures that the cost of supply for Union's customers is prudently incurred over the long term
- Union provides the landed-cost analysis and qualitative rationale to the Board and intervenors each year as part of the Incremental Contracting Analysis process as approved in EB-2005-0520

**Landed-Cost analysis provided to the Board and intervenors
at annual Deferral Disposition proceeding**

- Union is unable to file potential transportation portfolio path details prior to negotiating and executing contracts for a number of reasons:
 - Union would lose its negotiating position with upstream pipelines if it required pre-approval of its contracting intentions
 - Depending on how the negotiation process proceeds, Union requires the ability to adjust its plans through the year as conditions change (a pipeline's ability to offer capacity, rate, term, etc.)
 - Due to the effort required in addressing its uncommitted transportation requirements, Union may be executing contracts up until November 1
 - Union may also procure transportation in the secondary market
 - In advance of the next year, Union may classify uncommitted supply as being sourced from Dawn until an upstream contract is negotiated



uniongas

A Spectra Energy Company



Gas Supply Procurement Decisions

- Supply purchased to fill the transportation capacity based on normal weather
- Supply contracted in accordance with the System Gas, Gas Procurement Policy and Procedures (filed in EB-2011-0210)
 - RFP process (written and verbal)
 - Purchases based on index price contracts
 - Purchased on a monthly, seasonal, and annual basis
- As system operator, Union manages many operational factors including:
 - Actual and forecast consumption relative to planned consumption for its sales service customers (90% of all 1.4 million customers)
 - Seasonal balancing requirements for sales service customers at key control points
 - Weather variances outside of checkpoint balancing for bundled DP customers
 - Changes in supply and balancing requirements as customers move between sales service and DP
 - Unaccounted for gas and compressor fuel variances

Gas Supply Procurement Decisions Colder than Normal Weather

- Union frequently monitors actual and forecast consumption during the winter
- If actual consumption is greater than plan and sustained colder than normal forecast weather (*Forecast weather data is supplied electronically by DTN Meteorlogix*)
 - Union will fill planned UDC and purchase spot gas (typically at Dawn) for delivery as early as December based on actual variances to date
 - Union will layer in additional purchases through the winter to manage actual and forecast variances as new information is available
- Purchase supply primarily in forward market (buying the next month) rather than in the daily cash market to avoid price volatility

Effectiveness of Union's gas supply plans and processes was demonstrated in the winter of 2013/14 which was the coldest on record – over 27 PJ of incremental purchases

Gas Supply Procurement Decisions Warmer than Normal Weather

- Union monitors actual consumption
- Union reduces supply purchases to manage planned UDC, as well as actual and forecast excess supply (typically in the April to October time period)
 - Pipe capacity left unutilized based on the greatest avoided cost for landed supply
 - Unutilized upstream transportation capacity released to the secondary market to reduce UDC costs
- Net UDC costs are captured in gas cost deferral accounts and are reviewed and disposed of as part of Union's annual deferral disposition process

Effectiveness of Union's gas supply plans and processes were demonstrated in the winter of 2011/12 which was the warmest on record.

Planned UDC was 4.6 PJ and actual UDC was 24.4 PJ (EB-2013-0109)

Gas Supply Procurement Decisions

QRAM Process



- Union sets gas costs rates quarterly as part of the QRAM process to reflect 12 month forecast market prices
- Actual costs relative to the costs approved in rates are captured in gas cost deferral accounts
- Balances reviewed and prospectively disposed of quarterly as part of the QRAM process
- Spot gas purchases (incremental to the plan) are reviewed as part of the QRAM process



uniongas

A Spectra Energy Company



Conclusions

- Union's gas supply planning and processes:
 - Are based on well accepted practices
 - Were reviewed in detail by an independent third party consultant and presented to and accepted by the Board in EB-2013-0109
- Board-approved methodologies are included in planning process
- Existing timeline is very compressed to meet November 1 deadline including:
 - The Gas Supply Planning Process
 - Contracting for transportation
 - Purchasing supply to fill transportation capacity

- Board-approved Policies and Procedures are in place for gas supply procurement
- The current process and procedures have worked very well in both extremes of a very warm and a very cold winter
- Utilities have experienced staff that are very familiar with the operations and characteristics of their available assets
- There are multiple effective review processes currently in place:
 - Annual Gas Supply Memorandum
 - Stakeholder Presentations
 - QRAM Process
 - Annual Deferral Disposition Proceedings
 - » *Transportation Contracting Analysis*
 - Cost of Service Rebasing Proceedings
 - Pre-approval of the Cost Consequences of Long Term Contracts

Annual Approval of the Gas Supply Plan is Not Necessary